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Shareholder Litigation Rights and Corporate Acquisitions

Chune Young Chung[a], Incheol Kim[b,†], Monika K. Rabarison[c], Thomas Y. To[d], and Eliza Wu[e1]

ABSTRACT

We examine the effect of shareholder litigation rights on managers' acquisition decisions. Our experimental design exploits a U.S. Ninth Circuit Court of Appeals ruling on July 2, 1999 that resulted in a reduction in shareholder class actions. We find that, since the ruling, firms in Ninth Circuit states acquire larger targets. Furthermore, acquirers' returns are lower in these states, especially for those with weaker corporate governance. Further analysis shows that value destruction is the result of managers' freedom to conduct empire-building acquisitions using overvalued equity. Overall, our findings indicate the importance of shareholder litigation as an external governance mechanism.

JEL classification: G34, K22, M41
Keywords: Shareholder litigation, corporate governance, corporate acquisitions

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1. Introduction

The finance literature recognizes that agency problems can lead corporate managers to make acquisitions that do not maximize shareholder value. Jensen's (1986) free cash flow hypothesis argues that managers have an incentive to grow their firms excessively in order to increase the resources they control. Masulis et al. (2007) show that managers of firms with poor corporate governance are the most likely to engage in empire-building acquisitions that destroy shareholder value. Because acquisitions are a primary form of corporate investment, it is important to minimize managers' incentives to pursue self-serving acquisitions. In this study, we address this issue by examining how the threat of shareholder class actions affects managers' acquisition decisions.

In the U.S., a securities class action litigation provides a mechanism through which shareholders can sue for managerial misconduct.[2] Such lawsuits are designed to provide recourse in the event that other governance mechanisms are not effective, making them very useful for firms with poor corporate governance.[3] In the agent-shareholder framework, the existing literature presents empirical evidence that shareholders have used class action lawsuits as a tool to express their dissatisfaction with or discipline inefficient management. For instance, there is much empirical evidence that litigation negatively affects firm value (e.g., Bhagat and Romano, 2002; Fich and Shivdasani, 2007). When sued, firms experience significant executive

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[2] For example, a class action was filed against BT Office Products International, Inc., in 1996, stating that the firm's 10Q, management discussion and analysis, and certain press releases were false and misleading with respect to the firm's acquisition strategy, which consequently resulted in material losses for shareholders. Ultimately, BT Office Products agreed to pay USD 1.48 million to settle the case.

[3] Class action litigation is particularly important in the U.S. because ownership is widely dispersed and, hence, often does not provide enough incentive for shareholders to monitor a firm's management (Cheng et al., 2010).

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officer and director turnover (Humphery-Jenner, 2012; Aharony et al., 2015). Furthermore, such firms are less likely to finance their investments externally (Arena and Julio, 2015), reduce overinvestment (McTier and Wald, 2011), or improve the quality of their corporate governance (Ferris et al., 2007; Cheng et al., 2010). In summary, class litigation is an effective monitoring mechanism exercised by shareholders.

Our study extends this line of research, investigating whether a reduction in class or group litigation leads managers to make value-decreasing investment decisions and, if so, in what way. Specifically, we exploit the U.S. Ninth Circuit Court of Appeals July 2, 1999 ruling, *In re: Silicon Graphics Inc. Securities Litigation*, as a quasi-natural experiment to determine whether a regulation change can influence how effectively shareholders monitor managerial decisions. We choose this Ninth Circuit Court ruling for the following reason. Despite the Private Securities Litigation Reform Act (PSLRA) of 1995, which the U.S. Congress enacted to make it more difficult for shareholders to file frivolous lawsuits, the incidence of securities class actions subsequently increased (Choi et al., 2009). In response to a call for tighter regulations, the U.S. Ninth Circuit Court of Appeals issued a ruling in 1999 mandating stricter applications of the PSLRA standards. Under common law, laws are created by courts using the doctrine of precedent, requiring judges to make decisions by considering past cases that have set a precedent for future cases. The ruling ultimately discourages shareholder plaintiffs from proceeding with legal action unless they have clear evidence of intentional managerial misbehavior. Crane and Koch (2018) find that, after this ruling, the number of class actions dropped by 43% in Ninth Circuit states (Alaska, Arizona, California, Hawaii, Idaho, Montana, Nevada, Oregon, and Washington). In comparison, other circuits experienced a 14% increase in

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class action lawsuits in the same period. Thus, we consider the Ninth Circuit Court ruling as an exogenous shock to shareholder litigation rights.

To explore whether class action litigation plays an effective monitoring role in corporate governance, we consider mergers and acquisitions (M&As) under the Ninth Circuit Court ruling as our empirical setting. M&As are substantial corporate investments that have an economic impact on firm value; as a result, the views of shareholders and managers on M&As can differ significantly (Chen et al., 2007). In a related study, Jensen (1986) posits that M&As are a primary method used by managers to reduce their personal undiversified risk or to increase the scope of their authority. Researchers have documented cases in which a target firm's shareholders have sued the firm's board of directors or managers owing to a breach of duty, such as concealing material information about the deal or forcing the shareholders to accept unfavorable terms or a low bid price (Jarrell, 1985). Krishnan et al. (2012) show that M&As subject to target firm shareholder lawsuits are less likely to be completed, and have significantly higher takeover premiums if they are completed. However, few studies have examined how the outcomes of M&As are affected by a change in the regulatory landscape that directly reduces the risk of shareholder litigation.

We first compare the performance of acquisitions by U.S. firms headquartered in Ninth Circuit states with that by firms headquartered in other states around the time of the Ninth Circuit Court ruling. This strategy effectively isolates the effect of class action risk on acquisition performance from that of unobservable covariates. Using corporate acquisitions announced between 1996 and 2003, we examine the performance of these transactions for the four-year periods before and after the ruling. We find that, after the ruling, the five-day cumulative

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abnormal returns (CARs) around the acquisition announcement dates are, on average, 1.32 percentage points lower for acquiring firms headquartered in Ninth Circuit states than they are for firms in other states. This finding suggests that the reduced threat of class action after the ruling has increased the probability that managers will undertake value-destroying, self-serving acquisitions.

Next, we investigate the mechanisms through which managers destroy shareholder value. First, consistent with managers' empire-building motives, we find that managers in Ninth Circuit states began acquiring larger firms when it became more difficult for shareholders to form class action lawsuits. Second, acquisitions in the Ninth Circuit states began including greater proportions of equity payments, implying that these managers were likely to be conducting empire-building acquisitions using overvalued equity. Furthermore, we find that the threat of class action litigation has a greater effect on acquirer returns in firms with weaker corporate governance, that is, firms with high E-index scores, few blockholders, low CEO ownership, or CEO duality. This result makes sense because the threat of litigation was likely playing an important role in the governance of these firms before the ruling, thereby limiting managers' empire building at the expense of shareholder wealth.

Finally, we conduct a series of additional analyses. The findings are as follows. First, the reduced threat of class actions by shareholders has induced managers of firms in Ninth Circuit states to be overly optimistic about future earnings announcements surrounding M&As. Second, after the ruling, managers in Ninth Circuit states inflated earnings in the quarter prior to making an acquisition. Moreover, this behavior occurred only when acquisitions were funded by stock. This result suggests that, since the ruling, managers have been incentivized to pursue empire-

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building acquisitions using overvalued equity, fueling a spate of value-destroying, self-serving acquisitions. As a final test, we investigate whether the Ninth Circuit ruling affects the likelihood of CEO replacement, especially when CEOs are engaged in value-decreasing acquisitions. We find a lower probability of CEO replacement (and forced CEO replacement) after the ruling for firms in Ninth Circuit states than for firms in other states. Moreover, the likelihood of CEO replacement is not significantly affected by value-decreasing acquisitions. This implies that a lower threat of shareholder litigation increases managerial entrenchment, thus contributing to managers' value-destroying, empire-building acquisitions.

Our study contributes to three strands of literature. First, we contribute to the existing literature on the role of corporate governance in M&As, which is well documented. For instance, Byrd and Hickman (1992) examine tender offers and find that independent boards are associated with higher bidder returns. Datta et al. (2001) find that managers with equity-based compensation have a greater incentive to make good acquisitions. Masulis et al. (2007) show that acquiring firms with higher anti-takeover provisions have lower announcement returns. Although existing studies have examined the role of conventional governance mechanisms (e.g., board characteristics, compensation structures, or anti-takeover provisions) in M&As, few examine how the threat of shareholder litigation as an external governance tool affects a firm's acquisition decisions. We address this gap by exploiting a regulatory reform that affected the threat of class action shareholder litigation to examine the role that this threat plays in acquisition decisions.

Second, our study contributes to the literature on stock price manipulations in M&As. Erickson and Wang (1999) and Louis (2004) show that acquiring firms often overstate their

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earnings prior to stock swap announcements in order to boost their stock prices. However, Gong et al. (2008) find that acquirers who do so are more likely to attract subsequent lawsuits. Anagnostopoulou and Tsekrekos (2015) find that firms seeking to be acquired also engage in earnings management. Cumming et al. (2019) show that stock price manipulation prior to M&As increases the probability that an M&A deal will be withdrawn and reduces the premium paid. Our study adds to this literature by showing that a reduced threat of class action litigation by shareholders makes it more likely that managers of acquiring firms will engage in earnings manipulation to boost their firms' stock prices before M&As.

Third, our study contributes to the literature on the effect of shareholder litigation rights on corporate policies. On the positive side, Ferris et al. (2007) and Appel (2019) find that the threat of shareholder litigation plays an important role in corporate governance by limiting managers' ability to introduce governance provisions and compensation structures that are prone to agency problems. Houston et al. (2019) find that the threat of shareholder litigation encourages voluntary disclosure practices by firms. On the negative side, Lin et al. (2019) show that the threat of shareholder litigation discourages corporate innovation, owing to the potential for project failure. In this case, the resulting stock price reduction would likely present shareholders with an opportunity to file a lawsuit related to a breach of fiduciary duty. Similarly, Chu and Zhao (2019) show that the threat of shareholder litigation encourages managers to select acquisitions with minimal risk, thus avoiding lawsuits rather than selecting acquisitions that maximize shareholder wealth. This result is consistent with Jensen's (1993) suggestion that because most lawsuits are frivolous, managers have a legal incentive to avoid such lawsuits by minimizing downside risk rather than maximizing shareholder value. This study contributes to

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this literature by examining how the threat of shareholder litigation acts as a governance tool, as well as its effect on acquisition decisions.

Our study is closest in spirit to that of Chu and Zhao (2019), but differs markedly in terms of the hypotheses developed and tested. Chu and Zhao (2019) assume that the threat of shareholder litigation forces managers to select acquisitions with minimal risk in order to avoid lawsuits, which limits them from selecting acquisitions that maximize shareholder wealth. In contrast, we assume that this threat of litigation plays an important role in external governance, thus encouraging managers to select acquisitions that do maximize shareholder wealth. Naturally, our findings also differ significantly from theirs. However, the biggest distinction lies in the likely difference in the quality of the corporate governance standards within firms targeted by derivative lawsuits and class actions.[4] In a derivative suit, the financial remedy goes to the firm. Therefore, a shareholder is only likely to file a derivative lawsuit if s/he believes the firm can use the financial remedy to improve shareholder wealth. This requires that shareholders have faith in the firm, and that the firm can properly address managerial misconduct and improve its corporate governance to prevent future misconduct. On the other hand, in the case of class actions, the financial remedy goes only to the class of

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[4] Furthermore, the legal environment with regard to "frivolous" lawsuits associated with derivative and class action lawsuits prior to the changes in legislation was quite different. Prior to the staggered adoption of UD laws, shareholders were able to bypass company directors' agreements and initiate a derivative suit on behalf of the corporation. Ni and Yin (2018) suggest that, "the availability of the 'futility exception' caused abusive use of derivative lawsuits, wasting time and money for courts and corporations" (p. 172). This suggests that it was very easy for shareholders to file "frivolous" lawsuits. On the other hand, after the 1995 PSLRA, the number of "frivolous" class action lawsuits likely decreased, even though the overall number of class actions increased. Hence, more "good" than "frivolous" class action lawsuits were filed before the 1999 Ninth Circuit ruling. Therefore, it is important to show that it was only after it became more difficult for shareholders to litigate, after the ruling, that the number of "good" class action lawsuits dropped.

plaintiff shareholders. This could indicate that the shareholders have little faith that the firm will use the financial remedy to improve its corporate governance and performance. Therefore, these shareholders are better off seeking a financial remedy for themselves. Overall, the differences between the financial remedy payouts suggest that firms targeted by class actions are likely to be governed less well than are firms targeted by derivative lawsuits.[5]

The rest of this paper is organized as follows. In section 2, we review the literature to provide the legal background of M&A litigation, develop our hypotheses, and present our research design. Section 3 describes the data and explains the variable construction. Section 4 examines how the threat of shareholder class action litigation affects acquisition decisions, and Section 5 identifies the channels through which value destruction takes place. Section 6 describes a set of robustness tests and additional analyses. Lastly, section 7 concludes the paper.

2. Literature review, hypotheses, and research design

2.1. Institutional background

Under U.S. laws, corporate officers and directors have fiduciary duties to undertake actions that are in the best interests of shareholders, and shareholders can take legal action if they identify a breach of such duties. Shareholder litigation occurs mainly as derivative lawsuits or as securities class actions.

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[5] Indeed, consistent with the finding of Krishnan et al. (2012) that 87.6% of M&A lawsuits are class action suits, while only 3.4% are derivative suits, Chu and Zhao (2019) report that only 22.17% (i.e., 51 out of 230) of the M&A litigation cases filed between 2000 and 2012 were derivative lawsuits.

In a derivative lawsuit, shareholders pursue the claims on behalf of the corporation (i.e., the corporation is the plaintiff); hence, any financial recovery goes to the corporation. However, various studies find that derivative suits rarely close with monetary settlements (e.g., Romano, 1991; Erickson, 2010). Therefore, shareholders usually benefit only indirectly from improved corporate governance and better corporate managerial actions. In commencing a derivative lawsuit, shareholders are required to first demand that the board of directors address the allegations, which the board can either accept or refuse. Directors almost always decide against proceeding with litigation because they themselves are often the persons named in the lawsuit (Swanson, 1992). To prevent the board from blocking legitimate lawsuits, courts introduced the "futility exception" to allow litigant shareholders to bypass the board (Kinney, 1994). However, this exception resulted in abuses of the system. In response, starting in 1989, states began adopting universal demand (UD) laws, which require that shareholders obtain board approval prior to initiating a derivative lawsuit. Overall, UD laws made it more difficult for shareholders to file such lawsuits.

In contrast to a derivative lawsuit, a securities class action lawsuit addresses direct harm to shareholders. The plaintiff is the class of shareholders who initiate the lawsuit against management. Class actions provide a mechanism for shareholders who purchased or sold securities at a price that was affected by managerial misconduct to recover from financial loss. Financial recovery from class actions is paid directly, and only to the plaintiff class of shareholders. Empirical evidence shows that many derivative lawsuits are accompanied by class actions. For example, in a comparative study of shareholder litigation, Erickson (2011) reports that about 75% of the derivative lawsuits in the sample were accompanied by class actions.

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2.2. Effect of shareholder litigation on corporate value and policy

Earlier studies related to shareholder litigation document the *ex post* consequences of class action lawsuits on firms. For example, Ferris et al. (2007) and Cheng et al. (2010) show that firms' corporate governance quality improves after a lawsuit is filed. In addition, McTier and Wald (2011) find that sued firms subsequently reduce overinvestment, and Humphery-Jenner (2012) shows that a CEO is more likely to be replaced after a lawsuit. A recent series of studies examine the *ex ante* role of the threat of shareholder litigation. On the positive side, Houston et al. (2019) find that this threat encourages voluntary corporate disclosure practices, and Appel (2019) finds that this threat limits managers from introducing governance provisions that are prone to agency problems. On the negative side, Lin et al. (2019) show that shareholder litigation threat discourages managers from engaging in innovation, and Chu and Zhao (2019) find that the threat of derivative litigation encourages managers to select acquisitions with minimal risk, thus avoiding lawsuits rather than selecting acquisitions that maximize shareholder wealth. However, whether the risk of class action litigation specifically plays an *ex ante* disciplinary role in reducing management agency costs in M&As remains an open question.

2.3. Shareholder litigation in M&As

The M&A literature shows that managers often conduct empire-building acquisitions at the expense of shareholder value (Jensen, 1986; Masulis et al., 2007; Harford et al., 2012), and that one way in which shareholders can respond to such wrongdoing is by filing a lawsuit. In the U.S., lawsuits related to M&As can be filed as class actions, derivative lawsuits, or other (less common) forms. Class actions and derivative lawsuits are both forms of shareholder-

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representative litigation. The plaintiff's law firm pursues the matter at the request of a specific named shareholder, and on behalf of all shareholders adversely affected by the firm's actions. Empirical evidence shows that most M&A lawsuits are filed as class actions. For example, Krishnan et al. (2012) find, using a sample of M&A lawsuits, that 87.6% are class action suits, whereas only 3.4% are derivative suits.[6] Similarly, Crutchley et al. (2015) report that M&As and earnings management are the most commonly cited reasons for federal class action suits.

M&A lawsuits are usually filed as class actions because, often, only a minority "class" of shareholders is directly affected by managerial wrongdoing during an acquisition. Furthermore, as a result of the personal loss, shareholders are more likely to seek financial remedy for themselves, rather than for the corporation. For example, Hewlett-Packard (HP) completed its acquisition of British software company Autonomy for USD 10.2 billion on August 18, 2011. About 15 months later, on November 20, 2012, HP disclosed that it had a USD 8.8 billion charge related to the acquisition of Autonomy, with over USD 5 billion due to accounting irregularities at Autonomy. The accounting irregularities were known to HP officers, but were concealed from the investing public. As a result, a class action was filed "on behalf of all persons who purchased common stock of Hewlett-Packard Company between August 19, 2011, and November 20, 2012, inclusive."[7]

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[6] Shareholders prefer to bring class actions to challenge M&A transactions because derivative lawsuits involve several procedural hurdles. Most importantly, financial recoveries from a derivative lawsuit go to the corporate treasury rather than to the shareholders. The limited use of derivative lawsuits makes the exogenous variation in shareholder litigation rights generated by UD laws less useful in our research setting, because UD laws only make it difficult to initiate derivative suits.

[7] http://securities.stanford.edu/filings-documents/1049/HPQ00_03/20121126_f01c_12CV05980.pdf

Based on the above discussion, we examine how shareholders' litigation rights affect managers' acquisition decisions. Our experimental design exploits a ruling of the Ninth Circuit Court of Appeals on July 2, 1999 that resulted in a reduced threat of class action litigation. Under U.S. federal rules for civil procedures, shareholders have the right to sue a firm through a securities class action for alleged violations of federal or state securities laws. Although undertaking legal actions against those responsible for misdeeds is a civil right, it is also true that frivolous lawsuits incur unnecessary social costs. As a result, the U.S. Congress enacted the PSLRA in 1995 to prevent plaintiffs from filing weak or frivolous lawsuits. The reform made it more difficult for shareholders to initiate a securities class action lawsuit. Under the PSLRA, to legally form a class, plaintiffs must identify particular facts giving rise to a "strong inference" that the defendants acted "with the required state of mind" for fraud (Levine and Pritchard, 1998; Johnson et al., 2001). Although the PSLRA has contributed to a less litigious environment for all firms, the pleading standards of the law, as a practical matter, were interpreted differently by various U.S. circuit courts. Here, the interpretation by the Ninth Circuit Court in the *Silicon Graphics* case, *In Re: Silicon Graphics Inc. Securities Litigation* on July 2, 1999 is the most stringent. The Ninth Circuit ruling requires that, prior to forming a class, plaintiffs must establish that the defendant acted with "deliberate recklessness" when making the misrepresentation that gave rise to the claim. In other circuits, proving "mere recklessness" is sufficient. This remarkable decision was largely unanticipated (Johnson et al., 1999), and has since been applied to all securities class actions filed with the Ninth Circuit Court. Crane and Koch (2018) show that, after the ruling, the number of class actions in the Ninth Circuit dropped

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by 43%, whereas it increased by 14% in the other circuits. Thus, we consider the Ninth Circuit ruling an exogenous shock that reduced the threat of shareholder litigation in M&As.

2.4. Hypothesis development

It is well recognized in the finance literature that, in the absence of corporate governance, managers do not always make acquisitions that maximize shareholder value. For example, Jensen (1986) suggests that managers have an incentive to expand their firms beyond the optimal size to increase the resources under their control, and Masulis et al. (2007) show that managers in poorly governed firms are most likely to be responsible for empire-building acquisitions that destroy shareholder value. A securities class action litigation provides a mechanism by which shareholders can sue management in the event of managerial misconduct, such as self-serving acquisitions. Recent studies document that the threat of such litigation plays an important role in governance, limiting managers from introducing governance provisions that are prone to agency problems, and encouraging voluntary disclosure (Appel, 2019; Houston et al., 2019). Given these prior findings, we expect the threat of shareholder litigation to be a useful governance tool that limits managers from pursuing self-serving acquisitions at the expense of shareholder wealth. Thus, we hypothesize that, since the Ninth Circuit ruling, which reduced the threat of shareholder litigation, managers are more likely to conduct self-serving acquisitions, leading to weaker acquirer returns.

H1: All else being equal, after the Ninth Circuit Court of Appeals ruling, acquiring firms headquartered in Ninth Circuit states experienced lower CARs around M&A announcements compared to firms headquartered in other states.

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We next examine the ways in which managers conduct self-serving acquisitions. Jensen (1986) suggests that managers have an incentive to increase the resources under their control by expanding their firms, and studies have shown that they often do so with the help of overvalued equity. For example, Louis (2004) shows that acquiring firms often overstate their earnings in the quarter before stock-based acquisitions to try to use overvalued equity as a form of payment. Moeller et al. (2005) find that large-loss bidders have significantly higher market-to-book ratios, and finance their deals with significantly higher equity. These findings are consistent with Jensen's (2005) suggestion that the significant value destruction for acquirers can be explained by the agency costs of overvalued equity. Thus, we hypothesize that managers in Ninth Circuit states are likely to acquire larger targets and use more stock financing in M&As after the Ninth Circuit ruling.

H2a: All else being equal, after the ruling, firms headquartered in states under the jurisdiction of the Ninth Circuit Court of Appeals are more likely to acquire large targets compared to firms headquartered in other states.

H2b: All else being equal, after the ruling, firms headquartered in states under the jurisdiction of the Ninth Circuit Court of Appeals are more likely to use stock as the payment method compared to firms headquartered in other states.

Finally, we investigate the type of firm that is most likely to be affected by the Ninth Circuit ruling. Shareholder litigation is unlikely to be needed as an external governance mechanism in firms with good internal corporate governance. In such firms, through constant monitoring, the board of directors and institutional blockholders can identify and prevent managers from conducting self-serving acquisitions. In contrast, we expect the threat of shareholder litigation to play a very important governance role in firms with poor corporate governance. In such firms, managers can more easily conduct self-serving acquisitions, and the

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threat of shareholder litigation is one of the only ways to prevent them from doing so. Thus, we hypothesize that the threat of shareholder litigation has a greater effect on the acquisition performance of firms with poor corporate governance.

H3: All else being equal, the effect of lower *ex ante* class action litigation risk on M&A performance is stronger in firms with weaker corporate governance practices.

2.5. Research design

To examine how the reduced threat of shareholder litigation affects acquisition performance (H1), we estimate the following difference-in-differences (DID) model:

$$CAR(-2,+2)_{i,t+1} = \alpha + \beta Treat_i \times Post_t + \delta Treat_i + \gamma Z_{i,t} + Year_t + Industry_j +$$

$$State_k + \varepsilon_{i,t}, \qquad (1)$$

where *t* denotes the year, *i* denotes the firm, *j* denotes the industry, and *k* denotes the incorporation state. The dependent variable, $CAR(-2,+2)_{i,t+1}$, is the five-day CAR centered on the acquisition announcement date. Following Masulis et al. (2007), we calculate abnormal stock returns by estimating the market model for each acquirer over a 200-day period, ending 11 days before the announcement date (–210, –11), using the Center for Research in Security Prices (CRSP) value-weighted return as the benchmark market index. The indicator variable *Treat* differentiates and controls for differences between the treatment and control groups; this variable takes the value one when the firm is located in a Ninth Circuit state, and zero otherwise. Then, *Post* is a time dummy, taking the value one for fiscal years after 1999, and zero for years 1996 to 1999. We do not include observations from years prior to 1996 because the PSLRA in 1995 significantly affected the litigation environment governing securities class actions. The DID coefficient of interest used to identify the difference in the treatment effect

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resulting from the Ninth Circuit ruling is denoted as β. We also include a set of control measures, $Z_{i,t}$, identified in prior studies as firm and deal characteristics that are likely to affect a firm's acquisition decisions. In addition, $Year_t$ and $Industry_j$ capture time and industry fixed effects, respectively. Following recent literature on the effects of state laws, we include firm incorporation state fixed effects, $State_k$, and cluster the standard errors at the headquarters state level in all regressions to account for differences in incorporation and state-level laws and regulations related to a firm's headquarters (Gormley and Matsa, 2017; Houston et al., 2019).

We also construct a control group of firms (located outside of the Ninth Circuit) that are matched to the treatment group (located in the Ninth Circuit) to ensure that the difference in acquisition performance between the treatment and control firms is not caused by cross-sectional heterogeneity. We use the propensity score matching (PSM) method to identify a control firm for each treatment firm. Specifically, we first estimate a probit model using acquisition observations to predict the likelihood that a firm is headquartered in the Ninth Circuit states (Treatment). The dependent variable takes the value one if the firm is headquartered in one of the Ninth Circuit states, and the independent variables include all control variables used in this study (these variables are described in detail in section 3.2). We obtain the predicted propensity score from this probit model. We then match, without replacement, each treatment firm with a control firm, based on the closest propensity score. To obtain closer matches, we use the caliper matching method and match within a caliper of 0.5% as the maximum distance between the two groups. We then use the propensity-score matched sample to re-run our baseline test.

Next, to test whether the reduced threat of shareholder litigation leads managers to acquire larger targets (H2a) or to use stock as the method of payment (H2b), we use the same set of control variables as in equation (1). In testing H2a, we replace the dependent variable with the relative deal size. In testing H2b, we use a probit regression and replace the dependent variable with a stock financing indicator, which takes the value one if 80% or more of the acquisition is funded by stock, and zero otherwise.

There is a concern when testing the choices of deal size and payment method separately that they may not be determined separately. If so, our findings might be spurious owing to the correlation in the error terms of the latter two regressions. To address this concern, we employ a two-stage probit least squares model (PSLM), because one of the endogenous variables (i.e., relative deal size; referred to here as *RelSize*) is continuous, and the other (i.e., *Stock80%*) is binomial. The PSLM essentially runs two two-stage model regressions to account for the simultaneity. Models (1) and (2) represent the two first-stage regressions, and Models (3) and (4) represent the two second-stage regressions. We follow Keshk (2003) to estimate the models.[8]

Models (1) and (4):

First stage: *RelSize* = f(*Firm governance*, *Institutional ownership*, *No. of blockholders*, control variables)

Second stage: Pr(*Stock80%*=1) = f(control variables, *Inst_RelSize*)

Models (2) and (3):

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[8] The results are weaker, but qualitatively similar when we apply a standard bivariate probit model without regard for any potential simultaneity bias. These additional results are available upon request. We thank an anonymous reviewer for suggesting this econometric improvement.

First stage: Pr(*Stock80%*=1) = f(*Leverage*, *Stock price runup*, control variables)

Second stage: *Relsize* = f(control variables, Inst_Stock80%)

The variables *Inst_RelSize* and *Inst_Stock80%* are estimated from the first-stage models, and are included as instruments in the second-stage models. The rationale for our use of the set of governance variables in Models (1) and (4) is that we regard *RelSize* as a proxy variable for the empire building associated with corporate governance quality. Similarly, the rationale for our use of *Leverage* and *Stock price runup* in Models (2) and (3) is closely tied to the choice of payment method.

Lastly, to examine whether the effect of lower *ex ante* class action litigation risk on acquisition performance is stronger in firms with weaker corporate governance practices, we estimate our baseline equation (1) conditional on standard proxies for firm corporate governance. We measure corporate governance using the following four proxies: the E-index, institutional monitoring, CEO ownership, and CEO duality.

3. Data sources and variable construction

3.1. Data sources

To examine the post-1995 reform period before and after the Ninth Circuit Court of Appeals ruling, we obtain a sample of corporate acquisitions for the period between 1996 and 2003 from the Securities Data Company (SDC) M&A database. We require a minimum deal value of USD 1 million, and include only those deals for which the acquiring firm controls less than 50% of the target's stock before the announcement, but owns 100% of the target's stock after the transaction. We obtain accounting data from Compustat, financial market data from

the CRSP, and governance data from ExecuComp and Riskmetrics. Our final sample consists of 2,549 acquisitions.

3.2. Firm and deal characteristics

Following the acquisition literature, we control for a vector of firm and deal characteristics that may affect a firm's acquisition decisions. The variable definitions are provided in Appendix 1. Our firm-level controls include ln(assets), leverage, Tobin's Q, free cash flow, sales growth, CEO delta, CEO overconfidence, corporate governance quality, and institutional investor monitoring. We control for firm size, corporate governance quality, and institutional investor monitoring because managers in large firms, poorly governed firms, and firms with lower institutional investor monitoring are more entrenched and, hence, are more likely to make self-serving acquisitions (Masulis et al., 2007). We control for leverage and free cash flow because, as suggested by Jensen (1986), managers in firms with low leverage and high free cash flow are likely to engage in empire building. Tobin's Q and sales growth control for market valuation and firm growth opportunities, respectively. We control for CEO delta because, as noted by Minnick et al. (2011), managers with high delta compensation perform better in acquisitions. We control for CEO overconfidence because Malmendier and Tate (2003) show that overconfident CEOs make investment decisions in a different manner to other CEOs. All firm characteristics are measured as of the fiscal year-end prior to the acquisition announcement. Our deal-level controls include stock price run-up; relative deal size; cross-border, cross-industry, and tender deal indicators; method of payment; target's public status; high-tech deal indicator; and merger wave. We need to control for stock price runup because it could affect the choice of financing and subsequent announcement returns. We control for

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relative deal size because Moeller et al. (2005) show that acquirers perform worse in large deals. We control for cross-border, cross-industry, and tender deal indicators because these deals may be conducted for strategic rather than purely financial purposes. We control for method of payment because acquirers experience higher announcement returns when paying cash, owing to the adverse selection problem (Myers and Majluf, 1984). We control for the target's public status because acquirers capture a liquidity discount when buying private targets (Fuller et al., 2002). We control for high-tech deals because our sample period falls within the tech bubble, which could bias our findings. Finally, we control for merger wave because acquisitions are often overvalued during such waves (Rhodes-Kroph and Viswanathan, 2004).

Following Jenter and Lewellen (2015), we combine multiple governance measures into a broader index of governance quality. The set of measures we use includes CEO duality, board independence, and an entrenchment index (E-index). To construct the broader index, we split each of the governance measures into two groups, with higher values of board independence, lower E-index values, and a lack of CEO duality indicating better governance. Then, we cumulate the ranks (0–1), which we divide by the number of measures available for the firm-year to obtain the governance index score.[9]

Table 1 describes the sample firm distribution, and presents the variable summary statistics. Firms in Ninth Circuit states form the treatment group, and those in other states represent the control group. Panel A of Table 1 compares the number of acquisitions between the treatment and control groups, and Figure 1 illustrates the time-series trend. We do not

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[9] We check whether our result holds when we include the E-index and board characteristics separately. Although we lose 864 observations doing so, we find qualitatively similar results to those shown in Table 3.

observe a significant trend in the number of acquisitions conducted by the treatment and control firms. Panel B of Table 1 partitions our sample of acquisitions by the industry in which the acquirer operates. Of the acquisitions made by firms in Ninth Circuit states, 54% are conducted by acquirers operating in the business equipment industry, accounting for 376 acquisitions. Of the acquisitions made by firms outside the Ninth Circuit states firms, 26% are conducted by acquirers operating in the business equipment industry.

[Insert Table 1 here]

[Insert Figure 1 here]

Panel C provides summary statistics for the variables used in this study. We present the mean values of the variables for the treatment and control groups, as well as their mean differences. All continuous variables are winsorized at the 1st and 99th percentiles. We find that 24% of the acquisitions in our sample are made by firms headquartered in Ninth Circuit states, which allows for a significant number of treated firms in our empirical setting. The average acquirer in our sample has a leverage ratio of 22%, a Tobin's Q of 2.55, and free cash flow of 4%, consistent with the figures reported by other recent M&A studies (e.g., Yim, 2013; Huang et al., 2014). The deal characteristics show that 21% of the acquisitions are cross-border deals, 44% are cross-industry deals, and 33% are funded entirely by cash. We find that firm and deal characteristics differ significantly between firms located within the Ninth circuit (the treatment firms) and firms located in other states (the control firms). This could be due to industry clustering in certain states. For example, tech firms tend to be headquartered in California. To take into account any systematic differences between the two groups of firms, we

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control for year, industry, and state fixed effects in all regressions, conduct estimations based on a matched sample, and perform a battery of sensitivity analyses.

4. Shareholder litigation rights and announcement returns

4.1. Univariate results

In this section, we analyze the effect of shareholder litigation rights on deal announcement returns. We first compare the univariate results for the treatment and control groups. Table 2 shows that before the Ninth Circuit ruling, firms in Ninth Circuit states exhibited an average five-day CAR of 0.75% around the acquisition announcement date. After the ruling, the average CAR decreased to -0.34% for these firms. This change is statistically significant, indicating that the reduced threat of shareholder litigation decreased the average five-day CAR by 1.09 percentage points. In contrast, for firms located outside the Ninth Circuit states, we find that the average five-day CAR decreases by only 0.29 percentage points after the ruling. Furthermore, this change is not statistically significant. The univariate results also show that before (after) the ruling, the average five-day CAR for the treatment firms was 0.12 (0.68) percentage points higher (lower) than that of the control firms; however, these differences are nonsignificant. Overall, the univariate results suggest that firms in Ninth Circuit states have experienced lower announcement returns since the Ninth Circuit ruling. We next conduct multivariate tests to further examine the effect of the Ninth Circuit ruling on acquisition performance.

[Insert Table 2 here]

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4.2. Baseline results

4.2.1. Full sample

Table 3 reports the multivariate test results for the effect of the Ninth Circuit ruling on acquisition performance. First, we report the estimation results without control variables in Column (1). Here, we find that the estimated coefficient of *Treat × Post* is negative and significant at the 1% level. We then add the firm-level controls to the regression and report the results in Column (2). Again, the estimated coefficient of *Treat × Post* is negative and significant at the 1% level. The coefficients of our control variables exhibit the expected signs: 1) CEOs who receive higher equity-based compensation have a greater incentive to make value-enhancing acquisitions (Minnick et al., 2011); 2) managers in larger firms are more entrenched and, therefore, more likely to make value-destroying acquisitions (Masulis et al., 2007); 3) overvalued firms (higher Tobin's Q) are likely to reveal their true value to the market on the announcement of an acquisition (Moeller et al., 2004); and 4) acquirers do better when paying with cash, owing to the well-documented adverse selection problem (Myers and Maliuf, 1984). Our results suggest that a reduced threat of shareholder litigation is associated with lower announcement returns. In terms of economic magnitude, the coefficient estimate of *Treat × Post* indicates that after the ruling, acquirers in Ninth Circuit states experienced announcement returns that were 1.32 percentage points lower than those of acquirers located in other states. This negative market reaction represents a loss of USD 28.19 million in shareholder value for the median Ninth Circuit firm in our sample. Overall, these results support hypothesis H1.[10]

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[10] To verify that the change in acquisition performance is not related to any other events prior to the ruling, we run

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[Insert Figure 2 here]

[Insert Table 3 here]

Because M&As do not take place randomly, our findings could be driven spuriously by nonrandom data. Thus, in Column (3), we report the results of a Heckman two-stage model that addresses such sample selection bias. In the first stage, we run a probit model using a set of firm characteristics to estimate the acquisition likelihood, and then calculate the inverse Mills ratio from the probit model residuals.[11] We include the inverse Mills ratio in the second-stage regression. The results confirm that selection bias has little influence on our findings.

To control for time-varying industry characteristics (e.g., investment opportunities) that might affect corporate acquisition performance, we run the model with industry-year fixed effects. A drawback of this approach is that the coefficient of *M&A wave* is not estimated because it is measured as the annual number of acquisitions in a given industry, resulting in perfect collinearity. The results reported in Column (4) of Table 3 show a negative coefficient estimate for *Treat × Post* that is statistically significant at the 10% level. In summary, we confirm that the acquisition announcement returns of firms in Ninth Circuit states have decreased since the ruling.

The success of a DID estimation rests on the parallel trend assumption being satisfied, which requires similar trends in acquirer announcement returns for firms headquartered within and outside the Ninth Circuit before the Ninth Circuit ruling. Figure 2 shows that these trends

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a dynamic regression in which we include lead and lagged effects of the ruling. Though not reported here, the results show that a significantly lower CAR(-2, +2) appears only in 2000, a year after the ruling. This confirms that the negative reaction was not related to prior events and that the ruling was unexpected.

[11] The results of the probit model are reported in Appendix 2.

are similar, suggesting that the parallel trend is satisfied. To formally test the parallel trend assumption, we take a sample of 22 treatment and 77 control firms that conducted acquisitions in both 1996 and 1999, and compare the trends in the acquisition performance (difference between CAR experienced in 1999 and CAR experienced in 1996) of the firms in the two groups. We do not find any significant differences between these trends in the pre-event period (t-stat = 0.505), indicating that the parallel trend assumption is satisfied.

4.2.2 Propensity-score matched sample

Our comparison of the firm and deal characteristics between the treatment and control groups reported in Table 1 shows several significant differences. Thus, to confirm that our findings are not driven spuriously by differences in firm or deal characteristics, we use the PSM method to identify a control firm for each treatment firm (the matching methodology is described in detail in section 2.5). After the matching, we identify 511 matched pairs of treatment–control acquisitions, with a total of 1022 acquisitions. Panel A of Table 4 shows that all firm and deal characteristics are well-matched between the treatment and control firms. Using the matched sample only, we rerun our baseline regression; the results are reported in Panel B of Table 4. We find that the coefficient of *Treat × Post* is -2.180, and is statistically significant at the 1% level. Overall, our finding is robust to sample selection bias.

[Insert Table 4 here]

5. Underlying mechanisms

5.1. Empire building with overvalued equity

We expect that the reduced threat of class action litigation for managers of firms incorporated in Ninth Circuit states will encourage these managers to manipulate earnings

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before acquisitions in order to boost the firm's stock price, and then use the overvalued stock to fund empire-building acquisitions. Our view is shared by Jensen (2005), who suggests that a high level of acquirer value destruction can be explained by the agency costs of overvalued equity. This view is also supported by the empirical findings of Moeller et al. (2005), who show that large-loss bidders have significantly higher market-to-book ratios, and are more likely to finance their deals using equity.

To test our predictions, we first examine whether managers in Ninth Circuit states are more likely to make larger acquisitions and use equity financing after the Ninth Circuit ruling. Table 5 reports the results. The ordinary least squares regression results reported in Column (1) show that managers in Ninth Circuit states did begin acquiring larger firms after it became more difficult for shareholders to litigate. In Column (2), the probit regression results show that these managers are also more likely to use equity financing after the ruling. These findings support hypotheses H2a and H2b.

[Insert Table 5 here]

However, the choices of deal size and payment method may not be determined separately. If so, our findings might be spurious owing to the correlation in the error terms of the two regressions. To address this concern, we employ a two-stage PSLM (see section 2.5). The results of the PSLM model estimations are reported in Columns (3) and (4) of Table 5. We confirm that the reduced threat of class action litigation increases the likelihood of stock-financed acquisitions and the acquisition of relatively large target firms.

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5.2. Subsample tests with corporate governance mechanisms

Next, we conduct cross-sectional tests to identify the types of firms that completed value-destroying deals after the threat of class action litigation was eased. Shareholder litigation is designed to provide recourse if all other governance mechanisms fail. Hence, the external governance mechanism of shareholder litigation is unlikely to be needed in firms with good internal corporate governance, because such firms can discipline their managers before the shareholder litigation stage is reached. In contrast, we expect that the threat of class action litigation plays an important governance role in firms with poor internal corporate governance because, in these firms, the threat of shareholder litigation provides one of the only ways to prevent managers from conducting self-serving acquisitions. Thus, we hypothesize that when the Ninth Circuit ruling reduced the threat of shareholder litigation, managers in firms with weaker corporate governance became more likely to conduct self-serving value-destroying acquisitions, because they had more freedom to do so. To test this hypothesis, we conduct DID estimations conditional on standard proxies for firm corporate governance. Consistent with the literature, we measure corporate governance using four proxies: the E-index, institutional monitoring, CEO ownership, and CEO duality.

The E-index, first introduced by Bebchuk et al. (2009), is based on six of the 24 anti-takeover provisions included in the G-index originally constructed by Gompers et al. (2003), where a higher value corresponds to weaker corporate governance. Using the G-index as a measure of corporate governance, Masulis et al. (2007) find that acquirers with more anti-takeover provisions are more likely to conduct empire-building acquisitions that destroy shareholder value. Bebchuk et al. (2009) determine that the six governance provisions in the E-

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index matter most in terms of excessive management power. We classify firms as having stronger (weaker) corporate governance if the firm has an E-index score of two or less (above two). Columns (1) and (2) of Table 6 present the results. We find that the value destruction stems from firms with higher E-index scores. This finding is expected, because the managers of these poorly governed firms located within Ninth Circuit states are likely to have had greater freedom to conduct self-serving acquisitions since the ruling.

[Insert Table 6 here]

Recent evidence shows that institutional investors play a significant role in corporate governance. Cheng at al. (2010) show that class actions led by institutional investors increased between 1995 and 2004, and appeared to be effective in disciplining management. Aggarwal et al. (2015) show that institutional investors value their votes and use the proxy process to affect corporate governance. McCahery et al. (2016) find that 45% of the institutional investors they surveyed have had private discussions with the corporate board without management present. Furthermore, Liu et al. (2019) find that institutional investor monitoring strengthens board oversight. We measure institutional monitoring as the number of institutional owners (blockholders) that hold more than 5% of a firm's shares, because we expect that institutional investors who own larger portions of a firm's shares will have a greater incentive and ability to discipline managers. The results are reported in Columns (3) and (4) of Table 6, and support hypothesis H3. Here, we find that the value destruction is concentrated in acquirers with fewer

blockholders, because managers in these Ninth Circuit firms are more likely to conduct self-serving acquisitions, given the reduction in the threat of shareholder litigation.[12]

According to Jensen and Meckling's (1976) agency theory, larger managerial ownership reduces agency costs significantly, thus reflecting a better corporate governance mechanism. Although further studies show that this negative relationship is nonlinear, we concur with Lilienfeld-Toal and Ruenzi (2014), who show that firms with higher CEO ownership exhibit better stock performance. They suggest that managerial ownership can also be considered an internal corporate governance device that is distinct from the external governance mechanisms studied by Gompers et al. (2003). Thus, we use CEO ownership as our third proxy for corporate governance quality. Assuming the positive relationship between managerial ownership and firm value holds, CEOs with greater exposure to the firm's stock are less likely to undertake value-destroying acquisitions. The results in Columns (5) and (6) of Table 6 suggest that the value destruction caused by the reduced threat of litigation is a significant issue for firms with lower CEO ownership.

As a final proxy for corporate governance, we use CEO duality. Finkelstein and D'Aveni (1994) consider CEO duality a "double-edged sword," owing to the trade-off between the effectiveness of having a CEO who also serves as the chairperson of the board of directors, and the independent board monitoring made possible by separating these two roles. According to stewardship theory (Donaldson and Davis, 1991), CEO duality is beneficial to shareholders. In

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[12] On a separate note, the difference between the estimated coefficients for firms with low and high numbers of blockholders is not statistically significant, implying that our finding is not driven by a shift in ownership to institutional investors after the ruling documented by Crane and Koch (2018).

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contrast, agency theory (Jensen and Meckling, 1976) suggests that CEO duality hinders the monitoring role of the board of directors. The relationship between CEO duality and firm performance remains inconclusive, and determining it lies outside the scope of these two theories (Krause et al., 2014). Here, we lean toward the agency theory point of view. Inspired by Masulis et al. (2007), who find a significant negative relationship between CEO duality and bidder returns, we expect a CEO who also chairs the board of directors to have more opportunities to pursue their personal interests when implementing M&A transactions. As such, we predict that the value destruction related to the reduced threat of shareholder litigation is significant in firms where the CEO is also the chairperson of the board of directors. The results in Columns (7) and (8) of Table 6 support our prediction.

6. Additional evidence and sensitivity analyses

In this section, we conduct three additional tests related to the Ninth Circuit ruling, as well as a battery of sensitivity analyses on the effect of the ruling on acquirer announcement returns.

6.1. Managerial forecasting error with lower threat of shareholder litigation

Studies have shown that the threat of litigation affects financial reporting behavior. For example, Hopkins (2018) investigates whether the risk of securities class actions affects the level of misreporting. He finds that, since the Ninth Circuit ruling, managers of firms in Ninth Circuit states have issued more restatements than those of firms in other states. Following this line of thought, we expect that the reduced threat of shareholder litigation encourages managers to issue material misstatements around acquisition announcements. Using managerial earnings per share (EPS) forecasting data from I/B/E/S (formerly First Call), we test

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whether the reduced threat of litigation causes managers to be overly optimistic when announcing future earnings. To ensure managers' earnings forecasts are linked to an upcoming M&A, we limit our analysis to annual management EPS forecasts one year prior to M&A deals.[13] Following prior management forecast studies (e.g., Feng et al., 2009), we construct two variables to measure managerial EPS forecasting error: *Abs(Fore_Error)* and *Fore_Error*. *Abs(Fore_Error)* is the absolute value of *Fore_Error*, the management's EPS forecast minus the actual EPS, divided by the lagged calendar-end stock price. We report the results in Panel A of Table 7. We find that the reduction in the threat of shareholder litigation after the ruling increases management optimism when future earnings are announced. More specifically, we find that, after the ruling, management earnings forecasting errors announced in firms located in Ninth Circuit states increased by 2.15 cents compared with those of firms in other states. The increased margin seems mostly driven by inflated EPS estimations in forecasting. After the ruling, firms located in Ninth Circuit states report EPS forecasts 1.93 cents higher than those of firms in other states. Overall, our findings suggest that the reduced threat of class action litigation encourages managers to be overly optimistic in terms of future earnings announcements surrounding M&A deals. These results are consistent with the findings of Hopkins (2018), who shows that firms affected by the ruling exhibit higher probabilities of restatement than those not affected by the ruling do.

[Insert Table 7 here]

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[13] We also tried the quarterly EPS forecast, but failed to find significant results. Please see the discussion on the limitations of quarterly EPS forecast data in Ajinkya et al. (2005).

6.2. Earnings management with a lower threat of shareholder litigation

M&As and earnings management are the two most commonly cited reasons for federal class action suits (Crutchley et al., 2015), and studies have found that these two reasons often co-exist. For example, Louis (2004) shows that acquiring firms often overstate earnings in the quarter prior to a stock swap announcement in order to boost their stock prices. Furthermore, Gong et al. (2008) find that acquirers who manipulate their earnings before stock offers are more likely to attract subsequent lawsuits. Thus, we expect the reduced threat of shareholder litigation encourages managers to manipulate earnings before an acquisition, because they have a lower probability of being caught, and to then use this overvalued stock to fund empire-building acquisitions. We examine acquirers' earnings management using a modified Jones model and quarterly financial data from Compustat to estimate abnormal accruals in the quarter prior to a deal announcement (Jones, 1991; Dechow et al., 1995). Note that the sample size shrinks significantly owing to missing quarterly values for the variables required to calculate the abnormal accruals. The results are reported in Panel B of Table 7. Consistent with our predictions, we find that, after the ruling, compared with managers of firms in other states, those of firms in Ninth Circuit states manage earnings significantly upward in the quarter before an acquisition; however, this relationship holds only in the case of stock offers. In summary, our results show that the reduced threat of class action litigation has given managers greater freedom to conduct self-serving acquisitions using overvalued equity, which destroys shareholder value.

6.3. Probability of CEO turnover

As a final test related to the Ninth Circuit ruling, we ask whether the reduced threat of class action litigation affects the likelihood of CEO replacement. Prior research has documented the role of shareholder litigation in executive and director discipline in defendant firms. For example, Fich and Shivdasani (2007) report that outside directors are likely to lose their other outside directorships after a lawsuit, and Humphery-Jenner (2012) finds that shareholder class action litigation increases the likelihood of CEO turnover. Given the documented disciplinary role of shareholder litigation, we expect the reduced threat of litigation after the Ninth Circuit ruling to increase managerial entrenchment, which, in turn, decreases the probability of termination. This hypothesis is consistent with Appel's (2019) finding that reduced shareholder litigation rights allow managers to adopt classified boards, supermajority voting requirements, and poison pills.

To investigate whether the Ninth Circuit ruling affects the likelihood of CEO replacement, especially when CEOs are engaged in value-decreasing M&As, we merge our sample of acquirers with the Execucomp database. The merged database is used to examine the probability of CEO turnover in firms involved in value-decreasing M&As between 1996 and 2003, around the time of the ruling. We obtain CEO turnover and forced CEO turnover data from Professor Andrea Eisfeldt's website.[14] Forced CEO turnovers are identified based on news

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[14] The limitation of studying CEO turnover is that little is known about why CEOs are replaced. It might be that, upon mutual agreement, the departure is announced for other reasons (e.g., health issues), even though the real reason is poor performance. Parrino (1997) and Eisfeldt and Kuhnen (2013) note that a planned CEO departure is announced at least six months prior to the succession. They classify a CEO replacement as a forced turnover if news articles report "a CEO is fired or left the firm due to policy differences or pressure from the board of

stories published in Factiva.[15] For this analysis, we limit our sample to firms that engage in acquisitions. Thus, we predict the probability of CEO replacement conditional on acquisition performance. Specifically, we set up the following regression:

$$\Pr(Turnover = 1) = \ f(Treat \ \times \ Post \ \times \ NegM\&A, Controls), \qquad (2)$$

where *Turnover* represents *CEO Turnover* or *Forced CEO Turnover*, which are indicators that take the value one if a CEO is replaced or forced out, respectively, within two years of an acquisition, and zero otherwise. Then, *NegM&A* is an indicator that takes the value one if the average five-day announcement return is negative, and zero otherwise. The regression includes observations at the firm-year level. We expect the coefficient of *Treat x Post x NegM&A* to be negative, implying that a lower likelihood of shareholder litigation reduces CEO replacement in the case of negative M&A performance.

Panel C of Table 7 shows the results of the logistic regressions. In Column (1), we find a negative coefficient of *Treat x Post x NegM&A* on the probability of CEO turnover after the ruling for firms in Ninth Circuit states, compared with that of firms in other states; however, the coefficient is not statistically significant. Column (2) presents the marginal effect of each variable. Column (3) shows that, after the ruling, the likelihood of forced CEO replacement is affected significantly by engaging in value-decreasing M&As (*NegM&A*). From an economic viewpoint, after the ruling, the likelihood of forced CEO replacement decreases by 3.4 percentage points when M&A announcement returns are negative, as shown in Column (4).

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directors." While we are unable to trace the *true* reason why a CEO departs, we assume that an M&A failure is a critical event that results in CEO replacement.

[15] https://sites.google.com/site/andrealeisfelft/. See Eisfeldt and Kuhnen (2013) for a detailed explanation of the information-collection process.

Overall, these findings suggest that the reduced threat of being fired since the ruling significantly reduces CEO turnover, even for firms with poor acquisition performance. This is one of the reasons why managers in Ninth Circuit states can conduct value-destroying, empire-building acquisitions, providing further evidence that the threat of shareholder litigation plays a monitoring role in the dismissal of managers who perform poorly.

6.4. Sensitivity analyses

Finally, we conduct a series of sensitivity analyses to further confirm the documented effect of the Ninth Circuit ruling on acquirer returns. First, we address the concern that our results may be driven by the burst of the tech bubble, which occurred during our study period. We conduct three separate robustness tests to address this concern: 1) we exclude tech firms from our baseline regression, using an indicator that takes the value one if the acquirer and target firms are both from high-tech industries (Loughran and Ritter, 2004); 2) we exclude the period 1999 to 2000 from our sample; and 3) we exclude firms located in Silicon Valley. We obtain the address of a firm's headquarters from Compustat and use the city name to identify whether the firm is located in Silicon Valley.[16] The results reported in Columns (1) to (3) in Panel A of Table 8 show that our finding still holds. To further address the concern that the tech bubble may drive our results, we extend our sample to 2015. The unreported results are qualitatively similar to our original results, and are consistent with the finding of Cox et al. (2009) that, despite numerous efforts by the Supreme Court, differences in pleading standards persist across circuits.

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[16] A firm is identified as being in Silicon Valley if it is located in one of the following cities in California: San Jose, Palo Alto, Menlo Park, Cupertino, Santa Clara, Mountain View, or Sunnyvale (https://en.wikipedia.org/wiki/Silicon_Valley).

[Insert Table 8 here]

Second, we employ a border analysis, following Holmes (1998), to address the possible selection bias, because acquisition decisions are typically not made in random places as firms do not randomly select their locations. We obtain zip codes (from the U.S. census) for counties that share state borders with Ninth Circuit states and other states, and repeat our analysis for the firms located around the state borders. That is, the treated firms are those with headquarters in Montana, Idaho, Nevada, or Arizona, and the control firms are those with headquarters in Utah, New Mexico, Wyoming, or North Dakota. Column (4) in Panel A of Table 8 reports the results. Firms headquartered in these states completed only 50 M&A transactions during the period 1996–2003; thus, we include only industry fixed effects in the regression in order to avoid multicollinearity. The coefficient of *Treat × Post* remains negative and significant.

Third, Compustat does not capture headquarter relocations because it backfills firm addresses. To ensure that the locations of the firms' headquarters are accurate, we obtain information on relocations from the firms' SEC Form 10-K filings to update our sample firms' addresses. We rerun our baseline regressions and one of the robustness tests, excluding firms in Silicon Valley. Overall, the results are qualitatively similar to those reported previously. The results from the baseline model for the full sample in Column (5) are shown in Panel B of Table 8.

Fourth, UD laws have been shown to positively affect acquisition performance. Therefore, we control for the staggered implementation of these laws (Chu and Zhao, 2019). Column (6) in Panel B of Table 8 provides the results. We find that the estimated coefficient of *Treat × Post* is similar in magnitude to those in the main analysis, and is statistically significant at the 1% level.

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Consistent with Chu and Zhao's (2019) finding, the coefficient of *UD Laws* is positive, but is not statistically significant.

Fifth, we control for other legal changes related to shareholder litigation and anti-takeover provisions to ensure that these changes are not driving our results. Following Karpoff and Wittry (2018), we control for various state anti-takeover laws, including control share acquisition, business combination, fair price, directors' duties, and poison-pill laws. Column (7) in Panel B of Table 8 shows the results. After adding these control variables, we again find that the estimated coefficient of *Treat × Post* is similar in magnitude and significance to those in the main analysis.

Sixth, several studies argue that shareholder litigation affects firms' disclosure and information environments. For example, Bourveau et al. (2018) find that firms increase their disclosure significantly after UD laws that make it more difficult for shareholders to claim derivative lawsuits. Houston et al. (2019) report that the threat of shareholder litigation encourages voluntary disclosure practices. Similarly, Hopkins (2018) concludes that the threat of shareholder litigation can discipline managers and deter financial misreporting. However, Boone et al. (2019) show that, although managers increase their voluntary disclosure levels owing to the reduced threat of shareholder litigation, firms provide lower-quality financial reporting overall after UD laws are passed. Another strand of the literature argues that disclosure is related to M&A behavior. For example, Hope and Thomas (2008) conclude that disclosure requirements limit managers' abilities to engage in empire building. These studies suggest that a reduced threat of shareholder litigation affects disclosure, which may, in turn, affect M&A behavior. To address this concern, we control for two variables that capture a firm's

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information quality: *Restate* and *Ln(Analysts)*. Here, *Restate* is equal to one if a firm restates its

financial statements in a given fiscal year, and zero otherwise, and *Ln(Analysts)* is the log-

transformed number of unique analysts (plus one) that issue a firm's earnings forecasts.

Column (8) in Panel B of Table 8 presents the results. We find that the coefficient of *Treat ×*

Post remains negative and statistically significant. Furthermore, *Restate* is positively associated

with acquirer announcement returns,[17] whereas *Ln(Analyst)* is negatively associated with

acquirer announcement returns. However, these associations are nonsignificant.

Seventh, we repeat our baseline model analysis using a three-day event window. We

report the results using CAR (-1, +1) as an alternative dependent variable in Panel C of Table 8.

The coefficient of *Treat × Post* is still similar in magnitude and significance to those of the main

analysis.

7. Conclusion

It is well recognized in the M&A literature that, in the absence of strong corporate

governance, managers have an incentive to conduct empire-building acquisitions that destroy

shareholder value. Shareholder litigation rights, a governance mechanism designed to provide

recourse in the event that all other governance mechanisms fail, should theoretically play an

important external governance role in disciplining the managers of poorly governed firms, thus

increasing shareholder value. However, because many lawsuits are triggered by unexpected

decreases in stock prices, we often find that shareholder litigation in practice is simply a

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[17] Although this finding suggests that firms that restate results tend to exhibit higher positive announcement returns, it cannot exclude the possibility that acquiring firms that exhibit better announcement returns are more likely to restate their financial statements than are firms with worse announcement returns in a given fiscal year.

method by which shareholders and lawyers extract wealth from defendant corporations. Managers are therefore encouraged to conduct acquisitions that minimize downside risk rather than maximizing shareholder value. As a result, the threat of shareholder litigation may also be detrimental to shareholder value.

In this study, we specifically examine how the threat of class action litigation affects managers' acquisition decisions in order to determine whether shareholder litigation rights serve as an effective governance mechanism that prevents managers from conducting self-serving acquisitions at the expense of shareholder value. To establish a causal relationship, we use the Ninth Circuit Court of Appeals July 2, 1999 ruling, *In re: Silicon Graphics Inc. Securities Litigation*, which generated an exogenous reduction in shareholder class action litigation rights for firms located in Ninth Circuit states.

The results of a DID analysis show that, after the ruling, firms located in Ninth Circuit states experienced significantly lower deal announcement returns, especially for acquirers with weaker corporate governance. Furthermore, we find that value destruction occurs as a result of managers' freedom to conduct empire-building acquisitions using equity that has been overvalued via inflated earnings. Overall, we show that regulatory changes that reduce the threat of class actions are not in the best interests of shareholders, because their collective power to litigate serves as an important governance tool, particularly in the event of M&As. Our empirical evidence suggests that the governance power provided by shareholder class action litigation effectively reduces managers' incentives to engage in empire building at the expense of shareholder value.

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Figure 1. Acquisition activities

This figure shows the number of acquisitions made by firms in Ninth Circuit states versus that of firms in other circuits, before and after the Ninth Circuit Ruling. The Ninth Circuit ruling was announced on July 2, 1999, as indicated by the reference line.

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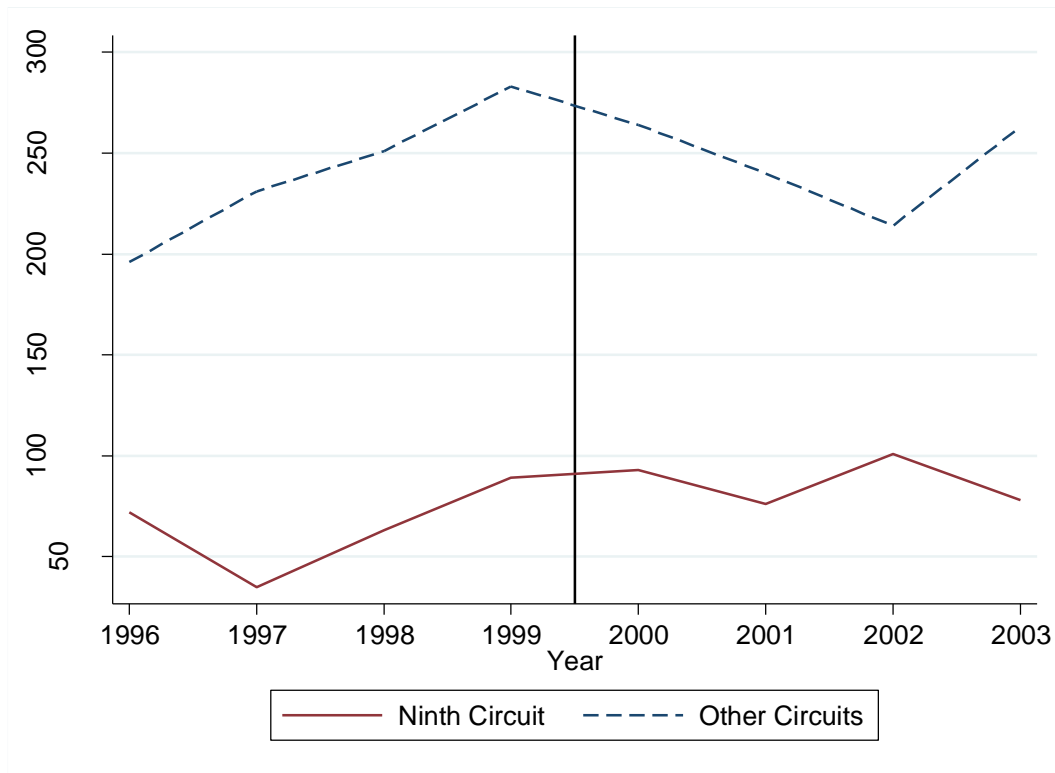
Figure 2. Acquisition outcomes

This figure shows the five-day cumulative abnormal returns experienced by acquirers in Ninth Circuit states versus that of firms in other circuits, before and after the Ninth Circuit ruling. The Ninth Circuit ruling was announced on July 2, 1999, as indicated by the reference line.

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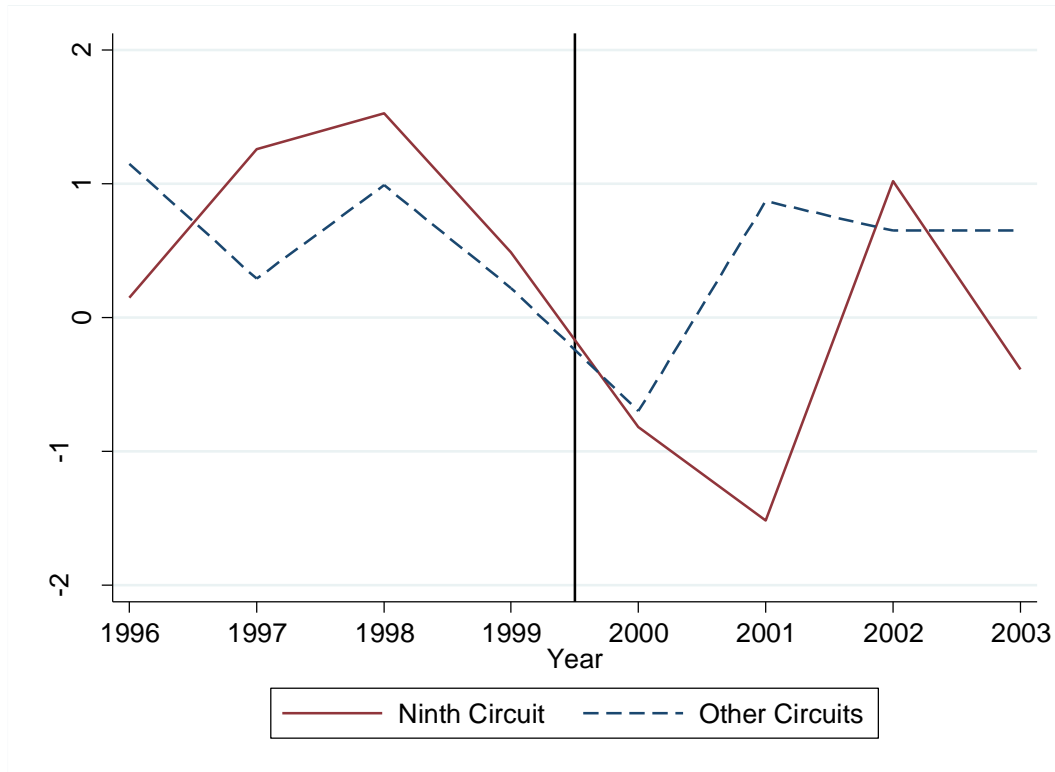
Table 1
Sample distribution and summary statistics

This table presents the sample of firms by year and industry. Panel A reports the annual number of acquisitions for the treatment and control groups, Panel B reports the number of acquisitions across industries for the two groups, and Panel C reports the summary statistics for the main variables, constructed from the sample of firms for the period 1996 to 2003. All continuous variables are winsorized at the 1st and 99th percentiles. All variables are defined in Appendix 1.

Panel A. Acquisitions by Year

	Number of acquisitions by treatment firms	Number of acquisitions by control firms
1996	72	196
1997	35	231
1998	63	251
1999	89	283
2000	93	264
2001	76	240
2002	101	214
2003	78	263

Panel B. Acquisitions by Acquirer Industry

	Number of acquisitions by treatment firms	Number of acquisitions by control firms
Consumer nondurables	21	121
Consumer durables	6	74
Manufacturing	42	397
Oil, gas, and coal	13	134
Chemical products	7	91
Business equipment	376	501
Telephone and television	6	95
Wholesale and retail	32	160
Healthcare	50	219
Finance	0	7
Other	54	143

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Panel C. Summary Statistics

	N	Mean	Q1	Std. dev.	Median	Q3	(1) Treat (N = 607)	(2) Control (N = 1,942)	Diff [(1) – (2)]
Treat	2,549	0.24	0.00	0.43	0.00	0.00	--	--	--
Post	2,549	0.52	0.00	0.50	0.00	1.00	0.57	0.51	0.07***
CAR (-2, +2) in %	2,549	0.40	−3.41	7.20	0.23	4.04	0.12	0.48	-0.36
CEO delta	2,549	0.93	0.13	1.82	0.33	0.87	1.34	0.80	0.54***
CEO overconfidence	2,549	0.43	0.19	0.29	0.43	0.66	0.52	0.40	0.11***
Ln(Assets)	2,549	7.51	6.36	1.61	7.32	8.51	7.14	7.62	-0.48***
Leverage	2,549	0.22	0.10	0.16	0.22	0.32	0.17	0.24	-0.08***
Tobin's Q	2,549	2.55	1.40	2.05	1.84	2.83	3.43	2.27	1.16***
Free cash flow	2,549	0.04	0.02	0.08	0.05	0.08	0.04	0.04	0.00
Sales growth	2,549	0.26	0.04	0.54	0.13	0.32	0.42	0.21	0.21***
Firm governance	2,549	0.38	0.00	0.32	0.33	0.67	0.43	0.37	0.06***
Institutional ownership	2,549	0.65	0.54	0.17	0.67	0.78	0.64	0.66	-0.02**
No. of blockholders	2,549	1.72	0.75	1.21	1.75	2.50	1.72	1.72	0.00
Stock price runup	2,549	-0.04	-0.33	0.50	-0.06	0.24	-0.01	-0.04	0.03
Relative deal size	2,549	0.12	0.01	0.25	0.03	0.12	0.10	0.13	-0.03**
High tech	2,549	0.29	0.00	0.45	0.00	1.00	0.53	0.22	0.31***
Cross border	2,549	0.21	0.00	0.41	0.00	0.00	0.17	0.22	-0.05***
Cross industry	2,549	0.44	0.00	0.50	0.00	1.00	0.38	0.45	-0.07***
Tender deal	2,549	0.08	0.00	0.27	0.00	0.00	0.06	0.09	-0.02*
All-cash deal	2,549	0.33	0.00	0.47	0.00	1.00	0.33	0.33	0.00
Private target	2,549	0.38	0.00	0.49	0.00	1.00	0.50	0.35	0.15***
M&A wave	2,549	5.10	0.98	4.45	5.08	5.56	5.40	5.00	0.40***

Table 2
Univariate analysis

This table presents the mean values of acquirers' five-day cumulative abnormal returns around the acquisition announcement date, CAR (-2,+2), for the treatment and control groups, as well as the differences between the means of the two groups and within each group before and after the U.S. Ninth Circuit Court of Appeals ruling of July 2, 1999. The treatment group includes firms headquartered in states under the jurisdiction of the Ninth Circuit Court, and the control group includes firms in other states. Statistical significance at the 10% and 1% levels is indicated by * and ***, respectively. The *t*-statistics are reported in parentheses.

	Treatment			Control		
	(1) Pre	(2) Post	Diff [(2) – (1)]	(3) Pre	(4) Post	Diff [(4) – (3)]
CAR (–2, +2)	(N = 256)	(N = 348)		(N = 961)	(N = 981)	
	0.75	-0.34	-1.09*	0.63***	0.34	-0.29
	(1.63)	(-0.74)	(1.67)	(2.92)	(1.50)	(0.92)
	Diff [(1) – (3)] = 0.12 (-0.26)					
	Diff [(2) – (4)) = -0.68 (-1.32)					

Table 3
Threat of shareholder litigation and announcement returns

This table reports the results from the regressions of the threat of shareholder litigation on acquirer announcement returns. The variation in the threat of shareholder litigation is identified by the Ninth Circuit ruling of July 2, 1999. The *t*-statistics are calculated from robust standard errors, clustered by acquirer headquarters state, and are displayed in parentheses. Statistical significance at the 10%, 5%, and 1% levels is indicated by *, **, and ***, respectively. All variables are defined in Appendix 1.

	(1)	(2)	(3)	(4)
		CAR (−2, +2)		
Treat × Post	-1.260***	-1.324***	-1.898***	-1.211*
	(-2.80)	(-2.96)	(-4.20)	(-1.99)
Treat	0.183	0.311	1.046*	0.760
	(0.37)	(0.61)	(1.86)	(1.25)
CEO delta		0.236***	0.323***	0.300***
		(2.85)	(3.64)	(2.87)
CEO overconfidence		-0.256	-0.890	-0.988*
		(-0.54)	(-1.61)	(-1.72)
Ln(Assets)		-0.462***	-0.463**	-0.327
		(-3.47)	(-2.62)	(-1.53)
Leverage		1.037	1.385	0.445
		(0.83)	(0.94)	(0.28)
Tobin's Q		-0.154**	-0.131*	-0.106
		(-2.19)	(-1.89)	(-1.66)
Free cash flow		-0.706	-1.127	-1.048
		(-0.23)	(-0.34)	(-0.31)
Sales growth		-0.102	-0.156	-0.370*
		(-0.40)	(-0.63)	(-1.69)
Firm governance		-0.387	-0.555	-0.727
		(-0.93)	(-1.04)	(-1.44)
Institutional ownership		0.277	0.431	0.460
		(0.21)	(0.35)	(0.30)
No. of blockholders		-0.201	-0.147	-0.145
		(-1.11)	(-0.84)	(-0.70)
Stock price runup		-1.670***	-1.665**	-1.966***
		(-3.11)	(-2.62)	(-2.79)
Relative deal size		-1.808**	-1.929*	-1.810
		(-2.13)	(-1.87)	(-1.47)
Cross-border		0.123	0.289	0.295
		(0.28)	(0.64)	(0.71)
Cross-industry		0.181	-0.004	0.216
		(0.65)	(-0.01)	(0.63)
Tender deal		0.120	0.168	0.324
		(0.27)	(0.49)	(0.76)
All-cash deal		0.615*	0.519*	0.548

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		(1.85)	(1.69)	(1.56)
Private target		-0.168	-0.169	0.155
		(-0.43)	(-0.47)	(0.46)
High-tech		-0.148	-0.307	-0.360
		(-0.34)	(-0.69)	(-0.76)
M&A wave		-0.001	-0.002	
		(-0.72)	(-1.18)	
Inverse Mills ratio			0.019	-0.015
			(0.01)	(-0.01)
Constant	-0.010	3.000	3.423	6.276**
	(-0.01)	(1.23)	(0.99)	(2.12)
Year FE	Yes	Yes	Yes	No
Industry FE	Yes	Yes	Yes	No
Industry-year FE	No	No	No	Yes
Incorporation state FE	Yes	Yes	Yes	Yes
Number of observations	2,549	2,549	2,186	2,186
R^2	0.04	0.07	0.08	0.16

Table 4
Propensity score matching

This table presents the results for a two-stage model that uses propensity score matching (PSM) to address sample selection bias. Panel A reports the post-match differences in the matching variables, and Panel B presents the results from the baseline regression run only on the PSM matched sample. The *t*-statistics are calculated from robust standard errors clustered by acquirer headquarters state, and are displayed in parentheses. Statistical significance at the 10%, 5%, and 1% levels is indicated by *, **, and ***, respectively. All variables are defined in Appendix 1.

Panel A: Post-match differences				
	(1) Treat (N=511)	(2) Control (N=511)	Diff [(1) – (2)]	abs (t-statistics)
CEO delta	0.99	0.97	0.02	0.18
CEO overconfidence	0.47	0.49	-0.02	0.99
Ln(Assets)	7.16	7.13	0.03	0.30
Leverage	0.18	0.18	0.00	0.05
Tobin's Q	2.83	2.78	0.05	0.36
Free cash flow	0.04	0.04	0.00	0.03
Sales growth	0.30	0.30	0.00	0.02
Firm governance	0.42	0.41	0.01	0.17
Institutional ownership	0.64	0.65	-0.01	0.61
No. of blockholders	1.76	1.85	-0.09	1.18
Stock price runup	0.02	0.03	-0.01	0.11
Relative deal size	0.11	0.11	0.00	0.13
Cross border	0.19	0.19	0.00	0.16
Cross industry	0.41	0.41	0.00	0.13
Tender deal	0.07	0.07	0.00	0.00
All-cash deal	0.33	0.32	0.01	0.33
Private target	0.47	0.47	0.00	0.06
High tech	0.44	0.43	0.01	0.31
M&A wave	5.28	5.20	0.08	1.31
Panel B. Matched sample DID test results				
				(1) CAR (-2, +2)
Treat × Post				-2.180***
				(-2.77)
Controls and Constant				Yes
Year FE				Yes
Industry FE				Yes
Year × Industry FE				No
Incorporation state FE				Yes
Number of observations				1022
R^2				0.119

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Table 5
Threat of shareholder litigation on relative deal size and method of payment

This table reports the results from the regressions of the threat of shareholder litigation on deal size and payment method. The variation in the threat of shareholder litigation is identified by the Ninth Circuit ruling of July 2, 1999. *RelSize* represents the relative deal size. *Stock80%* is an indicator variable equal to one if 80% of the acquisition is funded using stock. The *t*-statistics are calculated from robust standard errors clustered by acquirer headquarters state, and are displayed in parentheses. Statistical significance at the 10%, 5%, and 1% levels is indicated by *, **, and ***, respectively. All variables are defined in Appendix 1.

	(1)	(2)	(3)	(4)
	OLS	Probit	Two Stage Probit Least Squares	
	RelSize	*Pr (Stock80%) = 1*	*RelSize*	*Pr(Stock80% = 1)*
Treat × Post	0.046**	0.297**	0.042*	0.434**
	(2.01)	(1.99)	(1.68)	(2.32)
Treat	-0.027	-0.047	-0.030*	-0.132
	(-1.49)	(-0.42)	(-1.68)	(-0.96)
CEO delta	-0.001	-0.028	0.001	-0.022
	(-0.19)	(-1.06)	(0.02)	(-0.97)
CEO overconfidence	-0.040*	0.107	-0.047**	-0.029
	(-6.90)	(0.74)	(-2.28)	(-0.15)
Ln(Assets)	-0.028***	0.056**	-0.026***	-0.039
	(-6.42)	(2.08)	(-6.02)	(-0.65)
Leverage	0.110***	-0.448*		-0.128
	(3.11)	(-1.79)		(-0.37)
Tobin's Q	-0.010***	0.100***	-0.014**	0.063**
	(-2.93)	(4.72)	(-2.50)	(2.02)
Free cash flow	-0.005	-2.279***	0.007	-2.326***
	(-.077)	(-5.51)	(0.06)	(-4.77)
Sales growth	0.002	0.215***	-0.020	0.207***
	(0.03)	(3.41)	(-0.01)	(2.79)
Firm governance	10.013	0.184*	-0.018	
	(-0.89)	(1.79)	(-1.03)	
Institutional ownership	-0.163***	0.430	-0.186***	
	(-4.11)	(1.54)	(-4.42)	
No. of blockholders	0.022***	-0.072*	0.026***	
	(3.88)	(-1.76)	(4.20)	
Stock price runup	0.023***	0.205***		0.281***
	(2.39)	(3.18)		(3.22)
Cross border	-0.057***	-0.614***	-0.045*	-0.797***
	(-4.84)	(-6.24)	(-1.67)	(-5.66)
Cross industry	-0.039***	0.081	-0.043***	-0.037
	(-3.86)	(1.16)	(-4.00)	(-0.36)
Tender deal	0.079***	-0.822***	0.091**	-0.572***
	(4.38)	(-4.71)	(2.43)	(-2.56)

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Private target	-0.079***	0.108	-0.082***	-0.130
	(-7.39)	(1.51)	(-7.21)	(-0.88)
High tech	-0.002	0.259***	-0.014	0.262***
	(-0.20)	(2.98)	(-0.79)	(2.60)
M&A wave	-0.014**	0.077	-0.018**	0.030
	(-2.10)	(1.61)	(-2.41)	(0.50)
Inst_stock80%			0.018	
			(0.46)	
Inst_relsize				-3.095**
				(-1.99)
Constant	0.127	-2.263***	0.646***	-0.405
	(1.14)	(-5.98)	(5.99)	(-0.55)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Incorp state FE	Yes	Yes	Yes	Yes
Number of observations	2,549	2,549	2,549	2,549
R^2/Pseudo R^2	0.148	0.213	0.146	0.204

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Table 6
Subsample analyses

This table reports the results from the regressions of the threat of shareholder litigation on acquirer announcement returns, conditional on the quality of corporate governance. The variation in the threat of shareholder litigation is identified by the Ninth Circuit ruling of July 2, 1999. The *t*-statistics are calculated from robust standard errors clustered by acquirer headquarters state, and are displayed in parentheses. Statistical significance at the 10%, 5%, and 1% levels is indicated by *, **, and ***, respectively. All variables are defined in Appendix 1.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	E-index		Number of blockholders		CEO ownership		CEO duality	
	Dep.= CAR(-2, +2)							
	Low	High	Low	High	Low	High	No	Yes
Treat × Post	-0.675	-1.045*	-1.748**	-0.629	-1.407***	-0.845	-0.551	-1.638**
	(-0.63)	(-1.86)	(-2.22)	(-1.09)	(-2.91)	(-1.11)	(-0.40)	(-2.13)
	H0: β(1) = β(2)		H0: β(3) = β(4)		H0: β(5) = β(6)		H0: β(7) = β(8)	
	(0.741)		(0.194)		(0.501)		(0.560)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Incorporation state FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	583	1,311	1,183	1,366	1,271	1,278	805	1,744
R^2	0.158	0.099	0.109	0.097	0.116	0.095	0.162	0.089

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Table 7
Additional evidence

This table reports the results of additional tests. Panel A reports the results of regressions of the threat of shareholder litigation on management EPS forecasts within a year before an acquisition. *Fore_Error* is the difference between management's EPS forecast and the actual EPS, divided by the lagged calendar-end stock price. *Abs(Fore_Error)* is the absolute value of *Fore_Error*. *Ln(1+duration)* is the natural logarithm of one plus the number of days from the announcement date of the management's earnings forecast to the announcement date of the M&A deal. Panel B reports the results of regressions of the threat of shareholder litigation on earnings management in the quarter before an acquisition. Abnormal accruals are calculated using the modified Jones model (Jones, 1991; Dechow et al., 1995). Panel C reports the results of logistic regressions of the threat of shareholder litigation on the likelihood of CEO turnover. The *t*-statistics are calculated from robust standard errors clustered by the state of the acquirer headquarters, and are displayed in parentheses. Statistical significance at the 10%, 5%, and 1% levels is indicated by *, **, and ***, respectively. All variables are defined in Appendix 1.

Panel A: Managerial Forecasting Error

	(1)	(2)
	Abs(Fore_Error)	*Fore_Error*
Treat × Post	2.150*	1.931**
	(1.75)	(2.27)
Treat	-0.844	0.190
	(-0.55)	(0.18)
Controls	Yes	Yes
Constant	Yes	Yes
Year FE	Yes	Yes
Industry FE	Yes	Yes
Incorporation state FE	Yes	Yes
Observations	694	694
R^2	0.204	0.130

Panel B: Earnings Management

	(1)	(2)	(3)
		Abnormal accruals	
	Full sample	All-cash deals	Stock deals
Treat × Post	1.469***	-0.147	2.328***
	(3.56)	(-0.19)	(6.66)
		H0: β(1) = β(2)	
		(0.003)	
Treat	-1.592***	-0.640	-1.707***
	(-8.21)	(-1.41)	(-6.94)
Controls	Yes	Yes	Yes
Constant	Yes	Yes	Yes
Year FE	Yes	Yes	Yes

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Industry FE	Yes	Yes	Yes
Incorporation state FE	Yes	Yes	Yes
Number of observations	1,719	573	1,146
R^2	0.11	0.20	0.15

Panel C: CEO Turnover

	(1)	(2)	(3)	(4)
	Pr (CEO Turnover) = 1		Pr (forced CEO Turnover) = 1	
		marginal effect		marginal effect
Treat x Post × NegM&A	-0.332	-0.058	-2.789***	-0.039
	(-0.98)		(-3.23)	
Treat × Post	0.084	0.016	0.660	0.025
	(0.38)		(0.69)	
Post × NegM&A	-0.475**	-0.085	-0.401	-0.011
	(-2.04)		(-0.55)	
Treat × NegM&A	0.681**	0.143	0.725	0.029
	(2.45)		(1.06)	
Treat	-0.598**	-0.104	-0.332	-0.010
	(-2.04)		(-0.47)	
NegM&A	0.244	0.046	0.291	0.009
	(1.07)		(0.56)	
Post	0.086	0.016	-0.740	-0.024
	(0.26)		(-0.63)	
Controls	Yes		Yes	
Constant	Yes		Yes	
Year FE	Yes		Yes	
Industry FE	Yes		Yes	
Incorporation state FE	Yes		Yes	
Number of observations	1,626		1,626	
Pseudo R^2	0.125		0.158	

Table 8
Sensitivity analyses

This table presents the results of a series of sensitivity analyses. The variation in the threat of shareholder litigation is identified by the Ninth Circuit ruling of July 2, 1999. In Columns (1), (2), and (3) of Panel A, we exclude tech firms, the years 1999 and 2000, and Silicon Valley firms, respectively. In Column (4), we limit our analysis to border states in the Ninth Circuit jurisdiction. In Column (5) of Panel B, we use headquarters information from SEC Form 10-K filings. In Column (6), we include UD laws. In Column (7), we control for various state anti-takeover laws, including control share acquisition, business combination, fair price, directors' duties, and poison pill laws. In Column (8), we additionally control for a firm's information quality by including *Restate* and *Ln(Analyst)*. In Panel C, we consider an alternative event window of (-1, +1). The *t*-statistics are calculated from robust standard errors clustered by acquirer headquarters state, and are displayed in parentheses. Statistical significance at the 10%, 5%, and 1% levels is indicated by *, **, and ***, respectively. All variables are defined in Appendix 1.

Panel A

	(1)	(2)	(3)	(4)
	Exclude tech firms	Exclude 99 & 00	Exclude firms in Silicon Valley	Firms around state borders
	CAR (−2, +2)			
Treat × Post	-0.926*	-1.316***	-1.054*	-6.224***
	(-1.79)	(-2.87)	(-1.97)	(-6.36)
Controls	Yes	Yes	Yes	No
Constant	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	No
Industry FE	Yes	Yes	Yes	Yes
Incorp state FE	Yes	Yes	Yes	No
Number of observations	1,805	1,820	2,368	50
R^2	0.09	0.09	0.08	0.34

Panel B

	(5)	(6)	(7)	(8)
	HQ information from SEC	Control UD Laws	Control additional state regulations	Control disclosure quality
	CAR (−2, +2)			
Treat × Post	-1.275***	-1.308***	-1.318***	-1.325***
	(-2.75)	(-2.87)	(-2.89)	(-2.82)
UD laws		1.162	0.827	
		(1.26)	(0.912)	
Control share acquisition laws			9.671***	
			(3.05)	
Business combination laws			1.097	
			(0.58)	

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Fair price laws			-4.362	
			(-1.15)	
Directors' duties laws			-7.075**	
			(-2.34)	
Poison pill laws			0.594	
			(0.57)	
Restate				1.522
				(1.49)
Ln(Analysts)				-0.029
				(-0.10)
Controls	Yes	Yes	Yes	Yes
Constant	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Incorp state FE	Yes	Yes	Yes	Yes
Number of observations	2,549	2,549	2,549	2,549
R^2	0.069	0.07	0.07	0.07

Panel C				
	(9)	(10)	(11)	(12)
	CAR (−1, +1)			
Treat × Post	-0.713**	-0.705*	-0.909**	-0.482
	(-2.07)	(-1.90)	(-2.65)	(-1.09)
Controls	Yes	Yes	Yes	No
Year FE	Yes	Yes	Yes	No
Industry FE	Yes	Yes	Yes	No
Year and Industry FE	No	No	No	Yes
Incorp state FE	Yes	Yes	Yes	Yes
Number of observations	2,549	2,549	2,186	2,186
R^2	0.049	0.070	0.074	0.153

Appendix 1
Variable definitions

Variable	Definition and data source
Measures of shareholder litigation	
Treat	An indicator variable, equal to one if the firm is headquartered in one of the nine states under the Ninth Circuit Court's jurisdiction (Alaska, Arizona, California, Hawaii, Idaho, Montana, Nevada, Oregon, and Washington). Source: SEC Filings and Compustat
Post	An indicator variable, equal to one if the deal announcement date is after 1999. Source: SDC
Measure of acquisition performance	
CAR (–2, +2)	Acquirer's five-day CAR, calculated using the market model. The market model parameters are estimated for the period (–210, –11), with the CRSP value-weighted return as the market index. Source: CRSP
Bidder CEO characteristics	
CEO age >= 60	An indicator variable equal to one if the CEO is 60 or older, and zero otherwise. Source: Execucomp
CEO gender	An indicator variable, equal to one if the CEO is male, and zero otherwise. Source: Execucomp
CEO delta	Dollar increase in acquirer CEO's portfolio wealth for a percentage increase in the underlying stock price. Source: Execucomp
CEO duality	An indicator variable, equal to one if the CEO is also the chairperson of the board of directors, and zero otherwise. Source: Execucomp
CEO overconfidence	A measure of how in-the-money the CEO's vested stock options are. This is calculated by dividing the value of unexercised exercisable options (OPT_UNEX_EXER_EST_VAL) by the number of options (OPT_UNEX_EXER_NUM), all scaled by the stock price at the end of the fiscal year (PRCC). Source: Execucomp and Compustat
CEO ownership	Percentage of shares held by the CEO. Source: Execucomp
Bidder firm characteristics	
Ln(Assets)	Natural logarithm of total assets (AT). Source: Compustat
Leverage	Book value of debt (DLTT + DLC) divided by book value of total assets (AT). Source: Compustat
Tobin's Q	Market value of assets over book value of assets ((AT – CEQ + CSHO × PRCC) ÷ AT). Source: Compustat
Free cash flow	Operating income before depreciation (OIBDP) minus interest expense (XINT) minus income taxes (TXT) minus capital expenditures (CAPX), all divided by total assets (AT). Source: Compustat

Sales growth	Net sales (SALE) minus lagged net sales, all divided by lagged net sales. Source: Compustat
Firm governance	Governance quality index, consisting of CEO duality, board independence, and the E-index. We split each of the three measures into two groups, with higher values of board independence, lower E-index values, and lack of CEO duality indicating better governance, and cumulate the ranks (0–1). We then divide the cumulated ranks by the number of measures available for the firm-year to obtain the governance index score. A higher value indicates better governance. Source: Execucomp and Riskmetrics
Institutional ownership	Percentage of common shares owned by institutional investors. Source: Thomson Reuters 13f Filings
Abnormal accruals	Abnormal accruals are calculated using the modified Jones model. Source: Compustat

Deal characteristics	
Stock price runup	Bidder's buy and hold abnormal returns (BHARs) during the period (–210, –11). The market index is the CRSP value-weighted return. Source: CRSP
*Relative deal size (*or *RelSize)*	Deal value over bidder's market value of equity at the 11th day prior to deal announcement. Source: SDC and CRSP
High-tech	An indicator variable, equal to one if the bidder and target are both from high-tech industries, as defined by Loughran and Ritter (2004), and zero otherwise.
Cross-border	An indicator variable, equal to one if the target nation is not the same as the acquirer nation, and zero otherwise. Source: SDC
Cross-industry	An indicator variable, equal to one if the bidder and target do not share a Fama–French industry, and zero otherwise. Source: SDC
All-cash deal	An indicator variable, equal to one for purely cash-financed deals, and zero otherwise. Source: SDC
Stock80%	An indicator variable, equal to one if 80% of the acquisition is funded by stock, and zero otherwise. Source: SDC
Private target	An indicator variable, equal to one for private targets, and zero otherwise. Source: SDC
NegM&A	An indicator variable, equal to one if the firm experiences value-decreasing M&A announcement returns, and zero otherwise.
M&A Wave	Annual number of acquisitions in a given industry.

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Treated target	An indicator variable, equal to one if the target firm is in a Ninth Circuit state, and zero otherwise. Source: SDC
Information quality	
Restate	An indicator variable, equal to one if the firm restates its financial statements in the given fiscal year, and zero otherwise. Source: GAO Financial Restatement Database
Ln(Analysts)	Natural logarithm of one plus the number of analysts issuing the firm's earnings forecast. Source: I/B/E/S
Fore_Error	Management's EPS forecast minus actual EPS, divided by lagged calendar-end stock price. Source I/B/E/S
Abs(Fore_Error)	Absolute value of *Fore_Error*
Ln(1+ duration)	Natural logarithm of one plus the number of days from the announcement date of management's earnings forecast to the announcement date of the M&A deal. Source: I/B/E/S and SDC

Appendix 2
First stage of Heckman model: Sample selection correction

This table presents the results from the probit regression used in the first stage of the Heckman model, which corrects for sample selection bias. The *t*-statistics are calculated from robust standard errors clustered by acquirer headquarter state, and are displayed in parentheses. Statistical significance at the 1% level is indicated by ***. All variables are defined in Appendix 1.

	(1) Pr(Acquisition = 1)
CEO age >= 60	-0.003
	(-0.835)
CEO gender	0.088
	(-0.444)
CEO delta	-0.006
	(-1.363)
CEO overconfidence	0.700***
	(8.034)
Ln(Assets)	0.060***
	(3.613)
Leverage	-0.077
	(-0.621)
Tobin's Q	0.018
	(1.281)
Free cash flow	0.940***
	(4.040)
Sales growth	0.276***
	(5.304)
Firm governance	0.063
	(0.996)
Constant	-1.650***
	(-3.629)
Year FE	Yes
Industry FE	Yes
Number of observations	7,250
Pseudo R^2	0.08