Afraid to Take a Chance? The Threat of Lawsuits and its Impact on Shareholder Wealth

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Abstract

The large costs of shareholder litigation in the U.S. pose a significant threat to companies. A first-order open question is whether shareholders gain from such a threat, because it disciplines managers, or whether the costs of the current litigation system outweigh the benefits. In this paper, I document that, on average, the threat of lawsuits has a negative net shareholder wealth effect. To identify this effect, I develop a novel empirical approach that exploits judicial turnover in federal district courts to generate exogenous variation in a firm's likelihood of facing adverse legal outcomes. I find that a higher threat of a lawsuit, as proxied by a higher likelihood of facing investor-friendly judges in a district court, causes an economically large drop in the value of firms headquartered in that district. Additional tests support the view that the threat of lawsuits is harmful to shareholders because it stifles value-creating managerial risk-taking. On a broader level, my results suggest that fear of litigation may lead to substantial misallocation of capital in the U.S.

Keywords: Litigation risk, firm value, corporate risk-taking, judicial finance

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1. Introduction

Shareholder litigation can impose large costs on companies.[1] A shareholder lawsuit absorbs managers' attention, entails legal and settlement fees, and damages the company's reputation. Over the last decades, these costs have provoked an intense debate about the optimal design of the shareholder litigation system. An important question in this debate is whether the threat that the large costs of a shareholder lawsuit pose to companies benefits or harms shareholders.

Theoretically, the answer is not obvious. I examine two conflicting hypotheses about the threat of shareholder litigation. The first one is the *legal protection* hypothesis, which argues that the threat of shareholder lawsuits is beneficial to shareholders, because it disciplines managers. This hypothesis is in line with studies in law and finance, which suggest that the threat of shareholder litigation helps solve agency problems (e.g. La Porta, Lopez-de Silanes, Shleifer, and Vishny (1998)). Similarly, there are studies in the legal literature that highlight the positive role of shareholder lawsuits in deterring managerial misbehavior (e.g. Cox (1997)). The second hypothesis, which I label the *overdeterrence* hypothesis, argues that the threat of shareholder lawsuits is harmful to shareholders, because it undermines managerial incentives to engage in value-creating but risky projects. According to this hypothesis, the reputation and career concerns associated with the threat of shareholder litigation impose excessive pressure on managers, which might generate managerial myopia (e.g. Stein (1988)) and discourage investments in innovation (e.g. Acharya and Subramanian (2009), Manso (2011)).

Ultimately, which hypothesis dominates and whether the net effect of the threat of shareholder lawsuits on shareholders is positive or negative are empirical questions. The answers to these questions have important implications for the design of the corporate governance and the shareholder litigation system. The aim of this paper is to provide an answer to these questions.

Empirically establishing which of the two hypotheses prevails is challenging because the threat of shareholder lawsuits is not randomly assigned. Two endogeneity concerns are particularly relevant. First, firm-level and local-level unobservables can affect at the same time the threat of

[1] For example, previous studies document a drop in firm value between 9% and 14% around the filing of a shareholder lawsuit (e.g. Karpoff, Lee, and Martin (2008b), Gande and Lewis (2009)).

litigation and shareholder wealth, and therefore lead to biased inference. Second, a drop in stock prices can increase the probability that shareholders initiate a legal action against the company, such that causality runs from financial outcomes to litigation rather than the other way around.

To solve these issues, I develop a novel empirical approach that exploits variation in a federal district court's corporation-friendliness generated by judicial turnover. Such variation influences the threat of lawsuits because it changes a firm's probability of facing adverse legal outcomes. This identification strategy addresses the endogeneity concerns above in two ways. First, the rules of judicial independence in federal district courts guarantee that the timing and causes of a judge turnover are plausibly exogenous to firm characteristics. Federal judges vacate their office only upon death, resignation, or impeachment. Second, focusing on variation at the federal district level provides sufficient granularity to control for time-varying state-level factors. In particular, I compare the evolution of shareholder wealth among firms operating in the same state, but different districts. By doing so, I remove the effect of any unobserved state-level factor that may be correlated with judge turnover and responsible for the effect on firm outcomes. I use firm fixed effects and industry-date fixed effects to rule out other sources of confounding variation.

Using this new approach, I find that the *overdeterrence* hypothesis, which implies that a higher threat of a lawsuit harms shareholders, has stronger support in the data than the *legal protection* hypothesis. To discriminate between the two hypotheses, I study the effect of the threat of lawsuits on firm value. This is a natural choice, because market valuation incorporates all implications of the threat of shareholder litigation into a single forward-looking measure. I document that in federal districts where changes in courts' judicial benches lead to increases in the threat of lawsuits, firms experience 35 basis points lower cumulative abnormal returns in the 21-day window around the events, compared to firms in the control group. Over longer horizons, this effect becomes even more pronounced. In districts where a judge turnover increases the threat of lawsuits, firms experience 1.5% lower abnormal stock returns over the next 12 months, compared to companies in the same state but not exposed to the increase in the threat of litigation.

These results are robust to a variety of alternative specifications, including different definitions of shareholder wealth, and limiting the sample to episodes of judge turnover due to death or due to reaching the retirement age. In a particularly restrictive test, I achieve finer granularity by comparing contemporaneous changes in corporate value among firms headquartered in different districts within the same metropolitan statistical area. This test allows me to rule out within-state unobserved heterogeneity.

At the core of my empirical strategy is the idea that we can use a court's attitude toward corporations to identify variation in the threat of shareholder litigation. I construct the measure of courts' attitudes toward corporations as the average political ideology of all active judges of a federal district court. To classify political ideologies, I use the liberal-conservative dichotomy: a conservative judge is more corporation-friendly than a liberal judge. The use of political ideology to proxy for a judge corporation-friendliness finds support in a large political science literature. For example, Epstein, Landes, and Posner (2012) state, and empirically show, that "Justices appointed by Republican Presidents are notably more favorable to business than Justices appointed by Democratic Presidents".[2]

An important assumption underlying the use of courts' attitudes to measure the threat of shareholder litigation is that variation in corporation-friendliness has a material impact on a firm's expected legal outcome. I provide two tests of this assumption, using a sample of shareholder class action lawsuits filed between 1996 and 2015. First, I document that facing a more liberal judge in courts implies a higher likelihood of adverse legal outcomes for firms. A one standard deviation increase in judge investor-friendliness leads to a 4% higher probability that the class action lawsuit is not dismissed and that investors manage to obtain a settlement. Second, I show that firms experience a larger value loss upon the filing of a shareholder lawsuit when courts are more investor-friendly. A larger negative stock price reaction suggests that the market anticipates that higher court investor-friendliness leads to higher settlement probability and larger potential settlements.

[2]Other studies include Kovacic (1991), Schultz and Petterson (1992), Rowland and Carp (1996), Haire, Lindquist, and Hartley (1999).

In the second part of the paper, I investigate the economic channel underlying the negative impact of the threat of shareholder litigation on firm value. The results are consistent with the specific channel predicted by the *overdeterrence* hypothesis: in response to a higher threat of lawsuits, managers have an incentive to invest in projects that make litigation less likely, even if these projects are not maximizing the value of the firm. For example, it may be privately optimal for the manager to forgo a risky positive-NPV project that raises the likelihood of a lawsuit. I provide four tests of this hypothesis.

First, I analyze corporate investment policies. In line with the predictions of the *overdeterrence* hypothesis, firms exposed to more investor-friendly courts invest less in risky projects, as measured by R&D expenditures (e.g. Hall and Lerner (2010)), and generate fewer patents. In addition, I document that firms become less risky, as measured by stock volatility or idiosyncratic volatility, when there is a higher likelihood to face more investor-friendly judges.

Second, I explore whether managers facing a higher threat of shareholder litigation take other actions to decrease the probability of a lawsuit. Since earnings, and in general negative accounting performance, are among the leading causes of shareholder lawsuits (e.g. Field, Lowry, and Shu (2005)), managers facing a higher threat of lawsuits should have stronger incentives to report positive financial results, and may choose to inflate their earnings through the use of aggressive accounting practices. In line with this prediction, I find that firms exposed to a higher threat of shareholder lawsuits have higher announced earnings and more positive earnings surprises. In addition, firms exposed to a higher threat of shareholder lawsuits have larger discretionary accruals.

Third, I study the impact of the threat of lawsuits on a different group of stakeholders: bondholders. Studying bondholder reactions is informative because the *overdeterrence* hypothesis has clear implications for this group of claimholders. Given their payoff structure, bondholders bear most of the costs of a risky project failure without capturing the majority of the benefits. Therefore, they may prefer a low risk project to a high risk one, even if the high risk one has a larger NPV. As a consequence, the managers' behavior predicted by the *overdeterrence*

hypothesis should have a positive effect on bondholders. In line with this, I observe that in districts where the threat of lawsuits increases due to judge turnover, firms have higher abnormal bond returns around the event, compared to firms in the other districts of the same state. These results also show that the baseline finding of a negative relation between investor-friendliness and shareholder wealth is not simply reflecting higher expected losses from lawsuits, because in that case, bondholder returns should decrease alongside shareholder returns. The fact that bondholder and shareholder wealth move in opposite directions suggests that managers are actively shifting the risk of the firm.

Finally, I explore whether cross-sectional heterogeneity in companies' responses to changes in the threat of lawsuits supports the *overdeterrence* hypothesis. A direct prediction of this hypothesis is that the negative effect on shareholder wealth should be more pronounced when managers' reputation and career concerns are stronger. In line with this prediction, I document a stronger *overdeterrence* effect among firms with highly reputed CEOs, and thus where the CEO's concerns to protect her reputation are higher (e.g. Diamond (1989)). In addition, I show that the adverse effect of the threat of lawsuits on shareholder wealth is stronger among firms more vulnerable to financial distress. In financially vulnerable firms, the risk of employment loss for the manager, and thus her career concerns, are magnified (e.g. Gilson (1989), Eckbo, Thorburn, and Wang (2016)). These cross-sectional tests raise the bar for alternative explanations. Any alternative story must be able to explain not only the negative relation between the threat of lawsuits and firm value, but also the observed cross-sectional heterogeneity in firms' responses.

In sum, I bring substantial new evidence to the debate on the current U.S. litigation system. Collectively, my results suggest that the threat of a shareholder lawsuit has unintended economic consequences on companies. Results also suggest that the managers' reaction to a higher threat of lawsuits is important for understanding the negative impact of the threat of lawsuits on firm value. Managers may choose suboptimal levels of corporate risk-taking in order to reduce the probability of incurring the large costs coming from shareholder lawsuits. This behavior results in value loss due to forgoing profitable investment opportunities. A higher threat of lawsuits can

therefore lead to deadweight costs to firms and to the overall economy.

This paper makes two contributions to the literature. First, it contributes to the broad literature that investigates how different institutional arrangements protecting the rights of shareholders affect corporate outcomes, such as firm valuation (e.g. La Porta, Lopez-de Silanes, Shleifer, and Vishny (2002), Shleifer and Wolfenzon (2002), Claessens, Djankov, Fan, and Lang (2002)), dividend payout (e.g. La Porta, Lopez-de Silanes, Shleifer, and Vishny (2000)), and access to finance (e.g. Reese and Weisbach (2002)). I add to this literature by studying the net shareholder wealth effect of a specific legal rule, the shareholders' right to sue the company and its officers, and I document that this effect can be negative.

Second, this paper contributes to the literature that studies managerial incentives to invest in long-term risky projects. Previous papers focus on the impact of takeover pressure (e.g. Stein (1988), Atanassov (2013)), investor protection (e.g. John, Litov, and Yeung (2008)), the fear of early project termination by outside investors (e.g. Von Thadden (1995)) and characteristics of managerial contracts (e.g. Manso (2011), Ederer and Manso (2013)). This paper adds to this literature by showing that the fear of shareholder litigation plays a significant role in shaping managers' incentives to engage in risky projects, and leads them to boost short-term earnings at the expense of long-term growth.

This paper is closely related to recent studies by Appel (2016) and Lin, Liu, and Manso (2017). The empirical identification of these papers relies on the staggered adoption of the universal demand laws in U.S. states, which impose significant hurdles to derivative lawsuits. Appel (2016) documents that the threat of stockholder lawsuits tends to improve firms' corporate governance. By contrast, Lin, Liu, and Manso (2017) show that increasing the risk of litigation at the state level stifles innovation. These studies provide valuable evidence on individual dimensions relevant to firm value, but with opposite signs. My study, by focusing on a net measure of shareholder wealth, can shed light on the the sign of the overall effect on shareholders, which may be more informative for evaluating the efficiency of the current litigation system. Furthermore, an advantage of my identification strategy, over strategies that exploit state-level variation, is

that I can account for within-state unobserved heterogeneity, which can be important if local factors influence the threat of shareholder litigation.

2. Does the Threat of Shareholder Lawsuits Benefit or Harm Shareholders?

Whether the threat of shareholder litigation is beneficial or harmful for shareholders is theoretically unclear, and in this section I provide further details to support this claim.

Specifically, I consider two conflicting hypotheses about the impact of the threat of lawsuits on shareholder wealth. According to the first hypothesis, the *legal protection* hypothesis, the threat of shareholder litigation is beneficial, because it improves investor protection against managerial misbehavior. This hypothesis is in line with studies in law and finance. For example, in the seminal law and finance paper of La Porta, Lopez-de Silanes, Shleifer, and Vishny (1998), the authors include shareholder access to courts in their investor legal protection index.

There are several reasons why better investor protection might be associated with higher firm value. First, strong legal protection of investors can lead to lower expropriation because it lowers the expected benefits from diversion. As a consequence, since the private benefits of control are smaller, investors are willing to pay more for the firm assets and this raises firm value (e.g. La Porta, Lopez-de Silanes, Shleifer, and Vishny (2002), Shleifer and Wolfenzon (2002)). Second, better investor protection can lead to increased corporate risk-taking and higher firm value because it reduces insider incentives to protect their private benefits (e.g. John, Litov, and Yeung (2008)). Third, strong investor rights enhance external pressure on managers. This can limit overinvestment in declining industries and lead to more efficient and value-enhancing capital allocation (e.g. Wurgler (2000)). Fourth, better investor protection can increase shareholder wealth because it improves access to stock market financing and reduces the cost of capital. This, in turn, facilitates the exploitation of firm growth opportunities (e.g. Doidge, Karolyi, and Stulz (2004)) and investments in riskier but value-creating projects (e.g. Brown, Martinsson, and

Petersen (2013)). Finally, the external pressure imposed by the threat of shareholder lawsuits can incentivize managers to institute shareholder-friendly governance practices (Appel (2016)). To the extent that these practices represent an improvement in the corporate governance of firms, this can lead to higher firm value (e.g. Gompers, Ishii, and Metrick (2003), Durnev and Han (2005)).

The second hypothesis, the *overdeterrence* hypothesis, posits that the threat of lawsuits can have negative consequences for shareholders. According to this hypothesis, an increased shareholder litigation risk deters managers from engaging in value-creating but risky projects. This argument builds on two related strands of literature. The first strand of literature documents that excessive external pressure can distort managers' incentives and lead them to focus on short-term gains at the expense of the long-term interests of shareholders. For example, the pressure on managers imposed by the threat of takeovers can generate managerial myopia (e.g. Stein (1988)). Similarly, Von Thadden (1995) shows that short-term biases of investments can also arise due to the fear of project termination by outside investors. The second strand of literature documents that legal, institutional and contractual factors that punish failures can erode managerial incentives to invest in innovation. Acharya and Subramanian (2009) document that creditor-friendly bankruptcy laws that generate excessive liquidation upon failure can stifle ex-ante firm risk-taking. Manso (2011) and Ederer and Manso (2013) show that managerial incentive schemes should exhibit tolerance for short-term failure and reward for long-term success if they are to stimulate high-risk innovative investments. In a recent working paper, Lin, Liu, and Manso (2017) show that tightening the risk of litigation at the state level can hinder managerial discretion and stifle innovation.

There are two reasons why shareholder litigation imposes external pressure on managers. First, shareholders may initiate legal actions even absent corporate fraud. Such actions are triggered by stock prices drops, which are attributed to managers' wrongdoings, but can simply be the consequences of the failures of law abiding business decisions. This is consistent with the evidence on "frivolous" lawsuits. This definition refers to lawsuits filed whenever there is

a significant drop in a firm's stock price, without proper investigation about any underlying culpability of the firm and thus lacking strong legal merit. The sole purpose of these claims is to extract settlement fees from the company (e.g. Bebchuk (1988)). Second, shareholder litigation involves the risk of direct and indirect losses for managers. In terms of direct losses, officers are personally liable if they are found to have breached their fiduciary duties. In terms of indirect losses, managers found culpable of corporate misconduct often lose their jobs, face diminished employment prospects and, in general, suffer from reputation losses (e.g. Karpoff, Lee, and Martin (2008a), Fich and Shivdasani (2007), Brochet and Srinivasan (2014)).

To sum up, the tension between these two hypotheses emphasizes an existing gap on the desirability of shareholder litigation rights. The net shareholder wealth effect of the threat of lawsuits is ex ante ambiguous.

3. Empirical Strategy

A naïve approach to estimating the causal effect of the threat of lawsuits on firm value would be to assume:

$$E[V_{it}|X_{it}, LThreat_{it}] = \alpha + \beta LThreat_{it} + X_{it}\delta \tag{1}$$

where V_{it} is the value of firm i at time t, $LThreat_{it}$ is the threat of lawsuits faced by firm i at time t and X_{it} is a set of observable firm characteristics that affect both the threat of lawsuits and shareholder wealth. The simple selection-on-observables model in equation (1) can be estimated as:

$$V_{it} = \alpha + \beta LThreat_{it} + X_{it}\delta + \eta_{it} \tag{2}$$

Two problems emerge from equation (2). First, the threat of shareholder lawsuits, $LThreat$, is inherently difficult to measure, because it is not directly observable. Second, a key assumption for the coefficient β to have a causal interpretation is that the error term η_{it} is uncorrelated with

$LThreat_{it}$. However, this is unlikely to be the case. One reason is that firm-level unobservables, which are not part of X in equation (2), can affect both the threat of shareholder lawsuits and firm value V_{it}. For example, the quality of the firm's corporate governance can both influence firm value (e.g. Gompers, Ishii, and Metrick (2003)) and managerial propensity for misbehavior. Similarly, higher managerial quality can have a positive impact on firm value and at the same time can reduce the likelihood of a lawsuit (Field, Lowry, and Shu (2005)).

In the next subsections, I explain how my empirical strategy addresses these two problems.

3.1 Measuring the Threat of Lawsuits

To measure the threat of lawsuits faced by a company, I use the attitude towards corporations of the federal court of the district where the company is headquartered. I define a court's attitude towards corporations as the average political ideology among all active judges operating in the court. To infer a judge's political ideology, I rely on the plausible assumption that politicians tend to nominate judges that share their political views. This assumption implies that one can proxy for the political ideology of a federal district court judge using the political views of the president and state senators who nominated the judge. Once I determine whether a judge is Republican or Democrat, I classify the former as being more corporation-friendly than the latter.

To understand why a court's attitude towards corporations can be used to generate variation in the threat of lawsuits, it is informative to describe the threat of lawsuits as the product of two components: the probability that shareholders initiate legal action against the company and the expected litigation outcome in court. A company defendant in a shareholder lawsuit faces a judge that is randomly selected from the federal district's panel of judges. The political ideology of the judge assigned to the case, in turn, influences the expected outcome of the lawsuit. Therefore, the first-order effect of a judicial turnover that changes a court's corporation-friendliness is to change the second component of the threat of lawsuits, namely the expected litigation outcome. As a second-order effect, a change in a court's corporation-friendliness can also influence the probability that shareholders file a lawsuit, precisely because the expected benefits of doing so

have changed. This assumption is in line with a large political science literature (e.g. Epstein, Landes, and Posner (2012)). Moreover, I provide direct empirical support for the impact of a judge's ideology on litigation outcomes in section 4.4.

3.2 Identification Strategy

I argue that variation in a court's corporation-friendliness can be exploited to obtain exogenous variation in the threat of lawsuits faced by a company. This argument rests on two key elements. First, the timing and the causes of variation in a court's attitude are plausibly exogenous from the viewpoint of a firm headquartered in a given district. The reason is that variation in a court's corporation-friendliness originates solely from judicial turnover, because courts' attitudes towards corporations depend on individual judges' political ideologies. At the same time, the rules of judicial independence in federal district courts ensure that federal judges vacate their office only upon death, resignation or impeachment. These causes are presumably exogenous to firm characteristics.

While judges leaving the bench is plausibly exogenous (most clearly in the case of death), the choice of the new judge is not. First, since the president nominates the new judge, changes in a court's attitude might be correlated with political cycles at the national level, which are known to affect firm outcomes (Santa-Clara and Valkanov (2003), Belo, Gala, and Li (2013)). Second, the senators of the state in which the judge takes office are crucial in the nomination and approval process. This suggests that it is important to control for time-varying local variables that might influence both shareholder wealth and the threat of lawsuits.

The second key element of my approach addresses these issues. I exploit the fact that the most economically relevant U.S. states include multiple districts within their borders. This provides me with sufficient granularity to rule out state-level time-varying unobserved heterogeneity. I implement this solution by including state $\times$ date fixed effects in the regression. Provided that the state is the relevant dimension for the unobserved local factors, this solution removes local unobserved heterogeneity from the composite error term η_{it}.

To further control for unobserved heterogeneity, I include additional sets of high dimensional fixed effects (Gormley and Matsa (2014)). Whenever the sample includes a sufficient number of observations, I include firm, district and industry $\times$ date fixed effects. Firm and district fixed effects control for any time-invariant unobserved heterogeneity between companies and federal districts. Industry $\times$ date fixed effects take care of potential time-varying omitted factors at the industry level. These factors may confound my analysis if firms belonging to certain industries tend to cluster in specific districts.

In the baseline setting, thus I estimate the following model:

$$y_{iskt} = \gamma_i + \lambda_{st} + \beta LThreat_{kt} + X_{it}\delta + \epsilon_{iskt} \tag{3}$$

where y is the outcome of interest for firm i, headquartered in state s, district k, in period t. The variable $LThreat$ is the measure of a court's attitude toward corporations, and its construction is detailed in section 4.3. X_{it} is a matrix of firm-level control variables. γ_i are firm fixed effects. λ_{st} are state $\times$ date fixed effects. Under the set of assumptions above, β provides an unbiased estimate of the causal effect of the threat of lawsuits on shareholder wealth. The identifying assumption is that conditional on the inclusion of firm-level controls and the set of fixed effects, my measure of the threat of lawsuits is as good as randomly assigned.

3.3 Further Identification Issues

There are two remaining potential threats to my identification strategy. First, firms headquartered in the different districts of the same state might differ because of time-varying unobserved geographical factors. Previous studies show how local economic variables might significantly affect firm outcomes, such as stock returns or investments (e.g. Pirinsky and Wang (2006), Dougal, Parsons, and Titman (2015)). These local variables operate at a finer geographical level than the state. Thus, if they correlate with my measure of the threat of lawsuits, then state $\times$ date fixed effects will not remove all relevant local unobserved heterogeneity, and the coefficient β will be biased. Second, the nomination of a judge with certain political and policy views might be deter-

mined by changes in local economic conditions that have affected firm policies and performances in the past. This is a reverse causality issue.

To address the first identification threat, I exploit the geographical flexibility offered by the fact that common definitions of local economic areas, such as Metropolitan Statistical Area (MSA) and Combined Statistical Area (CSA), do not overlap with federal districts: the largest MSAs and CSAs include, within their borders, portion of multiple districts. The MSA is one of the most widely used definitions of local area in the literature on local effects (Pirinsky and Wang (2006), Kedia and Rajgopal (2009), John, Knyazeva, and Knyazeva (2011)).[3] The CSA is another widely used definition of statistical area, and comprises multiple MSAs that engage in strong social and economic interactions. In stark contrast with MSAs and CSAs, the definition of federal judicial district carries no economic meaning.

To rule out concerns about time-varying unobservables at the MSA or CSA level, I modify equation (3), substituting state $\times$ date fixed effects with either MSA $\times$ date fixed effects or CSA $\times$ date fixed effects. As a consequence, companies headquartered in the same MSA or CSA but in *different districts* establish the counterfactual shareholder wealth response of firms not affected by the variation in a court's corporation-friendliness but exposed to the same local economic conditions.

To address the reverse causality issue, the second identification concern, I use an empirical specification that allows me to study the dynamic effect of changes in the threat of lawsuits on shareholder wealth. In this setting, I use a set of events defined as the date in which a court becomes more investor-friendly due to a change in the panel of judges. Specifically, I estimate the following model:

$$y_{ijskt} = \gamma_i + \lambda_{st} + \rho_{jt} + \sum_{i=t-n}^{t+n} \beta_i \mathbb{1}(time = i) + \epsilon_{ijskt} \tag{4}$$

[3]In addition, the MSA definition of the Office of Management and Budget indicates that social and economic ties are important to determine its boundaries: "Metropolitan Statistical Areas have at least one urbanized area of 50,000 or more population, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties."

where $\mathbb{1}(time = i)$ are indicator variables that take value one when a firm is located in a district that experiences an event in i periods (either days or months) from now, or has experienced an event i periods ago. For example, $time_{t-1}$ is a dummy variable that equals one for a firm that is headquartered in a district that will experience an increase in courts' investor-friendliness one month from now. These tests allow me to rule out stories in which the nomination of a judge in period t is driven by events or firms' behavior occurring in previous periods.

4. Data and Descriptive Statistics

4.1 Firm-Level Data

My firm-level sample includes all companies in the CRSP-Compustat merged dataset, for the fiscal years from 1993 through 2015. I exclude financial firms (SIC codes 6000-6999), regulated utilities (SIC codes 4900-4999) and firms headquartered outside the US.

Since the headquarters address reported in Compustat tapes is the current location of a firm's principal executive office, not the historical one, I follow Heider and Ljungqvist (2015) and extract company historical headquarters addresses from regulatory filings. When I am not able to extract the headquarters location from a SEC filing, I complement this data with information in the WRDS SEC Analytics Suite. The starting year of my sample is dictated by the availability of historical headquarters information from these two sources. In the next step, I match the zip code of a firm headquarters address to the U.S District Court with jurisdiction over the corresponding area.

I obtain a mapping of companies' zip codes to the corresponding metropolitan statistical areas (MSA) and combined statistical areas (CSA) from the Missouri Census Data Center website. When the information for a given zip code is missing, I complement this data with the mapping provided by the U.S. Census Bureau.[4] If I cannot link a zip code to a MSA or CSA, I code the

[4]Data from the Missouri Census Data Center is available at http://mcdc.missouri.edu/websas/geocorr12.html. U.S. Census Bureau data is available at https://www.census.gov/population/metro/data/other.html.

observation as missing.[5]

I collect information on shareholder class action lawsuits from the Stanford Securities Class Action Clearinghouse. The dataset includes all securities class action lawsuits filed in federal courts between 1996 and 2016. For each lawsuit, I obtain information about the filing date, the district court, the identity of the judge assigned to the case and the status of the case.

To construct the sample of bond returns, I obtain trades reported to FINRA TRACE between July 2002 and December 2015. As TRACE was first implemented on July 1, 2002, the number of observations in tests using bond returns is significantly lower than in other tests of the paper. I collect information about additional characteristics of bonds, such as time-to-maturity and rating, from the Fixed Income Security Database (FISD). I follow Bessembinder, Jacobsen, Maxwell, and Venkataraman (2016) in the choice of the filters to apply in order to construct the bond sample. Moreover, I adopt the approach suggested in Bessembinder, Kahle, Maxwell, and Xu (2008) to obtain firm-level bond abnormal returns. Specifically, I exclude non-investment grade bonds, and when a firm has multiple bonds outstanding, I consider the firm as a portfolio of bonds and I compute the value-weighted average bond return.

Table 1, Panel A, presents summary statistics for the judge and court related variables. This panel shows statistics about the number of judges in federal district courts, the total number of turnover events, as well as the average turnover per year in federal district courts. The numbers indicate that, on average, there is a full turnover of courts every 9.7 years (7.14/0.74). In the last row of the panel, I show statistics about the changes in LThreat driven by changes in the panel of judges. Table 1, Panel B reports statistics about stock return variables. These are the main dependent variables of the paper, and I discuss them in detail below. Finally, Table 1, Panel C shows statistics on the other firm-level variables used below.

[5] 8.53% of the observations in my sample cannot be linked to any MSA, while 16% cannot be linked to any CSA.

4.2 Federal District Court Data

The U.S. federal court system includes 94 district courts in the 50 states, Washington, D.C., Puerto Rico, Guam, U.S. Virgin Islands, and Northern Marinara Islands. This means that there is at least one district court in each state, with larger states having between two and four districts. Appendix B and Figure B.1 illustrate how the U.S. federal court system is split into the 12 circuits and the 94 district courts. The inclusion of state $\times$ date fixed effects implies that the variation I exploit to estimate my coefficients of interest comes from states with more than one district court. This poses no concern for the representativeness of my sample, as roughly 80% of the CRSP-Compustat merged firm-year observations pertain to multiple-courts states.

Federal courts have subject matter jurisdiction over all cases based upon federal laws. Among these, lawsuits arising from violation of federal securities laws have a prominent place. Both in terms of number of settlements in federal class actions and in terms of total dollar value of these settlements, securities lawsuits are the single most important type of lawsuits in federal courts (Fitzpatrick (2010), Eisenberg and Miller (2010)).

To link firms to federal district courts, I use firm headquarters location. Therefore, I focus on a firm's home court, ignoring the other possible venues in which plaintiffs can file a suit. This choice is justified if the firm's home court is the most relevant court from the viewpoint of a company. Evidence shows that the firm's home court is indeed the most important court for a company, which provides support for my approach. For example, Cox, Thomas, and Bai (2009) report that, according to many practicing attorneys, it is highly impractical for them to file a securities class action suit in a venue that is different from the defendant's headquarters. The company would immediately present a likely successful motion to relocate the suit, and such a motion would be highly time consuming and expensive. As a result, to avoid these costs, plaintiffs file directly in the firm's home district. The authors show that in their sample 85% of class action lawsuits are filed in the district court of the company's headquarters. Using the sample of securities class action lawsuits from the Stanford Securities Class Action Clearinghouse, I document a similar percentage (84%).

4.3 Judge Ideology Data

I obtain information about the identity of judges in U.S. federal district courts from the History of the Federal Judiciary available on the Federal Judicial Center website. In each year, I consider all active judges, excluding senior judges.[6] To classify a judge as being corporation-friendly or investor-friendly, I adopt the traditional conservative/liberal distinction: I define conservative judges as being more pro-business than liberal judges. I use the ideology score developed by Giles, Hettinger, and Peppers (2001) to measure a judge's liberality or conservativeness.[7] Starting from the NOMINATE Common Space score of Poole and Rosenthal (1997), the ideology score identifies individual judges' policy preferences by computing the mean common space score for the state congressional delegation of the president's party in the year of the judge's appointment (Giles, Hettinger, and Peppers (2001)). Therefore, the underlying intuition is that the ideology of the president and the relevant senators who nominated the judge is a strong indication of the orientation of the judge itself. The ideology score ranges from -1, for most liberal judges, to +1, for most conservative judges. For ease of interpretation, I reverse the score multiplying it by -1. Therefore, higher scores will be associated to more liberal, and hence investor-friendly, judges. Finally, I aggregate these scores at the district court level by taking the mean, obtaining a measure of the average attitude toward corporations of each of the 94 U.S. federal district courts. I label this measure $LThreat$.

The classification of a conservative judge as being more pro-business than a liberal judge is supported both by conventional wisdom and previous research. First, Republicans, are traditionally viewed as the pro-business party. In addition, such dichotomy naturally emerges by looking at the pattern of legislative reforms in the 20th and early 21st centuries. Coffee (2015) points out that, in terms of legislative decisions, "the two major political parties in the United States

[6]Senior status is a form of semi-retirement for U.S. federal judges. I choose to exclude senior judges for three reasons. First, it is a discretionary choice of the judge to take senior status instead of full-retirement. Second, there is heterogeneity in the caseload of senior judges and again it partially depends on the individual judge's choice. Third, a judge that takes senior status still creates a vacancy. In any case, I repeat my main tests using a measure that includes senior judges, and the results are virtually unchanged.

[7]Boyd, Christina L. 2015. "Federal District Court Judge Ideology Data." available at: http://cLboyd.net/ideology.html.

have aligned themselves with the rival camps - Democrats with the plaintiff's bar; Republicans with the business community". Second, this classification finds strong support in the political science literature (e.g. Rowland and Carp (1996), Haire, Lindquist, and Hartley (1999), Epstein, Landes, and Posner (2012)). In the next subsection, I also provide direct empirical evidence in support of this classification.

4.4 Shareholder Class Action Lawsuits

In this section, I confirm empirically that shareholder lawsuits involve large losses, and thus a significant threat, for the companies and their managers. Moreover, I provide two tests supporting the use of courts' political attitudes as a measure of the threat of lawsuits.

Panel A of Table 2 shows statistics about the abnormal stock returns around the announcement of a shareholder class action lawsuit. I define firm abnormal stock returns as the cumulative abnormal returns (CAR) from the Fama-French 3-factor model over the 3-day (or 11-day) event window around the announcement of a class action. The average (median) 3-day FF-3 factor CAR is -3.54% (-1.25%), while the average (median) 11-day FF-3 factor CAR is -8.11% (-4.53%). These numbers are broadly consistent to those reported by previous studies. For example Gande and Lewis (2009) report average 3-day cumulative abnormal return (in excess of CRSP value-weighted index) equal to -4.66%. This indicates that the announcement of a shareholder class action lawsuit leads to an economically large loss in shareholder wealth for the firm, and thus represents a significant concern for managers.

In Panel B of Table 2, I run a linear probability model to show that the ideology of the judge assigned to the case has a significant impact on the probability of a negative outcome in court for the company.[8] The dependent variable is an indicator equal to 1 when the class action lawsuit ends with a settlement or with a trial outcome favorable to the investors, and 0 otherwise. The main independent variable is the ideology of the judge assigned to the case, as defined earlier in this section. Across all specifications, the judge ideology coefficient is positive and significant.

[8]Using a probit model, instead of a linear probability model, yields qualitatively very similar results.

Thus, results indicate that an increase in the investor-friendliness of the judge assigned to the case leads to a higher probability of an adverse legal outcome for companies.

In Panel C of Table 2, I test whether the court's investor-friendliness influences the negative stock price reaction around the filing of a shareholder class action lawsuit. If an increase in investor-friendliness of a court leads to a higher probability that investors obtain a settlement, and if it increases the size of the potential settlement, this should be reflected in stock prices, as the market anticipates larger expected losses for the company. Coefficients in Panel C indicate that firms exposed to one standard deviation increase in investor-friendliness of courts have 1.9% lower FF 3-factor CAR in the 11-day window around the filing of a class action lawsuit. This effect corresponds to 23% of the sample average. Collectively, results in Panel B and C support the assumption that an increase in the proportion of investor-friendly judges in a district court leads to a higher threat of lawsuits for firms.

5. Main Results

The main objective of this paper is to test whether the data is more consistent with the *legal protection* hypothesis or the *overdeterrence* hypothesis. To do this, I examine stock market returns. The stock market provides the perfect laboratory to discriminate between the two hypotheses, as market valuation reflects investors' expectations about all factors relevant to future performance. This is useful, since the threat of lawsuits may simultaneously affect multiple firm-level outcomes. Studying stock market reaction thus allows me to measure the *net* effect of the threat of shareholder lawsuits on firm value.

5.1 Short-Term Market Response to Changes in the Threat of Lawsuits

In this section, I use an event study approach to examine the short term impact of changes in a court's judicial panel on stock returns. I define an event as the day in which a change in the panel

of judges generates an increase in a court's average ideology score. As event date, I select the date in which the Senate confirms the President's nomination.[9] Firms headquartered in federal districts experiencing the increase in the threat of lawsuits constitute the treatment group. I construct a control group by selecting, for each event, all companies operating in the same state of the event court but in federal districts whose courts' average ideology scores do not increase. I consider a symmetric event window of 21 days ([-10, 10]) around the change in a court's judicial panel. This choice is driven by the fact that it is difficult to establish with precision the exact date in which investors incorporate into prices the information about the change in the panel of judges. In addition, investors may rely on different sources and thus acquire the information at slightly different points in time.[10]

Table 3 shows that the threat of lawsuits has an economically large and statistically significant negative effect on short-term event returns. The reported estimates are obtained by running the regression in equation (3). As dependent variable, I either use the CAR [-10,10] from the Fama-French 3-factor model estimated over the $[-231,-31]$ interval (column (1) to (3)), or I use the size/book-to-market adjusted cumulative abnormal return (CAR) over the window [-10,10] (columns (4) to (6)). The inclusion of firm fixed effects removes time-invariant unobserved differences among companies. The use of state $\times$ date fixed effects effectively allows the comparison between treatment firms and the control group, composed of firms headquartered in the other districts of the same state. Intuitively, these regressions effectively compare firms headquartered in the Ohio Northern District with firms headquartered in the Ohio Southern District. Thus, regression coefficients are estimated by exploiting variation coming from the different evolution of shareholder wealth in the Ohio Northern District in response to a change in the panel of judges, compared to the evolution of shareholder wealth in the Ohio Southern District, where firms do not experience a change in their court's attitude. In column (3) and (6), I also include industry

[9]The results in this section are robust to alternative event day definitions, including changes determined both by judges leaving the court and by new judges joining the bench.

[10]The results are robust to using a shorter (11-day) event window or a longer (41-day) event window. However, if I shrink the event window down to less than 11 days the coefficients are not significant, although with the correct sign.

$\times$ date fixed effects, which control for time-varying industry-level factors.[11] The coefficient in column (2) indicates that firms in the treatment group have 35 basis points lower abnormal returns in the 21 days around a judge turnover event, compared to firms in the control group.

To address reverse causality concerns, I study the dynamic effect of changes in the threat of shareholder litigation. In particular, a potential concern may be that the choice to nominate a judge with specific orientations might be correlated to characteristics of firms headquartered in the district. If this is true, however, I should observe an "effect" of the change in courts' judicial benches also before the change itself takes place. Figure 1 plots cumulative point estimates from equation (4), with daily abnormal returns from Fama-French 3-factor model as dependent variable. The figure shows that the pattern of daily abnormal returns is consistent with a causal impact of the threat of shareholder lawsuits on stock market reaction: There is a dramatic difference in the pattern of stock market returns after the change in a court's panel of judges, but there is no evidence of a pre-trend before the event.

To obtain the results reported in Table 3, I use all episodes of judicial turnover that increase the degree of investor-friendliness of courts, regardless of the actual size of the increase. However, it is interesting to study whether the magnitude of the effect on stock returns grows as the increase in the threat of lawsuits becomes bigger: more substantial variation in court attitudes should cause larger stock price reactions. In Table B.3, I document that this is indeed the case. To do that, I focus on episodes of turnover that generate particularly large increases in the threat of lawsuits. Specifically, I restrict the sample to increases at least equal to the 75th percentile of the distribution of changes. The first two columns of the table show that the effect on short-term stock returns is between 2 and 2.8 times bigger than in the baseline test of Table 3. This is reassuring, and it provides further support for the use of court attitudes as measure of the threat of lawsuits.

[11] The reduction in the number of observations in column (3) is due to the exclusion of $3,392$ singleton observations, as the regression requires at least two firms operating in the same industry among those headquartered in the same state.

5.2 Long-Term Stock Returns

Understanding the implications of a change in courts' attitudes for firm value involves a high degree of processing complexity. Investors might be slow to incorporate into stock prices the effect of intangible, hard to process information (Cohen, Diether, and Malloy (2013)). Therefore, the short-term stock price reaction documented in the previous section might not capture the full effect of a higher threat of lawsuits on firm value.

To explore this possibility, I study stock returns over a longer period of time. I rely on the same event study setting used to document the short-term results: an event is defined as the date in which a change in the panel of judges leads to an increase in a court's investor-friendliness. Treated firms are firms operating in districts where the turnover event occurs. Control firms are firms operating in the other districts of the same state. In contrast to section 5.1, the dependent variable is either the 12-month cumulative abnormal return from the Fama-French 3-factor model estimated over the previous 60 months, or the 12-month buy-hold size-BM adjusted stock return.

Table 4 documents a negative reaction of stock prices to increases in $LThreat$ over the 12 months after the event. The reported estimates are obtained by running equation (3) with long-term event returns as dependent variable. Coefficients indicate that the cumulative effect in the next 12 months is five times as big as the stock price reaction in the 21-day window. Specifically, column (2) shows that in district where the threat of lawsuits increases, firms experience 1.5% lower cumulative abnormal returns over a 12-month event window, compared to firms in the control group.

As in the previous section, I deal with the issue of reverse causality. I use again equation (4), which allows me to study the dynamic effect of a turnover in district courts on shareholder wealth. In this section, I consider the month in which a court becomes more investor-friendly as $month = 0$, and I include indicator variables for months -12 to $+12$ in event time. Figure 2 plots the cumulative point estimates of this set of dummies for months in event time. The graph can be interpreted as the difference in Fama-French 3-factor cumulative abnormal returns between firms headquartered in a district that experiences the event and the control group. There seems

to be no "effect" of judge turnover before the change occurs, which is supportive of a causal interpretation of the results.

Finally, in the last two columns of Table B.3, I document that more substantial increases in the threat of lawsuits lead to larger negative long-term stock returns. This result is complementary to the one reported in the previous section, and increments the confidence in the use of judicial turnover to capture variation in the threat of lawsuits.

5.3 Controlling for Local Effects and Other Robustness Tests

5.3.1 Controlling for Local Effects

My interpretation of the results presented in the previous section is that an increase in the threat of lawsuits causes a decline in shareholder wealth. However, there are other plausible explanations for these results. A particularly relevant one is that I might be capturing local effects that correlate with changes in courts' judicial benches. For example, existing literature shows that location has a sizeable effect on stock returns (e.g. Coval and Moskowitz (2001), Pirinsky and Wang (2006)) and corporate policies (e.g. Dougal, Parsons, and Titman (2015)).

As detailed in section 3.3, I address these concerns by exploiting the fact that definitions of local areas relevant for economic purposes do not overlap with federal districts. This allows me to change the control group in the event study setting. Specifically, in this section control firms are firms headquartered in the same metropolitan statistical area (MSA), or combined statistical area (CSA), but in different districts. To make sure that the coefficients of interests are estimated from variation occurring within local economic areas, I employ a modified equation (3) in which I substitute state $\times$ date fixed effects with either MSA $\times$ date fixed effects or CSA $\times$ date fixed effects. The results of these regressions can be interpreted as comparing firms in the same MSA-by-date or CSA-by-date pair, but exposed to different levels of courts' corporation-friendliness. Panel A of Table 5 shows that the short-term results are robust to the change in the control group. The coefficient in column (1) indicates that one-standard deviation increase in $LThreat$ leads to 61 lower cumulative abnormal returns in the 21-day window around the event. Panel

B of Table 5 shows that the long-term results are similarly robust. The coefficient in column (1) indicates that one-standard deviation increase in *LThreat* leads to 2.0% lower cumulative abnormal return in the 12 months after the event.

5.3.2 Robustness Tests

In the last two panels of Table 5, I report two robustness tests for the main results of the paper. In the first, I focus on episodes of judicial turnover that are most likely exogenous. Specifically, I restrict the set of events used in the baseline tests in sections 5.1 and 5.2 to changes in judicial benches generated by judge turnover for which the cause is explicitly described as "Death", "Retirement" or "Impeachment & Conviction". I further restrict the sample of turnover to those cases in which the retirement occurs upon reaching the retirement age. Thus, I exclude events caused by "Appointment to Another Judicial Position", "Reassignment", "Resignation" and "Retirement" when the judge does not retire as soon as she becomes eligible [12]. The first two columns of Panel C report the results for the short-term event-studies, while the first two columns of Panel D show the results for the long-term event studies. All the coefficients remain negative and statistically significant. The economic magnitude of the effect of an increase in the threat of lawsuits on the abnormal returns is 29 basis points (column (1), Panel C) and 1.3% (column(1), Panel D).

In the second robustness test, I exclude firms changing headquarters during my sample period. These observations can pose a threat to my identification if firms moving headquarters are different in some unobserved dimension. As a result of excluding firms changing headquarters, I lose around 22% of the observations in my sample. The last two columns of Panel C and Panel D report the results of the short-term and long-term event studies, respectively. In both cases, the drop in firm value caused by an increase in the threat of lawsuits remains negative and statistically significant. The economic magnitude of the effect is 38 basis points lower 21-day cumulative abnormal returns (column (3), Panel C) and 1.1% lower 12-month cumulative abnormal returns (column(3), Panel D).

[12] These cases collectively account for 13% of the events in my sample.

6. Economic Channel and Heterogeneity in Responses

In this section, I explore the economic mechanism underlying the negative impact of the threat of lawsuits on shareholder wealth, and I investigate whether it is consistent with the *overdeterrence* hypothesis.

6.1 Firm Investments and Risk

The *overdeterrence* hypothesis predicts that an increase in the threat of lawsuits undermines managerial incentives to invest in projects that involve a high probability of failure, even if these projects have positive NPV. Managers may wish to avoid the increase in the likelihood of a stockholder suit associated with these projects, because lawsuits can be very costly for them (e.g. Fich and Shivdasani (2007)). Therefore, an increase in the threat of lawsuits should induce a decrease in risky investments. To rule out the possibility that managers shut down only low-quality, inefficient projects, I test whether the reduction in risky investments leads to lower quantity and quality of the innovation produced by a company.

I use R&D expenditure as a proxy for risky investments. An R&D project is a high-uncertainty investment, characterized by a high probability of failure (e.g. Hall and Lerner (2010)), thus it represents an investment likely to be affected by the *overdeterrence* mechanism. I utilize the logarithm of citation-weighted number of patents to measure innovation outputs. The use of a citation-weighted count is motivated by the recognition that a simple count of patents does not allow to distinguish between high-quality and low-quality patents (e.g. Hall, Jaffe, and Trajtenberg (2005)).

To perform these tests, I use a panel of firm-year observations from 1993 to 2015. I run the following modified version of equation (3):

$$y_{isjkt+1} = \gamma_i + \lambda_{st} + \rho_{jt} + \beta LThreat_{kt} + X_{it}\delta + \epsilon_{isjkt+1} \tag{5}$$

where y is the outcome of interest for firm i, headquartered in state s, district k, industry j

in period $t+1$. *LThreat* in this section is a continuous variable and it is defined as the average ideology score across all active judges in a court. X_{it} is a matrix of firm-level control variables. γ_i are firm fixed effects. λ_{st} are state $\times$ year fixed effects. ρ_{jt} are industry $\times$ year fixed effects.

The first column of Table 6 presents results of equation (5) with R&D expenditures$_t$/Assets$_{t-1}$ as dependent variable. The coefficient on *LThreat* in the R&D expenditures regression is negative and significant. These results indicate that firms exposed to a one standard deviation increase in *LThreat* have ratios of R&D expenditures to total assets that are, on average, 40 basis points lower than firms in the counterfactual group. This difference is equal to 6.12% of the sample average. In column (2), I rerun equation (5) using ln(Cite-weighted Patent) as dependent variable. The coefficient in column (2) indicates that a one standard deviation increase in *LThreat* generates a 12% reduction in citation-weighted number of patents over the next year. An increase in the threat of lawsuits is thus associated with a substantial reduction in the quantity and quality of innovative investments.

Another direct prediction of the *overdeterrence* hypothesis is that managers respond to an increase in the threat of lawsuits by reducing their firms' risk. The rationale for a decrease in firm risk is that it reduces the incidence of negative corporate outcomes that are associated with a higher probability of shareholder lawsuits. To test whether managers' actions impact their firms' risk, I rerun equation (5) using two risk measures as dependent variables. The first one is stock volatility, computed following Gormley and Matsa (2016) as the square root of the sum of squared daily stock returns over calendar year t. The second one is idiosyncratic volatility, computed as the square root of the sum of squared residuals on Fama-French-Carhart 4-factor model over calendar year t. Results of these tests are shown in the last two columns of Table 6. Using both measures of risk, the coefficients indicate that managers are successful in decreasing the risk of firms headquartered in districts whose courts become less corporation-friendly. A one standard deviation increase in *LThreat* is associated with 1.2 percentage points lower stock volatility and 1% lower idiosyncratic volatility. Both coefficients are significant at the 1% level. These results are thus in line with the *overdeterrence* hypothesis, because they show that managers respond

to a higher threat of lawsuits by reducing their firm risk.

6.2 Firm Profitability and Earnings Management

Several studies show that external pressure from investors can lead managers to boost short-term profits and neglect long-term growth (Stein (1988), Von Thadden (1995)). The threat of shareholder litigation can impose pressure on managers to appear profitable, because disappointing earnings are one of the most common causes of stockholder lawsuits (Skinner (1997), Field, Lowry, and Shu (2005)). As a result, a direct prediction of the *overdeterrence* hypothesis is that an increase in the threat of lawsuits should strengthen managers' incentives to report positive financial results. In particular, since firms that miss analyst forecasts usually suffer significant declines in their stock price (e.g. Degeorge, Patel, and Zeckhauser (1999)), managers should be concerned with reporting positive earnings relative to analysts' expectations. In this section, I test this prediction.

Table 7 presents results of equation (5) using quarterly earnings data. In column (1), the dependent variable is constructed as Actual$-$Forecast$_q$/Book Value of Equity per Share$_{q-1}$, where q indexes the quarter. Actual is defined as the announced quarterly earnings, while Forecast is defined as the median of all analyst forecasts issued before the earnings announcement (a more detailed definition is provided in the Appendix). The coefficient indicates that one standard deviation increase in the threat of lawsuits is associated with 9 basis points higher earning surprises, which is equal to 98% of the sample average. However, managers should not have strong incentives to push performance much beyond the analyst expectations, because the additional benefits in terms of reduced probability of lawsuits are limited. Their goal should be to just meet or exceed the consensus forecast. Column (2) tests this intuition. The dependent variable is an indicator variable that takes value 1 if the scaled difference between Actual and Forecast lies between 0 and the 25th percentile of its own non-negative distribution. The coefficient indicates that firms headquartered in districts whose threat of lawsuits increases by one standard deviation have 1% higher probability to have earnings that just beat analyst expectations. These results

are interesting, because they suggest that managers actively try to reduce the probability of a lawsuit by reporting positive financial results.

Higher reported earnings, however, do not necessarily imply that the firm profitability has improved. Accounting earnings can be manipulated, and the increase could simply reflect a change in the extent to which firms manage their earnings. As a matter of fact, if a higher threat of lawsuits strengthens the pressure on firms to appear profitable, managers may have heightened incentive to inflate their companies' earnings. In the last column of Table 7, I test this prediction. Using the modified version of the Jones (1991) model developed by Dechow, Sloan, and Sweeney (1995), I document that increases in the *LThreat* variable are associated with higher discretionary accruals. This result suggests that at least part of the increase in reported earnings is due to managers inflating their companies' financial results. If considered together with evidence on the drop in firm value in sections 5.1 and 5.2, the results in this section indicate that managers might increase short-term earnings at the expense of long-term growth.

6.3 The Threat of Lawsuits and Bondholder Returns

In this section, I examine the effect of a higher threat of lawsuits for bondholders. The specific economic channel proposed by the *overdeterrence* hypothesis has clear implications for bond returns. The desire to reduce the likelihood of a lawsuit induces managers to decrease investments in risky projects. While this has negative consequences for shareholders, from a bondholder viewpoint this might be positive news. Indeed, shareholder limited liability and bondholders' payoff structure imply that if risky investments turn out to be successful, shareholders capture most of the gains. By contrast, if they turn out to be failures, bondholders bear most of the costs (Jensen and Meckling (1976)). Therefore, if the *overdeterrence* hypothesis is operative, I expect a higher threat of lawsuits to be associated with higher bondholder returns.

To test this prediction, I use again an event study approach, whose goal is to compare the abnormal bond returns for treatment firms to the returns for control firms. The treatment sample includes all firms headquartered in federal districts in which a change in a court's judicial bench

increases the proportion of investor-friendly judges. For each of these changes, I include firms headquartered in the other districts of the same state in the control group. For each firm of the resulting sample, I compute bond abnormal returns by matching individual bonds to a portfolio of other bonds selected on time-to-maturity and rating category (see e.g. Bessembinder, Kahle, Maxwell, and Xu (2008)). The average value-weighted return on this portfolio represents the event bond expected return. To be consistent with section 5.1, I consider a 21-day symmetric event window to compute the abnormal returns.

Table 8 reports the results of these tests. The number of observations is significantly lower than in other tests of the paper, and the main reason is that bond data in TRACE is only available starting from July 2002. Despite this, all columns of Table 8 show a significant positive impact of an increase in $LThreat$ on bondholder returns. Looking at column (2), the coefficient indicates that in districts where the threat of lawsuits increases following a change in courts' judicial benches, firms have 10 basis points higher abnormal bond returns over the [-10,10] window as compared to firms in the control group.

These results are useful, because they allow to rule out the possibility that the drop in firm value due to an increase in the threat of lawsuits is simply reflecting an increase in the expected losses from lawsuits. The observed increase in bondholder wealth instead suggests that managers are actively reducing the riskiness of the firm.

6.4 The Threat of Lawsuits, Firm and Manager Characteristics

To shed further light on the interpretation of my main findings, I exploit variation in the sensitivity of cumulative abnormal returns to the threat of lawsuits across firm and manager characteristics. In this section, I employ subsample analyses applied to the event study setting of section 5.1.

6.4.1 Variation in the Strength of Managers' Reputation and Career Concerns

As a first test, I use cross-sectional variation in the strength of managerial reputation concerns. Starting from Diamond (1989), several studies have argued that reputation concerns are stronger when reputation is more valuable. Following this logic, I employ a commonly used measure of CEO reputation: CEO tenure (e.g. Milbourn (2003)). In line with the prediction of the *overdeterrence* hypothesis, I document that the loss in shareholder wealth due to an increase in the threat of lawsuits is concentrated among firms with highly reputed CEOs, as proxied by CEO with high tenure. Columns (1) and (2) of Table 9, Panel A, show that an increase in $LThreat$ leads to 61 basis points lower 21-day cumulative abnormal returns among firms with above median CEO tenure, while the effect is substantially smaller and not statistically significant for firms with below median CEO tenure.

In the last four columns of Table (9), Panel A, I explore cross-sectional variation in the strength of managerial career concerns. I examine whether firms' responses to the increase in the threat of lawsuits are related to their ability to withstand an adverse shock to future cash flows. Financially vulnerable firms are firms more exposed to the worst consequences of a lawsuit, such as financial distress or even bankruptcy. Thus, the manager's career concerns are magnified, because the risk of employment loss for the manager becomes bigger as the probability of financial distress grows larger (Gilson (1989), Eckbo, Thorburn, and Wang (2016)). Consequently, I expect a stronger impact of the threat of lawsuits on shareholder value in financially vulnerable firms.

To test this prediction, I use two different proxies of financial vulnerability. First, I use a firm's modified Altman z-score, defined as in MacKie-Mason (1990). Second, I employ the measure of Bharath and Shumway (2008) to proxy for a firm's probability of default. Both variables are constructed to measure the likelihood of corporate defaults, and thus a company's financial vulnerability. I find that firms that are more financially vulnerable experience a larger drop in cumulative abnormal returns in response to the increase in the threat of lawsuits. As reported in columns (3) and (6) of Table 9, Panel A, firms with low values of Altman z-score and high probability of default exhibit abnormal stock returns that are between 43 and 52 basis

points lower than firms in the control group. By contrast, firms with high values of Altman z-score and low probability of default do not exhibit a statistically significant decrease in abnormal stock returns.

6.4.2 Variation in Firm Corporate Governance

The main results of the paper raise an important question: why do shareholders passively sustain the loss of firm value? They could try to combat the harmful consequences of the threat of lawsuits by changing the optimal managerial compensation scheme. There are at least two reasons why wage setting might not be entirely effective. First, changing the compensation scheme to remove the risk-reduction incentives requires a very sophisticated and costly monitoring device. It seems unlikely that individual shareholders possess such level of detailed knowledge (Amihud and Lev (1981), Hermalin and Katz (2000)). In addition, dispersed shareholders have little incentives to supervise management and take an active interest in how the company is run. This is the traditional collective action problem.

One of the reasons why the board of directors exists is precisely to represent shareholders in the monitoring and compensation-setting tasks. However, when it comes to the threat of stockholder lawsuits, director incentives are likely to be aligned with those of the management. Directors are often sued alongside executives in stockholder suits, and they are exposed to large losses (Fich and Shivdasani (2007), Brochet and Srinivasan (2014)). To support this conclusion, I again resort to subsample analyses to explore cross-sectional heterogeneity in the strength of directors' reputation concerns. To proxy for directors' reputation concerns, I use the percentage of independent directors in the company's board. Previous studies document that outside directors are more sensitive to reputation losses (e.g. Jiang, Wan, and Zhao (2015)). Columns (1) and (e) of Table 9, Panel B, show the results of these analyses. The effect of the threat of shareholder litigation is concentrated in firms with higher percentage of independent directors.

Another potential solution to the collective action problem is the presence of large shareholders. Large shareholders have both sufficient incentives to monitor management and the power to

implement the desired changes (e.g. Shleifer and Vishny (1986)). In line with this, I document that the adverse impact of the threat of lawsuits on stockholder wealth is concentrated among firms with lower presence of blockholders. In columns (3) and (4) of Table 9, Panel B, I show that the negative effect of *LThreat* on shareholder wealth only obtains in companies with below median blockholder ownership. Similarly, columns (5) and (6) document that the negative effect of *LThreat* on shareholder wealth is stronger in companies with below median percentage of ownership in the hands of the top 5 institutional investors. These results lend support to the argument that monitoring by large institutional investors may help mitigate the agency conflict associated with the threat of lawsuits.

7. Conclusion

The large economic losses caused by shareholder lawsuits to companies have spurred a vivid debate on the optimal design of the shareholder litigation system. My paper contributes substantial new evidence to this debate. I show that the threat of shareholder lawsuits can have negative economic consequences on shareholders. This threat induces managers to choose inefficiently low levels of risky investments and to focus on short-term profits at the expense of long-term gains.

To address the challenge arising from the endogenous relation between the threat of shareholder litigation and firm outcomes, I develop a novel empirical approach that exploits exogenous variation in judicial bench composition at the federal district court level. In particular, I focus on adverse shifts in the threat of lawsuits generated by decreases in the proportion of corporation-friendly judges in a district court.

Using this new approach, I document that firms operating in federal districts where the threat of lawsuits increases due to judge turnover have substantially lower stock returns. After the change in courts' judicial benches, these firms display 35 basis points lower cumulative abnormal returns in the 21-day window around the event, and 1.5% lower cumulative abnormal returns in the next 12 months. In the second part of the paper, I find support for the specific channel predicted by what I label the *overdeterrence* hypothesis. I hypothesize that the drop in

firm value is caused, at least partially, by managers forgoing risky value-enhancing investment projects to reduce the likelihood of legal claims filed against them. Results in the second part of the paper support this hypothesis. First, I find that firms exposed to increases in $LThreat$ curb risky investments, such as R&D projects, and generate fewer patents. I also observe a concurrent reduction in firm risk. Two measures of firm risk, stock volatility and idiosyncratic volatility, decrease significantly in response to increases in $LThreat$. Second, I find that managers more likely ending up with investor-friendly judges have higher announced earnings, more positive earnings surprises and larger discretionary accruals. This suggests that a higher threat of lawsuits exerts stronger pressure on managers to report positive financial results. Third, I show that when the threat of lawsuits increases, bondholder wealth moves in the opposite direction of shareholder wealth. This test is consistent with the view that managers are actively lowering the firm risk, while does not support the idea that the negative impact of the threat of lawsuits on firm value is simply due to the market anticipating larger losses from lawsuits.

My paper focuses on the *ex ante* effect on shareholders of a higher threat of lawsuits and is silent on other channels through which shareholder litigation can affect shareholders. For example, shareholders can benefit from the ability to recover the economic losses caused by managerial misbehavior through the litigation process (e.g. Cox (1997)). On the other hand, several studies question the ability of individual shareholders to recover damages from alleged fraud (e.g. Thakor, Nielsen, and Gulley (2005)). Further research is needed to determine the overall effect of these additional channels on shareholders.

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Table 1: Firm, Court and Judge Statistics

This table shows summary statistics. Panel A presents summary statistics for judge and court-level variables used in the paper. LThreat is the average district court ideology score. Number of judges is the number of active judges in a federal district court, excluding senior judges. Turnover events counts the episodes of changes in the composition of judicial panels in federal district courts. ΔLThreat measures the change in LThreat for each episode in which the composition of a federal district court's judicial panel changes. Panel B reports summary statistics for event study abnormal returns, both short-term abnormal returns and long-term abnormal returns. Panel C shows summary statistics for other firm-level variables, including the corporate policies analyzed in the paper's tests. A complete list of definitions for these variables is provided in the Appendix.

Panel A: Summary Statistics – Judge and Court Variables

	N	Mean	Std. Dev.	25%	50%	75%
Court-Level Variables						
LThreat	2,093	−0.08	0.19	−0.21	−0.06	0.06
Number of judges	2,093	7.14	5.40	3.00	5.00	9.00
Changes in Courts' Judicial Benches						
Turnover Events	1,475	0.74	0.62	0.36	0.55	0.95
ΔLThreat	1,475	0.06	0.07	0.02	0.05	0.08

Panel B: Summary Statistics – Event Study Returns

	N	Mean	Std. Dev.	25%	50%	75%
Short-Term Abnormal Returns						
FF 3-factor CAR [-10,10] (%)	67,129	0.05	16.84	−8.26	−0.52	7.45
Size-B/M CAR [-10,10] (%)	67,129	−0.30	14.39	−7.72	−0.45	6.78
Long-Term Abnormal Returns						
FF 3-factor CAR [0,12]	46,362	−0.06	0.73	−0.43	−0.05	0.31
Size-B/M Buy-Hold [0,12]	67,129	−0.03	0.68	0.39	−0.12	0.18

Panel C: Summary Statistics – Other Firm-Level Variables

	N	Mean	Std. Dev.	25%	50%	75%
Log Market Capitalization	62,828	5.40	2.14	3.84	5.37	6.86
Book-to-Market	62,828	0.76	1.55	0.27	0.48	0.83
Capital Expenditures (%)	62,828	7.90	11.82	1.95	4.16	8.69
R&D Expenditures (%)	62,828	8.11	18.08	0.00	0.37	8.68
Stock Volatility	62,828	65.56	49.65	37.75	55.47	79.07
Idiosyncratic Volatility	62,828	63.05	49.74	34.79	52.77	77.11
Leverage	62,828	19.49	19.28	0.92	15.24	32.15
Reported Earnings	202,135	0.02	0.12	0.00	0.24	0.52

Table 2: Shareholder Class Action Lawsuits

This table shows summary statistics and other tests involving shareholder class action lawsuits. Panel A shows descriptive statistics for abnormal returns from Fama-French 3-factor model over the 3-day or 7-day event window around the announcement of a shareholder class action lawsuit. Panel B reports results of a linear probability model of shareholder class action outcomes on *Judge Ideology*, controls and different sets of FE. The dependent variable is coded as 1 when the shareholder class action terminates with a settlement, or a trial outcome favorable to investors. *Judge Ideology* is the Giles, Hettinger, and Peppers (2001) measure of judge ideology, for the judge assigned to the case. Controls include beginning of the year logarithm of market capitalization, log market-to-book, stock volatility and previous 12 months stock return. Panel B reports coefficients from regression of Fama-French 3-factor model CAR [-5,5] on LThreat, controls and different sets of FE. LThreat is the average district court ideology score. Controls include beginning of the year logarithm of market capitalization, log market-to-book, stock volatility and previous 12 months stock return. Industry FE are based on the Fama-French 12-industry classification. A complete list of definitions for these variables is provided in the Appendix.

Panel A: Summary Statistics – Filing Date Abnormal Returns

	N	Mean	Std. Dev.	25%	50%	75%
FF 3-factor CAR [-1,1] (%)	1,681	−3.54	13.45	−6.58	−1.19	2.12
FF 3-factor CAR [-5,5] (%)	1,681	−8.11	24.41	−18.21	−4.53	3.61

Panel B: Impact of Judge Ideology on Settlement Probability

	(1)	(2)	(3)
Judge Ideology	0.102***	0.103***	0.098**
	(3.54)	(3.75)	(2.98)
Controls	No	Yes	Yes
District FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Industry FE	No	No	Yes
Observations	1,313	1,313	1,313
Adjusted R^2	0.07	0.10	0.10

Panel C: Impact of the Threat of Lawsuits on FF 3-factor CAR [-5,5]

	(1)	(2)	(3)
LThreat	-0.066^{*}	-0.120^{***}	-0.120^{***}
	(-1.69)	(-2.72)	(-2.83)
Controls	No	Yes	Yes
District FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Industry FE	No	No	Yes
Observations	1,681	1,681	1,681
Adjusted R^2	0.07	0.10	0.10

Table 3: Short-Term Effect of the Threat of Lawsuits on Stock Returns

This table presents results of short-term event studies around changes in courts' judicial benches. The treatment group is composed of firms exposed to an increase in the threat of lawsuits due to changes in court composition, while the control group is composed of firms operating in the same state but in federal districts that do not experience the event. Columns (1) to (3) use as dependent variable the 21-day cumulative abnormal return (CAR[-10,10]) from the Fama-French 3-factor model. In columns (4) to (6) the dependent variable is the size-B/M adjusted cumulative abnormal return over the same 21-day event window. Controls include beginning of the year logarithm of market capitalization, log market-to-book, stock volatility and previous 12 months stock return. Industry × date FE are based on the Fama-French 12-industry classification. t-statistic based on standard errors clustered at the district court level are shown in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively. A complete list of definitions for these variables is provided in the Appendix.

	FF 3-factor CAR[-10,10]			Size-B/M CAR[-10,10]		
	(1)	(2)	(3)	(4)	(5)	(6)
Increase in LThreat (%)	-0.372^{***}	-0.349^{***}	-0.296^{**}	-0.334^{***}	-0.333^{**}	-0.284^{**}
	(-3.68)	(-3.82)	(-2.37)	(-3.91)	(-3.87)	(-2.56)
Controls	No	Yes	Yes	No	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
State × Date FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Date FE	No	No	Yes	No	No	Yes
Observations	67,129	67,129	63,737	67,129	67,129	63,737
Adjusted R^2	0.04	0.06	0.07	0.11	0.11	0.14

Table 4: Long-Term Effect of the Threat of Lawsuits on Stock Returns

This table presents results of long-term event studies around changes in courts' judicial benches. The treatment group is composed of firms exposed to an increase in the threat of lawsuits due to changes in court composition, while the control group is composed of firms operating in the same state but in federal districts that do not experience the event. Columns (1) to (3) use as dependent variable the 12-months cumulative abnormal return (CAR[0,12]) from the Fama-French 3-factor model. In columns (4) to (6) the dependent variable is the buy-hold size-B/M adjusted return over the same 12-month window. Controls include beginning of the year logarithm of market capitalization, log market-to-book, stock volatility and previous 12 months stock return. Industry × date FE are based on the Fama-French 12-industry classification. t-statistic based on standard errors clustered at the district court level are shown in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively. A complete list of definitions for these variables is provided in the Appendix.

	FF 3-factor CAR[0,12]			Size-B/M Buy-Hold[0,12]		
	(1)	(2)	(3)	(4)	(5)	(6)
Increase in LThreat	-0.019^{***}	-0.015^{***}	-0.015^{**}	-0.015^{***}	-0.014^{**}	-0.016^{***}
	(-3.90)	(-4.00)	(-2.51)	(-3.72)	(-2.70)	(-3.05)
Controls	No	Yes	Yes	No	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
State × Date FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Date FE	No	No	Yes	No	No	Yes
Observations	46,362	46,362	45,684	67,129	67,129	63,737
Adjusted R^2	0.19	0.20	0.22	0.14	0.22	0.26

Table 5: Controlling for Local Heterogeneity and Robustness Tests

This table presents results of short-term event studies around changes in courts' judicial benches. The treatment group is composed of firms exposed to an increase in the threat of lawsuits due to changes in court composition, while the control group is composed of firms operating in the same state but in federal districts that do not experience the event. In Panel A and Panel C, the dependent variable is either the 21-day cumulative abnormal return from the Fama-French 3-factor model (FF-3) or the size-B/M adjusted cumulative abnormal return over the same 21-day event window (Size-BM). In Panel B and Panel D, the dependent variable is either the 12-months cumulative abnormal return from the Fama-French 3-factor model (FF-3), or the buy-hold size-B/M adjusted return over the same 12-month window (Size-BM). Panel A and Panel B show results obtained by substituting state *times* date FE with MSA *times* date FE (columns (1) and (3), or CSA *times* date FE (columns (2) and (4)). Panel C and Panel D show results obtained by restricting the sample of judge turnover to episodes of death or retirement upon reaching the retirement age (columns (1) and (2), or by excluding firms changing headquarters (columns (2) and (4)). t-statistic based on standard errors clustered at the district court level are shown in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively. A complete list of definitions for these variables is provided in the Appendix.

Panel A: Controlling for Local Heterogeneity – Short-Term Returns

	FF 3-factor CAR[-10,10]		Size-B/M CAR[-10,10]	
	(1)	(2)	(3)	(4)
Increase in LThreat (%)	-0.651^{***}	-0.601^{***}	-0.599^{***}	-0.523^{***}
	(-4.57)	(-4.46)	(-3.58)	(-3.26)
Controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
MSA × Date FE	Yes	No	Yes	No
CSA × Date FE	No	Yes	No	Yes
Observations	58,396	53,235	58,396	53,235
Adjusted R^2	0.06	0.06	0.12	0.12

Panel B: Controlling for Local Heterogeneity – Long-Term Returns

	FF 3-factor CAR[0,12]		Size-B/M Buy-Hold[0,12]	
	(1)	(2)	(3)	(4)
Increase in LThreat	−0.020***	−0.023***	−0.016***	−0.013**
	(−4.65)	(−2.98)	(−3.01)	(−2.26)
Controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
MSA × Date FE	Yes	No	Yes	No
CSA × Date FE	No	Yes	No	Yes
Observations	40,344	36,861	58,578	54,101
Adjusted R^2	0.06	0.12	0.21	0.20

Panel C: Robustness Tests – Short-Term Returns

	Death or Retirement		Excluding Movers	
	FF3	Size-BM	FF3	Size-BM
Increase in LThreat (%)	−0.293**	−0.282**	−0.383***	−0.360***
	(−2.03)	(−2.31)	(−3.12)	(−3.25)
Controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
State × Date FE	No	No	Yes	Yes
Observations	51,360	51,360	52,272	52,272
Adjusted R^2	0.06	0.12	0.06	0.12

Panel D: Robustness Tests – Long-Term Returns

	Death or Retirement		Excluding Movers	
	FF3	Size-BM	FF3	Size-BM
Increase in LThreat	−0.013**	−0.013**	−0.011**	−0.014***
	(−2.28)	(−2.14)	(−2.49)	(−2.73)
Controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
State × Date FE	No	No	Yes	Yes
Observations	32,175	58,783	37,183	55,103
Adjusted R^2	0.20	0.23	0.20	0.23

Table 6: The Threat of Lawsuits and Firm Investment and Risk Choices

This table reports coefficients from firm-level panel regressions of R&D expenditure, citation-weighted number of patents and risk variables on *LThreat*, controls, firm FE, state × year FE and industry × year FE. *LThreat* is the average district court ideology score. Controls include beginning of year logarithm of market capitalization, log market-to-book, stock volatility (columns (1) and (2) only), leverage and profitability. A complete list of definitions for dependent and independent variables is provided in the Appendix. Industry × date FE are based on the Fama-French 12-industry classification. *t*-statistic based on standard errors clustered at the district court level are shown in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

	R&D Expenditure	Cite-Weighted Patent	Stock Vol.	Idiosyncratic Vol.
	(1)	(2)	(3)	(4)
LThreat	-0.017^{**}	-0.727^{**}	-0.072^{***}	-0.063^{***}
	(-2.41)	(-2.02)	(-3.82)	(-3.24)
Controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
State × Year FE	Yes	Yes	Yes	Yes
Industry × Year FE	Yes	Yes	Yes	Yes
Observations	62,828	45,207	62,828	62,828
Adjusted R^2	0.74	0.60	0.54	0.54

Table 7: The Threat of Lawsuits, Firm Earnings and Earnings Management

This table reports coefficients from firm-level panel regressions of firm's earnings surprises and discretionary accruals on *LThreat*, controls, firm FE, state × date (year-quarter) FE and industry × date FE. *LThreat* is the average district court ideology score. Controls include beginning of quarter logarithm of market capitalization, log market-to-book, stock volatility, previous 12 months stock return and profitability (column (3) only). A complete list of definitions for dependent and independent variables is provided in the Appendix. Industry × date FE are based on the Fama-French 12-industry classification. *t*-statistic based on standard errors clustered at the district court level are shown in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

	Actual−Forecast	$0 \leq$ A−F$\leq$ P^{+}_{25}	Discretionary Accruals
	(1)	(2)	(3)
LThreat	0.006***	0.063**	0.007***
	(3.90)	(2.21)	(2.69)
Controls	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
State × Date FE	Yes	Yes	No
Industry × Date FE	Yes	Yes	No
Observations	202,135	202,135	175,435
Adjusted R^2	0.17	0.11	0.11

Table 8: The Threat of Lawsuits and Bondholder Returns

This table presents results of event studies around changes in courts' judicial benches. The treatment group is composed of firms exposed to an increase in the threat of lawsuits due to changes in court composition, while the control group is composed of firms operating in the same state but in federal districts that do not experience such event. All columns use as dependent variable bond abnormal return computed as the difference between the event bond return over the [-10,10] window and the return of portfolio of bonds matched on time-to-maturity and rating over the same [-10,10] window. Controls include beginning of year logarithm of market capitalization, log market-to-book, stock volatility, previous 12 months stock return and profitability. Industry FE are based on the Fama-French 12-industry classification. t-statistic based on standard errors clustered at the district court level are shown in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

	(1)	(2)	(3)
Increase in LThreat (%)	0.101***	0.099***	0.095**
	(3.02)	(2.76)	(2.56)
Controls	No	Yes	Yes
Firm FE	Yes	Yes	Yes
State × Year FE	Yes	Yes	Yes
Industry FE	No	No	Yes
Observations	5,061	5,061	4,350
Adjusted R^2	0.14	0.15	0.22

Table 9: The Threat of Lawsuits Effect across Firm and Manager Characteristics

This table reports results of subsample analyses using event studies around changes in courts' judicial benches. In Panel A, I report results of subsample analyses based on above and below median CEO tenure, Altman z-score and default probability, as defined using the "naïve" measure of Bharath and Shumway (2008). Panel B reports results of subsample analyses based on above and below median percentage of independent directors, blockholder ownership and top 5 institutional investor ownership. All columns present results from equation (3). A complete list of definitions for these variables is provided in the Appendix. Controls include beginning of year logarithm of market capitalization, log market-to-book, stock volatility and previous 12 months stock return. t-statistic based on standard errors clustered at the district court level are shown in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

Panel A: Variation in Managers' Reputation and Career Concerns

	CEO Tenure		Altman z		Default Probability	
	Low	High	Low	High	Low	High
Increase in LThreat (%)	−0.123	−0.608***	−0.427***	−0.251	−0.224	−0.522**
	(−0.71)	(−5.42)	(−3.36)	(−1.61)	(−1.42)	(−2.53)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
State × Date FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	19,762	17,814	27,827	30,251	29,430	28,816
Adjusted R^2	0.07	0.09	0.09	0.08	0.08	0.07

Panel B: Variation in Firm Corporate Governance

	Independent %		Blockholder %		Top 5 %	
	Low	High	Low	High	Low	High
Increase in LThreat (%)	−0.222	−0.405**	−0.535***	−0.054	−0.544***	−0.137
	(−1.02)	(−2.36)	(−2.80)	(−0.53)	(−2.66)	(−1.25)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
State × Date FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Date FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	13,942	11,470	25,682	34,117	25,194	34,679
Adjusted R^2	0.07	0.10	0.06	0.08	0.06	0.09

Figure 1: Short-Term Market Reaction to Changes in the Threat of Lawsuits

This figure plots cumulative point estimates from equation (4), using daily abnormal returns from Fama-French-Carhart 3-factor model as dependent variable. An event is defined as the day in which a change in a court's judicial panel leads to an increase in the threat of lawsuits. The regression includes dummies for days in event time, firm FE and state × date FE. The graph also shows the 95% confidence interval.

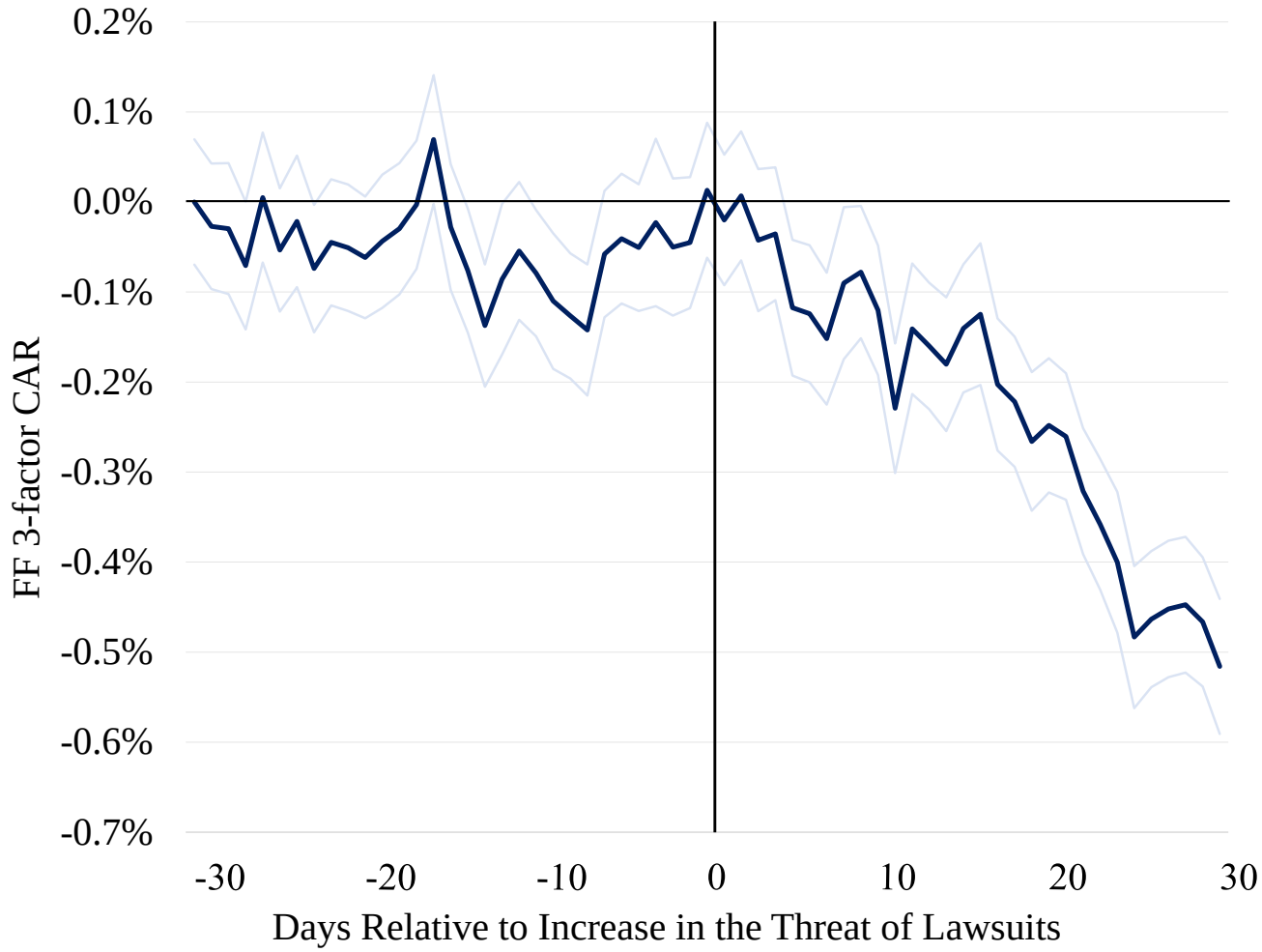
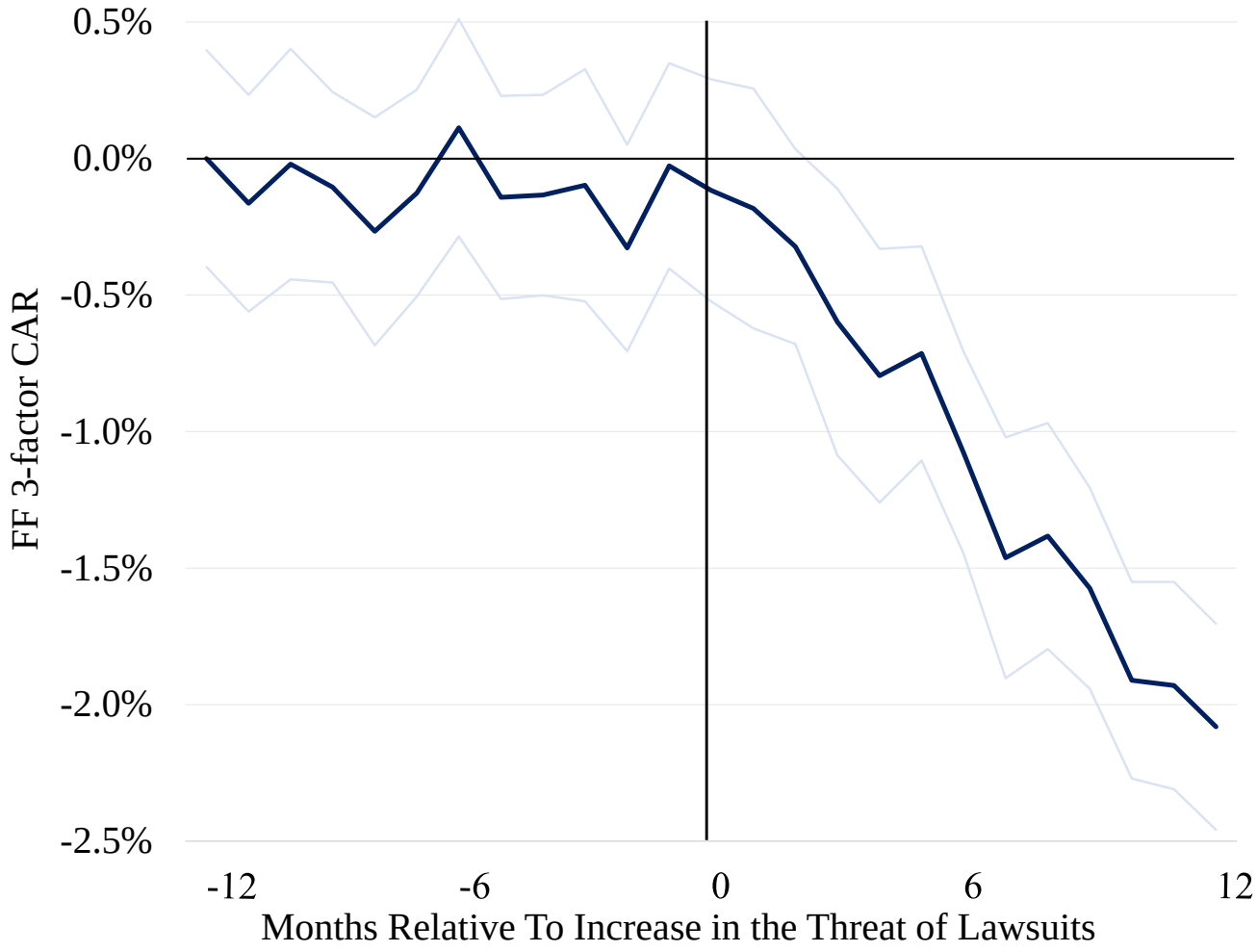


Figure 2: Long-Term Market Reaction to Changes in the Threat of Lawsuits

This figure plots cumulative point estimates from equation (4), using monthly abnormal returns from Fama-French 3-factor model as dependent variable. An event is defined as the month in which a change in a court's judicial panel leads to an increase in the threat of lawsuits. The regression includes dummies for months in event time, firm FE and state × date (year-month) FE. The graph also shows the 95% confidence interval.



APPENDIX

A Description of Variables

Variable	Description
Main independent variable	
LThreat	Average Giles, Hettinger, and Peppers (2001) ideology score at the federal district court level. Computed including all active judges in a given year, excluding senior judges. The measure ranges from -1, for most corporation-friendly judges, to +1, for most investor-friendly judges.
Dependent variables	
FF 3-factor CAR [-10,10]	Cumulative abnormal returns over the 21-day window around the change in a court's panel of judges, calculated using the Fama-French 3-factor model estimated over trading days $(-231,-31)$.
Size-B/M CAR [-10,10]	Cumulative abnormal returns over the 21-day window around the change in a court's panel of judges, calculated as stock i's return in excess of stock i's benchmark portfolio return over the same 21-day window. The benchmark portfolio is the corresponding 25 Fama and French portfolios formed on size and book-to-market.
FF 3-factor CAR [0,12]	Cumulative abnormal returns over the 12 months after the change in a court's panel of judges, calculated using the Fama-French 3-factor model estimated over the past 60 months.
Size-B/M Buy-Hold [0,12]	Cumulative abnormal returns over the 12 months after the change in a court's panel of judges, calculated as stock i's return in excess of stock i's benchmark portfolio return over the same 12 months. The benchmark portfolio is the corresponding 25 Fama and French portfolios formed on size and book-to-market.
R&D Expenditure	Measured as $\text{R\&D}_t/\text{Assets}_{t-1}$. Where R&D is R&D expenditure (XRD) at the end of December year t and Assets is book value of assets (AT) at the end of December year $t-1$. If R&D expenditure is missing, I substitute with 0.
Cite-weighted Patent	Count of a firms number of patents weighted by future citations received and adjusted for truncation (as in Hall, Jaffe, and Trajtenberg (2005))
Stock Volatility	Square root of the sum of squared daily returns over calendar year $t-1$. To adjust for differences in the number of trading days, the raw sum is multiplied by 252 and divided by the number of trading days. Calculated from CRSP.
Idiosyncratic Volatility	Square root of the sum of squared residuals from 3–factors model estimated from daily returns over calendar year $t-1$. To adjust for differences in the number of trading days, the raw sum is multiplied by 252 and divided by the number of trading days. Calculated from CRSP.
Actual−Forecast	Difference between the actual quarterly earnings and the analyst consensus earnings forecast. The former is defined as the announced quarterly earnings as reported by I/B/E/S, divided by the book value of equity per share at the end of the corresponding fiscal quarter. The latter is defined as the median of all 1- or 2-quarter-ahead forecasts issued or reviewed in the last 60 days before the earnings announcement by analysts covering the firm, divided by the book value of equity per share at the end of the corresponding fiscal quarter.

$0 \leq$ A$-$F$\leq$ P^{+}_{25}	Indicator variable that takes value 1 if the difference between the actual quarterly earnings and the analyst consensus earnings forecast is between 0 and the 25th percentile of the non-negative distribution of Actual$-$Forecast.
Discretionary Accruals	Residuals from the following regression $TA_{iq} = \alpha_1(1/ATQ_{iq-1}) + \alpha_2(\Delta REV_{iq} - \Delta REC_{iq}) + \alpha_3(PPE_{iq})$ where TA is total accruals; ATQ is quarterly book value of assets; ΔREV is revenues (REVTQ) in quarter q less revenues in quarter $q-1$ scaled by lagged total assets; ΔREC is accounts receivables (RECTQ) in quarter q less accounts receivables in quarter $q-1$ scaled by lagged total assets; and PPE is gross property plant and equipment in quarter q scaled by lagged total assets.
Abnormal Bond Return[-10,10]	Abnormal firm-level bond returns over the 21-day window around the change in a court's panel of judges, calculated as firm i's bond return less firm i's benchmark portfolio bond return over the same 21-day window. The benchmark portfolio is composed of bonds matched on time-to-maturity and rating. I create maturity and rating categories as in Bessembinder, Kahle, Maxwell, and Xu (2008). To obtain a firm-level abnormal return, I value-weight the different bond issues of the same firm.
Settlement Probability	Indicator variable equal to 1 when a shareholder class action lawsuit terminates with a settlement. In the few cases in which the case goes to trial (21 cases since 1996), the indicator takes value 1 if the trial ends with an outcome in favor of investors.
Shareholder CA by t = 3	Indicator variable equal to 1 for firms that are defendants in a shareholder class action lawsuit in the following 3 years.
Other variables	
Log of Market Capitalization	Natural logarithm of price times shares outstanding from CRSP.
Log Market-to-Book	The natural log of the ratio of the market value of equity to the book value of equity. Book equity is total book value of assets, minus total liabilities, plus balance sheet deferred taxes and investment tax credit if available, minus preferred stock liquidating value if available, or redemption value if available, or carrying value. Market equity is price times shares outstanding from CRSP.
Leverage	Ratio of long-term debt (DLTT) plus short-term debt (DLC) over the lagged book value of assets (AT).
Return_{t-1}	Cumulative annual stock return over the 12 months of calendar year $t-1$.
CEO Tenure	The number of years the executive has been CEO at this firm as of year t. Computed from ExecuComp supplemented by BoardEx.
Default Probability	The "naïve" measure of defaut probability constructed as in Bharath and Shumway (2008).
Altman z	Defined as $0.33 \times EBIT/TotalAssets + 1.0 \times Sales/TotalAssets + 1.4 \times RetainedEarnings/TotalAssets + 1.2 \times WorkingCapital/TotalAssets$.
Independent %	The fraction of independent (outside) directors sitting on the board of the firm in year t. Computed from BoardEx.
Blockholder %	The fraction of shares outstanding held by blockholders in year t. Calculated from Thomson Reuters Institutional Managers (13f) Holdings.
Top 5 %	The fraction of shares outstanding held by the top 5 institutional investors in year t. Calculated from Thomson Reuters Institutional Managers (13f) Holdings.

B U.S States and Federal District Courts

This table shows the number of federal district courts in each of the U.S states and territories.

State	# Courts	State	# Courts
Alabama	3	Nebraska	1
Alaska	1	Nevada	1
Arizona	1	New Hampshire	1
Arkansas	2	New Jersey	1
California	4	New Mexico	1
Colorado	1	New York	4
Connecticut	1	North Carolina	3
Delaware	1	North Dakota	1
Florida	3	Northern Marinara	1
Georgia	3	Ohio	2
Guam	1	Oklahoma	3
Hawaii	1	Oregon	1
Idaho	1	Pennsylvania	3
Illinois	3	Puerto Rico	1
Indiana	2	Rhode Island	1
Iowa	2	South Carolina	1
Kansas	1	South Dakota	1
Kentucky	2	Tennessee	3
Louisiana	3	Texas	4
Maine	1	Utah	1
Maryland	1	Vermont	1
Massachusetts	1	Virgin Islands	1
Michigan	2	Virginia	2
Minnesota	1	Washington	2
Mississippi	2	West Virginia	2
Missouri	2	Wisconsin	2
Montana	1	Wyoming	1

Table B.2: The Threat of Lawsuits and Shareholder Class Action Lawsuits

The table reports coefficients from firm-level panel regressions of an indicator for shareholder class actions in the next 3 or 5 years on *LThreat*, firm FE, state × year FE and, in specification (2) and (3), industry × year FE. *LThreat* is the average district court ideology score. Results are based on equation (3). In columns (1) and (2), the dependent variable is an indicator equal to 1 if a firm is defendant in a shareholder class action lawsuit in the next 3 years, while in columns (3) and (4) the indicator variable takes value 1 if a firm is defendant in a lawsuit in the next 5 years. A complete list of definitions for these variables is provided in the Appendix. Industry × year FE are based on 4-digit industry sic codes. Standard errors clustered at the district court level are shown in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

	Shareholder CA by t = 3		Shareholder CA by t = 5	
	(1)	(2)	(3)	(4)
LThreat	-0.086^{***}	-0.072^{**}	-0.137^{***}	-0.113^{**}
	(0.03)	(0.04)	(0.04)	(0.05)
Controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
State × Year FE	Yes	Yes	Yes	Yes
Industry × Year FE	No	Yes	No	Yes
Observations	52,200	52,200	52,200	52,200
Adjusted R^2	0.20	0.21	0.35	0.36

Table B.3: Effect of Large Increases in the Threat of Lawsuits on Stock Returns

This table presents results of event studies around changes in courts' judicial benches. In this table, I focus on large changes in the threat of lawsuits. The treatment group is composed of firms exposed to an increase in the threat of lawsuits that is at least equal to the 75th percentile of the distribution of changes, while the control group is composed of firms operating in the same state but in federal districts that do not experience any increase in the threat of lawsuits. Columns (1) and (2) use as dependent variable the 21-day cumulative abnormal return (CAR[-10,10]) from the Fama-French 3-factor model. In columns (3) and (4) the dependent variable is the 12-months cumulative abnormal return (CAR[0,12]) from the Fama-French 3-factor model. Controls include beginning of the year logarithm of market capitalization, log market-to-book, stock volatility and previous 12 months stock return. Industry × date FE are based on the Fama-French 12-industry classification. t-statistic based on standard errors clustered at the district court level are shown in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively. A complete list of definitions for these variables is provided in the Appendix.

	FF 3-factor CAR[-10,10]		FF 3-factor CAR[0,12]	
	(1)	(2)	(3)	(4)
Large Increase in LThreat (%)	−0.691**	−0.818*	−0.032*	−0.041**
	(−2.01)	(−1.87)	(−1.91)	(−2.46)
[Control variables omitted from table]				
Firm FE	Yes	Yes	Yes	Yes
State × Date FE	Yes	Yes	Yes	Yes
Industry × Date FE	No	Yes	No	Yes
Observations	5,918	5,419	2,901	2,560
Adjusted R^2	0.06	0.05	0.20	0.22

Figure B.1: Federal Court System

This figure shows the distribution of federal district courts and federal circuits among the U.S. states and territories. (available at http://www.uscourts.gov/about-federal-courts/federal-courts-public/court-website-links)