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EARNINGS DISCLOSURES AND STOCKHOLDER LAWSUITS

WORKING PAPER #9601-13

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Earnings Disclosures and Stockholder Lawsuits*

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Abstract

This paper examines the relation between the timeliness of earnings disclosures and the expected costs of stockholder litigation. Like Francis, Philbrick and Schipper (1994a), I find that many lawsuits result from voluntary disclosures of adverse earnings news. However, I also document that: (1) earnings disclosures that lead to stockholder lawsuits are not timely, either in absolute terms or relative to otherwise similar disclosures that do not result in litigation; (2) less timely disclosures result in larger lawsuit settlements. Overall, the results clearly indicate that the least-cost strategy for managers with bad earnings news is to disclose that news early.

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1. Introduction

This paper provides evidence on the relation between earnings disclosures and stockholder litigation. Previous papers assert that managers can reduce stockholder litigation costs by voluntarily disclosing adverse earnings news “early,” i.e., before the mandated release date [Lev (1992), Skinner (1994)]. Consistent with this view, Skinner (1994) finds that managers use voluntary disclosures to preempt large, negative earnings surprises more than other earnings news. Nevertheless, early disclosure may not provide complete protection against stockholder litigation. For a sample of 45 lawsuits, Francis, Philbrick and Schipper (1994a) report 28 instances where managers are sued even though they disclose adverse earnings news before the mandatory earnings release date. In addition, Kasznik and Lev (1995) find that the total stock price reaction to earnings-related announcements for firms that make preemptive disclosures of bad earnings news is more negative than for firms that do not forewarn investors. Overall, extant evidence does not provide a clear picture of the relation between the timing of earnings disclosures and the cost of stockholder litigation.

This paper extends previous research in two ways. First, I provide evidence on the timing of voluntary disclosures that lead to stockholder litigation. I examine disclosure timeliness both in absolute terms and relative to a “benchmark” sample of otherwise similar disclosures that do not lead to litigation. This evidence explains why apparently early disclosures result in stockholder lawsuits. Second, I provide evidence on the relation between the timing of earnings disclosures and the *consequences* of stockholder litigation. Previous research on lawsuit *filings* does not provide evidence on the relation between managers’ disclosure choices and litigation outcomes.

Like Francis, Philbrick and Schipper, I find that a significant number of lawsuits result from voluntary earnings disclosures. Thus, voluntary disclosures of adverse earnings news do not preclude stockholder lawsuits. However, many of these “early” disclosures occur either late in the fiscal quarter or after the end of the fiscal quarter,

making it difficult for managers to argue that they disclosed bad news in a timely manner. Moreover, these disclosures occur *two to three weeks* later, on average, than otherwise similar disclosures that do not lead to litigation. Finally, some earnings disclosures associated with large stock price declines (averaging -24%) do not result in stockholder litigation. The difference between these disclosures and those that generate lawsuits appears to be timeliness: disclosures that lead to litigation occur, on average, seven trading days after those that do not. In sum, the evidence suggests that managers could reduce the likelihood of stockholder litigation by disclosing adverse earnings news in a more timely manner.

Additionally, I find substantial variation in the outcomes of stockholder lawsuits: about one-quarter of the cases in my sample are dismissed, while the remaining lawsuits are settled for varying amounts. More importantly, these litigation outcomes are related to disclosure timing -- the magnitude of lawsuit settlements is negatively related to the timeliness of managers' disclosures, with later disclosures resulting in more costly lawsuit outcomes. This suggests that, even if a lawsuit occurs, managers can reduce the cost of this litigation by making more timely disclosures of adverse earnings news.

Overall, the evidence suggests that the best strategy for managers with adverse earnings news is to disclose that news early. The next section provides legal background for the paper and discusses previous research. Section 3 provides details of the sample design. Section 4 presents the results. Section 5 presents concluding remarks.

2. Hypothesis Development and Previous Research

2.1 Hypothesis Development: The Relation Between Disclosure Timing and the Expected Legal Costs of Bad News Disclosures

This paper posits that the earlier bad news is revealed, the smaller the expected legal costs. This section outlines the legal rationale for this hypothesis.

Clause (2) of SEC Rule 10b-5 makes it unlawful for managers “to omit to state a material fact necessary in order to make the statements made, in light of the circumstances in which they were made, not misleading.” Based on the case law that has evolved around this part of the Rule, most legal scholars agree that the Rule does not impose a general disclosure obligation on managers. However, these scholars also agree that managers have an affirmative disclosure obligation when: (1) the SEC mandates disclosure (for example, for 10K and 10Q filings); (2) an insider or the corporation itself is trading in the corporation’s stock (the “disclose or abstain” rule); or (3) a previous disclosure becomes inaccurate, incomplete, or misleading.¹

Many earnings-related lawsuits allege that managers who fail to disclose adverse earnings news in a timely manner violate their obligations under (3) above. That is, if a firm’s earnings situation worsens from what one might have expected based on a previous release (e.g., the previous 10Q filing), then managers have a duty to disclose that change on a timely basis. One example is a 1989 case against Cray Research.² This suit sought to represent all stockholders who bought Cray stock between April 25, when the company announced first quarter earnings, and July 26, the day after sharply lower second quarter earnings were announced. The suit alleged that “Cray’s statements in its public filings, press releases and other statements disseminated to the investing public...were false and misleading *for failing to disclose the true facts concerning Cray*” (emphasis added). That

¹ See Block, Barton, and Garfield (1985), Hazen (1990, Section 13.10), Loss and Seligman (1989, Ch. 9B). The disclosure rules of the major stock exchanges are more stringent, expressly requiring companies to make timely disclosures of all material information.

² From United Press International, August 1, 1989.

is, even though the company had complied with its mandatory disclosure obligations, it had still violated Rule 10b-5 by failing to disclose the bad news about second quarter earnings in a timely manner.

That the law requires managers to disclose earnings news in a timely manner is supported by statements made by the SEC and by case law. The SEC has indicated that “there is a duty to correct statements made in any filing...if the statements either have become inaccurate by virtue of subsequent events, or are later discovered to have been false and misleading from the outset, and the issuer knows or should know that persons are continuing to rely on all or any material portion of the statements.” (Sec. Act Rel. 6084, 17 SEC Dock. 1048, 1054 (1979)). Furthermore, in a 1970 release, the SEC stated that a company “has an obligation to make full and prompt announcements of material facts regarding the company’s financial condition” and that “[n]ot only must material facts affecting the company’s operations be reported; *they must also be reported promptly*” (emphasis added, Sec. Exch. Act Rel. 8995 (1970)). Case law provides a similar view. For example, in *Financial Industrial Fund, Inc. v. McDonnell Douglas Corp.* the court indicated that “[i]t is...obvious that an *undue delay* not in good faith, in revealing facts, can be deceptive, misleading, or a device to defraud under Rule 10b-5.” (emphasis added, 474 F.2d 514 (10th Cir. 1973)).³

Thus, under the law, managers have a duty to keep investors apprised of current developments *in a timely way*. However, the law allows managers to delay disclosure if: (1) there is some valid business reason for doing so, or (2) the information is not “ripe” for disclosure. In *SEC v. Texas Gulf Sulphur* (401 F.2d 833 (2d Cir. 1968)), the company made a substantial mineral discovery, but did not immediately disclose the discovery because it was continuing to acquire properties in the vicinity of the discovery. The SEC sued the company, claiming a breach of Rule 10b-5. However, the court held in the

³ See also *Warner Communications Sec. Litig.* in which the court said “[e]ven in the absence of trading, Warner had a duty to correct prior statements *as they became inaccurate*” (emphasis added, 618 F. Supp. 735, 752 (S.D.N.Y. 1985)).

company's favor, saying that "Here, a valuable corporate purpose was served by delaying the publication of the [mining] discovery" (401 F. 2d. at 850 n. 12). Thus, as Loss and Seligman (1989) indicate, "[b]oth the Commission and the courts have recognized the propriety of *temporarily withholding* material information from the market when there are good business reasons, so long as neither the issuer nor insiders trade.." (emphasis in original, 1989, p. 3516).

Additionally, information that is not "ripe" is exempt from disclosure. For example, in the *Financial Industrial Fund* case, the court decided that "the information must be 'available and ripe for publication' before there commences a duty to disclose. To be ripe under this requirement, the contents must be verified sufficiently to permit the officers and directors to have full confidence in their accuracy" (474 F. 2d 514 (10th Cir. 1973), at 519).

In sum, although managers do not have a general duty to disclose material information, they do have a duty to "correct and update" previous disclosures if those disclosures become inaccurate, incomplete, or misleading. Thus, plaintiffs in earnings lawsuits can argue that managers should have disclosed adverse earnings news earlier than they actually did. Based on this, I predict that, *ceteris paribus*, managers' (and firms') liability for omitted disclosures is increasing in the length of time between when the manager becomes aware of adverse earnings news and when that information is disclosed. This relation should be evident in data on lawsuit settlements as long as settlements are affected by the strength of plaintiffs' claims. Thus, this study tests the joint hypothesis that: (1) the merits "matter" in determining the outcomes of securities-law class action lawsuits (so that settlement amounts are increasing in the strength of the plaintiffs' case);⁴ and (2) the strength of plaintiffs' arguments in omissions cases increases with the length of disclosure delays.

⁴ Whether the merits "matter" is controversial but unresolved in the law and economics literature. See, e.g., Alexander (1991) and Seligman (1994).

Rather than disclosing bad earnings news early, in a single disclosure, managers could release the information by gradually adjusting analysts' expectations downwards, so that the stock price declines gradually, rather than suddenly. As Coffee (1993) points out, because stockholder lawsuits tend to follow large, sudden stock price declines, this strategy is less likely to result in stockholder litigation than a single bad news release. However, selectively releasing information to analysts has been construed as illegal "tipping" under the securities laws (see Coffee (1993) and Pitt and Groskaufmanis (1994)). Therefore, given advance knowledge of adverse earnings news, managers' only choice is whether to disclose the bad news "now" or later.

Overall, I predict that more timely disclosures of bad earnings news result in less costly lawsuit outcomes: more timely disclosures should reduce both the likelihood of lawsuits and the costs of resolving any lawsuits that may occur. Although this idea would seem to be a fundamental part of the law under Rule 10b-5, it has not (to my knowledge) been investigated in previous research. This evidence also sheds light on the unresolved issue of whether the merits "matter" in securities litigation.

2.2 Previous Research

Previous research addresses the impact of Rule 10b-5 securities litigation on disclosure indirectly, by studying managers' corporate disclosure policies. Skinner (1994) provides evidence that managers use voluntary earnings disclosures to preempt large, negative earnings surprises more often than they preempt other types of earnings news. There are two non-mutually exclusive explanations for this finding. First, managers have an incentive to disclose bad news early to preempt the surprise and reduce the expected costs of stockholder litigation. Second, managers bear reputational costs if they fail to disclose adverse earnings news in a timely way. Securities market professionals (money managers and financial analysts) dislike negative earnings surprises, and are likely to impose costs on managers who are not forthcoming about impending earnings problems.

Kasznik and Lev (1995) also report evidence that managers preempt large, negative earnings surprises more often than other types of earnings news. Consistent with the legal liability explanation, Kasznik and Lev find that managers preempt bad news more often when: (1) they previously issued an earnings forecast, (2) their firms are in “high-tech” industries, and (3) their firms are large.⁵ These authors also find that the *total* stock price response to earnings disclosures is more negative for firms that issue preemptive bad news disclosures than for firms with bad news that do not issue such disclosures. This result, which holds after controlling for earnings surprise magnitude, suggests that early warnings are *per se* costly to the firm. Alternatively, it may be that firms that predisclose adverse earnings news encounter more serious, ongoing earnings difficulties than firms that do not issue these disclosures.

Francis, Philbrick and Schipper (1994a) provide more direct evidence on the relation between earnings disclosures and stockholder litigation. For a sample of 45 stockholder lawsuits filed against firms in four industries, they document the nature of the first adverse earnings news disclosure (table 2). Of the 45 corresponding disclosures, 18 are earnings forecasts (disclosures made before the end of the relevant fiscal quarter), ten are “preemptive” (occurring after the end of the fiscal quarter but before the earnings announcement date), and 11 are earnings announcements (they cannot find the initial report in seven cases). They conclude that “timely disclosures of bad news cannot be relied on to avert negative legal consequences” (p. 148).

Overall, previous research does not provide a clear picture of the relation between the timing of earnings-related disclosures and the consequences of stockholder litigation. First, Francis, Philbrick and Schipper (1994a) do not rule out the idea that managers can reduce expected litigation costs by disclosing bad news before the mandated

⁵ Issuing earnings forecasts increases the firm’s exposure to Rule 10b-5 litigation, since it creates a disclosure that must be corrected and updated as circumstances change. Prior studies find that the probability of stockholder lawsuits is positively related to both firm size and to membership in high-tech industries.

announcement date. It may be that managers attempt to preempt litigation by disclosing bad news early, but that in some cases this action is unsuccessful, so that we observe litigation. Cases where managers successfully disclose bad news early, avoiding litigation, are excluded from the sample. Second, even if early disclosures of bad news result in stockholder lawsuits, early disclosure may still be the most cost-effective strategy available to managers with bad news. Earlier disclosure reduces both the class period (and thus expected stockholder damages) and the merits of plaintiffs' claims that managers withheld material information. Third, previous studies do not examine the relation between managers' disclosure policies and the outcomes of stockholder litigation. If the validity of plaintiffs' claims affects the outcomes of these lawsuits, earlier disclosure will result in less costly outcomes for firms and managers.

3. Research Design

This section describes how I obtain: (1) the sample of firm/lawsuit observations (along with the corresponding earnings disclosures), and (2) a "benchmark" (control) sample of earnings disclosures.

3.1 Lawsuit Sample

The lawsuit filings are selected from the "new cases" section of *Securities Class Action Alert*, a newsletter published monthly by Investors Research Bureau (Cresskill NJ), from April 1988 (the first month the newsletter is available) through December 1994. The 1988 starting date coincides with *Basic vs. Levinson*, which provides Supreme Court approval for the "fraud-on-the-market" theory. This theory makes it easier for large classes of plaintiffs to demonstrate "reliance," a necessary ingredient in Rule 10b-5 cases (Cornell and Morgan (1990), Macey et al. (1991)).

Once I obtain the new cases from *Securities Class Action Alert*, I apply the following selection criteria:

1. The suit is filed in federal court (for consistency across cases).

2. A corporate defendant.
3. Alleged common stock price fraud (for availability of underlying price data, since this is an important determinant of lawsuits).
4. Alleged SEC Rule 10b-5 violation; that is, the suit alleges some misstatement or omission of material information. I thus exclude corporate control suits (those that relate to mergers, acquisitions, leveraged buyouts, “poison pills,” dual classes of common stock, etc.) because the precipitating event(s) are the control events themselves, whereas this study focuses on lawsuits that relate to corporate earnings disclosures. I include initial public offerings because there is no *a priori* reason to expect that events that precipitate these suits are different from events that precipitate 10b-5 suits for established firms.

This procedure provides a sample of 579 lawsuit filings. For the 579 suits, I obtain class period information from *Securities Class Action Alert*.⁶ I use the end of the class period date to identify the disclosure event that triggers the lawsuit. Class period data is available for 398 lawsuit filings.

The next step is to limit the sample to earnings disclosure lawsuits. To identify these lawsuits, I examine the *Wall Street Journal*, *Dow Jones News Service*, and the newsletter for the events that appear to trigger the lawsuits. Of the 398 lawsuits, I identified a “bad news” disclosure at, or just before, the end of class period date in 331 cases. I then examine these disclosures to see if they are earnings-related, including earnings forecasts, qualitative but specific statements about forthcoming earnings, or actual earnings announcements.⁷ Of these 331 events, 221 are identified as earnings-

⁶Sometimes the class period was unavailable when the case was initially reported in *Securities Class Action Alert*. In other cases, the class period changes between when the case is initially reported and when the settlement is reported.

⁷I exclude announcements of earnings restatements because these disclosures likely lead to a different type of lawsuit. I am most interested in the question of how the *timing* of managers’ quarterly earnings

related disclosures, a frequency consistent with the findings of Francis, Philbrick and Schipper (1994b). The final sample comprises the 221 lawsuits attributable to earnings-related information releases.

3.2 Benchmark Sample of Earnings Disclosures

To study how disclosure timing affects lawsuit filings and outcomes requires a reliable measure of earnings disclosure timeliness. Because I cannot directly observe the time that elapses between when managers first become aware of earnings information and when that information is released, I use two measures of timeliness. First, I report an absolute measure of timeliness, defined as the number of days between the date of the disclosure and the end of the fiscal quarter. Second, to assess whether the disclosures that lead to litigation are *unusually* late, I obtain a “benchmark” sample of earnings disclosures that do not result in litigation.

In constructing a benchmark sample of disclosures, choosing an appropriate “control” sample of firms that do not get sued is problematic because: (1) lawsuit firms are unusual with respect to their size, industry membership, and growth, making matching difficult (see, e.g., Francis, Philbrick, and Schipper (1994b) and Skinner (1995)); and (2) managers’ disclosure choices vary as a function of these characteristics, so controlling for them is important (see, e.g., Lang and Lundholm (1993)). Because of these difficulties, I construct a benchmark sample of earnings disclosures from voluntary earnings disclosures made by firms in the lawsuit sample during periods not affected by the lawsuits. This sample directly controls for differences in disclosure that are attributable to firm and industry characteristics.

To construct the benchmark sample, I search the News/Wires file in NEXIS for all earnings-related news stories for the lawsuit firms between January 1, 1988 and December

disclosures affects lawsuit outcomes. Earnings restatements typically result in lawsuits that allege errors or irregularities in previously reported accounting numbers.

31, 1994 (the lawsuit sample period). Excluding mandatory earnings announcements and voluntary earnings disclosures that lead to stockholder litigation provides a benchmark sample of 406 voluntary earnings disclosures.

4. Empirical Evidence

This section presents empirical evidence on the relation between the expected costs of stockholder litigation and the timeliness of earnings disclosures. Section 4.1 presents evidence on the timeliness of earnings disclosures that lead to litigation, and how these disclosures compare to otherwise similar disclosures that do not lead to litigation. Section 4.2 presents evidence on litigation outcomes, while section 4.3 relates these outcomes to disclosure timeliness. Section 4.4 presents evidence using an alternative timeliness proxy, as well as other robustness checks. Section 4.5 provides evidence on how stock price reactions interact with disclosure timeliness to affect the likelihood of litigation.

4.1 How Timely are Voluntary Earnings Disclosures?

To protect managers from stockholder allegations that they withheld bad news, preemptive voluntary disclosures must be timely. Thus, I first examine the timeliness of earnings disclosures that lead to stockholder lawsuits. Of the 221 earnings-related disclosures that trigger lawsuits, 85 (38%) are quarterly earnings announcements. That earnings announcements generate lawsuits is not surprising, since they are *mandatory* disclosures made three to four weeks after the end of the fiscal quarter, making it difficult for managers to characterize them as timely disclosures of bad news.

However, even earnings news disclosed before the quarterly announcement date may not be timely. To investigate this possibility, I examine the timeliness of the remaining 136 voluntary disclosures that occur before the earnings announcement date but still lead to stockholder litigation. Table 1 reports statistics on the timing of 122 voluntary

disclosures of quarterly earnings news.⁸ To determine timeliness I calculate the number of trading days between the end of the fiscal quarter and the date of the disclosure (negative values indicate that the disclosure occurs after the end of the fiscal quarter). The statistics, reported in Table 1, panel A, indicate that the mean (median) “early” disclosure occurs two (four) trading days before the end of the quarter and that 52 (43%) of these values are negative, indicating disclosures that occur after the end of the fiscal quarter. Since disclosures after the end of the fiscal period are more like early earnings announcements, it is difficult for managers to argue that they are timely. These findings support Francis, Philbrick, and Schipper (1994a, table 2), who also find that stockholder lawsuits result from a mix of voluntary earnings forecasts, preemptive disclosures, and earnings announcements.

Table 1, panel B reports on the timeliness of disclosures occurring before the fiscal quarter end (i.e., the negative values are removed). These disclosures occur, on average, 13 trading days before the end of the fiscal quarter (the median is ten days). Since the length of an average quarter is 63 trading days, these disclosures do not seem very timely. Overall, since a large number of “early” disclosures occur around the end of the fiscal quarter, they do not represent timely disclosures of bad news.

Table 1 also provides disclosure timeliness statistics for the benchmark sample. Differences between the timeliness of the lawsuit and benchmark disclosures are statistically and economically significant, providing further evidence that lawsuit disclosures are not timely. Table 1, panel A shows that the average (median) length of time between the date of benchmark disclosures and the end of the quarter is 16 (11) trading days, compared to 2 (4) trading days for the lawsuit sample. These differences indicate that, on average, benchmark disclosures are made nearly three weeks before the lawsuit disclosures. Panel B of table 1 shows similar differences for disclosures that take

⁸ I exclude seven disclosures that pertain to annual EPS (since these disclosures occur throughout the fiscal year) and a further seven disclosures for which data on the end of the fiscal quarter is not available.

place before the fiscal quarter end. For the benchmark sample, the average (median) length of time between the disclosure date and the end of the quarter is 25 (21) days, compared to 13 (10) days for the lawsuit sample, so the typical disclosure that leads to litigation occurs more than two weeks after an otherwise similar disclosure that does not lead to litigation. Once again, the differences are statistically significant at small p-levels.

The results above apply to all four fiscal quarters. Since fourth quarter earnings releases may differ from those made in other quarters, table 1 also reports the same statistics for fiscal quarters one through three. Panel A shows that interim earnings disclosures occur less often after the end of the fiscal quarter (37% occur after the end of the period vs. the 43% reported above), implying that the majority (58%) of fourth quarter disclosures occur after the end of the year. The timeliness of interim disclosures that occur before fiscal period end is similar to that for the full set of disclosures -- the mean (median) length of time between interim disclosures and the end of the quarter is 13 (9) trading days compared with 13 (10) trading days for the full sample. And as was the case for all quarters combined, evidence for fiscal quarters 1-3 indicates that lawsuit disclosures are less timely than benchmark disclosures, with the differences once again statistically and economically significant.

Overall, the evidence in table 1 indicates that earnings disclosures that lead to stockholder litigation are not very timely. Many occur after the end of the fiscal quarter and even those made before the end of the quarter occur late in the fiscal period. Moreover, disclosures that lead to stockholder litigation are less timely than earnings disclosures that do not result in litigation.

4.2 Is There Variation in Lawsuit Outcomes?

I next obtain information on the outcomes of the 221 stockholder lawsuits. First, I obtain information on finalized lawsuit settlements from the *Securities Class Action Alert* newsletter. Since the newsletter provide lawyers with information on pending class action

settlements, it constitutes a reasonably complete source. In addition, after the early part of 1990 the newsletter provides information (in the “updates” section) on cases that are dismissed. Overall, the newsletter provides data on how 167 of the 221 lawsuits are resolved.

Of the 54 cases not reported in the newsletter, I obtain outcomes data directly from the company in 43 cases.⁹ In only one of these cases did the corporate official indicate that the case had been settled, supporting the idea that the newsletter provides a reasonably complete source of settlement data. Outcomes for two of the remaining cases are obtained from Form 10-Q and 10-K filings, providing a final sample of 212 outcomes.

Table 2, panel A, shows that there is a good deal of variation in the outcomes of stockholder litigation. Of the 182 lawsuits suits that have been resolved, 134 suits (74%) are settled, while 48 (26%) suits are resolved in the company’s favor. [I code a lawsuit as “resolved in the company’s favor” if: (i) the lawsuit is dropped by the plaintiffs, (ii) the lawsuit is dismissed, (iii) the case goes to trial and the company prevails (two cases), or (iv) the case is settled for less than \$1 million).¹⁰] This evidence indicates that settlements in these types of securities class actions, although common, are not automatic.

There is also variation in dollar settlement amounts, although this variation is not very large (table 2, panel B). Of the 133 settlements with dollar amounts available, 101 (76%) settlements are for less than \$10 million, with an additional 20 (15%) equal to or larger than \$10 million but less than \$20 million. The maximum settlement is \$42.5 million. The median settlement represents 3.1% of annual sales, or 16.9% of the cash and

⁹I typically spoke to a representative from the firm’s investor relations department, who either dealt with my request directly or referred me to a more senior corporate official, such as the company’s general counsel or chief financial officer.

¹⁰There are nine of these (type (iv)) cases. For example, Marion Merrell Dow paid out approximately \$500,000 after the original case against it had been dismissed in District Court to guarantee that the plaintiffs would not appeal the dismissal. In another case, Bell Atlantic settled for \$421,000 to cover legal costs. Given the relatively small amounts involved here, it seems reasonable to characterize these types of cases as outcomes that favor the companies involved.

short-term investments balance, although there is considerable variation in these proportional settlements. For example, when I deflate by cash, over one-fifth of the sample have settlements that exceed their available cash balance (some by large multiples). At the other extreme, around one-fifth of the sample have settlements less than 5% of available cash. There is similar variation when I deflate by sales. Overall, proportional settlement amounts vary considerably across firms and are, in many cases, economically substantial.

4.3 Are Lawsuit Outcomes Related to the Merits?

The previous subsections document variation in both (1) the timing of earnings-related disclosures that lead to stockholder litigation, and (2) the outcomes of that litigation. In this section I investigate whether the timing of earnings disclosures is related to the outcomes of the related stockholder litigation.

To answer this question, I first assume that stockholder litigation that results from quarterly earnings announcements is more meritorious than stockholder litigation prompted by “early,” or voluntary, earnings disclosures. Second, I treat all earnings disclosures (including earnings announcements) as one group, and investigate whether later disclosures lead to more costly outcomes.

There is an endogeneity problem that works *against* finding that later disclosures lead to more adverse lawsuit outcomes. Other things equal, when managers know their firms face important (and perhaps ongoing) earnings difficulties, they are more likely to disclose that news early.¹¹ Since more negative earnings disclosures lead to larger stockholder losses (and more adverse lawsuit outcomes), earlier disclosures are likely to be associated with more costly lawsuit outcomes. I address this by including a damages

¹¹ The evidence in Kasznik and Lev (1995) and Skinner (1994), discussed earlier, is consistent with this. I report related evidence in section 4.5 below.

measure in the table 5 regressions, but do not control for this in table 3. Thus, the table 3 tests are biased towards the null.

Panel A of table 3 examines whether there is a relation between disclosure timing and litigation outcomes, where each variable is defined dichotomously. Lawsuit outcomes are classified as either “dismissed” or “settled,” where dismissed means that the suit is resolved in the company’s favor and settled means that the suit is settled for more than \$1 million. Lawsuits are classified as due to either earnings announcements or voluntary earnings disclosures. The number of observations in each cell is close to the number expected under the null hypothesis of independence, with a chi-square value of .39. Thus, there is no evidence that whether cases are dismissed or settled depends on whether the earnings disclosure occurs at or before the mandatory quarterly earnings announcement date.¹²

Table 3, panel B reports results for lawsuits that are settled. This test compares settlement amounts for lawsuits triggered by voluntary disclosures to those for lawsuits triggered by earnings announcements, using three measures of settlement amount: total dollar settlement, dollar settlement deflated by sales, and dollar settlement deflated by cash and short-term investments. There is some evidence here that lawsuits triggered by mandatory earnings announcements are more costly than those triggered by voluntary disclosures. The total dollar settlement is approximately the same for the two sets of lawsuits: the average (median) settlement is \$7.78 million (\$5.39 million) for voluntary disclosure lawsuits vs. \$8.18 million (\$5.00 million) for earnings announcement lawsuits. However, deflating these numbers by either sales or the firm’s cash and short-term investments balance shows significant differences in the predicted direction. When the dollar settlement is deflated by sales, earnings announcement lawsuit settlements are larger

¹² There is weak evidence that voluntary disclosures that result in dismissals are more timely than voluntary disclosures that result in settlements. The average (median) length of time between the disclosure date and the end of the quarter is 5.7 (6) trading days for cases that are dismissed vs. 1.5 (1.5) trading days for cases that are settled, although these differences are not significant at the 5% level ($t = 1.14$, $Z = 1.35$).

than voluntary disclosure lawsuit settlements: the average (median) settlement is 19.3% (4.7%) for the earnings announcement sample compared with 5.7% (2.6%) for the voluntary disclosures. These differences are significant at the 1% level (one-tailed tests). Similarly, deflating by cash and short-term investments yields 48.8% (35.3%) for the earnings announcement sample vs. 32.8% (16.7%) for the voluntary disclosure sample, differences that are significant at the 5% level for means and the 10% level for medians (one-tailed tests). Thus, *assuming the deflated numbers are the more appropriate measure of lawsuit outcomes*, earlier disclosures of bad earnings news result in less costly settlements.

Overall, the tests in table 3 provide mixed evidence about whether lawsuit outcomes depend on whether the adverse earnings news is first disclosed in a quarterly earnings announcement. First, the relative frequency of lawsuit dismissals is not related to whether the adverse earnings is first disclosed in a quarterly earnings announcement. However, lawsuit settlements *are* more adverse for firms that wait to disclose news in a quarterly earnings announcement. This finding is particularly strong because the endogeneity problem mentioned earlier works against finding the hypothesized relation.

The tests in table 3 assume that disclosure timing is adequately captured by whether or not managers disclose adverse earnings news before the mandatory quarterly earnings announcement. An alternative view is that earnings disclosures differ only in the extent to which they are early or late (relative to the end of the fiscal quarter). To test this view, I measure disclosure timeliness as the number of trading days between the end of the fiscal quarter and the date of the disclosure. Once again, positive (negative) values for this “timing” variable indicate that the disclosure occurs before (after) the end of the fiscal quarter. To perform these tests I focus only on lawsuit settlements. In the first set of regressions (table 5, panel A), the dependent variable is the total dollar settlement and the independent variables are the timing variable and a measure of stockholder damages. I include stockholder damages as a control variable because previous research indicates a

strong positive relation between lawsuit settlements and stockholder damages estimates (e.g., Dunbar and Juneja (1993), Francis, Philbrick, and Schipper (1994b)). The hypothesis of interest is whether there is a reliable negative relation between settlement amounts and disclosure timing after controlling for stockholder damages. Following table 3, panel B, the second set of regressions (table 5, panel B) uses two different proportional settlement measures as dependent variables.

To estimate stockholder damages, I use the “Proportional Trading Model” (similar to Francis, Philbrick, and Schipper (1994b) and Jones and Weigram (1996)). Damages models typically estimate stockholder damages as a function of the firms’ stock market capitalization, the size of the stock price decline (the inflated price at which the stockholder purchased the shares minus the “true” price once the bad news is revealed), the length of the class period, and the average turnover in the stock during this period.¹³ Thus, including the damages measure in the regression controls for firm size, stock price decline, and class period length.

Table 4 provides the correlations among these variables (because several variables are skewed, I emphasize the Spearman correlations). As suggested by previous research, damages and the dollar settlement are positively correlated (Spearman correlation of .38). Consistent with table 3 results, I find no association between timing and the total dollar settlement. However, a positive relation between the timing variable and damages (the Spearman correlation is .28) suggests that earlier disclosures are associated with larger damages. This finding may reflect the association (documented in section 4.5) of earlier disclosure with more negative stock returns. In addition, damages are negatively related to the end-of-period stock return, suggesting that more negative returns cause larger damages (Spearman correlation of -.19). Finally, the timing variable is negatively

¹³ My implementation of the damages measure uses the raw stock return for the five day period centered on the end of the class period. I have also estimated these regressions using a damages measure that uses the market-adjusted stock return for the entire class period, with similar results.

associated with proportional settlement amounts (Pearson correlations are around $-.30$), as expected if earlier disclosures are associated with smaller lawsuit settlements.

Table 5, panel A shows the regressions with settlement dollars as the dependent variable. The first regression includes the timing variable and the natural log of damages as independent variables. As suggested by previous research, the coefficient on the damages variable is reliably positive ($t = 6.42$). More important, after controlling for the effect of damages on settlements, the coefficient on disclosure timing is reliably negative ($t = -2.62$), indicating that earlier disclosure is associated with lower settlement amounts. The relation between the timing variable and lawsuit outcomes is also economically significant: the coefficient of $-.09$ implies that managers can lower lawsuit settlements by \$1.8 million by disclosing earnings news 20 days earlier (e.g., this is the average time between the fiscal quarter end and the earnings announcement date). This regression explains a significant amount of the variation in lawsuit settlements: the adjusted- R^2 is 23%.

An alternative explanation for the negative coefficient on the timing variable is that this variable proxies for class period length. However, this seems unlikely since average (median) class period length is 188 (166) trading days (eight to nine months), which is much longer than the likely length of non-disclosure of quarterly earnings news. In addition, the damages calculation includes the length of the class period as an input, so this effect may be controlled for in the first regression. Finally, the $-.18$ Pearson correlation between disclosure timing and class period length seems too small to confound my inferences. To further support this view, the next regression includes class period length as a regressor along with the timing and damages variables. The results from this regression indicate that the timing relation is robust to including class period length in the regression. The timing coefficient remains reliably negative ($t = -2.12$) while the coefficient on class period length is positive ($t = 2.56$).

I next include an indicator variable that is coded one if the lawsuit results from an actual earnings announcement and zero otherwise. I include this variable to test whether earnings announcements *per se* generate more costly lawsuit outcomes than “early” disclosures, after controlling for disclosure timing (earnings announcements are mandatory and so may be treated differently from other disclosures). Including the earnings announcement indicator variable with the damages measure and disclosure timing yields a coefficient that is not significantly different from zero ($t = -.74$). Thus, there is no evidence that waiting until the earnings announcement date is more costly *per se*.

Panel B of table 5 reports regressions that deflate the dollar settlement by alternative measures of the firm’s ability to pay -- annual sales and the firm’s cash and short-term investments balance -- providing a proportional rather than an absolute settlement amount as the dependent variable. These regressions exclude the damages variable but include a “return” variable to control for the magnitude of the stock price drop at the end of the class period.

Using proportional settlements as the dependent variable yields similar results. When the regression equations include the timing variable and the stock return variable on the right-hand side, both variables are negative. The t-statistics on the timing variable are -4.57 and -4.21, while those on the stock return variable are -3.48 and -1.61 (for sales and cash specifications, respectively). Thus, lawsuit settlements are larger for less timely earnings disclosures and for more negative stock returns. Both regressions have reasonable explanatory power: the adjusted R^2 is 20% with the sales deflator and 14% with the cash deflator. The timing coefficient is again economically significant. For example, the -.005 coefficient for sales deflation implies that managers can reduce the settlement amount by 10% of annual sales by disclosing 20 days earlier.

Once again, including an earnings announcement indicator variable yields no evidence that waiting to disclose on earnings announcement dates leads to more costly settlements, after controlling for the lateness of these disclosures. When I include the

earnings announcement indicator along with the timing and stock return variables, the coefficients on the earnings announcement indicator are not reliably different from zero.

Overall, the evidence in table 5 supports the idea that earlier disclosure of earnings news results in smaller settlements when lawsuits occur. I next provide some robustness checks for this result.

4.4 The Effect of Measurement Error and an Alternative Proxy for Disclosure Timeliness

The tests in section 4.3 use a disclosure timeliness measure based on the time between the date of the discretionary disclosure and the end of the fiscal quarter, which assumes that managers acquire more earnings information as the quarter progresses. This variable is a noisy measure of the underlying legal construct: the length of time between when the manager first obtains bad news and the date on which that news is released to investors. Although I know the release date of the news, I do not (and cannot) observe when managers first become aware of the earnings news. Measurement error in this variable biases the coefficient on timeliness towards zero. Thus, to the extent that I observe a statistically reliable relation between outcomes and timeliness in the presence of measurement error (as I do), measurement error cannot explain my results.

To check the robustness of the results, I use a proxy for disclosure timeliness that accounts for the fact that firms face different input and output markets and so naturally acquire earnings information at different rates through time. For example, some argue that computer firms obtain sales and earnings information relatively late in the quarter (because their corporate customers' purchase decisions cluster in the second half of calendar quarters), and this explains why their disclosures occur relatively late.¹⁴ Computing firms are important here because they comprise the largest single industry group in the sample (64 of the 211 unique sample firms are in three-digit SIC codes 357

¹⁴ This argument was made, for example, by representatives of the American Electronics Association at the SEC's Safe Harbor Hearings in Washington, February 1996.

and 737, computer equipment and software, respectively). Thus, I control for industry-specific differences in the flow of earnings information.

To investigate these firms' "normal" disclosure timetables, I use the benchmark sample of earnings disclosures. Since individual firm voluntary disclosures are infrequent, I use the full sample of 406 benchmark disclosures to examine how disclosure timeliness varies with firm size and industry membership. More specifically, I estimate the following regression:

$$\text{Timing}_{it} = \beta_0 + \beta_1 \log(\text{Sales}_i) + \beta_2 Q4_{it} + \beta_3 \text{Computer}_i + \beta_4 \text{Med}_i + \beta_5 \text{Elec}_i + \beta_6 \text{Fincl}_i + \varepsilon_{it}$$

In this regression, *Timing* refers to the time between the end of the fiscal quarter and the date of the disclosure for firm *i* in quarter *t*, *Sales* is annual sales for firm *i*, *Q4* is an indicator variable that turns "on" if the disclosure relates to fourth quarter earnings, and *Computer*, *Med*, *Elec*, and *Fincl* are industry indicator variables for firms in the computer, medical/laboratory equipment, communications/electronic equipment, and banking industries, respectively. In the sample, each of these industries is represented by more than five firms.¹⁵ The sales variable is included because prior research indicates that firm size is correlated with managers' discretionary disclosure choices. The size coefficient will be positive if larger firms disclose earnings information earlier. The Q4 indicator accounts for likely differences between fourth quarter and interim disclosures, while the industry indicators account for variation in disclosure timing due to differences in demand/supply environments. For example, the coefficient on Computing will be negative if computer firms disclose later than other firms.

Table 6 provides regression estimates using all 367 benchmark disclosures with available data, as well as separate estimates for disclosures that occur before and after the

¹⁵ The industries are defined as three-digit SIC codes 357/737 (computing), 382/384 (medical and laboratory equipment), 366/367 (communications and electronic equipment), and 602/603 (banking).

end of the fiscal quarter (“early” and “late” disclosures, respectively). I analyze these disclosures separately because “late” disclosures are likely to be different from “early” disclosures.

For the overall sample, the timing regression explains a modest amount of variation in disclosure timing (adjusted- R^2 of 6%). In this regression, three variables are statistically significant at the 5% level (two-tailed tests): the log of sales ($t = 4.24$), the Q4 indicator ($t = 2.75$), and the computer industry indicator ($t = 2.37$). These results indicate that disclosures occur earlier for fourth quarter disclosures, for larger firms, and for firms in the computer industry. The last result is contrary to the idea that computer firms disclose later than other firms.¹⁶ For early and late disclosures the adjusted- R^2 s are larger: the regression explains 9% of the variation in disclosure timing for “early” disclosures and 17% for “late” disclosures. Fourth-quarter disclosures occur earlier than those for other quarters if the disclosure is made “early,” but later than other quarters if the disclosures occur after the end of the quarter. Larger firms disclose earlier only during the quarter, while computer firms disclose earlier in both subsamples. Medical equipment firms make “late” disclosures later than other firms, while financial firms make “early” disclosures later.

The estimated timing regression helps to specify a model to form conditional expectations for lawsuit firms’ disclosure timing. I next use fitted values from the regression to predict disclosure timing for each observation in the lawsuit sample. Comparing this prediction to actual disclosure timing provides information on whether lawsuit disclosures come at expected times. For example, if a disclosure is made later than expected, the resulting lawsuit should be have more merit (and a larger settlement).

¹⁶ Although disclosure timing is not exogenous -- if managers of computer firms are especially sensitive to the possibility of stockholder lawsuits, they may have incentives to disclose earlier than managers of other firms. It is well-established that “high-tech” (especially computer) firms get sued more often than other firms. See, for example, Francis, Philbrick, and Schipper (1994b) and Skinner (1995).

“Unexpected” disclosure timing statistics (not reported) indicate that these disclosures are made later than their conditional expectations. For 104 observations with available data, the mean (median) value of the “unexpected” timing variable is -10.6 (-10.0) trading days, indicating that these disclosures occur about ten days later than the model predicts (this finding is consistent with, but not independent of, the table 1 data). These numbers are reliably negative at small probability levels, with over three-quarters of the observations negative, and indicate that lawsuit disclosures are unusually late relative to these companies’ “normal” disclosure policies.

Table 7 shows regressions results analogous to those reported in table 5, with the original timing variable replaced by the “unexpected” timing variable. These results are weaker than those reported in table 5: the adjusted-R²s are lower and the timing variable is less significant. For example, regressing dollar settlements on the new timing variable and the log of damages provides a timing coefficient that is negative but no longer statistically significant ($t = -1.23$). Including class period length in the regression yields a t-statistic on timing of -1.11. Defining the dependent variable as proportional settlements strengthens the results (panels B and C). In these regressions, the coefficients on the timing variable are similar in magnitude to those reported in table 5 and are significant at the 5% level, although the t-statistics are smaller in absolute value than those in table 5 (ranging from -1.95 to -2.58 in table 7 vs. -2.65 to -4.57 in table 5).

The weaker results using the alternative proxy for disclosure timing may not be surprising for a couple of reasons. First, the results in table 6 indicate that the disclosure timing model has low explanatory power, so using the model to extract the “expected” component of disclosure timing may add noise to the timing proxy. Relatedly, it may be that plaintiffs’ lawyers, who also may not be able to discover for sure when managers first obtain earnings news, also use a fairly simple proxy, so this model may be too sophisticated. In addition, there are fewer observations in the regressions in panel A of

table 7, which reduces the statistical significance of the results (in panel A of table 7 there are 90 observations vs. 132 observations in panel A of table 5).

To check robustness further, I also estimate the regressions after excluding firms in the computer industry. The motivation for this test is twofold: (1) computer firms constitute, by far, the largest industry concentration in the sample (31%); and (2) some argue that computer firms' business environment differs in ways that systematically affect their disclosure practices.

Excluding computer firms provides similar results (not reported) -- the regressions again yield a reliably negative relation between disclosure timing and lawsuit settlements. The disclosure timing variable in regressions analogous to those in table 5 is always statistically significant at the 5% level (two-tailed tests), sometimes more so than in the original regressions. The same is true of regressions analogous to those in table 7.

Overall, the results reported in this section support the robustness of the results reported in section 4.3. Using a proxy for disclosure timing that controls for potential size and industry effects again shows that earlier disclosures lead to lower proportional lawsuit settlements. And it is clear that the regression results are not specific to computer firms.

4.5 Stock Price Evidence

This section extends the analysis on the relation between disclosure timing and the likelihood of stockholder litigation using evidence on the stock price reaction to earnings disclosures. Two analyses are reported, both of which extend earlier work by Kasznik and Lev (1995). First, within the sample of earnings disclosures that lead to litigation, earlier disclosure is associated with more negative stock price reactions. Second, I utilize the "benchmark" sample of earnings disclosures to provide evidence on how the magnitude and timing of voluntary earnings news affects the likelihood of stockholder litigation. Both analyses support the idea that managers can reduce the likelihood of litigation by disclosing adverse earnings news on a more timely basis.

First, I investigate whether there is a relation between managers' disclosure decisions and the size of the stock price reaction for earnings disclosures that result in lawsuits. To do this I partition the sample of lawsuit disclosures into those that result from earnings announcements and those that result from "voluntary" earnings disclosures. The evidence suggests that managers are more likely to predisclose more adverse earnings news: the average (median) stock price decline for the voluntary disclosures is -23.1% (-22.0%) compared to -16.8% (-17.6%) for the earnings announcements. These differences are significant at the 5% level under two-tailed t and Wilcoxon tests, and suggest that it takes a larger stock price decline to "trigger" lawsuits at the time of voluntary disclosures than it does at the time of earnings announcements.

Another way of addressing how disclosure timing affects the likelihood of litigation is to compare voluntary disclosures that lead to litigation to those that do not. There are two principal differences between these two sets of disclosures. First, as evident in table 1, the benchmark disclosures are made earlier than voluntary disclosures that lead to lawsuits. Second, as one might expect based on previous research, the stock price reaction to disclosures that result in litigation is much more negative than that to disclosures that do not result in litigation: the average (median) stock price reaction to the lawsuit disclosures is -24.5% (-25.2%) compared to -6.2% (-3.9%) for the benchmark sample of disclosures. The inferential problem is in separating these effects: is disclosure timing still important after controlling for the differential stock price reaction?

To disentangle these effects I estimate a logistic regression of the likelihood of litigation on the stock price reaction to, and timing of, earnings disclosures. In this regression the dependent variable is coded one for observations in the lawsuit sample and zero for observations in the benchmark sample. The results of this regression (with asymptotic t-statistics in parentheses) are as follows:

$$\text{Prob.}(\text{Lawsuit}) = -2.08 - 10.53 * \text{Stock Return} - .05 * \text{Timing} \quad \text{Pseudo } R^2 = .25$$

$$(-5.83) \quad (-7.54) \quad (-3.41)$$

These results indicate that the effect of disclosure timing on lawsuits remains after controlling for the effect of stock returns.

As an alternative way of presenting this result, I compare the timing of earnings disclosures that result in litigation to the timing of disclosures for benchmark disclosures that generate a stock price reaction less than -15%. This is a rougher way of controlling for the effect of differences in the magnitude of the stock price reaction, but one that is more amenable to economic interpretation. When I make this comparison it is clear that even those benchmark disclosures that generate the worst stock price reactions (the average stock price reaction for these disclosures is -24%) are made earlier than otherwise similar disclosures that lead to stockholder litigation. The average (median) “bad news” benchmark disclosure is made 19 (15) days before the end of the quarter, compared to 12 (10) days for the lawsuit disclosures (not reported in tables). These differences are statistically significant at the 1% level, and indicate that there are economically significant differences between the timing of the two groups of disclosures.

To summarize, the evidence suggests that when managers make voluntary earnings disclosures the likelihood of stockholder litigation depends on both the severity of the stock price reaction to the earnings information that is released and on the timeliness of the disclosure. So once again, the evidence suggests that the expected costs of stockholder litigation decline as adverse earnings news is disclosed in a more timely manner.

5. Conclusion

This study provides evidence on the relation between earnings disclosures and stockholder litigation. Two principal conclusions emerge. First, lawsuit outcomes depend on the merits of stockholders' claims that managers improperly withheld material earnings news: longer delays in releasing disappointing earnings news result in larger lawsuit settlements. Second, earnings disclosures that lead to litigation are less timely than otherwise similar disclosures that do not lead to litigation. Together, these results suggest that managers can reduce the expected costs of stockholder litigation by making earlier disclosures of adverse earnings news.

This research reconciles previous studies on disclosure timing and litigation. While Skinner (1994) suggests that managers make early (voluntary) disclosures of adverse earnings news to prevent stockholder litigation, Francis, Philbrick and Schipper (1994a) report that since a significant number of stockholder lawsuits (28 of 45) are actually attributable to "early" or "voluntary" earnings disclosures, these disclosures do not prevent stockholder litigation. In this paper I find that, although voluntary disclosures that produce litigation occur before the quarterly earnings announcement date, they occur relatively "late in the day" (often after the end of the fiscal quarter), making it difficult for managers to argue that these "early" disclosures are timely. Particularly striking is the fact that lawsuit disclosures occur two to three weeks later, on average, than otherwise similar disclosures that do not lead to litigation.

Although some voluntary earnings disclosures result in litigation, early disclosure may remain the least-cost strategy for managers with impending adverse earnings news. Managers with bad news have to disclose that information sometime, and the results here suggest that earlier is better. Specifically, I find that lawsuit settlements are smaller, on average, for earlier disclosures of impending bad news. This is consistent with the idea that earlier disclosure reduces the merits of stockholders' claims by making it more difficult for stockholders to argue that managers' improperly withheld the bad news.

Overall, the evidence in this paper indicates that, at least from a legal standpoint, managers are better off disclosing bad news as soon as they become aware of that news, rather than postponing disclosure. In addition to clarifying the implications of previous research, this result has important practical implications for managers' decisions about voluntary disclosures of earnings news.

Table 1
The Absolute and Relative Timeliness of Earnings-Related Voluntary Disclosures That Led to 122 Securities Class Action Lawsuits, 1988-1994, where Timeliness is Defined as the Number of Trading Days Between the End of the Fiscal Quarter and the Date of the Voluntary Disclosure¹

	All Quarters			Quarters 1-3 Only		
	Lawsuit sample	Benchmark sample	Difference	Lawsuit sample	Benchmark sample	Difference
<i>A. All Observations</i>						
Observations	122	406		89	288	
Mean	2	16	t = -7.1**	5	14	t = -4.4**
Median	4	11	Z = -5.3**	5	9	Z = -3.2**
Minimum	-63	-36		-34	-29	
Maximum	57	81		57	64	
Number of Observations ≤ 0	52 (43%)	118 (29%)		33 (37%)	86 (30%)	
<i>B. Observations with Positive Values Only²</i>						
Observations	70	288		56	202	
Mean	13	25	t = -7.2**	13	22	t = -4.9**
Median	10	21	Z = -5.1**	9	18	Z = -3.9**
Minimum	1	1		1	1	
Maximum	57	81		57	64	

¹Of 221 earnings-related stockholder lawsuits in the lawsuit sample, 136 are triggered by voluntary disclosures. The date of the end of the fiscal quarter is available for 122 of these disclosures that were not forecasts of annual earnings. The lawsuit sample comprises earnings disclosures that led to stockholder litigation. The benchmark sample comprises the set of voluntary earnings disclosures made by firms in the lawsuit sample during 1988-1994 that were not related to stockholder litigation.

²That is, the voluntary disclosure must occur before the end of the fiscal quarter.

**Difference is statistically significant at the 1% level, two-tailed test.

*Difference is statistically significant at the 5% level, two-tailed test.

Table 2
**Descriptive Information on the Outcomes of 221 Earnings-Related
 Stockholders Lawsuits, Filed 1988-1994**

A. Frequency Distribution of Outcomes

Suit resolved in company's favor ¹	48	21.7%
Suit settled for more than \$1M	134	60.6%
Suit outcome indeterminate ²	3	1.4%
Suit still pending ³	27	12.2%
Outcome data not available	9	4.1%

**B. Distribution of Dollar Settlements for 133 Settlements with Available
 Data (\$M)**

Average	7.93
Minimum	1.00
10th Percentile	1.90
25th Percentile	2.80
50th Percentile	5.28
75th Percentile	9.60
90th Percentile	19.00
Maximum	42.50

¹Suit resolved in company's favor includes the following outcomes: (i) the lawsuit is dropped by the plaintiffs, (ii) the lawsuit is dismissed, (iii) the case goes to trial and the company prevails, or (iv) the case is settled but it is clear that the settlement is in the company's favor (defined as situations where the total settlement is less than \$1 million).

²Suit outcome indeterminate includes three cases where the company filed for bankruptcy before the suit was resolved.

³Includes cases that are dismissed in District Court but which are being appealed or which are initially dismissed ("without prejudice") and later refiled as well as cases that are still pending. Cases are treated as dismissed (and included above) if a long time period elapses after the most recent court action.

Table 3
The Relation Between the Type of Earnings Disclosure that Triggers Stockholder Lawsuits and the Lawsuit Outcome

A. Chi-square Test of Association Between Type of Earnings Disclosure and Lawsuit Outcome¹

<i>Type of Earnings Disclosure:</i>	<i>Lawsuit Outcome:</i>		Row Total
	Dismissed ²	Settled	
Voluntary Disclosure	28 (30)	85 (83)	113
Quarterly Earnings Announcement	20 (18)	49 (51)	69
Column Total	48	134	182

Chi-square value under the null hypothesis of independence = .39 (prob. = .532)

¹Expected frequencies under the null hypothesis of independence between the row and column classifications are shown in parentheses.

²“Dismissed” here means lawsuits that are resolved in company’s favor and includes the following outcomes: (i) the lawsuit is dropped by the plaintiffs, (ii) the lawsuit is dismissed, (iii) the case goes to trial and the company prevails, or (iv) the case is settled but it is clear that the settlement is in the company’s favor (defined as situations where the total settlement is less than \$1 million).

- B. Average (median) dollar outcome by type of earnings disclosure. Includes only those lawsuits that are settled (i.e., excludes dismissals).

	<i>Type of Earnings Disclosure:</i>		t-statistic (z-statistic)
	Voluntary Disclosure	Quarterly Earnings Announcement	
<i>Outcome measure:</i>			
Dollars ⁴	\$7.78m (\$5.39m) 84	\$8.18m (\$5.00m) 49	-0.28 (0.23)
Dollars/Sales ⁵	5.7% (2.6%) 71	19.3% (4.7%) 40	-2.62*** (-2.25***)
Dollars/Cash ⁶	32.8% (16.7%) 71	48.8% (35.3%) 40	-2.10** (-1.59*)

⁴Dollar amount for which lawsuit is settled.

⁵Dollar amount for which lawsuit is settled deflated by annual sales in fiscal year that immediately precedes the lawsuit class action period.

⁶Dollar amount for which lawsuit is settled deflated by cash and short-term investments balance at end of fiscal year that immediately precedes the lawsuit class action period.

* (**) [***] Difference statistically significant at the 10% (5%) [1%] level, one tailed test.

Table 4
Correlation Matrix for Variables to be Used in Regression Analysis 1

	Dollars	Dollars/Sales	Dollars/Cash	Damages	Timing	Return
Dollars	1.00	.17*	-.04	.40**	-.06	-.09
Dollars/Sales	.39**	1.00	.02	-.02	-.29**	-.31**
Dollars/Cash	.22**	.75**	1.00	-.06	-.12	.03
Damages	.38**	-.29**	-.48**	1.00	.14	-.03
Timing	-.01	-.19**	-.18**	.28**	1.00	-.02
Return	-.08	-.43**	-.33**	-.19**	-.08	1.00

1) Pearson correlation coefficients are above the diagonal; Spearman correlation coefficients are below the diagonal. **(*) indicates statistical significance at the 5% (10%) level, two-tailed tests.

Variable definitions are as follows:

Dollars = dollar amount for which lawsuit is settled.

Dollars/sales = dollar amount for which lawsuit is settled deflated by annual sales in fiscal year that immediately precedes the lawsuit class action period.

Dollars/cash = dollar amount for which lawsuit is settled deflated by cash and short-term investments balance at end of fiscal year that immediately precedes the lawsuit class action period.

Damages = estimate of stockholder damages calculated using Proportional Trading Model.

Timing = the number of trading days between the end of the fiscal quarter and the earnings disclosure (so that negative values indicate disclosures that occur after the end of the fiscal quarter).

Return = raw stock return for the five days centered on the date of the earnings disclosure.

Table 5

Panel A: Regressions of Total Dollar Lawsuit Settlements on Hypothesized Determinants of Lawsuit Settlements for 132 Lawsuits with Available Data*

<i>Intercept</i> (<i>Expected Sign</i>)	<i>Timing</i> (-)	<i>ln(Damages)</i> (+)	<i>Days</i> (+)	<i>EAD_Ind</i> (+)	<i>Adj. R²</i>
-36.30 (-5.32)	-.09 (-2.62)	2.48 (6.42)			23.3
-37.33 (-5.58)	-.07 (-2.12)	2.41 (6.35)	.01 (2.56)		26.5
-35.93 (-5.24)	-.11 (-2.49)	2.48 (6.40)		-1.25 (-0.74)	23.0

*Estimated coefficients with t-statistics in parentheses.

Table 5 (Cont.)
Panel B: Regressions of Proportional Lawsuit Settlements on Three Hypothesized Determinants of Those Settlements for 103 Lawsuits with Available Data*

<i>Intercept</i> (Expected Sign)	<i>Timing</i> (-)	<i>Return</i> (-)	<i>EAD_IND</i> (+)	<i>Adj. R²</i>
<i>1) Dependent Variable = (\$m settlement/sales).</i>				
-.02 (-.63)	-.005 (-4.57)	-.44 (-3.48)		19.9
-.04 (-.97)	-.004 (-2.65)	-.45 (-3.51)	.16 (1.04)	20.0
<i>2) Dependent variable = (\$m settlement/cash).</i>				
.25 (3.80)	-.007 (-4.21)	-.36 (-1.61)		13.7
.26 (3.70)	-.008 (-3.42)	-.36 (-1.59)	-.05 (-.51)	13.1

*Estimated coefficients with t-statistics in parentheses.

Alternative specifications of the dependent variable are defined as follows:

\$ settlement = dollar amount for which lawsuit is settled.

\$ settlement/sales = dollar amount for which lawsuit is settled deflated by annual sales in fiscal year that immediately precedes the lawsuit class action period.

\$ settlement/cash = dollar amount for which lawsuit is settled deflated by cash and short-term investments balance at end of fiscal year that immediately precedes the lawsuit class action period.

Independent variables are defined as follows:

Timing = the number of trading days between the end of the fiscal quarter and the earnings disclosure (so that negative values indicate disclosures that occur after the end of the fiscal quarter).

Damages = estimate of stockholder damages calculated using the Proportional Trading Model.

Days = length of class action period, in trading days.

EAD_IND = indicator variable coded one if the earnings disclosure is a quarterly earnings announcement and zero otherwise.

Return = raw stock return for the five days centered on the date of the earnings disclosure.

Table 6
Regression of the Timing of Earnings Disclosures on Size and Industry
Variables for Sample of 367 “Benchmark” (Non-lawsuit) Disclosures
(t-statistics in parentheses):

$$\text{Timing}_{it} = \beta_0 + \beta_1 \log(\text{Sales}_i) + \beta_2 \text{Q4}_{it} + \beta_3 \text{Computer}_i + \beta_4 \text{Med}_i + \beta_5 \text{Elec}_i + \beta_6 \text{Fincl}_i + \varepsilon_{it}$$

	All Observations	“Early” Disclosures	“Late” Disclosures
Intercept	-5.11 (-1.14)	9.42 (2.13)	-7.24 (-2.70)
Log (Sales)	2.62 (4.24)	1.69 (2.83)	-.01 (-.02)
Q4	6.44 (2.75)	9.26 (4.09)	-2.77 (-1.98)
Computer	5.64 (2.37)	4.69 (2.02)	3.37 (2.39)
Medical/ Laboratory	4.21 (.95)	2.14 (.52)	-10.17 (-3.32)
Electronic/ Communications	9.80 (1.71)	7.82 (1.41)	-2.98 (-.87)
Financial	-7.72 (-1.69)	-10.40 (-2.40)	3.27 (1.14)
Obs.	367	264	103
Adj. R ²	6.1%	9.4%	16.7%

Variables are defined as follows:

- Timing refers to the time (in trading days) between the end of the fiscal quarter and the date of the disclosure for firm *i* in quarter *t*;
- Sales is annual sales for firm *i*,
- Q4 is an indicator variable that turns “on” if the disclosure relates to fourth quarter earnings;
- Computer, Med., Elec., and Finl. are industry indicator variables for firms in the computer, medical/laboratory equipment, communications/electronic equipment, and banking industries, respectively.

Table 7

Regressions of Lawsuit Settlements on Hypothesized Determinants of Those Settlements for Lawsuits with Available Data: Alternative Timing Proxy*

<i>Intercept (Expected Sign)</i>	<i>Timing - E(Timing) (-)</i>	<i>ln (Damages) (+)</i>	<i>Days (+)</i>	<i>Return (-)</i>	<i>Adj. R2</i>
A) <i>Dependent Variable = (\$m settlement). Obs. = 90</i>					
-56.40 (-5.99)	-.07 (-1.23)	3.65 (6.97)			34.4
-57.82 (-6.13)	-.07 (-1.11)	3.65 (7.00)	.01 (1.36)		35.0
B) <i>Dependent Variable = (\$m settlement/sales). Obs. = 102</i>					
.07 (2.69)	-.003 (-1.95)				2.7
-.014 (-.35)	-.004 (-2.53)			-.34 (-2.64)	8.2
C) <i>Dependent variable = (\$m settlement/cash). Obs. = 102</i>					
.31 (6.58)	-.007 (-2.41)				4.5
.25 (3.26)	-.007 (-2.58)			-.25 (-1.06)	4.6

*Estimated coefficients with t-statistics in parentheses.

Alternative specifications of the dependent variable are defined as follows:

\$ settlement = dollar amount for which lawsuit is settled.

\$ settlement/sales = dollar amount for which lawsuit is settled deflated by annual sales in fiscal year that immediately precedes the lawsuit class action period.

\$ settlement/cash = dollar amount for which lawsuit is settled deflated by cash and short-term investments balance at end of fiscal year that immediately precedes the lawsuit class action period.

Independent variables are defined as follows:

Timing = the number of trading days between the end of the fiscal quarter and the earnings disclosure (so that negative values indicate disclosures that occur after the end of the fiscal quarter).

E(Timing) = conditional expectation for Timing, based on fitted values from regression model of disclosure timing (see text for details).

Damages = estimated stockholder damages based on the Proportional Trading Model.

Days = number of trading days in the class action period.

Return = raw stock return for the five days centered on the date of the earnings disclosure.

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