**(not so) Fine Disclosure: Strategic Underreporting of Fines**

*Abstract*

*The last two decades have witnessed an unprecedented increase in the size and number of fines imposed on corporations by U.S. government agencies, such as the Securities and Exchange Commission and the Department of Justice. In many cases, the amount of the fine imposed* *constitutes a large share of the companies’ market value, and as such, should be disclosed once its imposition becomes likely.*

*However, companies face a unique strategic dilemma when faced with the requirement of disclosing an expected fine: The amount the company initially discloses then becomes the starting point for negotiations with the regulatory agency, ultimately influencing the final fine. Consequently, if a higher initial assessment is disclosed, the resulting fine is likely to be higher.*

*This strategic consideration may drive companies to underreport the estimated fine, leading to serious implications for market efficiency and for the goal of deterring corporate wrongdoing.*

*This Article is the first to discuss fine disclosures and the strategic considerations involved. It provides an original empirical analysis of corporate fines higher than $100 million levied over the last two decades and demonstrates that public companies actually engage in underreporting.*

*The Article further discusses the negative ramifications of this practice of underreporting. In order to ameliorate the practice of fine underreporting, it suggests revising the fine disclosure mechanism on two levels. First, redesigning the form of fine disclosure by separating the assessment of the expected fine from any other legal expense. Second, reforming the corporate decision-making process regarding fine disclosure by appointing an independent monitor within the company to assess the expected fine.*

# Introduction

The last two decades have witnessed an unprecedented increase in mega fines imposed on corporations in the United States in response to legal transgressions and wrongdoing, both in magnitude and volume.[[1]](#footnote-2) Until 2005, the highest fine ever imposed on a corporation in a settlement of criminal charges did not reach $1 billion.[[2]](#footnote-3) However, since 2005, there have been more than 15 fines in amounts higher than $1 billion, with this trend accelerating in the last decade. Of these 15 fines higher than $1 billion, 13 were imposed after 2013;[[3]](#footnote-4) and three of the six highest fines ever imposed—all higher than $ 2 billion—were imposed in the last three years (2020–2023).

The magnitude of fines has reached a new record high in the last decade. Bank of America, found to have misled investors regarding the actual risk embedded in financial instruments marketed to their clients and other third parties during the subprime mortgage crisis of 2007–2010, was fined $30.6 billion in 2014.[[4]](#footnote-5) JP Morgan Chase and Deutsche Bank, faced with similar charges, settled for $13 billion and $7.2 billion, respectively.[[5]](#footnote-6)

A corporate fine—when, and if imposed—may constitute a large share of the company’s market value. For example, the amount of Deutsche Bank’s fine settlement—$7.2—represented over 10 percent of its book value.[[6]](#footnote-7) Consequently, when a federal agency opens a public investigation of a corporation that could potentially result in a substantial fine, the corporation is required to provide investors with adequate information regarding the expected fine,[[7]](#footnote-8) thus enabling the market to respond and price companies’ securities correctly.

Yet, there are inherent problems in the disclosure of an expected fine. In addition to the obvious motivation of managers[[8]](#footnote-9) to minimize any expected loss in order to prevent any reduction in the share price that could affect their position in the company as well as their compensation,[[9]](#footnote-10) federal fines present a unique and important consideration. In most cases, the final fine imposed by a U.S. federal agency—the amount the company will have to pay to settle—is determined in a bilateral voluntary agreement between the company and the agency following a prolonged negotiation. Accordingly, an estimation disclosed by the company regarding the company’s expectation of the fine before or during the negotiation will affect the negotiating outcomes and can undermine the company’s efforts to minimize the fine.[[10]](#footnote-11)

This strategic consideration for the underreporting of an expected fine differs from the traditional motivation for underreporting of expected losses discussed in the literature.[[11]](#footnote-12) Studies show that companies underreport future losses as an earning management technique,[[12]](#footnote-13) e.g., to meet-or-beat analysts’ predictions,[[13]](#footnote-14) thereby protecting the existing share value[[14]](#footnote-15) but not necessarily the company’s overall interests.[[15]](#footnote-16) In contrast, underreporting of fines directly serves the interest of the company by reducing its actual expected liability.

The powerful incentive for underreporting fines against public companies may lead to systematic and significant underreporting of this highly material financial information. Such underreporting can cause significant harm to investors, who will trade in company shares without full knowledge of material information.

Furthermore, the practice of underreporting undermines the deterrent effect of fines on company and management wrongdoing. First, underreporting of fines enables management to offset a fine’s effect on management’s compensation and thus earn what they, essentially, do not deserve.[[16]](#footnote-17) Second, it enables management to “kick the can down the road” with respect to the negative financial ramifications of their wrongdoing.[[17]](#footnote-18) As behavioral literature demonstrates, the time lag between the wrongdoing and the facing of its negative consequences affects wrongdoers’ willingness to engage in the activity.

This Article is the first to discuss U.S. federal fine disclosures and the strategic considerations involved. It provides an empirical examination, based on carefully selected data about all fines higher than $100 million imposed on corporations over the last two decades as part of settlement agreements reached in criminal prosecutions. The findings indicate systematic underreporting of fines by public companies. The Article further analyzes the negative ramifications of fine underreporting, and suggests revising the fine disclosure mechanism on two levels. The first involves redesigning the form of fine disclosure by separating the assessment of the expected fine from any other legal expense. The second involves reforming the company’s decision-making process by appointing an independent monitor within the company to assess the expected fine.

The article proceeds as follows: Part II reviews the disclosure rules as set by generally accepted accounting practices (GAAP)[[18]](#footnote-19) for contingencies in general and expected fines in particular.[[19]](#footnote-20) It underscores that if a fine is even merely reasonably probable, the company is required to disclose the expected fine. Part III presents the results of an original empirical study that shows that public companies indeed engage in the practice of systematic underreporting. To test whether companies underreport fines, we examined company annual reports in the period between the announcement of the investigation and the ultimate decision regarding the fine. A systematic gap between the initial disclosed fine assessment and the fine actually imposed, wherein the former is lower than the latter, indicates systematic underreporting of federal fines. We examine fines higher than $100 million imposed on U.S. public companies in settlements of corporate criminal charges. We then compare the actual fine imposed with the initial disclosure the company provided about the expected outcome, and conduct a statistical test to determine whether a systematic gap exist between the company’s initial fine disclosure and the actual fine. Information about settlements and actual fine amount was obtained from the Corporate Prosecution Registry of the University of Virginia School of Law and Duke University School of Law;[[20]](#footnote-22) information about companies’ estimations of fines was obtained from companies’ annual reports. Part IV of the Article discussing the ramifications of the systematic underreporting of fines first explains the distortionary effect of fine underreporting on the company’s share price. Second, drawing on existing behavioral literature, it argues that fine underreporting has a detrimental effect on the deterrent role of fines for companies engaging in wrongdoing. Fine underreporting enables management to offset a fine’s expected effect on management’s compensation and to “kick the can down the road”[[21]](#footnote-23) with respect to the financial ramifications of their wrongdoing, thus avoiding paying any price for the negative consequences of their wrongdoing. Part V suggests curtailing fine underreporting by altering two elements of current disclosures: the format of the disclosure itself and the mechanism whereby the decision regarding the disclosure is reached. The first involves redesigning the form of disclosure of fines by separating the assessment of the expected fine from any other legal expense. The second calls for reforming the company’s decision-making process by appointing an independent monitor within the company to assess the expected fine. The Article ends with a Concluding section.

# Reporting Expected Fines

Capital markets rely on accurate and timely information to operate efficiently.[[22]](#footnote-24) In order to make informed decisions, investors need access to relevant information about companies.[[23]](#footnote-25) Transparent and readily available information[[24]](#footnote-26) helps ensure that market participants have a fair and level playing field and that securities are priced accurately.[[25]](#footnote-27) Accurate pricing facilitates the optimal allocation of capital.[[26]](#footnote-28)

## II.A Market impact of corporate wrongdoing

Previous studies have examined the impact of regulators’ announcement of a corporation’s misconduct and the imposition of a fine on the corporation’s share price. Davidson and Worell and Davidson and colleagues found significant market reactions to federal announcements of bribery, tax evasion, and government contract violations, but no reaction to announcements regarding other corporate wrongdoings.[[27]](#footnote-29) Karpoff and Lott found that companies committing frauds against private parties suffer a reputational loss, with the decline in share price amounting to far more than the actual fine imposed.[[28]](#footnote-30) In contrast, Karpoff and colleagues found that in cases of environmental violations, the decline in share price was similar to the value of the legal penalties imposed on them.[[29]](#footnote-31) Similar results, differentiating between misconduct toward second parties and third parties with respect to reputational loss was found by Murphy and colleagues.[[30]](#footnote-32)

These studies face a serious challenge in capturing the full impact of the regulatory enforcement on the share price. They are all based on data from the United States, where the actual fine is determined long after the regulators make a public announcement of an investigation into a company’s wrongdoing. As a result, there is a long period during which the regulatory enforcement trickles down to the share price, increasing the possibility of “leakage”—an impact on the share price which is not captured. For that reason, John Armour and colleagues conducted a similar study in the United Kingdom, in which the relevant regulators—the Financial Service Authority and the London Stock Exchange—make a public announcement about an investigation only after the misconduct had been conclusively established and the appropriate fine has been determined.[[31]](#footnote-33) They also found that while the reputational loss is relevant only to second-party violations, its magnitude is much larger—the decrease in the share price was nine time larger than the value of the monetary fine.[[32]](#footnote-34)

While scholarship has examined the impact of announcements of investigations and fines on share price, no studies have examined the relationship between companies’ disclosure of the expected fine and the actual fine imposed. The disclosure of fines is a unique form of disclosure, with a unique decision-making dynamic due to the strategic considerations that accompany it. Generally, when making a disclosure about losses, management is motivated to low-ball the estimation in order to maintain a high level of earnings per share in the short run. However, there is an even more powerful consideration than share earnings in the case of disclosing an expected fine. After the initial investigation, the company enters into continuing negotiations with the regulator regarding the value of the fine it will have to pay. In most cases, the regulator and the company reach a settlement with respect to the fine to be imposed.[[33]](#footnote-35) For negotiation purposes, the company has an interest in as low an assessment of the fine as possible. Any fine assessment it makes becomes the starting point for negotiations, given that the regulator can easily ascertain the amount company has disclosed it expects to pay. Furthermore, at the end of the negotiations, the company has no grounds for objecting to paying a fine amounting to the sum it had disclosed it anticipated paying. For this reason, the company has an interest in assessing the fine as low as possible for disclosure purposes.

The importance of expected fine disclosures has grown in the last decade in light of the trend of federal regulators of imposing higher fines. Since 2013, 13 fines of over $1 billion have been imposed.[[34]](#footnote-36) Prior to 2013, unusually high fines were imposed only twice.[[35]](#footnote-37) However, the $31 billion and $13 billion fines imposed on Bank of America in 2013[[36]](#footnote-38) and on JPMorgan Chase in 2014, respectively,[[37]](#footnote-39) represent staggeringly high sums. Recent decades have witnessed not only an increase in the amount of heavy fines, but also in the number of such fines.[[38]](#footnote-40) While federal regulators have imposed a total of 167 fines of over $100 million, only one of was levied prior to 2001.[[39]](#footnote-41)

## Contingencies disclosure

Included in the relevant information for investors that must be included in company reporting is the company’s realized performances in the reported period, such as the company’s revenue for the last quarter and additional matters about which the company is aware and which, although not yet realized, have the potential to affect the company’s financial performance and future results.[[40]](#footnote-42) One prominent example of such information that companies must report are contingencies that arose during the reported period—existing circumstances involving uncertainty as to a possible loss or gain in the future. GAAP define a reportable contingency as “[a]n existing condition, situation, or set of circumstances involving uncertainty as to possible gain (gain contingency) or loss (loss contingency) to an entity that will ultimately be resolved when one or more future events occur or fail to occur.”[[41]](#footnote-43)

Accordingly, loss contingencies are routinely reported[[42]](#footnote-44) by companies for product warranties and litigation exposure,[[43]](#footnote-45) and should also be reported if a current investigation by a federal agency is expected to result in a future fine.[[44]](#footnote-46) The next section will discuss the rules that apply to the disclosure of contingencies in general, followed by a section reviewing the implementation of these rules in the context of expected fines.

Disclosure in the context of contingencies means that the company must provide information about the nature of the contingency and “an estimate of the possible loss or range of loss or a statement that such an estimate cannot be made” in its reporting.[[45]](#footnote-47) The requirement to accrue a contingency entails recognizing a liability expense[[46]](#footnote-48) in the company’s income and expense statement, which usually affects the company’s earnings per share.

There are three separate potential recognition, presentation, and disclosure outcomes with regard to loss contingencies, dependent on the particular circumstances.[[47]](#footnote-49) Loss contingencies may require a company to (1) both *disclose* the nature of the contingencyand *accrue* a liability; (2) *disclose* the loss contingency, but not *accrue* a liability; or (3) neither *disclose* nor *accrue*.[[48]](#footnote-50)

### Disclose and accrue a liability

The required accounting treatment of a contingency, that is, whether to disclose and/or to accrue, dependents on three parameters: (1) whether the contingency is material for the company;[[49]](#footnote-51) (2) the chances it will materialize; and (3) whether the future loss can be estimated.[[50]](#footnote-52)

A material loss contingency should be accrued if it is both (1) probable and (2) reasonably estimable. GAAP defines “probable” to mean that “the future event or events are likely to occur,”[[51]](#footnote-53) which is generally considered a 75% threshold.[[52]](#footnote-54) Thus, if the possibility the company will be subject to a fine is estimated by the company as probable, i.e., larger than 75%, the company must accrue a liability[[53]](#footnote-55) and disclose the contingency.[[54]](#footnote-56)

The amount that needs to be accrued is the loss that can be reasonably estimated.[[55]](#footnote-57) At the same time, companies should not “delay accrual of a loss until only a single amount can be reasonably estimated. To the contrary, when… information available indicates that the estimated amount of loss is within a range of amounts, it follows that some amount of loss has occurred and can be reasonably estimated. Thus, when… the reasonable estimate of the loss is a range… an amount shall be accrued for the loss.”[[56]](#footnote-58) If no single estimation can be provided, then “[i]f some amount within a range of loss appears at the time to be a better estimate than any other amount within the range, that amount shall be accrued;”[[57]](#footnote-59) and “[w]hen no amount within the range is a better estimate than any other amount… the minimum amount in the range shall be accrued.”[[58]](#footnote-60)

### Disclose the loss contingency, but not accrue a liability

Disclosure only, without accrual, is required when a loss contingency is not both probable and reasonably estimable.[[59]](#footnote-61) Thus, if a loss contingency is probable but not reasonably estimable, the company is required to disclose the nature of the contingency and the fact that an estimate cannot be made.[[60]](#footnote-62) If a material loss contingency is reasonably possible but not probable, i.e., its probability of being realized is lower than 75%, the company must disclose the nature of the contingency and an estimate of the possible loss: “Disclosure of the contingency shall be made if there is at least a reasonable possibility that a loss or an additional loss may have been incurred and… [a]n accrual is not made for a loss contingency… [t]he disclosure… shall include both of the following: a. The nature of the contingency b. An estimate of the possible loss or range of loss or a statement that such an estimate cannot be made.”[[61]](#footnote-63)

GAAP do not provide specific guidance as to the level of disclosure required regarding loss contingencies, such as whether each individual contingency should be disclosed separately or according to some other aggregating rules.[[62]](#footnote-64) However, the rules do require that companies disclose sufficient information to ensure that the financial statements are not misleading.[[63]](#footnote-65)

### Neither disclosure or accrual

GAAP do not require disclosure for non-material contingencies. Nonetheless, if the possibility of a material loss is remote, the company is not required to disclose or accrue a liability.[[64]](#footnote-66) However, reporting entities should consider disclosing information in the footnotes if disclosure would ensure that the financial statements are not misleading being misleading.[[65]](#footnote-67)

## Fine Contingencies

As mentioned above, the last two decades have witnessed an unprecedented increase in the amount and number of fines imposed on corporations by federal agencies for their legal infractions and wrongdoings.[[66]](#footnote-68) In many cases, the amounts of the fines imposed are material for investigated companies and even represent a large share of the companies’ market value.

A company under federal investigation faces a set of circumstances involving uncertainty as to a possible loss “that will ultimately be resolved when one or more future events occur or fail to occur.”[[67]](#footnote-69) As a result, the company must estimate: whether the expected fine is material for the company; what the probability is that it will materialize; and whether its amount can be estimated.

According to GAAP’s treatment of contingencies explained above, unless the possibility that the federal agency’s investigation will result in a fine imposed on the company is remote, the company must disclose the expected fine.[[68]](#footnote-70) If a fine is probable, the company must also accrue a liability for the estimated amount.[[69]](#footnote-71)

This is not only a “rule in the books,” but one with real consequences. The SEC frequently comments on companies that have incomplete or omitted such disclosures, or that have not provided an estimation of the loss or at least a statement that such an estimation cannot be made.[[70]](#footnote-72) The SEC also frequently objects to the practice of companies justifying not providing an estimation of the liability involved in a legal proceeding by claiming they cannot make an estimation with “precision and confidence.”[[71]](#footnote-73) The SEC has noted that in such situations, it may ask companies to provide support that an estimation cannot be made, especially as litigation progresses.[[72]](#footnote-74) In addition, the SEC expects a contingent liability to be accompanied by a disclosure that proceeds the actual accrual of the liability.[[73]](#footnote-75)

# Fine disclosure: Companies’ Initial Assessment versus Actual Fines

This section presents an empirical study examining the reporting practices of companies that have been subjected to fines larger than $100 million. Fines of such magnitude often result from significant regulatory violations or misconduct. For example, following the tragic crashes of Lion Air Flight 610[[74]](#footnote-76) and Ethiopian Airlines Flight 302,[[75]](#footnote-77) Boeing—the manufacturer of the 737 MAX airplanes involved—entered into an agreement with the U.S. Department of Justice (DOJ) to resolve a criminal charge related to a conspiracy to defraud the Federal Aviation Administration’s Aircraft Evaluation Group (FAA AEG) in connection with the FAA AEG’s evaluation of the Boeing 737 MAX airplane.[[76]](#footnote-78)

Strategic underreporting of losses may also be relevant to additional contingent legal proceedings other than fines. This Article focuses on fines for three reasons. First, the imposition of a fine is usually a reasonably probable event when a government investigation is undertaken.[[77]](#footnote-79) The fine’s probability, together with fines’ growing materiality in light of the trend of the increasing magnitude and likelihood of fines,[[78]](#footnote-80) almost categorically requires disclosure. In contrast, other legal proceedings, such as class actions, do not categorically generate reasonably probable liabilities for the company.[[79]](#footnote-81) Second, even when a civil legal proceeding may generate a reasonably probable liability, there is no enforcement agency directly monitoring the disclosure that is in a position to prosecute the company for not disclosing the information.[[80]](#footnote-82) In addition, the regulator does not have complete information regarding legal proceedings in which it is not involved directly, rendering any intervention on its part less feasible. In the case of fines imposed by a regulator, the regulator, having complete information regarding the circumstances of the expected fine, has stronger grounds to intervene as well as a strong motivation to enforce the disclosure requirement to encourage the company will to treat the investigation seriously. Thus, from a practical perspective, monitoring the disclosure of fines is more feasible in cases of federal regulatory investigations than it is with other legal proceedings. Third, independent of market efficiency issues, the disclosure of expected fines is important socially for deterrence purposes, to be discussed later.[[81]](#footnote-83)

## 1. Cases included in the Study

The threshold of a fine of $100 million was chosen for the study as it represents a significant amount that is likely to be material for the companies involved. Materiality refers to the importance or significance of information in influencing the decisions of users of financial statements.[[82]](#footnote-84) In general, companies are required to disclose information about a fine (and other matters) only if the information is material.[[83]](#footnote-85) By selecting cases from the last two decades (2003 to 2021), in which companies resolved criminal charges by paying a substantial fine larger than $100 million, we aimed to focus on fines that have the potential to affect the financial statements and disclosures of companies, thereby ensuring the relevance of our investigation into the practice of underreporting expected fines.

Using the Corporate Prosecution Registry of the University of Virginia School of Law and Duke University School of Law, [[84]](#footnote-86) we identified 51 different cases involving 48 companies whose shares are traded in U.S. exchanges[[85]](#footnote-87) in which a fine larger than $100 million was imposed.[[86]](#footnote-88) These 51 cases constitute the study sample.[[87]](#footnote-89)

Table 1 provides key information about the study sample:

Table 1: Key information about the study sample.[[88]](#footnote-90)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Number of Cases** | **Number of Companies** | **Years** | **Highest Fine Imposed** | **Lowest Fine Imposed** | **Average Fine** |
| 51 | 47 | 2003–2021 | $3,000 million  Wells Fargo & Company, 2020 | $93.6 million  Daimler AG., 2010 | $619.5 million  (Std. Dev. $655.1 million) |

## Disclosed Assessments

We then examined the disclosure that the study sample companies provided in their annual financial statements (10-K) regarding the criminal charges and the possible fine before the fine was determined or made public. We look at the earliest financial assessment companies provided regarding the prospective financial outcomes of the criminal investigation. For every case, we used the earliest financial assessment provided by the company in its annual financial statements published in the years preceding the agreement. Cases where no assessment was provided before the imposition of the fine were treated as having an initial assessment of zero with respect to the expected outcomes. It should be emphasized that a company is required to disclose an assessment when a future expense’s likelihood of materializing is higher than remote.[[89]](#footnote-92) Furthermore, by not disclosing any assessment of the financial outcomes of a criminal investigation against the company, the company conveys that it does not expect a reasonably probable material future expense to result in the case.[[90]](#footnote-93)

Table 2 presents key statistics regarding the initial assessment companies provided:

Table 2: Fine assessment disclosure

|  |  |  |  |
| --- | --- | --- | --- |
| **Number of Cases** | **Highest Initial Assessment** | **Lowest Initial Assessment** | **Average Initial Assessment** |
| 51 | $2,138 | 0 | $281.9  (Std. Dev. $496 million) |

As presented in the table, the lowest assessment in the study sample is zero. In 29 of the 51 cases resulting in fines larger than $100 million, companies did not provide any financial assessment for the prospective outcome of the criminal investigation before entering into an agreement with the DOJ.[[91]](#footnote-94) Specifically, in 29 cases, 57 percent of the study sample, the companies’ most recent annual financial statements published prior to becoming subject to a fine close to or larger than $100 million did not disclose an expected fine estimation.

Thus, although being aware of the investigation and the criminal procedures as well as the possible financial outcomes the company may face, a majority of the study sample did not disclose an assessment for the fine. Companies justified the lack of a financial assessment disclosure and a provision as either: (1) impossible due to the high uncertainty involved; or (2) not required in the given circumstances (such as due to insurance coverage for any possible fine). In some cases, the two justifications were both used to justify the absence of an assessment disclosure. For example, in its 2019 statements, released less than a year[[92]](#footnote-95) before the company agreed to pay over $2.5 billion to resolve the criminal charges it was facing,[[93]](#footnote-96) Boeing mentioned that: “[m]ultiple legal actions have been filed against us as a result of the October 29, 2018 accident of Lion Air Flight 610 and the March 10, 2019 accident of Ethiopian Airlines Flight 302. Further, we are subject to ongoing governmental and regulatory investigations and inquiries relating to the accidents and the 737 MAX, including investigations by the U.S. Department of Justice and the Securities and Exchange Commission[.]” Notwithstanding this acknowledgment, the company did not provide an assessment of the expected financial outcomes, claiming it: “cannot reasonably estimate a range of loss, if any, not covered by available insurance that may result given the ongoing status of these lawsuits, investigations, and inquiries.”[[94]](#footnote-97)

## Comparing Disclosed Assessments and Actual Fines

When comparing disclosed initial assessments and the actual fines, we find that in 38 of 51 cases in the study sample, companies provided a disclosure that underreported an expected fine. Thus, in almost 75 percent of the cases that concluded with a substantive fine exceeding $100 million, the information companies disclosed in their annual report did not provide investors with information that reflected the actual future outcomes.

Figure 1 depicts the difference between the initial assessment disclosed by companies and the actual fine, and the contribution each case had to the cumulative difference between the assessments provided by examined companies—$14.4 billion—and the actual fine imposed on them—$31.5 billion.

.

million USD

Intial Assessment Disclosed

Figure 1. XXXXX

The strength of this study is that it can reveal widespread underreporting rather than underreporting by an individual company. Presumably, an individual company would be deterred from underreporting by the threat of private lawsuits once the information about the actual fine was publicized, as underreporting in its previous disclosures could expose the company and its directors to shareholder lawsuits. Even this threat may not prove especially problematic for an individual company, whose mistaken underestimation could be justified by the uncertainty involved in estimating a prospective fine. Thus, a plaintiff facing a motion to dismiss in such cases is not likely to succeed, as underreporting does not necessarily reflect an intent to underreport, but may simply represent a mere error due to the inherent uncertainty of such estimations.[[95]](#footnote-98) The lack of intent is a less likely result when analyzing *all* companies on which fines were levied and their disclosures regarding the expected fine in previous years. If a statistically significant *systematic* error in estimating fines in a certain direction is found, it is possible to conclude that these are not mere unintentional errors in estimating a highly uncertain event, but an intentional outcome of low-balling the fine. If estimation errors were mere mistakes, the estimations should be evenly distributed around the actual fine. However, if the distribution of the estimations is around a number that is considerably lower than the actual fine, it can be concluded that the misestimation is not a mere mistake. While these results may not support a private claim against a company for intentional underreporting, they can support the conclusion that a systematic problem of underreporting exists.

Accordingly, to examine whether companies systematically underreport expected fine outcomes, we compared the aggregate disclosure companies provided regarding the expected outcomes (Table 2) with the aggregated actual outcomes of the actual fine (Table 1) and tested whether the difference is substantial and statistically significant.

Table 3 provides information about the comparison:

Table 3: Comparing Disclosed Assessments and Actual Fines

|  |  |  |  |
| --- | --- | --- | --- |
| **Number of Cases** | **Average Initial Assessment** | **Average Fine** | **Difference** |
| 51 | $281.9 million  (Std. Dev. $496 million) | $619.5 million  (Std. Dev. $655.1 million) | \*\*\*$337.6 million  (Std. Dev. $736.4 million) |

As presented in Table 3, the difference between the average assessment initial companies provided regarding the expected fines’ outcomes and the average fine companies faced is more than $337 million. The difference and its direction, are statistically significant at the 1% level, indicating that the average fine is larger than the average assessment disclosed.[[96]](#footnote-99)

The substantive and statistically significance difference between the initial assessment companies provided in their annual reports and the actual fines imposed on the companies suggests a systematic underreporting of fines by public companies.

## The Actual Underreporting Gap May be Much Larger

The actual degree of underreporting is likely to be much greater. Most of the cases examined (44 out of 51) did not present a separate estimation for the fine, but instead provided a general estimation for all contingent legal processes in which they were involved, including civil suits. In almost in all of them, there are a few other legal processes in which they are involved. As a result, the actual underreporting gap is likely to be much larger. We compared the estimation of potential liabilities stemming from all contingent legal processes to only the fine levied on the company, when it is likely that the company will incur other liabilities in addition to the fine. In this context, it is fairly likely that even the few companies that appear to have overreported the expected fine, may have actually underreported when taking into account the other legal liabilities they are facing. Such an assessment by a company is much more complicated, especially since some of the legal proceeding may not have been resolved; consequently, it was not possible to compare the assessment to all legal liabilities in this study. Nonetheless, even without taking into account other legal liabilities not included in the aggregated estimation, we still found significant systematic underreporting, which suggests that the actual underreporting is much greater.

# The Problems with the Underreporting of Fines

The systematic underreporting of fines presents serious issues that should not be ignored. This part notes three main problems fine underreporting raises: the creation of market inefficiencies; the encouragement of compensation manipulation; and the reduction in the deterrence effect of the sanction. The first problem, market inefficiencies, is a general one that can arise when there is any misreporting of information by public companies. The latter two problems represent issues that arise specifically in the context of underreporting fines and are directly associated with the more general problem of inadequate deterrence for corporate wrongdoing.

## Market Inefficiencies

The first problem that may arise from underreporting is the creation of market inefficiencies. One of the main purposes of public security markets is to provide accurate prices for financial assets.[[97]](#footnote-100) Public securities markets facilitate this process by providing full information regarding the financial assets sold on the market, including quarterly financial reports and annual reports that include all financially material information.[[98]](#footnote-101) Assuming information must be reported in order to be internalized by the market, material information which is not reported impedes the ability of the market to accurately price the financial asset.[[99]](#footnote-102) As noted above, the fines imposed on corporations by federal agencies are highly material for the company in many cases, having reached $30 billion in the case of Bank of America,[[100]](#footnote-103) over $1 billion in several cases, and over $100 million in dozens of other cases.[[101]](#footnote-104) In extreme cases, such as Deutsche Bank’s $7 billion fine, mentioned above, the fine has constituted over 10% of the company’s market cap.[[102]](#footnote-105) Because such high fines are highly material for assessing the value of the company, they should be disclosed when there is a reasonable probability that they will be ultimately be imposed on the company. Excluding such information from the market may significantly distort the companies’ share pricing by not allowing investors to incorporate the likelihood of significant liability into the share price. Investors purchasing the shares while lacking knowledge of the magnitude of this probable fine may overpay far above the fair share price. The possibility of overpaying due to these concealed liabilities may deter some investors from investing in these shares. This then interferes with the markets’ ability to attract investments and increases market inefficiency, which can result in significant social welfare costs.

The consequences of the assumption that markets will misprice shares in the absence of full and accurate disclosure of such estimates can differ depending on whether one views markets as strongly efficient, meaning able to incorporate all relevant information whether private or public, or only weakly efficient, meaning able to incorporate only all public information but not private information.[[103]](#footnote-106) If markets are strongly efficient, companies’ failure to provide full or accurate assessments of significant probably fines has little effect, as a strong market can conceivably assess and incorporate such information on its own without the companies’ assessments. Professional analysts presumably could assess the expected fine just as well as could the company.[[104]](#footnote-107) If the price of the share is too high in a strongly efficient market, investors will sell the share and make a profit, and can even short sell the share in order to increase their profits from their own fine assessments. As a result, the price will drop to the point where it fully reflects the expected fine.

The jury is still out whether markets are strongly efficient or only weakly efficient. Even if they are considered inefficient, how inefficient are they? What types of information does an inefficient market incorporate and what types does it overlook? Theoretically, it may have been possible to examine whether the market is strongly efficient in the case of underestimation of fines; that is, whether the market incorporates the correct expected fine despite the company providing a low estimation. An event study analyzing the impact of a fine on stock prices around the time of the public announcement of the fine could examine whether the market is strongly efficient and incorporates the true expected fine.[[105]](#footnote-108) Systematically abnormal returns around the time of the announcements would then reflect that the market did not incorporate the true value of the expected fines, and thus, the under-reporting caused market uncertainty.[[106]](#footnote-109) An lack of abnormal returns around the time of the public announcements of the fines reflects that the market has incorporated the true value of the expected fine, despite the companies’ underreporting of the expected fine.[[107]](#footnote-110)

Although such an examination may seem straightforward and feasible, it is not necessarily possible to execute. Event studies of announcements are almost useless in cases of “leakage”— when information regarding the announcement has leaked over time.[[108]](#footnote-111) This is very likely to happen in such announcements regarding fines—even though the formal press conference of the federal agency announcing the fine took place in T1, the information may have been published in T0 or T-1. The final negotiations between the company and the federal agency may have been leaked to the press by one of the parties. Indeed, there are indications that such leakage has actually happened in the context of fines.[[109]](#footnote-112) There may be methodological methods to overcome this hurdle that are worthwhile exploring in future research.[[110]](#footnote-113) At this point, although it cannot be concluded decisively that the underreporting of fines generates market inefficiency in terms of the share pricing, evidence does exist for market inefficiency generated by the underreporting, as discussed below.

### Evidence for Market Inefficiency

Three examples of evidence are noted below for the impact of the announcement of the fines in the cases of Boeing, Deutsche Bank, and Facebook.

#### Boeing

On January 7, 2021, the DOJ and Boeing reached an agreement that Boeing would pay a total fine of over $2.5 billion in the criminal proceeding against it.[[111]](#footnote-114) In its last disclosure before the announcement, the company’s public report published on October 27, 2021, Boeing claimed that it cannot “cannot reasonably estimate a range of loss, if any, not covered by available insurance that may result given the current status of the lawsuits, investigations and inquiries related to the 737 MAX.”[[112]](#footnote-115) The day after the announcement, Boeing’s share dropped 1.4%,[[113]](#footnote-116) while the S&P 500 rose 0.55%.[[114]](#footnote-117) This represents a net fall of almost 2% following the announcement, indicating that the market may not have accurately incorporated the expected sanction.[[115]](#footnote-118)

#### Deutsche Bank

On April 23, 2015 Deutsche Bank reached an agreement to pay a fine of $2.519 billion for its role in the manipulation of the LIBOR (London Interbank Offered Rate).[[116]](#footnote-119) In the notes to the last financial statement released before the announcement, the company did not provide a specific estimate for the fine but rather an estimate of $2.0 billion for all contingent legal proceedings.[[117]](#footnote-120) The day after the announcement, the share price of Deutsche Bank dropped by 2.7%[[118]](#footnote-121) while the S&P 500 remained steady.[[119]](#footnote-122) Once again, the announcement’s effect indicates that the market had not anticipated the fine.[[120]](#footnote-123)

#### Facebook

On July 24, 2019, the U.S. Fair Trade Commission (FTC) imposed a $5 billion penalty on Facebook for deceiving users about their ability to control the privacy of their personal information.[[121]](#footnote-124) In the report of the first quarter preceding the announcement of the fine, Facebook did not provide a specific estimation for the fine of the FTC, but rather a range of $3 to $5 billion. Facebook’s share price dropped 2% on the day following the announcement,[[122]](#footnote-125) as the actual fine exceeded the middle of the range, [[123]](#footnote-126) while the S&P 500 declined modestly by 0.6%.[[124]](#footnote-127)

### Wasteful Use of Resources

If the market accurately accounts for the true value of expected of fines, thereby successfully addressing companies’ tendency to underreport expected fines, there remains an additional inefficiency apart from mispricing. If markets can independently factor in the true value of expected fine regardless of companies’ estimations, the need for such estimations becomes redundant, leading to a waste of company resources devoted to their preparation. Therefore, when there is strong market efficiency, underreporting is inefficient, either for the market or for the company, regardless of its impact on prices. If underreporting affects prices, it results in pricing inefficiency; if it does not affect prices, the reports themselves become meaningless and contribute to a wasteful use of resources, making them inefficient.

## Executive Compensation

Another problem caused by underreporting involves managers’ motivation to manipulate their performance-based compensation. A significant component of top corporate executives’ compensation is performance-based. A recent study published by the *Harvard Business Review* found that 82% of executive compensation schemes among Russell 3000 companies were performance-based.[[125]](#footnote-128) Two main performance-based parameters to which managers’ compensation are linked are companies’ earnings and share price.[[126]](#footnote-129) By underreporting fines, managers postpone fines’ effect on companies’ earnings and share price, and, accordingly, their compensation.[[127]](#footnote-130)

Hypothesize that in November 2022, managers suspected that there was a reasonable probability that the company would face a $100 million fine in 2025. They have the option to delay the investigation and thus avoid any disclosure in the company’s 2022 annual reports. Then, by initiating the investigation only at the beginning of 2023, the estimation will be disclosed only in the financial reports of the first quarter of 2023.

Although deferring disclosure might not appear critical on initial examination, it can significantly affect managers’ compensation. Managers may have shares or options set to mature at the end of 2022. By postponing the disclosure until the first quarter of 2023, they gain the opportunity to sell the shares and options in the initial months of 2023, obtaining a higher price not yet effected by the impending fine. This timing advantage can greatly affect their financial gains.

This scenario is based on the premise that the market is not strongly efficient; thus underreporting in the form of delayed disclosure affects share pricing.[[128]](#footnote-131) Yet it is possible for managers to influence their performance-based compensation by underreporting fines even if markets are strongly efficient. A portion of managers’ compensation is linked to financial parameters as reported in the company’s financial statements, and according to GAAP. For example, managers may receive a bonus if company earnings per share (EPS) surpasses a threshold of $1. In the hypothetical case, in November 2022, managers know the company is very close to exceeding the threshold, and if the fine is not disclosed and no provision recognized in the statements, the company’s EPS will pass the threshold and managers will receive the bonus. Although managers have also a performance-based bonus in 2023, postponing the disclosure and provision to 2023 may not make any difference with respect to the bonus. Alternatively, the managers expect that in 2023, the earning would far exceed the $1 per share increase and thus the $100 million liability would not make a difference.[[129]](#footnote-132)

The ability to underreport the expected fine enables management to maximize their performance-based compensation and thus minimize the impact of the fine on their personal compensation. This ability to shield their compensation form the impact of the fine through underreporting is highly troubling from a deterrence perspective. There is wide array of criticism on the utilization of corporate fine as a deterrence mechanism by scholars,[[130]](#footnote-133) judges[[131]](#footnote-134) and journalists.[[132]](#footnote-135) Ultimately, almost all wrongdoings are committed by identifiable individuals within the company. Many argue that without personal liability of individuals, and especially management, effective deterrence cannot be achieved.[[133]](#footnote-136) When sanctions are imposed on the company, it is mainly shareholders—who have not committed any wrong—who suffer from its consequences.[[134]](#footnote-137) Managers and other wrongdoers suffer only indirectly from the impact that the reduced earnings of the company may have on its share value and therefore on certain components of their compensation. The ability of managers to manage or manipulate company earnings weakens the indirect effect of the corporate fine on them personally. This situation undermines the most effective element for deterrence—personal liability of managers—which is rarely imposed directly. Today, the mechanisms of deterrence emphasize the indirect personal impact of fines on management’s compensation. Weakening this impact through underreporting significantly reduces any deterrence effect on corporate wrongdoing.

## Underreporting and Underdeterrence

In addition to maintaining the informational efficiency of markets, disclosing fines as early as possible is highly salient in potentially deterring managers and other corporate fiduciaries from engaging in wrongdoing.

Criminology literature emphasizes three main factors in effective crime deterrence: (1) the severity of the sanction; (2) the certainty of the sanction; and (3) the celerity or immediacy of the sanction).[[135]](#footnote-138) Even when the severity and certainty of the sanction remain constant, deterrence is much stronger when there is no time lag between the wrongdoing and the sanction than when there is a time lag.[[136]](#footnote-139)

The modern theory of hyperbolic discounting provides additional support for the relevance of celerity to deterrence. According to the hyperbolic discounting literature, an individual’s decision’s is affected by how close the time interval for a given event is to the present,[[137]](#footnote-140) calculating a steeper discount for costs and benefits that occur closest to the present. Thus, according to hyperbolic discounting, an individual will attribute a much higher negative value to a cost expected to be incurred in the near future than to an anticipated cost in the more distant future, making a cost or a sanction in the near future much more ‘costly’ than one in the more distant future.[[138]](#footnote-141)

Legge and Park have found empirical support for the impact of celerity on deterrence in the context of sanctions on drunk drivers. Swift punishment for drunk drivers, such as an immediate license suspension, was found to be a more effective deterrent in significantly reducing fatalities resulting from drunk driving than other more severe, non-immediate sanctions.[[139]](#footnote-142)

The disclosure of fines is analogous to the sanction of license suspension: in both cases, the sanction is not the final sanction, but a pre-trial measure that is closer in time to the wrongdoing than the final sanction. Furthermore, Utset argued that corporations are more sensitive to celerity than natural persons.[[140]](#footnote-143) Thus, early disclosure of fines is expected to have a higher impact on the deterrence of corporations.

Hollander-Blumoff explains that the difference between the immediate sanction and the future sanction is not necessarily the value the individual attributes to the time element directly, but the fact that immediate sanctions are more concrete while the one in the future is more abstract and thus is felt more ‘weakly’ at the time of the committing of wrongdoing.[[141]](#footnote-144) This difference explains the inconsistency of the individual’s temporal preferences. After being sanctioned by a delayed sanction, the individual would regret committing the wrong and would not think that it had been worth committing the crime because the sanction was imposed late. The greater weight attributed to immediate sanctions is not driven by the time element per se, but by the concreteness of the closer sanction.

This raises the question of how a sanction can be rendered more concrete, even if imposed only after trial, or in the least a settlement, which are both lengthy procedures and require considerable time before the actual sanction is imposed. Miriam Baer suggests what she labels a “targeted enforcement device,” which aims at accelerating the imposition of the sanctions.[[142]](#footnote-145) The classic example of such a device is the speed bump: its efficacy is in stopping the driver from speeding by forcing the driver to experience an immediate concrete cost of such behavior—at the moment the driver is tempted to press down on the accelerator. Even though the cost of speed bumps is negligible, they are effective because of their immediacy and concreteness.[[143]](#footnote-146) By enabling a strong sanction to be imposed immediately, the sanction forces the driver to think concretely about the ramifications of the wrongdoing.[[144]](#footnote-147)

Disclosure of the ramifications of the wrongdoing is an ideal manifestation of immediate sanctions, their main function being intensifying the concreteness of the negative consequences of the wrongdoing. In this respect, disclosure of an expected fine is very similar to the sanction of license suspensions, the effectiveness of which has been proven.[[145]](#footnote-148) In both cases, the immediate sanction, disclosure of an expected fine or license suspension, does not replace the full and future sanction. Furthermore, the immediate sanction is not identical to the subsequent full sanction—in the case of drunk driving, actual imprisonment and in the case of corporate wrongdoing, the actual payment of the fine, which has a greater impact than the disclosure of the fine. Immediate sanctions have only a fraction of the magnitude of the later full sanctions because immediate sanctions are imposed before conviction or determination. Therefore, there is a legal bar to imposing immediate sanctions preceding a conviction or a determination that are of a similar magnitude to post-conviction or post-determination sanctions.

# Policy Implications

The systematic underreporting of fines is a problem which may have far-reaching implications for deterring corporations from engaging in wrongdoing. As noted above, the ability to “kick the can down the road” and defer the acknowledgement of the negative ramifications of the wrongdoing may significantly reduce the deterrence effect against engaging in wrongdoing. Furthermore, these deference mechanisms may also enable the management to manipulate and shield their bonuses and performance-based compensation from taking a hit due to the expected sanction that would reduce share value and distort the company’s financial parameters.

This part suggests two levels of policy interventions to tackle the issue of underreported fines. The first level focuses on the form of the disclosure: segregating fine contingencies from other legal contingencies. The second level centers on the internal decision-making process that governs the disclosure of anticipated fines: appointing an independent monitor within the company that would assess the expected fine.

## Adjusting the disclosure: Segregating fine contingencies from other legal contingencies

As mentioned, GAAP do not provide specific guidance as to the level of disclosure required regarding loss contingencies, such as whether each individual contingency should be disclosed separately or according to some other aggregating rules.[[146]](#footnote-149)

Consequently, one of the challenges the study faced was retrieving the exact estimates of fines. The main hurdle was that in most cases, corporations did not provide a separate estimation for the fine imposed by federal agencies; that is, they did not provide a specific value for the fine contingency, but rather an estimation for all legal contingencies faced by the company. Of the total study sample (n=51), only 10 companies provided a distinct estimation for a fine. In all other instances, companies either presented a combined total for all the legal contingencies the company was facing or provided no amount at all.[[147]](#footnote-150)

Aggregating all legal contingencies into one estimation of loss is a central cause for the underreporting of fines, as it allows the company to mask the underreporting from being scrutinized by the regulator. Once investigated by a federal agency, company disclosures are monitored closely by the investigating agency. The agency has the information, power, and motivation to sanction a company that did not fully disclose the expected fine. The agency has all the relevant information for determining the expected penalty, and most likely has a model for the appropriate penalty from an early stage in the negotiations. Some agencies, especially the DOJ and SEC, also have the power to penalize companies for partial disclosure of the expected fine, and have made use of their power in several cases in the past.[[148]](#footnote-151) They also have a motive to sanction parties that underreport the expected sanction: low-balling the estimation of the sanction can be understood as an indication that the company “is not taking seriously” the matter at hand, and can be interpreted as disrespect to the relevant agency. In addition, for the same strategic reasons that the company wants to low-ball the estimation, the federal agency wants the estimation to be as high as possible, as that would increase the likelihood that the company will agree to eventually pay a higher sum.

Aggregating fine contingency with all other legal contingencies, shields the low estimation from the scrutiny of the agency. While the agency has high-value information regarding the expected penalty it would impose in the future, it does not have a comparative advantage in assessing the outcomes from other civil legal proceedings. Therefore, when a company consolidates the assessment of the fine together with other contingent legal losses, it essentially masks the estimation of the fine from the scrutiny of the regulator, resulting in no independent assessment of the fine.

Mandating companies to disclose the expected fine separately from all other contingent expected losses may significantly reduce the underreporting. It will expose companies’ assessment to the relevant agency, and reduce companies’ motivation to low-ball the estimation, fearing that doing so may signal to the regulator that it is has not taken the investigation seriously enough, or even result in an additional penalty for not fully disclosing the initial expected penalty.[[149]](#footnote-152)

Adjusting the disclosure and requiring companies to separate fines contingencies from all other legal contingencies does not require amending securities law, but rather simply calls for an interpretative change by the SEC. As mentioned, while currently the GAAP do not provide specific guidelines regarding the level of disclosure required for loss contingencies, the SEC does have the power an authority to issue such guidelines.[[150]](#footnote-153)

Moreover, not only is this proposal straightforward to implement, but its associated costs are negligible. Adopting fine contingency disclosures would not demand any significant additional investments from companies. In cases where estimates are aggregated, the company already possesses estimates for each contingency; companies need merely to report the information separately. This technical separation in the report would not entail a substantial expense.

However, it is possible that the company engages in aggregate disclosure because it lacks estimations for each of the contingencies. In such cases, preparing the various individual contingent reports may incur real costs for the company. Nevertheless, such costs are highly warranted since the company should have had a proper estimation of each contingent loss, which is a critical requirement.

## Altering the Decision-making Structure

As mentioned, companies face a unique strategic dilemma with respect to the disclosure of expected fines: The amount the company would initially disclose becomes the starting point when negotiating with the regulatory agency, ultimately influencing the final fine. Consequently, if a higher initial assessment is disclosed, the resulting fine is likely to be higher.

This strategic consideration may drive companies to underreport the estimated fine, leading to serious implications for market efficiency and the possibility of deterring companies from engaging in wrongdoing.

### Why auditing does not solve the problem

The amount the company discloses is not only the opening point for negotiations;[[151]](#footnote-154) when underestimated, it serves the interests of the management, the company, and its shareholders.[[152]](#footnote-155) While the estimation of the expected fine is audited by the company’s independent accountants, that audit is based mainly on the information provided by management. If management has an interest in low-balling the estimate of the expected fine, it can influence audit by controlling the information it conveys to the auditor regarding their wrongdoing.

An additional reason for a company not to provide full information to its external auditor is that the confidentiality of information conveyed by the company to its auditor is not protect, unlike that of information shared with legal advisors.[[153]](#footnote-156) In *SEC v. RPM International Inc.*, the SEC claimed that the company had failed to disclose a probable loss contingency for a pending DOJ investigation, placing blame on the company’s chief legal counsel for not providing the external auditor with adequate information regarding the investigation.[[154]](#footnote-157)

In addition, as noted in the literature, the auditor, although meant to function as an independent gatekeeper, may be captured by the interests of the company.[[155]](#footnote-158) As a result, the auditor may be more prone to favor the narrow interests of the company, especially with respect to fine contingency disclosure, about which there is a range in estimation due to the substantial uncertainty involved and the low visibility of the fine contingency within the aggregated contingency disclosure. Knowing the clear interests of the company, the auditor could opt for the lowest estimation within that range, without any exposure to liability.

### Appointing a Monitor

Given the company’s strong interest in low-balling the estimation which may then influence the company’s auditor, it is suggested altering the internal decision-making mechanism that regulates fine estimation by appointing a monitor that will provide an estimation.

A monitor is an independent third party typically appointed to oversee a company’s compliance following resolution of a criminal case.[[156]](#footnote-159)

For example, in 2005, the DOJ reached a deferred prosecution agreement with KPMG after prosecuting it for tax fraud and tax evasion.[[157]](#footnote-160) As part of the agreement, KPMG agreed to the appointment of an independent monitor to ensure that the company would establish a compliance program. In the same year, the DOJ reached a non-prosecution agreement with MCI, which had been the subject of a securities fraud investigation, providing for the appointment of a monitor to ensure that MCI complied with its commitment to add 1600 jobs.[[158]](#footnote-161) In 2006, the DOJ reached a non-prosecution agreement with Mellon Bank in a case of theft of government property, in which MCI agreed to the appointment of an external monitor to oversee the establishment of a new ethics program in the company.[[159]](#footnote-162)

Typically, monitors are not tasked with enforcement but, instead, provide an extra layer of oversight, examining corporate compliance programs and reporting findings back to enforcement officials. [[160]](#footnote-163) With respect to disclosing fine contingencies, it is suggested broadening the scope of the monitor to include estimation and determination of the contingency and the required disclosure. Accordingly, it is suggested that once an investigation opens, the company should appoint an independent monitor to make such determination. While monitors are typically appointed by the DOJ, and for the purpose of passive oversight, the proposal expands the scope of monitors’ responsibility into active decision-making.

It is further suggested that the monitor will be an independent external lawyer who will provide a mandatory assessment and disclosure services to the company regarding fine contingencies. The monitor will have unlimited access to all corporate resources and documents, and, thus, unlike an auditor, will not have to rely on a company’s discretion to obtain information regarding the contingency.

Using a monitor—instead of company’s management or its auditor for the purpose of assessing and deciding fine contingencies disclosure—is expected to neutralize the company’s strategic consideration and therefore result with a more accurate reporting of expected fines.

In addition, there are two advantages of having lawyers making the estimation instead of accountants. First, lawyers have the necessary skill set for estimating the expected fine. To the extent that the expected fine is a legal question, lawyers have the necessary skills to weigh the evidence in the federal investigation, analyze relevant past cases, and infer from them the probability and size of the fine, quintessential legal skills that accountants are unlikely to possess.

Furthermore, we have noted above that one reason for underreporting may be due to accountants not receiving full information regarding the investigation because the confidentiality of the information is not protected. By transferring the estimation role to lawyers, the confidentiality of the information may be covered by attorney-client privileges, thus facilitating the exchange of information to the estimating party.

Ideally, for the estimation to be as accurate as possible, it would be optimal if the monitor had some level of personal liability” in the process—“skin in the game—to help ensure that the estimator did their utmost to reach an accurate estimation of the expected fine. However, this may not be practical, as it is unlikely that any monitor would be willing to expose themselves to personal liability. A more feasible suggestion is that the monitor would have to purchase insurance that would cover a portion of any difference between the estimation and the actual fine. Even though the monitor would not have a direct interest in making an accurate estimation, the insurance industry would also monitor the accuracy of the monitors—monitors with records of inaccuracy would be forced to pay high premiums. Such monitors would then need to charge excessively high prices that would push them out of the market. In contrast, monitors for specific types of decisions would be able to rely on a conventional reputational mechanism in order to maintain accurate estimations without relying on insurance. Because the monitor is appointed for a specific decision a clear reputational signal can emerge that will naturally impose constraints on the monitor to make accurate decisions.

# VI. Conclusion

In the last decade there has been a considerable increase in the amount and number of fines that have been imposed on corporations. Yet scholars,[[161]](#footnote-164) policy makers,[[162]](#footnote-165) and lawyers[[163]](#footnote-166) have voiced concerns that corporate fines are not sufficiently effective in deterring wrongdoing, with some arguing that sanctions should be imposed on top executives in order to be effective.[[164]](#footnote-167) This Article has suggested a different approach that may lead to more effective deterrence: addressing the underreporting of expected fines in companies’ financial reports.

The Article underscores the strategic consideration that leads to underreporting and provides an empirical analysis based on carefully selected data that reveals systematic underreporting of fines in the time window between when an investigation goes public and the imposition of a fine years later.

The Article highlights how systematic underreporting can reduce deterrence by allowing management to manipulate earnings and conceal the impact of fines on their personal compensation. Additionally, it weakens the celerity of punishment, which behavioral economic literature has identified as a crucial aspect of deterrence.

The Article suggests policy recommendations on two levels in order to deal with the strategic underreporting of fines. First, it suggests mandating a separate disclosure for the expected fine so it will not be aggregated with the estimations of all other legal contingencies. This will enhance the markets and regulators’ ability to monitor the disclosure of fine contingencies. The second is altering the internal decision-making mechanism regarding the disclosure of the expected fine. Given the strategic considerations for underreporting, the disclosure should be determined by an outside monitor. These mechanisms are expected to decrease underreporting of fines and thereby not only improve pricing efficiency but also increase deterrence, thus reducing corporate wrongdoing.

1. *See, e.g.,* Tory Newmyer, “Bank of America to pay $250 million in refunds, fines over customer practices,” *The Washington Post,* (July 11, 2023)(reporting Bank of America will pay more than $250 million in refunds and fines after the company systematically overcharged customers, withheld promised bonuses, and opened accounts without customer approval.) <https://www.washingtonpost.com/business/2023/07/11/bank-of-america-settlement/> [↑](#footnote-ref-2)
2. Forty-two fines of over $500 million were imposed, the earliest in 2002, only four of them prior to 2008, the remaining 90% of the fines all imposed later than 2008. A total of 167 fines of over $100 million have been imposed, only one before 2001. [↑](#footnote-ref-3)
3. Corporate Prosecution Registry, https://corporate-prosecution-registry.com/browse/ [↑](#footnote-ref-4)
4. This includes Bank of America’s settlement with both the Federal Housing Finance Agency and Fannie Mae. [↑](#footnote-ref-5)
5. U.S. Department of Justice, *Press Release: Deutsche Bank Agrees to Pay $7.2 Billion for Misleading Investors in its Sale of Residential Mortgage-Backed Securities*, Jan. 17, 2017, <https://www.justice.gov/opa/pr/deutsche-bank-agrees-pay-72-billion-misleading-investors-its-sale-residential-mortgage-backed>. It should be noted that the fine was not to be paid to the U.S. government in its entirety, but $4.1 billion of the fine was designated for payment into a relief fund for distressed borrowers and other affected communities [↑](#footnote-ref-6)
6. The book value of Deutsche Bank in Q4 2016, right before the imposition of the fine was $68.2 billion. [↑](#footnote-ref-7)
7. [↑](#footnote-ref-8)
8. הפניה שליח על שורטרמיזים ולונגטרמיסים, מניעים של מנהלים [↑](#footnote-ref-9)
9. מאמר ביצועי מניות ושכר [↑](#footnote-ref-10)
10. When a company facing a federal criminal investigation discloses an initial monetary assessment regarding an anticipated fine, i.e., a probable fine —it creates (accrues) an accompanying financial provision, drawn up in accordance with generally accepted accounting principles (GAAP), recognizing that amount as an immediate expense in its profit and loss statement. This, then, affects the company’s earnings-per-share parameter (EPS). That recognized loss may then the starting position— the floor’—for the company’s negotiations with the federal agency. Thus, a low starting position is likely to lead to a lower final settlement and save the company millions of dollars. In this way, the company’s management has a very strong incentive to disclose the lowest fine estimation possible (if at all). In addition, if the final fine is lower than the provision accrued during the investigation, the company will recognize an immediate profit resulting from the settlement. This result may deter federal departments and agencies from settling a case that appears to benefit the company with a profit rather than deter it with a burdensome fine. [↑](#footnote-ref-11)
11. ספרות על earnings management [↑](#footnote-ref-12)
12. מה זה EM [↑](#footnote-ref-13)
13. מחקר על meet or beat [↑](#footnote-ref-14)
14. שורטרמיזים [↑](#footnote-ref-15)
15. כנ"ל [↑](#footnote-ref-16)
16. Infra [↑](#footnote-ref-17)
17. [↑](#footnote-ref-18)
18. Gap in the gaap [↑](#footnote-ref-19)
19. [↑](#footnote-ref-20)
20. The Corporate Prosecution Registry is a joint project of the Legal Data Lab at the University of Virginia School of Law and Duke University School of Law. The goal of this Corporate Prosecution Registry is to provide comprehensive and up-to-date information on federal organizational prosecutions in the United States. The Registry, available at <https://corporate-prosecution-registry.com/>, contains more than 2,500 documents related to corporate plea agreements, many of them previously hard to find or once shielded from the public eye. (<https://www.law.virginia.edu/news/201706/%E2%80%98go-resource%E2%80%99-researching-corporate-prosecution-just-got-more-powerful>). [↑](#footnote-ref-22)
21. הפניה למקור הביטוי [↑](#footnote-ref-23)
22. [↑](#footnote-ref-24)
23. [↑](#footnote-ref-25)
24. [↑](#footnote-ref-26)
25. See also Gideon Parchomovsky & Zohar Goshen, *The Essential Role of Securities Regulation,* 55 Duke L. J. 711, (2006) (arguing that in order to attain the objective of appropriate pricing, one does not have to protect all investors, but serve the interest of key investors who are “information traders”). [↑](#footnote-ref-27)
26. *See, e.g.,* Ronald Gilson & Reinier R. Kraakman, *The Mechanism of Market Efficiency*, 70 Va. L. Rev. 549 (1984). Public markets have an additional function – supplying liquidity, but this, too, is based on the prerequisite of accurate pricing. [↑](#footnote-ref-28)
27. Wallace N. Davidson et al., *Stock Market Reaction to Announced Corporate Illegalities*, J. Bus. Ethics 979 (1994); Wallace N. Davidson & Dan L. Worrell, *The Impact of Announcement of Corporate Illegalities on Shareholder Returns*, 31 Ac. Mgmt. J. 195 (1988) [↑](#footnote-ref-29)
28. Jonathan M. Karpoff & Jonh R. Lott Jr., *The Reputational Penalty Firms Bear from Committing Criminal Fraud*, 36 J. L. & Econ. 757 (1993) [↑](#footnote-ref-30)
29. Jonathan M. Karpoff et al., *The Reputational Penalties for Environmental Violations: Empirical Evidence*, 48 J. L. & Econ. 653, 654 (2005). [↑](#footnote-ref-31)
30. D. L. Murphy et al., *Understanding the Penalties Associated with Corporate Misconduct: An Empirical Examination of Earnings and Risk*, 44 J. Fin. & Quan. Anal. 55 (2009). [↑](#footnote-ref-32)
31. John Armour et al., *Regulatory Sanctions and Reputational Damage in Financial Markets*, J. Fin. & Quan. Anal. 1430 (2017). [↑](#footnote-ref-33)
32. Id. at 1431. [↑](#footnote-ref-34)
33. Cindy R. Alexander & Mark A. Cohen, *The Evolution of Corporate Criminal Settlements: An Empirical Perspective on Non-Prosecution, Deferred Prosecution and Plea Agreements*, 52 Am. Crim. L. Rev. 533, 543 (2015) (noting that 95% of criminal sanctions were imposed through settlements). The numbers have not changed much since their study. According to the U.S. Sentencing Commission, in 202x,**what year**? 91.8% of sanctions were imposed following settlements. *See*

    U.S. Sentencing Commission, *2022 Annual Report and Sourcebook of Federal Sentencing Statistics*, https://www.ussc.gov/sites/default/files/pdf/research-and-publications/annual-reports-and-sourcebooks/2022/2022-Annual-Report-and-Sourcebook.pdf [↑](#footnote-ref-35)
34. [↑](#footnote-ref-36)
35. [↑](#footnote-ref-37)
36. [↑](#footnote-ref-38)
37. [↑](#footnote-ref-39)
38. [↑](#footnote-ref-40)
39. Id. (The total number of companies with fines over $100 million is much higher than those included in our study, which is limited to companies traded on U.S. stock markets whose reports are available for examination. Many heavy fines have either been levied on private U.S. companies or have been levied by regulatory authorities outside the United States on foreign companies whose securities were not traded in the United States.). [↑](#footnote-ref-41)
40. *See, e.g.,* [*https://www.sec.gov/litigation/admin/2021/33-10967.pdf*](https://www.sec.gov/litigation/admin/2021/33-10967.pdf)(“Section 13(a) of the Exchange Act requires issuers to file such periodic and other reports as the Commission may prescribe and in conformity with such rules as the Commission may promulgate. Exchange Act Rules 13a-1, 13a-11, and 13a-13 require issuers with securities registered under Section 12 of the Exchange Act to file annual, current, and quarterly reports, respectively. The obligation to file such reports embodies the requirement that they be true and correct. See, e.g., SEC v. Savoy Indus., Inc., 587 F.2d 1149, 1165 (D.C. Cir. 1978), cert. denied, 440 U.S. 913 (1979). In addition to the information expressly required to be included in such reports, Rule 12b-20 of the Exchange Act requires issuers to add such further material information, if any, as may be necessary to make the required statements, in the light of the circumstances under which they are made, not misleading. A violation of these reporting provisions does not require scienter. See SEC v. Wills, 472 F. Supp. 1250, 1268 (D.D.C. 1978). 46. Section 13(b)(2)(A) of the Exchange Act requires Section 12 registrants to make and keep books, records, and accounts that accurately and fairly reflect the transactions and dispositions of their assets. Section 13(b)(2)(B) of the Exchange Act requires all reporting companies, among other things, to devise and maintain a system of internal accounting controls sufficient to provide reasonable assurances that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP. Scienter is not an element of the books-and-records and internal accounting controls provisions. See Ponce v. SEC, 345 F.3d 722, 737 n.10 (9th Cir. 2003) (noting that a “plain reading of Section 13(b) reveals that it also does not 11 WHY IS THE NO. 11 HERE? impose a scienter requirement.”). Also, Exchange Act Rule 13a-15(a) requires issuers to maintain internal control over financial reporting. 47. Rule 13b2-1 prohibits any person from directly or indirectly falsifying or causing to be falsified, any book, record, or account subject to Section 13(b)(2)(A).”) [↑](#footnote-ref-42)
41. ASC 450-20-20 [↑](#footnote-ref-43)
42. *See, e.g.,* PwC*, 23.4 Contingencies Publication,* Pwc.com(30 Apr., 2022)[*https://viewpoint.pwc.com/dt/us/en/pwc/accounting\_guides/financial\_statement\_/financial\_statement\_\_\_18\_US/chapter\_23\_commitmen\_US/234\_contingencies\_US.html*](https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/financial_statement_/financial_statement___18_US/chapter_23_commitmen_US/234_contingencies_US.html) [↑](#footnote-ref-44)
43. ASC 450-20-05-3; *see also Y. Accounting and Disclosures Relating to Loss Contingencies,* Sec.gov(“the staff believes that product and environmental remediation liabilities typically are of such significance that detailed disclosures regarding the judgments and assumptions underlying the recognition and measurement of the liabilities are necessary to prevent the financial statements from being misleading and to inform readers fully regarding the range of reasonably possible outcomes that could have a material effect on the registrant’s financial condition, results of operations, or liquidity.”) <https://www.sec.gov/oca/sab-code-t5#Y> [↑](#footnote-ref-45)
44. הפניה למכתב אכיפה אם יש [↑](#footnote-ref-46)
45. ASC 450-20-50-4(b) [↑](#footnote-ref-47)
46. See ASC 450-20-50-1 (FASB recommends that reporting entities use terms such as “estimated liability” or “a liability of an estimated amount” in describing the nature of the accrual. The term “reserve” should not be used); 450-20-05-8 (“Accrual of a loss related to a [contingency](https://asc.fasb.org/1943274/1793651/fasb-asc-publication/contingency" \o "An existing condition, situation, or set of circumstances involving uncertainty as to possible gain (gain contingency) or loss (loss contingency) to an entity that will ultimately be resolved when one or more future events occur or fail to occur.) does not create or set aside funds to lessen the possible financial impact of a loss. Confusion exists between accounting accruals (sometimes referred to as accounting reserves) and the reserving or setting aside of specific assets to be used for a particular purpose or contingency. Accounting accruals are simply a method of allocating costs among accounting periods and have no effect on an entity’s cash flow.”) [↑](#footnote-ref-48)
47. PwC*, 23.4 Contingencies Publication,* Pwc.com(30 Apr., 2022)[*https://viewpoint.pwc.com/dt/us/en/pwc/accounting\_guides/financial\_statement\_/financial\_statement\_\_\_18\_US/chapter\_23\_commitmen\_US/234\_contingencies\_US.html*](https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/financial_statement_/financial_statement___18_US/chapter_23_commitmen_US/234_contingencies_US.html) [↑](#footnote-ref-49)
48. PwC*, 23.4 Contingencies Publication,* Pwc.com(30 Apr., 2022)[*https://viewpoint.pwc.com/dt/us/en/pwc/accounting\_guides/financial\_statement\_/financial\_statement\_\_\_18\_US/chapter\_23\_commitmen\_US/234\_contingencies\_US.html*](https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/financial_statement_/financial_statement___18_US/chapter_23_commitmen_US/234_contingencies_US.html) [↑](#footnote-ref-50)
49. “Materiality” refers to the importance or significance of information in influencing the decisions of users of financial statements. In general, companies are required to disclose information about a contingency (and other matters) only if the information is material. XXX [↑](#footnote-ref-51)
50. *See* PwC*, 23.4 Contingencies Publication,* Pwc.com(30 Apr., 2022)[*https://viewpoint.pwc.com/dt/us/en/pwc/accounting\_guides/financial\_statement\_/financial\_statement\_\_\_18\_US/chapter\_23\_commitmen\_US/234\_contingencies\_US.html*](https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/financial_statement_/financial_statement___18_US/chapter_23_commitmen_US/234_contingencies_US.html)*,* At 23.4.1.1 [↑](#footnote-ref-52)
51. ASC 450-20-20 [↑](#footnote-ref-53)
52. PwC*, 23.4 Contingencies Publication,* Pwc.com(30 Apr., 2022) [↑](#footnote-ref-54)
53. *Supra* note 12. [↑](#footnote-ref-55)
54. 450-20-50-1 (“Disclosure of the nature of an accrual made pursuant to the provisions of paragraph 450-20-25-2, and in some circumstances the amount accrued, may be necessary for the financial statements not to be misleading.”) [↑](#footnote-ref-56)
55. 450-20-25-2(b) [↑](#footnote-ref-57)
56. 450-20-25-5 [↑](#footnote-ref-58)
57. ASC 450-20-30-1 [↑](#footnote-ref-59)
58. ASC 450-20-30-1 (“Even though the minimum amount in the range is not necessarily the amount of loss that will be ultimately determined, it is not likely that the ultimate loss will be less than the minimum amount.”) [↑](#footnote-ref-60)
59. ASC 450-20-50-5, [↑](#footnote-ref-61)
60. *See* PwC*, 23.4 Contingencies Publication,* Pwc.com(30 Apr., 2022)[*https://viewpoint.pwc.com/dt/us/en/pwc/accounting\_guides/financial\_statement\_/financial\_statement\_\_\_18\_US/chapter\_23\_commitmen\_US/234\_contingencies\_US.html*](https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/financial_statement_/financial_statement___18_US/chapter_23_commitmen_US/234_contingencies_US.html)*,* At 23.4.1.2 [↑](#footnote-ref-62)
61. 450-20-50-3 & 450-20-50-4 [↑](#footnote-ref-63)
62. *See* PwC*, 23.4 Contingencies Publication,* Pwc.com(30 Apr., 2022)[*https://viewpoint.pwc.com/dt/us/en/pwc/accounting\_guides/financial\_statement\_/financial\_statement\_\_\_18\_US/chapter\_23\_commitmen\_US/234\_contingencies\_US.html*](https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/financial_statement_/financial_statement___18_US/chapter_23_commitmen_US/234_contingencies_US.html)*,* At 23.4.1.2 [↑](#footnote-ref-64)
63. ASC 450-20-50-1 (“Disclosure of the nature of an accrual made pursuant to the provisions of paragraph 450-20-25-2, and in some circumstances the amount accrued, may be necessary for the financial statements not to be misleading. Terminology used shall be descriptive of the nature of the accrual, such as estimated liability or liability of an estimated amount.”) [↑](#footnote-ref-65)
64. *See* ASC 450-20-50-6 (“disclosure is not required of a loss contingency involving an unasserted claim or assessment if there has been no manifestation by a potential claimant of an awareness of a possible claim or assessment unless both of the following conditions are met: a. It is considered probable that a claim will be asserted. b. There is a reasonable possibility that the outcome will be unfavorable.”); *See* PwC*, 23.4 Contingencies Publication,* Pwc.com(30 Apr., 2022)[*https://viewpoint.pwc.com/dt/us/en/pwc/accounting\_guides/financial\_statement\_/financial\_statement\_\_\_18\_US/chapter\_23\_commitmen\_US/234\_contingencies\_US.html*](https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/financial_statement_/financial_statement___18_US/chapter_23_commitmen_US/234_contingencies_US.html)*,* At 23.4.1.3 [↑](#footnote-ref-66)
65. *See* PwC*, 23.4 Contingencies Publication,* Pwc.com(30 Apr., 2022)[*https://viewpoint.pwc.com/dt/us/en/pwc/accounting\_guides/financial\_statement\_/financial\_statement\_\_\_18\_US/chapter\_23\_commitmen\_US/234\_contingencies\_US.html*](https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/financial_statement_/financial_statement___18_US/chapter_23_commitmen_US/234_contingencies_US.html)*,* At 23.4.1.3 [↑](#footnote-ref-67)
66. *See, e.g.,* Tory Newmyer, “Bank of America to pay $250M in refunds, fines over customer practices,” *The Washington Post,* (July 11, 2023)(reporting Bank of America will pay more than $250 million in refunds and fines after the company systematically overcharged customers, withheld promised bonuses and opened accounts without customer approval.) <https://www.washingtonpost.com/business/2023/07/11/bank-of-america-settlement/> [↑](#footnote-ref-68)
67. ASC 450-20-20 [↑](#footnote-ref-69)
68. *Supra* note {450-20-50-1 (“Disclosure of the nature of an accrual made pursuant to the provisions of paragraph 450-20-25-2, and in some circumstances the amount accrued, may be necessary for the financial statements not to be misleading.”) [↑](#footnote-ref-70)
69. *Supra* note 12. [↑](#footnote-ref-71)
70. PWC Viewpoint, *Contingencies* (30 Nov. 2021), <https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/financial_statement_/financial_statement___18_US/chapter_23_commitmen_US/234_contingencies_US.html>. For example, the S.E.C. charged Healthcare Services Group for failing to accurately report loss contingencies related to litigation settlements for which there was mounting evidence that the liability was probably and reasonably estimable, imposing a $6 million fine on the company for failing to report. *See* U.S. Securities and Exchange Commission, *SEC Charges Healthcare Services Company and CFO for Failing to Accurately Report Loss Contingencies as part of Continuing EPS Initiative* (Aug. 24 2021), https://www.sec.gov/news/press-release/2021-162. [↑](#footnote-ref-72)
71. [↑](#footnote-ref-73)
72. Jessica Everett-Gracia, *Top 10 Issues to Consider When You are Sued: Issue #8: Disclosing Litigation and Reserving for Litigation Losses*, Perkins Coie (April 11, 2007), https://www.jdsupra.com/post/contentViewerEmbed.aspx?fid=9fb16a5c-8bde-444a-9e36-065e83fc388e. [↑](#footnote-ref-74)
73. Id. [↑](#footnote-ref-75)
74. Muktita Suhartono & Austin Ramzy, *Indonesian Report on Lion Air Crash Finds Numerous Problems*, NY Times, Oct. 25, 2019, https://www.nytimes.com/2019/10/25/world/asia/lion-air-crash-report.html. [↑](#footnote-ref-76)
75. Natalie Kitroeff et al., *Ethiopian Crash Report Indicates Pilots Followed Boeing’s Emergency Procedures*, NY Times, April 4, 2019, https://www.nytimes.com/2019/04/04/business/boeing-737-ethiopian-airlines.html. [↑](#footnote-ref-77)
76. U.S. Department of Justice, *Boeing Charged with 737 Max Fraud Conspiracy and Agrees to Pay Over $2.5 Billion*, Jan. 7 2021. <https://www.justice.gov/opa/pr/boeing-charged-737-max-fraud-conspiracy-and-agrees-pay-over-25-billion> (“misleading statements, half-truths, and omissions communicated by Boeing employees to the FAA impeded the government’s ability to ensure the safety of the flying public”). [↑](#footnote-ref-78)
77. *See supra* note 87 [↑](#footnote-ref-79)
78. *See supra* notes 86-90 and accompanying text. [↑](#footnote-ref-80)
79. [↑](#footnote-ref-81)
80. [↑](#footnote-ref-82)
81. *See infra* part IV.3. [↑](#footnote-ref-83)
82. PWC—Contingencies Publication, *supra*, note 40 [↑](#footnote-ref-84)
83. *Id.* [↑](#footnote-ref-85)
84. *Supra* note 28. [↑](#footnote-ref-86)
85. Deutsche Bank received two fines, one in 2010 and another in 2015. Lloyds also received two fines, one in 2009 and the other in 2014, as did Credit Suisse, in 2009 and 2014. [↑](#footnote-ref-87)
86. There are two reasons for focusing on fines imposed on companies in the context of a criminal prosecution. First, there is a comprehensive database available for these fines. Second, the actual imposition of the fine bolsters the assumption that the fine was probable, or reasonably probable. The evidentiary requirements for undertaking criminal prosecutions (INVESTIGATIONS?) are much higher therefore they are undertaken only when there are strong evidentiary grounds. It is much rarer for a regulatory criminal prosecution to result in no consequences than that of ordinary administrative investigations. *See supra* note 84. [↑](#footnote-ref-88)
87. Id. A total of 164 companies, including companies whose shares are traded on non-U.S. exchanges, had fines of over $100 million imposed on them. [↑](#footnote-ref-89)
88. The “Years Involved” represents the range of years from the earliest to the latest fine year in the dataset. The “Mean Final Fine” is calculated to consider all cases in the study. The “Standard Deviation” measures of the variability or dispersion of the final fines from the mean. [↑](#footnote-ref-90)
89. *Supra* note *{*450-20-50-1 (“Disclosure of the nature of an accrual made pursuant to the provisions of paragraph 450-20-25-2, and in some circumstances the amount accrued, may be necessary for the financial statements not to be misleading.”)} [↑](#footnote-ref-92)
90. *See* PwC*, 23.4 Contingencies Publication,* Pwc.com(30 Apr., 2022)[*https://viewpoint.pwc.com/dt/us/en/pwc/accounting\_guides/financial\_statement\_/financial\_statement\_\_\_18\_US/chapter\_23\_commitmen\_US/234\_contingencies\_US.html*](https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/financial_statement_/financial_statement___18_US/chapter_23_commitmen_US/234_contingencies_US.html)*,* At 23.4.1.2 (“The SEC staff also cautions reporting entities that the recording of a material accrual for a contingent liability should typically not be the first disclosure regarding the material contingency. A foreshadowing disclosure that precedes an accrual for a material contingent liability is typically expected.”) [↑](#footnote-ref-93)
91. In our analysis, we treat these cases as a disclosure of an expected outcome of zero expense due to the criminal procedures the company faces. [↑](#footnote-ref-94)
92. The company filed its 2019 K-10 on January 31, 2020, *see*  [↑](#footnote-ref-95)
93. <https://www.justice.gov/opa/pr/boeing-charged-737-max-fraud-conspiracy-and-agrees-pay-over-25-billion> (January 7, 2021) [↑](#footnote-ref-96)
94. <https://www.sec.gov/Archives/edgar/data/12927/000001292720000014/a201912dec3110k.htm> page 111 [↑](#footnote-ref-97)
95. Regarding additional limitations that bar private securities litigation see Coffee and Shapira &Eckstein *supra* note XXX(183). [↑](#footnote-ref-98)
96. We use a one tailed t-test to test the difference between average assessment and the average fine (mean(diff) > 0).

    The t-test helps determine if the observed difference is likely due to chance or if it represents a true difference between the assessments disclosed and the actual fines. A significant result suggests that the average assessment and average fine are unlikely to have occurred by random chance alone, indicating a meaningful distinction between the assessment disclosed and the actual fine. [↑](#footnote-ref-99)
97. [↑](#footnote-ref-100)
98. [↑](#footnote-ref-101)
99. [↑](#footnote-ref-102)
100. *See supra*, notes 1-2 [↑](#footnote-ref-103)
101. *See supra* note [↑](#footnote-ref-104)
102. [↑](#footnote-ref-105)
103. [↑](#footnote-ref-106)
104. These analysts do not need the company’s assessment, as they are able to assess the expected fine based on the information provided by the federal agency publicly investigating the company and by making analogies to similar cases. [↑](#footnote-ref-107)
105. For an analysis of the methodology of share price event studies, see Sanjai Bhagat & Roberta Romano, *Event Studies and the Law: Part I: Technique and Corporate Litigation*, 4 Am. L. & Econ. Rev. 141 (2002) [↑](#footnote-ref-108)
106. *Id*. at 143. [↑](#footnote-ref-109)
107. *Id*. [↑](#footnote-ref-110)
108. *Id*. at 144-45. Bhagat and Romano hold the view that cases in which there is an indication of leakage (for example, a Google search that reveals that the event was discussed before the time window in which it actually occurred) cannot be examined through an even study methodology and should be discarded from the data. [↑](#footnote-ref-111)
109. For example, in the case of Volkswagen’s sanction agreement of $14 billion that was signed on June 27 and announced on June 28. *See* FTC v. Volkswagen Group of America, Inc., No. 3:16-cv-1534 (N.D. Cal), Partial Stipulated Order for Permanent Injunction and Monetary Judgement, June 27 2016, <https://www.ftc.gov/system/files?file=documents/cases/proposed_partial_stipulated_order_filed_copy_0.pdf> (the signed agreement regarding the fine), *see also* Federal Trade Commission, Press Release: Volkswagen to Spend up to $14.7 Billion to Settle Allegations of Cheating Emission Tests an Deceiving Customers on 2.0. Liter Diesel Vehicles, June 28, 2016, <https://www.ftc.gov/news-events/news/press-releases/2016/06/volkswagen-spend-147-billion-settle-allegations-cheating-emissions-tests-deceiving-customers-20>. Yet one week before the press release of the FTC (and DOJ), information was published regarding Volkswagen’s agreement to pay over $10 billion, *see* Matthew DeBord and Reuters, “VW has struck a deal over its emissions-cheating scandal, and it could cost over $10 billion,” Business Insider, April 21, 2016, https://www.businessinsider.com/volkswagen-dieselgate-deal-2016-4. [↑](#footnote-ref-112)
110. ישראל [↑](#footnote-ref-113)
111. U.S. Department of Justice, *Press Release: Boeing Charged with 737 Max Fraud Conspiracy and Agrees to Pay over $2.5 Billion*, January 7, 2021, https://www.justice.gov/opa/pr/boeing-charged-737-max-fraud-conspiracy-and-agrees-pay-over-25-billion [↑](#footnote-ref-114)
112. Boeing Inc., *Quarterly Report on from 10-Q*, Q3 2021, 25, https://www.sec.gov/ix?doc=/Archives/edgar/data/12927/000001292720000076/ba-20200930.htm. [↑](#footnote-ref-115)
113. Yahoo Finance, *The Boeing Company – historical data*, https://finance.yahoo.com/quote/%5EGSPC/history?period1=1609804800&period2=1611014400&interval=1d&filter=history&frequency=1d&includeAdjustedClose=true [↑](#footnote-ref-116)
114. Yahoo Finance, *SP 500 – historical data,* https://finance.yahoo.com/quote/%5EGSPC/history?period1=1609804800&period2=1611014400&interval=1d&filter=history&frequency=1d&includeAdjustedClose=true [↑](#footnote-ref-117)
115. The word “may” should be emphasized here. This is anecdotal data only, and there may be various factors that caused such drop in Boeing’s share price. Only by examining a large set of companies with underreporting can a statistically significant relationship be demonstrated between underreporting and a drop in the share price. However, it is possible that no conclusions can be drawn from such an examination. [↑](#footnote-ref-118)
116. U.S. Department of Justice, *Press Release*: *Deutsche bank’s London Subsidiary Agrees to Plead Guilty in Connection with Long-Running Manipulation of LIBOR,* April 23, 2015, <https://www.justice.gov/opa/pr/deutsche-banks-london-subsidiary-agrees-plead-guilty-connection-long-running-manipulation> (the direct fine imposed by the DOJ was $775 million but the agreement included $344 million to the U.K. Financial Conduct Authority, $800 to the U.S. Commodity Futures Trading Commission and $600 million to the New York Department of Financial Services). [↑](#footnote-ref-119)
117. Deutsche Bank Aktiengesellschaft, *Form F-20*, 2014, 24 https://www.sec.gov/Archives/edgar/data/1159508/000119312515099988/d889901d20f.htm#tx889901\_58 (which is the last report of the company before the imposition of the fine—the first quarter’s earnings were reported after the imposition of the fine). [↑](#footnote-ref-120)
118. Yahoo Finance, *Deutsche bank Aktiengesellschaft – historical data*, <https://finance.yahoo.com/quote/DB/history?period1=1428883200&period2=1429315200&interval=1d&filter=history&frequency=1d&includeAdjustedClose=true>. (a day later, there was an additional drop of 2.8%, for a total decline of 5.5% in the two-day window after the announcement. [↑](#footnote-ref-121)
119. Yahoo Finance, *S&P 500 – historical data*, <https://finance.yahoo.com/quote/%5EGSPC/history?period1=1428969600&period2=1429401600&interval=1d&filter=history&frequency=1d&includeAdjustedClose=true> (the S&P 500 declined by a mere 0.08% on the same day). [↑](#footnote-ref-122)
120. [↑](#footnote-ref-123)
121. Federal Trade Commission, *FTC Imposes $5 Billion Penalty and Sweeping New Privacy Restrictions on Facebook*, July 24, 2019, https://www.ftc.gov/news-events/news/press-releases/2019/07/ftc-imposes-5-billion-penalty-sweeping-new-privacy-restrictions-facebook. [↑](#footnote-ref-124)
122. Facebook Inc, Form 10-Q., Q1 2019, 21, https://www.sec.gov/Archives/edgar/data/1326801/000132680119000037/fb-03312019x10q.htm#s7F37F25A974F5CF28CE46BFED89B499C. [↑](#footnote-ref-125)
123. Yahoo Finance, *Meta Platforms, Inc. – historical data*, https://finance.yahoo.com/quote/META/history?period1=1563753600&period2=1564185600&interval=1d&filter=history&frequency=1d&includeAdjustedClose=true. [↑](#footnote-ref-126)
124. Yahoo Finance, *S&P 500 – historical data*, <https://finance.yahoo.com/quote/%5EGSPC/history?period1=1428969600&period2=1429401600&interval=1d&filter=history&frequency=1d&includeAdjustedClose=true>. (the drop in Facebook exceeded significantly the decline in the market by 1.4 %). [↑](#footnote-ref-127)
125. Boris Groysberg et al., *Compensation Packages that Actually Drive Performance*, Harv. Bus. Rev., Jan.-Feb. 2021, <https://hbr.org/2021/01/compensation-packages-that-acrtually-drive-performance?registration=success>. [↑](#footnote-ref-128)
126. *Id*. (noting that the percentage of equity compensation is 63% in large cap companies and 48% in small-cap companies. Of the 250 companies in the S&P 500, 83% use a formulaic annual incentive plan, in which the most common metrics are profits (used by 91%) and revenues (used by 49%). [↑](#footnote-ref-129)
127. Keith J. Crocker & Joel Slemrod, *The Economics of Earnings Manipualtion and Managerial Compensation*, 38 Rand J. Econ. 698, 699-670 (surveying the various mechanisms through which managers manage earnings to maximize their pay). [↑](#footnote-ref-130)
128. The efficient market hypothesis is that share prices reflect all information, both public and private, relevant to the valuation of the company. For survey and evidence of scholars that have rejected the efficient market hypothesis, *see* Alexandra Gabriela Titan, 32 Procedia Econ. & Fin. 442, 443-44 (2015). [↑](#footnote-ref-131)
129. An additional scenario in which managers may prefer postponing disclosure and recognition to 2023 is one in which managers expect 2023’s earnings to be much below the earnings threshold and therefore they would in any event not receive the bonus. [↑](#footnote-ref-132)
130. Dorothy S. Lund & Natasha Sarin, *Corporate Crime and Punishment: An Empirical Study*, 100 Tex. L. Rev. 285, 289-290 (2021) (finding an increase in the Suspicious Activity Report of leading enforcement agencies in consumer complaints made to the Consumer Financial Protection Bureau and of whistleblower complaints made to the SEC between 2015–2019, all indicating an increase in corporate wrongdoing); Samuel W. Buell, The Responsibility Gap in Corporate Crime, 12 Crim L. & Phi. 471, 475 (2018) (argues that the utilization of criminal law to deter corporate wrongdoing compromises the principles of wrongdoing). [↑](#footnote-ref-133)
131. See Jed Rackoff (Senior Judge of the U.S. District Court for the Southern District of New York), *The Financial Crisis: Why Have No High-Level Executives Been Prosecuted?*, N.Y. Rev. Books, Jan. 9, 2014 at 4,4, <https://www.nybooks.com/articles/2014/01/09/financial-crisis-why-no-executive-prosecutions/#:~:text=The%20reasons%20were%20obvious.,shareholders%20who%20were%20totally%20innocent>.; Brandon L. Garrett, *The Rise of Bank Prosecutions*, 126 Yale L. J. F.22 (2016) (summarizing how federal judges asked why so few prosecutions were brought against large financial institutions) [↑](#footnote-ref-134)
132. Jesse Eisinger, The Chikenshit Club: Why the Justice Department Fails to Prosecute Executives, at xnii (2017) (noting that the Justice Department has lost its will to prosecute top-executive corporate wrongdoers for various reasons). [↑](#footnote-ref-135)
133. Jennifer Arlen, *Corporate Criminal Liability: Theory and Evidence*, in Research Handbook on the Economics of Criminal Law, 144, 170-71 (Alon Harel & Keith N. Hylton eds., 2012) (arguing that corporate liability alone will not deter crime by employees); Barndon Garrett, The Corporate Criminal as Scapegoat, 101 Va. L. Rev. 1789, 1791 [↑](#footnote-ref-136)
134. Jennifer Arlen & Reinier Kraakman, *Controlling Corporate Misconduct: An Analysis of Corporae Liability Regimes*, 72 N.Y.U.L. Rev. 687, 700 (arguing that even though shareholder bear the price of the fine, they do not have the tools to make executives fully accountable for their wrongdoing that generated the loss). [↑](#footnote-ref-137)
135. The first to introduce celerity as one of the parameters of deterrence was Cesare Beccaria, On Crime and Punishment (1986) XiX. [↑](#footnote-ref-138)
136. *Id.* The connection between celerity and deterrence was based on the Enlightenment psychology of associationists such as John Locke, David Hume and David Hartley. Associationism assert that temporal proximity established the psychological notion of a causal relationship between two events (*id)*. [↑](#footnote-ref-139)
137. George Loewenstein & Richard H. Thaler, *Anomalies: Intemporal Choice*, J. Econ. Perspectives, Fall 1989, 181, 182-3; [↑](#footnote-ref-140)
138. It should be noted that even without hyperbolic discounting, a sanction in the present is ‘costlier’ than a sanction in the future, due to the more conventional discounted utility model of Paul Samuelson that discounts utility or disutility in the future. Hyperbolic discount theory that changes the discount rate for events that are temporally close exacerbates this effect. See Paul Samuelson, *A Note of Measurement of Utility*, 4 Rev. Econ. Stud. 155 (1937). For an example of how conventional economic exponential discounting could justify a company’s wrongdoing, *see* Roy Shapira & Luigi Zingales*, Is Pollution Value-Maximizing? The Dupont Case,* NBER working paper no. 23866, Sep. 2017, 2-3 <https://www.nber.org/papers/w23866> (demonstrating that from a cost-benefit perspective, the decision to use the hazardous C8 for manufacturing Teflon was profitable even given the size of the sanction that was eventually imposed, due to the low value of the sanction imposed in 2017 when discounted to dollar value in 1984 when Dupont started the manufacturing process).Regarding the contrast between hyperbolic discounting and the conventional economic exponential discounting, *see* Christine Jolls, Cass Sunstein & Richard Thaler, *A Behavioral Approach to Law & Economics*, 50 Stan. L. Rev. 1471, 1539-40 (1998). [↑](#footnote-ref-141)
139. Jarome S. Legge & Joonghoon Park, *Policies to Reduce Alcohol-Impaired Driving: Evaluating Elements of Deterrence*, 75 Soc. Sci. Q. 594 (1994). While some studies have raised doubts regarding the actual effectiveness of celerity on deterrence, their findings on the opposite effect of celerity were found only in the context of non-financial fines, *See* D. S. Nagin & G. Pogarsky, *Time and Punishment: Delayed Consequences and Criminal Behavior*, 20 J. Quantitative Criminology, 294 (2004) (found higher discounting to be associated with property crimes (shoplifting, car theft and burglary) but not violent crimes (threats, public disturbances, and gang fights); C. R. Harris, *Feelings of Dread and Intertemporal Choice,* 25 J. Behavioral Decision Making 13 (2012) Chae M. Jaynes & Theodore Wilson, *Dreading Delayed Punishment: Reconceptualizing Sanction Celerity*, 45 J. Crime & Justice 285, 299 (2022) (finding a statistically significant preference for immediate sanctions only with non-financial sanctions, such as probation or community service). The phenomenon of a possible preference for immediate sanction in some cases was first found by George Loewenstein, *Anticipation and the Value of Delayed Consumption*, 97 Econ. J. 666 (1987). The central explanation for such finding is the concept of dread—with some sanctions, especially physical sanctions, the individual incurs disutility from the waiting for the sanction because of the feeling of dread, and thus prefers just “to get over with it.” See Jaynes& Wilson, *id* at 287. [↑](#footnote-ref-142)
140. Manuel A. Utset, *Corporate Actors Corporate Crimes and Time-Inconsistent Preferences*, 1 Va. J. Crim. L. 265, 320-24 (2013) (Claiming that dealing with the timing inconsistency and the disproportionate impact of immediate fines was one of the central objectives of both Sarbanes-Oxley and Dodd-Frank). [↑](#footnote-ref-143)
141. Rebecca Hollander-Blumoff, *Crime, Punishment and the Psychology of Self-Control*, 61 Emory L. J. 501, 529-33 (2012) [↑](#footnote-ref-144)
142. Miriam Baer, *Confronting the Two Faces of Corporate Fraud,* 66 Fla. L. Rev. 87, 110-112 (2014). [↑](#footnote-ref-145)
143. Regarding the efficacy of speed bumps in curtailing wrongdoing and how the idea behind speed bumps should be extended to other legal areas, *see: Leandra Lederman, Statutory Speed Bumps: The Role of Third Parties Play in Tax Compliance, 60* Stan*.* L. Rev. 695, 696 (2007). [↑](#footnote-ref-146)
144. License suspensions, which have also been proven to be an effective sanction in curtailing wrongdoing, also inhibit the same behavior, and their efficacy compared to years in prison for drunk driving may also be explained by their ‘symbolic’ significance—the fact that the driver has to think of practical matters, such as how to get home if his or her license is suspended, and render the negative impact of the wrongdoing into something concrete. [↑](#footnote-ref-147)
145. [↑](#footnote-ref-148)
146. *See* PwC*, 23.4 Contingencies Publication,* Pwc.com(30 Apr., 2022)[*https://viewpoint.pwc.com/dt/us/en/pwc/accounting\_guides/financial\_statement\_/financial\_statement\_\_\_18\_US/chapter\_23\_commitmen\_US/234\_contingencies\_US.html*](https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/financial_statement_/financial_statement___18_US/chapter_23_commitmen_US/234_contingencies_US.html)*,* At 23.4.1.2 [↑](#footnote-ref-149)
147. Even among the rest of the companies that have provided a specific estimation, four them did not seem to provide an actual estimation but the actual decision of the agency which was conveyed to the company, as their estimation was provided in the year before the announcement of the fine and the estimation was identical to the actual fine. Therefore, there are strong indications that in only six out of the 51 cases in the sample, there was a specific estimation of the federal agency’s fine. [↑](#footnote-ref-150)
148. See *In re Health Care Group*, *supra* note 63; *In re RPM*, *supra* note 85. [↑](#footnote-ref-151)
149. [↑](#footnote-ref-152)
150. Gap in the gap [↑](#footnote-ref-153)
151. *See*  [↑](#footnote-ref-154)
152. *See* [↑](#footnote-ref-155)
153. *See* Michael Y. Scudder & Andrew J. Fuchs, *Securities Litigation—Accounting for Litigation Contingencies*, Skadden Arps Insights, January 2017, https://www.skadden.com/-/media/files/publications/2017/01/accounting\_for\_litigation\_contingencies.pdf [↑](#footnote-ref-156)
154. S.E.C. v. RPM, supra note 85 [↑](#footnote-ref-157)
155. [↑](#footnote-ref-158)
156. <https://www.womblebonddickinson.com/us/insights/articles-and-briefings/doj-signals-expanded-use-independent-monitors-corporate-criminal> [↑](#footnote-ref-159)
157. Brando Garett, *Structual Reform Prosecution*, 93 V. L. Rev. 853, 946 (2007). [↑](#footnote-ref-160)
158. [↑](#footnote-ref-161)
159. [↑](#footnote-ref-162)
160. <https://www.womblebonddickinson.com/us/insights/articles-and-briefings/doj-signals-expanded-use-independent-monitors-corporate-criminal> [↑](#footnote-ref-163)
161. [↑](#footnote-ref-164)
162. [↑](#footnote-ref-165)
163. [↑](#footnote-ref-166)
164. [↑](#footnote-ref-167)