Shareholder Lawsuits And Ownership Structure

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Abstract

This paper examines shareholder litigation activity in the backdrop of corporate ownership structure. The main insight of this paper is that shareholder litigation and ownership structure appear to be substitute mechanisms in disciplining management. Partly consistent with this notion, empirical results suggest that lawsuit-defendant firms have fewer outside blockholders, a lower percentage of unaffiliated blockholdings, and a lower blockholdings-to-blockholders ratio than a set of control firms.

1. Introduction

This study examines shareholder lawsuits in the backdrop of corporate ownership structure. The main premise is that management's self-interested behavior (or the perception of its existence) is more likely to occur in the absence of managerial incentives to guard shareholder interests. In the Jensen and Meckling (1976) tradition, managers become more likely to guard shareholder interests as they own a larger part of the firm. Therefore, the behavior that triggers a shareholder lawsuit is less likely to occur when inside ownership is high. Alternatively, owners of large equity blocks who are not affiliated with management can monitor management behavior more easily through informal, political means and through alternative formal mechanisms such as the board of directors. In firms without such equity blocks, monitoring management will be more difficult and shareholders, given oppor-

tunistic behavior by management, may initiate litigation in protecting their interests. Together, these arguments suggest that shareholder litigation will be a more useful alternative where a firm's ownership is dispersed and neither insiders nor major unaffiliated blockholders are likely to guard shareholder interests.

This study compares the ownership structure of 45 lawsuit-defendant firms to the ownership structure of 45 control firms matched based on industry affiliation and firm size. Results are generally consistent with block ownership being associated with the likelihood of a lawsuit. Specifically, defendant firms have a lower percentage of unaffiliated blockholdings and a lower number of unaffiliated blockholders than control firms. Their intensity of blockholdings (i.e. the blockholdings-to-blockholders ratio) is also significantly lower. Last, inside ownership is

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found to be unrelated to the likelihood of a lawsuit. This evidence came first from univariate comparisons of the variables across the experimental and control firms and then from multivariate logistic regressions estimating the likelihood of a shareholder lawsuit. These results suggest that unaffiliated blockholdings prevent opportunistic behavior, which is likely to elicit a shareholder lawsuit. Thus, shareholder litigation and unaffiliated blockholdings appear to be substitutes in disciplining management. The remainder of the study is organized as follows: Section 2 provides background for the study, section 3 discusses the data and methodology, section 4 presents the results, section 5 discusses applicability of the results, and section 6 concludes.

2. Background

This study links streams of literature on shareholder litigation and ownership structure. Below, this section of the paper briefly reviews the literature in these areas.

2.1 Shareholder Litigation

There is a growing body of research on lawsuits involving public corporations, their directors, managers, and shareholders. Interest around this topic is partly sparked by the realization that our society is becoming increasingly litigious. One group of studies has focused on suits where both the plaintiff and the defendant are public corporations. For example, Cutler and Summers (1988) study the Texaco vs. Pennzoil case and document that inefficient bargaining between the two corporations resulted in combined losses to shareholders, as a result of a suboptimal litigation process. Using a large sample to reexamine this issue, Bhagat, Brickley, and Coles (1994) document market losses to defendants, and no gains to plaintiffs, surrounding interfirm lawsuit announcements. Even though the loss is partly recovered at settlement, they also conclude that bargaining outcomes among

the parties involved appear to be inefficient.

Another group of studies in the accounting and finance literature, including the present paper, examine lawsuits in cases where the plaintiffs are the firm's shareholders. Notably, Kellogg (1984) studies a sample of 56 shareholder lawsuits for which the basis of the lawsuit was alleged misrepresentations in the financial statements stemming from erroneous disclosures or omissions of disclosure of material public information. Using event-study methods, Kellogg (1984) documents significant negative abnormal returns when the corrected information is announced (that is when the market participants learn of the error or incompleteness in prior information). Further, consistent with lawsuits being motivated by net-of-market underperformance, Kellogg documents significant negative returns for the 24 pre-lawsuit months. The main contribution in Kellogg (1984) is that it brings together the law and accounting literature in assessing the economic consequences of misstated accounting information when shareholders take legal action against management.

More recently, Alexander (1991) examines an industry-specific, time constrained sample of 17 lawsuits. She concludes that lawsuit defendants have a strong preference for out-of-court settlements independent of the merits of each case against the firm. Romano (1991) examines shareholder lawsuits against 535 exchange-listed firms as a mechanism for effective corporate governance. Romano measures the benefits of litigation in terms of settlement amounts and other non-monetary benefits. She concludes that shareholder litigation is not an effective governance mechanism.

Francis, Philbrick, and Schipper (1994) study in detail an industry-specific sample of shareholder lawsuits brought under rule 10b-5 based on overly optimistic or materially incomplete accounting information. Their approach is twofold: First, they examine if bad earnings

news is an important determinant of shareholder litigation activity. Examining 51 firms with a worse earnings record than their sample lawsuit firms, they report that only one was named in a shareholder lawsuit. Further, they examine if "at-risk" firms avoid litigation due to expanded disclosure. In contrast to expectations, their results show that lawsuit-defendant firms offered more expanded disclosures than at-risk firms. They conclude that an earnings decline is not sufficient in inducing shareholder litigation.

Second, Francis, Philbrick, and Schipper (1994) examine if defendant firms' disclosures induce plaintiffs to buy stock at inflated prices. They find no difference in optimism in the disclosures between the experimental and control firms even though the market response to the adverse earnings news is considerably more negative for the lawsuit-defendant firms. In other words plaintiffs indeed suffer, but not because of management's excessive optimism. Moreover, examination of analysts' forecast errors and revisions does not show greater anticipation of the losses for control firms compared to defendant firms. Finally, conditioning on the total mix of information available, Francis, Philbrick, and Schipper (1994) report that the conditional price decline is half the unconditional decline to the adverse earnings announcement (i.e., other information could have been used to protect shareholders against the misleading management disclosures). Together, their findings suggest that disclosures are of questionable value in deterring litigation altogether but that prior and concurrent disclosures may reduce the severity of litigation.

In a companion paper, Francis, Philbrick, and Schipper (1994b) examine the determinants and outcomes in class action lawsuits. Using a sample of 93 lawsuits restricted in the chemical, computers, retailing, and electronics industries, they compare lawsuit-defendant firms to a group of industry peers. They document that defendant firms are larger, they are more

likely to be audited by a Big 6 Accounting firm, and they have a higher systematic risk. Finally, while the lawsuit firms and their industry peers have lower stock returns in the lawsuit year, the two groups have similar earnings. Moreover, controlling for firm size, defendant firms have dividend payout ratios, earnings, and market shares similar to their peer firms. In line with evidence reported in their earlier study, Francis, Philbrick, and Schipper (1994b) document that lawsuit defendants make more disclosures than other firms and that disclosure in itself is not a sufficient defence against a lawsuit. Finally, they report that there is a significant fixed component in the relation between damage estimates and settlement amounts. Yet, there is a significantly positive relationship between the two, beyond the fixed settlement component.

2.2 Ownership structure and Corporate Governance

A substantial stream of research in the past twenty years has focused on the conflicting interests between management and shareholders. This conflict originates from the wide ownership dispersion in large modern corporations. A theme that emerges from academic research is that agency conflicts may be reduced through a) the disciplining effects of the corporate control, product and other factor markets, or b) through intra-firm mechanisms such as the board of directors, executive compensation policy, and corporate ownership structure.

Morck, Shleifer, and Vishny (1988) and McConnell and Servaes (1990) report that a firm's percentage of inside ownership is positively related to its performance as proxied by Tobin's q . Both studies find that relationship to be non-linear, weakening at higher levels of ownership. Consistent with Jensen and Meckling (1976), this result is in line with the belief that inside ownership helps alleviate manager-shareholder conflicts by aligning the interests of the two groups. Further, the non-linear owner-

ship-performance relationship may be explained by a managerial entrenchment motive according to which, when inside ownership is very high, alternative governance mechanisms become weaker as managers become entrenched in their position. In this vein, Stulz (1988) suggests this relationship may possibly be non-monotonic.

In a similar vein, Holderness and Sheehan (1988) analyze 114 exchange-listed corporations with majority shareholders (blockholders). Comparing these firms to diffusely held firms, they report no differences across the two in terms of investment policies, the corporate control environment, accounting returns, and Tobin's *q* ratios. Interestingly, Shivdasani (1993) documents that not all blockholdings are the same. Studying the incidence of hostile takeovers, he documents that the level of blockholdings, which are not affiliated with management, is positively related to the likelihood of a hostile takeover, consistent with the two mechanisms being complements. The idea is that unaffiliated blockholders facilitate corporate control activity, which monitors management.

Alternatively, Holthausen and Larcker (1993) and Agrawal and Knoeber (1996) underline the endogeneity in the set of governance mechanisms within a firm. Both studies argue that each firm chooses an optimal mix of mechanisms to monitor management behavior and that, while intuitively appealing, arguments assuming a causal relationship between ownership structure (or any other governance mechanism) and firm performance may be misleading. Holthausen and Larcker (1993) provide evidence in line with this argument for ownership, leverage and performance variables over the 1989-1991 period for about 1000 firms. Agrawal and Knoeber use a sample of nearly 400 firms and examine a wider set of seven governance mechanisms over a single year and similarly conclude that these mechanisms may be substitutes or complements and partly co-determined. Combining research on shareholder lawsuits and own-

ership concentration, this study hypothesizes that the two mechanisms to be substitutes in disciplining management. Specifically, I expect that the likelihood of a shareholder lawsuit declines as ownership concentration (unaffiliated blockholdings and inside ownership) rises.

In addition to the role of ownership concentration, my tests control for the role of board composition as a potential determinant of shareholder lawsuits. A large body of prior work has argued that boards with a higher proportion of independent outside members are more likely to monitor management more effectively. Consistent with this notion, Cotter, Shivdasani and Zenner (1997) document that target firms in tender offers experience significantly higher abnormal returns when outside directors have voting control of the board. In the same vein, Brickley, Coles and Terry (1994) document that poison pill adoption, essentially an antitakeover defense mechanism, is assessed more favorably by the market when outside directors have voting control of the board. Last, Byrd and Hickman (1992) document that tendering firms also experience higher abnormal returns at the tender offer announcement when outside directors constitute the board's majority.

The association between board composition and shareholder litigation is not a priori clear. For one, given the increasing risk of litigation against directors, several firms have opted to adopt indemnification and liability insurance in order to protect their officers and directors. This trend was amplified since *Smith vs. Van Gorkom* (1985), a ruling by the Delaware Supreme Court holding the directors of Trans Union liable for making an uninformed decision and selling the firm at a subpar price. Contrary to opponents of director insurance policies, Bhagat, Brickley, and Coles (1987) find no empirical evidence that the adoption of director liability insurance is associated with a negative stock market reaction. Their evidence is consistent with alternative deterrents to opportunistic activ-

ity such as legal limits on coverage, policy deductibles, non-zero reputation costs of being sued, and the other internal and external control mechanisms.

In particular, research examining shareholder litigation in the backdrop of board composition has produced mixed results. First, Kesner and Johnson (1990) examine the relationship between lawsuits against the board of directors and board composition, and find that outsider-dominated boards are less likely to become defendants in shareholder suits, although there is no relationship between board composition and suit outcome. By contrast, Jones (1986) documents an inverse relationship between the proportion of outside directors on the board and the incidence of shareholder lawsuits. In a related vein, Kesner, Victor and Lamont (1986) examined the relationship between the commission of illegal acts and board composition. They do not identify a discernible association between board composition and commission of illegal acts, consistent with both insiders and outsiders avoiding actions that would make them the target of a shareholder suit. In this study, board composition is controlled for in the tests. In this paper it is expected that, to the extent outside directors protect shareholder interests better, the likelihood of a shareholder lawsuit against the corporation declines.

The results of my study are in line with unaffiliated blockholdings reducing agency conflicts between managers and shareholders since the likelihood of a lawsuit is reduced as unaffiliated blockholdings rise. However, the likelihood of a lawsuit is found to be unrelated to inside ownership and board composition. Together, the empirical results suggest that lawsuits complement blockholder monitoring (and potentially other governance mechanisms) in disciplining management. Nevertheless, this study does not aim at analyzing the merit of shareholder lawsuits or their effectiveness as a governance tool. It is only concerned with providing evidence on

the relationship between the likelihood of shareholder lawsuits and ownership structure. To that end, the empirical evidence is partly consistent with expectations suggesting a) that opportunistic behavior is more likely to trigger lawsuits in the absence of unaffiliated blockholders and b) that lawsuits are a substitute control mechanism where shareholder ownership is dispersed.

3. Data and Methodology

3.1 The Data

The search for the announcement of shareholder lawsuits spanned the five-year period 1989-1993 and concentrated on the Wall Street Journal Index on CD-ROM. The characteristic language used in reporting these announcements ensures that most suitable events announced in the Wall Street Journal over this period are included in the initial sample. This search effort resulted in seventy one firm-announcements. In order to be included in the final sample, firms also had to be listed on the COMPUSTAT database and have an appropriate match as a control firm. Due to the stringent data requirements, the sample size was reduced to 45 lawsuit-defendant firms. Proxy statements were analyzed to gather information on the ownership characteristics and governance of the sample firms. Nine lawsuit-defendants and three control firms are excluded from some of the subsequent tests because of proxy statement unavailability. A list of the 45 lawsuit-defendant firms is provided in the Appendix.

Table 1 presents a list of the reasons for the 45 lawsuits studied here. Most lawsuits appeared to target executive officers. Specifically, the reported reason for the lawsuit was false disclosure pertaining to the firm's financial position (22 cases), failure to disclose material information about the firm (10 cases), unethical behavior by management (1 case), self-dealing by management (1 case), and bad investments by management (1 case). In fewer cases, the reason for

Table 1
Description of the 45 lawsuit-defendant sample firms by lawsuit type

Reason for lawsuit	Frequency	Pct.
Management misstated facts about the company	22	48.89
Management omitted facts about the company	11	24.45
Corporate control transaction	6	13.33
Overpriced IPO	1	2.22
Poor investment choices	1	2.22
Excess CEO compensation	1	2.22
Management racketeering	1	2.22
Poison pill adoption	1	2.22
Dual class recapitalization	1	2.23

the lawsuit appeared to target, at least in part, corporate directors as follows: opposition to a corporate control transaction, either from the bidder or target firm's shareholders (6 cases); poison-pill adoption (1 case); dual-class recapitalization (1 case); excess CEO compensation (1 case); overpriced IPO (1 case). Of course, this distinction is one of perception since it is the corporation that is ultimately the defendant in the shareholder lawsuit in all cases.

The primary focus of the tests employed here is in detecting differences in ownership structure between the lawsuit-defendant firms and a sample of matched control firms. Since the likelihood of suing a firm may be related to industry affiliation (see Francis, Philbrick, and Schipper, 1994) and firm size, each experimental firm is matched with a control firm on these dimensions as follows: First, the control firm was selected among all firms that had the same primary four-digit SIC code as the experimental firm. Second, using net annual sales as a proxy for firm size, the control firm was selected among the experimental firm's industry cohorts

such that it had the closest sales volume to the experimental firm. Since the sample size is rather small, no additional restriction was placed on the minimum difference in sales between the experimental and control firm. The matching process resulted in a total of 90 experimental and control firms.

Where it was not possible to find a proxy statement for the experimental firm for the year before the lawsuit, a proxy statement from the year prior to that was used to gather the relevant information. Further, where a control firm lacked sufficient data to be included in the final sample, it was replaced with another so that no experimental firm was deleted due to insufficient information for its respective control firm.

3.2 Variable definitions

The variables used in the model (see section 3.3) are defined as follows: *Inside ownership* is the percentage of common equity owned by the firm's officers and directors as a whole. *Block ownership* captures the level of ownership

of shareholders who are not affiliated with management. The block ownership variable is defined in three ways: first, as the percentage of equity held by individual, institutional, and corporate investors (at least five percent per block), excluding firm executives, retired firm executives, relatives of employees, employee family trusts, and employee stock ownership plans. If a party owns more than 40 percent of the firm's common stock, that party is considered to have a controlling interest in the company and is thus affiliated with management. Moreover, the five percent cutoff point is convenient and widely used since it triggers disclosure in the proxy statements under SEC regulation. Second, the number of single unaffiliated interests owning more than five percent of company stock is used as an independent variable. Third, the fraction of unaffiliated blockholdings to unaffiliated blockholders is used as a measure of the intensity of blockholdings.

The model includes four control variables: First, the composition of the board of directors is included as an alternative governance mechanism that may prevent shareholder lawsuits since such a mechanism may also discipline management and may prevent opportunistic behavior that may lead to shareholder litigation. In distinguishing between inside and outside directors of the board, following Baysinger and Butler (1985), three groups of insider, affiliated-outsider, and independent-outsider directors are identified for each firm. The category insider-directors includes all firm employees, members of their families, retired firm employees, and employees of subsidiaries. The category "affiliated outsiders" consists of management consultants, members of law firms, and members of audit firms. All remaining directors are classified as independent outsiders. The second control variable is firm size and is measured by the logarithm of total sales for the pre-lawsuit year. A size control variable is necessary because Francis, Philbrick, and Schipper (1994b) find that, other things constant, larger firms may at-

tract more lawsuits due to greater political costs of high exposure. Second, ownership structure is highly correlated with firm size and any observed relationships between the likelihood of a lawsuit and corporate ownership in the absence of a size control variable may be spurious.

Third, the model controls for firm performance as measured by accounting return on assets in the year of the lawsuit. Shareholders are expected to become more likely to turn against management when performance is bad, and their personal investment in the firm is in danger. The expectation is that shareholders will become more likely to take legal action against firms with a lower return on assets. Last, the model introduces the market-to-book ratio as an alternative way to control for a firm's performance.

3.3 Descriptive statistics

Table 2 provides descriptive statistics on the variables of interest for the lawsuit-defendant and control firms. The means for total assets and net sales suggest the two groups are similar in size. Lawsuit defendants have a lower return on assets than control firms (means of 1.1% and 4.89% respectively) but a somewhat higher market-to-book ratio. In general, the distribution of board outsiders and insiders, and the level of inside ownership appear to be similar across the two groups. Last, importantly, all three measures of unaffiliated block ownership, the percentage of blockholdings, the number of blockholders and the blockholdings-to-blockholders ratio, appear to be higher for the control sample. The median control firm has almost twice the percentage of unaffiliated blockholdings compared to a lawsuit defendant (13.2% vs. 7.1%), two rather than one unaffiliated blockholders, and 8% rather than 6.4% of holdings per outside blockholder.

Table 2
Profile for 45 lawsuit targets and control firms matched on size and industry affiliation

Market-to-book is the ratio of equity capitalization to the book value of equity. All governance information is collected from the sample firms' proxy statements and financial information is collected from Compustat for the year before the lawsuit. Governance information pertains to 36 lawsuit-defendant firms and 42 control firms for which proxy statements were available.

PANEL A - Lawsuit defendants	mean	Median	std. dev.	min.	max.
Assets (\$in millions)	11,853	822	33,184	1.6	175,700
Sales (in \$millions)	2,466	662	4,809	0.1	25,763
Market-to-book	3.16	2.35	3.63	0.17	20
Net income / assets (pct.)	1.10	2.99	12.21	-33.7	27.5
Pct. board insiders	35.9	33.3	18.5	14.3	80
Pct. affiliated directors	19.8	27.3	18.0	0	66.7
Pct. independent directors	44.3	47.7	22.8	0	75
Inside ownership (pct.)	11.7	5	13.4	0.2	55.3
Unaffiliated block ownership	10.0	7.1	12.8	0	49.7
# of unaff. blockholders	1.3	1	1.8	0	9
Blockholdings-to-holders	5.7	6.4	8.7	0	47.9
PANEL B - Control firms	mean	Median	std. dev.	min.	max.
Assets (\$in millions)	11,904	576	37,371	10.8	180,600
Sales (in \$millions)	2,525	669	4,476	6.6	18,908
Market-to-book	2.44	1.99	1.62	0.29	6.55
Net income / assets (pct.)	4.89	3.95	7.10	-14.3	16.9
Pct. board insiders	34.1	28.6	17.5	0.1	66.7
Pct. affiliated directors	17.4	14.3	12.9	0	45.5
Pct. independent directors	48.6	54.5	22.5	0	88.9
Inside ownership (pct.)	12.7	6	14.0	1.0	55.7
Unaffiliated block ownership	17.7	13.2	17.4	0	77.1
# of unaff. blockholders	1.8	2	1.5	0	6
Blockholdings-to-holders	7.7	8	6.6	0	38.6

Table 3
Comparison of 45 lawsuit target firms and matched control firms

All governance information is collected from the sample firms' proxy statements and financial information is collected from Compustat for the year before the lawsuit. Governance information pertains to 36 lawsuit-defendant firms and 42 control firms for which proxy statements were available. The right hand column reports the statistic for the signed-rank Wilcoxon test.

*, **, *** significant at the 0.10, 0.05, and 0.01 level respectively.

Variable	Targets	Control	t-value	Wilcox.-z
# of firms	45	45		
Assets (\$ mill.)	11,853	11,904	-0.06	-0.17
Sales (\$ mill.)	2,466	2,525	-0.07	-0.34
Market-to-book (equity)	3.16	2.44	1.12	0.52
Return on assets (pct.)	1.10	4.89	-1.11	-1.31
Board size	8.54	9.54	-1.05	-1.37
Board insiders (pct.)	35.9	34.1	0.67	0.69
Affiliated outsiders	19.8	17.4	0.79	0.42
Independent outsiders	44.3	48.6	-1.06	-0.95
Inside ownership (pct.)	11.7	12.7	-0.05	-0.12
Unaff. block ownership	10.0	17.7	-2.28**	-2.11**
# of unaff. block-holders	1.3	1.8	-2.09**	-2.01**
Blockholdings-to-holders	5.7	7.7	-2.20**	-2.22**

4. Empirical results

4.1 Univariate comparisons

Table 3 presents statistical tests of the differences described in table 2 on the basis of size, performance, and governance characteristics. All comparisons are assessed using the pa-

rametric t-test and the non-parametric signed-rank Wilcoxon test. As described earlier, the results suggest that lawsuit defendants do not differ from control firms in terms of size, by sample construction, as proxied by annual sales and total assets. Next, the two groups do not differ statistically in terms of performance (ROA and market-to-book). This finding is somewhat sur-

prising since it would appear more likely that poor performance would raise the likelihood that a firm is being sued. However, the reasons for the lawsuit presented in table 1 may explain the lack of performance differences since i) lawsuits often constitute attempts to block future transactions and as such are unrelated to past performance; ii) lawsuits may arise from the artificial inflation of past performance. Next, the two groups do not differ in terms of board composition and inside ownership. Last, most importantly, the differences in unaffiliated blockholdings described in table 2 are statistically significant. Specifically, lawsuit defendants have fewer unaffiliated blockholders who hold less stock, both in total and per holder, than control firms. These differences are significant under both the parametric t-test and the non-parametric Wilcoxon test at the 0.05 level or more. This result suggests that blockholdings may hinder the opportunistic management behavior that may trigger a shareholder lawsuit. More conclusive evidence about cross-sample differences are drawn from the logistic regression results presented in section 4.3 since multivariate tests simultaneously control for the potentially confounding role of other factors.

4.2 Pairwise correlations between the variables

Table 4 presents pairwise correlations between the variables, which are included in the subsequent logistic regressions. Three observations are worth consideration in table 4: 1) The lawsuit dummy (one for targets and zero for control firms) is inversely, significantly related to the three variables proxying for unaffiliated blockholdings, consistent with unaffiliated blockholdings substituting for litigation activity in monitoring management; 2) there is a significant negative correlation between inside ownership and the percentage of outside directors on the board and between inside ownership and firm size; 3) there is a highly positive correlation among the three variables proxying for the level

of unaffiliated blockholdings in a firm, suggesting these variables substantially capture the same concept.

4.3 Logistic Regression Results

Next, table 5 presents results from logistic regressions on the probability that a firm becomes the defendant in a shareholder suit. Each of the models in table 5 is jointly significant at the 0.05 level, as indicated by the p-value corresponding to -2Log-likelihood, except for model 1 which is significant at the 0.10 level. Initially, the importance of the main governance variables i.e., the percentage of inside ownership, board composition, and unaffiliated blockholdings, are empirically linked to the likelihood of a lawsuit. In contrast to expectations, the ownership of insiders and board composition are found to be unrelated to the lawsuit announcement suggesting that firms with higher inside ownership and more outside directors are not protected more against the dangers of shareholder litigation. One potential explanation for the lack of significance for inside ownership is that the benefits of ownership are non-linear since the dangers of managerial entrenchment may rise as inside ownership rises. That is, when managers have a controlling interest in the firm they may also take actions against the best interests of unprotected minority shareholders. In turn, such actions may elicit legal complaints by the firm's shareholders. The initial result for outside block ownership supports a monitoring role of the outside blockholdings. In particular, as the percentage of blockholdings rises, the likelihood of a lawsuit declines significantly (coefficient p-value=0.042). Model 2 in table 5 introduces the return on assets, market-to-book ratio and log of sales as potentially important control variables determining the likelihood of a lawsuit (all the results on the control variables are discussed later in this section). Importantly, the blockholdings variable retains its statistical significance in explaining the incidence of lawsuits after controlling for the additional effects.

Table 4
Pearson correlations between the variables used in the logit regressions in tables 5 and 6

Governance information is collected from the sample firms' proxy statements and financial information is collected from Compustat for the year before the lawsuit.

*, **, *** significant at the 0.10, 0.05, and 0.01 level respectively.

1. Lawsuit dummy	1.00								
2. Inside ownership	0.01	1.00							
3. Pct. unaffiliated block ownership	-0.26**	0.10	1.00						
4. Number of blockholders	-0.24**	0.04	0.82**	1.00					
			*						
5. Blockholdings-to-holders	-0.25**	0.08	0.83***	0.56***	1.00				
6. Independent directors (pct.)	-0.12	-0.47***	0.08	0.14	0.07	1.00			
7. Net income/assets	-0.13	-0.16	0.04	0.04	-0.05	-0.19*	1.00		
8. Market-to-book of equity	0.14	0.13	0.15	-0.04	0.08	0.09	0.12	1.00	
9. Log (sales)	-0.10	-0.25**	-0.12	-0.12	-0.13	0.11	-0.02	-0.08	1.00

In model 3 the effect of blockholdings is alternatively measured by the number of unaffiliated blockholders while the other variables remain as in table 2. Interpretation of the results remains very similar (the p-value for the coefficient on the number of blockholders is 0.027), suggesting outside blockholdings and shareholder lawsuits are substitute mechanisms. In model 4, when both the number of unaffiliated blockholders and unaffiliated blockholdings are introduced in the model, the model as a whole remains highly significant but the block ownership variables are not, suggesting that multicollinearity is present in the model. This is reinforced by the highly positive pairwise correlation between the two blockholdings variables presented in table 4. Thus, in the remaining regressions the three

proxies for blockholdings are included one at a time. Finally in model 5, as the intensity of blockholdings (i.e. ownership per block) rises, the likelihood of a lawsuit also diminishes ($p=0.021$) consistent with the results in models 1-3. Importantly, the result in model 5 was not necessarily true given 1-3 since the ratio is, in effect, the quotient of the holdings and holders variables, each of which is inversely related to the likelihood of a lawsuit.

Evidence on the importance of the control variables is generally weak. Specifically, the coefficient on ROA is negative and significant at 0.10 in three of the four models it is included, weakly consistent with poorly performing firms being more likely to be targeted by a shareholder

<p>Table 5</p> <p>Logit regressions of the probability that a firm becomes the defendant in a shareholder lawsuit</p> <p>Governance information is collected from the sample firms' proxy statements and financial information is collected from Compustat for the year before the lawsuit.</p> <p>*, **, *** significant at the 0.10, 0.05, and 0.01 level respectively.</p>					
	(1)	(2)	(3)	(4)	(5)
Intercept	0.907 (0.255)	1.624 (0.351)	1.810 (0.306)	1.220 (0.463)	2.152 (0.218)
Inside ownership	-0.003 (0.862)	-0.006 (0.775)	-0.011 (0.618)	-0.002 (0.926)	-0.010 (0.658)
Pct. block ownership	-0.041** (0.042)	-0.052** (0.027)		-0.106 (0.181)	
Number of blockholders			-0.408* (0.058)	0.514 (0.467)	
Intensity of blockholdings					-0.142** (0.021)
Pct. independent directors	-1.097 (0.368)	-0.112 (0.936)	-0.323 (0.813)		-0.309 (0.820)
Net income / assets		-4.968 (0.110)	-4.976* (0.097)	-5.194* (0.095)	-4.970* (0.098)
Market-to-book		0.185* (0.095)	0.133 (0.222)	0.236* (0.063)	0.168 (0.125)
Log(sales)		-0.107 (0.335)	-0.103 (0.350)	-0.098 (0.361)	-0.117 (0.271)
Sample size	78	78	78	78	78
-2Log-likelihood	6.36*	14.54**	12.31**	15.11**	15.04**

lawsuit. Moreover, the coefficient for the market-to-book is found to be positive, marginally significant at 0.10 in two of the four models in table 5 suggesting that firms with higher growth prospects are marginally more likely to become defendants in lawsuits. Last, the log of firm sales is not a significant variable, likely because sales is one of the matching criteria used in selecting the controls firms.

Table 6 presents the results of further sensitivity checks of the determinants of shareholder lawsuits. As in table 5, each model is

jointly significant at least at the 0.10 level. Importantly, in all models in table 6, unaffiliated blockholdings are proxied by the blockholdings-to-blockholders ratio, which is always negative and significant at least at the 0.05 level, in line with the evidence in table 5. Given high collinearity between inside ownership and board composition, models 6 and 7 in table 6 introduce each of these variables separately to explore their isolated effect on the likelihood of a lawsuit, other things constant. Similar to prior results neither variable is individually significant in the model. Next, in order to assess the joint signifi-

Table 6

Logit regressions of the probability that a firm becomes the defendant in a shareholder lawsuit

All governance information is collected from the sample firms' proxy statements and financial information is collected from Compustat for the year before the lawsuit.

*, **, *** significant at the 0.10, 0.05, and 0.01 level respectively.

	(6)	(7)	(8)	(9)	(10)
Intercept	2.003 (0.218)	1.791 (0.235)	1.781 (0.226)	2.186 (0.183)	2.631 (0.123)
Inside ownership	-0.008 (0.705)			-0.009 (0.667)	-0.009 (0.679)
Pct. block ownership					
Number of blockholders					
Intensity of blockholdings	-0.144** (0.018)	-0.144** (0.018)	-0.145** (0.017)	-0.125** (0.027)	-0.126** (0.031)
Pct. independent directors		-0.034 (0.978)		-0.803 (0.534)	-0.777 (0.548)
Net income / assets	-5.077* (0.087)	-5.110* (0.086)	-5.120* (0.084)		-4.212 (0.135)
Market-to-book	0.174 (0.103)	0.168 (0.127)	0.169 (0.111)	0.115 (0.223)	
Log(sales)	-0.119 (0.264)	-0.108 (0.288)	-0.108 (0.278)	-0.109 (0.283)	-0.113 (0.292)
Sample size	78	78	78	78	78
-2Log-likelihood	14.98**	14.84**	14.84***	9.24*	12.27**

cance of these two variables, model 8 is run after excluding both variables. The -2log-likelihood of model 8 is then compared to that of model 5 in table 5 (the same model including both of these variables). The difference in -2log-likelihood is minimal between the two models and statistically insignificant suggesting inside ownership and board composition are not jointly significant in explaining the likelihood of a lawsuit. Last, models 9 and 10 isolate the effect of the two performance measures: ROA and the market-to-book ratio. Neither variable is significant when the other is excluded from the model.

Together, the results in tables 5 and 6 are consistent with the expectation that unaffiliated blockholdings are an alternative means for monitoring management, and that in the presence of blockholdings, shareholders monitor managers more actively, rendering litigation less likely. In their absence, small shareholders remain dependent on alternative governance mechanisms; at the extreme, shareholders seek legal action in protecting their interests. Nevertheless, one may also argue that shareholders are more inclined to attribute firm failure to managers in the absence of external blockholders who are perceived as

being more likely to prevent opportunistic behavior. Such attribution may also lead to a higher incidence of shareholder lawsuits.

5. Applicability of results

The results of this study are likely to be of interest to several groups: First, individual investors may use the presence of external blockholdings as an additional criterion in making their investment decisions. The results presented here are consistent with unaffiliated blockholdings deterring management from opportunistic behavior, which causes shareholder lawsuits. Thus, the wealth of individual investors may be protected better in the presence of external blockholders in the firm.

Second, these results are likely to be of interest to policy makers, especially in relation to the level of disclosures they require on block ownership. In particular, if external blockholdings are beneficial to shareholders, as has been documented in this and other studies, additional disclosures pertaining to the affiliation of blockholders, their board representation, and their voting record relative to management may be useful information to market participants.

Third, these results are likely to be useful to institutional investors such as pension funds. For one, these results underline the advantageous position of institutional investors in monitoring management and thus serve to explain their growing popularity in recent years. Furthermore, they highlight a certain responsibility by institutional investors to proactively protect shareholder interests.

6. Conclusion

This study documents differences in ownership structure between a sample of lawsuit-defendant firms and a sample of control firms in the same industry with similar sales. Specifically, defendant firms have fewer unaffiliated

blockholders holding less stock than control firms. This evidence is consistent with the notion that external blockholdings help monitor management and that, in their presence, shareholder lawsuits become less likely. This result underlines the beneficial role of unaffiliated blockholdings in reducing agency costs and has meaningful implications for individual and institutional investors as well as policy makers.

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Notes

Appendix

List of the 45 sample firms that were sued by their shareholders between 1989 and 1993

Firm name		Year	Firm name		Year
1.	Aristech Chemical	1989	24.	Pennsylvania Enterprises	1991
2.	Bank of New England	1989	25.	Eljer Industries	1991
3.	Apple Computer	1989	26.	Davstar Industries	1991
4.	Raychem	1989	27.	Go-Video	1992
5.	MDC Holdings	1989	28.	Oryx Energy	1992
6.	Rockwell Int'l	1989	29.	Autodesk	1992
7.	Litton Industries	1989	30.	Chase Manhattan	1992
8.	Smith Corona	1989	31.	Exabyte	1992
9.	Cray Research	1989	32.	Home Shopping Network	1992
10.	Morrison Knudsen	1989	33.	Microdyne Corp.	1992
11.	AT&E	1990	34.	Aldus	1992
12.	West Point Pepperel	1990	35.	Great Lakes	1992
13.	Carolco Pictures	1990	36.	Ferrofluidics Corp.	1993
14.	Playboy Enterprises	1990	37.	NTN Communications	1993
15.	Mack Trucks	1990	38.	Collins Industries	1993
16.	Adobe Systems	1990	39.	National Media Corp.	1993
17.	Nordstrom	1990	40.	Turner Broadcasting System	1993
18.	Xerox	1990	41.	General Dynamics Corp.	1993
19.	American General	1990	42.	Chesapeake Energy Corp.	1993
20.	Ambase Corp.	1990	43.	Filenet Corp.	1993
21.	Collins Foods International	1990	44.	Structural Dynamics Research	1993
22.	Intermec	1991	45.	Rainbow Technologies	1993
23.	MNC Financial	1991			