

Corporate Investment Under the Cloud of Litigation

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Abstract

We study the effect of legal risk on firms' investment. Using legal risk measures based on the number of litigious words in SEC 10-K filings, we find legal risk reduces investment. Underlying mechanisms include both i) a financing channel, whereby legal risk reduces credit ratings, increases bank loan costs, and decreases borrowing, and ii) an attention channel, whereby legal risk consumes top-management's attention. Accordingly, we find legal risk has negative effects on firms' investment efficiency and stock performance. We address endogeneity concerns through a DiD analysis utilizing staggered adoptions of universal demand laws across states.

Keywords: Legal risk, Investment, SEC 10-K filing

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“Bank of America has agreed to pay a \$16.65 billion settlement to end federal and state investigations into the sale of toxic mortgage securities during the subprime housing boom.”

---LA Times Aug 21, 2014

“In the smartphone industry alone, \$20 billion was spent on litigation in the last two years — an amount equal to eight Mars rover missions.”

---New York Times Oct 8, 2012

1. Introduction

Over the past two decades, US legal expenses have exceeded \$4 trillion. On average, annual legal expenses are \$192 billion and account for approximately 1.4% of GDP (see Figure 1).¹ US corporations bear a significant fraction of those staggering legal expenses. Firms in every line of business are exposed to legal risk, which can cause both financial and reputational losses. In 2015 alone, there were over 160,000 firm-related lawsuits filed in US District Courts.² Since 2000, legal settlements paid by US firms total more than \$1T dollars, with the amount of these settlements rising at approximately 5% per year. As evidence that these settlements can be significant at the firm level, Bank of America paid \$16.65 billion to resolve legal issues in 2014,³ JP Morgan Chase paid \$13 billion in 2013,⁴ while Wells Fargo has paid over \$3.6 billion in the first eight months of 2018.⁵ In addition to these financial costs, lawsuits also impose other costs on firms. Top management spends a significant amount of their time dealing with legal issues (Ocasio, 1997, and Shepherd, McMullen, and Ocasio, 2017). For example, since the Wells Fargo fake accounts scandal, the firm has been named as the defendant in 383 new

¹ Legal expenses do not include settlements, only costs related to lawyer and paralegal salaries, etc. Data is from the Bureau of Economic Analysis (BEA).

² US Federal District Court cases from 2015 can be found here:

http://www.uscourts.gov/sites/default/files/data_tables/fjcs_c2_0331.2016.pdf. Firm-related cases include the following types: Bankruptcy, Antitrust, Labor Laws, Contract, Personal Injury, Forfeiture and Penalty, Intellectual Property Rights, SEC, Social Security, Tax, and Cable/Satellite TV, Civil Rights – Employment, Banks and Banking, Consumer Credit.

³ <http://www.latimes.com/business/la-fi-bank-of-america-settlement-justice-mortgage-countrywide-20140821-story.html>

⁴ <https://www.reuters.com/article/us-jpmorgan-settlement-idUSBRE9AI00A20131120>

⁵ <https://www.reuters.com/article/us-wells-fargo-penalty/wells-fargo-to-pay-2-09-billion-fine-over-loan-quality-doj-idUSKBN1KM5TR>

lawsuits in the two years since the scandal, which certainly consumed a significant amount of top management's time. In the case of Wells Fargo, there were further legal-related time demands; their previous and current CEOs, John Stumpf and Timothy Sloan, were both called to testify before Congress about the recent Wells Fargo account fraud scandal.⁶

Legal risk can affect a multitude of corporate policies, including M&A decisions, R&D spending, IPO pricing, and executive compensation (see Lowry and Shu, 2002, Lin, Liu, and Manso, 2016, Gormley and Matsa, 2011, Hanley and Hoberg, 2012, Laux and Stocken, 2012, and Gormley, Matsa, and Milbourn, 2013). Regarding investment, one of the most important firm decisions, it might sound intuitive that higher legal risk leads to higher uncertainty, which can decrease investment. However, it is also possible that firms allocate resources into new projects and diversify their businesses as a hedge of future legal risk, and as a result, increase investment (Gormley, Matsa, and Milbourn, 2013). To our knowledge, there is no conclusive evidence about the effect legal risk has on firm-level investment. In this paper, we focus on how firms' legal risk affects corporate investment and study the underlying mechanisms.

As legal risk consumes a significant amount of firm resources, we expect that it has a negative effect on investment and provide scientific evidence for this effect. We propose two channels related to two key components of investment: capital and labor. Accordingly, the first channel is the *financing channel* whereby legal risk increases financing costs (cost of capital), and the second channel is the *attention channel* related to the time demands placed on top management as a result of legal issues facing the firm. We find supportive evidence for both channels.

While legal risk is very important, it is challenging to construct an appropriate measure for firm-level legal risk. Existing research uses indicator variables to measure a firm's legal risk. Kim and Skinner (2012) use a dummy variable (KS dummy) based on a firm being involved in a class action lawsuit while earlier work that begins with Francis, Philbrick and Schipper (1994), uses a dummy variable (FPS dummy) based on a firm being in an industry with a "high incidence of litigation". While both of these variables are ways to measure legal risk, they do not capture a firm's total legal risk. Realistically, these measures either capture i) an industry component of legal risk (FPS dummy) or ii) the legal risk related to wrongdoing by the firm

⁶ For a description of the scandal, see here: https://en.wikipedia.org/wiki/Wells_Fargo_account_fraud_scandal

that affects multiple firms (KS dummy). However, these two measures only capture a small portion of a firm's total legal risk. For example, the KS measure does not account for any type of legal risk that is business-to-business (for example, if Samsung sues Apple there can be no class action lawsuit).⁷ And the FPS measure does not account for any differences in firm risk within industries (assumes all firms within an industry face the same legal risk).

In contrast, our measures of legal risk are constructed using textual analysis from firms' SEC 10-K filings. In these annual reports, firms have an obligation to disclose information regarding their existing or ongoing *material* legal issues to shareholders. These disclosures are not restricted to any specific type of legal issue. Thus, these SEC filings include valuable information on general legal risk. Our measures seek to quantify a firm's *total* legal risk and have the advantage of being constructed based on firms' own concerns about legal risk. While other existing measures are based on past events, our measures are based on contemporaneous and upcoming issues facing the company. If a firm is writing its annual report and is aware of some future or pending material legal risk, they must disclose it. Further, the general counsel and executives of the firm likely have the best information regarding the firm's legal risk. As such, they are the best source of a legal risk measure.⁸

We extract this information by parsing 10-K filings for a large sample of US public firms. Specifically, we follow the Loughran-McDonald Master Dictionary (Loughran and McDonald, 2011) and identify an initial list of litigious words.⁹ As we are trying to measure risk, we want words that reflect firms' concerns about legal-related losses and costs. Therefore, within the initial list of litigious words in the dictionary, we further narrow our final list of litigious words by focusing on those with a negative connotation. We then count the number of words in our final list of litigious words in firms' 10-K annual reports. A larger number of litigious words in 10-K filings should reflect a larger concern about legal risk.

⁷ As evidence that class action lawsuits are only a small portion of total legal risk, approximately 3% of all firms face a class action lawsuit in any given year, while approximately 15% of all firms have a significant lawsuit in a given year.

⁸ Corroborating our legal risk measures, in unreported tests we conduct logit regressions with a lawsuit dummy as the dependent variable, the KS dummy, the FPS dummy, our legal risk measures and our set of control variables. In all tests our measures are more significant than the two legal dummies.

⁹ We thank Loughran and McDonald for sharing the word lists at https://www3.nd.edu/~mcdonald/Word_Lists.html.

Using our firm-level legal risk measure, we find that legal risk is negatively associated with investment after controlling for Tobin's q , cash flows, firm size, and other firm characteristics, and both firm and year fixed effects. The economic magnitude of the association is also significant. Specifically, a one-standard-deviation increase in legal risk is associated with a 7% decrease in corporate investment.

Interpreting these associations, however, is naturally difficult because of numerous identification concerns. Reverse causality could be one important concern. For example, when a firm has many investment opportunities, it may have more options to avoid legal issues. If this would be the case, we could observe a negative association between investments and legal risk. Another concern is the issue of omitted variables. There might also be a third, unobservable factor that actually drives legal risk and investment in opposite directions. For example, severe competition makes it more difficult for firms to have profitable projects, but leads to more conflicts among rivals, which could result in legal issues. If this was the case, we could also observe a negative association between legal risk and investment.

We address these potential endogeneity concerns using a difference-in-differences (DiD) approach based on the staggered adoption of universal demand (UD) laws across different states in the US. These UD laws make it more difficult for shareholders to sue their directors or officers for breach of fiduciary duty, and in turn decrease firms' legal risk. Importantly, these state-level legal shocks are exogenous to firm-related factors. Using the UD laws as our DiD identification, we find that they have a positive effect on investment. As the passage of UD laws reduces legal risk, the results support the causal effect of legal risk on investment.¹⁰

We further study the underlying mechanisms through which legal risk affects investment. Generally speaking, concerns about legal risk can consume firms' resources which could be used for investment activity. In particular, these resources can include both capital and labor. Financial and reputational costs may directly consume capital or increase overall borrowing

¹⁰ UD Law adoptions provide a clean setting to address potential endogeneity issues. However, as a shock to a specific law they may only affect some specific types of legal risk such as derivative lawsuits, rather than the total legal risk of firms. The internet appendix Table IA 11 shows that UD Laws are only related to 3 out of 14 lawsuit types. In contrast, our legal risk measures are strongly correlated with all 14 types of lawsuits, which justifies our legal risk measures as appropriate measures for firms' total legal risk.

costs. Regarding labor, top management's time may be the firm's most valuable firm resource and legal risk can occupy a significant fraction of top management's attention.

Consistent with the financing channel, we find that the effect of legal risk on investment is stronger in financially constrained firms. When focusing on external financing conditions, we find that the legal risk has negative effects on firms' credit ratings and bank loan costs. Accordingly, firms with higher legal risk obtain less debt financing. The evidence shows that legal risk increases costs of external financing, which reduces firms' financial flexibility and investment opportunities (positive-NPV projects).

Consistent with the attention channel, our findings show that concerns about legal risk consume the attention of top management. Specifically, we find that firms with higher legal risk have a larger number of lawsuits, more special calls, more special shareholder meetings, and more changes in firms' bylaws.¹¹ The time-related costs on top management leave them with less time and energy for investment.

Both the financing and attention channels predict that legal risk creates significant frictions in investment. These frictions can distort firms' investment strategy and decrease investment efficiency. For example, when firms have good growth opportunities but are involved in lawsuits, they are less likely to capture the opportunities through investments, which indicates a lower sensitivity of investment to growth opportunities and lower investment efficiency. Indeed, we find that legal risk has a significant and negative effect on firms' investment efficiency. We also find that legal risk has a negative effect on firms' stock performance. We do not claim a causal relationship between legal risk and stock return. Nevertheless, the negative effect on stock returns are consistent with the negative effect on investment.

Our paper makes the following contributions. First, we propose a new firm-level legal risk measure based on textual analysis of firms' 10-K filings. Second, it contributes to the literature on the effect of litigation risk on corporate behaviors, such as IPO underpricing (Hughes and Thakor, 1992, Lowry and Shu, 2002, Hanley and Hoberg, 2012), misreporting (Laux and Stocken, 2012), and governance (Appel, 2016). Third, our paper contributes to the literature on investment. Relevant studies show that frictions, such as financial constraints, have significant effects on investment (Fazzari, Hubbard, Petersen, Blinder, and Poterba, 1988, Almeida and

¹¹ Please see examples for these special events in Tables IA 12, 13, and 14.

Campello, 2007, Duchin, Ozbas, and Sensoy, 2010, Campello, Graham, and Harvey, 2010, and Kahle and Stulz, 2013). We provide evidence that legal risk is also an important friction that reduces both the level and the efficiency of investment.

The rest of the paper is organized as follows. Section 2 describes our data and variables. Section 3 reports results of baseline regressions. Section 4 addresses potential endogeneity concerns. Section 5 studies underlying mechanisms for the effect of legal risk on investment. Section 6 reports the effects of legal risk on investment efficiency, stock performance, and other robustness tests. Section 7 concludes.

2. Data and variables

2.1 Data and sample

Our firm-level accounting and credit rating data are from Compustat, stock-related data are from CRSP, and loan data are from DealScan. Firms' 10-K filings and SEC filings views and downloads are from the SEC.gov website. Our list of litigious words are drawn from the Loughran and McDonald's website. Data of lawsuits, special calls and meetings, and firms' bylaw changes are from Capital IQ. We only include firms with 10-K filing available. Our sample includes about 77,000 firm-year observations for 10,663 unique firms between 1996 and 2015 inclusive. We start from 1996 when electronic filing of 10-K's became mandatory.

2.2 Legal risk measures

2.2.1 Measure construction

Our legal risk measures are constructed using litigious word counts found in firm 10-K filings at the SEC.gov website. Firms' 10-K filings are their annual reports to shareholders. All US public firms must file these forms on an annual basis and must do so within 90 days of their fiscal year end. These forms disclose firm-related and legal information to shareholders. Two areas of potential legal disclosures in the standardized 10-K form are: Item 1A on "Risk Factors" and Item 3 on "Legal Proceedings". Additionally, many firms disclose additional legal information in the appendix.¹²

To construct our legal risk measures, we parse all electronic 10-K filings available and count the number of words in a list of litigious words. Specifically, following the Loughran-

¹² For example, see Note 15 on pages 213 – 215 of Wells Fargo's 2016 Annual Report here: <https://www08.wellsfargomedia.com/assets/pdf/about/investor-relations/annual-reports/2016-annual-report.pdf>

McDonald Master Dictionary we first identify an initial list of litigious words for financial text. The initial list of litigious words includes 731 words. To reflect firms' concerns about losses in legal issues, within the initial list we further identify our final list of litigious words by focusing on the litigious words that have a negative connotation (Loughran and McDonald, 2011).

There are important differences between litigious words in general and litigious words with a negative connotation. Examples of the most common litigious words are *shall*, *herein* and *amended*. Examples of words that are both litigious and negative words are *litigation*, *defendant* and *breach*. Whereas *shall* has to do with future tense or an instruction and is unlikely related to firm's legal risk, *litigation*, which means legal action, is related to a firm's legal risk. Table IA 1 shows a list of the 30 most common words which are both litigious and negative (these are words we use in our counts). Our final list includes 154 such litigious words with a negative connotation. We then count the number of words in our final list of litigious words for each 10-K filing available on SEC official website.

Figure 2 presents the time series of the average number of litigious words in firm 10-Ks. Over our sample period, the average number of litigious words has doubled. The firms with the highest legal risk mention these litigious words over 600 times. For some firms, litigious words are more than 1% of the total words. Bank of America is one such firm in our sample.

Figure 3 shows the time series of two variables. The blue dash line is for the number of firms with lawsuits in a year, corresponding to the left-hand axis. The red solid line is for the average litigious word counts in a year. The figure shows that these two time series are highly correlated. In fact, the correlation between them is 0.8. This implies that when more firms are involved in lawsuits, firms use more litigious words in their 10-K filings on average.

Based on our litigious word counts, we create two measures of legal risk for our regression analysis. The first measure, $Log(Legal)$, is constructed by taking the natural logarithm of the average litigious words across the previous three years. This measure reflects firms' average legal concerns across previous years, which serves well as a legal risk measure in the current year and shows the persistence of firms' concerns about legal risk.¹³ This measure uses the

¹³ Our results are not sensitive to the three-year time window and are robust when using measures based on a two-year window or lagged measures. These robustness tests are reported in the online Appendix Table IA 5.

total number of litigious words in 10K filings without any scaling, which is consistent with the intuition that larger firms are more likely to have interest conflicts with others and be involved in legal issues. Larger firms tend to have longer 10K filings, but are unlikely to include more litigious words with negative connotation in their filings when they have no concerns about legal risk.

The second measure, *Legal scaled*, is defined as the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm’s 10K filing in a year. This is a measure addressing the potential concerns that longer 10K filings might be more likely to have any type of words, including litigious words.¹⁴ We believe this is not a major concern but still use *Legal scaled* as an alternative measure for legal risk. Both measures deliver consistent results in our analysis.

2.2.2 Lawsuit and settlement payment predictability

As evidence that our legal risk measures are valid and related to actual firm-level legal risk, we consider their capacity to predict future firm lawsuits and settlement payments. First, we obtain firm lawsuit data from Capital IQ and create a lawsuit dummy variable, *Lawsuit*. This variable is equal to one for a firm that has a lawsuit in a given year and zero otherwise. Second, we construct a dummy variable, *Settlement*, which is related to US Federal District Court Case settlement payments. Specifically, *Settlement* equals one if a firm pays any settlement in a given year and zero otherwise. We then run the following logit regression¹⁵:

$$Y_{it} = \beta_0 + \beta_1 \cdot LegalRisk_{it-1,t-3} + X_{it} \cdot \Gamma + \delta_j + \vartheta_t + \varepsilon_{it}$$

where i is the firm index, j is the industry index, t is the year index, Y is *Lawsuit* or *Settlement*, $LegalRisk_{it-1,t-3}$ is a legal risk measure, X is the vector of control variables, Γ is the coefficient vector for the control variables, δ_j is the industry fixed effect, ϑ_t is the year fixed effect, and ε_{it} is the error term.

The results are presented in Table 2. Both legal risk measures are positively associated with lawsuits and settlement payments, and statistically significant at the 1% level. These results are

¹⁴ We also use alternative scaled legal risk measures, such as scaled by the total amount of words or total pages of a firm’s 10K filing. The relevant results are robust and reported in the Internet Appendix Table IA 4.

¹⁵ We also run these tests using a linear probability model and the results are robust. These results are in the Internet Appendix Table IA 6.

strong evidence that our legal risk measures are in fact closely related to future lawsuits and lawsuit-related damages. For example, the result in Column 1 shows that a one-standard-deviation increase in $\text{Log}(\text{Legal})$ increases the odds of lawsuits by 1.5 times. The results here fully support the validity of our legal risk measures.

2.3 Other variables

Our main dependent variable, Investment, is defined as capital expenditures scaled by total assets. Following the literature on investment, we control Tobin's q, cash flow, book value of total assets, leverage, and cash holdings. Tobin's q is expected to be positively associated with investment, and Leverage is expected to be negatively associated with investment (Myers, 1977, and Lang, Ofek, and Stulz, 1996). Definitions of all variables can be found in the Appendix. Table 1 presents summary statistics, where we see that an average firm in our sample has 210 negative litigious words in its 10-K.

3. Baseline results

Higher legal risk can impose a strain on the firm's access to external financing, consume a large amount of the firm leadership's time, and consume funds that could be invested in positive NPV projects. Therefore, we expect that legal risk has a negative association with investment. Our baseline specification regresses investment on legal risk and controls for firm-characteristics, firm fixed effects and year fixed effects:

$$\text{Investment}_{it} = \beta_0 + \beta_1 \cdot \text{LegalRisk}_{it-1,t-3} + X_{it} \cdot \Gamma + \mu_i + \vartheta_t + \varepsilon_{it}$$

where i is the firm index, t is the year index, $\text{LegalRisk}_{it-1,t-3}$ is one of the legal risk measures, X is the vector of control variables, Γ is the coefficient vector for the control variables, μ_i is the firm fixed effect, ϑ_t is the year fixed effect, and ε_{it} is the error term.

Results of these tests are reported in Table 3. The first three columns use $\text{Log}(\text{Legal})$ as the measure of legal risk, while the last three columns use Legal scaled . All columns control for firm and year fixed effects. Columns 1 controls for Tobin's q and cash flow, Column 2 adds firm size in the control list, and Column 3 further controls Cash Ratio and Leverage. The results are very robust in different specifications. The coefficients of $\text{Log}(\text{Legal})$ in the first three columns all equals to -0.004 and are all statistically significant at the 1% level. This indicates that a one-standard-deviation increase in legal risk is associated with a 7% reduction in investment. The results for Legal scaled are similar. Results in Columns 4 to 6 show that the

coefficients of *Legal scaled* are all negative and statistically significant at the 1% level. These results are consistent with the idea that legal risk has a negative effect on firms' investment.

4. Endogeneity

In this section, we address potential concerns about endogeneity through a difference-in-differences (DiD) approach. In our baseline regressions, we include firm fixed effects to control for firm level time-invariant omitted variables, and use lagged legal risk measures to reduce concerns about simultaneity or reverse causality. We are aware that there might be some time-variant omitted variables and lagged legal risk measures can mitigate but not eliminate the concerns about simultaneity or reverse causality. We now address these endogeneity concerns.

4.1 The DiD approach and universal demand laws

In this section, we carry out a DiD analysis based on exogenous shocks to firms' legal risk. Specifically, we use the staggered adoption of universal demand (UD) laws across different states in the US. On behalf of the firm, shareholders have the right to sue top management for breach of fiduciary duty. This type of lawsuits is called a shareholder derivative lawsuit. UD laws impose obstacles to such derivative lawsuits. Specifically, UD laws require shareholders to seek board approval before filing a derivative lawsuit against the firm. In practice, boards rarely approve such a request because senior leadership and directors are often defendants in such proposed lawsuits. The adoption of UD laws is a state-level event which brings exogenous shock to firms' legal risk.

There are existing studies that use the UD law adoption in research related to other firm policies, such as governance (Appel, 2016). There might be concerns that investment is not directly affected by UD law adoptions, but through changes in other firm policies, such as governance, caused by UD law adoption. However, we use UD law adoptions to address endogeneity concerns, rather than specific mechanisms. As long as the UD law adoptions are exogenous shocks to legal risk and have a significant effect on investment, it is not the concern here whether such an effect is a direct effect on investment or an indirect effect through other firm policies. The key is that UD law is the fundamental driver of the reduction in investment. In fact, most firm policies are endogenous and interdependent among each other. Therefore, it is very unlikely to find a shock that only affects a single firm policy. Finding new effects on

some firm policies does not violate the existing findings in literature, and equivalently, the existing findings do not restrain us from using the same shock for other firm policies.

4.1.1 Relationship between UD Law adoptions, lawsuits, and legal risk measures

Before we carry out DiD analysis on UD law adoptions, we investigate the relationship among the adoption of UD laws, actual lawsuits, and our litigious word counts. Results are reported in Table 4. Panel A presents a correlation matrix for litigious word counts, actual lawsuits, and the adoption of UD laws. The litigious word counts are negatively and significantly related to the passage of UD laws and positively and significantly related to actual firm lawsuits.

In Panel B of Table 4, we present results on the effect of UD laws adoption on changes of litigious word counts. UD laws are negative and statistically significant at the 5% level in both specifications. This is evidence that the passage of UD laws reduces firm-level legal risk.

4.1.2 DiD analysis

To carry out the DiD analysis based on UD laws, we define a treatment dummy, *UD Law*, which equals one if a firm's incorporation state has passed a UD law and zero otherwise. We drop firms that reincorporated during our sample period as they may have done so for a reason related to the passage of UD laws. The specification of our DiD analysis is as follows.

$$Investment_{it} = \beta_0 + \beta_1 \cdot UDLaw_{it} + X_{it} \cdot \Gamma + \mu_i + \vartheta_t + \varepsilon_{it},$$

where i is the firm index, t is the year index, X is the vector of control variables, Γ is the coefficient vector for the control variables, μ_i is the firm fixed effect, ϑ_t is the year fixed effect, and ε_{it} is the error term. Standard errors for these tests are clustered at the state of incorporation level. Results are reported in Table 5.

All tests show that the coefficient of *UDLaw* is positive and statistically significant at the 1% level. This indicates that exogenous shocks reducing a firm's legal risk have a positive impact on those firms' investment. In economic terms, the passage of a UD law results in a 12% increase in an average firm's investment level. These results are consistent with the argument that legal risk has a causal impact on firms' investment.

5. Mechanism

In this section, we study potential mechanisms through which legal risk affects investment. We investigate two channels related the capital and labor factors of investments: the financing

channel and the attention channel. The financing channel refers to the effect legal risk on external financing. Legal risk can increase costs of external financing, aggravate financial constraints, cause reputational losses, and reduce the firm's capacity for undertaking positive NPV projects. The attention channel refers to the mechanism related to legal risk occupying a significant amount of top management's attention, which adversely influences firms' investments.

5.1 Financing channel

We study the financing channel in the following two ways. First, if legal risk adversely affects external financing, the effect of legal risk on investment is expected to be stronger for financially constrained firms. Second, we search for direct evidence that legal risk increases borrowing costs and has a negative effect on firms' borrowing activity.

5.1.1 Financial Constraints

Financial constraints exacerbate concerns about legal risk. We expect financial constraints to amplify the negative effect of legal risk on investment. To test for this amplification effect, we run the baseline regression for financially constrained firms and unconstrained firms separately. We then compare the coefficients of legal risk measures between these groups. We expect the coefficients of legal risk measures in financially constrained groups to be significantly smaller (negative) than that in unconstrained groups.

We utilize three widely-used financial constraint measures: the Whited and Wu index (Whited and Wu, 2006), the Size and Age index (Hadlock and Pierce, 2010), and a No-dividend dummy. Results of these tests are presented in Table 6. Columns 1 to 6 (7 to 12) are for *Log(Legal)* (*Legal scaled*). For example, Columns 3 and 4 show that the effect of legal risk on investment is significantly stronger in firms with SAI above the yearly median (constrained group) than in those with SAI below the yearly median (unconstrained group), and the difference is statistically significant at the 1% level. The results for *Legal scaled* in Columns 7 to 12 are similar. These results confirm that the effect of legal risk on investment is stronger in financially constrained firms than in unconstrained firms.

5.1.2 Borrowing costs

Legal risk can have an adverse effect on external financing through exacerbating firms' borrowing conditions. We study the effects of legal risk on firms' long-term credit ratings and

costs of bank loans. Firms with higher legal risk are more likely to suffer from financial and reputational losses, which can be reflected by lower credit ratings. Credit ratings can have large effects on firms' external financing. We use the S&P domestic long-term issuer credit ratings from Compustat. To use the ratings in our regression analysis, we follow Butler, Fauver and Mortal (2009) and define a numeric rating variable, *Rating*, which is a rank from 1 to 22, with 22 being the highest rating and 1 being the lowest rating. The specification for our tests is as follows.

$$Rating_{it} = \beta_0 + \beta_1 \cdot LegalRisk_{it-1,t-3} + X_{it} \cdot \Gamma + \mu_i + \vartheta_t + \varepsilon_{it}$$

where i is the firm index, t is the year index, $LegalRisk_{it-1,t-3}$ is a legal risk measure, X is the vector of control variables, Γ is the coefficient vector for the control variables, μ_i is the firm fixed effect, ϑ_t is the year fixed effect, and ε_{it} is the error term. Our focus of the tests is on β_1 , which is expected to be negative because legal risk is expected to have a negative effect on credit ratings.

Results are shown in Columns 1 and 2 in Table 7 for $Log(Legal)$ and $Legal$ scaled, respectively. The results show that coefficients of both legal risk measures are negative and statistically significant at the 1% or 10% level. This evidence shows that legal risk has a negative effect on firms' credit ratings. Lower credit ratings can have large and comprehensive effects on firms' external financing.

Bank loans are one of the most important sources of external financing. To study the effect of legal risk on bank loan costs, we extract loan data from Loan Pricing Corporation's Dealscan (LPC) database. We define a variable for firms' loan costs, $Log(Loan\ Spread)$, as the natural logarithm of the all-in-spread drawn¹⁶ in the DealScan database. We study the effects of legal risk on borrowing costs through the following specification.

$$Log(Loan\ Spread)_{ikt} = \beta_0 + \beta_1 \cdot LegalRisk_{it-1,t-3} + X_{ikt} \cdot \Gamma + \mu_i + \gamma_k + \vartheta_t + \varepsilon_{ikt}$$

where i is the firm index, k is for the loan type index, t is the year index, $LegalRisk_{it-1,t-3}$ is a legal risk measure, X is the vector of control variables that follows Valta (2012), Γ is the coefficient vector for the control variables, μ_i is the firm fixed effect, γ_k is the loan type fixed

¹⁶ Name of the variable in Dealscan is ALLINDRAWN, which is the amount the borrower pays (in basis points) over LIBOR or LIBOR equivalent for each dollar drawn down. The borrowing spread of the loan over LIBOR with any annual fee paid to the bank group is included.

effect, ϑ_t is the year fixed effect, and ε_{ikt} is the error term. We focus on the coefficient β_1 , which is expected to be positive because larger legal risk is expected to increase bank loan costs.

Results are shown in Columns 3 and 4 in Table 7 for *Log(Legal)* and *Legal scaled*, respectively. The results show that coefficients of both legal risk measures are significantly positive (at the 1% or 10% level). For example, a one-standard-deviation in *Log(Legal)* results in a 4.5% higher loan spread or an increase of 8.5 basis points. This evidence shows that legal risk increases costs of bank loans, which exacerbates financial constraints and may decrease positive-NPV projects due to higher cost of capital.

As legal risk increases borrowing costs, we expect firms with higher legal risk to issue less debt. To test this idea, we consider net debt issuance that is defined as long-term debt issuance minus long-term debt reduction and scaled by total assets. The specification for our tests is as follows.

$$Net\ Debt\ Issuance_{it} = \beta_0 + \beta_1 \cdot LegalRisk_{it-1,t-3} + X_{it} \cdot \Gamma + \mu_i + \vartheta_t + \varepsilon_{it}$$

where i is the firm index, t is the year index, $LegalRisk_{it-1,t-3}$ is a legal risk measure, X is the vector of control variables, Γ is the coefficient vector for the control variables, μ_i is the firm fixed effect, ϑ_t is the year fixed effect, and ε_{it} is the error term.

Results are presented in Table 8. Columns 1 and 2 show results for *Log(Legal)* and *Legal scaled*, respectively. The results show that the coefficients of both legal risk measures are statistically negative (significant at the 1% or 5% level). This evidence confirms that higher legal risk reduces firms' borrowing activity and aggravates financial constraints, which is consistent with the financing channel for the negative legal risk effect on corporate investment.

5.2 Attention channel

Legal issues can consume a large amount of top management's attention. In this section, we study the attention channel through the effects of legal risk on special firm events that consume a lot of top management's attention. Specifically, these special firm events include earnings restatements, special shareholder calls, special shareholder meetings, and firm bylaw changes. We also investigate the effect of legal risk on investors' attention. If investors have large concerns about legal risk, they can take real actions to interact with top management, which occupies additional attention of top management. The specification of our tests is as follows.

$$Attention_{it} = \beta_0 + \beta_1 \cdot LegalRisk_{it-1,t-3} + X_{it} \cdot \Gamma + \mu_j + \vartheta_t + \varepsilon_{it}$$

where i is the firm index, j is the industry index, t is the year index, $Attention_{it}$ is earnings restatements dummy, special call dummy, special shareholder meeting dummy, firm bylaw change dummy, or $\log(10K \text{ views})$. These dummy variables equal one if the corresponding events happen to a firm in a year and equal zero otherwise. The variable $\log(10K \text{ views})$ is the natural logarithm of 10-K views or downloads on the SEC official website.

$LegalRisk_{it-1,t-3}$ is a legal risk measure, X is the vector of control variables, Γ is the coefficient vector for the control variables, μ_j is the industry fixed effect, ϑ_t is the year fixed effect, and ε_{it} is the error term. We focus on the coefficient β_1 , which is expected to be positive because legal risk is supposed to increase the likelihood of special firm events.

Earnings restatements occur when the firm revises a previous earnings statement because of a financial inaccuracy.¹⁷ These are significant and negative events for firms and require special attention from management to justify restatements and communicate with investors. Special calls and meetings are non-regularly arranged firm events dealing with shareholders. Top management has to pay additional attention. Firm bylaw changes can have significant impact on top management, which can absorb much attention of top management. Examples of these special events are presented in the Internet Appendix (Tables IA 12 through Table IA 14).

Results of these tests are reported in Table 9. Columns 1 and 2 show that legal risk is positively associated with the likelihood of earnings restatements and the coefficients of both legal risk measures are statistically significant at the 1% level. Columns 3 to 8 show the results on special calls, special meetings, and firm bylaw changes. The results confirm that legal risk increases the likelihood of firms' special events. Columns 9 and 10 show the results about investors' attention. The coefficients of both legal risk measures are positive and statistically significant at the 1% level. Larger concerns of investors can drive them to initiate more special events or exert downward pressure on stock price by selling their holdings. All these actions can consume large amount of attention of top management. All columns in Table 9 control firm performance (ROA). Results show that the coefficients of ROA in all columns are negative and statistically significant at the 1% level. This evidence shows that the special events are more

¹⁷ Earnings restatement data is from Audit Analytics.

likely to happen when firms have bad performance and top management has to pay attention to deal with them. These findings are consistent with the attention channel through which legal risk affects corporate investments.

6. Investment efficiency and stock performance

In this section, we study the effect of legal risk on firms' investment efficiency and stock performance. Our findings in previous sections show that legal risk can distort firms' investment activity. Limited financial resources and top management's attention make firms unable to choose the optimal investment strategy. This distortion of investment can have negative effects on firms' efficiency and performance.

6.1 Efficiency: investment-q sensitivity

To study the effect of legal risk on firms' investment efficiency, we investigate how legal risk affects investment-q sensitivity (Baker, Stein, and Wurgler, 2003, and Chen, Goldstein, and Jiang, 2007). When there are no frictions, an efficient investment is to capture profitable growth opportunities, which leads to a positive association between investment and growth opportunities. Following the literature we measure firms' growth opportunities by Tobin's q. As legal risk brings frictions in capital and labor factors for investment, we expect legal risk to decrease investment efficiency, i.e., to lower the sensitivity of investment to Tobin's q. The specification of our tests is as follows.

$$Investment_{it} = \beta_0 + \beta_1 \cdot LegalRisk_{it-1,t-3} \times Tobin's\ q_{it} + \beta_2 \cdot LegalRisk_{it-1,t-3} + \beta_3 \cdot Tobin's\ q_{it} + X_{it} \cdot \Gamma + \mu_i + \vartheta_t + \varepsilon_{it}$$

where i is the firm index, t is the year index, $LegalRisk_{it-1,t-3}$ is the legal risk measure, X is the vector of control variables, Γ is the coefficient vector for the control variables, μ_i is the firm fixed effect, ϑ_t is the year fixed effect, and ε_{it} is the error term. We focus on the interaction between legal risk and Tobin's q, β_1 . We expect β_1 to be negative because legal risk is expected to weaken the positive effect of Tobin's q on investment, i.e., investment q sensitivity.

Results of these tests are presented in Table 10. Columns 1 (2) show the result for $Log(Legal)$ ($Legal\ scaled$). The main variable of interest, β_1 , is negative and statistically significant at the 5% level in both columns. In the meanwhile, the coefficient of Tobin's q, β_3 , is significantly positive in both columns. These results confirm that legal risk reduces firms' investment q

sensitivity. For example, Column 1 shows that when $\text{Log}(\text{Legal})$ increases from the first to the third quartile (the interquartile range), legal risk reduces investment efficiency by 19%.

6.2 Stock performance

In this section, we study the effect of legal risk on stock performance. The stock performance could be a result, a cause, or in a feedback loop of the legal risk effect on investment. We do not claim a causal relationship between the effect of legal risk on stock returns and the effect on investment. On the one hand, legal risk leads to less efficient investment and may have negative effects on stock returns. On the other hand, managers may take the lower stock returns as negative signals from the market and cut investment. The purpose of this section is to show evidence that legal risk can have significantly negative effects on firm performance, which is consistent with the idea that legal risk can reduce investments.

We measure stock performance by cumulative abnormal returns (CAR) or buy-and-hold returns (BHAR) across a fiscal year. CARs are calculated based on the four-factor model (Fama-French three factors plus the momentum). We expect that legal risk has a negative effect on abnormal returns. The specification of our tests is as follows.

$$AR_{it} = \beta_0 + \beta_1 \cdot \text{LegalRisk}_{it-1,t-3} + X_{it} \cdot \Gamma + \mu_i + \vartheta_t + \varepsilon_{it}$$

where i is the firm index, t is the year index, AR_{it} is CAR or BHAR, $\text{LegalRisk}_{it-1,t-3}$ is a legal risk measure, X is the vector of control variables, Γ is the coefficient vector for the control variables, μ_i is the firm fixed effect, ϑ_t is the year fixed effect, and ε_{it} is the error term.

Results of these tests are presented in Table 11. Columns 1 and 2 (3 and 4) are for CARs (BHARs). In all four columns, the coefficients of legal risk are all negative and statistically significant at the 1% level. Specifically, a one-standard-deviation increase in $\text{Log}(\text{Legal})$ (*Legal scaled*) reduces the annual CARs by 2% (2%) and reduces annual BHARs by 3% (2%). These findings confirm that legal risk has a negative effect on firms' stock returns.

6.3 Robustness tests (as found in the Internet Appendix)

In this section, we will briefly cover relevant robustness tests included in the Internet Appendix (IA).

6.3.1. Defendants versus plaintiffs

We use US Federal District Courts case data to identify which side of the lawsuit the firm is on (plaintiff versus defendant). This is an important part of our story. Firms which are plaintiffs

likely have relatively low legal risk, while firms which are defendants likely have a high legal risk. An example of a firm that is often a plaintiff is Coach, which makes high-end handbags. Coach's lawsuits likely result from other firms stealing/copying their purses and thus Coach files a lawsuit against them as the plaintiff. In the worst outcomes, Coach will lose lawyer fees, while in the best outcomes, they will win their court cases and likely receive damages/awards and thus be better off than if they had not gone to court at all. On the other hand, defendants are the firms that will have to pay Coach the damages in addition to the legal fees. Defendant firms have a high legal risk and high associated costs, while plaintiff firms do not.

Examples of firms which are defendants a large number of times in our sample include technology (Apple, Microsoft) and pharmaceutical (Pfizer, Abbott Labs) firms. These firms likely have lots of patents lawsuits.

In Table IA 2, we run regressions with a plaintiff or defendant dummy variable in a given year as our dependent variable and our measures of legal risk as our relevant independent variable. Our results show that our high legal risk measures are positively and significantly related to firms being defendants and insignificantly with firms being plaintiffs. This is consistent with our legal risk measures picking up firms which face costly value-destroying litigation (defendants) and not potentially value-creating litigation (plaintiffs).

6.3.2. Dangerous and highly regulated industries

Next, we investigate industries which we expect to have high levels of legal risk. Specifically, the firearm, alcohol and tobacco industries. We select these three for obvious litigious reasons, but also because there is a special organization at the Justice Department aimed at regulating these industries.

The Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) is a federal law enforcement organization within the United States Department of Justice. Its responsibilities include the investigation and prevention of federal offenses involving the unlawful use, manufacture, and possession of firearms and explosives; acts of arson and bombings; and illegal trafficking of alcohol and tobacco products.

For these tests we generate a dummy variable equal to one if a firm is in an industry regulated by ATF and zero otherwise. In Table IA 3, we present the results of these logit regressions. The coefficients on both of our legal measures are positive and significant at the 1% level. This

is evidence that firms within these highly regulated, dangerous, litigious industries do in fact have a high degree of legal risk. It is also evidence that our measures of legal risk are accurate as firms in these three industries very likely face significant legal risk.

6.3.3. Alternative measures for legal risk

We calculate four additional measures of legal risk and re-run our main tests, as in Columns 3 and 6 of Table 3. The four measures are: i) *Legal Words/Total Words*, ii) *Legal Words/# Pages*, iii) *Legal Risk Score*, and iv) *Legal Risk Score (Industry)*. The first two measures are similar to *Legal scaled*, but use alternative denominators for scaling. Specifically, *Legal Words/Total Words* is the number of litigious words in 10-K filings scaled by the total number of words in 10-K filings, averaged across the previous three years. *Legal Words/# Pages* is the number of litigious words in a 10-K filing scaled by the total number of pages in the 10-K filing, averaged across the previous three years.

Legal Risk Score and *Legal Risk Score (Industry)* measure the relative legal risk of a firm in our sample. To define *Legal Risk Score*, we calculate a dummy variable that equals one if a firm's litigious word count is in the top quartile in a year and zero otherwise. The *Legal Risk Score* is defined as the sum of the dummy variable across the previous three years. *Legal Risk Score (Industry)* is similar except that the dummy variable is defined within the SIC 2-digit industry in a year. Specifically, the dummy equals one if a firm's litigious word counts are in the top quartile of firms in the same industry in a year and zero otherwise. *Legal Risk Score (Industry)* is the sum of this dummy variable across previous three years. *Legal Risk Score* and *Legal Risk Score (Industry)* are integer variables between zero and three.

The results of our tests using these four additional legal risk measures are presented in Table IA 4. The results in all four columns are consistent with our earlier results; we find that legal risk is negatively related to investment. The results are statistically significant at the 1% (Columns 2 to 4) or 5% level (Column 1).

6.3.4. Legal risk measures using different time windows

We run robustness tests for alternative legal risk measures using the average across the previous two years or one year (lagged) instead of the three-year average as used in our main tests. The results of these tests are presented in Table IA 5. We test all six measures, the two from our main analysis and the four additional measures in Table IA 4. We find strong and

consistent evidence that legal risk is negatively related to firm investment. All legal risk measures, in the 12 specifications, are significant at the 1% level.

6.3.5. Financial and utilities

To rule out the possibility that our results are driven by financial or utility firms we drop those from the sample and re-run our analysis using our main specification. The results of these tests are reported in Table IA 7. Our findings remain the same if we drop regulated firms from our sample.

6.3.6. Controlling for Industry-Year fixed effects

This robustness check replicates our main results from Table 3, but includes industry-year fixed effects in addition to firm fixed effects to control for any time-varying heterogeneity at the industry level. Results of these tests are presented in Table IA 8. Column 1 uses the introduction of a UD law as a shock of legal risk. Column 2 uses $\text{Log}(\text{Legal})$, and Column 3 uses Legal scaled as the measures of legal risk. In Column 1, the UD Law coefficient is positive and highly significant at the 5% level. In Columns 2 and 3, the legal risk measure coefficients are negative and significant at the 1% or 5% level. These results are consistent with our findings throughout the paper that legal risk has a negative and causal effect on investments.

6.3.7. Firm life cycle and CEO characteristics

To rule out the possibility that the changes in investment are a firm age effect, we control for firm age in our primary specification. The results of these tests are reported in Table IA 9. Firm age is negative and significant which is consistent with older firms investing less. However, our main results remain negative and highly significant, indicating that higher legal risk is related to less investment even when controlling for firm age effects. We also control CEO characteristics such as CEO age. The effect of legal risk on investment remains robust.

6.3.8. Firms total risk: stock return volatility and cash flow volatility

To disentangle the effects of legal risk and firms' total risk on investments, we control for both stock return volatility and cash flow volatility. Stock return volatility is calculated as the standard deviation of a firm's stock return over the previous year, while cash flow volatility is calculated as the standard deviation of a firm's cash flow over the previous 20 quarters using quarterly data of Compustat. The results of these tests are presented in Table IA 10. The results show that our legal risk measures are robust to the inclusion of firms' total risk.

7. Conclusion

In this paper, we study the effect of legal risk on corporate investment. To study firms' general legal risk, and not solely legal risk based on a specific type of legal issue or law, we use textual analysis on firms' SEC 10-K filings to count a list of litigious words for a large sample of US public firms. Using legal risk measures based on the number of litigious words in 10-K filings, we find that legal risk has a strong and negative effect on investment. We address potential endogeneity concerns through a DiD approaches. Our endogeneity tests confirm the causal effect of legal risk on investment.

Our findings show that the effect of legal risk is stronger for financially constrained firms. Legal risk exacerbates firms' long-term credit ratings, increases bank loan costs, and reduces overall borrowing. These findings strongly support the financing channel through which legal risk affects investment. We also find that legal risk consumes top management' attention by increasing earnings restatements, investors' concerns, and firm special events such as special calls, special meetings, and bylaw changes. These findings are consistent with the attention channel through which legal risk influences investment.

The negative effect of legal risk on investment has adverse consequences on firms' efficiency and performance. We find that legal risk reduces investment-q sensitivity and has negative effects on firms' stock performance.

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Appendix: Variable definitions

Acquisitions/Assets	acquisitions (AQC) scaled by the book value of total assets (AT)
BHAR	the annual buy and hold abnormal return (BHAR) of the firm measured from the firm's fiscal year end date to 252 days later using the Fama-French three factors plus the momentum factor
Cash flow	the sum of income before extraordinary items and depreciation/amortization scaled by the book value of total assets
CF Volatility	the ratio of the standard deviation of the past eight earnings changes to the average book asset size over the past eight quarters
Cash Ratio	cash and short-term investments (CHE) scaled by the book value of total assets (AT)
CAR	the annual cumulative abnormal return (CAR) of the firm measured from the firm's fiscal year end date to 252 days later using the Four-factor model (Fama-French 3 factors plus the momentum factor)
Credit Spread	the difference between AAA corporate bond yield and the BAA corporate bond yield
Dividend Dummy	a dummy variable equal to one if the firm pays a dividend and zero otherwise
Firm ByLaw Changes	a dummy variable equal to one if a firm changes its bylaws in a given year and zero otherwise
Investment	capital expenditures scaled by the book value of total assets
Lawsuit	a dummy variable equal to one if a firm has a lawsuit in a given year and zero otherwise
Legal scaled	the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year.

Leverage	the sum of long-term and short-term debt scaled by the book value of total assets
Loan/Assets	the loan facility amount (Dealscan) scaled by the book value of total assets
Log(Loan Spread)	the natural logarithm of the all in spread drawn from the Dealscan. The measure is the sum of the borrowing spread of the loan and any annual fee paid to the bank.
Log(Assets)	the natural log of (total) book assets
Log(Legal)	the natural log of the average number of legal words in a firm's 10-K over the previous three years
Log(Maturity)	the natural logarithm of the loan maturity (measured in months)
Log(10K views)	the natural logarithm of the number of pageviews and downloads of the firm's 10-K filing at the SEC.gov website in a given year
Net Debt Issuance	long term debt issuance less long term debt reduction all scaled by the book value of total assets
No Dividend	a dummy variable equal to one if the firm does not pay a dividend and zero otherwise
PP&E/Assets	plant, property & equipment (PP&E) scaled by the book value of total assets
Profitability	earnings before interest, taxes, depreciation and amortization (EBITDA) scaled by the book value of total assets
Rating	a numerical categorization of the bond's credit rating assigned by a rating agency. The lowest quality bonds are assigned the value 1, and we add 1 for each increment in credit rating for a maximum value of 22. When the bond is not rated, we code this variable with a value of - 1 and

	include a dummy variable to capture the fact that the bond is not rated.
R&D/Assets	research and development expenditures scaled by the book value of total assets
ROA	net income scaled by the book value of total assets
Settlement	a dummy variable equal to one if a firm paid legal settlement in US Federal District Court in a given year and zero otherwise
Size Age Index (SAI)	the size and age financial constraint index as calculated in Hadlock and Pierce (2010)
Special Calls	a dummy variable equal to one if a firm has a special shareholder call in a given year and zero otherwise
Special Meetings	a dummy variable equal to one if a firm has a special shareholder meeting in a given year and zero otherwise
Tobin's q	the sum of total assets plus market value of equity minus book value of equity divided by the book value of total assets
UD Law	a dummy variable equal to one if the firm is in a state that has passed a universal demand law and zero otherwise
Z-Score	$1.2 \times (\text{current assets} - \text{current liabilities}) / \text{total assets} + 1.4 \times (\text{retained earnings} / \text{total assets}) + 3.3 \times (\text{pretax income} / \text{total assets}) + 0.6 \times (\text{market capitalization} / \text{total liabilities}) + 0.9 \times (\text{sales} / \text{total assets})$

Figure 1: Time Series of Legal Services Expenses and GDP

This figure plots the time series of US GDP (left y-axis; dashed line) and legal services expenditures (right y-axis; solid line) from 1997 – 2017. Legal service expenses include expenditures on lawyers, paralegals, etc and do not include costs related to legal settlements. Data is from the Bureau of Economic Analysis (BEA).

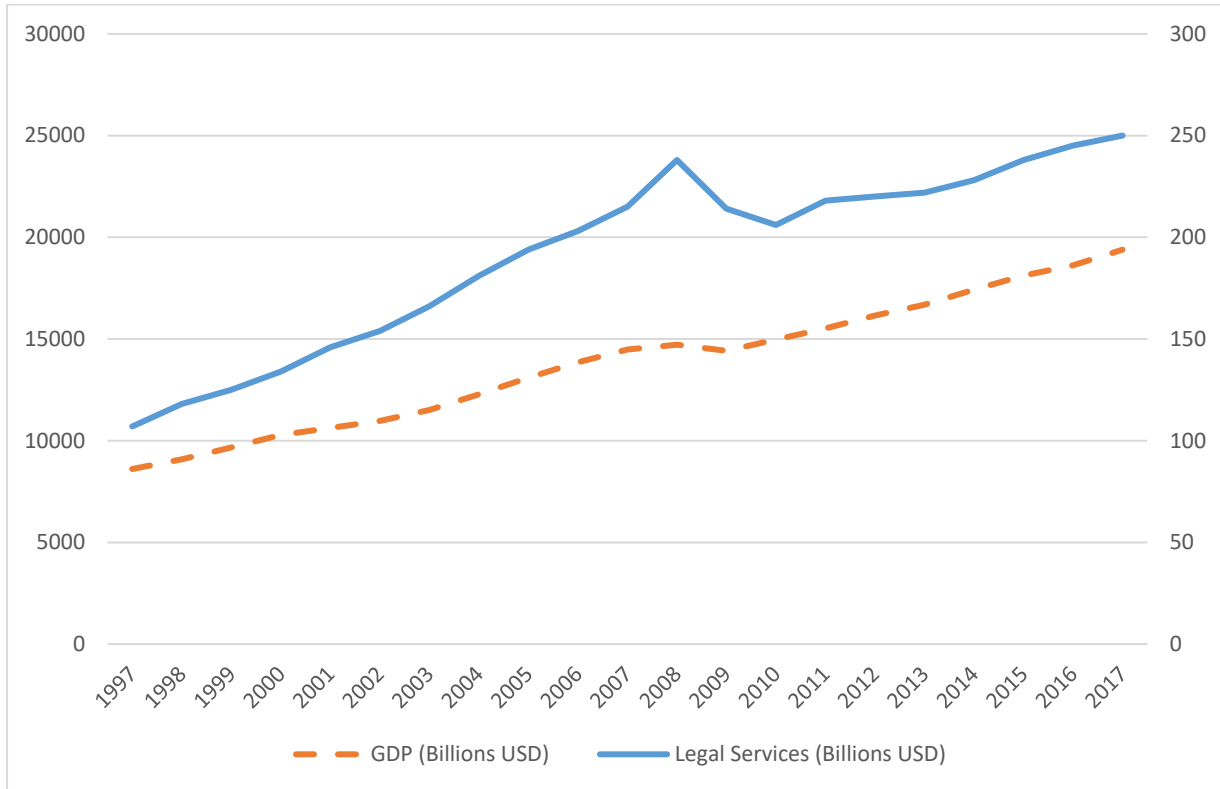


Figure 2: Time Series of litigious words

This figure plots the time series of the average numbers of litigious words (with negative connotation) in firms 10K filings from 1996 – 2015.

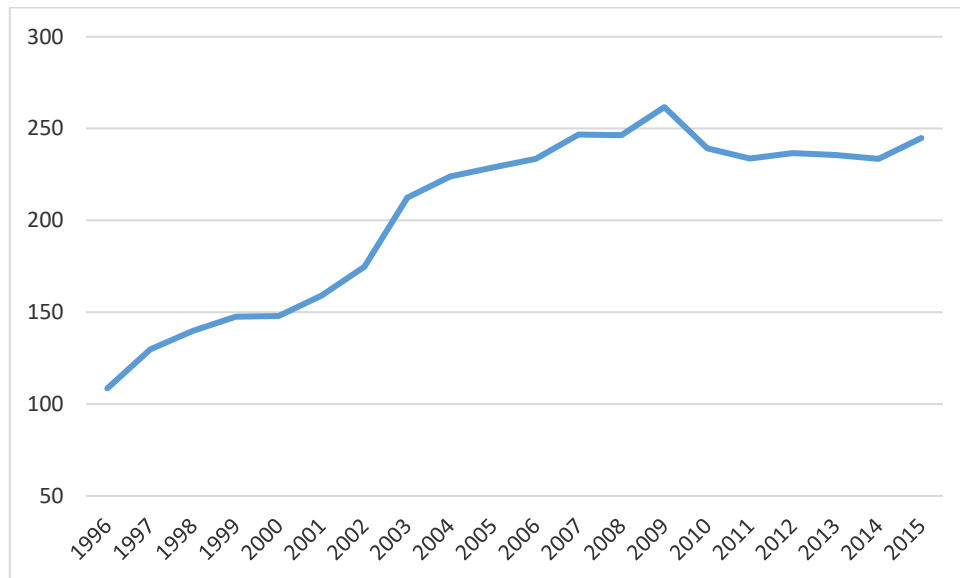


Figure 3: Lawsuits and litigious words

This figure plots the average number of litigious words in a firm's 10-K filing (right hand y-axis) in a given year and the number of firms with a lawsuit in a given year (left hand y-axis) from 2002 – 2015. The figure starts in 2002 because that is the first year we have lawsuit data available from Capital IQ. The correlation of these two time series is 0.80.

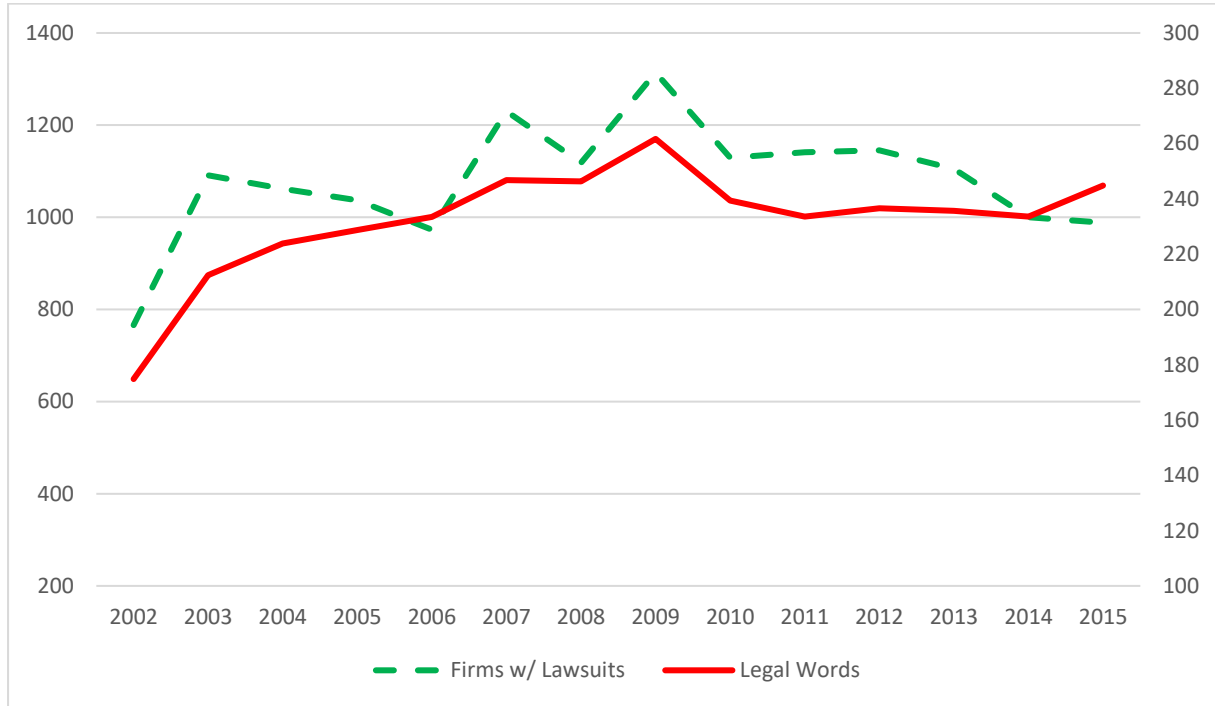


Table 1: Summary statistics

This table presents summary statistics for selected variables. The sample consists of all firms in Compustat for which our legal risk measures are available for the years 1996 – 2015 inclusive. All variables are winsorized at the 1st and 99th percentile values. Variable definitions are in Appendix.

Variable	Mean	Std Dev	P25	P50	P75	N
Log(Legal)	4.982	0.843	4.500	5.033	5.521	77,538
Legal scaled	0.577	0.311	0.373	0.509	0.702	77,538
Investment	0.050	0.072	0.009	0.028	0.062	76,822
Tobin's q	2.174	1.801	1.082	1.479	2.420	77,538
Cash flow	0.007	0.237	-0.011	0.062	0.125	76,754
Log(Assets)	6.110	2.649	4.249	6.087	7.883	77,538
Cash Ratio	0.195	0.228	0.030	0.102	0.276	77,538
Leverage	0.295	0.523	0.027	0.186	0.366	77,538

Table 2: Lawsuits and settlement payments predictability

This table presents our legal measures' predictability about firms' lawsuits and settlement payments. *Log(Legal)* is the natural logarithm of the average number of legal words in 10-K filings across previous three years. *Legal scaled* is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. *Lawsuit* is a dummy variable that equals to one if a firm has a lawsuit in a given year and zero otherwise. *Settlement* is a dummy variable that equals to one if a firm paid a settlement in a US Federal District Court case in a given year and zero otherwise. The lawsuit (settlement) data is available from 2002 – 2015 (1996 – 2015). All specifications include industry and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) Lawsuit	(2) Lawsuit	(3) Settlement	(4) Settlement
Log(Legal)	0.487*** [9.94]		0.925*** [13.28]	
Legal scaled		0.898*** [10.29]		1.207*** [12.07]
Log(Assets)	0.539*** [21.10]	0.588*** [24.80]	0.360*** [15.61]	0.442*** [24.49]
Tobin's q	0.030*** [9.00]	0.025*** [7.27]	0.016** [2.28]	0.001 [0.13]
Leverage	-0.318*** [-3.11]	-0.227** [-2.31]	-0.258* [-1.86]	0.034 [0.24]
Cash Ratio	1.242*** [8.07]	1.357*** [9.25]	0.668*** [3.44]	0.902*** [4.55]
Observations	62,602	61,979	76,838	75,425
R-squared	0.276	0.275	0.234	0.221
Industry FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y

Table 3: Investment and legal risk

This table presents the effect of legal risk on investments. Investment is capital expenditures (Capex) scaled by total assets. $\text{Log}(\text{Legal})$ is the natural logarithm of the average number of legal words in 10-K filings across the previous three years. Legal scaled is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. The sample is from 1996 – 2015. All specifications include firm fixed effects and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) Investment	(2) Investment	(3) Investment	(4) Investment	(5) Investment	(6) Investment
Log(Legal)	-0.004*** [-6.08]	-0.004*** [-6.46]	-0.004*** [-6.24]			
Legal scaled				-0.003*** [-2.93]	-0.003*** [-3.32]	-0.003*** [-2.98]
Tobin's q	0.004*** [8.91]	0.006*** [10.44]	0.006*** [10.76]	0.003*** [7.32]	0.000*** [4.47]	0.000*** [5.16]
Cash flow	0.033*** [11.46]	0.028*** [9.37]	0.026*** [8.56]	0.005*** [2.98]	0.006*** [3.46]	0.005*** [2.85]
Log(Assets)		0.009*** [6.68]	0.008*** [6.09]		-0.000 [-0.17]	-0.001 [-0.84]
Cash Ratio			-0.017*** [-4.32]			-0.030*** [-9.17]
Leverage			-0.010*** [-7.26]			-0.009*** [-4.41]
Observations	76,754	76,754	76,754	75,340	73,631	73,631
R-squared	0.638	0.641	0.642	0.689	0.678	0.681
Firm FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y

Table 4: Relationship between UD Laws and litigious word counts

This table shows the evidence on the relationship between the UD laws adoption and litigious word counts. Panel A presents a correlation matrix for *UD Law*, *Lawsuits*, and *Log(Legal Words)*, where *UD Law* is a dummy variable that equals one if a firm's incorporation state has passed a UD law and zero otherwise, *Lawsuit* is a dummy variable that equals to one if a firm has a lawsuit in a given year and zero otherwise, and *Log(Legal Words)* is the natural logarithm of the number of the litigious words in a firm's 10K filing in a year. Panel B presents the effect of UD Laws on the change in litigious word counts. $\Delta\text{Log(Legal Words)}$ is the first difference of *Log(Legal Words)*. The sample in Panel A (Panel B) is from 2002 – 2015 (1996 – 2015). All specifications include firm fixed effects and industry-year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Correlation Matrix

	UD Law	Lawsuit	Log(Legal Words)
UD Law	1.000***		
Lawsuit	-0.035***	1.000***	
Log(Legal Words)	-0.037***	0.197***	1.000***

Panel B: Regression

VARIABLES	(1) $\Delta\text{Log(Legal Words)}$	(2) $\Delta\text{Log(Legal Words)}$
UD Law	-0.134** [-2.01]	-0.134** [-2.02]
Log(Assets)	0.037*** [10.06]	0.039*** [9.34]
Tobin's q	0.006*** [3.22]	0.006*** [2.80]
Leverage	0.004 [0.38]	0.001 [0.13]
Cash Ratio	-0.055* [-1.96]	-0.049* [-1.86]
Cash flow	-0.185*** [-11.06]	-0.117*** [-3.77]
ROA		-0.065** [-2.57]
Observations	56,668	56,668
R-squared	0.133	0.133
Firm FE	Y	Y
Industry-Year FE	Y	Y

Table 5: DiD analysis and universal demand (UD) laws

This table presents the DiD analysis based on the staggered adoption of UD laws across states in the US. The treatment dummy, *UD Law*, equals one if a firm's incorporation state has passed a UD law and zero otherwise. The sample is from 1996 – 2015. All specifications include firm fixed effects and year fixed effects. Robust standard errors are clustered at the state level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) Investment	(2) Investment	(3) Investment
UD Law	0.006*** [2.70]	0.006*** [2.86]	0.006*** [2.75]
Tobin's q	0.000*** [4.45]	0.000*** [5.55]	0.001*** [7.74]
Cash flow		0.044*** [19.34]	0.040*** [18.20]
Log(Assets)			0.004*** [8.66]
Cash Ratio			-0.013*** [-4.46]
Leverage			-0.010*** [-15.28]
Observations	73,183	73,116	73,116
R-squared	0.645	0.657	0.660
Firm FE	Y	Y	Y
Year FE	Y	Y	Y

Table 6: Financial constraints and the amplification effect

This table presents evidence that financial constraints amplify the effect of legal risk on investment. Financial constraints are measured by Whited and Wu Index (WWI; Whited and Wu, 2006), Size and age index (SAI; Hadlock and Pierce, 2010), and No dividend dummy. The sample is divided into financially constrained versus unconstrained groups by the yearly median of WWI or SAI, or whether a firm pays dividend, as indicated by the table header. *Log(Legal)* is the natural logarithm of the average number of legal words in 10-K filings across previous three years. *Legal scaled* is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. The sample is from 1996 – 2015. All specifications include firm fixed effects and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Sample	Low WWI	High WWI	Low SAI	High SAI	Div.	No Div.	Low WWI	High WWI	Low SAI	High SAI	Div.	No Div.
Log(Legal)	-0.002**	-0.006***	-0.002*	-0.006***	-0.002*	-0.007***						
	[-2.12]	[-4.29]	[-1.96]	[-4.71]	[-1.76]	[-7.36]						
Legal scaled							-0.001	-0.004**	-0.002	-0.004*	-0.001	-0.003***
							[-1.08]	[-2.01]	[-1.53]	[-1.83]	[-0.65]	[-2.59]
Tobin's q	0.003	0.005***	0.004**	0.005***	0.004***	0.006***	0.003	0.003***	0.003**	0.002***	0.005***	0.003***
	[1.29]	[11.79]	[2.12]	[11.04]	[4.56]	[16.39]	[1.49]	[7.76]	[2.00]	[7.29]	[7.21]	[11.41]
Log(Assets)	0.004**	0.015***	0.003*	0.014***	0.004**	0.010***	-0.002	0.002**	-0.002	0.002**	-0.001	0.000
	[2.04]	[11.92]	[1.67]	[10.00]	[2.43]	[6.60]	[-1.01]	[2.02]	[-1.28]	[1.99]	[-0.76]	[0.21]
Cash flow	0.108***	0.003	0.098***	0.002	0.127***	0.017***	0.028***	-0.005**	0.032***	-0.009***	0.037***	0.001
	[10.38]	[0.85]	[8.30]	[0.60]	[13.11]	[5.76]	[3.51]	[-2.31]	[4.62]	[-3.55]	[6.32]	[0.37]
Leverage	-0.014**	-0.007***	-0.010*	-0.009***	0.002	-0.010***	-0.020***	-0.004***	-0.019***	-0.004*	-0.009*	-0.003***
	[-2.26]	[-5.17]	[-1.76]	[-3.61]	[0.26]	[-7.33]	[-3.85]	[-3.21]	[-4.22]	[-1.66]	[-1.96]	[-3.28]
Cash Ratio	-0.038***	-0.018***	-0.040***	-0.023***	-0.050***	-0.012***	-0.050***	-0.031***	-0.049***	-0.037***	-0.051***	-0.028***
	[-4.65]	[-4.49]	[-5.96]	[-5.18]	[-9.01]	[-2.87]	[-8.97]	[-9.47]	[-10.38]	[-10.93]	[-11.20]	[-8.17]
Observations	21,398	20,855	21,199	18,648	28,678	45,428	20,947	20,484	20,702	18,271	28,208	44,528
R-squared	0.727	0.571	0.744	0.634	0.747	0.611	0.768	0.603	0.780	0.662	0.788	0.659
Diff Coef		0.02		0.01		0.01		0.10		0.10		0.09
Firm FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 7: Financing channel: legal risk, credit ratings, and costs of bank loans

This table presents the effects of legal risk on firms' credit ratings and bank loan costs. Rating is the S&P long term issuer ratings available in Compustat. $\text{Log}(\text{Loan Spread})$ is the logarithm of the variable *all in drawn* in Dealscan. $\text{Log}(\text{Legal})$ is the natural logarithm of the average number of legal words in 10-K filings across previous three years. *Legal scaled* is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. All specifications include firm fixed effects and year fixed effects. Specifications 3 and 4 also include loan type fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) Rating	(2) Rating	(3) Log(Loan Spread)	(4) Log(Loan Spread)
Log(Legal)	-0.260*** [-4.85]		0.053*** [4.78]	
Legal scaled		-0.150* [-1.76]		0.039* [1.69]
Log(Assets)	1.341*** [9.87]	1.351*** [9.69]	-0.169*** [-10.32]	-0.161*** [-9.81]
Tobin's q	0.315*** [4.47]	0.326*** [4.58]	-0.037*** [-3.12]	-0.040*** [-3.50]
Profitability	1.437*** [2.62]	1.420** [2.56]	-1.442*** [-11.00]	-1.354*** [-10.45]
CF Volatility	-0.269*** [-2.87]	-0.289*** [-4.21]	8.520*** [2.89]	7.784*** [2.79]
Z-Score	-0.135*** [-2.62]	-0.134** [-2.52]	0.010** [1.99]	0.011** [2.20]
Credit Spread	0.014 [0.48]	0.015 [0.54]	0.005 [0.28]	0.003 [0.17]
PP&E/Assets	1.407*** [2.93]	1.466*** [3.00]	-0.396*** [-3.68]	-0.394*** [-3.72]
Leverage	-1.587*** [-5.34]	-1.564*** [-5.10]	0.699*** [11.23]	0.708*** [11.46]
Cash/Assets	-1.516* [-1.91]	-1.577* [-1.92]	0.171* [1.80]	0.153* [1.65]
Loan/Assets			0.000*** [3.58]	0.000*** [3.70]
Log(Maturity)			-0.029* [-1.81]	-0.037** [-2.34]
Rating			-0.036*** [-9.81]	-0.035*** [-9.48]
No Rating			0.578*** [10.20]	0.554*** [9.93]
Observations	21,922	21,490	9,249	9,039
R-squared	0.932	0.932	0.820	0.822
Firm FE	Y	Y	Y	Y
Loan Type FE	N	N	Y	Y
Year FE	Y	Y	Y	Y

Table 8: Financing channel: debt issuance and legal risk

This table shows the negative effect of legal risk on net debt issuance. *Net Debt Issuance* is long-term debt issuance minus long-term debt reduction scaled by total assets. *Log(Legal)* is the natural logarithm of the average number of legal words in 10-K filings across previous three years. *Legal scaled* is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. All specifications include firm fixed effects and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) Net Debt Issuance	(2) Net Debt Issuance
Log(Legal)	-0.008*** [-7.12]	
Legal scaled		-0.006** [-2.48]
Log(Assets)	0.022*** [16.01]	0.021*** [15.59]
Tobin's q	0.000 [0.76]	0.000 [0.77]
Leverage	0.070*** [16.68]	0.070*** [16.45]
Cash Ratio	0.004 [0.62]	0.005 [0.82]
Observations	70,461	69,229
R-squared	0.316	0.319
Firm FE	Y	Y
Year FE	Y	Y

Table 9: Attention channel: top management's attention and legal risk

This table presents the effect of legal risk on corporate events that consume top management's attention. The dependent variables are earnings restatement dummy, special calls dummy, special shareholder meeting dummy, firm bylaw change dummy, and the natural logarithm of SEC 10-K filing views. *Log(Legal)* is the natural logarithm of the average number of legal words in 10-K filings across previous three years. *Legal scaled* is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. Columns 1 to 8 use the logit model, and Columns 9 and 10 run OLS regressions. All specifications include industry fixed effects and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Restatement	Restatement	Special Call	Special Call	Special Mtg	Special Mtg	ByLaw Change	ByLaw Change	Log(10K Views)	Log(10K Views)
Log(Legal)	0.127*** [4.88]		0.224*** [7.17]		0.320*** [6.37]		0.113*** [5.89]		0.091*** [3.14]	
Legal scaled		0.240*** [4.17]		0.043 [0.68]		0.193* [1.88]		0.215*** [5.44]		0.235*** [3.77]
Log(Assets)	-0.062*** [-6.17]	-0.044*** [-4.64]	0.449*** [44.17]	0.477*** [50.82]	0.004 [0.24]	0.054*** [3.78]	0.167*** [27.29]	0.182*** [33.28]	0.412*** [18.75]	0.424*** [22.49]
Tobin's q	-0.002 [-0.89]	-0.004 [-1.52]	0.001 [0.50]	-0.000 [-0.15]	-0.014*** [-3.71]	-0.016*** [-4.13]	0.001 [0.40]	-0.000 [-0.18]	0.006*** [3.30]	0.005*** [2.87]
Leverage	0.055 [1.34]	0.080* [1.94]	-0.047 [-0.99]	-0.023 [-0.49]	-0.084 [-1.41]	-0.057 [-0.97]	-0.091*** [-3.38]	-0.083*** [-3.09]	-0.034** [-2.37]	-0.031** [-2.00]
Cash Ratio	-0.708*** [-6.99]	-0.686*** [-6.72]	2.221*** [25.45]	2.288*** [26.26]	-0.339** [-2.28]	-0.261* [-1.77]	-0.029 [-0.49]	-0.014 [-0.24]	0.456*** [6.24]	0.461*** [6.89]
ROA	-0.366*** [-4.79]	-0.389*** [-5.08]	-1.558*** [-19.27]	-1.660*** [-20.76]	-1.111*** [-9.45]	-1.275*** [-11.05]	-0.901*** [-17.38]	-0.933*** [-18.29]	-0.355*** [-10.46]	-0.371*** [-11.65]
Observations	67,882	66,472	50,053	49,970	41,272	41,208	50,188	50,104	41,720	41,655
R-squared	0.0402	0.0402	0.206	0.204	0.0444	0.0412	0.0531	0.0530	0.810	0.811
Industry FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 10: Investment efficiency: investment-q sensitivity

This table shows the effect of legal risk on the investment efficiency. Investment is defined as capital expenditures (Capex) scaled by total assets. $\text{Log}(\text{Legal})$ is the natural logarithm of the average number of legal words in 10-K filings across the previous three years. Legal scaled is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. Both specifications include firm fixed effects and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) Investment	(2) Investment
Log(Legal) × Tobin's q	-0.001** [-2.17]	
Legal scaled × Tobin's q		-0.001** [-2.23]
Log(Legal)	-0.002** [-2.57]	
Legal scaled		-0.002* [-1.83]
Tobin's q	0.010*** [4.51]	0.001*** [4.52]
Cash flow	0.025*** [9.20]	0.005*** [2.82]
Log(Assets)	0.008*** [6.54]	-0.001 [-0.84]
Cash Ratio	-0.017*** [-4.66]	-0.029*** [-9.47]
Leverage	-0.010*** [-7.68]	-0.009*** [-4.41]
Observations	75,019	73,631
R-squared	0.630	0.681
Firm FE	Y	Y
Year FE	Y	Y

Table 11: Stock performance and legal risk

This table shows the effect of legal risk on stock performance, which is measured by cumulative abnormal returns (CARs) or buy-and-hold abnormal returns (BHARs). The CAR is based on the four-factor model (the Fama-French 3 factor model plus the momentum factor) and use a time window across a fiscal year. $\text{Log}(\text{Legal})$ is the natural logarithm of the average number of legal words in 10-K filings across previous three years. Legal scaled is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. All specifications include firm fixed effects and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) CAR	(2) CAR	(3) BHAR	(4) BHAR
Log(Legal)	-0.023*** [-2.70]		-0.041*** [-3.59]	
Legal scaled		-0.052*** [-2.80]		-0.068*** [-2.82]
Log(Assets)	-0.119*** [-11.05]	-0.122*** [-11.23]	-0.049*** [-3.63]	-0.051*** [-3.75]
Tobin's q	-0.101*** [-10.32]	-0.100*** [-10.02]	-0.122*** [-10.83]	-0.122*** [-10.54]
Leverage	0.183*** [4.74]	0.177*** [4.65]	0.148*** [3.18]	0.139*** [3.01]
Cash Ratio	-0.374*** [-7.22]	-0.371*** [-7.10]	-0.423*** [-6.41]	-0.408*** [-6.17]
R&D/Assets	1.045*** [9.43]	0.996*** [8.92]	1.243*** [9.65]	1.235*** [9.46]
Acquisitions/Assets	-0.394*** [-4.97]	-0.378*** [-4.72]	-0.319*** [-3.24]	-0.301*** [-3.03]
Dividend Dummy	0.010 [0.32]	0.012 [0.36]	0.040 [1.03]	0.044 [1.12]
Observations	42,934	42,078	42,934	42,078
R-squared	0.185	0.184	0.218	0.217
Firm FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y

Internet Appendix

Table IA 1: Litigious words, legal risk, and SEC 10-K filings

Panel A: Thirty most common litigious words with negative connotation in 10 K filings

This table presents a list of the thirty most often mentioned litigious words with negative connotation in firm 10K filings at the SEC. The word list is constructed based on Loughran and McDonald Master Dictionary.

LITIGATION	INJUNCTION	ALLEGEDLY
BREACH	ALLEGATIONS	ANTITRUST
CLAIMS	ALLEGES	ALLEGE
DEFENDANTS	ENCUMBRANCES	PROSECUTION
PLAINTIFFS	BREACHES	REDACTED
ALLEGED	PREJUDICE	INCAPACITY
PLAINTIFF	ENCUMBRANCE	SUE
CRIMINAL	REVOCATION	PROSECUTE
ALLEGING	BREACHED	FELONY
DEFENDANT	UNLAWFUL	CONVICTION

Table IA 2: Defendants vs Plaintiffs

This table presents the effect of legal risk on the likelihood of being a plaintiff or a defendant $Log(Legal)$ is the natural logarithm of the average number of legal words in 10-K filings across previous three years. $Legal\ scaled$ is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. Defendant Dummy (Plaintiff Dummy) is equal to one if the firm was a defendant (plaintiff) in a US Federal District Court case at least once in a given year and zero otherwise. The sample consists of S&P 500 firms from 2000 – 2015. All specifications include firm fixed effects and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) Defendant Dummy	(2) Defendant Dummy	(3) Plaintiff Dummy	(4) Plaintiff Dummy
Log(Legal)	0.319*** [9.66]		-0.018 [-0.31]	
Legal scaled		0.438*** [6.77]		-0.015 [-0.13]
Log(Assets)	0.201*** [6.31]	0.217*** [6.73]	0.244*** [4.56]	0.263*** [4.85]
Tobin's q	-0.021*** [-3.69]	-0.026*** [-4.35]	-0.029*** [-3.21]	-0.031*** [-3.33]
Leverage	0.174** [2.51]	0.207*** [2.95]	0.261** [2.27]	0.266** [2.30]
Cash Ratio	-0.212 [-1.52]	-0.229 [-1.62]	-0.407* [-1.95]	-0.416** [-1.98]
Observations	41,507	40,438	18,958	18,596
R-squared	0.0745	0.0714	0.0546	0.0538
Firm FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y

Table IA 3: Firms Regulated by ATF

This table presents logit regressions of legal risk on dangerous and regulated industry dummies. Dangerous and regulated industries include tobacco, alcohol, and guns industries. The dependent variable is equal to one for firms with the following SIC codes: 2100, 2111, 5180, 3480, and 2082. $\text{Log}(\text{Legal})$ is the natural logarithm of the average number of legal words in 10-K filings across previous three years. Legal scaled is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. All specifications include industry fixed effects and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) Tobacco/Alcohol/Guns	(2) Tobacco/Alcohol/Guns
Log(Legal)	0.973*** [9.54]	
Legal scaled		2.151*** [15.29]
Log(Assets)	0.008 [0.26]	0.089*** [3.15]
Tobin's q	0.013 [1.26]	0.004 [0.35]
Leverage	-0.414** [-2.00]	-0.302 [-1.47]
Cash Ratio	-2.248*** [-5.63]	-1.909*** [-4.72]
Observations	39,133	38,507
R-squared	0.0939	0.131
Industry FE	Y	Y
Year FE	Y	Y

Table IA 4: Alternative Measures For Legal Risk

This table presents the effect of legal risk on investments using four additional legal risk measures . *Legal Words/Total Words* is the number of legal words in 10-K filings scaled by the total number of words in 10-K filings, averaged across the previous three years. *Legal Words/# Pages* is the number of legal words in 10-K filings scaled by the total number of pages in 10-K filings, averaged across the previous three years. *Legal Risk Score* is the sum of a top-quartile dummy for 10-K legal words counts across previous three years. *Legal Risk Score (Industry)* is the sum of a top-quartile dummy for 10-K legal words counts across previous three years within each SIC 2-digit industry. Firms are ranked within SIC 2-digit industry-year and if they are in the top quartile, the high legal risk dummy is equal to one, otherwise it is equal to zero. The sample is from 1996 – 2015. All specifications include firm fixed effects and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) Investment	(2) Investment	(3) Investment	(4) Investment
Legal Words/Total Words	-0.427** [-1.96]			
Legal Words/# Pages		-0.001*** [-2.91]		
Legal Risk Score			-0.001*** [-2.76]	
Legal Risk Score (Industry)				-0.001*** [-4.53]
Tobin's q	0.000*** [5.76]	0.000*** [5.64]	0.003*** [13.22]	0.004*** [14.49]
Cash flow	0.003* [1.86]	0.003* [1.94]	0.003* [1.65]	0.002 [0.90]
Log(Assets)	0.000 [0.45]	0.000 [0.11]	0.001 [1.52]	0.001 [1.55]
Cash Ratio	-0.030*** [-14.07]	-0.031*** [-14.04]	-0.032*** [-13.38]	-0.033*** [-14.61]
Leverage	-0.009*** [-5.66]	-0.010*** [-5.70]	-0.004*** [-4.13]	-0.005*** [-5.25]
Observations	67,799	66,652	69,692	80,947
R-squared	0.677	0.678	0.688	0.677
Firm FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y

Table IA 5: Robustness – Legal Risk Measures Using Averages Across Different Time Windows

This table presents the effect of legal risk on investments using all six of our legal risk measures but varying the number of lags used to calculate the measures. The independent variable in all tests is investment. In our main tests we use the average of the previous three years, here we re-run using the average of the previous one or two years to construct the legal measures. Specifically, *Log(Legal)* is the natural logarithm of the average number of legal words in 10-K filings across previous one or two years. *Legal scaled* is the average of the scaled litigious word counts across the previous one or two years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. *Legal Words/Total Words* is the number of legal words in 10-K filings scaled by the total number of words in 10-K filings, averaged across the previous one or two years. *Legal Words/# Pages* is the number of legal words in 10-K filings scaled by the total number of pages in 10-K filings, averaged across the previous one or two years. *Legal Risk Score* is the sum of a top-quartile dummy for 10-K legal words counts across previous one or two years. *Legal Risk Score (Industry)* is the sum of a top-quartile dummy for 10-K legal words counts across previous one or two years within each SIC 2-digit industry. Firms are ranked within SIC 2-digit industry-year and if they are in the top quartile, the high legal risk dummy is equal to one, otherwise it is equal to zero. The sample is from 1996 – 2015. All specifications include firm fixed effects and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Legal Measure	Log(Legal)		Legal scaled		Legal Words/Total Words		Legal Words/# Pages		Legal Risk Score		Legal Risk Score (Industry)	
Previous 1 year	-0.003*** [-6.69]		-0.002*** [-4.23]		-0.456*** [-3.31]		-0.001*** [-4.62]		-0.002*** [-3.68]		-0.002*** [-5.09]	
Previous 2 years		-0.004*** [-6.77]		-0.003*** [-3.74]		-0.505*** [-2.82]		-0.001*** [-4.04]		-0.001*** [-4.05]		-0.002*** [-5.28]
Tobin's q	0.006*** [10.18]	0.006*** [10.63]	0.000*** [5.39]	0.000*** [5.16]	0.000*** [5.54]	0.000*** [5.48]	0.000*** [5.39]	0.000*** [5.16]	0.003*** [9.95]	0.003*** [9.92]	0.003*** [9.98]	0.003*** [9.95]
Cashflow	0.026*** [8.29]	0.026*** [8.47]	0.005*** [2.41]	0.005*** [2.56]	0.005*** [2.63]	0.005*** [2.69]	0.005*** [2.42]	0.005*** [2.57]	0.002 [1.34]	0.002 [1.38]	0.002 [1.33]	0.002 [1.37]
Log(Assets)	0.008*** [5.78]	0.008*** [6.01]	-0.001 [-0.72]	-0.001 [-0.89]	-0.001 [-0.73]	-0.001 [-0.63]	-0.001 [-0.72]	-0.001 [-0.89]	0.000 [0.10]	0.000 [0.11]	0.000 [0.12]	0.000 [0.13]
Cash Ratio	-0.017*** [-4.08]	-0.017*** [-4.26]	-0.030*** [-8.97]	-0.030*** [-9.20]	-0.030*** [-8.97]	-0.029*** [-9.14]	-0.030*** [-8.97]	-0.030*** [-9.20]	-0.031*** [-11.25]	-0.031*** [-11.25]	-0.031*** [-11.25]	-0.031*** [-11.25]
Leverage	-0.011*** [-7.36]	-0.010*** [-7.29]	-0.009*** [-4.43]	-0.009*** [-4.46]	-0.009*** [-4.46]	-0.009*** [-4.37]	-0.009*** [-4.43]	-0.009*** [-4.46]	-0.005*** [-5.10]	-0.005*** [-5.06]	-0.005*** [-5.09]	-0.005*** [-5.05]
Observations	73,871	76,067	70,887	72,674	71,121	74,098	70,887	72,674	88,115	88,115	88,115	88,115
R-squared	0.648	0.643	0.687	0.683	0.687	0.680	0.687	0.683	0.680	0.680	0.680	0.680
Firm FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table IA 6: Lawsuit Predictability – Linear Probability Model

This table presents our legal measures' predictability about firms' lawsuits using a linear probability model. *Log(Legal)* is the natural logarithm of the average number of legal words in 10-K filings across previous three years. *Legal scaled* is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. *Lawsuit* is a dummy variable that equals to one if a firm has a lawsuit in a given year and zero otherwise. The data is from 1996 – 2015. All specifications include industry fixed effects and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) Lawsuit	(2) Lawsuit	(3) Lawsuit	(4) Lawsuit
Log(Legal)	0.049*** [7.20]		0.041*** [5.99]	
Legal scaled		0.130*** [9.33]		0.120*** [8.54]
Log(Assets)	0.068*** [14.92]	0.073*** [17.60]	0.073*** [15.53]	0.079*** [18.25]
Tobin's q	0.004*** [10.90]	0.003*** [10.17]	0.003*** [9.82]	0.003*** [8.93]
Leverage	-0.004 [-0.96]	-0.002 [-0.38]	-0.016*** [-3.55]	-0.015*** [-3.35]
Cash Ratio	0.124*** [5.35]	0.131*** [5.98]	0.114*** [5.06]	0.116*** [5.40]
R&D/Assets			0.004 [0.17]	0.021 [1.02]
ROA			-0.101*** [-9.31]	-0.105*** [-9.53]
Observations	62,647	62,022	62,596	61,974
R-squared	0.252	0.254	0.255	0.258
Industry FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y

Table IA 7: Legal risk and investment, excluding financial & utility firms

This table presents the effect of legal risk on investments in a subsample excluding financial or utility firms. In specifications 1 and 2 we drop financial and utility firms. In specifications 3 and 4 we only drop utility firms. This is done to rule out the possibility that regulated firms are driving our results. $\text{Log}(\text{Legal})$ is the natural logarithm of the average number of legal words in 10-K filings across previous three years. Legal scaled is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. The sample is from 1996 – 2015. All specifications include firm fixed effects and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1)	(2)	(3)	(4)
	Investment Ex. (Fin. & Util.)	Investment Ex. (Fin. & Util.)	Investment Ex. Util.	Investment Ex. Util.
Log(Legal)	-0.005*** [-6.49]		-0.004*** [-6.00]	
Legal scaled		-0.003*** [-2.80]		-0.002*** [-2.72]
Tobin's q	0.006*** [9.85]	0.000*** [4.66]	0.006*** [10.50]	0.000*** [5.16]
Cash flow	0.027*** [8.78]	0.006*** [2.89]	0.025*** [8.35]	0.005*** [2.71]
Log(Assets)	0.008*** [5.49]	-0.001 [-0.92]	0.008*** [5.91]	-0.001 [-0.84]
Cash Ratio	-0.017*** [-4.03]	-0.031*** [-8.65]	-0.017*** [-4.35]	-0.029*** [-9.10]
Leverage	-0.010*** [-6.61]	-0.009*** [-4.30]	-0.010*** [-7.10]	-0.009*** [-4.34]
Observations	63,639	61,225	74,490	71,452
R-squared	0.630	0.665	0.645	0.682
Firm FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y

Table IA 8: Robustness – Industry×Year Fixed Effects

This table presents the effect of legal risk on investments. $\text{Log}(\text{Legal})$ is the natural logarithm of the average number of legal words in 10-K filings across previous three years. Legal scaled is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. UD Law is a dummy variable that equals one if a firm's incorporation state has passed a UD law and zero otherwise. All specifications include firm fixed effects and industry-year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) Investment	(2) Investment	(3) Investment
UD Law	0.005** [2.64]		
Log(Legal)		-0.004*** [-7.91]	
Legal scaled			-0.002** [-2.56]
Tobin's q	0.000*** [8.07]	0.000*** [4.14]	0.000*** [4.08]
Cash flow	0.021*** [12.04]	0.023*** [10.60]	0.023*** [10.56]
Log(Assets)	0.004*** [8.30]	0.004*** [5.39]	0.004*** [4.97]
Cash Ratio	-0.013*** [-4.25]	-0.014*** [-4.88]	-0.014*** [-4.81]
Leverage	-0.015*** [-13.72]	-0.012*** [-5.92]	-0.013*** [-6.34]
Observations	71,812	75,019	73,631
R-squared	0.652	0.662	0.663
Firm FE	Y	Y	Y
Industry-Year FE	Y	Y	Y

Table IA 9: Robustness: firm life cycle and CEO preference

This table presents the effect of legal risk on investments. $\text{Log}(\text{Legal})$ is the natural logarithm of the average number of legal words in 10-K filings across previous three years. Legal scaled is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. The sample is from 1996 – 2015. All specifications include firm fixed effects and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) Investment	(2) Investment	(3) Investment	(4) Investment
Log(Legal)	-0.002*** [-4.62]		-0.002** [-2.36]	
Legal scaled		-0.003** [-2.43]		-0.003** [-2.01]
Tobin's q	0.001*** [6.75]	0.002*** [7.92]	0.002*** [3.33]	0.003*** [3.62]
Cash flow	0.006*** [2.93]	0.041*** [11.80]	0.025*** [5.94]	0.090*** [8.78]
Log(Assets)	-0.001 [-1.07]	0.005*** [3.32]	-0.007*** [-2.61]	-0.005 [-1.64]
Cash Ratio	-0.034*** [-9.18]	-0.022*** [-4.53]	-0.040*** [-5.35]	-0.037*** [-4.01]
Leverage	-0.010*** [-4.55]	-0.017*** [-6.23]	-0.011** [-2.15]	-0.011* [-1.76]
Log(Firm Age)	-0.002* [-1.90]	-0.008*** [-4.76]		
Log(CEO Age)			0.007* [1.75]	0.006 [1.13]
Observations	65,857	64,615	32,702	32,171
R-squared	0.713	0.666	0.754	0.670
Firm FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y

Table IA 10: Robustness tests controlling for total risk: stock return volatility and cash flow volatility

This table presents the effect of legal risk on investments. $\text{Log}(\text{Legal})$ is the natural logarithm of the average number of legal words in 10-K filings across previous three years. Legal scaled is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. The sample is from 1996 – 2015. All specifications include firm fixed effects and year fixed effects. Robust standard errors are clustered at the firm level. Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively.

VARIABLES	(1) Investment	(2) Investment	(3) Investment	(4) Investment
Log(Legal)	-0.003*** [-4.70]		-0.005*** [-6.17]	
Legal scaled		-0.002** [-2.41]		-0.002** [-2.07]
Tobin's q	0.006*** [7.82]	0.003*** [6.22]	0.006*** [8.56]	0.000*** [4.54]
Cash flow	0.036*** [9.81]	0.005** [2.20]	0.026*** [8.13]	0.007*** [2.95]
Log(Assets)	0.005*** [2.60]	-0.002 [-1.35]	0.009*** [6.41]	-0.001 [-0.53]
Cash Ratio	-0.024*** [-4.62]	-0.037*** [-8.52]	-0.017*** [-4.09]	-0.030*** [-8.11]
Leverage	-0.015*** [-4.73]	-0.010*** [-3.90]	-0.010*** [-6.59]	-0.004** [-2.53]
Stock Return Volatility	-0.005*** [-2.83]	-0.006*** [-3.65]		
Cash flow Volatility			0.072*** [4.90]	0.017 [1.35]
Observations	62,254	61,081	64,356	63,235
R-squared	0.678	0.726	0.637	0.673
Firm FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y

Table IA 11: Legal measures and different types of lawsuits

This table presents legal risk measures predictability of different types of lawsuits. *UD Law* is a dummy variable that equals one if a firm's incorporation state has passed a UD law and zero otherwise. *Log(Legal)* is the natural logarithm of the average number of legal words in 10-K filings across previous three years. *Legal scaled* is the average of the scaled litigious word counts across the previous three years, where the counts are scaled by the length (number of characters) of a firm's 10K filing in a year. The sample is from 1996 – 2015. All specifications include the all controls used in Table 2 (natural log of assets, Tobin's q, cash ratio, leverage). All specifications include industry fixed effects and year fixed effects. Robust standard errors are clustered at the state (Panel A) or firm level Panels B and C). Variable definitions are in Appendix. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
VARIABLES	Derivative	Securities	Multi-District	RICO	Financial Reporting	Fraud	Insurance	Labor Law	Mergers	Contract	Wage Laws	Asbestos	Personal Property	Real Estate
UD Law	-0.390**	-0.276**	-0.429*	-0.308	-0.153	0.119	0.039	0.493	-0.099	-0.192	0.408	-0.047	-0.220	-0.174
	[-2.01]	[-2.18]	[-1.72]	[-1.22]	[-0.89]	[0.64]	[0.17]	[1.14]	[-0.27]	[-1.20]	[1.42]	[-0.19]	[-0.75]	[-0.47]
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	14,311	15,114	14,102	13,682	14,773	14,177	58,453	43,841	32,347	73,858	53,630	20,781	34,435	43,148

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
VARIABLES	Derivative	Securities	Multi-District	RICO	Financial Reporting	Fraud	Insurance	Labor Law	Mergers	Contract	Wage Laws	Asbestos	Personal Property	Real Estate
Log(Legal)	0.730***	0.716***	0.568***	0.369***	0.697***	0.528***	0.580***	0.645**	0.730***	0.946***	0.426***	1.521***	0.558***	0.558***
	[5.47]	[9.05]	[5.57]	[3.12]	[7.44]	[3.06]	[3.61]	[2.24]	[12.23]	[5.18]	[3.19]	[5.89]	[2.89]	[2.89]
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	15,910	16,752	15,824	15,481	16,407	15,964	66,449	45,444	77,067	61,774	22,596	41,466	48,143	41,466

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
VARIABLES	Derivative	Securities	Multi-District	RICO	Financial Reporting	Fraud	Insurance	Labor Law	Mergers	Contract	Wage Laws	Asbestos	Personal Property	Real Estate
Legal scaled	0.510***	0.514***	0.749***	0.464**	0.460***	0.984***	1.041***	1.626***	1.051***	1.578***	1.377***	2.141***	0.696**	0.696**
	[3.00]	[3.52]	[4.01]	[2.14]	[3.21]	[3.70]	[5.53]	[3.20]	[11.41]	[6.20]	[5.38]	[4.75]	[2.12]	[2.12]
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	15,720	16,533	15,619	15,210	16,199	15,750	65,352	44,885	75,655	60,941	21,670	41,033	47,395	47,395

Table IA 12: Special Call Examples

This table presents examples of Special Shareholder Calls from the Capital IQ database. These observations are included in the analysis in Table 9.

12/16/10: **Orthofix International** – To discuss the reorganization and legal settlement

10/05/10: **Cobalis Corp** – To provide investors and shareholders with further details and the latest updates about financial status and private funding; details of current legal and corporate issues; update on the recent SEC complaint and resolution; resumption of trading; launch update; current legal settlements and how the company is meeting the terms of its agreements; overview of additional revenue opportunities; and what happened with previously planned product release dates

06/24/11: **Iron Road Limited** – To discuss the recently completed Central Eyre Iron Project feasibility study and subsequent capital raising to advance the project towards production

08/10/11: **International Stem Cell Corp** – To provide an update on the business, including plans for the future development of the skin care line; animal and potential clinical trials for Parkinson's and liver diseases; and the company's business strategy for 2011 and longer term

11/22/11: **Cybex International Inc** – To provide business update on Appellate Decision in Product Liability Suit

03/14/12: **Cleveland BioLabs, Inc** – To provide updates and address investor questions regarding the company's progress with the FDA and government funding agencies, ongoing and pending clinical trials and general business developments

Table IA 13: Special Shareholder Meeting Examples

This table presents examples of Special Shareholder Meetings from the Capital IQ database. These observations are included in the analysis in Table 9.

11/03/16: **Arowana Inc.**, Special/Extraordinary Shareholders Meeting, Nov 03, 2016, at 11:00 US Eastern Standard Time. Location: offices of Arowana’s counsel Graubard Miller 405 Lexington Avenue New York, NY 10174 United States Agenda: To approve a proposal to amend its amended and restated memorandum and articles of association to extend the date by which Arowana has to consummate a business combination to January 9, 2017; and to approve a proposal to amend its charter to allow the holders of ordinary shares issued in its initial public offering to elect to convert their public shares into \$10.20 per share, representing the pro rata portion of the funds held in the trust account established at the time of the IPO, if the Extension is implemented (the “Conversion”), such conversion of shares to be accomplished by means of a repurchase under Cayman Islands law.

10/13/16: **Suffolk Bancorp**, Special/Extraordinary Shareholders Meeting, Oct 13, 2016, at 10:00 US Eastern Standard Time. Location: The Suffolk County National Bank, Administrative Center Lower Level, 4 West Second Street Riverhead New York United States Agenda: To discuss merger agreement.

07/15/16: **Carmike Cinemas Inc.**, Special/Extraordinary Shareholders Meeting, Jul 15, 2016, at 11:00 US Eastern Standard Time. Location: King & Spalding LLP 1180 Peachtree Street, N.E. Atlanta, GA 30309 United States Agenda: To consider the merger agreement with AMC Entertainment Holdings, Inc.

06/23/16: **Superconductor Technologies Inc.**, Special/Extraordinary Shareholders Meeting, Jun 23, 2016, at 10:00 US Mountain Standard Time. Location: 9101 Wall Street Suite 1300 Austin, TX 78754 United States Agenda: To approve amendment of restated certificate of incorporation, as amended, to effect a reverse stock split of common stock at a ratio determined by board of directors within a specified range, without reducing the authorized number of shares of common stock; to approve any adjournments of Special Meeting to another time or place, if necessary, for the purpose of soliciting additional proxies in favor of the foregoing proposal; and to transact such other business as may be properly brought before the Special Meeting and any adjournments or postponements thereof.

05/10/16: **HF Financial Corp.**, Special/Extraordinary Shareholders Meeting, May 10, 2016, at 14:00 Central Standard Time. Location: Hilton Garden Inn 201 East 8th Street, Sioux Falls South Dakota 57103 United States Agenda: To consider approval of the merger agreement.

Table IA 14: Company Bylaw Change Examples

This table presents examples of Company ByLaw Changes from the Capital IQ database. These observations are included in the analysis in Table 9.

05/16/13: **Hess Corporation** Announces Board Changes; Approves Amendment of Restated Certificate of Incorporation and Bylaws; "Hess Corporation held its annual meeting of stockholders on May 16, 2013. The company announced in accordance with the company's commitment to separate the positions of Chairman and Chief Executive Officer, the Board elected Dr. Mark Williams as non-executive Chairman of the Board. The Board of Directors also appointed three Elliott nominees to the Board: Rodney Chase, Harvey Golub, and David McManus. The Hess Board will continue to consist of 14 persons as a result of the retirements of Samuel W. Bodman, Craig G. Matthews, and Ernst H. von Metzsch. Stockholders of the company approved the amendment of company's restated certificate of incorporation and bylaws to declassify the board of directors, at the AGM held on May 16, 2013."

05/10/13: **Valeant Pharmaceuticals International, Inc.** to Amend Articles and By-Laws Valeant Pharmaceuticals International, Inc. announced that it has provided additional information related to the proposal to continue Valeant into British Columbia under the British Columbia Business Corporations Act (the BCBCA). The Continuance is being presented for shareholder approval at Valeant's 2013 Annual Meeting of Shareholders to be held on Tuesday, May 21, 2013. If the Continuance is approved by shareholders, Valeant's current Articles and By-laws under the Canada Business Corporations Act will be replaced with a Notice of Articles and Articles under the BCBCA. The New Articles provide that shareholders seeking to nominate candidates for election as directors must provide timely written notice to Valeant in accordance with the terms of the New Articles (the Advance Notice Provision). Valeant has modified the Advance Notice Provision to provide that, in the case of an annual general meeting, a shareholder's notice must be received by Valeant no later than the close of business on the 50th day before the meeting date; provided, however, that if the date (the Notice Date) on which first public announcement of the date of the annual general meeting was made is less than 60 days prior to the date of the annual general meeting, a shareholder's notice must be received by Valeant no later than the close of business on the 10th day following the Notice Date.

09/25/12: **CSS Industries Inc.** Names Robert E. Chappell as Member Board of Directors and as Member of the Audit Committee; Announces Amendments to Bylaws "The board of directors of CSS Industries Inc. increased the number of directors of the company from six to seven and filled the resulting vacancy by electing Robert E. Chappell as a member of the company's board of directors. A former director of the Federal Reserve Bank of Philadelphia, he currently serves as Chairman of The Penn Mutual Life Insurance Company and as a director of the Quaker Chemical Corporation and of the South Chester Tube Company. Mr. Chappell was elected as a member of the audit committee of the board of directors of the company.

The board of directors of the company amended the last sentence of Section 4.03 of the company's bylaws to change the age limitation for service on the company's board of directors by a director serving as chairman of the board from eighty years of age to eighty-two years of age. As amended, the last sentence of Section 4.03 of the bylaws reads as follows: A director serving as chairman of the board shall not be qualified to stand for re-election or otherwise continue to serve as a member of the board

of directors past the date of the Annual Meeting of Stockholders of the corporation occurring in the calendar year in which such director reaches or has reached his or her eighty-second birthday."

07/26/12: **Brown-Forman Corporation** Approves Amendment to its Charter; Brown-Forman Corporation announced at the company's regular annual meeting of stockholders that its shareholders approved an amendment to the corporation's charter to increase the number of authorized shares of Class A common stock to 85 million and Class B common stock to 400 million.

08/19/11: **J. M. Smucker Company** Timothy P. Smucker Leaves The J. M. Smucker Company as Co-Chief Executive Officer; Amends its Bylaws "The J. M. Smucker Company announced that effective August 16, 2011, Timothy P. Smucker, Chairman of the Board and Co-Chief Executive Officer of the Company, will no longer serve as a Co-Chief Executive Officer but will continue to serve as Chairman of the Board of Directors of the company.

The Board of Directors approved and adopted amendments to the company's Amended Regulations. The Amendments modify existing provisions of the Regulations relating to (i) advance notice procedures for shareholders to propose business or nominations for election of Directors to be considered at annual or special meetings of the Company, and (ii) indemnification of the Company's directors and officers. The Amendments also fix the number of Directors of the Company at 13. The Amendments became effective on August 17, 2011. The Amendments expand and modify the existing advance notice provisions contained in Article I, Section 7 of the Regulations. The Amendments require shareholders to provide notice of nominations of persons for election to the Board of Directors or other business no earlier than 120 days, nor later than 90 days, prior to the anniversary date of the prior year's annual meeting (unless the annual meeting date is more than 30 days before or 60 days after the prior year's annual meeting date, in which case the Amendments provide for alternative notice deadlines). The Amendments also amend Article II, Section 1 of the Regulations to fix the number of Directors of the Company at 13."
