Uncertainty, Creditor Rights, and Firm Precautionary Behavior*

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The staggered introduction of anti-recharacterization laws across U.S. states between 1997 and 2005 strengthened the rights of creditors to repossess the collateral transferred to a special purpose vehicle (SPV). Using a difference-in-difference setting, we show that the passage of these laws affected corporate policies. Firms in states with anti-recharacterization laws hoard less cash and collateralizable assets, and have higher leverage. All effects are more pronounced for firms with higher exposure to uncertainty shocks. Such firms increase investment in intangible assets and employment to a larger extent than control firms and, arguably as a consequence, are more profitable. We conclude that the stronger protection of secured lenders mitigates the effect of uncertainty on firms' investment and financing decisions.

Keywords: SPVs, anti-recharacterization laws, creditor rights, cash, intangible assets

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Uncertainty affects corporate policies by increasing the option value of delaying irreversible investments (Bernanke, 1983; Bloom, 2009) and by weakening firms' ability to raise external funds (Alfaro, Bloom, and Lin, 2016; Gilchrist, Sim, and Zakrajsek, 2014). As a result, firms' optimal response to an increase in uncertainty is to delay investment, hoard cash and reduce leverage to be able to meet future financing needs.

The purpose of this paper is to show that as long as financial frictions are associated with the negative effects of uncertainty on corporate behavior, interventions favoring access to financial markets may increase investment and employment. We show that the strengthening of creditor rights that increases the pledgeability of collateral weakens firms' incentives to adopt precautionary policies and makes them more resilient to uncertainty shocks

To make the case that the negative effects of uncertainty on corporate policies are mitigated for firms with easier access to finance, we exploit the staggered introduction of anti-recharacterization laws in several US states between 1997 and 2005. According to Chapter 11 of the US Bankruptcy Code, the collateral underlying secured lending is subject to automatic stay. This means that secured lenders can repossess the collateral with a significant delay or not at all. The anti-recharacterization laws increase lenders' ability to repossess collateral in case of bankruptcy by giving debtors the possibility to opt out of the automatic stay on assets through the creation of bankruptcy-remote special purpose vehicles (SPV). As secured lenders' ability to repossess collateral in case of bankruptcy improves, the anti-recharacterization laws enhance firms' debt capacity and may mitigate firms' precautionary behavior aiming to circumvent financing constraints.

We show that firms incorporated in states adopting anti-recharacterization laws reduce their holdings of cash and easy-to-pledge assets, such as real estate, after the passage of the laws.

Firms also increase their leverage. The effects of anti-recharacterization laws are more pronounced for firms with higher exposure to uncertainty shocks, as measured by either the industry's cash flow volatility or the firm's exposure to systematic volatility. Importantly, following the adoption of the laws, firms that are more exposed to uncertainty shocks perform better, and the risk premium that they pay as a compensation for their exposure to systematic volatility falls. The improvements in performance of firms incorporated in states with anti-recharacterization laws appear to be attained through an increase in the firms' investment in intangible assets, such as R&D and organization capital, as well as through an increase in employment. These results suggest that stronger creditor rights mitigate firms' precautionary motives in face of uncertainty and foster firms' incentives to invest in innovation.

We also investigate the mechanism through which the laws affect firm behavior. The anti-recharacterization laws influence creditor payoffs and borrowers' access to credit only if firms borrow through SPVs. We document that the likelihood of creating SPVs, as well as the number of SPVs, increases with the adoption of the laws. Furthermore, after the laws are adopted firms with observable characteristics that predict higher usage of SPVs have more leverage and lower cash holdings than comparable firms in states without anti-recharacterization laws.

In a final test, we study how firms incorporated in states with and without anti-recharacterization laws responded to a specific episode of increase in aggregate uncertainty. In the spirit of the analysis performed by Chodorow-Reich (2014), we exploit the exogenous increase in aggregate uncertainty brought about by the Lehman Brothers' bankruptcy. After the Lehman crisis, firms in states that had adopted anti-recharacterization laws did not increase cash holdings and did not cut employment or investment in intangible assets as much as firms

incorporated in other states. These results confirm that better protection of creditor rights makes firms more resilient to uncertainty shocks.

Our paper is related to several strands of literature. First, our results imply that creditors' ability to repossess collateral favors innovation when firms are exposed to uncertainty shocks. As such, our findings are consistent with Mann (2016), who shows that anti-recharacterization laws, which improve firms' ability to pledge patents as collateral, enhance firms' access to credit and innovation. Li, Whited and Wu (2016) also present a natural experiment based on anti-recharacterization laws to quantify the relative importance of financial frictions due to collateral constraints and the tax benefits of debt for the capital structure of firms. To the best of our knowledge, we are the first to highlight the channel whereby an improvement in creditor rights mitigates the effects of uncertainty on corporate decisions.

In this respect, we contribute to a large literature exploring how creditor rights affect credit market development and firm behavior. Most of the literature highlights that strong creditor rights increase the supply of credit and facilitate firms' access to credit (Djankov, McLiesh, and Shleifer, 2007).[1] However, it has also been shown that the strengthening of creditor rights may discourage the use of secured debt due to costly asset liquidation in case of default (Vig, 2013). In addition, Acharya, Amihud and Litov (2011) and Acharya and Subramanian (2014) show in a cross-country setting that a debtor-friendly bankruptcy code may encourage firms' risk taking and promote innovation. Instead of focusing on the ex post costs of asset liquidation, we highlight a novel ex ante benefit of stronger creditor rights: for firms more exposed to uncertainty shocks, stronger protection of creditor rights discourages precautionary behavior by improving their debt capacity.

[1] See also Giannetti (2003), Campello and Larrain (2016), Calomiris, Larrain, Liberti and Sturgess (2017), Cerquiero, Ongena and Roszbach (2016).

The specific laws we consider, which aim at strengthening creditor rights for loans obtained through SPVs, may explain why we find no evidence that stronger creditor rights discourage innovation. Anti-recharacterization laws give firms the option not to borrow through bankruptcy-remote vehicles, taking advantage of weaker enforcement of debt contracts in default. In this respect, our analysis helps explain the findings in Lemmon, Liu, Mao, and Nini (2014) that asset backed securitization benefit non-financial firms: laws favoring securitization and access to credit through SPVs benefit firms with financing needs without hampering firms that benefit from weaker enforcement of debt contracts.

Second, our paper is related to the literature on corporate cash holdings. This literature has highlighted the role of uncertainty and financial constraints in explaining the secular increase in firms' cash-holdings since the 1980s (Bates, Kahle, and Stulz, 2009; Riddick and Whited, 2009). We show that laws that improve the collateral values of firms' assets are associated with a decrease in firms' cash holdings. To the extent that law changes capture exogenous variation in firms' demand for insurance, our paper presents the first causal evidence supporting the precautionary motive of cash holdings. Our results also support the hypothesis of a number of recent theoretical papers that the increasing use of intangible capital can explain the increase in firms' cash holdings (Falato, Kadyrzhanova, and Sim, 2013; Begenau and Palazzo, 2016). These papers highlight the low pleadgeability of intangible capital as the mechanism driving firms' precautionary cash holdings. Our empirical results confirm that changes in assets pleadgeability are related to cash holdings.

1. State-level Anti-Recharacterization Laws and Collateral Pledgeability

According to the U.S. bankruptcy code, once a firm enters bankruptcy and files for Chapter 11, secured creditors are unable to seize any collateral because all firms' assets including pledged collateral are subject to automatic stay. Automatic stay delays secured lenders' ability to seize the pledged collateral and ultimately decreases the value of collateral.

The automatic stay includes also borrowing that occurs via a special purpose vehicle (SPV). Instead of borrowing directly from the lender, a firm (the originator) may sell collateral to the SPV and obtain financing through the SPV. In this case, even if the SPV remains solvent when the originating firm enters Chapter 11, bankruptcy courts may recharacterize the asset transfer to the SPV as a loan, instead of a true sale. Once the recharacterization takes place the lender becomes a secured creditor of the originator instead of the SPV. Therefore, even secured lending through SPVs may be subject to automatic stay.

While the automatic stay and the recharacterization of assets sold to SPVs aim to favor business continuation, this provision may hamper firms' access to credit outside of bankruptcy by decreasing the value of collateral.

To enhance creditor protection, a number of states passed, in a staggered manner, "anti-recharacterization" laws, which decrease judges' ability to recharacterize the collateral pledged through SPVs as an asset of the company that files for Chapter 11. These laws allow firms to opt for a regime of stronger protection of creditor rights by originating SPVs. The states that introduced the anti-recharacterization laws are Louisiana and Texas in 1997, Alabama in 2001, Delaware in 2002, South Dakota in 2003, Virginia in 2004, and Nevada in 2005. The introduction of these laws was mostly driven by the lobbying efforts of the banking and especially the securitization industries (Kettering, 2003). They can therefore be considered exogenous to the industrial firms in our sample.

Even though with some probability federal judges are still able to recharacterize collateral, as demonstrated by the 2003 *Reaves Brokerage Company Inc. v. Sunbelt Fruit & Vegetable Company, Inc.* case, the anti-recharacterization laws increase the probability that creditors will be able to repossess collateral promptly for firms incorporated in those states. By reducing the probability that the automatic stay on assets applies to borrowing through SPVs, these laws are likely to enhance the value of collateral and increase firm's ability to borrow. For these reasons, anti-recharacterization laws are expected to boost access to funding for all firms, even the ones that do not currently use SPVs, but may be doing so in the future. In fact, it is precisely the behavior of firms that can pledge a larger portion of their assets in the future in case of cash shortfalls that should be more affected.

In what follows, we use these considerations to design an empirical strategy.

2. Data Sources and Main Variables

We construct our sample as follows. We begin with all publicly traded U.S. firms in CRSP and COMPUSTAT and exclude financial firms (SIC in 6000 through 6999), regulated utilities (SIC in 4900 through 4999), and government entities (SIC over 9000). We also require our sample of firms to have available information on the state of incorporation. We include only firms that are incorporated in the 50 U.S. states plus the District of Columbia. Given that anti-recharacterization laws were adopted by different states between 1997 and 2005, we restrict the sample period to 1992-2010 to include five years prior to the first adoption and five years after the last adoption.

We study the effects of the adoption of anti-recharacterization laws on three aspects of firms' financing behavior and asset composition. If anti-recharacterization laws decrease firms'

precautionary savings by increasing debt capacity, we would expect firms' cash holdings to decrease and their leverage to increase. For this reason, we consider firms' cash holdings (*Cash*), defined as cash and cash equivalent securities over lagged total assets, as well as the *Leverage* ratio. We consider two alternative definitions of leverage. First, we consider the ratio of the total amount of long-term and short-term debt over total assets. We also define a measure of net leverage, as the difference between debt and cash over total assets.

Since anti-recharacterization laws improve lenders' ability to repossess collateral, we expect that firms' demand for easy-to pledge assets decrease. Our proxy for easy-to pledge assets is real estate holdings, which is measured by the book value of real estate assets, scaled by the lagged total level of property, plant, and equipment (*RE/PPEGT*). We expect firms' demand for real estate to decrease not only because the value of any type of collateral including real estate increases from the point of views of secured lenders after the adoption of the laws, but also because the laws increase the pleadgeability of other firms' assets such as patents and receivables.

We also investigate firms' investment in intangible capital around the adoption of anti-recharacterization laws. In particular, we focus on three broad categories of intangible capital, whose importance has been emphasized in existing literature (e.g., Eisfeldt and Papanikolau (2013) and Falato et al. (2013)). Investments in intangible assets are expensed in the year in which they are incurred, but have a long-term effect on capital. For this reason, firms with different spending patterns may have similar levels of intangible capital. To account for this, we cumulate annual expenses on intangible expenses following Falato et al (2013).

First, we consider the stock of organization capital relative to the firm's total assets (*SG&A (stock)).* The stock of organization capital at the numerator is obtained by cumulating

firms' selling, general, and administrative (SG&A) expenses using the perpetual inventory method with a depreciation rate of 20%, as in Falato et al. (2013). Similarly, we compute the stock of R&D expenses relative to total assets (*RD (stock)*), by cumulating annual R&D expenses with a depreciation rate of 15%. Finally, we construct the stock of computerized information and software by applying again the perpetual inventory method with a depreciation rate of 31% as in the BEA data. Since these expenses are not reported at the firm level, we use the annual Fixed Reproducible Tangible Wealth (FRTW) data reported by Bureau of Economic Analysis (BEA) at the industry level. We then construct a multiple of this stock relative to the industry's tangible capital stock and apply the multiple to each firm's tangible capital stock (PPE) to derive a firm-level stock of computerized information and software, which we consider relative to total assets as we did for the previous measures.

Besides considering *SG&A (stock)* and *RD (stock)* separately, we compute an industry level measure of asset intangibility (*Intangibles (stock*)) by adding up R&D stock, SG&A stock, and the stock of computerized information.

To evaluate firm performance following the adoption of anti-recharacterization laws, we consider various measures of return on assets (ROA) and return on investment (ROI). We also explore how firms' employment, measured by employment scaled by total assets, varies across firms.

Our objective is to investigate whether an improvement in creditor protection matters to a larger extent for firms exposed to uncertainty shocks. To capture how industry and market-wide shocks affect firms' cash flows and valuations, we consider two alternative proxies for firms' exposure to uncertainty shocks. First, we measure the effect of aggregate shocks on a firm's value, by computing a firm exposure to systematic volatility, using a Fama-French three-factor

model on firms' monthly returns. Second, as in Bates, Kahle and Stulz (2009), we measure cash flow volatility of firms in different two-digit SIC code industries. For each firm-year, we compute the standard deviation of cash flow to assets for the previous 10 years.[2] We then take the average of the standard deviation of the firm's cash flow each year across each two-digit SIC code.

In the empirical analysis, we control for a number of firm characteristics which we summarize in Table 1. We winsorize all continuous variables at the 1st and 99th percentiles and restrict leverage between 0 and 1. Detailed variable definitions are provided in the data appendix.

Finally, to evaluate the mechanisms through which the laws may affect firm financing and investment decisions, we collect data on firms' SPV origination from 10-K filings. We parse 10-K filings for keywords that indicate the presence of borrowing through special purpose entities and also collect information on the number of SPVs originated by a firm during a given year. This results in a firm-year panel providing information on the intensive and extensive margin of the use of SPVs.

3. Empirical Methodology

We estimate the response of firms' financial and operational policies and other outcomes to the passage of anti-recharacterization laws. To this aim, we estimate a difference-in-difference regression:

$$y_{i,s,t} = \alpha_1 \times D_{i,s,t} + f_i + \gamma_{j,t} + \boldsymbol{B}\boldsymbol{x}_{\boldsymbol{i,t}} + \epsilon_t,$$

where $y_{i,s,t}$ is a corporate policy or an outcome of firm *i* incorporated in state *s* during year *t*. Our variable of interest is $D_{i,s,t}$, which is defined as a dummy variable that takes value equal to one if

[2] To compute this measure, we require that a firm has at least three years of data.

firm i is incorporated in state s with anti-recharacterization law introduced at t or earlier, and zero otherwise. Specifically, $D_{i,s,t}$ equals one for firms incorporated in Texas or Louisiana in years after 1997, firms in Alabama after 2001, firms in Delaware after 2002, South Dakota after 2003, Virginia after 2004, and Nevada after 2005. The vectors f_i and $\gamma_{j,t}$ are respectively firm and industry-year fixed effects. The firm fixed effects subsume the state of incorporation, which is not time-varying, and industries are defined at the one-digit SIC code level, to maintain degrees of freedom in the estimation of our difference-in-difference regression. The vector $\boldsymbol{x_{i,t}}$ includes firm level controls. Standard errors are clustered at the firm level.

Given the staggered introduction of the laws, the control sample includes not only firms incorporated in states that did not introduce the laws, but also firms in states that will eventually pass the laws before the laws are actually passed.

To evaluate the mechanisms through which the laws affect corporate behavior, we explore how the effect of the laws varies in the cross-section using the following model:

$$y_{i,s,t} = \alpha_1 \times D_{i,s,t} + \alpha_2 \times uncertainty_{i,s,t-1} \times D_{i,s,t} + f_i + \gamma_{j,t} + \boldsymbol{B x_{i,t}} + \epsilon_t,$$

where $uncertainty_{i,s,t-1}$ is a characteristic of firm i during the previous year, such as the volatility of the firm's industry cash flows. The interaction terms allow us to capture how uncertainty in a firm's environment affects its response to the laws.

4. Results

4.1 Basic Specifications

Table 2 describes the effects of anti-recharacterizations laws on financial and operational policies. Panel A of Table 2 shows that the cash holdings of firms incorporated in states that adopt anti-recharacterization laws drop after the passage of the laws. In column 1, the magnitude

of the effect is equivalent to a 5% (=0.0131/0.22) fall in cash holdings for the average firm. The average firm also decreases its real estate holdings and increases its leverage by similar amounts. These effects are consistent with the conjecture that anti-recharacterization laws decrease firms' demand for insurance as not only do firms increase their leverage, but they also decrease their cash holdings and their holdings of assets that are easy to collateralize, such as real estate.

The passage of the laws does not affect only the financial policies of treated firms, but also appears to lead to operational changes. Panel B of Table 2 shows that treated firms increase their stock of R&D and intangible capital following the passage of the laws. The effects are once again economically significant. For instance, the stock of R&D increases by 30% (=0.08/0.26) in the years following the passage of the laws for the average treated firm in comparison to firms in the control group. Treated firms also appear to experience an economically significant increase in employment, which is by nearly 8% (=0.0007/0.009) for the average firm. The effect of the laws on investment in tangible assets is statistically significant, albeit small from an economic point of view with an increase of 2.3% (=0.006/0.26) for the average firm. Therefore, it appears that the laws allow firms to direct their expenditures towards assets that are less easy to collateralize. These incentives may derive from the fact that intangible assets, such as patents, which could not be credibly pledged in SPVs in the absence of the laws, are now easier to collateralize.

4.2 Cross-sectional effects

Creditor rights may affect firm behavior through several channels. For instance, leverage may increase because the increase in the value of collateral reduces financial constraints and increases debt capacity. Our objective is to test whether better access to debt markets increases

firms' resilience to uncertainty shocks. The fact that firms not only increase their leverage but also decrease their cash holdings suggests that the introduction of anti-recharacterization laws reduces firms' demand for insurance. To more directly evaluate whether creditor rights affect firms' precautionary behavior, we consider how the effect of the laws varies between firms with different exposure to uncertainty shocks.

We consider two alternative proxies for firms' exposure to uncertainty shocks. First, we measure firms' exposure to systematic volatility, which captures the extent to which a firm's value is affected by market risk. Second, we consider industry cash flow volatility. Firms in industries with highly volatile cash flows are more exposed to the possibility of cash shortfalls. They may thus be more inclined to hoard cash and collateralizable assets.

If the anti-recharacterization laws increase the extent to which debt markets can provide insurance, we expect that firms more exposed to uncertainty shocks and with higher demand for insurance reduce their holdings of cash and real estate and increase their leverage.

This is precisely what we find in Table 3. Interestingly, we observe the expected changes in leverage, real estate, and cash holdings only for firms with relatively high exposure to uncertainty shocks. In Panel A, only firms with cash flow volatility above 0.008 (a value below the bottom quartile of the distribution) decrease their cash holdings, after the law is introduced. For these firms, a one-standard-deviation increase in exposure to systematic volatility is associated with 18% (=0.005*8/0.22) higher cash for the average firm. The average firm decreases its cash holdings by about 3% (=(0.07-0.008*8)/0.22). The effect increases to 5% for a firm with systematic volatility in the top quartile (0.01).

Similar conclusions emerge for leverage and real estate holdings: Firms with higher systematic volatility increase their leverage and decrease their real estate holdings after the

passage of anti-recharacterization laws. For instance, a firm with average leverage and systematic volatility in the top quartile increases its leverage by approximately 4% (=(2.8*0.01-0.02)/0.22). Similarly, real estate holdings decrease by almost 1% (=(-0.21*0.01)/0.29) for a firm with average holdings and systematic volatility in the top quartile.

Results are quantitatively and qualitatively similar in Panel B when we measure firms' exposures to uncertainty shocks using cash flow volatility. However, we are unable to obtain precise estimates of the direct effects of cash flow volatility for leverage and cash holdings probably because the inclusion of one-digit SIC codes interacted with year fixed effects absorbs most of the variation in the direct effect of the industry cash flow volatility, measured at the two-digit SIC code level.

Importantly, the cross-sectional effects of the laws appear to dominate the average effects suggesting that low volatility firms are largely unaffected. This suggests that the effects we highlight are almost entirely driven by firms' precautionary motives rather than by mere changes in the debt capacity of all firms.

Changes in financial policies appear also to be associated with changes in operating policies. Table 4 shows that after the adoption of the laws, firms more exposed to uncertainty shocks increase their intangible assets using both proxies for firms' exposure to uncertainty shocks. When we consider systematic volatility as a proxy for firms' exposure to uncertainty in Panel A, we also find evidence that firms increase their tangible assets and employment. The effects are again economically significant and emerge only for firms with relatively high exposure to uncertainty shocks. Panel A suggests that firms with high exposure to uncertainty shocks invest less in intangible assets and also have a lower number of employees. However, they consistently increase their investment in intangible assets following the passage of the anti-

recharacterization laws. For instance, in column 1 of Panel A, a firm with average R&D stock and systematic volatility in the top quartile increase its R&D stock by 25% (=(0.57*0.01-0.02)/0.26) in the years following the adoption of anti-recharacterization laws in its incorporation state. While we do not find a statistically significant effect of the laws on SG&A, the stock of intangible capital increase by over 5% (=10.29*0.01/1.52).

In Panel A, we also find that firms increase their tangible capital stock by 4% (= =0.01*1.15/0.26) and employment by 9% (=0.09*0.01/0.01). Since similar effects do not emerge in Panel B, where we measure exposure to uncertainty shock using the industry cash flow volatility, it is possible that firms' precautionary behavior is not only driven by fears of future cash shortfalls but also by exposure to other sources of uncertainty, such as the ability of accessing external finance.

Importantly, the changes in corporate policies driven by anti-recharacterization laws appear to be associated with an improvement in performance for treated firms with high exposure to uncertainty shocks. In Panel A of Table 5, while firms with higher exposure to systematic volatility are less profitable than the average firm, their employment and profitability increase disproportionately after the passage of the laws, mitigating the negative effects of the exposure to uncertainty shocks. For instance, in column 1, after the adoption of anti-recharacterization laws, the profitability of the average treated firm increases by 8 percentage points (=0.88*0.01), a large increment considering that the average ROA of firms in our sample is -0.03.

A similar picture emerges in Table 6 when we consider firms' stock returns. We measure firms' abnormal returns from the residual of a Fama French three factor model and perform Fama Macbeth regressions to explore how firms' characteristics are related to the firms' stock

returns. Firms with higher exposure to systematic volatility have higher returns, suggesting that they have to compensate their investors by offering a risk premium. In particular, a one-standard-deviation increase in firms' systematic volatility translates in 10 basis points higher stock return per annum. The risk premium that such a firm has to offer investors, however, is halved following the passage of anti-recharacterization laws. This result is consistent with our interpretation that the laws reduce the negative effects of firms' exposure to uncertainty shocks.

4.3 Anti-recharacterization laws and SPVs use

So far, we have provided evidence that following the passage of anti-recharacterization laws, firms reduce their precautionary behavior. Arguably as a consequence of their higher investment in intangible assets and employment, firms appear to perform better especially if they are exposed to uncertainty shocks.

Our interpretation of the results relies on the presumption that firms' debt capacity increases after the passage of the laws because it becomes easier for firms to pledge assets as collateral. However, any effect of the laws relies on the fact that firms use SPVs to issue debt. Thus, a causal interpretation of our empirical evidence implies that firms incorporated in states passing the laws should increase their borrowing through SPVs.

This is what we test in Panel A of Table 7. Column 1 shows that the probability that a firm lists at least one SPV in its 10K filings with the SEC increases by 1% following the passage of anti-recharacterization laws. Lemmon, Liu, Mao and Nini (2014) observe that not all listed companies make use of SPVs, because creating SPVs is costly.. We thus expect that firms that already have an SPV in place, i.e., firms that have already overcome the fixed costs of originating SPVs are more affected by the passage of the laws. Consistent with this conjecture,

column 2 shows that after the passage of the laws firms that already make use of SPVs increase the number of SPVs they originate by 56%.

More in general, we expect that firms with characteristics that increase the likelihood of creating SPVs in the future should be more affected by the passage of the anti-recharacterization law than otherwise. In column 3, where we use the specification of column 1 to predict the probability that a firm originates SPVs in the future, we find that firm with higher likelihood of originating SPVs indeed increase their usage.

Panel B of Table 7 explores whether firms' changes in financial policies following the adoption of the laws are related to the probability of originating SPVs. Consistent with our interpretation of the empirical evidence, the decrease in cash holdings and the increase in leverage of firms incorporated in states adopting anti-recharacterization laws is entirely driven by firms with higher probability of using SPVs in the future. That is, the changes in financial policies are observed for firms that we expect to be affected by the laws.

5. Evidence from a large uncertainty shock

To provide further evidence that stronger protection of creditor rights decreases firms' exposure to uncertainty shocks, we compare the behavior of firms incorporated in states with and without anti-recharacterization laws around an episode associated with a large increase in market-wide uncertainty, the Lehman Brothers' failure.

We test whether in the years following 2008 firms incorporated in states that had adopted anti-recharacterization laws exhibit less precautionary behavior. For this test only, we restrict our sample to the 2006-2010 period. We define as treated all firms in states with anti-

recharacterization laws. We further assume that all firms, regardless of their state of incorporation, are subject to the large uncertainty shock caused by the Lehman bankruptcy.

In Panel A of Table 8, the interaction term *Post x Law* provides evidence that after the Lehman's bankruptcy firms incorporated in states with anti-recharacterization laws increase their cash holdings to a lower extent than control firms. These firms also maintain higher leverage ratios and reduce their real estate holdings to a lower extent. Panel B also indicates that after the Lehman shock, these firms invest more in R&D and other intangible assets, suggesting that stronger creditor rights and easier access to financial markets shield firms from the adverse effects of aggregate uncertainty shocks.

The magnitude of the effects are a bit smaller than in Table 2, in which the average level of uncertainty faced by sample firms in non-crisis periods is presumably smaller and warrants less pronounced precautionary behaviors. There is however clear evidence that the anti-recharacterization laws decrease their exposure to uncertainty shocks.

6. Robustness

6.1 Pre-Existing Trends

The identifying assumption underlying our difference-in-difference empirical framework is that corporate policies for treated and control firms trended similarly in the years before the passage of the anti-recharacterization laws.

To test this common trend assumption, Table 9 reports the results of a specification that includes three dummies taking value equal to one for firms incorporated in states that eventually adopt the anti-recharacterization law in one, two and three years, respectively. We find no evidence that treated firms reduced cash and real estate holdings, or increased leverage in any of

the years before the passage of the laws. If anything, it appears that firms in states that eventually adopted anti-recharacterization laws increased their cash holdings two years before the laws were adopted.

This evidence supports our identifying assumption of common trends in the behavior of treated and control firms.[3]

6.2. Alternative Mechanisms

Our paper highlights the ex ante effects of improvements in creditor rights on firms' access to debt markets and precautionary behavior. However, when firms are in default, stronger enforcement of debt contracts may also exacerbate shareholder-debtholder conflicts and lead to underinvestment and risk shifting (Favara, Morellec, Schroth, and Valta, 2017). While these mechanisms are not mutually exclusive, one may wonder whether our evidence that firms reduce their precautionary behavior may be entirely driven by the incentives of firms to take on more risk as they approach default. This could well be the case if our proxies of firms' exposure to uncertainty shocks were negatively correlated with firms' distance to default.

To evaluate this possibility, we estimate firms' probability of default following Bharath and Shumway (2008). In Table 10, we estimate empirical models including the interactions between the firm's default probability and the dummy variable for states with anti-recharacterization laws. If our results were driven by the alternative mechanism that firms close to default engage in less precautionary behavior the interactions between the dummy for state laws and the proxies for firms' exposure to uncertainty shocks should lose significance.

[3] In column 1, the coefficient of law, the variable capturing the treatment effect, is not statistically significant at conventional level (even though the p-value is just slightly higher than 10%). This should not be surprising as we are considering only the average effects, while we have shown that the treatment effect is driven by firms highly exposed to uncertainty shocks.

Table 10 shows that this is not the case. Firms with higher default probability appear to hold more cash and real estate assets, and to decrease their leverage after the passage of the laws. In particular, it appears that the likely higher costs of bankruptcy in more creditor friendly jurisdictions strengthen firms' precautionary motives. This implies that our results are largely driven by firms with high exposure to uncertainty shocks that are less likely to default.

6.3 Further tests

The passage of the anti-recharacterization laws in a given state enhances the pledgeability of assets for firms incorporated in those jurisdictions. One may wonder, however, the extent to which state anti-recharacterization laws may have had long lasting effects on corporate behavior, given the 2003, *Reaves Brokerage Company Inc. v. Sunbelt Fruit & Vegetable Company, Inc.* case. In this case, a court ignored the anti-recharacterization statute of Texas and used a federal standard to recharacterize as a loan the transfer of assets to an SPV by a firm incorporated in Texas. This court decision may have introduced some uncertainty as to whether state-level anti-recharacterization laws prevail over federal standards in case of bankruptcy. Our tests rely on the assumption that even if the recharacterization of the assets pledged as collateral may occur with some probability, anti-recharacterization laws increase the probability that creditors will be able to repossess the asset in case of bankruptcy.

In Table 11, we check the validity of this assumption by comparing the effect of the laws on firm policies up to 2003, with those that obtained in the full estimation sample. We find no differential effect on the laws up to 2003 on any of the outcome variables. Firms with high exposure to systematic volatility exhibit less precautionary behavior on average after the passage of the laws. There is no evidence that the effects may be weaker after 2003. This indicates that

the anti-recharacterization laws continue to be perceived by creditors as increasing their ability to repossess collateral.

Importantly, the increase in net leverage up to 2003 for firms with high systematic volatility appears to be smaller than in the long run. This is fully consistent with our conjecture that the anti-recharacterization laws insure firms from negative shocks. Presumably firms in states that have passed these laws issue new debt when they experience cash shortfalls. For this reason, the average effect of the laws appears to be stronger in the long run.

Table 12 shows that the results on financial policies are invariant if we perform our main tests on a matched sample of firms. We select the matching firms for firms incorporated in anti-recharacterization states by first requiring that control firms are in the same three-digit industry code and have similar size. Among these firms we keep in the sample only the ones that during the five years before the laws adoption had similar real estate holdings.[4] The invariance of the results suggests that differences in firm characteristics are unlikely to drive our findings.

7. Conclusions

We highlight a novel positive effect of strong creditor rights for firms exposed to uncertainty shocks. As creditors' ability to repossess assets in bankruptcy improves, firms' access to debt financing becomes easier, and firms engage in less precautionary behavior in the face of higher uncertainty. With stronger creditor rights, firms have less incentives to hoard cash, and more incentives to invest in intangible capital, and increase employment. Firms' profitability improves, and investors require a lower risk premium to hold the stocks of firms more exposed to uncertainty shocks.

[4] We require that the difference in asset size and real estate holdings is no larger than 0.50 and 0.20, respectively.

To the extent that firms' precautionary behavior depends on the strength of creditor rights, our results generate important policy implications. By facilitating firms' access to financial markets, stronger creditor rights enable firms to increase their investment in intangible capital and innovation. As a result of stronger credit rights, firms become more resilient to uncertainty shocks and their performance improve.

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Data Appendix
Variable Definitions

Cash: Cash and cash equivalent securities (CHE) over lagged total assets (AT)

DP: Distance to default, defined as in Bharath and Shumway (2008). It is equal to *NormDist*(-*Distance to Default*), where *NormDist(·)* is the normal distribution cumulative probability, and *Distance to Default*=$\frac{ln\left(\frac{V}{F}\right)+(\mu-0.5\sigma_V^2)T}{\sigma_V\sqrt{T}}$, with *V* being the market value of assets, *F* the total market value of debt, σ_V the volatility of asset value, μ the average growth rate of equity, and *T* the bond maturity that we set equal to1 for one year.

Leverage: Long term debt (DLTT) and current portion of long term debt (DLC) over total assets (AT)

Net Leverage: Leverage – Cash

RE/PPEGT: Real estate holdings scaled by lagged total level of property, plant, and equipment (PPEGT)

RD (stock): Accumulated R&D expenditure (XRD) over total assets, calculated using a perpetual inventory method with a depreciation rate of 15%. R&D expenditures are deflated to 2000 level (see definitions in Falato et al. (2013))

SG&A (stock): Accumulated SG&A expenditure (XSGA) over total assets, calculated using a perpetual inventory method with a depreciation rate of 20%. SG&A expenditures are deflated to 2000 level (see definitions in Falato et al. (2013))

Intangibles (stock): The sum of R&D stock, SG&A stock, and the stock of computerized information, which is calculated as the cumulative level of fixed reproducible tangible wealth in an industry (source: BEA) using a depreciation rate of 31%

Employment: Number of employees (EMP) over total assets (AT)

ROA1: Net income (NI)/total assets (AT)

ROA2: Income before extraordinary items (IB)/assets

ROA3: Income before extraordinary items available for common equity (IBCOM)/assets.

ROI: Income before extraordinary items available for common equity (IBCOM)/ invested capital total (ICAPT)

Cash Flow Volatility: The average standard deviation of cash flows over the past 10 years in a given industry. At least three years of observations are required. Industry is defined at the two-digit SIC level. Cash flows are measured in the same way as in Bates et al. (2009)

Systematic Volatility: A firm's standard deviation of the predicted monthly stock returns during a year. The predicted stock returns are obtained estimating a three-factor Fama-French model for each firm and year.

Cash Flow: Operating cash flows (IB + DP) over total assets

NWC: Net working capital, net of cash (NWC - CHE), over total assets

Investment: Capital expenditure (CAPX) over total assets

Market Cap: Market capitalization of equity, calculated as the log level of the product between shares outstanding (CSHO) and year-end share price (PRCC)

M/B: Market-to-book ratio of assets, (AT - CEQ + CSHO*PRCC)/AT, where CEQ is the common-ordinary equity, CSHO is the number of common shares outstanding, and PRCC is the share price.

Acquisition: Acquisition value (AQC) over total sales (SALE)

Dividend Payer: A dummy variable that equals one if total dividends (DVC+DVP) are positive, and zero otherwise

R&D (Dummy): A dummy variable that equals one if R&D expenditures are positive, and zero otherwise

Dummy (SPV): A dummy that equals one if a firm mentions SPVs in its 10K

SPV: The number of SPVs as mentioned in a firm's 10K

Table 1. Summary Statistics

This table reports the summary statistics of the main variables. The sample includes all Compustat firms that are incorporated in the 50 U.S. states and Washington D.C., excluding those in the financial (SIC 6500—6800) and utility (SIC 4900--4999) industries. The sample period spans 1992—2010. All continuous variables except Leverage are winsorized at the 1st and 99th percentiles. Leverage is restricted to vary between 0 and 1. Variable definitions are in the Appendix.

Variable	Observations	Mean	Std. Dev.	Median	25 Percentile	75 Percentile
Cash	68,215	0.2223	0.3046	0.1016	0.0268	0.3032
Leverage	77,743	0.2246	0.2919	0.1698	0.0177	0.3455
Net Leverage	77,730	0.0257	0.4256	0.0638	-0.2250	0.2870
RE/PPEGT	67,817	0.2905	0.2921	0.2309	0.0434	0.4304
RD (stock)	78,028	0.2551	0.5356	0.0173	0.0000	0.2743
SG&A (stock)	78,028	1.2121	1.2660	0.8581	0.3626	1.6061
Intangibles (stock)	77,571	1.5170	1.5755	1.0801	0.4978	1.9442
Tangibility	77,915	0.2603	0.2231	0.0844	0.1907	0.3737
Employment	76,683	0.0089	0.0109	0.0055	0.0027	0.0105
ROA1	68,237	-0.0311	0.1974	-0.0730	0.0301	0.0852
ROA2	68,237	-0.0293	0.1933	-0.0675	0.0302	0.0842
ROA3	68,237	-0.0315	0.1966	-0.0695	0.0296	0.0838
ROI	68,201	-0.0391	0.2833	-0.0985	0.0441	0.1255
Cash Flow Volatility	78,020	0.0710	0.0404	0.0384	0.0625	0.0906
Systematic Volatility	62,227	0.0079	0.0051	0.0044	0.0070	0.0104
Dummy(SPV)	48,054	0.0531	0.2242	0	0	0
SPV	48,054	4.3259	22.9892	0	0	2
Cash Flow	77,792	-0.0346	0.9045	0.0677	-0.0220	0.1190
NWC	75,985	0.0722	0.3548	0.0685	-0.0374	0.2052
Investment	77,239	0.0627	0.0848	0.0390	0.0192	0.0754
Market Cap	77,786	5.1370	2.0895	5.0353	3.6089	6.5564
M/B	77,778	2.1728	1.8811	1.5446	1.1247	2.4161
Acquisition	78,028	0.0238	0.0705	0	0	0.0080
Dividend Payer	78,028	0.3500	0.4770	0	0	1
R&D (Dummy)	78,028	0.4989	0.5000	0	0	1

Table 2. Creditor Rights and Corporate Policies

This table describes changes in firm policies around the adoption of anti-recharacterization laws. Dependent variables are indicated on top of each column. Panel A reports results for firms' financial policies, while Panel B reports results for firms' operational policies. Law is a dummy variable that equals one for firms incorporated in Texas or Louisiana after 1997, for firms in Alabama after 2001, for firms in Delaware after 2002, for firms in South Dakota after 2003, for firms in Virginia after 2004, and for firms in Nevada after 2005. All variables are defined in the Appendix. All regressions include firm fixed effects and industry-year fixed effects. T-statistics are presented in parentheses. Standard errors are corrected for heteroscedasticity and clustered at the firm level. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

Panel A. Financial Policies

	(1)	(2)	(3)	(4)
Dep. Var.:	Cash	Leverage	Net Leverage	RE/PPEGT
Law	-0.0131**	0.0162***	0.0234***	-0.0117**
	(-2.32)	(2.58)	(2.75)	(-2.13)
Cash Flow	0.0192**	-0.0049	-0.0116	0.0067
	(2.22)	(-0.18)	(-0.40)	(1.34)
NWC	-0.0309**	-0.4561***	-0.4323***	0.0064
	(-2.26)	(-7.47)	(-7.31)	(0.64)
Investment	-0.2917***	-0.0446	0.1823*	0.5464***
	(-2.88)	(-0.67)	(1.70)	(3.75)
Market Cap	0.0677***	-0.0344***	-0.0516***	0.0359***
	(25.66)	(-8.75)	(-12.15)	(16.97)
M/B	0.0136***	0.0069***	-0.0020	-0.0097***
	(7.69)	(2.61)	(-0.69)	(-8.23)
Acquisition	-0.1750***	0.2049***	0.4338***	0.3096***
	(-11.75)	(15.59)	(23.80)	(16.41)
Dividend Payer	-0.0021	-0.0060	-0.0099*	-0.0007
	(-0.53)	(-1.25)	(-1.69)	(-0.18)
R&D (Dummy)	0.0024	-0.0049	-0.0107	-0.0057
	(0.29)	(-0.60)	(-0.94)	(-0.73)
Firm FE	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
Observations	65,763	75,416	75,416	65,516
R-squared	0.6227	0.6012	0.6945	0.7030

Panel B. Operational Policies

	(1)	(2)	(3)	(5)	(4)
Dep. Var.:	RD (stock)	SG&A (stock)	Intangible (stock)	Tangible Assets	Employment
Law	0.0788***	0.0917***	0.1802***	0.0063**	0.0007***
	(7.41)	(3.56)	(5.47)	(2.20)	(4.06)
Cash Flow	-0.0156	-0.0441	-0.0823	0.0014	-0.0003***
	(-1.07)	(-1.29)	(-1.07)	(1.55)	(-7.67)
NWC	-0.0504	-0.1285*	-0.1489	-0.0110*	0.0001
	(-1.62)	(-1.68)	(-1.10)	(-1.87)	(0.31)
Investment	0.0034	0.2051	0.3053	0.6123***	0.0054***
	(0.04)	(1.52)	(1.28)	(40.90)	(7.13)
Market Cap	-0.1590***	-0.5071***	-0.6949***	-0.0151***	-0.0011***
	(-28.56)	(-41.41)	(-40.18)	(-16.32)	(-20.38)
M/B	0.0549***	0.1426***	0.2125***	-0.0006	0.0004***
	(18.84)	(24.51)	(26.19)	(-1.37)	(16.82)
Acquisition	0.0663***	-0.5129***	-0.4255***	-0.0071	-0.0010***
	(4.20)	(-11.31)	(-7.55)	(-1.43)	(-3.57)
Dividend Payer	0.0378***	0.0089	0.0538***	-0.0000	0.0003***
	(6.13)	(0.58)	(2.73)	(-0.01)	(2.95)
R&D (Dummy)	0.0734***	0.0340	0.0966**	0.0044	0.0002
	(6.62)	(0.91)	(2.18)	(1.10)	(0.87)
Firm FE	Yes	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes	Yes
Observations	75,616	75,616	75,209	74,221	74,371
R-squared	0.7826	0.7758	0.7630	0.9073	0.8863

Table 3. The Effects of Creditor Rights in Mitigating Uncertainty Shocks

This table describes the effects of firms' exposure to uncertainty shocks on changes in firm policies around the adoption of anti-recharacterization laws. Dependent variables are indicated on top of each column. In Panel A, uncertainty is measured by a firm's systematic volatility. In Panel B, uncertainty is measured by cash flow volatility in a firm's industry. Law is a dummy variable that equals to one for firms incorporated in Texas or Louisiana after 1997, for firms in Alabama after 2001, for firms in Delaware after 2002, for firms in South Dakota after 2003, for firms in Virginia after 2004, and for firms in Nevada after 2005. All remaining variables are defined in the Appendix. All regressions include firm fixed effects and industry-year fixed effects. T-statistics are presented in parentheses. Standard errors are corrected for heteroscedasticity and clustered at the firm level. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

Panel A. Uncertainty Measured by Systematic Volatility of Equity Returns

	(1)	(2)	(3)	(4)
Dep. Var.:	Cash	Leverage	Net Leverage	RE/PPEGT
Law*Systematic Vol	-8.3695***	2.7969***	3.4330***	-3.4001***
	(-9.89)	(3.95)	(3.44)	(-4.39)
Law	0.0707***	-0.0197**	-0.0217*	0.0194**
	(7.71)	(-2.40)	(-1.83)	(2.15)
Systematic Vol	7.9760***	-1.5626***	-3.2406***	3.5044***
	(8.77)	(-2.87)	(-4.08)	(5.12)
Cash Flow	0.2125***	-0.0477***	-0.1072***	0.0370***
	(12.38)	(-4.17)	(-7.33)	(4.57)
NWC	-0.2840***	-0.2511***	-0.0529**	-0.0226*
	(-15.69)	(-14.79)	(-2.15)	(-1.85)
Investment	-0.5849***	-0.0666***	0.3320***	1.0136***
	(-18.61)	(-3.00)	(10.80)	(24.51)
Market Cap	0.0503***	-0.0297***	-0.0404***	0.0311***
	(15.99)	(-12.61)	(-12.24)	(12.08)
M/B	0.0212***	0.0009	-0.0106***	-0.0086***
	(11.24)	(0.75)	(-6.64)	(-6.44)
Acquisition	-0.1790***	0.2150***	0.4517***	0.3288***
	(-11.62)	(20.39)	(30.36)	(17.79)
Dividend Payer	-0.0022	-0.0071**	-0.0142***	0.0012
	(-0.49)	(-1.99)	(-2.97)	(0.26)
R&D (Dummy)	0.0065	-0.0102	-0.0185	-0.0087
	(0.77)	(-1.16)	(-1.63)	(-0.94)
Firm FE	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
Observations	52,075	58,711	58,711	51,976
R-squared	0.6751	0.7280	0.8016	0.7385

Panel B. Uncertainty Measured by Cash Flow Volatility

	(1)	(2)	(3)	(4)
Dep. Var.:	Cash	Leverage	Net Leverage	RE/PPEGT
Law*Cash Flow Vol	-0.3414***	0.4008***	0.5293***	-0.2109**
	(-3.38)	(4.15)	(3.99)	(-2.32)
Law	0.0143*	-0.0190**	-0.0225*	0.0055
	(1.83)	(-2.21)	(-1.94)	(0.61)
Cash Flow Vol	-0.0271	-0.0258	0.0244	0.2277*
	(-0.21)	(-0.22)	(0.14)	(1.70)
Cash Flow	0.0260*	-0.0007	-0.0112	0.0035
	(1.79)	(-0.02)	(-0.32)	(1.01)
NWC	-0.0417**	-0.4125***	-0.3843***	-0.0004
	(-2.07)	(-7.22)	(-6.31)	(-0.09)
Investment	-0.5389***	0.0048	0.3579***	0.9751***
	(-19.27)	(0.12)	(7.54)	(26.23)
Market Cap	0.0666***	-0.0366***	-0.0544***	0.0330***
	(24.90)	(-11.65)	(-14.12)	(17.16)
M/B	0.0158***	0.0062***	-0.0030	-0.0095***
	(8.97)	(3.10)	(-1.30)	(-8.62)
Acquisition	-0.1813***	0.2062***	0.4391***	0.3314***
	(-12.59)	(17.77)	(28.29)	(18.57)
Dividend Payer	-0.0026	-0.0055	-0.0104**	0.0005
	(-0.67)	(-1.31)	(-1.97)	(0.12)
R&D (Dummy)	0.0045	-0.0056	-0.0148	-0.0081
	(0.56)	(-0.70)	(-1.32)	(-1.04)
Firm FE	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
Observations	64,700	74,030	74,030	64,519
R-squared	0.6268	0.6999	0.7549	0.7151

Table 4. Economic Channels—Changes in Firms' Operational Policies

This table describes changes in firms' operational policies around the adoption of anti-recharacterization law. Dependent variables are indicated on top of each column. In Panel A, uncertainty is measured by a firm's systematic volatility. In Panel B, uncertainty is measured by cash flow volatility in a firm's industry. Law is a dummy variable that equals to one for firms incorporated in Texas or Louisiana after 1997, for firms in Alabama after 2001, for firms in Delaware after 2002, for firms in South Dakota after 2003, for firms in Virginia after 2004, and for firms in Nevada after 2005. All remaining variables are defined in the Appendix. All regressions include firm fixed effects and industry-year fixed effects. T-statistics are presented in parentheses. Standard errors are corrected for heteroscedasticity and clustered at the firm level. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

Panel A. Uncertainty Measured by Systematic Volatility of Equity Returns

	(1)	(2)	(3)	(4)	(5)
Dep. Var.:	RD (stock)	SG&A (stock)	Intangible (stock)	Tangible Assets	Employment
Law*Systematic Vol	8.5667***	1.9243	10.2916***	1.1456***	0.0903***
	(7.61)	(0.68)	(2.93)	(3.07)	(4.77)
Law	-0.0281**	0.0655*	0.0442	-0.0033	-0.0002
	(-2.32)	(1.78)	(1.00)	(-0.74)	(-0.63)
Systematic Vol	-7.2447***	-2.7459	-9.2855***	-0.1923	-0.0416***
	(-6.14)	(-1.14)	(-2.87)	(-0.67)	(-2.81)
Cash Flow	-0.2471***	-0.3143***	-0.6155***	-0.0128***	-0.0006***
	(-10.44)	(-8.74)	(-10.87)	(-3.15)	(-4.31)
NWC	-0.1306***	-0.1938***	-0.3589***	-0.0415***	0.0011***
	(-5.11)	(-3.15)	(-4.91)	(-7.18)	(3.14)
Investment	0.0401	0.1517**	0.2841***	0.6344***	0.0057***
	(1.39)	(2.08)	(3.16)	(38.72)	(8.47)
Market Cap	-0.1007***	-0.3424***	-0.4542***	-0.0127***	-0.0009***
	(-20.81)	(-33.06)	(-33.15)	(-11.72)	(-15.66)
M/B	0.0387***	0.0925***	0.1366***	-0.0011**	0.0004***
	(15.34)	(20.26)	(22.10)	(-2.57)	(14.05)
Acquisition	-0.0029	-0.5770***	-0.5731***	-0.0155***	-0.0011***
	(-0.25)	(-16.68)	(-13.25)	(-3.08)	(-3.45)
Dividend Payer	0.0215***	-0.0082	0.0168	-0.0005	0.0002*
	(4.10)	(-0.60)	(0.98)	(-0.31)	(1.68)
R&D (Dummy)	0.0444***	0.0165	0.0530	0.0059	0.0002
	(4.89)	(0.46)	(1.31)	(1.35)	(0.66)
Firm FE	Yes	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes	Yes
Observations	58,881	58,881	58,644	58,871	58,128
R-squared	0.7978	0.8081	0.7883	0.9236	0.9066

Panel B. Uncertainty Measured by Cash Flow Volatility

	(1)	(2)	(3)	(4)	(5)
Dep. Var.:	RD (stock)	SG&A (stock)	Intangible (stock)	Tangible Assets	Employment
Law*Cash Flow Vol	1.1065***	0.9632**	2.2364***	0.0094	0.0021
	(4.96)	(2.25)	(3.76)	(0.21)	(0.90)
Law	-0.0248	0.0023	-0.0304	0.0054	0.0005*
	(-1.52)	(0.06)	(-0.59)	(1.15)	(1.84)
Cash Flow Vol	2.2544***	2.7770***	5.8174***	0.0635	0.0151***
	(6.52)	(4.45)	(6.08)	(0.97)	(4.02)
Cash Flow	-0.0215	-0.0415	-0.0716	0.0014	-0.0003***
	(-1.07)	(-0.92)	(-0.99)	(1.54)	(-4.81)
NWC	-0.0300	-0.1158	-0.1501	-0.0110*	0.0001
	(-0.90)	(-1.35)	(-1.10)	(-1.86)	(0.36)
Investment	0.1568***	0.3794***	0.6182***	0.6123***	0.0063***
	(4.51)	(4.24)	(5.39)	(40.87)	(9.88)
Market Cap	-0.1530***	-0.5010***	-0.6838***	-0.0152***	-0.0011***
	(-28.29)	(-41.96)	(-41.69)	(-16.35)	(-20.61)
M/B	0.0529***	0.1392***	0.2089***	-0.0006	0.0004***
	(18.64)	(24.62)	(26.36)	(-1.29)	(16.98)
Acquisition	0.0539***	-0.5524***	-0.4748***	-0.0074	-0.0011***
	(3.58)	(-12.84)	(-8.76)	(-1.47)	(-3.82)
Dividend Payer	0.0345***	0.0087	0.0497**	-0.0000	0.0002***
	(5.95)	(0.57)	(2.56)	(-0.02)	(2.72)
R&D (Dummy)	0.0747***	0.0342	0.0954**	0.0044	0.0002
	(7.43)	(0.93)	(2.21)	(1.10)	(0.74)
Firm FE	Yes	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes	Yes
Observations	74,226	74,226	73,888	74,215	73,057
R-squared	0.7904	0.7800	0.7680	0.9073	0.8884

Table 5. Creditor Rights and Firm Performance

This table examines changes in firm performance around the adoption of anti-recharacterization laws. Dependent variables are indicated on top of each column. In Panel A, uncertainty is measured by a firm's systematic volatility. In Panel B, uncertainty is measured by cash flow volatility in a firm's industry. Law is a dummy variable that equals to one for firms incorporated in Texas or Louisiana after 1997, for firms in Alabama after 2001, for firms in Delaware after 2002, for firms in South Dakota after 2003, for firms in Virginia after 2004, and for firms in Nevada after 2005. All remaining variables are defined in the Appendix. All regressions include firm fixed effects and industry-year fixed effects. T-statistics are presented in parentheses. Standard errors are corrected for heteroscedasticity and clustered at the firm level. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

Panel A. Uncertainty Measured by Systematic Volatility of Equity Returns

	(1)	(2)	(3)	(4)
Dep. Var.:	ROA1	ROA2	ROA3	ROI
Law*Systematic Vol	0.8844**	0.8172**	0.9099**	1.2787**
	(2.18)	(2.06)	(2.27)	(2.13)
Law	-0.0040	-0.0034	-0.0046	-0.0081
	(-0.95)	(-0.83)	(-1.10)	(-1.26)
Systematic Vol	-4.6653***	-4.4439***	-4.5573***	-6.5131***
	(-9.50)	(-9.27)	(-9.39)	(-9.09)
Cash Flow	0.2974***	0.2943***	0.2963***	0.3884***
	(8.03)	(7.93)	(7.93)	(7.67)
NWC	0.0101	0.0094	0.0089	0.0382
	(0.47)	(0.43)	(0.41)	(1.23)
Investment	0.0989***	0.1011***	0.1026***	0.1627***
	(6.15)	(6.43)	(6.42)	(6.81)
Market Cap	0.0280***	0.0269***	0.0274***	0.0440***
	(9.84)	(9.51)	(9.61)	(11.20)
M/B	0.0024***	0.0028***	0.0025***	0.0032***
	(2.95)	(3.41)	(3.03)	(2.59)
Acquisition	-0.0017	-0.0022	-0.0069	-0.0076
	(-0.15)	(-0.21)	(-0.62)	(-0.48)
Dividend Payer	-0.0068***	-0.0062***	-0.0129***	-0.0198***
	(-2.99)	(-2.85)	(-5.62)	(-5.35)
R&D (Dummy)	-0.0102**	-0.0108***	-0.0112***	-0.0138**
	(-2.50)	(-2.74)	(-2.72)	(-2.13)
Firm FE	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
Observations	52,075	52,075	52,075	52,052
R-squared	0.7742	0.7851	0.7860	0.7354

Panel B. Uncertainty Measured by Cash Flow Volatility

	(1)	(2)	(3)	(4)
Dep. Var.:	ROA1	ROA2	ROA3	ROI
Law*Cash Flow Vol	0.2632***	0.2550***	0.2555***	0.3037***
	(4.12)	(4.08)	(4.04)	(3.31)
Law	-0.0122**	-0.0118**	-0.0120**	-0.0141*
	(-2.43)	(-2.42)	(-2.44)	(-1.91)
Cash Flow Vol	0.0574	0.0549	0.0583	-0.0035
	(0.73)	(0.71)	(0.75)	(-0.03)
Cash Flow	0.0216	0.0218	0.0218	0.0316
	(1.31)	(1.32)	(1.32)	(1.42)
NWC	-0.0044	-0.0050	-0.0050	-0.0142
	(-0.16)	(-0.19)	(-0.19)	(-0.41)
Investment	-0.0378*	-0.0332*	-0.0310	-0.0167
	(-1.86)	(-1.66)	(-1.54)	(-0.59)
Market Cap	0.0533***	0.0515***	0.0525***	0.0795***
	(25.25)	(24.81)	(25.09)	(27.28)
M/B	-0.0069***	-0.0061***	-0.0066***	-0.0083***
	(-6.04)	(-5.45)	(-5.89)	(-5.06)
Acquisition	-0.0406***	-0.0403***	-0.0462***	-0.0535***
	(-3.66)	(-3.79)	(-4.29)	(-3.47)
Dividend Payer	-0.0098***	-0.0096***	-0.0189***	-0.0271***
	(-3.71)	(-3.76)	(-7.12)	(-6.59)
R&D (Dummy)	-0.0286***	-0.0293***	-0.0297***	-0.0400***
	(-5.12)	(-5.37)	(-5.34)	(-4.65)
Firm FE	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
Observations	64,700	64,700	64,700	64,669
R-squared	0.6844	0.6954	0.6989	0.6479

Table 6. Creditor Rights and Firms' Exposure to Uncertainty

This table examines the effect of systematic uncertainty on firm returns around the adoption of anti-recharacterization laws. The dependent variable is a firm's abnormal return, measured as the residual from a Fama-French three factor model. Law is a dummy variable that equals to one for firms incorporated in Texas or Louisiana after 1997, for firms in Alabama after 2001, for firms in Delaware after 2002, for firms in South Dakota after 2003, for firms in Virginia after 2004, and for firms in Nevada after 2005. Market Cap is divided by 10^9 and the M/B ratio is scaled by 1000. All remaining variables are defined in the Appendix. We estimate Fama-MacBeth regressions at the monthly frequency. T-statistics are presented in parentheses. We compute heteroscedasticity and autocorrelation consistent Newey-West standard errors that account for 2-month correlation of the errors. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

	(1)	(2)
Dep. Var.:	Abnormal Returns	Abnormal Returns
Law*Systematic Vol	-0.0149**	-0.0113**
	(-2.59)	(-1.98)
Law	0.0003***	0.0003***
	(5.51)	(5.00)
Systematic Vol	0.0257***	0.0237***
	(4.53)	(4.15)
Market Cap		-1.5508***
		(-3.70)
M/B		-0.3051***
		(-9.84)
Observations	646,154	643,860
R-squared	0.0039	0.0066

Table 7. Economic Channels—Changes in SPV Usage

This table describes firms' usage of SPVs around the adoption of anti-recharacterization law. Panel A examines the changes in firms' usage of SPVs around the adoption of anti-recharacterization law. The dependent variables in Column (1) is an indicator for whether a firm reports SPV in its SEC documents. The dependent variable in Columns (2) and (3) is the number of SPVs a firm discloses. In Column (2), Dummy(SPV) (Lagged) indicates whether a firm has an SPV in the previous year. In Column (3), $\widehat{\text{Dummy}}(\text{SPV})$ is the predicted SPV usage of a firm in a given year based on its characteristics and previous SPV usage. Panel B examines whether firms' usage of SPVs modulates the effect of the anti-recharacterization laws on their financial policies. Law is a dummy variable that equals to one for firms incorporated in Texas or Louisiana after 1997, for firms in Alabama after 2001, for firms in Delaware after 2002, for firms in South Dakota after 2003, for firms in Virginia after 2004, and for firms in Nevada after 2005. All remaining variables are defined in the Appendix. All regressions include firm-fixed effects and industry-year-fixed effects as well as controls as listed in Table 2 whose coefficients have been omitted. T-statistics are presented in parentheses. Standard errors are corrected for heteroscedasticity and clustered at the firm level in Panel A. Standard errors for regressions using the estimated probabilities of using SPVs are bootstrapped from 100 iterations. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

Panel A. SPV Usage and Anti-recharacterization Laws

Dep. Var.:	(1) Dummy(SPV)	(2) SPV	(3) SPV
Law	0.0095*	-1.9338***	-1.0990***
	(1.85)	(-8.78)	(-5.39)
Dummy(SPV) (Lagged)		2.6321***	
		(18.32)	
Law*Dummy(SPV) (Lagged)		2.5866***	
		(13.19)	
$\widehat{\text{Dummy}}(\text{SPV})$			2.2529***
			(6.96)
Law*$\widehat{\text{Dummy}}(\text{SPV})$			2.9464***
			(7.49)
Controls	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes
Observations	45,616	35,116	31,073
R-squared	0.1029	0.7165	0.7015

Panel B. Effects of SPVs on Financial Policies

Dep. Var.:	(1) Cash	(2) Leverage	(3) Net Leverage	(4) RE/PPEGT
Law	-0.0085	0.0060	0.0018	-0.0020
	(-1.26)	(0.85)	(0.18)	(-0.31)
Law*$\widehat{\text{Dummy(SPV)}}$	-0.0317***	0.0234*	0.0513***	-0.0102
	(-2.64)	(1.94)	(3.02)	(-0.88)
$\widehat{\text{Dummy(SPV)}}$	0.0229**	-0.0091	-0.0260**	0.0041
	(2.31)	(-1.23)	(-2.57)	(0.46)
Cash Flow	0.0782***	0.0079	-0.0126	0.0091*
	(4.29)	(0.31)	(-0.47)	(1.74)
NWC	-0.1036***	-0.4443***	-0.4042***	-0.0127*
	(-3.77)	(-4.61)	(-3.80)	(-1.96)
Investment	-0.5209***	-0.0533	0.2800***	0.7843***
	(-16.74)	(-1.30)	(6.10)	(15.58)
Market Cap	0.0627***	-0.0409***	-0.0560***	0.0298***
	(16.27)	(-7.60)	(-9.62)	(13.94)
M/B	0.0162***	0.0073**	0.0002	-0.0081***
	(6.18)	(2.55)	(0.07)	(-6.08)
Acquisition	-0.1965***	0.2224***	0.4561***	0.2786***
	(-11.25)	(15.11)	(23.77)	(13.89)
Dividend Payer	-0.0019	-0.0100*	-0.0088	-0.0002
	(-0.43)	(-1.93)	(-1.38)	(-0.04)
R&D (Dummy)	-0.0054	-0.0079	-0.0044	-0.0050
	(-0.68)	(-0.60)	(-0.26)	(-0.59)
Firm FE	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
Observations	38,263	38,184	38,184	38,207
R-squared	0.6887	0.8077	0.8311	0.7925

Table 8. Creditor Rights and Firm Policies Following 2008 Crisis

This table examines the changes in firms' financial and operational policies around the 2008 financial crisis. Panel A reports the results for firms' financial policies. Panel B reports results for firms' operational policies. Differently from the other tables in the paper, the sample spans 2006—2010. Post is a dummy variable indicating years after 2008. Law is a dummy variable that equals to one for firms incorporated in Texas or Louisiana after 1997, for firms in Alabama after 2001, for firms in Delaware after 2002, for firms in South Dakota after 2003, for firms in Virginia after 2004, and for firms in Nevada after 2005. All remaining variables are defined in the Appendix. All regressions include firm fixed effects and industry-year fixed effects. T-statistics are presented in parentheses. Standard errors are corrected for heteroscedasticity and clustered at the firm level. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

Panel A. Financial Policies

	(1)	(2)	(3)	(4)
Dep. Var.:	Cash	Leverage	Net Leverage	RE/PPEGT
Law*Post	-0.0204***	0.0098*	0.0198***	-0.0115**
	(-2.95)	(1.79)	(2.70)	(-2.36)
Cash Flow	0.0839***	0.0861	0.0607	0.0203**
	(3.37)	(1.17)	(0.77)	(2.25)
NWC	-0.1230***	-0.5449***	-0.5062***	-0.0202
	(-2.90)	(-4.19)	(-3.61)	(-1.53)
Investment	-0.3920***	0.0656	0.3197***	0.5748***
	(-5.31)	(0.79)	(3.34)	(5.58)
Market Cap	0.0773***	-0.0565***	-0.0743***	0.0232***
	(11.64)	(-4.33)	(-5.21)	(6.61)
M/B	-0.0091*	0.0198**	0.0165*	-0.0068**
	(-1.75)	(2.23)	(1.71)	(-2.35)
Acquisition	-0.1777***	0.1903***	0.4208***	0.2707***
	(-5.91)	(8.80)	(15.03)	(8.92)
Dividend Payer	0.0092	0.0138	0.0089	-0.0040
	(1.01)	(1.35)	(0.78)	(-0.64)
R&D (Dummy)	0.0061	-0.0177	0.0005	0.0172
	(0.32)	(-0.85)	(0.02)	(1.04)
Firm FE	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
Observations	13,484	14,049	14,049	13,427
R-squared	0.7624	0.9079	0.9141	0.8672

Panel B. Operational Policies

	(1)	(2)	(3)	(4)	(5)
Dep. Var.:	R&D (Stock)	SG&A (Stock)	Intangible (Stock)	Tangibility	Employment
Law*Post	0.0492***	0.0664***	0.1345***	0.0031	-0.0000
	(4.65)	(2.72)	(4.26)	(1.27)	(-0.11)
Cash Flow	-0.0823**	-0.1628**	-0.2846***	-0.0017	-0.0005***
	(-2.31)	(-2.36)	(-3.01)	(-0.57)	(-4.06)
NWC	0.0840	0.1521	0.3105*	0.0053	0.0008***
	(1.36)	(1.28)	(1.89)	(1.21)	(3.71)
Investment	0.1273*	0.4148***	0.3688**	0.2983***	0.0025***
	(1.92)	(2.80)	(1.99)	(7.39)	(3.03)
Market Cap	-0.1537***	-0.4417***	-0.6368***	-0.0203***	-0.0008***
	(-14.99)	(-19.89)	(-21.01)	(-12.69)	(-9.68)
M/B	0.0756***	0.1616***	0.2722***	0.0023**	0.0004***
	(10.85)	(11.13)	(13.49)	(2.41)	(8.96)
Acquisition	0.0159	-0.2841***	-0.2244***	0.0159*	-0.0008*
	(0.64)	(-5.08)	(-3.01)	(1.88)	(-1.73)
Dividend Payer	0.0192*	-0.0174	0.0187	-0.0024	0.0000
	(1.79)	(-0.54)	(0.49)	(-0.81)	(0.46)
R&D (Dummy)	-0.0160	-0.1603*	-0.2275**	0.0092	0.0007*
	(-0.66)	(-1.83)	(-2.02)	(1.29)	(1.90)
Firm FE	Yes	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes	Yes
Observations	14,116	14,116	14,041	14,116	13,959
R-squared	0.9224	0.9103	0.9041	0.9675	0.9658

Table 9. Testing the Common Trend Hypothesis

This table describes the changes in firm policies prior to the adoption of anti-recharacterization laws. *Law Year (-t)* is an indicator that equals one if a firm is in a state that will pass an anti-recharacterization law in *t* years. Law is a dummy variable that equals to one for firms incorporated in Texas or Louisiana after 1997, for firms in Alabama after 2001, for firms in Delaware after 2002, for firms in South Dakota after 2003, for firms in Virginia after 2004, and for firms in Nevada after 2005. All remaining variables are defined in the Appendix. All regressions include firm-fixed effects and industry-year-fixed effects. T-statistics are presented in parentheses. Standard errors are corrected for heteroscedasticity and clustered at the firm level. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
Dep. Var.:	Cash	Leverage	Net Leverage	RE/PPEGT
Law Year (-3)	0.0046	0.0001	0.0023	-0.0048
	(0.71)	(0.01)	(0.30)	(-0.80)
Law Year (-2)	0.0230***	-0.0055	-0.0085	0.0019
	(2.86)	(-0.91)	(-1.01)	(0.28)
Law Year (-1)	-0.0081	0.0012	-0.0021	-0.0024
	(-1.07)	(0.16)	(-0.21)	(-0.34)
Law	-0.0105	0.0132**	0.0196**	-0.0122*
	(-1.51)	(2.02)	(2.03)	(-1.76)
Cash Flow	0.0260*	-0.0007	-0.0112	0.0035
	(1.79)	(-0.02)	(-0.32)	(1.02)
NWC	-0.0413**	-0.4130***	-0.3849***	-0.0004
	(-2.06)	(-7.22)	(-6.32)	(-0.08)
Investment	-0.5381***	0.0043	0.3574***	0.9753***
	(-19.26)	(0.10)	(7.54)	(26.24)
Market Cap	0.0663***	-0.0364***	-0.0542***	0.0330***
	(24.76)	(-11.63)	(-14.07)	(17.18)
M/B	0.0161***	0.0060***	-0.0034	-0.0094***
	(9.07)	(2.98)	(-1.47)	(-8.57)
Acquisition	-0.1822***	0.2078***	0.4415***	0.3309***
	(-12.64)	(17.93)	(28.43)	(18.53)
Dividend Payer	-0.0025	-0.0056	-0.0105**	0.0005
	(-0.64)	(-1.33)	(-1.99)	(0.13)
R&D (Dummy)	0.0044	-0.0054	-0.0144	-0.0082
	(0.54)	(-0.66)	(-1.29)	(-1.06)
Firm FE	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes

Observations	64,703	74,036	74,036	64,522
R-squared	0.6266	0.6995	0.7546	0.7150

Table 10. Alternative Mechanisms

This table examines the changes in firms' responses to uncertainty alongside the changes in their responses to distress risk around the adoption of anti-recharacterization laws. DP is the probability of default, constructed based on the method introduced of Bharath and Shumway (2008). *Law* is a dummy variable that equals to one for firms incorporated in Texas or Louisiana after 1997, for firms in Alabama after 2001, for firms in Delaware after 2002, for firms in South Dakota after 2003, for firms in Virginia after 2004, and for firms in Nevada after 2005. All remaining variables are defined in the appendix. All regressions include firm-fixed effects and industry-year-fixed effects. T-statistics are presented in parentheses. Standard errors are corrected for heteroscedasticity and clustered at the firm level. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dep. Var.:	Cash	Cash	Leverage	Leverage	Net Leverage	Net Leverage	RE/PPEGT	RE/PPEGT
Law	0.0297***	0.0551***	-0.0291***	-0.0156*	-0.0390***	-0.0118	-0.0093	0.0163*
	(3.52)	(6.30)	(-3.02)	(-1.70)	(-3.17)	(-0.97)	(-0.91)	(1.72)
Law*CF Vol	-0.5340***		0.5212***		0.6813***		-0.1439	
	(-4.26)		(4.49)		(4.46)		(-1.29)	
CF Vol	-0.0191		-0.0342		-0.0534		0.3320*	
	(-0.15)		(-0.27)		(-0.31)		(1.92)	
Law*Equity Systematic Vol		-6.8112***		2.7145***		2.5585**		-3.6881***
		(-7.79)		(3.30)		(2.39)		(-4.45)
Systematic Vol		7.1564***		-1.8903***		-3.3405***		3.4500***
		(7.08)		(-3.01)		(-3.76)		(4.44)
Law*DP	0.0332***	0.0420***	-0.0414**	-0.0468**	-0.0579***	-0.0641***	0.0358***	0.0417***
	(2.68)	(3.36)	(-2.21)	(-2.50)	(-2.75)	(-3.06)	(2.61)	(3.03)
DP	0.0085	0.0019	0.1722***	0.1742***	0.2117***	0.2157***	0.0159	0.0108
	(0.97)	(0.21)	(16.59)	(16.92)	(16.53)	(16.92)	(1.56)	(1.06)
Cash Flow	0.2068***	0.2187***	-0.0708***	-0.0753***	-0.1219***	-0.1290***	0.0422***	0.0458***
	(12.45)	(15.33)	(-5.55)	(-6.16)	(-7.72)	(-8.67)	(4.95)	(5.13)
NWC	-0.2276***	-0.2326***	-0.2285***	-0.2257***	-0.0652**	-0.0606**	-0.0222*	-0.0239*
	(-13.70)	(-13.83)	(-11.29)	(-11.15)	(-2.52)	(-2.34)	(-1.67)	(-1.77)
Investment	-0.4424***	-0.4536***	-0.1104***	-0.1080***	0.1800***	0.1840***	0.9505***	0.9387***

	(-13.68)	(-13.89)	(-4.56)	(-4.45)	(5.70)	(5.80)	(22.25)	(22.15)
Market Cap	0.0454***	0.0421***	-0.0251***	-0.0241***	-0.0342***	-0.0321***	0.0294***	0.0283***
	(13.53)	(12.50)	(-8.76)	(-8.30)	(-8.98)	(-8.26)	(9.50)	(9.05)
M/B	0.0211***	0.0210***	0.0024	0.0020	-0.0084***	-0.0091***	-0.0072***	-0.0074***
	(8.94)	(8.81)	(1.37)	(1.16)	(-3.75)	(-4.03)	(-4.17)	(-4.32)
Acquisition	-0.0925***	-0.0901***	0.2028***	0.2047***	0.3749***	0.3763***	0.3484***	0.3467***
	(-6.31)	(-6.16)	(18.38)	(18.58)	(26.20)	(26.26)	(17.92)	(17.85)
Dividend Payer	-0.0003	-0.0000	-0.0064	-0.0068	-0.0091*	-0.0100*	0.0004	0.0010
	(-0.08)	(-0.00)	(-1.53)	(-1.63)	(-1.76)	(-1.92)	(0.08)	(0.20)
R&D (Dummy)	0.0084	0.0056	-0.0149	-0.0132	-0.0225*	-0.0204*	-0.0001	-0.0016
	(0.95)	(0.64)	(-1.55)	(-1.37)	(-1.88)	(-1.70)	(-0.01)	(-0.16)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	43,388	43,112	47,657	47,355	47,657	47,355	43,324	43,051
R-squared	0.6643	0.6663	0.7270	0.7269	0.7823	0.7826	0.7513	0.7527

Table 11. Robustness--Pre-2003 Changes in Creditor Rights

This table compares the effects of anti-recharacterization laws prior to 2003 and the effects of the laws throughout our sample period. In Panel A, uncertainty is measured by a firm's systematic volatility. In Panel B, uncertainty is measured by cash flow volatility in a firm's industry. Law is a dummy variable that equals to one for firms incorporated in Texas or Louisiana after 1997, for firms in Alabama after 2001, for firms in Delaware after 2002, for firms in South Dakota after 2003, for firms in Virginia after 2004, and for firms in Nevada after 2005. All regressions include firm-fixed effects and industry-year-fixed effects. Law (Pre-2003) is defined as Law prior to 2003 and is set equal to zero afterwards. All remaining variables are defined in the Appendix. T-statistics are presented in parentheses. Standard errors are corrected for heteroscedasticity and clustered at the firm level. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

Panel A. Uncertainty Measured by Systematic Volatility of Equity Returns

	(1)	(2)	(3)	(4)
Dep. Var.:	Cash	Leverage	Net Leverage	RE/PPEGT
Law (Pre-2003)	-0.0133	0.0085	0.0337**	-0.0033
	(-1.20)	(0.85)	(2.43)	(-0.32)
Law (all)	0.0739***	-0.0216**	-0.0304**	0.0205**
	(7.08)	(-2.24)	(-2.18)	(1.97)
Law (Pre-2003)*Systematic Vol	1.5948	-1.4900	-4.6197***	0.9245
	(1.61)	(-1.62)	(-3.78)	(1.05)
Law (all)*Systematic Vol	-8.7487***	3.1902***	4.6524***	-3.7244***
	(-9.50)	(3.82)	(4.05)	(-4.35)
Systematic Vol	7.9235***	-1.5776***	-3.2652***	3.6160***
	(8.67)	(-2.89)	(-4.09)	(5.25)
Cash Flow	0.2107***	-0.0482***	-0.1068***	0.0413***
	(11.50)	(-4.31)	(-7.09)	(3.79)
NWC	-0.2849***	-0.2511***	-0.0520**	-0.0210*
	(-15.85)	(-14.80)	(-2.12)	(-1.67)
Investment	-0.4826***	-0.0599***	0.2880***	0.8564***
	(-13.66)	(-2.69)	(9.64)	(20.16)
Market Cap	0.0500***	-0.0296***	-0.0403***	0.0313***
	(15.86)	(-12.67)	(-12.19)	(11.93)
M/B	0.0212***	0.0008	-0.0106***	-0.0084***
	(11.19)	(0.73)	(-6.65)	(-6.27)
Acquisition	-0.1759***	0.2151***	0.4505***	0.3242***
	(-11.41)	(20.42)	(30.32)	(17.52)
Dividend Payer	-0.0021	-0.0071**	-0.0143***	0.0012
	(-0.48)	(-1.99)	(-2.98)	(0.28)
R&D (Dummy)	0.0066	-0.0101	-0.0183	-0.0089
	(0.77)	(-1.15)	(-1.61)	(-0.95)
Firm FE	Yes	Yes	Yes	Yes

Industry-Year FE	Yes	Yes	Yes	Yes
Observations	52,075	58,711	58,711	51,976
R-squared	0.6743	0.7281	0.8017	0.7364

Panel B. Uncertainty Measured by Cash Flow Volatility

	(1)	(2)	(3)	(4)
Dep. Var.:	Cash	Leverage	Net Leverage	RE/PPEGT
Law (Pre-2003)	-0.0089	0.0010	0.0090	-0.0093
	(-1.03)	(0.10)	(0.70)	(-1.07)
Law (all)	0.0168*	-0.0177*	-0.0232*	0.0084
	(1.85)	(-1.71)	(-1.68)	(0.80)
Law (Pre-2003)*Cash Flow Vol	0.1498	-0.2571**	-0.4168***	0.1402*
	(1.48)	(-2.40)	(-3.08)	(1.75)
Law (all)*Cash Flow Vol	-0.3838***	0.4763***	0.6519***	-0.2612**
	(-3.42)	(4.26)	(4.28)	(-2.56)
Cash Flow Vol	-0.0027	-0.0575	-0.0294	0.2419*
	(-0.02)	(-0.49)	(-0.17)	(1.77)
Cash Flow	0.0243*	-0.0010	-0.0101	0.0069
	(1.80)	(-0.03)	(-0.29)	(1.06)
NWC	-0.0452**	-0.4127***	-0.3816***	0.0061
	(-2.23)	(-7.21)	(-6.32)	(0.52)
Investment	-0.2838***	-0.0271	0.1905**	0.5347***
	(-2.77)	(-0.56)	(2.23)	(3.70)
Market Cap	0.0654***	-0.0364***	-0.0538***	0.0349***
	(24.15)	(-11.50)	(-13.96)	(16.60)
M/B	0.0157***	0.0063***	-0.0029	-0.0092***
	(8.81)	(3.08)	(-1.22)	(-7.82)
Acquisition	-0.1711***	0.2048***	0.4328***	0.3137***
	(-11.31)	(17.29)	(27.09)	(16.57)
Dividend Payer	-0.0023	-0.0054	-0.0106**	-0.0003
	(-0.60)	(-1.29)	(-2.00)	(-0.08)
R&D (Dummy)	0.0049	-0.0055	-0.0146	-0.0089
	(0.60)	(-0.68)	(-1.31)	(-1.14)
Firm FE	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
Observations	64,703	74,036	74,036	64,522
R-squared	0.6243	0.6996	0.7540	0.7074

Table 12. Matched Sample Test

This table describes the changes in firm policies around the adoption of anti-recharacterization law in a matched sample. The firms affected by the anti-recharacterization laws are matched with firms in the same three-digit SIC industry and year, with similar size (differences in log total assets to be smaller than 0.5). We also require firms to have similar real-estate asset holdings during the ten years prior to the implementation of anti-recharacterization laws (differences in real estate assets over PPEGT to be smaller than 0.2). All remaining variables are defined in the Appendix. The sample includes all Compustat firms that are incorporated in the 50 U.S. states and Washington D.C., excluding those in real estate financial (SIC 6500--6800) and utility (SIC 4900--4999) industries. The sample period spans 1992—2010. Law is a dummy variable that equals to one for firms incorporated in Texas or Louisiana after 1997, for firms in Alabama after 2001, for firms in Delaware after 2002, for firms in South Dakota after 2003, for firms in Virginia after 2004, and for firms in Nevada after 2005. All regressions include firm-fixed effects and industry-year-fixed effects. T-statistics are presented in parentheses. Standard errors are corrected for heteroscedasticity and clustered at the firm level. ***, **, * denote significance at 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
Dep. Var.:	Cash	Leverage	Net Leverage	RE/PPEGT
Law	-0.0226***	0.0145**	0.0236**	-0.0121*
	(-2.94)	(2.07)	(2.43)	(-1.94)
Cash Flow	0.0935***	0.0035	-0.0160	0.0110**
	(4.80)	(0.10)	(-0.44)	(2.51)
NWC	-0.1298***	-0.4347***	-0.3977***	-0.0100
	(-3.84)	(-5.21)	(-4.47)	(-1.62)
Investment	-0.7035***	-0.0326	0.3511***	1.0201***
	(-16.23)	(-0.68)	(5.99)	(18.10)
Market Cap	0.0805***	-0.0384***	-0.0549***	0.0335***
	(20.75)	(-7.26)	(-9.06)	(13.26)
M/B	0.0112***	0.0055**	-0.0010	-0.0088***
	(4.88)	(2.16)	(-0.35)	(-6.36)
Acquisition	-0.2362***	0.1967***	0.4436***	0.2372***
	(-11.85)	(12.06)	(19.82)	(11.51)
Dividend Payer	-0.0051	-0.0190***	-0.0184**	0.0071
	(-0.75)	(-3.42)	(-2.44)	(1.37)
R&D (Dummy)	-0.0077	-0.0026	-0.0079	-0.0058
	(-0.52)	(-0.18)	(-0.43)	(-0.47)
Firm FE	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
Observations	36,170	36,948	36,948	36,113
R-squared	0.6868	0.7917	0.8266	0.7813