How do shareholders hold independent directors accountable?
Evidence from firms subject to securities litigation

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Abstract

We examine if investors hold independent directors accountable when firms are sued for financial fraud. Investors can name independent directors as defendants and can vote against their re-election to express displeasure over monitoring ineffectiveness. In a sample of securities class action lawsuits from 1996 to 2008, about 10% of independent directors of sued firms are named as defendants (named directors). The likelihood of being named is greater for audit committee directors and directors who sell stock during the class period. While litigation risk is increasing over time at the firm level, the likelihood of being named as a defendant has not increased for independent directors despite concerns to the contrary. Lawsuits with named directors are less likely to be dismissed and settle for more than other lawsuits. Independent directors in sued firms, especially named directors, receive more negative recommendations from proxy advisory firm ISS and significantly greater negative votes from shareholders than directors in a benchmark sample. Named directors are more likely to leave their positions in sued firms than other independent directors. The likelihood of losing directorship in a sued firm has increased in the post-2002 period, suggesting an increased aversion to retaining sued directors on corporate boards in recent times.

JEL: G30; G34; J33; K22; M41.

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We examine if shareholders hold independent directors accountable when companies the directors serve are sued for violations of securities laws. Shareholders have two publicly visible mechanisms to hold directors accountable – they can litigate against directors by naming them in the lawsuit and they can seek dismissal of the director from the board by voting against their re-election. We use the incidence of independent directors being named as defendants in securities class action litigation by plaintiff investors and the extent to which shareholders show their displeasure by voting against directors to assess how investors might hold directors accountable for the violations that lead to the securities lawsuits.

Prior literature (e.g., Srinivasan, 2005; Fich and Shivdasani, 2007) suggests that independent directors lose positions on boards of other companies when companies they serve on experience financial irregularities. These papers interpret the loss in other directorships as a reputational penalty in the market for directors. However, when it comes to the firm experiencing the irregularity itself, Srinivasan (2005) documents greater turnover on board of firms with an accounting restatement, whereas Fich and Shivdasani (2007) report no abnormal turnover on the board of sued firms. This inconsistency aside, these papers also do not address whether investors in the firm experiencing the irregularity hold the directors directly accountable – the inference is largely circumstantial based on director turnover. In this study, we address the litigation and voting mechanism for holding directors accountable in the sued firm and examine when and which directors are held accountable.

Potential costs to directors of being named in securities class action lawsuits include financial penalties, reputational harm, and time and distress costs of participating in proceedings related to the lawsuit.[1] While Black et al. (2006a) show that personal financial liability for independent directors is quite limited in the US, in recent high profile cases relating to Enron and Worldcom, plaintiffs (public pension funds in both cases) demanded personal payouts from independent directors as part of the lawsuit settlement to set an example that directors need to be held financially accountable for corporate malfeasance.[2] These settlements that targeted independent directors for personal payouts combined with the increased duties for independent directors after the Sarbanes-Oxley Act of 2002 (SOX) have caused concern that litigation risk has increased for outside directors (Bebchuk et al., 2006; Laux 2010, Steinberg 2011).[3] Linck, Netter and Yang (2009) document higher directors and officers (D&O) insurance rates after 2002 and conclude that director's litigation risk has significantly increased post-SOX. However, Black et al (2006a) conjecture that the risk from litigation may be overstated, as only a subset of directors of the company are named as defendants in securities lawsuits, further pointing out that there are no data available on how often outside directors are named as defendants (p. 161). Risk-averse individuals may however assign

[1] This comment by Toby Myerson, Partner. Paul, Weiss, Rifkind, Wharton & Garrison LLP at Harvard Law School Symposium on Director Liability, 2005 quoted in Bebchuk et al, (2006) reflects this concern: "Most people who consider acting as directors don't want to have their name in the caption of the lawsuit. They don't want to have to establish that they didn't do anything wrong. They don't want to have to be deposed and spend their time dealing with the litigation. Life is too short. People are busy; they have other things to do."

[2] Press Release, Office of the New York State Comptroller, Hevesi Announces Historic Settlement, Former WorldCom Directors To Pay from Own Pockets (Jan. 7, 2005). The independent directors of Enron and Worldcom made collective out-of-pocket payments of $13m and $24.75 respectively. http://www.osc.state.ny.us/press/releases/jan05/010705.htm.

[3] Among other things, SOX increased the statute of limitations on filing securities lawsuits and increased visibility for directors by requiring independent directors on key board committees and designation of an audit committee financial expert. Further, SOX allows SEC to ban directors from serving on boards if they are found to have violated Section 10(b) of the 1934 Securities Act.

greater weights to even low likelihood events if the resulting outcomes are extremely severe, as they are if damages are assessed on named directors (Alexander 1991).

We first provide evidence on the extent to which plaintiff investors hold independent directors accountable by naming them as defendants (hereafter named defendants or named directors) in securities class action lawsuits and determinants of which directors are named. Our sample consists of all companies sued for violation of Section 10 b (5) or Section 11 of the Securities Act between 1996 and 2008, as per the ISS Securities Class Action Litigation database, which are also present in the IRRC Directors dataset. The result is a sample of 845 lawsuits filed against U.S. companies in the S&P 1500 list. For this sample, we find an increase in litigation rates from 1996 to 2008 (with a spike in 2002), after controlling for the ex-ante litigation risk to take into account any changes in sample composition. Relative to the estimated unconditional likelihood of being sued (3.5%), the incremental annual increase in litigation risk at the company level is 7% in our sample. However, we find that the likelihood of an independent director being a named defendant has not increased over time. This evidence stands in contrast to the conclusion of greater litigation risk to directors in Linck, Netter, and Yang (2009). That conclusion is based on higher D&O insurance post SOX, which could be a result of company executives getting sued at a greater rate as indicated by the overall greater firm-level litigation risk discussed above. Conditional on a company getting sued, 9.25 percent of independent directors get named as defendants. The likelihood of being a named defendant is higher for independent directors who are members of the audit committee (56 percent of named defendants), have longer tenure on the board, or have sold shares during the class period (20 percent of named defendants).

Since the Enron and Worldcom settlements were the result of Section 11 claims, we examine this class of lawsuits separately. We find that the likelihood of a Section 11 claim against outside directors has indeed increased over time. However, this increase—while statistically significant—arises from a small set of cases numbering less than 10 in almost all years in the sample.

We find that lawsuit outcomes vary based on whether independent directors are named defendants. In our sample, the likelihood of lawsuit dismissal is decreasing in the number of independent directors named. While the time to settlement is not faster in a statistically significant way, the settlement amount increases by ten percent for every named independent director after controlling for a number of other determinants of settlement amounts including different measures of severity of the alleged wrongdoing. This suggests that independent directors are named in more severe lawsuits.

The second measure of shareholder displeasure we examine is how investors vote against directors in sued firms. Recent research such as Cai et al. (2009) (see Yermack 2010 for a comprehensive survey) finds that shareholder votes are significantly related to director performance and that boards act as if they respond to such voting outcomes, even if the economic magnitudes of the negative votes are small. We find evidence that the leading proxy advisor Institutional Shareholder Services (ISS) and shareholders take into account the alleged degree of responsibility of individual directors in firms' securities law violation in their recommendations and voting behavior. Named directors have a greater percentage of withheld votes (4 percent greater) compared to directors in a matched sample of non-sued firms. Directors of sued firms who are not named also have more shares withheld (2 percent greater) than directors of non-sued firms. Investor support for

directors is weaker when lawsuits allege accounting violations, for Section 11 claims, and when damages are more salient as measured by the length of the class period and the stock price drop during the class period. Furthermore, ISS is more likely to recommend voting against directors in sued firms and more so against named directors.

As noted above, Srinivasan (2005) and Fich and Shivdasani (2007) present different conclusions relating to abnormal board turnover in the financial fraud firms, albeit using different samples (in the former case the sample is accounting restatements from 1996 to 2002 and in the latter securities lawsuit firms between 1998 and 2002, which is more similar to our sample). To relate our findings to this research and to expand upon Fich and Shivdasani (2007), who report only average director turnover in the sued firm, we examine factors driving director retention in sued firms in a multivariate setting. The results suggest that named directors are more likely to leave their position in the sued company within two years of the lawsuit than other directors in sued firms as well as compared to a matched sample of non-sued firms. Independent directors' likelihood of leaving the board is increasing in the length of the class period, and in the extent of stock price decline during the class period. The propensity of named directors to leave their positions is greater in lawsuits that are not dismissed. The likelihood of leaving the board has increased for both named and other directors in sued firms after the 2002 (post-SOX) time period, which we use as a proxy for a period of greater governance sensitivity. Overall, these results suggest that named directors pay a price by losing their seats on the board of a sued company and that investors are inclined to vote against them, which can be an effective disciplining mechanism (Del Guercio et al. 2008). It is worthwhile noting that the voting results apply only for directors that

continue to stay on the board and therefore reflect the lower bound of investor displeasure if the more culpable directors already leave the board before the vote.

While our paper is related to the literature on reputational penalties for directors cited earlier, our focus is on accountability in the sued firm itself.[4] Examining the extent to which investors hold independent directors accountable through litigation and voting is important to assess director incentives to function as effective external monitors. Regulatory moves such as the proxy access initiative by the SEC to allow greater shareholder say in director elections are motivated by the premise that shareholders are likely to exercise their voting power to direct firms towards desirable outcomes. Bebchuk (2007) posits that shareholder reform is necessary to empower shareholders to hold directors accountable. Our findings suggest that shareholders do hold independent directors accountable both through litigation and through director elections but at levels that appear to us to be of modest economic magnitudes.

We recognize that a lawsuit filed for securities law violation does not imply that a fraud actually occurred in the firm. To the extent the lawsuits are meritless, the consequences will be muted. We consider settled versus dismissed lawsuits since dismissed cases are likely to be less meritorious. Further, we include SEC enforcement actions which are more likely when an actual fraud has occurred as an explanatory variable in our analysis. We take the view, however, that in the absence of a foolproof mechanism to identify fraud and director intent, these lawsuits provides us with a proxy of how investors may perceive the role of the director in monitoring.

[4] In additional analysis, we examine whether investor recognition of director performance extends to other boards that the director services on. We do not find evidence that investors withhold votes or that ISS provides a negative recommendation for directors of sued firms whether they are named directors or not.

While investors sue the named defendants in a class action lawsuit, in practice the plaintiff law firms are the driving force behind the lawsuits. We consider cases where the lead plaintiff is an institutional investor to more directly examine cases where large investors are involved in pursuing cases. Since the plaintiff law firms derive their authority to pursue the litigation from the firm's investors, we believe it is a relevant mechanism to express shareholder dissatisfaction. However, the reader should keep in mind the indirect nature of investor engagement in litigation against directors.

Our paper adds to the prior literature in a few ways. First, ours is the first paper—to our knowledge—that examines director-level litigation risk – both in terms of the extent and as to the causes and consequences. Since the litigation system is one of the important means of holding directors accountable, this is an important question to examine. In contrast to using all audit or compensation committee directors as potentially culpable for accounting or compensation mistakes, identifying responsibility using named directors uses the more involved process undertaken by the plaintiff investors. Second, we analyze the time series of litigation risk both at the firm and at the individual director level and find that the concern that litigation risk for individual directors has increased over time is misplaced. Third, we add to the director turnover literature by identifying director-level cross sectional and time-series determinants of turnover. Finally, our voting analysis adds to recent literature on shareholder voting by identifying the level and cross sectional determinants of voting against directors in sued firms. These findings combined with other supplemental findings on the effect of independent directors on settlements and the link to the director reputation literature allows us to present a picture of the mechanisms that shareholders possess to hold directors accountable and how they do so.

2. Accountability for Corporate Fraud

2.1 Accountability through Securities Class Action Litigation

Black et al. (2006a) document that independent directors have been held personally financially responsible under securities litigation only in a limited number of cases – in only thirteen since 1980 has a director made a personal payment for settlement or for legal expenses. Financial costs (resulting from settlements, since suits rarely go to trial) are normally indemnified by the company or paid by D&O insurance. However, this risk, while small, is exacerbated in particular circumstances such as inadequate D&O coverage, cases with no D&O insurance coverage if directors are themselves involved in the fraud, and if the company or the insurance company becomes insolvent. Black et al. (2006a) conclude that "the principal threats to outside directors who perform poorly are the time, aggravation, and potential harm to reputation that a lawsuit can entail, not direct financial loss." (p. 1056).

Despite the empirical fact documented by Black et al., (2006a) the fear of liability from securities litigation has long been seen as deterring individuals from serving as directors (Romano 1989; Sahlman 1990, Alexander 1991) and causing directors to become risk averse thus reducing board effectiveness (Black et al. 2006). These concerns have led influential commentators to recommend greater protection for independent directors from securities lawsuits (Committee on Capital Markets Regulation 2006). While prior papers (e.g., Fich and Shivdasani 2007; Cai et al. 2009) consider all directors of litigation firms as potentially at reputational risk, our interviews with attorneys on both the plaintiff and defense side and with directors who have experienced litigation suggest

that costs in terms of time, distress, and financial implications (however limited) of securities litigation arise mainly for directors named as defendants in lawsuits.

Alexander (1991) suggests that plaintiffs include individual directors as defendants, as these directors are more risk averse than the entity defendants (company, auditors, underwriters, etc.) and therefore more amenable to a settlement, giving plaintiffs an advantage in settlement negotiations. This is especially true for outside directors compared to officers of the company as the potential liability is significantly greater than the benefit that outside directors receive for their roles.[5]

Armour et al. (2009) support this reasoning and conjecture that outside directors are named as defendants to put collective pressure on the board to settle and to facilitate gathering of evidence through discovery but not necessarily because they are likely to be found liable. Plaintiff attorneys interviewed by us confirm this is true in practice, telling us that naming outside directors can act as an incentive for the firms to settle faster and for larger amounts due to pressure on management from named directors. This is also aided by the nature of the D&O insurance. Since available D&O insurance is shared by all the named officers and directors, the amount will be spent faster in defense costs when there are greater numbers of defendants, thus increasing the risk of personal out-of-pocket payments during a settlement. Further, D&O insurance covers only expenses related to individual directors and officers and not the company. Hence named directors have a voice in how the D&O availability is to be used (Alexander 1991).

On the flip side, plaintiff attorneys tell us that it is costly for plaintiffs to name directors indiscriminately in lawsuits for multiple reasons. First, and most importantly,

[5] Please see Black et al., (2006a) and Alexander (1991) for a more complete discussion of the legal implications of naming outside directors as defendants.

naming parties to the lawsuits without merit risks the lawsuit being dismissed for being frivolous. A strong inference of scienter has to be supported under the pleading standards of Private Securities Litigation Reform Act of 1995 (PSLRA). Second, plaintiff attorneys can be sanctioned by the court for bringing frivolous claims against any party including outside directors. Such sanctions have costly reputational impact for plaintiff attorneys since it lowers their chances of being certified as the lead plaintiff. Institutional investors would likely be cautious in hiring plaintiff firms that have a negative reputation. Third, it is costly for plaintiff attorneys to depose numerous defendants – as such they are likely to limit the amount of time and expense of depositions to the critical parties to the litigation. Finally, Black et al (2006a) suggest that trying a case with many individual defendants can confuse the jury and jeopardize the lawsuit. Therefore they posit that lead plaintiffs name outside directors initially for strategic reasons but eventually may remove their names. Also, our interviewees tell us that any directors named in error will be removed from the complaint as the lawsuit proceeds. Since our named directors are from the final list of named parties, we expect there was sufficient reason why these directors were named and stayed in the complaint compared to other independent directors and thus are also likely to be noted by investors when they vote in the next election.

The proxy advisory services track all named defendants (we purchased our data from ISS and know that Glass-Lewis tracks them as well). The Securities and Exchange Commission (SEC), as part of new proxy statement disclosure rules, recently extended the reporting period from five to ten years for disclosure about litigation and expanded the list of reportable litigation to include proceedings related to federal or state securities laws (even if it were to have been settled) involving directors and persons nominated to

become directors. The SEC considers this information material to an evaluation of "an individual's competence and integrity to serve as a director" (SEC 2009, pp. 36-37).[6] The existence of organized databases of directors involved in litigation reduces the cost to investors of tracking and using such information.

2.2. Accountability through Investor Voting in Director Elections

Voting against director reelection is another mechanism for shareholders to express displeasure with their independent directors. A few recent papers examine investor voting response to director performance [Yermack (2010) contains a comprehensive review of the larger shareholder voting literature]. Cai et al. (2009) document that votes are lower for directors after a securities lawsuit though there is no reduction in votes for audit committee directors in the year following an accounting restatement. They document lower votes for compensation committee members when the CEO receives excess compensation and when the director serves on the board of another firm that faces shareholder litigation. Whereas Cai et al., (2009) control for firm-level litigation and find that directors receive, on average, up to 1.29% lower shareholder support, our focus is on a director-level analysis of the shareholder vote and ISS voting recommendation in firms subject to lawsuits or high litigation risk. Ertimur et al. (2011) document that compensation committee members of option backdating companies

[6] Further, the SEC has required in the same rule that companies also disclose "for each director and any nominee for director the particular experience, qualifications, attributes or skills that led the board to conclude that the person should serve as a director for the company." (SEC 2009, p. 33) This has raised concerns that "disclosure of specialized knowledge or background of particular directors could lead to heightened liability." (SEC 2009, p. 31) referring to comment letters from the American Bar Association, Ameriprise Financial and the Business Roundtable accessible at http://www.sec.gov/comments/s7-13-09/s71309.shtml). Similar concerns had been expressed when SOX required the designation of a director as a financial expert in every audit committee.

receive fewer votes than other directors in these companies.[7] These papers do not provide evidence on whether shareholders explicitly target those directors through litigation.

While the voting outcomes documented in Cai et al. (2009), and Fischer et al. (2009) are not economically large, these papers provide evidence that directors appear to pay heed to the negative votes. Subsequent CEO compensation is lower and CEO turnover performance sensitivity is higher in the year following votes against reelection of independent directors. According to Cai et al. (2009), negative votes against directors also lead to director resignations.

One type of systematic opposition to directors are "Vote No" campaigns, where shareholders are encouraged to withhold votes for one or more directors. Grundfest (1993) argues that those are effective tools to drive board member action but is opposed to targeting individual directors and instead advocates that the board as a whole should suffer the consequences. Consistent with that advice, Del Guerco et al. (2008) find that only about a quarter of campaigns are against individual directors. They report evidence that the average campaign target firm improves subsequent operating performance as well as improves CEO turnover performance sensitivity. These types of campaigns are generally aimed at changing the overall strategy of the firm. Campaigns to punish particular acts of poor monitoring are mainly related to high executive pay.

A number of papers have highlighted the role of proxy advisory services, in particular ISS. These papers have found that ISS recommendations have a significant influence on proxy voting outcomes (Alexander et al. 2010; Cai et al. 2009). More

[7] Proxy services ISS and Glass-Lewis have explicitly stated policies to recommend against compensation committee directors of backdated companies (as well as audit committee members of firms with accounting problems). In contrast, we have verified that neither has any explicit voting policy regarding directors involved in litigated firms, removing the possibility of a mechanical relationship.

relevant to our paper, Cai et al. (2009), find that an individual director's vote share drops by about eight percent when ISS recommends shareholders vote against a director. Choi et al. (2009) provide evidence that ISS and other proxy advisory service (Glass Lewis, Egan Jones and Proxy Governance) recommendations are based on observable firm and director characteristics and that investor voting decisions are based on these observable characteristics and not on the recommendations per se.

While shareholder votes provide a direct measure of shareholder discontent with the board or individual directors, director turnover provides another mechanism for disciplining of independent directors. The evidence, though, is mixed. Prior papers have found evidence that directors lose their position on the board when firms experience a financial crisis or allegations of financial misconduct (e.g., Gilson 1990; Srinivasan 2005; Ertimur et al. 2011). In contrast, Agarwal, Jaffe and Karpoff (1999) find that director turnover is unchanged after fraud and Fich and Shivdasani (2007) find that directors do not lose positions on the board of the sued firm beyond normal levels – 83 percent of directors remain on the board three years after the lawsuit. This inconsistent evidence raises questions about director accountability in firms experiencing financial fraud.

While we focus more on accountability for directors in sued firms, our paper is related to the literature on reputational costs which documents that directors incur reputational costs if the labor market perceives them as being a weak monitor (Srinivasan 2005; Black et al. 2006; Fich and Shivdasani 2007). We examine loss in other board positions and voting in other directorship positions in the additional analysis section to examine how our results compare with those in prior literature. While the evidence in prior literature is consistent with ex-post settling up in the market for directors reflecting

a reputational cost consistent with Fama (1980) and Fama and Jensen (1983), the evidence could also reflect directors voluntarily leaving board positions if they become more risk averse after their companies are sued or to reduce their workload in troubled companies. Our voting analysis in other directorships is thus a better indication of the demand from investors for director performance.

3. Sample Selection and Descriptive Evidence

3.1. Sample selection

We obtain data on securities litigation in the U.S. over the period 1996-2008 from the ISS Securities Class Action database. We match defendant names from that database with director names from IRRC and trader names from SEC filings in the Thomson Insider Trading database. This yields a sample of 845 lawsuits with data available on Compustat and CRSP for other stock market and financial variables. In addition, the sample is further reduced to 743 lawsuits when we require firms to be in IRRC as of the lawsuit filing date. The corresponding number of outside directors on the board of those firms when the lawsuits are filed is 5,446. We also create a matched sample of firms/directors following Rogers and Stocken (2005) (we describe this in Appendix A) to identify firms with ex-ante litigation risk similar to that of the sued firms. We match sued firm-years with non-sued firm-years by industry, size, performance and estimated litigation risk.[8] We obtain a sample of 743 non-sued firms with 5,401 outside directors.

3.2. Descriptive statistics

[8] More specifically, we rank firms by market capitalization and return on asset terciles within each industry-year, where industry is based on two-digit SIC code. Each lawsuit firm is then matched to the non-litigated firm with the highest estimated litigation risk among its peers (same industry, size tercile and ROA tercile).

Table 1 reports descriptive statistics for our sample of firms subject to securities lawsuits and the outside directors who serve on their board at the time of the lawsuit. Panel A presents lawsuit characteristics separately for the entire lawsuit sample (subject to firm availability on Compustat and CRSP) and for the sample restricted to IRRC firms. Our subsequent tests are based on the IRRC sample. The IRRC sample contains more lawsuits related to GAAP violations (57.75% versus 47.02%) but fewer Section 11 lawsuits (10.77% versus 25.69%). Lead plaintiffs are more likely to be institutional investors in the IRRC sample (51.00% versus 35.21%), likely because these firms are larger on average. In terms of outcomes, the dismissal rate is higher in the IRRC sample (38.46% versus 30.93%) but settlements are larger on average ($108 million versus $41 million), again likely because IRRC firms are larger.

Panel B shows descriptive statistics for director characteristics in the IRRC and matched samples. Among independent directors at the time of the lawsuits, 9.26% are named as defendants and 12% of them sell shares during the class period (4% of their holdings on average). In both samples, about half of the directors are audit committee members. Means and medians are insignificantly different between sample and matched observations for all director characteristics reported in the panel.

Panel C reports descriptive statistics for firm characteristics in the IRRC lawsuit and matched samples. 12.15% of firms issue equity during the class period. The mean (median) stock price drop during the class period is 2% (20%). Except for median ROA, which is significantly higher in the matched sample ($p<0.10$), all means and medians are insignificantly different between sample and matched observations in terms of firm size, performance, growth, industry and board size.

4. Litigation Risk for Independent Directors

4.1. Has litigation risk changed over time?

We begin the multivariate analysis by examining if the extent of litigation risk for independent directors both at the firm level and at the individual director level has changed over the sample time period using the following regression specification:

$$\Pr(Sued \text{ or } Named = 1) = \alpha_0 + \alpha_1 Time + \alpha_2 LitigRisk + \alpha_3 Boards + \varepsilon \quad (1)$$

where the dependent variable is either (a) *Sued*, an indicator variable equal to one if a director is on the board of a sued firm, and zero otherwise, or (b) *Named*, an indicator variable equal to one if a director is a named defendant, and zero otherwise. The sample consists of all director-year observations in IRRC from 1996 to 2008 where directors are classified as independent. The main variable of interest is *Time*, which is equal to the year of observation. We use a parsimonious set of control variables by including the estimated ex-ante litigation risk averaged across all firms in which the individual is an outside director (*LitigRisk*) and the number of boards the director sits on (*Boards*).

Table 2 reports regression results for this estimation. In the first column, the significantly positive coefficient on *Time* indicates that the likelihood of being on the board of a sued firm has increased during our sample period. Based on the model's estimated unconditional probability (3.55%), the time variable's marginal effect suggests that the relative incremental probability of a firm being sued is about 7% per year (0.0025/0.0355). In contrast, the results in the second regression indicate that there is no significant increase in the likelihood of an independent director being named as a defendant over our sample time period. However, in the third regression, the significantly

positive coefficient on *Time* suggests an increasing trend in the risk of being named as defendant in a Section 11 lawsuit. Overall, the unconditional probability of being named as defendant remains quite small in any given year (0.35% for all lawsuits and about 2.6% over the average tenure of about 7 years for an outside director). These findings should put to rest concerns as expressed in the opening quotation of the paper.

4.2. Determinants of directors being named as defendants in securities lawsuits

The previous test addresses the unconditional probability that a director will be involved in a lawsuit. Next, we look at the conditional probability that a director is named as defendant by focusing on the sample of securities lawsuits.

4.2.1. Univariate analysis

Table 3 reports univariate results for the comparison of director characteristics between independent directors who are named defendants and others who are on the board at some point during the class period, but not named. In Panel A, we present two contingency tables on the likelihood that audit committee members and directors who sold stock during the class period are named as defendants. In the first table, the proportion of audit committee members being named (10.64%) is higher than the proportion of non-audit committee members (8.18%). The chi-square of 9.60 ($p<0.01$) indicates that the difference is statistically significant, although the magnitude is modest. The second table indicates that 17.49% of outside directors who sold shares during the class period are named as defendants, compared to 8.38% of those not selling any shares. The difference is economically and statistically significant ($p<0.01$ for the table). Interestingly, for our sample, more than 80% of directors who sold shares during the class

period are not named defendants, suggesting that plaintiffs do not automatically name as defendants outside directors who sell stock.

Panel B reports univariate differences between the group of named directors and (i) all other directors not named in sued firms or (ii) directors who are not named in lawsuits where at least one director is named. Consistent with Panel A, the results indicate that named defendants are more likely to be audit committee members (56%) compared with the rest of the sample (49%) or with non-named directors in firms with at least one named director (45%). In both cases, the difference is statistically significant. Also consistent with Panel A, the proportion of named directors who sell shares during the class period (20%) is twice as large as in the non-named samples, the differences being statistically significant ($p<0.01$). Similarly, named directors sell a significantly larger portion of their stock holdings during the class period (7.47% compared to 3.20%). Named directors tend to have longer tenure on the board of the sued firm when the lawsuit is filed (mean of 7.49 years) compared to the non-named director samples (6.58 years and 5.43 years). The differences are statistically significant at the 1% level. This suggests that directors with longer tenure are more likely to be held responsible for failure to monitor corporate wrongdoing. Female directors are less likely to be named (11% compared to 15% and 13% of non-named directors), although the difference is only significant when compared to the whole population of sued directors. Finally, within lawsuits where at least one director is named as defendant, named directors hold significantly more other directorships (1.27) compared to non-named directors (1.04).

4.2.2. Multivariate analysis

We expand on the above by estimating the following logistic regression:

$$\Pr(Named = 1) = \alpha_0 + \sum_i \alpha_i \, Director\ Characteristics$$
$$+ \sum_j \alpha_j \, Lawsuit\ Characteristics \quad + \sum_k \alpha_k \, Firm\ Characteristics + \varepsilon \qquad (2)$$

where the dependent variable is equal to one if a director is named as defendant in a securities lawsuit, and zero otherwise. The sample consists of all independent directors who are on the board of a sued firm at the time the lawsuit is filed. We include three sets of independent variables: director-, lawsuit- and firm-specific characteristics. Among the director characteristics, we are particularly interested in *Audit Committee*, which indicates whether a director is on the audit committee, and *Shares Sold*, which is the proportion of a director's stock holdings that were sold during the class period. We expect a positive coefficient on *Audit Committee* since allegations of material misstatements or lack of disclosure relate to possible oversight omissions on part of the audit committee. Selling of shares during the class period allows plaintiffs to allege fraudulent intent. Such an inference is required to survive a motion to dismiss under the PSLRA. *# Other Boards* equals the number of other boards that the director sits on within the IRRC universe. If plaintiffs target "busy" directors as poor monitors (Ferris et al. 2003; Fich and Shivdasani 2006) or for being "deep-pocketed", this will result in a positive coefficient on that variable. We also include a director's age, gender and tenure at the firm, and their stock holdings scaled by shares outstanding (*Shares Held*). For lawsuit characteristics, we create an indicator variable for Section 11 lawsuits (*Section 11*), for which we expect more directors to be named as defendants, and for lawsuits which have related action by the SEC (*SEC Action*). We also control for lawsuits related to option grant backdating (*Backdating*). We include *Institutional Lead Plaintiff* (equal to one if the lead plaintiff is an institutional investor, and zero otherwise) because Cheng et al. (2010) report that the

probability of surviving the motion to dismiss and the settlement amount are higher when the lead plaintiff is an institutional investor. *GAAP* is equal to one if the lawsuit alleges GAAP (i.e., accounting) violation, and zero otherwise. *Log Class Period* is the log of the number of calendar days in the class period; *Class Period Price Drop* is the cumulative stock return during the class period multiplied by negative one; and *Share Turnover* the average daily share turnover during the class period (measured by trading volume as a percentage of shares outstanding). We expect directors to be more likely to be blamed for more egregious cases (those with a longer class period and/or a larger stock price decline over the class period). *Equity Issuance* equals one if the firm issued public equity during the class period, and zero otherwise. Although *Equity Issuance* is likely to be correlated with *Section 11*, we include it separately because equity issuance can be associated with earnings management (Teoh et al., 1998) and it is a common settlement-predicting variable in practice. Other firm-level characteristics include market capitalization, return on assets, sales growth, an indicator for high litigation-risk industries and board size.

Table 4 reports results of the above estimation. The first (second) column reports regression coefficient results for the full (within-firm) sample. The coefficient on *Audit Committee* is significantly positive in both regressions ($p<0.01$), which indicates that audit committee directors are more likely to be named defendants. The significantly positive coefficients on *Shares Sold* indicates that independent directors who sell a greater proportion of their stock holdings during the class period are more likely to be named. The significantly positive coefficients on *Tenure* and *# Other Boards* indicate that directors with longer tenures and busier directors are significantly more likely to be named defendants. These results are consistent with those documented in the univariate

analysis. In terms of lawsuit characteristics, the significantly positive coefficients on *Section 11* and *Backdating* in the full sample indicate that directors are more likely to get named in Section 11 and backdating lawsuits. That these coefficients are insignificant in the restricted sample suggests that several independent directors are named in those types of lawsuits. Surprisingly, the likelihood of being named decreases in the length of the class period (negative coefficient on *Class Period*) and in lawsuits that have related SEC action ($p<0.10$ in both samples). Overall, the results in Table 4 indicate that audit committee membership, stock sales during the class period, and Section 11 lawsuits are associated with a greater likelihood that an independent director is named a defendant. These results fit with our expectations based on institutional features of Section 11 lawsuits and because stock sale by named defendant is used to establish fraudulent intent.

4.3. Lawsuit outcomes when independent directors are defendants

Next, we examine lawsuit outcomes depending on whether independent directors are named as defendants or not using the following model:

$$Outcome = f(\#Named, Lawsuit\ Characteristics, Firm\ Characteristics) \quad (3)$$

where *Outcome* is one the following three variables: *Dismissed*, an indicator equal to one if the case is dismissed, and zero otherwise; *Settle Speed*, which is the log of the number of days between the filing date and the settlement date; *Settle Amount*, which is the log of the total dollar value of the lawsuit settlement.

With *Dismiss* as the dependent variable, we use a logistic specification. The main variable of interest *# Directors Named* equals the number of outside directors named as defendants. We expect more directors to be named in more severe cases which in turn are less likely to be dismissed, so the coefficient on *# Directors Named* should be negative.

With *Settle Speed* as the dependent variable, we use a Cox proportional hazard model. Quicker settlement is presumably in the interest of all parties (plaintiffs and defendants). In particular, we expect that named directors want to avoid the uncertainty of a lengthy litigation process. If cases with named directors settle more promptly, the coefficient on *# Directors Named* should be negative.

With *Settle Amount* as the dependent variable, we use an OLS regression with only settled cases as the sample. We expect a positive coefficient on *# Directors Named*, i.e. cases with more named outside directors result in larger settlement amounts. The other independent variables are the same lawsuit and firm-level variables as in Model (2).

Table 5 presents the results of these regressions. In all three tests we include fixed effects for year and the federal court in which the suit is filed to take into account any time period and court specific effects. The first set of two columns reports logistic regression coefficients and *z* statistics for lawsuit dismissal analysis. The significantly negative coefficient on *# Directors Named* ($p<0.01$) indicates that the more outside directors are named in a lawsuit, the less likely the lawsuit is to be dismissed. This suggests that directors are less likely to be named in frivolous cases. The likelihood of dismissal is also lower for lawsuits (i) where the plaintiffs allege GAAP violations, (ii) where the lead plaintiff is an institutional investor, and (iii) with longer class periods, based on the significantly negative coefficients on *GAAP* ($p<0.10$), *Institutional Lead Plaintiff* ($p<0.01$), and *Class Period* ($p<0.01$), respectively. Larger firms are more successful in getting suits dismissed ($p<0.05$).

The second set of columns reports coefficient and chi squares for the analysis of settlement speed. There is no significant association between the speed of settlement and

the number of outside directors being named. Cases (i) with allegations of GAAP violations and (ii) where the SEC is involved are associated with shorter settlement times. Also, a larger stock price decline during the class period is positively associated with settlement speed, whereas firm size is negatively associated with settlement speed.

The third set of columns presents OLS coefficients and the associated *t*-statistics where the dependent variable is the log dollar amount of the settlement. The coefficient on *# Directors Named* is significantly positive ($p<0.05$), which indicates that the more outside directors are named in a securities lawsuit, the larger the settlement amount. The results also indicate that lawsuits that (i) allege GAAP violations, (ii) are filed under Section 11, (iii) involve an SEC action, (iv) have an institutional investor as lead plaintiff, (v) are filed against larger firms, (vi) have longer class periods, (vii) experience a greater stock price decline during the class period, and (viii) have higher share turnover during the class period are associated with higher settlement amounts at statistically significant levels. This is consistent with practitioner and academic studies on settlement predictions and damage estimations (e.g., Simmons 1999; Booth 2009). Overall, Table 5 indicates that directors are named as defendants in cases that are less likely to be dismissed and settle for a larger amount, but are not associated with any faster settlement.

5. Shareholder Voting and Director Turnover in Litigation Firms

We next examine shareholder voting and director turnover as mechanisms to hold directors accountable in lawsuit firms. For our shareholder voting tests, the sample is all directors from firms in the IRRC sample for which we have voting data from ISS Voting Analytics database (available only from 2001). In some tests, we include the matched

sample by adding directors from non-sued firms matched with the lawsuit sample as described earlier (also see Appendix A and Table 1). Since we evaluate voting and turnover up to two years ahead, we exclude from these test (i) lawsuits filed in 2007–2008 and (ii) firms that are not in IRRC in the two years following the lawsuit.

5.1 Univariate evidence on shareholder voting

Panel A of Table 6 presents univariate statistics on ISS recommendations for election for not-named directors in companies in the lawsuit sample in column 1, named directors in column 2 and all directors in the matched sample in column 3.[9] The incidence of ISS "withhold" recommendations is significantly higher for sued firm directors (8.03%) than for directors of the matched sample firms (4.48%) and higher for named directors (19.61%) than both not-named directors of sued firms and directors in the matched sample. Withhold recommendations are also more frequent for named audit committee directors (26.23%) compared to other named directors (9.76%). Also, named audit committee directors receive significantly greater negative recommendations (26.23%) compared to not-named audit committee directors in the sued firm (7.91%) and relative to audit committee directors in the matched sample (2.80%). The same relationship holds for directors who sold shares during the class period with the named defendant sellers receiving a greater proportion of withhold recommendation (25.93%) than named non-sellers (17.33%), not-named sellers (6.55%) and seller directors in matched firms (3.40%). This suggests that the proxy advisory firm identifies named audit committee directors and directors who sell shares for a negative vote even compared to other audit committee members and directors who sold shares in the same firm.

[9] We do this for the first two elections after the lawsuits.

Panel B reports mean percentage of shareholder votes withheld in director elections for the same three groups as in Panel A. In the full sample, (a) the extent of vote-withholding is significantly higher for non-named directors in sued firms (6.44%) compared to non-sued firms (4.54%) and (b) named directors receive significantly lower shareholder support (8.6% votes withheld) than non-named directors do (6.4% votes withheld) and matched sample directors (4.54%). Given the small percentage of votes withheld in general, we believe this difference is economically significant. Shareholders withhold a significantly greater proportion of their votes for named audit committee members (10.02%) than named non-audit committee directors (6.59%), not named audit committee members (6.51%) and audit committee directors in the matched sample (4.36%). In contrast, named directors who sold shares during the class period (7.20%) do not receive lower shareholder support compared to named non-sellers (9.16%) and non-named sellers (7.27%). Also, shareholder support is significantly lower for named directors in dismissed cases (11.9% withheld) compared to named directors in non-dismissed cases (6.93%) and non-named directors in dismissed cases (6.25%). This anomalous result can be driven by the fact that in many cases the first year of voting can take place before the lawsuit is dismissed.

Overall, the results indicate that directors in sued firms, especially named directors, are more likely to receive a negative ISS recommendation and receive lower shareholder support in their elections than matched firm directors, consistent with adverse demand-side consequences of their alleged involvement in securities law violation.

5.2. Multivariate analysis of ISS recommendations and director elections in sued firms

We extend the above univariate results with two sets of multivariate tests. First, we use a logistic regression where the dependent variable is *ISS Withhold*, an indicator variable equal to one if ISS issues a "withhold" recommendation for a director's election, and zero otherwise. The independent variables are the same as in Model (2), except that we add an indicator variable for new directors, who are less likely to be blamed for the alleged wrongdoing. A positive coefficient on *Named* would suggest that ISS takes into account named directors when issuing unfavorable recommendations, or that ISS' recommendation policies target directors that are more likely to be named such as those on the audit committee.

Second, we run an OLS regression where the dependent variable is shareholder votes withheld as a percentage of votes cast for a director in the first election for the director held within two years of the lawsuit filing. The primary variable of interest is *Named*. If shareholders express greater dissatisfaction with a named director the coefficient on *Named* should be positive. We also investigate ISS recommendations and shareholder voting for sued directors compared to matched directors, in which case the variables of interest are *Sued* and *Named*.

Table 7 reports the regression results for the above analysis.[10] In Panel A, the sample includes only elections in lawsuit firms. First, we report logistic regression estimates for the ISS recommendation analysis. The significantly positive coefficient on *Named* indicates that ISS is more likely to recommend that shareholders withhold their votes for named directors. ISS also appears to recommend voting against directors in Section 11 lawsuit companies. The third and fourth columns report regression

[10] All but one of the backdating lawsuits are excluded from our analysis going forward, due to the 2006 cutoff date. Hence, we do not include the backdating indicator variable in our turnover and voting tests.

coefficients and *t* statistics where the dependent variable is votes withheld as a percentage of votes cast for director elections. The positive coefficient on *Named* indicates that named directors receive, on average, 1.92% lower shareholder support, controlling for other factors. However, the coefficient is not statistically significant at conventional levels (p value = 0.11). Shareholder support for director elections is significantly lower in lawsuits (i) filed under Section 11 and (ii) alleging GAAP violations, but it is higher in cases led by an institutional plaintiff and those that follow equity issuance by the firm.[11] Also, shareholders withhold more votes in cases with (i) longer class periods and (ii) with larger stock price drops, consistent with those cases being more severe.[12]

In Panel B, we perform a similar test by adding to the sample a set of directors from non-sued firms matched with the lawsuit sample by industry, size, performance and ex-ante estimated litigation risk (see Appendix A). In that sample, we add an indicator variable *Sued* equal to one if a director is on the board of a sued firm (but not named as defendant), and zero otherwise. This enables us to benchmark shareholder voting for directors in sued firms against non-sued directors. We exclude the lawsuit characteristics from the set of explanatory variables in this test.

The positive coefficients on *Sued* and *Named* indicate that ISS is more likely to recommend voting against directors from lawsuit firms. Consistent with Panel A, the coefficient on *Named* is significantly greater than the one on *Sued*. In the voting regression, the coefficients on *Sued* and *Named* are significantly positive, which indicates

[11] Related research finds that shareholder proposals sponsored by an institutional investor receive greater support (Gillian and Starks 2000).

[12] Our voting regression excludes the strongest predictor of shareholder voting, which is the recommendation provided by proxy advisory firm ISS. We omit ISS recommendation to identify primitive factors that drive voting behavior other than the effect of the recommendation itself following Choi et al., (2009). When we include an indicator variable for an unfavorable recommendation by ISS, the model R^2 increase from 12 to 52%, consistent with the recommendations being influential (Choi et al. 2009).

that directors from lawsuit firms receive lower shareholder support in their elections compared to matched directors (1.87% for non-named directors and 4.17% for named directors, respectively). Furthermore, the coefficient on *Named* is significantly greater than the one on *Sued*. Overall, the evidence in Table 7 is consistent with the proxy advisory firm ISS noting named directors when forming their recommendations in director elections. In addition, there is evidence that outside directors receive lower shareholder support in sued firms, with an incremental effect for named directors.

5.3. Director turnover in sued firms

To relate our paper to prior research on director turnover, especially Fich and Shivdasani (2007), we examine the likelihood of a named outside director continuing on the board relative to other outside directors. The sample consists of all outside directors on the board during the class period and at the time of the lawsuit filing.

5.3.1 Univariate evidence on director turnover in sued firms

Table 8 reports univariate comparison of director turnover rates in firms subject to litigation between three groups of directors: Columns (1) and (2) report turnover frequency for outside directors in firms subject to securities lawsuits, respectively for those not named and those named as defendants, while Column (3) reports turnover frequency for outside directors in the matched sample. We measure director turnover when a director is no longer on the board of the sued firm by the second annual meeting following the lawsuit filing date (we use a two-year window to be consistent with timing in the shareholder voting analysis.)

In the full sample, the incidence of turnover among named directors is 25.38%, which is significantly greater than 15.62% for non-named directors and 16.32% for

matched directors. Audit committee members are not more likely to leave the board – the difference between turnover rates for audit committee members and others among named and non-named directors is statistically insignificant. In contrast, we find a higher incidence of turnover among stock sellers (36.51%) than non-sellers (21.83%) within the group of named directors, the difference being significant ($p<0.05$). This pattern does not apply to non-named directors or matched directors, but turnover remains significantly higher for named compared to both groups among stock sellers and non-sellers. Hence, while prior research documents that independent directors earn significant abnormal returns on their stock sales prior to bad news (Ravina and Sapienza 2010), our results highlight one of the costs they can bear for those trades.

The incidence of director turnover is significantly higher for named compared to non-named directors when the case is not dismissed (suggesting non frivolous cases) but not so for the dismissed cases. Also, among named directors, the incidence of turnover is significantly higher when the case is not dismissed. This highlights the importance of the two dimensions we posit to be relevant in distinguishing among outside directors in firms subject to securities lawsuits, i.e. the merit of the case and whether the plaintiffs directly implicate the directors by naming them as defendant. With a turnover rate of 30.26% over a two-year period, named directors in non-dismissed cases are about twice as likely to lose their seat as non-named directors and directors in firms matched on litigation risk.

5.3.2 Multivariate analysis for director turnover in sued firms

We estimate a logistic regression where the dependent variable is director turnover as defined above. Since Fich and Shivdasani (2007) rely on univariate evidence to assess same board turnover, we contribute to the literature by estimating factors

associated with director departure in sued firms in a multivariate regression. The variable of interest is *Named*, which should exhibit a positive association with turnover if a named director is more likely to leave the board. We include all the director, lawsuit and firm characteristics from Model (2) to control for factors potentially correlated with director turnover and the likelihood that someone is named a defendant. As before, we repeat the tests after including directors from matched non-sued firms. In that test, we add a variable *Sued* equal to one if a director is on the board of a sued firm (but not named as defendant), and zero otherwise. This enables us to benchmark the likelihood of turnover for directors in sued firms against non-sued directors. As before, we exclude the lawsuit characteristics from the set of explanatory variables in this test.

Table 9 presents the regressions results. In Panel A, we present the logistic regression coefficients and *z* statistics where the dependent variable is director turnover and the sample restricted to directors of sued firms. The significantly positive coefficient on *Named* indicates that named directors are more likely to lose their seat within two years, consistent with the univariate results. Director turnover is also higher among those who are 65 and older and female directors. In terms of lawsuit characteristics, class period length, magnitude of class period stock price drop and class period share turnover all exhibit a significantly positive association with director turnover, suggesting that cases where plaintiffs suffer greater damages are more likely to result in director turnover. In the second regression, the sample includes directors from firms matched with sued firms based on litigation risk. Consistent with univariate results, the coefficient on *Named* is significantly positive ($p<0.10$) and greater than the one on *Sued* ($p<0.05$). However, *Sued* itself is insignificant consistent with univariate results in Fich and Shivdasani (2007).

In Panel B, we look separately at cases that are dismissed or not. With and without the matched observations included in the sample, the coefficient on *Named × Not Dismissed* is significantly positive and greater than the coefficient on *Named × Dismissed*, which indicates that named directors lose their board seats when lawsuits are likely less frivolous than the dismissed cases.

In Panel C, we look separately at cases filed before and after 2002 (indicating a time period subsequent to the corporate scandals that led to the enactment of SOX). In both samples, the coefficient on *Named × Post-2002* is significantly positive and greater than *Named × Pre-2002*, which suggests that named directors are more likely to lose their board seats in the post-2002 period. In addition, the coefficient on *Sued × Post-2002* is significantly greater than the one on *Sued × Pre-2002*, i.e., directors of sued firms in general are more likely to lose their seats after 2002. The Fich and Shivdasani (2007) sample ends in 2002. Thus our results indicate that the likelihood of director turnover has increased after the 2002 time period and is now a significant effect. Moreover, *Named × Post-2002* is significantly greater than *Sued × Post-2002*. Hence, named directors appear to be the ones more affected in the post-2002 period.

6. Additional Analysis: Shareholder Voting and Director Turnover in Other Firms

We extend our voting and director turnover results to other directorships where directors of sued firms hold board positions. While our paper deals primarily with director accountability in sued firms, we report our additional analysis to relate our findings to prior literature on reputational penalties for independent directors.

Fama (1980) and Fama and Jensen (1983) posit that firm performance impacts director reputation as corporate stewards, which is rewarded or penalized in the market for directorships. Prior papers have found supporting evidence that directors lose their position on other boards when they serve as directors of firms experiencing a financial crisis or allegations of financial misconduct (e.g., Srinivasan 2005; Fich and Shivdasani 2007; Ertimur et al. 2011)

Using a sample of securities lawsuits from 1998-2002, Fich and Shivdasani find a reduction in other directorships for board members after a securities class action lawsuit, which they interpret as the consequence of a negative reputational effect on the outside directors of the sued firm. While this evidence and that in other papers cited above is consistent with ex-post settling up in the market for directors reflecting a reputational cost, the evidence could merely reflect directors that voluntarily step down from board positions if they experience the costs of litigation first–hand, reflecting increased risk aversion on the part of directors of sued companies. Ertimur et al., (2011) do not find lower opposing votes at other directorships of directors of option backdating firms suggesting that reputational penalties reflected in loss of other board positions are not mirrored in shareholder votes.

To examine this result further, we extend our analysis to examine cross sectional determinants of shareholder voting in other directorships. We test whether directors of sued firms are more likely to (a) receive an ISS withhold recommendation in the other directorship, (b) receive lower shareholder support in their elections in other firms compared to outside directors from firms matched on litigation risk who hold board seats

outside of the matched firms, and (c) lose board seats in other firms. We also conduct within lawsuit-sample analysis to compare named and non-named directors.

Table 10 reports the univariate results. Panel A presents results for ISS withhold recommendation, panel B for shareholder votes, and panel C for director turnover on other boards for directors who are independent directors in other firms. In all panels, the third column titled *Matched* reports statistics for the other directorships of directors from firms matched on litigation risk.

In Panel A, we find no difference in ISS recommendation for the full sample between the three groups. However, ISS recommendations are significantly negative in other directorships for named directors who sold shares in the class period (57.14%), both as compared to named directors who did not sell shares (7.06%) and as compared to not-named selling directors in sued companies (7.46%) or matched sample of selling directors (2.56%). In Panel B, there are no significant differences across the three groups of directors in terms of shareholder voting in the other board seats they hold. In Panel C, the results indicate that the incidence of turnover in other board seats held in non-sued firms for named directors (20.60%) is insignificantly different from non-named directors (19.65%), but that both are significantly higher than for matched directors (12.23%). This result for directors of sued firms is similar to that in Fich and Shivdasani (2007).

For parsimony, we do not tabulate regression results for the analyses of director turnover and shareholder voting in other board seats held by directors of sued firms. Our conclusions based on the univariate results remain valid in a regression setting. In addition, we find no evidence of a statistically significant increase in director turnover in other board seats after 2002 (not tabulated).

In addition to or instead of losing board seats, outside directors can face costs in terms of gaining fewer seats in the future (Coles and Hoi 2003). In untabulated tests, we examine the probability that directors from sued companies gain additional board seats (within IRRC) compared to non-sued directors. The results (not tabulated) suggest that, on average, sued directors do not face significantly higher opportunity costs in the labor market than non-sued directors. However, we find some evidence that busier directors (those holding at least two board seats at the time of the lawsuit) who are named as defendants are less likely than their peers to gain additional seats in the next two years.

7. Conclusion

We examine two mechanisms by which shareholders can hold independent directors accountable for corporate financial fraud – shareholder litigation that names the independent directors as defendants and shareholder voting in director elections. We examine those outcomes for a sample of firms that were sued for Securities Act violations under Section 10b-5 or Section 11 claims.

We find that independent directors get named as defendants in securities lawsuits at a modest rate. Conditional on the company they serve getting sued, 9.25 percent of independent directors get named as defendants. Further, the litigation risk for independent directors has not changed over the time period 1996-2008, despite increased overall rates of litigation for firms in general. This result should alleviate concerns of directors and other observers who are worried about increasing litigation risk for outside directors and the consequent impact on (i) the willingness of qualified individuals to serve on boards and (ii) excessive risk aversion on the part of directors who may fear

getting sued. However, we find that audit committee directors are more likely to be sued, consistent with concerns about litigation exposure of these directors.

Our results suggest that independent directors are named in more serious lawsuits – ones that survive the motion to dismiss, suggesting that plaintiff attorneys are not naming directors frivolously. Moreover, settlement amounts are larger in lawsuits with named directors even after controlling for severity of the allegation. This is consistent with a plaintiff strategy of naming directors as a tactic to increase settlement amounts.

We find that in addition to accountability through the litigation process, shareholders also hold independent directors accountable by voting against them in sued firms including a greater negative vote for named directors. Proxy advisor ISS recommends a greater negative vote against directors in sued firms, especially those that are named in the lawsuit. Directors of sued firms, and again, especially those that are named defendants, are also significantly more likely to lose their board seats position in the sued firm after 2002 than before, possibly reflecting greater visibility for corporate failures in recent times.

Finally, our additional analysis shows that independent directors of sued firms are also more likely to lose positions on other boards where they are independent directors — whether they are named defendants or not. While this is a measure of reputational cost to directors of being sued, we find no evidence that investors withhold votes or that ISS provides a negative recommendation for directors of sued firms whether they are named directors or not. This suggests that shareholder voting is limited as a channel by which reputational cost travels to other firms.

Overall, our results provide an empirical estimate of the extent of accountability that outside directors bear due to corporate problems that lead to securities class action litigation. These results are useful for corporate independent directors to assess the extent of risk they face from litigation, shareholder voting and departure from boards of sued firms. While the percentage of named directors is small compared to the overall population of directors, individual directors may weigh their risk differently. From a policy perspective, our results provide an understanding of the role investors play in the legal and voting market to hold directors accountable for corporate performance.

Appendix A: Litigation Risk Estimation

Similar to Rogers and Stocken (2005), we run the following logistic model to estimate firm-year specific litigation risk:

$$\Pr(Lawsuit_{it} = 1) = f(\alpha_{0,t} + \alpha_{1,t}Size_{it} + \alpha_{2,t}Turn_{it} + \alpha_{3,t}Beta_{it} + \alpha_{4,t}Returns_{it} + \alpha_{5,t}Std_Ret_{it} + \alpha_{6,t}Skewness_{it} + \alpha_{7,t}Min_Ret_{it} + \sum High\ Risk\ Industries + \varepsilon_t) \quad \text{(A)}$$

Where the dependent variable is equal to one if a securities lawsuit is filed against firm *i* during year *t* and zero otherwise. We estimate the coefficients separately for each calendar year from 1996 to 2008. The sample consists of firms with data available on CRSP. Securities lawsuits are obtained from the ISS Securities Class Action database. We eliminate cases related to IPOs and sell-side analysts. *Size* is the natural log of the average market capitalization. *Turn* is the average daily trading volume divided by the average shares outstanding. *Beta* is the slope coefficient from a regression of daily returns on the CRSP Equal-Weighted Index. *Returns* is the cumulative buy-and-hold return. *Std_Ret* is the standard deviation of daily returns. *Skewness* is the skewness of daily returns. *Min_Ret* is the minimum daily return. The high-risk industry variable indicate biotechnology (SIC 2833–2836), computer hardware (SIC 3570–3577), electronics (SIC 3600–3674), retailing (SIC 5200–5961) and computer software (SIC 7371–7379). We report summary statistics (mean annual coefficients and standard deviations) on the model below:

Variable	Mean Coefficient	Mean Standard Deviation
Intercept	-12.182	0.754
Size	5.587	1.935
Turn	0.080	0.071
Beta	-7.406	0.956
Returns	5.402	4.921
Std_Ret	-0.753	0.145
Skewness	-0.004	0.063
Min_Ret	0.508	0.049
Biotechnology	0.002	0.498
Computer Hardware	0.211	0.530
Electronics	0.275	0.293
Retailing	0.001	0.398
Computer Software	0.298	0.348
Pseudo R^2	23.60%	3.16%
N (Total)	108,180	

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Figure 1: Time-series of lawsuits and named directors

For a sample of firms in the IRRC database between 1996 and 2008, this figure plots the annual number of (i) securities lawsuits, (ii) securities lawsuits pursuant to Section 11 of the 1933 Exchange Act and (iii) outside directors named as defendants in securities lawsuits.

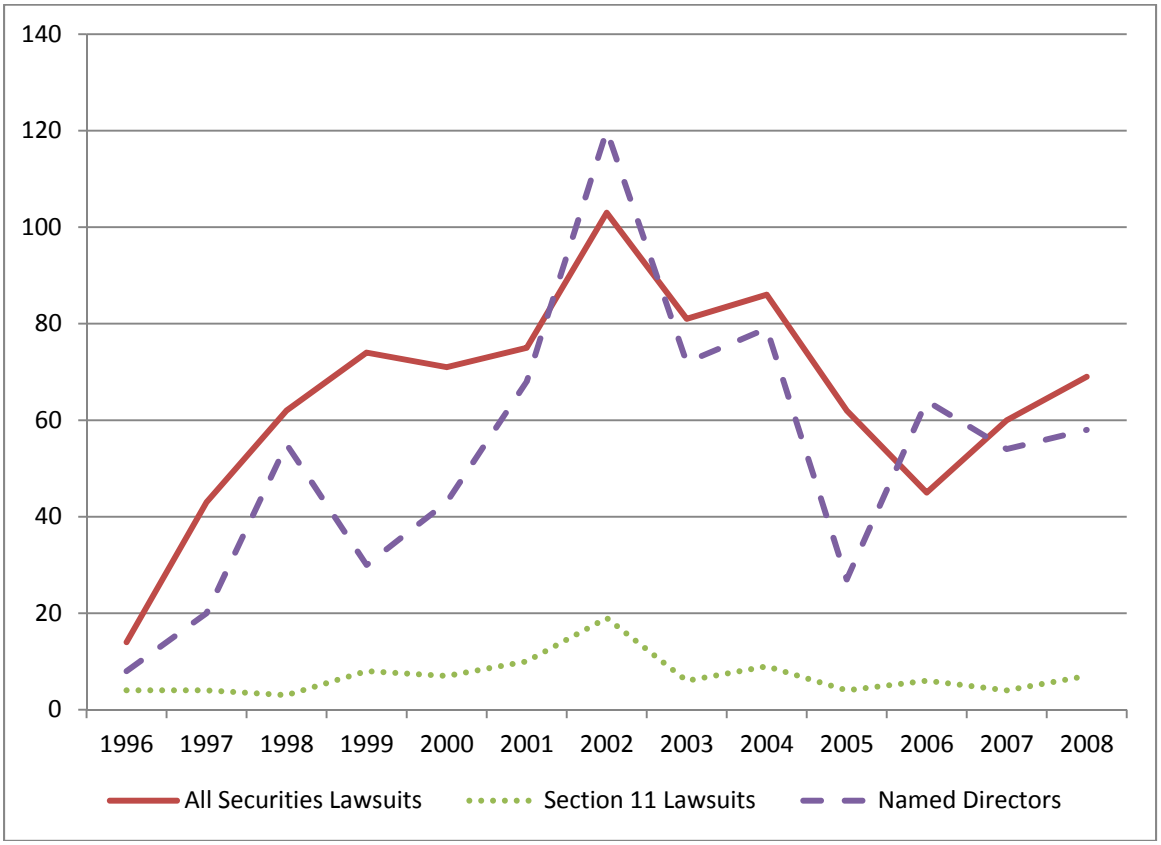

Table 1: Descriptive Statistics

Panel A: Lawsuit characteristics

	Full Sample (n=2,386)	IRRC (n=845)
GAAP	47.02%	57.75%
Section 11	25.69%	10.77%
SEC Action	1.68%	3.31%
Backdating	1.59%	5.41%
Institutional lead plaintiff	35.21%	51.00%
Class period length	506.5 days	631.1 days
Dismissed	30.93%	38.46%
Settlement	$41,310,558	$108,264,241

Panel B: Director characteristics

	Lawsuit firms (n=5,446)		Matched firms (n=5,401)	
	Mean	Median	Mean	Median
Named	0.09	0.00	-	-
IT	0.12	0.00	-	-
Shares Sold	0.04	0.00	-	-
Audit Committee	0.49	0.00	0.51	1.00
Age	60.84	61.00	60.59	61.00
Female	0.14	0.00	0.14	0.00
Tenure	6.84	5.00	6.38	5.00
# Other Boards	1.19	1.00	1.19	1.00
Shares Held (%)	0.17	0.01	0.16	0.01

Panel C: Firm characteristics

	Lawsuit firms (n=743)		Matched firms (n=743)	
	Mean	Median	Mean	Median
Equity Issuance	0.13	0.00	-	-
Class Period Price Drop	0.02	0.20	-	-
Share Turnover	0.01	0.01	-	-
ROA	–0.03	0.02	–0.02	0.02[†]
Firm Size	14.98	14.86	15.12	15.01
Sales Growth	0.11	0.04	0.10	0.04
High-Risk Industry	0.38	0.00	0.36	0.00
Board Size	9.42	9.00	9.64	9.00

[†] Significantly different from the lawsuit firm median ($p<0.10$, two-tailed).

Table 1 reports descriptive statistics for our main analyses. The sample consists of Section 10b5 and 11 securities lawsuits filed between 1996 and 2008. Panel A compares the full sample of lawsuits to the subset matched with firms in the IRRC database. *GAAP* indicates lawsuits that allege violation of U.S. GAAP. *Section 11* indicates lawsuits filed under Section 11 of the Securities Act of 1933. *SEC Action* indicates lawsuits where there is a related SEC action. *Institutional Lead Plaintiff* indicates lawsuits where the lead plaintiff is an institutional investor. *Class Period Length* is the number of days between the beginning and the end of the class period. *Dismissed* indicates dismissed lawsuits. *Settlement* is the total dollar amount of settlement for

Table 1 (Cont.)

settled cases. Panel B reports descriptive statistics for director-level variables, where all independent directors who were on the board of an IRRC firm subject to a securities lawsuit at the time of the lawsuit filing date are included. *Named* indicates an independent director who is named as defendant in the lawsuit. *Audit Committee* indicates a director who is member of the audit committee. *Age* is a director's age as of the lawsuit filing date. *Female* indicates a female director. *Tenure* indicates the number of years the director has been on the litigated firm's board as of the lawsuit filing date. *# Other Boards* is the number of other boards (within IRRC) that the director sits on in the year during which the lawsuit is filed. *Shares Held* is the director's stock holdings as a percentage of shares outstanding as of the latest annual meeting prior to the lawsuit filing date. *IT* indicates a director who sold shares during the class period. *Shares Sold* is the number of shares sold by a director during the class period as a percentage of their stock holdings. Panel C reports descriptive statistics for firm-level variables in the sample of IRRC firms subject to a securities lawsuit. *Equity Issuance* indicates firms that issued equity during the class period. *Class Period Price Drop* is the opposite of the cumulative size-adjusted stock return over the class period. *ROA* is operating income divided by beginning total assets for the fiscal year during which the lawsuit is filed. *Firm Size* is the log of market capitalization as of the beginning of the fiscal year during which the lawsuit is filed. *Sales Growth* is the percentage growth in revenue over the fiscal year during which the lawsuit is filed. *High Risk Industry* indicates firms in the following SIC groups: 2833–2836, 3570–3577, 3600–3674, 5200–5961, 7370–7374, 8731–8734. *Board Size* is the number of directors on the board as of the latest annual meeting preceding the lawsuit filing date. *Share Turnover* is the average daily trading volume as a percentage of shares outstanding during the class period.

Table 2: Securities Lawsuits and Corporate Directors – Time-Series Analysis

	Directors on boards of firms subject to Sections 10b-5 or 11 lawsuits			Directors named as defendants in Sections 10b-5 or 11 lawsuits			Directors named as defendants in Section 11 lawsuits		
	Coefficient	Marginal Effect (%)	*z-stat*	Coefficient	Marginal Effect (%)	*z-stat*	Coefficient	Marginal Effect (%)	*z-stat*
Intercept	–5.18 ***		*–26.96*	–6.99 ***		*–19.83*	–8.90 ***		*–17.24*
Time	0.07 ***	0.25	*4.39*	0.02	0.01	*0.45*	0.11 **	0.01	*2.35*
Litigation Risk	9.95 ***	33.83	*7.75*	8.22 ***	2.84	*8.43*	7.59 ***	0.64	*4.49*
# Boards	0.76 ***	2.36	*14.06*	0.59 ***	0.20	*6.80*	0.57 ***	0.05	*6.20*
N	94,211			94,211			94,211		
Pseudo R^2	11.63%	3.55		8.94%	0.35		9.61%	0.08	

Table 2 reports logistic regression results for the analysis of the likelihood of directors being involved in securities litigation in our sample period. In the first regression, the dependent variable is equal to one if a director is on the board of a firm subject to a securities class action lawsuit pursuant to Rule 10b-5 of the Securities Exchange Act of 1934 or Section 11 of the Securities Exchange Act of 1933, and zero otherwise. In the second (third) regression, the dependent variable is equal to one if a director is named as defendant in a Rule 10b-5 or Section 11 lawsuit (in a Section 11 lawsuit), and zero otherwise. The sample consists of unique independent director-year observations in the IRRC database from 1996 to 2008. *Time* is equal to the calendar year. *Litigation Risk* is estimated at the firm level based on the Rogers and Stocken (2005) model. For directors who serve on several boards, it is averaged across all boards. *# Boards* is the number of boards seats (within IRRC) held by the director during the year. ***,**,* indicate significance at the 0.01, 0.05, 0.10 levels, respectively. Standard errors are clustered by year.

Table 3: Determinants of directors being named as defendants – Univariate analysis

Panel A: Contingency tables

	Audit committee = 0	Audit committee = 1	Total
Named =0	2,514	2,403	4,917
Named =1	224	286	510
Total	2,738	2,689	
% named	8.18%	10.64%	

Table Chi-Square: 9.60 (p-value=0.0019)

	IT = 0	IT = 1	Total
Named =0	4,450	486	4,936
Named =1	407	103	510
Total	4,857	589	
% named	8.38%	17.49%	

Table Chi-Square: 51.34 (p-value<0.0001)

Panel B: Univariate comparisons

	Named (1)	Not named (2) [all lawsuits]	Not named (3) [within firm]	t-stat for (1) – (2)	t-stat for (1) – (3)
Audit Committee	0.56	0.49	0.45	*3.10* ***	*3.84* ***
Shares Held (%)	0.13	0.17	0.31	*–1.34*	*–1.53*
IT	0.20	0.10	0.10	*5.66* ***	*4.49* ***
Shares Sold (%)	7.47	3.20	3.23	*4.79* ***	*4.08* ***
Age	60.92	60.32	59.39	*1.52*	*2.98* ***
Female	0.11	0.15	0.13	*–2.69* ***	*–0.96*
Tenure	7.49	6.58	5.43	*3.23* ***	*6.02* ***
# Other Boards	1.27	1.21	1.04	*0.81*	*2.63* ***

Table 3 reports univariate analyses of the determinants of board directors being named as defendants in a sample of 743 Section 10b5 or 11 lawsuits filed between 1996 and 2008 against firms in the IRRC database. The sample includes all independent directors who are on the board of a sued firm at the time the lawsuit is filed. Panel A reports frequencies of directors who are named as defendants in securities lawsuits among (1) audit committee members versus other directors and (2) directors who sold company stock during the class period versus others. Panel B reports univariate comparisons of director characteristics for named directors, their non-named counterparts in (1) all sued firms in the sample and (2) only in the firms with at least one named director. Director characteristics in Panel B are defined in the notes from Table 1. ***,**,* indicate significance at the 0.01, 0.05, 0.10 levels, respectively.

Table 4: Determinants of directors being named as defendants – Logistic analysis

	Full sample	*z-stat*	Lawsuits with at least one named director	*z-stat*
Intercept	–9.65 ***	*–3.52*	–1.29	*–0.71*
Audit Committee	0.31 ***	*3.18*	0.64 ***	*4.00*
Director Age	0.01	*1.07*	0.02 *	*1.84*
Female	–0.06	*–0.37*	0.05	*0.21*
Tenure	0.03 **	*2.35*	0.08 ***	*3.73*
# Other Boards	0.09 *	*1.87*	0.13 **	*2.04*
Shares Held	–4.57	*–0.80*	0.71	*0.10*
Shares Sold	1.48 ***	*3.30*	2.40 ***	*3.09*
GAAP	0.42	*1.48*	0.44	*1.02*
Section 11	1.32 ***	*4.12*	0.59	*1.22*
SEC Action	–1.84 *	*–1.93*	–0.59 *	*–0.39*
Backdating	1.67 ***	*2.61*	0.86	*1.14*
Institutional Lead Plaintiff	0.46	*1.47*	0.33	*0.98*
Equity Issuance	0.29	*0.79*	0.28	*0.72*
Log Class Period	–0.29 ***	*–2.85*	–0.40 ***	*–4.25*
Class Period Price Drop	0.00	*0.06*	0.02	*0.83*
ROA	–0.49 ***	*–3.07*	–1.61 *	*–1.83*
Firm Size	–0.11	*–0.82*	–0.24 **	*–2.06*
Sales Growth	–0.08	*–0.27*	0.24	*0.49*
High Risk Industry	0.02	*0.06*	0.45	*0.88*
Board Size	–0.04	*–0.57*	0.22 **	*2.47*
Share Turnover	14.51	*1.29*	9.68	*0.83*
N	4,792		1,069	
Pseudo R^2	24.37%		28.94%	
Fixed effects	Year and Federal Court		Year and Federal Court	

Table 4 reports logistic regression results for the analysis of determinants of board directors being named as defendants in a sample of 743 Section 10b5 and 11 securities lawsuits filed between 1996 and 2008 against firms in the IRRC database. Units of observations are pairs of firms and directors. Directors are included if they are on the board of a sued firm at the time the lawsuit is filed. The first (last) two columns report results for all lawsuits (only lawsuits where at least one director is named). In both regressions, the dependent variable is equal to one if a director is named as defendant in the lawsuit and zero otherwise. The complete set of independent variables is defined in the notes from Table 1. ***,**,* indicate significance at the 0.01, 0.05, 0.10 levels, respectively. Standard errors are clustered by lawsuit.

Table 5: Lawsuit dismissal, settlement speed and amount – Regression analysis

	Lawsuit Dismissal – Logistic Model		Settlement Speed – Hazard Model		Settlement Amount – OLS Model	
	Coefficient	*Z stat*	Coefficient	*Chi Square*	Coefficient	*T stat*
Intercept	–3.36	*–0.03*			8.62 ***	*6.11*
# Directors Named	–0.14 ***	*–2.63*	0.04	*1.98*	0.10 **	*1.97*
GAAP	–0.35 *	*–1.82*	0.29 *	*3.49*	0.47 ***	*2.97*
Section 11	–0.48	*–1.45*	–0.23	*1.43*	0.58 **	*2.44*
SEC Action	–15.59	*–0.04*	1.04 ***	*12.48*	0.88 **	*2.34*
Backdating	–1.05	*–1.41*	0.51	*1.65*	–0.17	*–0.39*
Institutional Lead Plaintiff	–0.84 ***	*–4.31*	–0.13	*0.84*	0.80 ***	*5.69*
Equity Issuance	0.33	*1.14*	0.19	*0.85*	–0.56 ***	*–2.87*
Log Class Period	–0.26 ***	*–3.80*	0.00	*0.00*	0.37 ***	*5.82*
Class Period Price Drop	–0.11	*–1.46*	0.13 ***	*7.37*	0.11 **	*2.37*
ROA	0.22	*0.89*	0.14	*1.98*	–0.05	*–0.45*
Firm Size	0.15 **	*2.52*	–0.08 **	*4.35*	0.36 ***	*7.52*
Sales Growth	0.09	*0.38*	–0.17	*0.58*	0.11	*0.65*
High Risk Industry	–0.00	*–0.01*	–0.01	*0.00*	0.08	*0.50*
Board Size	–0.01	*–0.31*	–0.03	*1.89*	0.04	*1.51*
Share Turnover	–6.24	*–0.82*	–8.16	*2.23*	14.69 **	*2.24*
N	821		382		382	
Fit	Pseudo R^2: 18.31%		Likelihood Ratio: 167.99		Adj. R^2: 62.13%	
Fixed effects	Year and Federal Court		Year and Federal Court		Year and Federal Court	

Table 5 reports multivariate regression results for the analysis of dismissal likelihood, settlement speed and amount in a sample of 845 Section 10b5 and 11 securities lawsuits filed between 1996 and 2008 against firms in the IRRC database. In the first regression, the model specification is logistic and the dependent variable is equal to one if a lawsuit is dismissed and zero otherwise. The second set of results is based on a Cox proportional hazard model where the dependent variable is the number of days between the lawsuit filing date and its settlement date. The third set of results is based on an OLS regression where the dependent variable is the log total dollar amount of the settlement. The second and third regressions include only settled cases. *# Directors Named* is the number of independent directors named as defendants in the lawsuit. All other independent variables are defined in the notes from Table 1. ***,**,* indicate significance at the 0.01, 0.05, 0.10 levels, respectively. All standard errors are robust to heteroskedascity.

Table 6: Shareholder voting in sued firms – Univariate analysis

Panel A: ISS "withhold" recommendations (%)

	Sued (1)	*T-stat (2) – (1)*	Named (2)	*T-stat (2) – (3)*	Matched (3)	*T-stat (1) – (3)*
Full Sample	8.03	*2.87***	19.61	*3.81***	4.48	*3.84***
Audit committee =0	8.15	*0.36*	9.76	*0.70*	6.41	*1.26*
Audit committee =1	7.91	*3.16***	26.23	*4.11***	2.80	*4.13***
T-stat	*–0.15*		*2.24***		*–4.06****	
Sold shares =0	8.30	*2.01***	17.33	*2.88***	4.59	*3.67****
Sold shares =1	6.55	*2.20***	25.93	*2.59***	3.40	*1.37*
T-stat	*–0.83*		*0.96*		*–0.88*	
Dismissed =0	6.37	*1.35*	11.94	*1.81**	4.55	*1.40*
Dismissed =1	9.87	*2.96****	34.29	*3.57****	5.01	*3.06****
T-stat	*1.04*		*2.46***		*0.38*	

Panel B: Shareholder votes withheld (%)

	Sued (1)	*T-stat (2) – (1)*	Named (2)	*T-stat (2) – (3)*	Matched (3)	*T-stat (1) – (3)*
Full Sample	6.44	*2.20***	8.64	*4.17****	4.54	*7.29****
Audit committee =0	6.37	*0.17*	6.59	*1.46*	4.75	*4.16****
Audit committee =1	6.51	*2.48***	10.02	*4.08****	4.36	*6.21****
T-stat	*0.32*		*1.84**		*–1.58*	
Sold shares =0	6.29	*2.25***	9.16	*3.73****	4.46	*6.90****
Sold shares =1	7.27	*0.05*	7.20	*1.42*	5.40	*2.11***
T-stat	*1.23*		*–1.14*		*2.06***	
Dismissed =0	6.61	*0.29*	6.93	*2.60***	4.18	*6.35****
Dismissed =1	6.25	*2.90****	11.92	*3.76****	4.59	*3.98****
T-stat	*–0.79*		*2.28***		*1.25*	

Table 6 reports univariate analyses of proxy advisory firm ISS recommendations and shareholder voting for independent board directors in a sample of 208 Section 10b-5 or 11 lawsuits filed between 2001 and 2006 against firms in the IRRC database. The sample includes three groups of independent directors: *Named (Sued)* indicates that a director is on the board of a sued firm during the class period and at the time the lawsuit is filed and is (not) named as a defendant in the lawsuit; *Matched* indicates that a director is on the board of a non-sued firm matched with a sued firm by year and estimated litigation risk, based on the Rogers and Stocken (2005) model. Panel A reports the incidence of ISS "withhold" recommendations for director elections in each of the aforementioned three groups among (1) audit committee members versus other directors, (2) directors who sold company stock during the class period versus others and (3) cases that were dismissed versus other cases. Panel B reports mean votes withheld scaled by votes cast for director elections within two years of the lawsuit filing date. ***,**,* indicate significance at the 0.01, 0.05, 0.10 levels, respectively.

Table 7: Shareholder voting in sued firms – Regression analysis

Panel A: Only lawsuits

	Logit - ISS Recommendation		*Z stat*	OLS Shareholder Voting		*T-stat*
Intercept	–6.31	***	*–3.46*	–6.35		*–1.33*
Named	0.90	**	*2.20*	1.92		*1.58*
Audit Committee	0.07		*0.28*	0.34		*0.64*
Age 65	0.80	***	*2.99*	0.34		*0.48*
Female	–0.03		*–0.08*	0.35		*0.49*
New Director	0.38		*0.98*	–1.16		*–1.30*
Tenure	–0.03		*–1.30*	0.03		*0.59*
# Other Boards	0.05		*0.63*	0.12		*0.62*
Shares Held	8.27		*0.91*	32.91		*0.98*
Shares Sold	–0.92		*–1.14*	–1.44		*–0.83*
GAAP	0.30		*1.03*	1.44	**	*2.31*
Section 11	1.11	***	*3.41*	4.28	***	*3.81*
SEC Action	–1.58		*–1.42*	2.34		*1.60*
Dismissed	0.31		*1.16*	0.59		*1.15*
Institutional Lead Plaintiff	0.11		*0.40*	–1.05	*	*–1.75*
Equity Issuance	–0.08		*–0.23*	–1.28	**	*–2.03*
Log Class Period	0.04		*0.54*	0.39	*	*1.98*
Class Period Price Drop	0.08		*0.92*	0.32	***	*3.94*
Share Turnover	18.40		*0.99*	35.53		*0.80*
ROA	2.70	*	*1.86*	4.98	*	*1.82*
Firm Size	0.21	*	*1.82*	0.66	***	*3.06*
Sales Growth	–0.41		*–0.68*	1.23		*1.64*
High Risk Industry	0.64	**	*1.96*	0.45		*0.61*
Board Size	–0.01		*–0.10*	–0.10		*–1.04*
N	1,200			1,184		
Pseudo R^2 / Adj. R^2	15.12%			11.96%		
Fixed effects	Year			Year		

Table 7 (cont.)

Panel B: With matched observations

	Logit - ISS Recommendation		*Z stat*	OLS Shareholder Voting		*T-stat*
Intercept	–1.82	*	*–1.88*	4.14	*	*1.94*
Sued	0.57	***	*2.83*	1.87	***	*5.40*
Named	1.76	***[a]	*5.34*	4.17	***[b]	*3.70*
Audit Committee	–0.37	*	*–1.72*	–0.08		*–0.25*
Age 65	–0.03		*–0.11*	–0.38		*–1.04*
Female	–0.48	*	*–1.66*	–0.47		*–1.21*
New Director	0.30		*1.08*	–0.23		*–0.50*
Tenure	0.00		*0.10*	0.06	**	*2.31*
# Other Boards	0.08		*1.23*	0.21	*	*1.84*
Shares Held	2.51		*0.42*	7.45		*0.68*
ROA	1.40		*1.17*	–1.20		*–0.93*
Firm Size	–0.06		*–1.02*	–0.06		*–0.54*
Sales Growth	–0.51		*–1.08*	0.28		*0.64*
High Risk Industry	0.75	***	*3.12*	1.02	***	*2.95*
Board Size	0.05		*0.98*	0.08		*0.96*
N	3,472			3,378		
Pseudo R^2 / Adj. R^2	6.47%			4.75%		
Fixed effects	Year			Year		

[a] Statistically different from *Sued* (p<0.01, two-tailed).
[b] Statistically different from *Sued* (p<0.05, two-tailed).

Table 7 reports regression results for the analysis of proxy advisory firm ISS recommendations and shareholder voting for director elections in a sample of 208 Section 10b5 or 11 lawsuits filed between 2001 and 2006 against firms in the IRRC database. In Panel A, the sample includes all directors who are on the board of a sued firm during the class period and at the time the lawsuit is filed. In Panel B, the sample includes, in addition, outside directors of non-sued firms matched with sued firms by year and estimated litigation risk, based on the Rogers and Stocken (2005) model. For the proxy advisory firm recommendation analysis, the model specification is logistic and the dependent variable is equal to one if ISS issues a "withhold" recommendation for the director's election, and zero otherwise. For the shareholder voting analysis, the model specification is OLS and the dependent variable is the percentage of votes withheld scaled by votes cast for director elections within two years of the lawsuit filing date. *Sued* indicates an independent director who is on the board of a firm subject to a securities lawsuit, but who is not named as defendant. *Named* indicates an independent director who is named as defendant in the lawsuit. *Age 65* indicates that a director is 65 or older. All other independent variables are defined in the notes from Table 1. ***,**,* indicate significance at the 0.01, 0.05, 0.10 levels, respectively. Standard errors are clustered by firm and director.

Table 8: Director turnover in sued firms – Univariate analysis

Director turnover (%)	Sued (1)	*T-stat (2) – (1)*	Named (2)	*T-stat (2) – (3)*	Matched (3)	*T-stat (1) – (3)*
Full Sample	15.62	*3.48***	25.38	*3.26***	16.32	*–0.71*
Audit committee =0	16.15	*1.78**	23.64	*1.35*	18.44	*–1.59*
Audit committee =1	15.06	*3.08****	26.67	*3.30****	14.38	*0.51*
T-stat	*–0.73*		*0.55*		*–3.18****	
Sold shares =0	15.90	*1.94**	21.83	*1.75**	16.54	*–0.61*
Sold shares =1	13.59	*3.56****	36.51	*3.46****	14.37	*–0.28*
T-stat	*–1.01*		*2.35***		*1.03*	
Dismissed =0	14.91	*5.08****	30.26	*4.08****	16.12	*–0.83*
Dismissed =1	16.48	*–1.41*	10.77	*–1.56*	17.12	*–0.38*
T-stat	*1.04*		*–3.83****		*0.61*	

Table 8 reports univariate analyses of turnover for independent board directors in a sample of 399 Section 10b5 or 11 lawsuits filed between 1996 and 2006 against firms in the IRRC. The sample includes three groups of independent directors: *Named (Sued)* indicates that a director is on the board of a sued firm during the class period and at the time the lawsuit is filed and is (not) named as a defendant in the lawsuit; *Matched* indicates that a director is on the board of a non-sued firm matched with a sued firm by year and estimated litigation risk, based on the Rogers and Stocken (2005) model. The table reports the incidence of turnover for directors in each of the aforementioned three groups among (1) audit committee members versus other directors, (2) directors who sold company stock during the class period versus others and (3) cases that were dismissed versus other cases. A director is considered to have turned over if they are no longer on the board within two years of the lawsuit filing. ***,**,* indicate significance at the 0.01, 0.05, 0.10 levels, respectively.

Table 9: Director turnover in sued firms – Regression analysis

Panel A: Sued and named directors

	Only Lawsuits	*Z stat*	Lawsuits and Matches	*Z-stat*
Intercept	–17.77 ***	*–18.09*	–3.96 ***	*–4.39*
Sued			–0.18	*–1.50*
Named	0.50 **	*2.34*	0.25 *,[a]	*1.81*
Audit Committee	–0.02	*–0.15*	–0.12	*–1.54*
Age 65	0.84 ***	*6.16*	0.99 ***	*9.92*
Female	0.35 **	*2.51*	0.41 ***	*3.90*
Tenure	0.00	*–0.26*	–0.01	*–0.70*
# Other Boards	–0.04	*–0.83*	–0.02	*–0.62*
Shares Held	–1.61	*–0.16*	2.79	*0.50*
Shares Sold	–0.31	*–0.83*		
GAAP	–0.09	*–0.54*		
Section 11	0.26	*1.16*		
SEC Action	0.55	*1.35*		
Dismissed	0.10	*0.61*		
Institutional Lead Plaintiff	0.02	*0.14*		
Equity Issuance	–0.21	*–0.99*		
Log Class Period	0.20 ***	*3.63*		
Class Period Price Drop	0.36 **	*2.19*		
Share Turnover	21.19 **	*2.00*		
ROA	0.12	*0.41*	–0.30	*–1.50*
Firm Size	0.09	*1.56*	0.07 **	*2.12*
Sales Growth	–0.07	*–0.28*	–0.40 ***	*–2.74*
High Risk Industry	–0.44 **	*–2.19*	–0.34 **	*–2.49*
Board Size	–0.01	*–0.21*	0.00	*0.21*
N	2,615		4,828	
Pseudo R^2	10.81%		7.39%	
Fixed effects	Year		Year	

[a] Statistically different from *Sued* (p<0.01, two-tailed).

Panel B: Dismissed versus settled cases

	Coefficient	*Z stat*	Coefficient	*Z stat*
Sued × Dismissed			–0.12	*–0.79*
Sued × Not Dismissed			–0.23 *	*–1.67*
Named × Dismissed	–0.13 [a]	*–0.33*	–0.49 [b]	*–1.26*
Named × Not Dismissed	0.65 **	*2.54*	0.61 **	*2.48*
Controls	Included		Included	
Pseudo R^2	10.93%		7.58%	

[a] Statistically different from *Named × Not Dismissed* (p<0.05, two-tailed).
[b] Statistically different from *Named × Not Dismissed* (p<0.05, two-tailed).

Table 9 (Cont.)

Panel C: Pre- and Post-2002

	Coefficient	*Z stat*	Coefficient	*Z stat*
Sued × Pre-2002			–0.64 ***	*–3.79*
Sued × Post-2002			0.38 **,[b]	*2.41*
Named × Pre-2002	0.07 [a]	*0.24*	–0.07 [c]	*–0.18*
Named × Post-2002	0.83 ***	*3.40*	1.19 ***,[d]	*4.88*
Controls	Included		Included	
Pseudo R^2	11.25%		8.40%	

[a] Statistically different from *Named × Post-2002* (p<0.10, two-tailed).
[b] Statistically different from *Sued × Pre-2002* (p<0.01, two-tailed).
[c] Statistically different from *Named × Post-2002* (p<0.01, two-tailed).
[d] Statistically different from *Sued × Post-2002* (p<0.01, two-tailed).

Table 9 reports regression results for the analysis of director turnover in a sample of 399 Section 10b5 or 11 lawsuits filed between 1996 and 2006 against firms in the IRRC database. For the within-lawsuit analysis, the sample includes all directors who are on the board of a sued firm during the class period and at the time the lawsuit is filed. The lawsuit-and-matches analysis includes, in addition, outside directors of non-sued firms matched with sued firms by year and estimated litigation risk, based on the Rogers and Stocken (2005) model. The model specification is logistic and the dependent variable is equal to one if the director leaves the board within two years of the lawsuit filing year, and zero otherwise. *Sued* indicates an independent director who is on the board of a firm subject to a securities lawsuit, but who is not named as defendant. *Named* indicates an independent director who is named as defendant in the lawsuit. *Age 65* indicates that a director is 65 or older. All other independent variables are defined in the notes from Table 1. In all Panels, ***,**,* indicate coefficient significance at the 0.01, 0.05, 0.10 levels, respectively. Standard errors are clustered by firm.

Table 10: Shareholder voting and director turnover in other board positions – Univariate analysis

Panel A: ISS "withhold" recommendations (%)

	Sued (1)	*T-stat (2) – (1)*	Named (2)	*T-stat (2) – (3)*	Matched (3)	*T-stat (1) – (3)*
Full Sample	9.57	*0.40*	10.87	*–0.08*	11.16	*–0.97*
Audit committee =0	9.14	*–0.50*	6.45	*–1.16*	12.02	*–1.29*
Audit committee =1	10.06	*0.72*	13.11	*0.70*	10.07	*–0.01*
T-stat	*0.43*		*0.87*		*-0.79*	
Sold shares =0	9.78	*–0.81*	7.06	*–1.51*	11.71	*–1.12*
Sold shares =1	7.46	*2.43***	57.14	*2.68***	2.56	*1.23*
T-stat	*–0.61*		*2.46***		*–3.18****	
Dismissed =0	8.85	*–0.98*	5.95	*–1.55*	10.71	*–0.87*
Dismissed =1	10.48	*2.83***	62.50	*2.76***	11.72	*–0.49*
T-stat	*0.75*		*3.06***		*0.41*	

Panel B: Shareholder votes withheld in other boards (%)

	Sued (1)	*T-stat (2) – (1)*	Named (2)	*T-stat (2) – (3)*	Matched (3)	*T-stat (1) – (3)*
Full Sample	6.57	*–0.82*	5.85	*–0.58*	6.34	*0.56*
Audit committee =0	6.54	*–1.15*	4.86	*–1.18*	6.63	*–0.15*
Audit committee =1	6.61	*–0.23*	6.36	*0.33*	5.98	*1.08*
T-stat	*0.11*		*0.87*		*–1.11*	
Sold shares =0	6.70	*–1.10*	5.68	*–0.70*	6.30	*0.93*
Sold shares =1	5.17	*1.19*	7.87	*0.31*	7.00	*–1.42*
T-stat	*–1.94**		*0.74*		*0.56*	
Dismissed =0	6.55	*–1.29*	5.35	*–0.14*	5.96	*1.15*
Dismissed =1	6.60	*1.50*	10.79	*1.47*	6.84	*–0.39*
T-stat	*0.08*		*1.98**		*1.48*	

Panel C: Director turnover in other boards (%)

	Sued (1)	*T-stat (2) – (1)*	Named (2)	*T-stat (2) – (3)*	Matched (3)	*T-stat (1) – (3)*
Full Sample	19.65	*0.44*	20.60	*2.81****	12.23	*5.74****
Audit committee =0	18.90	*–0.14*	18.29	*1.29*	12.58	*3.74****
Audit committee =1	19.72	*0.63*	22.22	*2.58***	11.85	*4.39****
T-stat	*0.42*		*0.67*		*–0.47*	
Sold shares =0	19.70	*–0.04*	19.57	*2.42***	12.21	*5.83****
Sold shares =1	14.39	*1.46*	33.33	*1.61*	12.59	*0.43*
T-stat	*–1.64*		*1.27*		*0.13*	
Dismissed =0	18.23	*0.75*	20.81	*2.49***	11.90	*3.51****
Dismissed =1	20.65	*–0.11*	20.00	*1.19*	13.81	*3.24****
T-stat	*1.25*		*–0.12*		*0.38*	

Table 10 reports univariate analyses of other board seats held by independent directors of sued firms in a sample of 399 (208) Section 10b5 or 11 lawsuits filed between 1996 (2001) and 2006 against firms in the IRRC database in Panel C (Panels A and B). The sample includes three groups of independent directors: *Named (Sued)* indicates that a director is on the board of a sued firm during the class period and at the time the lawsuit is filed and is (not) named as a defendant in the lawsuit; *Matched* indicates that a director is on the board of a non-sued firm matched with a sued firm by year and estimated litigation risk, based on the Rogers and Stocken (2005) model. Panel A reports the incidence of "withhold" recommendations by proxy advisory firm ISS in directors elections in each of the aforementioned three groups among (1) audit committee members versus other directors, (2) directors who sold company stock during the class period versus others and (3) cases that were dismissed versus other cases. Panel B reports mean votes withheld scaled by votes cast for director elections within two years of the lawsuit filing date. Panel C reports the incidence of director turnover, where a director is considered to have turned over if (s)he is no longer on the board within two years of the lawsuit filing. ***,**,* indicate significance at the 0.01, 0.05, 0.10 levels, respectively.