Protection of trade secrets and capital structure decisions*

Sandy Klasa[a], Hernán Ortiz-Molina[b], Matthew Serfling[c], and Shweta Srinivasan[d]

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Abstract

We study whether a firm's capital structure decisions are affected by the risk that its product market rivals could gain access to its "trade secrets." Our tests exploit the staggered recognition of the Inevitable Disclosure Doctrine (IDD) by U.S. state courts as an exogenous event that increases the protection of a firm's trade secrets by preventing the firm's workers who have knowledge of its trade secrets from working for a rival firm. We find that firms increase their financial leverage after courts in their state of location recognize the IDD, especially firms in more competitive industries, with more workers who know trade secrets, or that face a greater ex-ante risk of losing key employees to rivals. Also, firms' borrowing costs decrease after the recognition of the IDD, implying that credit markets price the risk that a firm's rivals could obtain its trade secrets. Finally, firms experience gains in market share following the recognition of the IDD in their state. Overall, our results imply that the risk of losing intellectual property to rivals is an important competitive threat that leads firms to choose more conservative capital structures.

Keywords: capital structure; trade secrets; intellectual property; competitive threats.

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[a] Eller College of Management, University of Arizona, Tucson, AZ 85721, sklasa@eller.arizona.edu.

[b] Sauder School of Business, University of British Columbia, Vancouver, BC V6T1Z2, ortizmolina@sauder.ubc.ca.

[c] Eller College of Management, University of Arizona, Tucson, AZ 85721, serfling@email.arizona.edu.

[d] Eller College of Management, University of Arizona, Tucson, AZ 85721, chandras@email.arizona.edu.

1. Introduction

Financial economists generally agree that risks stemming from a firm's competitive environment, such as the risk of predation by rivals, can affect its capital structure decisions. Surprisingly, little is known about the relevance for capital structure choices of competitive risks that originate from a firm's inability to fully protect its intellectual property. Yet, intellectual property, which accounts for roughly one-third of the aggregate market equity value of U.S. publicly traded firms, is among the critical revenue-generating assets that determine a firm's competitive position and performance in its product market.[1]

In this paper, we study how a firm's capital structure decisions are affected by the risk that its industry rivals could gain access to its intellectual property in the form of trade secrets. These secrets consist of formulas, practices, processes, or designs, and importantly, also of any compilations of information that are not generally known or easily ascertainable by outside parties, such as customer lists, price lists, cost information, and information about future business plans (e.g., future products). Trade secrets are pervasive in all industry sectors and are very valuable because they provide firms with competitive advantages over their rivals. Noteworthy, a recent survey conducted by Marsh & McLennan Companies and Liberty International Underwriters reports that firms' trade secrets are the most important form of revenue-generating intellectual property, followed by trademarks and patents.[2]

Trade secrets are protected by their secrecy but not by patents, because they are not patentable (e.g., financial information) or patenting them is too costly (e.g., it requires the firm to publicly reveal its confidential information). In consequence, trade secrets are an important source of risk because the divulgence of such secrets can erode a firm's competitive advantages over its rivals and cause the firm significant economic harm. Highlighting the importance and nature of this risk, a survey conducted by ASIS International, PricewaterhouseCoopers, and the U.S. Chamber of Commerce estimates that

[1] See Shapiro and Hassett (2005) for a discussion of the economic value of intellectual property in the U.S.
[2] Available at http://usa.marsh.com/NewsInsights/FeaturedContent/The2011IntellectualPropertySurveyReport.aspx.

U.S. firms lose over $50 billion annually due to the divulgence of their trade secrets. It also reports that the most frequent types of trade secrets lost to rivals are secrets related to a firm's customers, strategic plans, and financial data.[3]

We hypothesize that a firm maintains a lower debt ratio when it faces a greater risk that its rivals could harm its competitive position by gaining access to its trade secrets. Our hypothesis follows from the "deep pockets" argument advanced by Telser (1966) and further studied in Bolton and Scharfstein (1990), which suggests that a firm benefits more from having financial slack in the form of unused debt capacity when it faces greater competitive threats in its product market. Importantly, if a firm has more unused debt capacity then upon the divulgence of its trade secrets to rivals it can more easily raise the funds it needs to avoid further harm to its competitive position and value. For instance, the firm could use these funds to react more aggressively to protect its competitive position, and also ensure that, in spite of the adverse effects resulting from the loss of its trade secrets to rivals, it can continue to fully invest in its growth opportunities and make its debt payments.

The main challenge in estimating the causal effect of a higher risk of losing trade secrets to rivals on a firm's capital structure decisions is to identify exogenous variation in this risk. To this end, we focus on a key channel through which a firm's trade secrets are divulged to rivals: the mobility of key employees with knowledge of the trade secrets. Noteworthy, existing evidence shows that the mobility of employees with knowledge of trade secrets is the main source of the risk that a firm's trade secrets will be divulged to its rivals. For example, in the survey conducted by ASIS International, PricewaterhouseCoopers, and the U.S. Chamber of Commerce noted earlier, CEOs report that former employees are the greatest source of risk associated with the loss of proprietary information. Also, Almeling et al. (2010) report that in most legal cases involving trade secrets the misappropriator of a firm's trade secrets is one of its former employees.

Our empirical tests use a difference-in-differences approach based on the staggered adoption, and in a few cases the subsequent rejection, of the Inevitable Disclosure Doctrine

[3] Available at https://www.uschamber.com/sites/default/files/legacy/issues/technology/files/informationloss2.pdf.

(IDD) by U.S. state courts over the 1977-2011 period. The IDD is a legal doctrine which states that a firm's former employee can be prevented from working for a rival firm if this would "inevitably" lead the employee to divulge the firm's trade secrets to the rival. It is applicable even if the employee did not sign a non-compete or non-disclosure agreement with the firm, there is no evidence of bad faith or actual wrongdoing, and the rival is located in another state. Hence, by increasing a firm's ability to prevent its employees who know its trade secrets from working for rivals, the adoption of the IDD reduces the firm's risk that these employees will disclose its secrets to rivals. Supporting this assertion, Png and Samila (2013) find that the adoption of the IDD restricts the mobility of workers in adopting states who are likely to know their firm's trade secrets. As we explain in Section 2, this setting provides exogenous variation in the protection of firms' trade secrets and allows us to estimate the causal effect of changes in this protection on capital structure decisions.

To measure changes in the protection of trade secrets afforded by the IDD over our sample period, we create an IDD indicator variable by relying on state-by-state analyses of case law involving trade secrets to identify the timing of changes in state courts' positions regarding the IDD. For each state, our IDD indicator equals one starting the year a state court adopts the IDD in a precedent-setting case and, if in another precedent-setting case a state court subsequently rejects the IDD, the indicator reverts to zero beginning the year it is rejected; the indicator equals zero in all other years. Our identification relies on 16 adoptions of the IDD and three rejections that reversed prior adoptions. For simplicity, throughout the paper we refer to the impact of changes in the IDD indicator on the dependent variables in our tests as the impact of the "recognition" of the IDD.

Our key result is that, on average, the recognition of the IDD leads to an economically significant increase of approximately 5.6% in the book and market leverage ratios of firms headquartered in affected states.[4] This finding holds after the inclusion of standard controls

[4] The applicability of the IDD is typically determined by the state where the employee works, and we assume that most workers who know a firm's trade secrets work in the firm's state of headquarters. In Section 5.2, we show that our results are not affected by potential measurement error resulting from changes in a firm's state of headquarters or the possibility that some firms might employ a significant number of workers with access to their trade secrets outside their state of headquarters.

used in capital structure tests, controls for the economic and political conditions prevailing in a state, as well as firm and year fixed effects that control for time-invariant firm-level factors and for secular trends in financial leverage. We also distinguish between the 16 adoptions of the IDD and the three cases in which state courts rejected the IDD after adopting it in prior years. We find that firms increase their leverage following the adoption of the IDD in their state of headquarters and decrease it following the rejection of the previously adopted IDD by a similar amount. We also show that the increases (decreases) in financial leverage occur after the adoption (rejection) of the IDD, but not before. Overall, these results suggest that a lower (higher) risk of losing trade secrets to rivals leads firms to increase (decrease) their financial leverage, and that the effect is indeed causal.[5]

To further increase confidence in our interpretation of these results, we next study the cross-sectional variation in the impact of the recognition of the IDD on capital structure. First, firms in more competitive industries typically have lower operating margins and survival rates. Consequently, they are likely to benefit more from having unused debt capacity to endure the adversity resulting from the divulgence of their trade secrets to rivals. This suggests that the recognition of the IDD should have a stronger impact on the capital structure decisions of firms operating in more competitive industries. Using industry concentration ratios and barriers to entry in an industry to proxy for the intensity of competition in the industry, we find evidence consistent with this prediction.

Second, workers in managerial or science occupations and more educated workers have a higher likelihood of knowing their firm's trade secrets. Hence, firms that employ a larger fraction of these workers are more exposed to the risk that their rivals could gain access to their trade secrets by poaching some of their employees, and would therefore benefit more from having unused debt capacity. This implies that the recognition of the IDD should have a larger effect on the capital structures of firms that employ more of these workers. Supporting this prediction, we document that the effect of the IDD on leverage is most

[5] In Section 5.1, we report that the recognition of the IDD does not affect capital expenditures, acquisition activity, R&D expenses, or advertising expenses. Hence, the changes in leverage we document are unlikely to be driven by an increase in the marginal benefit of investment that increases firms' demand for external financing.

prevalent when a firm operates in an industry that employs a larger fraction of workers in managerial occupations, in science occupations, or with at least a bachelor's degree.

Third, unused debt capacity should be more valuable for firms that face a greater ex-ante risk that their workers will join rival firms, and thus the recognition of the IDD should have a larger impact on the capital structure choices of these firms. This ex-ante risk is smaller for firms with defined benefit pension plans, since the benefits from these plans are less portable and induce workers to remain with the firm. In contrast, this ex-ante risk is greater if a firm faces geographically close rivals that are large employers compared to the firm, because the firm's workers can then more easily find employment at a rival firm that is close to their current job and hence have a smaller cost of switching employers. Consistent with expectations, we find that the positive impact of the recognition of the IDD on a firm's debt ratio is strongest if the firm does not have a defined benefit pension plan or the firm faces rivals in its state who employ a large number of workers relative to it.

We argue that the recognition of the IDD in a firm's state leads the firm to raise its financial leverage because the associated increase in the protection of its trade secrets reduces the competitive threats the firm faces in its product market. We provide two pieces of evidence which further support this interpretation of the results. First, bank debt is the main source of financing for most firms and Valta (2012) shows that banks pay attention to product market issues and price competitive threats into a firm's cost of debt. This implies that, if the recognition of the IDD reduces the competitive threats a firm faces, then it should be associated with a decrease in the credit spreads the firm pays on its bank loans. Supporting this prediction, we find that the recognition of the IDD in a firm's state decreases the credit spreads it pays by 5.7%. Noteworthy, credit spreads decrease following the adoption of the IDD and increase following rejections to a similar degree, and these effects occur only after state courts change their views on the IDD. Second, if the recognition of the IDD reduces the competitive threats a firm faces, then it should help the firm maintain its competitive advantages over its rivals and ultimately boost the firm's

performance in its product market. Consistent with this prediction, we find that the recognition of the IDD leads to market share gains for firms located in recognizing states.

Our paper is closely related to prior work showing that competitive threats resulting from the ability of financially strong firms to prey on financially weak firms shape financial policies (e.g., Phillips (1995), Chevalier (1995), Kovenock and Phillips (1997), Khanna and Tice (2000, 2005), Campello (2003, 2006), MacKay and Phillips (2005), Lyandres (2006), Haushalter, Klasa, and Maxwell (2007), Frésard (2010), Khanna and Schroder (2010), Valta (2012), and Hoberg, Phillips, and Prabhala (2014)). Our main contribution is to highlight that losing intellectual property in the form of trade secrets to rivals is a major competitive threat for many firms and that this threat affects their capital structure decisions. As such, our paper also contributes more broadly by increasing the understanding of capital structure choices (see Leary and Roberts (2005) and Lemmon, Roberts, and Zender (2008) for recent papers and Harris and Raviv (1991) and Frank and Goyal (2007) for comprehensive surveys of the literature).

Our paper is also related to recent work that shows how frictions emanating from labor markets affect capital structure decisions (e.g., Matsa (2010), Agrawal and Matsa (2013), Kim (2013), and Simintzi, Vig, and Volpin (2014)). These studies show that financial leverage can depend on strategic issues that arise in bargaining with labor unions, employee unemployment risk, the size of labor markets, and the rigidity of labor costs. Although our focus – the protection of trade secrets – is different, our work is related to these studies because the recognition of the IDD increases the protection of a firm's trade secrets by reducing the mobility of the firm's key workers to rival firms. Since workers with knowledge of trade secrets do not typically account for a large fraction of a firm's total labor costs, their mobility is unlikely to affect capital structure solely through the labor-related mechanisms outlined above. Still, our evidence suggests that the mobility of such workers can impact a firm's capital structure by affecting the protection of its trade secrets.

The rest of the paper is organized as follows. Section 2 discusses the legal environment surrounding the IDD and how we identify the recognition of the IDD by state courts.

Section 3 describes our data and empirical methodology. Section 4 reports our main empirical results. Section 5 reports the results of robustness tests. Section 6 concludes.

2. The inevitable disclosure doctrine

2.1. Legal background

Unlike most areas of intellectual property law, which are governed by federal statute, the legal protection of trade secrets is largely governed by state law. The IDD can be traced back to 1919 (see *Eastman Kodak Co. v. Powers Film Prod.,* 189 A.D. 556 (N.Y.A.D. 1919)), but it has developed more recently in the broader context of trade secrets law. Trade secrets law developed as common law and it did not follow universally applicable principles until 1979. In that year, the National Conference of Commissioners on Uniform State Laws issued the Uniform Trade Secrets Act (UTSA), which codified the existing common law and sought to promote uniformity of the legal treatment of these cases across states (the Act was amended in 1985 with some clarifications). To date, 47 states and the District of Columbia have adopted laws based on the principles outlined by the UTSA. North Carolina and New York have not yet enacted laws based on the UTSA, and Massachusetts has introduced a bill in January 2014 to enact the UTSA that is currently pending. Thus, these three states continue to rely only on case law when considering the legal protection of trade secrets.

Section 1(4) of the UTSA defines a trade secret as any information that (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy. Section 1(2) of the UTSA highlights that misappropriation occurs when the trade secret is acquired by (i) improper means (e.g., theft or breach of a duty to maintain secrecy) or (ii) disclosure without express or implied consent by a person who acquired the trade secret under circumstances giving rise to a duty to maintain its secrecy or limit its use.

Of particular importance is Section 2(a), which allows courts to provide injunctive relief for "actual or threatened misappropriation" of trade secrets. The term "threatened misappropriation" used in trade secrets law is directly related to the IDD. The issue of threatened misappropriation occurs when an employee who has acquired knowledge of a firm's trade secrets goes to work for a direct competitor in a similar position. The IDD is a doctrine which maintains that, if the new employment would *inevitably* lead to the disclosure of the firm's trade secrets to a competitor and cause the firm irreparable harm, then upon the firm's request state courts can prevent the employee from working for the firm's competitor or can allow it but limit the responsibilities the worker can undertake.

The adoption of the IDD by state courts enhances the protection of trade secrets for firms located in the state by reducing the risk that departing employees will reveal a firm's trade secrets to rivals (in any state). Under the IDD, a firm's suit can rest on the mere *threat* of irreparable harm. To obtain an injunction, the firm must only establish that (i) the employee had access to its trade secrets, (ii) the employee's duties at the new employer would be so similar to those she had at the firm that in performing them she will inevitably use or disclose the trade secrets, and (iii) the disclosure of the trade secrets would produce irreparable economic harm to its business. However, the firm need not establish actual wrongdoing by the employee (disclosure, misappropriation, or bad faith) or disclose the actual details of the underlying trade secrets in the lawsuit. Noteworthy, lawsuits related to employment contracts are filed in the context of employment law, and thus the relevant jurisdiction for a lawsuit seeking to protect a firm's trade secrets when employees switch employers is typically the state where the former employee worked (e.g., Malsberger (2004) and Garmaise (2011)). As a result, the IDD protects a firm's trade secrets even if the new employer of a firm's former worker is in a state whose courts have not adopted the IDD.

The duration of the court injunction preventing a firm's former employee from working for a rival firm depends on the nature of the trade secrets involved as well as on the particular circumstances of the case. For instance, if the trade secret consists of details about a new product a firm is planning to launch, the injunction would typically last until

the firm brings the product to market. Alternatively, if the trade secret consists of a unique proprietary production process that rivals are unlikely to be able to replicate on their own in the near future, then the injunction could last for a longer period of time.

Employment contracts often contain a non-disclosure agreement (NDA) and/or a covenant not to compete (CNC). By signing an NDA the employee agrees not to use or disseminate the firm's confidential information, and under a CNC the employee agrees not to enter into or start a similar trade in competition against the firm. Both clauses are designed to protect the firm's trade secrets in cases in which employees wish to switch jobs or start competing firms. With these agreements in place, it is easier for the firm to seek injunctive relief because it can bolster its suit by including a claim of breach of contract. However, the protection offered by NDAs and CNCs is limited. First, in the case of NDAs violations must be detected and proved before the firm can initiate legal action against the employee. Also, even if the firm is able to detect that a former employee has disclosed its trade secrets to a rival, by that time the (potentially irreparable) harm has already been done. Second, CNCs are very limited in scope and time because courts deem over-broad CNCs unenforceable as a matter of public policy because they restrict employee mobility.[6]

The IDD provides significant protection of trade secrets over and above any protection firms might enjoy when their employees sign NDAs and CNCs. First, it is much broader in scope and more far reaching (e.g., unlike CNCs, the IDD does not entail specific geographic restrictions). Second, it increases the enforceability of NDAs and CNCs. For instance, the IDD allows courts to grant an injunction if allowing employment at the rival firm would inevitably lead to a future violation of an NDA (i.e., before the NDA is violated and irreparable harm occurs), which is important because detecting and proving (ex-post) violations of an NDA is difficult and can take a significant amount of time. The IDD is also a powerful means of establishing a key element in any legal action to enforce a CNC, namely, that there is a significant likelihood of irreparable harm to the firm if the employee

[6] Courts enforce CNCs only when there are reasonable limitations as to the geographical area and time period in which an employee of a company may not compete. The scope of enforceable CNCs is often a state or a part of a state, for example, a county, a city, or a 10 or 50 mile radius around the place of business (Malsberger (2004)).

is allowed to work for the rival. Finally, we note that the IDD allows courts to grant an injunction even if the former employee did not sign an NDA or CNC with the former employer, i.e., solely on the basis that disclosure of the trade secrets is inevitable.

2.2. Examples of the application of the IDD

We now discuss two legal cases involving trade secrets in which state courts applied the IDD. In the first case the IDD was used to enforce a CNC, and in the second it was used to protect trade secrets when a CNC did not exist. The complete court rulings are available from Google Scholar.

2.2.1. Procter & Gamble Co. v. Stoneham, 747 N.E.2d 268 (Ohio Ct. App. 2000)

Stoneham was in charge of international marketing at the Haircare Division of Procter & Gamble (P&G) and knew confidential information about its global business goals and strategies (e.g., market research, financial data, new products, and technological developments). He had signed a CNC with P&G, but he accepted a job offer to work for Alberto-Culver (AC), who competed with P&G in the market for haircare products, to run AC International. P&G then sued Stoneham for breach of his CNC, alleging that his employment at AC would pose an immediate threat that P&G's trade secrets would be disclosed to AC. Reversing a prior decision, the Court of Appeals of Ohio enforced the CNC and prohibited Stoneham from working at AC's haircare department for three years.

The Court stated that the CNC was reasonable and invoked the IDD to establish the existence of a threat of irreparable harm warranting injunctive relief, noting that Stoneham knew P&G's trade secrets, AC was P&G's competitor, and his job at AC would be similar to his prior job at P&G. The ruling also highlighted how the harm was likely to take place. First, the evidence indicated that after joining AC Stoneham would use his knowledge of P&G's trade secrets to increase AC's competition with P&G on the same line of products he was responsible for while employed at P&G. Second, the testimonies of P&G's managers indicated that AC could use Stoneham's knowledge to obtain a financial

advantage, exploit any weakness of P&G's products, easily replicate its pipeline of products without any research or testing, or pre-empt P&G's entry into the market for new products.

2.2.2. Air Products & Chemical Inc. v. Johnson, 442 A.2d 1114 (Pa. Super. Ct. 1982)

Air Products & Chemical (APC) and Liquid Air Corporation (LAC) were large manufacturers and distributors of industrial gases. Johnson was in charge of APC's on-site gas delivery business and knew confidential information, such as technical data on the methods of delivery, the status of negotiations with customers, marketing strategies, and market opportunities. He had not signed a CNC with APC and took a job at LAC that involved all of its industrial gas operations, including on-site delivery. APC feared that Johnson might disclose its trade secrets to LAC and filed a lawsuit seeking an injunction to prevent Johnson from working at LAC for two years. The Superior Court of Pennsylvania affirmed a prior injunction issued by a trial court that prohibited Johnson from working in LAC's on-site operations and from disclosing APC's trade secrets.

In establishing a threat of irreparable harm and thus the need of injunctive relief, the trial court concluded that Johnson did know APC's trade secrets and that "It would be impossible [for Johnson] to perform his managerial functions in on-site work without drawing on the knowledge he possesses of Air Product's confidential information." The ruling also discussed how the harm was likely to occur. First, it noted that knowledge of APC's plans for pipeline delivery of gases in the domestic market could allow a competitor to thwart APC' plans or to compete without the burden of testing and market analysis born by APC. Second, it noted that Johnson knew APC's costs and pricing methods and in some cases its capital investment, which would be of great interest and benefit to a competitor.

2.3. Adoption and Rejection of the Inevitable Disclosure Doctrine by State Courts

Our identification strategy requires that we identify the dates of changes in U.S. state courts' positions regarding the IDD over time. Specifically, it necessitates that we find all precedent-setting cases involving trade secrets in which state courts' adopt the IDD as well as any subsequent cases in which they reverse their position and explicitly reject it.

To this end, we create a list of the main legal cases addressing the IDD in each state based on historical accounts in prior legal studies that discuss the IDD for most states. These studies include Kahnke, Bundy, and Liebman (2008) and Waldref (2012) (studies by legal experts at law firms), Wiesner (2012) (an article published in a law review), Malsberger (2011) (a book surveying trade secrets law in U.S. states), and Png and Samila (2013) (who discuss the IDD and study its effect on the mobility of workers).

Using this list of main cases as the starting point, we first obtain and carefully read the entire court rulings of these cases. Next, we identify the precedent-setting case *adopting* the IDD as the earliest case in which the court's decision clearly (i) acknowledges that the IDD can be used to prevent a firm's former employee from working at a rival firm[7] and (ii) does not justify the use of the IDD by referring to an earlier case in the same state that used the IDD. To identify the precedent-setting cases *rejecting* the IDD in a state that had previously adopted it, we carefully examine the main legal cases that the studies above flag as reversals of courts' prior adoptions of the IDD and confirm that (i) the IDD was indeed rejected in these cases and (ii) the case decision entails the first rejection of the IDD in the state.

For all but one state, the precedent-setting cases we identify using the above procedure come from the original list. In the case of Massachusetts, we find that the earliest case recognizing the applicability of the IDD contained in our initial list (*Marcam Corp. v. Orchard,* 885 F. Supp. 294 (D. Mass. 1995)), in fact, clearly refers to a ruling the year before (*Bard v. Intoccia,* 1994 U.S. Dist. LEXIS 15368 (D. Mass. 1994)) in which a Massachusetts' court invoked the IDD to sustain a similar injunction. Our examination of the earlier case shows that it satisfies conditions (i) and (ii) for the identification of adoptions, and thus we choose this case as the precedent-setting case adopting the IDD in Massachusetts.

Table 1 lists the 21 precedent-setting cases in which state courts adopt the IDD and the

[7] Some of the cases do not explicitly refer to the "Inevitable Disclosure Doctrine", but as in prior legal work we interpret them as adoptions of the IDD because the rulings are based on identical principles. We also note that in some of the cases the court rulings explicitly recognized the general applicability of the IDD but did not use it due to special circumstances (e.g., the plaintiff failed to establish the existence of a trade secret).

three cases in which state courts subsequently reject the IDD. The events span a significant number of years. The earliest adoption was in New York in 1919, followed by three adoptions in the 1960's, one in the 1970's, four in the 1980's, nine in the 1990's, and three in the 2000's, with the latest adoption in Kansas in 2006. Three states (Florida in 2001, Michigan in 2002, and Texas in 2003) reject the IDD after recognizing it in prior years.

2.4. Construction of the IDD indicator

A precedent-setting case recognizing the IDD becomes case law, and courts in the state will subsequently follow its ruling on the applicability of the IDD in protecting firms' trade secrets. Likewise, if a subsequent court ruling rejects the IDD, courts in the state will follow its ruling for whether the IDD is applicable in protecting firms' trade secrets. Hence, we use the dates of the precedent-setting cases to construct our indicator variable for whether state courts are likely to protect firms' trade secrets by invoking the IDD in any given year. To this end, we assume that these cases change courts' positions regarding the IDD – and thus the legal protection of firms' trade secrets – in the year they are decided. Specifically, for the 21 states whose courts adopted the IDD, we set the IDD indicator equal to zero in all years preceding the date of the precedent-setting case, and equal to one afterwards. We allow the value of the IDD indicator to revert to zero in the three cases in which a subsequent court decision reverses the state's position regarding the IDD and explicitly rejects the IDD. For the 29 states whose case law did not explicitly consider or considered but rejected IDD, we set the IDD indicator equal to zero in every year.

2.5. Exogeneity of changes in state courts' positions regarding the IDD

Changes in state courts' positions regarding the IDD over time provide an arguably exogenous source of variation in the protection of firms' trade secrets in the context of our capital structure tests. Put differently, for the reasons explained below, changes in capital structure following the adoption or rejection of the IDD are likely to be unintended consequences of these changes in the legal protection of a firm's trade secrets.

First, in changing their views on the applicability of the IDD, state courts do not

directly aim to affect firms' capital structure choices or financial situation. Instead, the judicial decisions in the precedent-setting cases involving the IDD are mainly aimed at striking a balance between employers' interests in protecting their trade secrets and public policy concerns related to employee mobility and freedom of employment (see Godfrey (2004) and Harris (2000)).

Second, we note that our natural experiment is not based on state laws whose passage is often influenced by the lobbying of affected parties with clout in the state, such as organizations representing workers or companies. Instead, the experiment is based on judicial decisions that are typically driven by the merits of the specific case and not by political economy considerations. The reason is that the judges serving in state courts are deemed to be independent of both the state and federal government, and thus largely immune to political pressure.[8]

Third, changes in state courts' position regarding the IDD are unlikely to be anticipated by corporations. In the context of state courts' judicial decisions on legal cases related to the protection of trade secrets, a court's issuance of a new precedent is typically an idiosyncratic function of the particular case and the disposition of the justices. As a result, the timing of changes to case law in the state should be for the most part unanticipated.

3. Sample selection and methodology

3.1. Sample selection

Our sample consists of all industrial firms in the merged CRSP-Compustat database (excluding utilities and financials) that are incorporated and headquartered in the U.S. and for which we are able to construct the variables required in our main tests. The sample period is 1977-2011, and it starts five years before Pennsylvania adopted the IDD in 1982

[8] To deal with residual endogeneity concerns, our tests include proxies for a state's political climate and economic situation. This further decreases the likelihood that our results are driven by a correlation of these factors with both changes in courts' positions regarding the IDD and changes in firms' capital structures (see Section 3.2).

and ends five years after Kansas adopted the IDD in 2006.[9] During our sample period, courts in 16 states adopted the IDD and courts in three states rejected the IDD they had adopted in prior years. Our sample period excludes the events associated with the adoption of the IDD by a few states in earlier years for two main reasons. First, as discussed in Section 2.1, the trade secrets law surrounding the application of the IDD did not follow the same principles in all states until the issuance of the UTSA in 1979. Second, the coverage of earlier years in Compustat is sparser, especially in the 1960's when Delaware, Florida, and Michigan adopted the IDD (the data does not go back to 1919, when New York adopted the IDD). Hence, earlier recognition events do not affect a significant number of firms and have little power for identification.[10] The final sample contains 134,428 firm-year observations.

3.2. Difference-in-differences methodology and descriptive statistics

We use a difference-in-differences approach to examine how the recognition of the IDD by state courts affects the financial leverage of firms headquartered in those states. As noted in Section 2.1, the IDD is applied in the context of employment law, so the relevant jurisdiction is typically the state where the employee works (and not the firm's state of incorporation). Firms often operate and thus employ workers in several different states, but data restrictions only allow us to identify a firm's state of headquarters. Nevertheless, within our conceptual framework, only the employment location of workers with access to trade secrets matters for capital structure decisions. Hence, our tests assume that workers with access to the trade secrets of publicly traded firms are higher-level employees who are employed for the most part at firms' headquarters (see Section 5.2 for robustness tests).

For our main specification, we estimate the following pooled OLS regression model:

$$Leverage_{ist} = \alpha\ Inevitable\ Disclosure_{st} + X_{ist}\beta + \omega_i + \mu_t + \varepsilon_{ist}\,, \tag{1}$$

where i denotes firm i, s denotes the state of a firm's headquarters, and t denotes year. *Leverage* is a measure of financial leverage, *Inevitable Disclosure* is a binary indicator for

[9] Including up to five years of data preceding the first event and following the last event helps in properly identifying the capital structure changes associated with these events.

[10] Our results are similar if we extend the sample back to 1971 and include the recognition of the IDD in North Carolina in 1976, which affects only 38 firms in that state and occurred before the issuance of the UTSA.

whether courts recognized the IDD in the firm's state of headquarters by year t, X is a vector of control variables, ω_i is a firm fixed effect, and μ_t is a year fixed effect. The coefficient a is the difference-in-differences estimate which gauges the effect of the IDD on firms' capital structures. Intuitively, a captures the change in the leverage of firms headquartered in adopting or rejecting states in excess of the contemporaneous change in the leverage of firms headquartered in unaffected states. We note that an advantage of our identification strategy is that the staggered adoptions (rejections) of the IDD over time can allow a firm in a given state to belong to both the "treatment" and "control" groups at different points in time. Also, our specification is not affected by the fact that some states did not recognize the IDD during our sample period or recognized the IDD before 1977.

The vector X contains standard control variables used in capital structure tests (e.g., Lemmon, Roberts, and Zender (2008)), including the natural logarithm of book assets (a measure of firm size), the market-to-book assets ratio (a proxy for growth opportunities), return on assets (a proxy for profitability and the availability of internal funds), the proportion of assets that are fixed (a proxy for potential collateral), industry cash flow volatility (a proxy for the likelihood of financial distress), and an indicator variable for whether the firm pays common dividends (a proxy for financial constraints). We also include two state-level control variables. The first, *State GDP Growth*, is the one-year growth rate of the GDP in the firm's state, which captures business conditions in the state. The second, *Political Balance*, is the fraction of a state's congress members representing their state in the U.S. House of Representatives that belong to the Democratic Party, which captures the political leaning in the state.[11] Including these state-level variables addresses residual concerns that business conditions in the state or the state's political leaning might affect both the recognition of the IDD and financing decisions and thus cause a spurious association between financial leverage and the recognition of the IDD.

[11] We obtain congress profile data on house representatives from the *History, Art & Archives, U.S. House of Representatives* available at http://history.house.gov/Congressional-Overview/Profiles/1st/.

The firm fixed effects control for time-invariant omitted firm characteristics and ensure that the estimates of a reflect actual changes in the inevitable disclosure indicator and financial leverage measures over time rather than simple cross-sectional correlations. The year fixed effects account for changes in economy-wide factors, such as macroeconomic conditions, that could possibly affect both financial leverage and state courts' decisions to recognize the IDD.

The estimated standard errors in all our regressions are clustered at the state of headquarters level, which assumes that observations are independent across states but not necessarily independent within states. This is appropriate because *Inevitable Disclosure* is a state-level variable and thus the regression errors may be correlated within state groupings. In addition to accounting for heteroskedasticity, clustering at the state level addresses the concerns that the residuals may be (i) serially correlated within a firm and (ii) correlated across firms within the same state (in the same or different periods of time). Hence, this clustering method accounts for the fact that firms headquartered in the same state are all simultaneously affected by the same shock (the recognition of the IDD by a state court) and for any serial correlation induced by the small time-series variation in the IDD indicator. See Bertrand, Duflo, and Mullainathan (2004) for a discussion of these issues in the context of difference-in-differences estimation.

Table 2 provides the definitions of the key variables used in our analyses and reports summary statistics. Continuous variables are winsorized at their 1st and 99th percentiles. Dollar values are expressed in 2009 dollars. Our data looks similar to that used in prior research on capital structure. The mean (median) book leverage ratio is 0.23 (0.20), and the mean (median) market leverage ratio is 0.18 (0.13). Firm's total assets have a mean (median) value of $1,322 million ($146 million).

4. Results

4.1. Recognition of the inevitable disclosure doctrine and capital structure

There is some debate on whether capital structure tests should be based on book or

market leverage ratios, and prior work often uses one or the other. Market leverage is arguably more appealing from a theoretical point of view, but many managers report that they base financing decisions on book leverage (Graham and Harvey (2002)). Further, a substantial portion of the variation in market leverage stems from variation in the market value of a firm rather than changes in debt policies (Welch (2004)). Given this, throughout the paper, we measure a firm's capital structure using both book leverage and market leverage, but our results are similar.

Table 3 reports the difference-in-differences estimates of the impact of the recognition of the IDD by state courts on the capital structures of firms in the recognizing state. We note that the estimates reflect the adoption of the IDD in 16 states and the rejection of the IDD in 3 states, but for simplicity we generally interpret the estimates as the impact of the "recognition" of the IDD on capital structure. In models 1-3 of Panel A we report the results for book leverage, while in models 4-6 we report the results for market leverage. For each dependent variable, we start with a specification including *Inevitable Disclosure*, firm fixed effects, and year fixed effects. We then add the typical firm-level control variables in capital structure tests (*Log Book Assets, Market-to-Book Assets, Return on Assets, Fixed Assets, Industry Cash Flow Volatility,* and *Dividend Payer*), and finally we add the two state-level control variables (*State GDP Growth* and *Political Balance*).

We find that the recognition of the IDD has a positive and statistically significant effect on the financial leverage of firms in the recognizing state, and that this effect holds for both book and market leverage measures and across all specifications. In particular, the result is robust to controlling not only for standard determinants of capital structure but also for the economic conditions and the political leaning prevailing in a state. Further, the impact is economically significant: the estimated coefficients in model 3 (model 6) imply that following the recognition of the IDD firms increase their debt ratios by 1.3 (1.0) cents of additional debt per dollar of book (market) assets, which represents a 5.6% (5.6%) increase relative to the sample mean for book (market) leverage of 0.232 (0.178).

In Panel B, we examine whether our findings are robust to using alternative measures of financial leverage. First, in models 1 and 2, we measure book and market leverage net of cash holdings, i.e., for both measures we calculate the numerators as the book value of long-term debt plus debt in current liabilities less the book value of cash and short-term investments. We find that the recognition of the IDD is also associated with an increase in net leverage. Net book leverage increases by 1.6 cents for every dollar of book assets, which is equivalent to a 28.1% increase relative to its sample mean of 0.057. Similarly, net market leverage increases by 1.4 cents for every dollar of market assets, which is equivalent to an 18.2% increase relative to its sample mean of 0.077.[12]

Second, in models 3 and 4, we consider whether our results are robust to measuring financial leverage using only the long-term debt portion of firms' total debt, which includes both the current portion of long-term debt and the portion of long-term debt maturing in more than one year. The results show that firms increase their book and market long-term debt ratios following the recognition of the IDD and that the impact is economically important. Specifically, the coefficient estimates on the IDD indicator in models 3 and 4 imply that following the recognition of the IDD firms increase their long-term book leverage ratios by 5.6% relative to the sample mean of 0.197, and their long-term market leverage ratios by 5.9% relative to the sample mean of 0.152.

Our *Inevitable Disclosure* indicator captures both adoptions of the IDD by state courts (the most frequent event that dominates our sample) and three rejections of the IDD by state courts that had recognized the IDD in prior years. To shed further light into whether the changes in firms' legal protection of trade secrets afforded by state courts drive the changes in capital structure that we observe, in Table 4 we conduct our difference-in-differences tests separately for events associated with adoptions and rejections of the IDD.

[12] The greater economic effect of the recognition of the IDD on net leverage compared to that for total leverage principally reflects the fact that although the increases in these ratios are similar (e.g., an increase of 1.3 cents of additional debt per dollar of book assets for total book leverage and an increase of 1.6 cents of additional net leverage per dollar of book assets for net book leverage), the sample means for net book leverage and net market leverage are 0.057 and 0.077, while those for book leverage and market leverage are 0.232 and 0.178.

In models 1 and 3, we estimate the impact of adoptions of the IDD on capital structure. The key independent variable is *Inevitable Disclosure Adoption*, which is equal to one if the state where the firm is headquartered has adopted the IDD by year *t* and zero otherwise. To ensure that the rejections of the IDD occurring during our sample period do not confound the estimated impact of adoptions of the IDD on capital structure, in this analysis we exclude all observations for firms in Florida, Michigan, and Texas (the rejecting states) starting the year when their courts rejected the previously adopted IDD. For both book and market leverage, we find a statistically significant *increase* in the financial leverage of firms headquartered in the adopting state that is very similar in magnitude to the effect we document in Panel A of Table 3.

In models 2 and 4, we estimate the impact of the rejection of the IDD on capital structure. The key independent variable is *Inevitable Disclosure Rejection*, which is equal to one if the state where the firm is headquartered has rejected the previously adopted IDD by year *t* and zero otherwise. The sample period is restricted to the years 1996-2008, which is five years before the first rejection of the IDD (Florida in 2001) and five years after the last rejection (Texas in 2003). To ensure that the adoptions of the IDD that occurred during this period do not confound the estimated impact of rejections of the IDD on capital structure, in this analysis we exclude all observations for firms in states that adopt the IDD during the 1996-2008 period starting the year of the adoption. For both book and market leverage, we find a statistically significant *decrease* in the financial leverage of firms headquartered in the rejecting state that is very similar in magnitude to the increase in leverage associated with adoptions of the IDD.

In sum, we find that firms raise their financial leverage when state courts adopt the IDD and increase the legal protection of their trade secrets; conversely, firms reduce their financial leverage when state courts reverse their support for the IDD and decrease the legal protection of their trade secrets. These results provide further support for a causal interpretation of the association between courts' positions regarding the IDD and capital structure that we document.

4.2. Further evidence of causality and validity of difference-in-differences approach

We now use the approach of Bertrand and Mullainathan (2003) to study the *timing* of changes in capital structure relative to the timing of the adoptions or rejections of the IDD. This test addresses potential concerns about the interpretation of our results and the validity of our empirical methodology. If reverse causality drives our results, we should observe an increasing (decreasing) trend in the leverage of firms in affected states prior to the adoption (rejection) of the IDD. Further, observing such trends would cast doubt on the validity of our differences-in-differences approach, as it would imply a violation of the "parallel trends" assumption that the trends in the financial leverage of treatment firms (in adopting or rejecting states) and control firms (in non-adopting or non-rejecting states) are parallel prior to the adoption (rejection) of the IDD. Specifically, a violation of this assumption would imply that the estimated effect of the adoption or rejection of the IDD on financial leverage would be biased in an unknown direction, because the change in the capital structure of the control firms would not correctly gauge the change in capital structure that treated firms would have experienced in the absence of treatment.

Table 5 presents the results of our timing tests. In models 1 and 3, we focus on adoptions of the IDD and following our approach for the Table 4 tests the sample excludes all observations for firms in rejecting states starting the year when their courts reversed their position regarding the IDD. The key variables are *Inevitable Disclosure Adoption*$^{-1}$, *Inevitable Disclosure Adoption*^{0}, *Inevitable Disclosure Adoption*$^{+1}$, and *Inevitable Disclosure Adoption*$^{2+}$, which are equal to one if the firm is headquartered in a state that will adopt the IDD in one year, adopts the IDD in the current year, adopted the IDD one year ago, and adopted the IDD two or more years ago, respectively, and zero otherwise. In models 2 and 4, we focus on rejections of the IDD. The sample spans the years 1996-2008 (five years before the first rejection and five years after the last rejection) and excludes all observations for firms in states that adopt the IDD over the 1996-2008 period starting the year of the adoption. The key variables are *Inevitable Disclosure Rejection*$^{-1}$, *Inevitable Disclosure Rejection*^{0}, *Inevitable Disclosure Rejection*$^{+1}$, and *Inevitable Disclosure Rejection*$^{2+}$, which are

equal to one if the firm is headquartered in a state that will reject the previously adopted IDD in one year, rejects the IDD in the current year, rejected the IDD one year ago, and rejected the IDD two or more years ago, respectively, and zero otherwise.

The coefficients on *Inevitable Disclosure Adoption*$^{-1}$ and *Inevitable Disclosure Rejection*$^{-1}$ shed light on both the possibility of reverse causality and the validity of the parallel trends assumption. In particular, a statistically significant positive (negative) coefficient on the former (latter) variable would suggest that reverse causality may explain our results. More generally, a statistically significant coefficient of any sign on either of these variables would indicate that the parallel trends assumption is violated, and thus that the difference-in-differences estimates we report in Tables 3 and 4 are biased.

For the adoption events, our results are similar regardless of whether we consider book or market leverage. The coefficients on *Inevitable Disclosure Adoption*$^{-1}$ and *Inevitable Disclosure Adoption*^{0} are close to zero and statistically insignificant, while the coefficients on *Inevitable Disclosure Adoption*$^{+1}$ and *Inevitable Disclosure Adoption*$^{2+}$ are positive and significant. For the reversal events, the coefficients on *Inevitable Disclosure Rejection*$^{-1}$ are close to zero and statistically insignificant for both book and market leverage. For book leverage, the coefficient on *Inevitable Disclosure Rejection*^{0} is negative and significant, the coefficient on *Inevitable Disclosure Rejection*$^{+1}$ is not significant, and the coefficient on *Inevitable Disclosure Rejection*$^{2+}$ is negative and significant. For market leverage, the only statistically significant coefficient is that on *Inevitable Disclosure Rejection*$^{2+}$. As predicted, the coefficient on this variable is negative.

Overall, the results show that financial leverage increases (decreases) only after the adoption (rejection) of the IDD, but not before. Hence, reverse causality or a violation of the parallel trends assumption do not explain our key result that changes in state courts' positions regarding the IDD are associated with changes in financial leverage.

4.3. Cross-sectional variation in the effect of the recognition of the IDD on capital structure

Next, we study the cross-sectional variation in the impact of increased protection of trade secrets on capital structure. To this end, we split the sample in two groups based on whether the value of a characteristic is above or below the sample median, estimate our main specification within each group, and compare the estimated coefficients on *Inevitable Disclosure* across groups.

These tests shed light on the economic mechanism behind our main results and provide further evidence that our results have a causal interpretation. Specifically, we examine if the effect of the recognition of the IDD on financing decisions varies predictably with the degree of competition in an industry, the type of workers employed by the firm, and the risk that workers will become employed at rival firms. We note that if a variable omitted from our benchmark regression models were to drive the results in Table 3, then such a variable would have to be uncorrelated with all of the control variables we include in the models in this table, and it would also have to explain the cross-sectional findings for the effect of the recognition of the IDD on capital structure we report in this section.

In Table 6, we examine how competition in a firm's industry affects the impact of better protection of trade secrets on the firm's capital structure. Risks stemming from a firm's intellectual property are likely a more important concern for firms in more competitive industries. The reason for this is that firms in those industries typically have less stable market positions because they face the threat of entry by new firms and thus have lower operating margins and survival rates (Porter (1980)). Consequently, these firms should benefit more from having unused debt capacity to endure the adversity associated with the divulgence of their trade secrets to rivals. Thus, we predict that the recognition of the IDD will have a stronger impact on the capital structures of firms operating in more competitive environments.

Panel A in Table 6 focuses on book leverage and Panel B focuses on market leverage, but both panels have the same structure. We first gauge the extent of competition in the industry using the four-firm concentration ratio compiled by the U.S. Economic Census for

the majority of 5-digit NAICS industries. This measure captures the fraction of an industry's sales accounted for by the top four firms in the industry.[13] In models 1 and 2, we split the sample according to whether the four-firm industry concentration ratio is above the sample median (less competitive industries) or below the sample median (more competitive industries).[14] Supporting our prediction, the results for both book and market leverage indicate that the positive effect of the recognition of the IDD on firms' debt ratios only exists for firms that operate in more competitive industries.

We then gauge competition in an industry using a proxy for the magnitude of barriers to entry, since fewer barriers to entry increase competition by facilitating the entry of new firms into these industries. Following Valta (2012), we use the 3-digit SIC industry-average values of R&D plus advertising expenditures divided by sales to measure barriers to entry. This measure is motivated by Shaked and Sutton (1987) and Sutton (1991) who argue that firms use R&D and advertising to differentiate their products from those of their competitors and make it more difficult for new competitors to enter the market. In addition, Hoberg and Phillips (2013) show that firms spending more on R&D and advertising experience reductions in competition. In models 3 and 4 of Panels A and B, we split the sample into industries with barriers to entry above the sample median (less competitive industries) and below the sample median (more competitive industries). In both panels, we find that the positive effect of the recognition of the IDD on firms' debt ratios only exists for firms in industries with lower barriers to entry. This provides further evidence that in more competitive industries the protection of trade secrets has a larger impact on capital structure decisions.

In Table 7, we examine how the occupational structure in a firm's industry affects the impact of better protection of trade secrets on the firm's capital structure. Firms employing

[13] Concentration ratios are only available for the years 1997, 2002, and 2007, but they are stable from year to year. Hence, following prior work (e.g., Campello (2006) and Haushalter, Klasa, and Maxwell (2007)), we assume that the ratios for a given U.S. Census year are valid for a window of years surrounding that year. Specifically, we assume that the ratios for 1997, 2002, and 2007 are valid for the 1977-1999, 2000-2004, and 2005-2011 periods, respectively.

[14] The sample for these tests excludes four industries for which the Census does not compile the four-firm ratio (Agriculture, forestry, fishing, and hunting, Mining, Construction, and Management of company enterprises).

more workers who, due to the nature of their jobs, possess knowledge of company trade secrets face a greater risk that their rivals could poach some of those workers and obtain their trade secrets. Consequently, it follows from our main hypothesis that such firms should benefit more from maintaining unused debt capacity that they can use to react to the divulgence of their trade secrets to rivals. Hence, we predict that better protection of trade secrets should have a larger impact on the capital structures of firms that employ more workers with knowledge of their trade secrets.

To this end, we assume that more of a firm's workers are likely to know its trade secrets in industries that employ a larger fraction of workers in managerial or science occupations (occupations which often entail access to firms' trade secrets) and in industries that employ a larger fraction of educated workers (such workers should be more likely to know their firm's trade secrets). The skills and occupations of workers in an industry are likely to vary by state. Hence, we consider the occupational structure and education level of the workers in a firm's industry that are employed in the firm's state. The data for these tests is from the Integrated Public Use Microdata Series (IPUMS-USA) database, which reports the characteristics of workers by 3-digit NAICS industry and state.[15]

We repeat our main regression using subsamples which result from splitting our full sample in three alternative ways, namely, according to whether the fraction of the workers employed in a firm's state and industry that are in managerial occupations (codes 4, 13, 22, or 33 in IPUMS), that are in science occupations (codes 64, 68, 69, 73, 74, 75, 76, 77, 78, 79, or 83 in IPUMS), or that have at least a bachelor's degree is below or above the sample median for these fractions, respectively. Our results in Panel A (book leverage) and Panel B (market leverage) of Table 7 are qualitatively similar and suggest that the recognition of the IDD indeed has a larger impact on financial leverage when a firm's workers are more likely to know its trade secrets. Specifically, the positive effect of the recognition of the IDD on corporate debt ratios is significant only in subsamples in which the fraction of workers in

[15] The IPUMS database is compiled from the American population federal censuses conducted every 10 years and is available for the years 1980, 1990, and 2000 (Ruggles et al. (2010)). We assume that the data from the 1980, 1990, and 2000 censuses are valid for the periods 1977-1985, 1986-1995, and 1996-2011, respectively.

a firm's industry and state that are in managerial occupations, in science occupations, or with at least a bachelor's degree is above the sample median for these fractions.

Last, in Table 8 we test the prediction that better protection of trade secrets has a larger impact on the capital structure of firms that face a greater ex-ante risk that their employees who know their trade secrets would accept a job with a rival firm. The intuition behind this prediction is that when this ex-ante risk is greater, firms should benefit more from maintaining unused debt capacity that they can use to react to the divulgence of their trade secrets. To test this prediction, we conduct two related tests based on sample splits analogous to those in our prior analyses: one based on pure switching costs and another based on the extent of competition among rival firms in local labor markets.

First, the cost of switching employers is higher for workers in firms with defined benefit pension plans, since retirement benefits from these plans are less portable (Ippolito (1985)).[16] Hence, firms with defined benefit pension plans face a lower ex-ante risk of losing key employees to rival firms, and thus the recognition of the IDD should have a smaller impact on the leverage of those firms. To test this prediction, we identify firms with defined benefit pension plans as those that report positive net pension benefit assets or accumulated pension benefit obligations. Because pension data are available in Compustat only since 1980, in these tests we restrict our sample to the years 1980-2011. Supporting our prediction, models 1 and 2 in Panels A and B of Table 8 show that the recognition of the IDD only affects the debt ratios of firms without defined benefit pension plans.

Second, a firm's ex-ante risk that its employees who know its trade secrets might accept a position with a rival firm is greater when the firm faces more intense competition in local labor markets due to the presence of geographically close rivals. The reason for this

[16] Because the payments from defined benefit pension plans are increasing in the years of service at a given firm and the final wage at the firm, the total pension benefits of workers who remain with the same employer during their entire career are larger than those of workers who switched employers, but had an otherwise identical career path. For workers who remained at one firm, pension benefits are based on the number of years of service and their earnings just prior to retirement, which are usually the highest over their career. For workers who switch jobs, total pension benefits come from several employers. Such workers have accumulated less years of service at each employer and, because their wages typically increase over time, the pension benefits provided by earlier employers are based on lower earnings and those provided by the later employers are based on higher earnings.

is that such rivals provide the firm's workers with more outside job opportunities and, due to the proximity between workers' current and prospective jobs, it reduces workers' cost of switching employers. Hence, the recognition of the IDD should have a larger impact on the debt ratios of firms facing stronger competition from industry rivals in local labor markets. We gauge the extent of competition in local labor markets a firm faces from its rivals using the firm's share in its 2-digit SIC industry's employment located in its state (based on Compustat data). A lower value for this variable indicates that the firm's rivals account for a larger fraction of the industry's employment in the state, and thus that the firm is likely to face more intense competition from its rivals in local labor markets. Supporting our prediction, the results in models 3 and 4 of Panels A and B of Table 8 indicate that the recognition of the IDD only impacts the debt ratios of firms whose share in their industry's employment in their state is below the sample median.

Overall, the results in Tables 6-8 are consistent with our prediction that a firm increases its financial leverage when the risk that its rivals might gain access to its trade secrets and damage its competitive position is reduced. As such, these results provide further evidence that the positive impact of the recognition of the IDD on corporate debt ratios is unlikely to be spuriously driven by unobserved heterogeneity.

4.4 Recognition of the IDD and changes in firms' cost of debt

In Table 9, we investigate the effect of the recognition of the IDD on a firm's cost of debt. We focus on credit spreads of bank debt as in Valta (2012), because bank debt is the key source of debt financing for most firms (Faulkender and Petersen (2006)) and data are available for a large sample of firms. Valta (2012) documents that when the competitive threats faced by a firm intensify the credit spreads on its bank loans increase, indicating that banks price this risk into the firm's cost of debt. Thus, the arguments underlying our main hypothesis suggest that a firm's cost of bank debt should decrease following an increase in the protection of its trade secrets.

We explore this issue using data for the period 1987-2011 obtained from the Dealscan

database on U.S. originated and U.S. dollar denominated loans to firms in our sample.[17] In Table 9 we report the results of regressions in which the dependent variable is the natural logarithm of a firm's credit spread, defined as the spread between the interest rate on a bank loan and the LIBOR rate.[18] Because Dealscan only contains data on new loans in the year they are granted and thus most firms appear in the data sporadically (and not every year), we do not include firm fixed effects in the cost of debt models due to a lack of enough annual observations per firm. Instead, in addition to year fixed effects, we include both 3-digit SIC industry fixed effects and state of headquarters fixed effects. Hence, the estimated coefficient on *Inevitable Disclosure* indicates the average impact the recognition of the IDD has on the credit spread of those firms in an industry that are headquartered in recognizing states (relative to its impact on the borrowing costs of those firms in the industry that are headquartered in non-recognizing states).

In the first three models of Panel A, we regress the natural logarithm of a firm's credit spreads on its bank loans on *Inevitable Disclosure* and control variables. In model 1, we include the control variables from our Table 3 models and leverage.[19] In model 2, we follow the approach used in typical cost of debt models and also include the natural logarithms of loan maturity (in months) and loan size (in $ millions), and loan-type fixed effects (as in Campello, Lin, and Zou (2011), the categories are term loan, revolver greater than one year, revolver shorter than one year, and 364-day facility). In model 3, we additionally control for the state GDP growth and political balance variables. Supporting our prediction, all three specifications consistently indicate that the recognition of the IDD is associated with a decrease in the average credit spreads of firms headquartered in the recognizing state. In terms of economic significance, the results from model 3 imply that the recognition of the IDD decreases the credit spread that firms pay over LIBOR by approximately 5.7%.

In models 4 and 5 of Panel A, we separately examine the effect of adoptions and

[17] We thank Michael Roberts for making the updated Dealscan-Compustat link table used in Chava and Roberts (2008) publicly available.
[18] The credit spread is measured as the *all-in-spread drawn* in Dealscan, defined as the amount the borrower pays in basis points over LIBOR for each dollar drawn down (including annual fees paid to the bank group).
[19] The results are very similar if we do not include leverage as a control variable in the regression.

rejections of the IDD. In model 4, we focus on adoptions, and following the approach in our earlier tests, the sample excludes all observations for firms in rejecting states starting the year when their courts rejected the IDD. In model 5, we focus on rejections, and thus the sample period is 1996-2008 (five years before the first rejection and five years after the last rejection). The sample for this analysis excludes all observations for firms in states that adopt the IDD over the 1996-2008 period starting the year of the adoption. We find that firms' credit spreads decrease by 4.5% following the adoption of the IDD and increase by 6.8% following the rejection of the previously adopted IDD.

In Panel B, we report the results of timing tests analogous to those reported in Table 5, in which we replace *Inevitable Disclosure* by the eight dummy variables previously defined in Section 4.2: *Inevitable Disclosure Adoption*$^{-1}$, *Inevitable Disclosure Adoption*^{0}, *Inevitable Disclosure Adoption*$^{+1}$, and *Inevitable Disclosure Adoption*$^{2+}$, and also *Inevitable Disclosure Rejection*$^{-1}$, *Inevitable Disclosure Rejection*^{0}, *Inevitable Disclosure Rejection*$^{+1}$, and *Inevitable Disclosure Rejection*$^{2+}$. Supporting a causal interpretation of the effect of the adoption (rejection) of the IDD on firms' credit spreads, the results show that firms' credit spreads decrease (increase) only after and not before the adoption (rejection) of the IDD. In addition, the coefficients on *Inevitable Disclosure Adoption*$^{-1}$ and *Inevitable Disclosure Rejection*$^{-1}$ are not statistically different from zero. These results validate our difference-in-differences approach in the context of the credit spread regressions, as they suggest that the time trends in the borrowing costs of firms in adopting (rejecting) states and those in non-adopting (non-rejecting) states before the adoption (rejection) of the IDD are parallel.

4.5. Recognition of the IDD and changes in firms' market shares

The arguments underlying our hypothesis also lead to the prediction that, by increasing the protection of a firm's trade secrets, the recognition of the IDD improves the firm's ability to maintain competitive advantages over its industry rivals derived from those trade secrets and therefore allows the firm to compete more successfully in its product

market. Consequently, in this section, we explore whether a better protection of trade secrets boosts a firm's performance in its product market.[20]

In Table 10, we examine the impact of the IDD on firms' performance using a methodology similar to that in Opler and Titman (1994), Campello (2006), and Frésard (2010). The models in this table regress the firm's one-year sales growth rate on the IDD indicator and control variables. The control variables include the natural logarithm of book assets, return on assets, the market-to-book assets ratio, investment expenses (capital expenditures scaled by assets, R&D expense scaled by sales, and advertising expenses scaled by sales), and book leverage. Because we are interested in the impact of firms' performance within their product markets, in all regressions in addition to firm fixed effects we also include industry times year fixed effects, which is equivalent to subtracting the corresponding industry means from each variable in each year. Thus, we can interpret the coefficient on the IDD indicator as the effect the recognition of the IDD has on the sales growth of a firm in a recognizing state relative to the sales growth of its industry rivals in non-recognizing states.

We report specifications including and excluding financial leverage among the control variables to account for the finding in prior studies that capital structure might affect performance in product markets. We also use alternative product market definitions based on 3-digit and 4-digit SIC codes, but this does not have a material effect on our results. All specifications that we consider provide statistically significant evidence that firms perform better within their product markets following the recognition of the IDD in their state. The results in model 4 suggest that after the recognition of the IDD in a firm's state, its annual sales grow 1.9 percentage points faster relative to the sales growth of its rivals in the same 4-digit SIC industry that are located in states that have not recognized the IDD. On average, over a five- to ten-year period, this would lead to economically important gains in

[20] It is important to note that the recognition of the IDD in a firm's state also reduces the firm's ability to obtain the trade secrets of rivals in its state. However, while this recognition only reduces the firm's ability to obtain the trade secrets of rivals in its *own* state, it lowers the probability that it will lose trade secrets to rivals in *any* state. Hence, overall, the recognition of the IDD should improve a firm's competitive position relative to its product market rivals.

market share for firms in recognizing states at the expense of the market shares of industry rivals in non-recognizing states.

4.6. Discussion: Protection of trade secrets or labor-related mechanisms?

The recognition of the IDD increases the protection of firms' trade secrets by reducing the mobility of workers with access to trade secrets to rival firms. This raises the question of whether reduced mobility of workers with access to trade secrets to rival firms could have an impact on capital structure through pure labor mechanisms that are unrelated to better protection of trade secrets and drive our results. In our empirical tests based on the recognition of the IDD, we are unable to separate the effect on capital structure caused by increased protection of trade secrets from any additional effects that might operate independently through a reduced mobility of workers with access to trade secrets to rival firms. However, below we discuss why pure labor mobility effects that are unrelated to the protection of trade secrets do not seem likely to explain our findings.

Most arguments linking the recognition of the IDD to capital structure solely through labor mobility hinge on this event having a large effect on firms' total labor costs. However, the IDD only affects the mobility of a small number of workers – those who know the firm's trade secrets – and not the mobility of most of the workers. Although workers with access to trade secrets are usually paid a higher salary, the total wage bill associated with the compensation of such workers is likely to be small relative to a firm's total wage bill. This suggests that labor-related stories based on how a firm's total labor costs affects its capital structure choices (e.g., along the lines of the ideas in Agrawal and Matsa (2013), Kim (2013), or Simintzi, Vig, and Volpin (2014)) are unlikely to explain our results that the recognition of the IDD has a large effect on a firm's capital structure decisions.

Other purely labor-related explanations of our results could rely on the observation that the recognition of the IDD might help a firm retain its workers with knowledge of its trade secrets. This, in turn, could increase the firm's debt capacity if it reduces the risk of a loss of key talent that could hurt firm performance, aside from any issues associated with

trade secrets. However, it can alternatively be argued that, by constraining the mobility of its key workers who have knowledge of its trade secrets, the recognition of the IDD could, in fact, lower a firm's performance and reduce its debt capacity. For instance, extant work shows that reduced labor mobility can discourage workers from exerting effort and lower their incentives to invest in their human capital (e.g., Garmaise (2011)). Likewise, if the mobility of a firm's workers who have knowledge of its trade secrets is reduced, this could hamper the firm's ability to recruit new high quality workers who are averse to job lock. In sum, pure labor mobility effects unrelated to better protection of trade secrets seem unlikely to drive our results.

5. Additional investigation and robustness tests

5.1 Recognition of the IDD and Investment Policy

We also explore whether the recognition of the IDD affects firms' investment and other related expenses, which serves to shed light on two related issues. First, by increasing the protection of trade secrets, the recognition of the IDD might increase the marginal benefit of investment and thus raise firms' demand for external financing to fund additional investment.[21] In this case, the observed increase in financial leverage could be caused by increased financing needs rather than by a lower benefit of unused debt capacity as implied by our main hypothesis.

Second, the recognition of the IDD might be associated with time-varying unobserved heterogeneity in firms' investment opportunities that is not captured by firm fixed effects and our control variables. If the recognition of the IDD coincides with increases in the investment opportunities of firms in the state, then one would expect to see increases in investment and related expenses following the recognition of the IDD. In turn, such investment could require debt financing and cause the increase in leverage we observe.

[21] As noted by Png (2012), the impact of trade secret protection on innovation is a priori ambiguous, because better protection increases the firm's ability to appropriate the benefits of its investment, but it reduces its ability to benefit from spillovers associated with using the trade secrets of other firms. He finds that better trade secret protection increases R&D spending in some cases and decreases it in other cases.

In untabulated tests, we study the impact of the recognition of the IDD on four investment policy variables: R&D expenses scaled by sales, advertising expenses scaled by sales, capital expenditures scaled by book assets, and acquisition expenses scaled by book assets. In addition to firm fixed effects and year fixed effects, we include the same control variables as in our main leverage specification: the natural logarithm of book assets, the market-to-book assets ratio, return on assets, fixed assets scaled by total assets, industry cash flow volatility, dividend payer dummy, state GDP growth, and the state's political balance. We find that the recognition of the IDD has no effect on any of the four investment variables we consider, which suggests that increases in investment needs are not the driver of the observed increase in financial leverage.

5.2. Does measurement error in the inevitable disclosure indicator affect the results?

5.2.1. Relocation of firms' headquarters from one state to another

We study how the recognition of the IDD in a firm's state of headquarters affects its capital structure decisions. To this end, we identify a firm's state of headquarters using the most recent address of a firm's headquarters because this is the only information provided in the Compustat database. This assumes that firms are headquartered in their most recent state of headquarters during the entire sample period, namely, that firms never relocated their headquarters from one state to another. However, if many firms relocate their headquarters to other states during our sample period, then measurement error in the state of headquarters – and thus in *Inevitable Disclosure* – could bias our results.

To address this concern, we use the programming language PHP to search the 10-K filings available on the SEC's website and collect the historical state of location of each firm's headquarters. Given data availability, we are able to obtain the information for most firms between 1996 and 2011 and for some as early as 1992 (but not for our entire sample which spans 1977-2011). Of the 8,852 firms for which we obtain the historical location of headquarters during the period 1992-2011, only 826 (or 9.3%) relocated headquarters from one state to another. These findings imply that relocations of corporate headquarters across

states are relatively infrequent and that they only affect a small fraction of the firms we study. These findings are also consistent with those reported in Pirinsky and Wang (2006), who similarly document that relocations of corporate headquarters are rare events. Given the low incidence of headquarter relocations, it seems unlikely that these events could have a large impact on our results.

Nevertheless, in models 1-3 of Table 11, we examine whether relocations of firms' headquarters could affect our main results for both book leverage (Panel A) and market leverage (Panel B). First, in model 1, we use the location of headquarters that we collect from the 10-Ks to reduce the measurement error in *Inevitable Disclosure*, while retaining our full sample. Specifically, we use the information from the 10-Ks when it is available, and when it is not available we assume there were no relocations prior to the earliest date it is available.[22] Second, in model 2, we only use the subsample of firm-years for which the information on the location of headquarters that we collect from the 10-Ks is available. The sample is much smaller and spans only the period 1992-2011, but in this subsample *Inevitable Disclosure* is measured without any error caused by headquarter relocations. Third, in model 3, we exclude from the sample those firms that are likely to have experienced major restructuring events (those which Pirinsky and Wang (2006) argue are the main trigger of headquarter relocations) during the sample period. We identify such firms as those with sales or assets growth in excess of 100% in *any* year during 1977-2011, because Almeida, Campello, and Weisbach (2004) highlight that major corporate events are usually associated with large increases in sales or assets.

In all three tests discussed above, *Inevitable Disclosure* continues to have a positive and statistically significant impact on both book leverage and market leverage that is generally similar in magnitude to that reported in Table 3. Hence, we conclude that our inferences based on *Inevitable Disclosure* are unlikely biased due to changes in firms' state of headquarters.

[22] This approach removes the measurement error for firm-years with available historical 10-Ks and reduces it for earlier years in the sample by using the closest in time information available instead of the most recent one.

5.2.2. Other potential sources of measurement error

In Table 11, we also examine whether our main results in Table 3 are robust to the imposition of further constraints to our sample that arguably reduce the potential measurement error in *Inevitable Disclosure* caused by foreign operations and geographical dispersion of employment.

First, the recognition of the IDD affects firms to the extent that their workers with knowledge of their trade secrets are employed in the U.S. If firms have substantial operations in foreign countries, the recognition of the IDD by U.S. state courts could be less effective in increasing the protection of a firm's trade secrets. Model 4 in both Panels A and B of Table 11 shows that the impact of *Inevitable Disclosure* on leverage is similar if we exclude firms which report foreign income or taxes from the sample.

Second, our tests rely on the recognition of the IDD in the firm's state of headquarters, where arguably most of the firm's employees with access to trade secrets are employed. However, we are likely to measure changes in trade secret protection with error for firms that have a geographically dispersed workforce. Using an approach similar to that in Agrawal and Matsa (2013), we address this concern by excluding from the sample firms that operate in industries whose workforce is likely to be more geographically dispersed, namely, retail, wholesale, and transportation. The results in model 5 for both Panels A and B show that this has little effect on the estimated impact of the recognition of the IDD on financial leverage. In sum, the Table 11 model 4 and 5 results suggest that measurement error in *Inevitable Disclosure* caused by foreign operations and geographical dispersion of employment is unlikely to lead to biases in our results.

5.3. Additional control variables in the main specification

In Table 12, we provide evidence on whether our results in Table 3 might be spuriously driven by additional factors that we have not controlled for in our main specification. First, it could be that changes in the extent of product market competition in the firm's state affect both courts' decisions to recognize the IDD and firms' capital structure decisions. We

address this concern by including the Herfindhal-Hirschmann Index of sales concentration within the firm's industry and state (*State-Industry HHI*) based on Compustat data as an additional control variable. However, the estimated coefficients on *Inevitable Disclosure* in models 1 and 4 of Table 12 are unaffected by the inclusion of this variable.

Second, in our main tests we use the recognition of the IDD by state courts to identify an increase in the protection of firms' trade secrets. However, firms' trade secrets are also protected by a slowly evolving legislation and enforcement of employment contracts in their states. To assess whether the recognition of the IDD has a distinct impact on capital structure decisions, we include in our regression models two state-level measures of the extent of trade secret protection in a firm's state. These are Png and Samila's (2013) trade secret protection index (*Strength of Trade Secret Protection)*, which measures aspects of trade secret protection in a state other than those captured by the IDD, and Bird and Knopf's (2014) extension of the Garmaise (2011) index (*Strength of Non-Competes*), which measures the extent to which covenants not to compete are enforced in a state.[23] The results for models 2 and 5 show that the inclusion of these variables does not affect the estimated coefficient on *Inevitable Disclosure*.

Last, by increasing the protection of confidential information maintained in the form of trade secrets, the recognition of the IDD might affect a firm's incentives to patent its innovation. This could, in turn, change the firm's business risk and have an impact on its financing decisions. To address this possibility, we include in our regression models two firm-level measures of innovation output obtained from the NBER patent database: the natural logarithm of the number of patents filed by a firm in a given year and the natural logarithm of the number of citations of those patents. Due to truncation issues with these data in later years, the sample for these tests ends in 2000. We find that controlling for changes in patented innovation slightly decreases the magnitude of the estimated coefficients on *Inevitable Disclosure*, but the coefficients remain statistically significant.

[23] The index covers the period 1976-2004 but changes in the index are infrequent, so we use the 2004 values to fill in the period 2005-2011. Our results are similar if we only examine the period 1977-2004 for this analysis.

6. Conclusion

Our main message is that the risk that a firm's rivals might gain access to its intellectual property in the form of trade secrets influences capital structure decisions. In particular, we hypothesize that firms facing greater risk that their product market rivals will gain access to their trade secrets and hurt their competitive positions hold less debt. We test our hypothesis using a difference-in-differences research design that exploits the staggered recognition of the Inevitable Disclosure Doctrine (IDD) by state courts over the 1977-2011 period. The recognition of this doctrine causes an exogenous decrease in the risk that industry rivals might gain access to a firm's trade secrets, because it increases a firm's ability to prevent its workers who know its trade secrets from working for rival firms and conveying the trade secrets to their new employers.

Supporting our hypothesis, we find that firms significantly increase their leverage following the recognition of the IDD by courts in their states of headquarters. We further show that the adoptions of the IDD that dominate our sample and the reversals in the positions of state courts regarding the previously adopted IDD have opposite effects on firms' capital structure that are of similar magnitudes. In further support of a causal interpretation of our results, our timing tests indicate that firms adjust their leverage after the adoption or rejection of the IDD but not before.

The cross-sectional variation in the impact of the recognition of the IDD on capital structure choices supports the economic mechanism we describe in the paper. The impact is particularly strong for firms in more competitive industries, for firms whose workers are more likely to know trade secrets, and for firms that face a greater ex-ante risk of losing employees who have knowledge of trade secrets to competitors. We further show that a firm's credit spreads on its bank loans decrease following the adoption of the IDD and increase following a subsequent rejection of the IDD, which suggests that credit markets price the risk that a firm's rivals could obtain its trade secrets. Lastly, we find that firms experience market share gains following the recognition of the IDD in their state, implying that better protection of trade secrets boosts firms' performance in product markets.

Our paper emphasizes the interplay of firms in product and labor markets, and that rivalry in both of those markets creates important competitive threats that shape firms' financial decisions. In particular, our paper calls to attention competitive threats stemming from a firm's inability to fully protect its intellectual property, and highlights the issue that the mobility of a firm's key employees to jobs at rival firms exacerbates these threats.

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Table 1
Precedent-Setting Legal Cases Adopting or Rejecting the Inevitable Disclosure Doctrine

The table lists the precedent-setting legal cases in which state courts adopted the Inevitable Disclosure Doctrine (IDD) or rejected it after adopting it. The states omitted from the table did not consider or considered but rejected the IDD. The text of all court decisions is available from Google Scholar.

State	Precedent-Setting Case(s)	Date	Decision
AR	*Southwestern Energy Co. v. Eickenhorst,* 955 F. Supp. 1078 (W.D. Ark. 1997)	3/18/1997	Adopt
CT	*Branson Ultrasonics Corp. v. Stratman,* 921 F. Supp. 909 (D. Conn. 1996)	2/28/1996	Adopt
DE	*E.I. duPont de Nemours & Co. v. American Potash & Chem. Corp.,* 200 A.2d 428 (Del. Ch. 1964)	5/5/1964	Adopt
FL	*Fountain v. Hudson Cush-N-Foam Corp.,* 122 So. 2d 232 (Fla. Dist. Ct. App. 1960) *Del Monte Fresh Produce Co. v. Dole Food Co. Inc.,* 148 F. Supp. 2d 1326 (S.D. Fla. 2001)	7/11/1960 5/21/2001	Adopt Reject
GA	*Essex Group Inc. v. Southwire Co.,* 501 S.E.2d 501 (Ga. 1998)	6/29/1998	Adopt
IL	*Teradyne Inc. v. Clear Communications Corp.,* 707 F. Supp. 353 (N.D. 111. 1989)	2/9/1989	Adopt
IN	*Ackerman v. Kimball Int'l Inc.,* 652 N.E.2d 507 (Ind. 1995)	7/12/1995	Adopt
IA	*Uncle B's Bakery v. O'Rourke,* 920 F. Supp. 1405 (N.D. Iowa 1996)	4/1/1996	Adopt
KS	*Bradbury Co. v. Teissier-duCros,* 413 F. Supp. 2d 1203 (D. Kan. 2006)	2/2/2006	Adopt
MA	*Bard v. Intoccia,* 1994 U.S. Dist. LEXIS 15368 (D. Mass. 1994)	10/13/1994	Adopt
MI	*Allis-Chalmers Manuf. Co. v. Continental Aviation & Eng. Corp.,* 255 F. Supp. 645 (E.D. Mich. 1966) *CMI Int'l, Inc. v. Intermet Int'l Corp.,* 649 N.W.2d 808 (Mich. Ct. App. 2002)	2/17/1966 4/30/2002	Adopt Reject
MN	*Surgidev Corp. v. Eye Technology Inc.,* 648 F. Supp. 661 (D. Minn. 1986)	10/10/1986	Adopt
MO	*H&R Block Eastern Tax Servs. Inc. v. Enchura,* 122 F. Supp. 2d 1067 (W.D. Mo. 2000)	11/2/2000	Adopt
NJ	*Nat'l Starch & Chem. Corp. v. Parker Chem. Corp.,* 530 A.2d 31 (N.J. Super. Ct. 1987)	4/27/1987	Adopt
NY	*Eastman Kodak Co. v. Powers Film Prod.,* 189 A.D. 556 (N.Y.A.D. 1919)	12/5/1919	Adopt
NC	*Travenol Laboratories Inc. v. Turner,* 228 S.E.2d 478 (N.C. Ct. App. 1976)	6/17/1976	Adopt
OH	*Procter & Gamble Co. v. Stoneham,* 747 N.E.2d 268 (Ohio Ct. App. 2000)	9/29/2000	Adopt
PA	*Air Products & Chemical Inc. v. Johnson,* 442 A.2d 1114 (Pa. Super. Ct. 1982)	2/19/1982	Adopt
TX	*Rugen v. Interactive Business Systems Inc.,* 864 S.W.2d 548 (Tex. App. 1993) *Cardinal Health Staffing Network Inc. v. Bowen,* 106 S.W.3d 230 (Tex. App. 2003)	5/28/1993 4/3/2003	Adopt Reject
UT	*Novell Inc. v. Timpanogos Research Group Inc.,* 46 U.S.P.Q.2d 1197 (Utah D.C. 1998)	1/30/1998	Adopt
WA	*Solutec Corp. Inc. v. Agnew,* 88 Wash. App. 1067 (Wash. Ct. App. 1997)	12/30/1997	Adopt

Table 2
Summary Statistics

This table reports summary statistics for the main variables in our regression models. The sample consists of industrial firms (utilities and financials are excluded) during the 1977-2011 period and includes 134,428 firm-year observations. Continuous variables are winsorized at their 1st and 99th percentiles and dollar values are expressed in 2009 dollars. Variable definitions refer to Compustat designations when appropriate. *Book Leverage* is the book value of long-term debt (*dltt*) plus debt in current liabilities (*dlc*) divided by book value of assets (*at*). *Market Leverage* is the book value of long-term debt (*dltt*) plus debt in current liabilities (*dlc*) divided by market value of assets (market value of equity (*prcc_f*csho*) plus book assets (*at*) minus book value of equity (*ceq*)). *Inevitable Disclosure* is equal to one if the firm is headquartered in a state that recognizes the Inevitable Disclosure Doctrine (IDD) and zero otherwise (the indicator goes from zero to one when a state court adopts the IDD and reverts to zero in the few cases a state court rejects the IDD it had previously adopted). *Book Assets* is total assets (*at*, in $ millions). *Market-to-Book Assets* is market value of assets (market value of equity (*prcc_f*csho*) plus book assets (*at*) minus book value of equity (*ceq*)) divided by book value of assets (*at*). *Return on Assets* is operating income before depreciation (*oibdp*) divided by book value of assets (*at*). *Fixed Assets* is the ratio of the book value of property, plant, and equipment (*ppent*) to book value of assets (*at*). *Industry Cash Flow Volatility* is the median of the standard deviations of the *Return on Assets* over the previous ten years for firms in the same 2-digit SIC industry (firms are required to have at least three years of data to enter the calculation). *Dividend Payer* is equal to one if the firm pays a common dividend (*dvc*) during the fiscal year and zero otherwise. *State GDP Growth* is the state-level GDP growth rate over the year. *Political Balance* is the fraction of a state's congress members representing their state in the U.S. House of Representatives that belong to the Democratic Party in a given year.

	Mean	Std. Dev.	P25	Median	P75
Main Dependent Variables:					
Book Leverage	0.23	0.21	0.04	0.20	0.36
Market Leverage	0.18	0.18	0.02	0.13	0.28
Main Explanatory Variable:					
Inevitable Disclosure	0.42	0.49	0.00	0.00	1.00
Main Control Variables:					
Book Assets	1,322	4,097	38	146	640
Market-to-Book Assets	1.99	1.75	1.04	1.40	2.18
Return on Assets	0.06	0.23	0.03	0.11	0.17
Fixed Assets	0.28	0.22	0.11	0.23	0.41
Industry Cash Flow Volatility	0.07	0.03	0.05	0.07	0.09
Dividend Payer	0.32	0.47	0.00	0.00	1.00
State GDP Growth	0.06	0.04	0.04	0.06	0.09
Political Balance	0.57	0.18	0.50	0.58	0.64

Table 3
Inevitable Disclosure Doctrine and Financial Leverage

This table reports the results from OLS regressions of financial leverage on the indicator for the recognition of the IDD in the state where a firm is headquartered and control variables. In Panel A, financial leverage is measured by *Book Leverage* in models 1-3 and *Market Leverage* in models 4-6. In Panel B, financial leverage is alternatively measured by *Net Book Leverage*, *Net Market Leverage*, *Long-Term Book Leverage*, and *Long-Term Market Leverage*. *Net Book Leverage* is the book value of long-term debt (*dltt*) plus debt in current liabilities (*dlc*) less book value of cash and short-term investments (*che*) divided by book value of assets (*at*). *Net Market Leverage* is the book value of long-term debt (*dltt*) plus debt in current liabilities (*dlc*) less book value of cash and short-term investments (*che*) divided by market value of assets (*prcc_f*csho + at - ceq*). *Long-Term Book Leverage* is the book value of long-term debt (*dltt*) plus the current portion of long-term debt (*dd1*) divided by book value of assets (*at*). *Long-Term Market Leverage* is the book value of long-term debt (*dltt*) plus the current portion of long-term debt (*dd1*) divided by market value of assets (*prcc_f*csho + at - ceq*). All other variables are defined in Table 2. Standard errors are corrected for heteroskedasticity and clustering at the state level (t-statistics are in parentheses). *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

Panel A: Inevitable Disclosure and Financial Leverage

	Book Leverage			Market Leverage		
	(1)	(2)	(3)	(4)	(5)	(6)
Inevitable Disclosure	0.012***	0.013***	0.013***	0.007**	0.010***	0.010***
	(3.23)	(3.44)	(3.41)	(2.16)	(2.81)	(3.03)
Log Book Assets		0.030***	0.030***		0.035***	0.035***
		(10.03)	(10.00)		(12.15)	(12.09)
Market-to-Book Assets		-0.004***	-0.004***		-0.019***	-0.019***
		(-6.10)	(-6.08)		(-9.15)	(-9.21)
Return on Assets		-0.164***	-0.164***		-0.130***	-0.129***
		(-15.42)	(-15.53)		(-9.22)	(-9.37)
Fixed Assets		0.244***	0.244***		0.187***	0.187***
		(18.38)	(18.35)		(21.52)	(21.52)
Industry Cash Flow Volatility		-0.097	-0.098		-0.153***	-0.156***
		(-1.60)	(-1.59)		(-3.06)	(-3.04)
Dividend Payer		-0.050***	-0.050***		-0.045***	-0.045***
		(-13.47)	(-13.45)		(-14.84)	(-14.79)
State GDP Growth			-0.048			-0.197***
			(-1.54)			(-5.35)
Political Balance			-0.000			-0.010*
			(-0.02)			(-1.77)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	134,428	134,428	134,428	134,428	134,428	134,428
Adjusted R^2	0.597	0.628	0.628	0.623	0.677	0.678

Table 3 – *(Continued)*

Panel B: Alternative Measures of Financial Leverage

	Net Book Leverage (1)	Net Market Leverage (2)	Long-Term Book Leverage (3)	Long-Term Market Leverage (4)
Inevitable Disclosure	0.016***	0.014***	0.011***	0.009***
	(3.13)	(3.27)	(3.18)	(2.90)
Log Book Assets	0.042***	0.047***	0.030***	0.032***
	(10.87)	(12.67)	(10.10)	(11.51)
Market-to-Book Assets	-0.016***	0.007**	-0.004***	-0.015***
	(-19.75)	(2.41)	(-6.17)	(-8.79)
Return on Assets	-0.179***	-0.096***	-0.105***	-0.091***
	(-15.54)	(-6.22)	(-11.60)	(-8.57)
Fixed Assets	0.707***	0.444***	0.237***	0.184***
	(18.75)	(32.86)	(21.67)	(21.93)
Industry Cash Flow Volatility	-0.138	-0.320***	-0.089	-0.141***
	(-1.57)	(-4.50)	(-1.32)	(-2.70)
Dividend Payer	-0.061***	-0.053***	-0.047***	-0.042***
	(-16.18)	(-15.91)	(-13.21)	(-14.53)
State GDP Growth	-0.071	-0.202***	-0.032	-0.166***
	(-1.64)	(-4.88)	(-1.24)	(-5.32)
Political Balance	-0.006	-0.018*	-0.002	-0.011*
	(-0.46)	(-1.98)	(-0.34)	(-1.94)
Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	134,428	134,428	134,428	134,428
Adjusted R^2	0.723	0.681	0.627	0.664

Table 4
Adoption of the IDD vs. Rejection of the IDD After Adoption

This table reports the results from OLS regressions of financial leverage (*Book Leverage* in models 1 and 2 and *Market Leverage* in models 3 and 4) on indicators for the adoption or rejection of the (previously adopted) IDD in the state where a firm is headquartered and control variables. In models 1 and 3, we estimate the effect of the adoption of the IDD by state courts on firms' capital structures. For these two models, the sample excludes all observations for firms in Florida, Michigan, and Texas starting the year when their courts rejected the previously adopted IDD. *Inevitable Disclosure Adoption* is equal to one if the state where the firm is headquartered has adopted the IDD by year *t*, and zero otherwise. In models 2 and 4, we estimate the effect of the rejection of the IDD by state courts that had previously adopted it on firms' capital structures. For these two models, the sample period is restricted to the years 1996-2008, which is five years before the first rejection (Florida in 2001) and five years after the last rejection (Texas in 2003). Also, the sample excludes all observations for firms headquartered in states that adopted the IDD during the years 1996-2008 starting the year when their courts adopted the IDD. *Inevitable Disclosure Rejection* is equal to one if the state where the firm is headquartered has rejected the (previously adopted) IDD by year *t*, and zero otherwise. All other variables are defined in Table 2. Standard errors are corrected for heteroskedasticity and clustering at the state level (t-statistics are in parentheses). *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

	Book Leverage		Market Leverage	
	(1)	(2)	(3)	(4)
Inevitable Disclosure Adoption	0.012***		0.010***	
	(3.01)		(2.86)	
Inevitable Disclosure Rejection		-0.009**		-0.010*
		(-2.46)		(-1.83)
Log Book Assets	0.031***	0.028***	0.035***	0.033***
	(9.19)	(4.26)	(10.87)	(5.73)
Market-to-Book Assets	-0.004***	-0.004***	-0.019***	-0.014***
	(-6.13)	(-5.28)	(-9.48)	(-7.59)
Return on Assets	-0.164***	-0.139***	-0.129***	-0.100***
	(-15.12)	(-8.29)	(-9.15)	(-5.68)
Fixed Assets	0.244***	0.239***	0.188***	0.171***
	(17.19)	(19.48)	(19.85)	(15.77)
Industry Cash Flow Volatility	-0.068	-0.123*	-0.144***	-0.233***
	(-1.22)	(-1.72)	(-2.85)	(-4.62)
Dividend Payer	-0.050***	-0.028***	-0.045***	-0.027***
	(-12.82)	(-5.67)	(-14.25)	(-6.14)
State GDP Growth	-0.051	-0.040	-0.199***	-0.155**
	(-1.66)	(-0.89)	(-5.13)	(-2.31)
Political Balance	-0.004	0.032**	-0.013**	0.004
	(-0.59)	(2.42)	(-2.48)	(0.53)
Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	129,451	48,365	129,451	48,365
Adjusted R^2	0.632	0.703	0.682	0.731

Table 5
Timing of Changes in Financial Leverage

This table reports the results from OLS regressions of financial leverage (*Book Leverage* in models 1 and 2 and *Market Leverage* in models 3 and 4) on indicators for the timing of changes in state courts' position regarding the IDD and control variables. In models 1 and 3, we estimate the effect of the adoption of the IDD by state courts on firms' capital structures. For these two models, the sample excludes all observations for firms in Florida, Michigan, and Texas starting the year when their courts rejected the previously adopted IDD. *Inevitable Disclosure Adoption*$^{-1}$, *Inevitable Disclosure Adoption*^{0}, *Inevitable Disclosure Adoption*$^{+1}$, and *Inevitable Disclosure Adoption*$^{2+}$ are equal to one if the firm is headquartered in a state that will adopt the IDD in one year, adopts the IDD in the current year, adopted the IDD one year ago, and adopted the IDD two or more years ago, respectively, and zero otherwise. In models 2 and 4, we estimate the effect of the rejection of the IDD by state courts that had previously adopted it on firms' capital structures. For these two models, the sample period is restricted to the years 1996-2008, which is five years before the first rejection (Florida in 2001) and five years after the last rejection (Texas in 2003). Also, the sample excludes all observations for firms headquartered in states that adopted the IDD during the years 1996-2008 starting the year when their courts adopted the IDD. *Inevitable Disclosure Rejection*$^{-1}$, *Inevitable Disclosure Rejection*^{0}, *Inevitable Disclosure Rejection*$^{+1}$, and *Inevitable Disclosure Rejection*$^{2+}$ are equal to one if the firm is headquartered in a state that will reject the (previously adopted) IDD in one year, rejects the IDD in the current year, rejected the IDD one year ago, and rejected the IDD two or more years ago, respectively, and zero otherwise. All other variables are defined in Table 2. Standard errors are corrected for heteroskedasticity and clustering at the state level (t-statistics are in parentheses). *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

Table 5 – *(Continued)*

	Book Leverage		Market Leverage	
	(1)	(2)	(3)	(4)
Inevitable Disclosure Adoption $^{-1}$	0.007		0.003	
	(1.56)		(0.60)	
Inevitable Disclosure Adoption ^{0}	0.004		0.004	
	(1.00)		(0.75)	
Inevitable Disclosure Adoption $^{+1}$	0.014***		0.012***	
	(3.39)		(2.86)	
Inevitable Disclosure Adoption $^{2+}$	0.016***		0.012***	
	(3.11)		(2.83)	
Inevitable Disclosure Rejection $^{-1}$		-0.006		0.004
		(-1.23)		(0.99)
Inevitable Disclosure Rejection ^{0}		-0.012**		-0.006
		(-2.33)		(-1.10)
Inevitable Disclosure Rejection $^{+1}$		-0.006		-0.008
		(-1.15)		(-1.27)
Inevitable Disclosure Rejection $^{2+}$		-0.012**		-0.012*
		(-2.54)		(-1.80)
Log Book Assets	0.031***	0.028***	0.035***	0.033***
	(9.21)	(4.27)	(10.89)	(5.73)
Market-to-Book Assets	-0.004***	-0.004***	-0.019***	-0.014***
	(-6.12)	(-5.30)	(-9.48)	(-7.60)
Return on Assets	-0.164***	-0.139***	-0.129***	-0.101***
	(-15.16)	(-8.30)	(-9.16)	(-5.69)
Fixed Assets	0.244***	0.239***	0.188***	0.171***
	(17.27)	(19.51)	(20.00)	(15.82)
Industry Cash Flow Volatility	-0.068	-0.123*	-0.144***	-0.232***
	(-1.22)	(-1.73)	(-2.85)	(-4.61)
Dividend Payer	-0.050***	-0.028***	-0.045***	-0.027***
	(-12.80)	(-5.69)	(-14.23)	(-6.14)
State GDP Growth	-0.049	-0.047	-0.198***	-0.153**
	(-1.61)	(-1.02)	(-5.16)	(-2.31)
Political Balance	-0.005	0.029**	-0.014**	0.003
	(-0.62)	(2.13)	(-2.57)	(0.29)
Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	129,451	48,365	129,451	48,365
Adjusted R^2	0.632	0.703	0.682	0.731

Table 6
Effect of Competition in Product Markets

This table reports the results from OLS regressions of financial leverage (*Book Leverage* in Panel A and *Market Leverage* in Panel B) on the indicator for the recognition of the IDD in the state where a firm is headquartered and control variables. In both panels, we split the sample according to whether the values of selected industry characteristics are below or above the sample median. The first characteristic is the *Four-Firm Concentration Ratio,* defined as the fraction of total industry sales captured by the four largest firms in a 5-digit NAICS industry as reported by the U.S. Economic Census. The second characteristic is *Barriers to Entry*, defined as the average value of firms' R&D expenses (*xrd*) plus advertising expenses (*xad*) divided by sales (*sale*) across all firms in a 3-digit SIC industry. All other variables are defined in Table 2. In models 1 and 2, the sample excludes four industries for which the Census concentration data is not available (Agriculture, forestry, fishing, and hunting, Mining, Construction, and Management of company enterprises). Standard errors are corrected for heteroskedasticity and clustering at the state level (t-statistics are in parentheses). *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

Panel A: Dependent Variable is Book Leverage

	Four-Firm Concentration Ratio		Barriers to Entry	
	Below Median	Above Median	Below Median	Above Median
	(1)	(2)	(3)	(4)
Inevitable Disclosure	0.014*	0.004	0.017***	0.004
	(1.89)	(0.62)	(2.97)	(0.62)
Log Book Assets	0.037***	0.021***	0.040***	0.022***
	(6.87)	(4.41)	(14.58)	(4.69)
Market-to-Book Assets	-0.005***	-0.003**	-0.005***	-0.003***
	(-3.66)	(-2.21)	(-3.46)	(-4.61)
Return on Assets	-0.208***	-0.165***	-0.195***	-0.144***
	(-21.83)	(-10.83)	(-20.12)	(-12.61)
Fixed Assets	0.235***	0.209***	0.232***	0.263***
	(10.27)	(9.07)	(12.47)	(16.79)
Industry Cash Flow Volatility	-0.429***	0.101	-0.146	0.045
	(-4.35)	(0.60)	(-1.59)	(0.54)
Dividend Payer	-0.052***	-0.048***	-0.057***	-0.040***
	(-9.18)	(-10.98)	(-11.50)	(-8.87)
State GDP Growth	-0.035	-0.005	-0.105***	0.031
	(-1.17)	(-0.07)	(-3.01)	(0.80)
Political Balance	0.001	0.015	0.013	-0.016
	(0.12)	(1.50)	(1.05)	(-1.50)
Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	41,826	39,571	67,215	67,213
Adjusted R^2	0.686	0.630	0.660	0.597

Table 6 - (*Continued*)

Panel B: Dependent Variable is Market Leverage				
	Four-Firm Concentration Ratio		Barriers to Entry	
	Below Median	Above Median	Below Median	Above Median
	(1)	(2)	(3)	(4)
Inevitable Disclosure	0.014**	0.006	0.014**	0.004
	(2.23)	(1.40)	(2.59)	(0.81)
Log Book Assets	0.045***	0.029***	0.044***	0.025***
	(10.72)	(8.41)	(20.92)	(6.43)
Market-to-Book Assets	-0.025***	-0.017***	-0.030***	-0.014***
	(-11.39)	(-9.87)	(-14.33)	(-10.60)
Return on Assets	-0.188***	-0.135***	-0.183***	-0.097***
	(-12.93)	(-7.62)	(-14.97)	(-8.64)
Fixed Assets	0.202***	0.150***	0.192***	0.173***
	(11.84)	(10.63)	(14.68)	(15.32)
Industry Cash Flow Volatility	-0.311***	-0.117	-0.098	-0.084
	(-2.94)	(-0.89)	(-1.22)	(-1.34)
Dividend Payer	-0.047***	-0.044***	-0.051***	-0.034***
	(-11.20)	(-13.60)	(-13.88)	(-10.44)
State GDP Growth	-0.148***	-0.127**	-0.245***	-0.085***
	(-5.53)	(-2.23)	(-5.76)	(-2.89)
Political Balance	-0.008	0.001	-0.000	-0.013*
	(-0.79)	(0.13)	(-0.03)	(-1.79)
Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	41,826	39,571	67,215	67,213
Adjusted R^2	0.720	0.698	0.685	0.668

Table 7
Effect of Employee Characteristics

This table reports the results from OLS regressions of financial leverage (*Book Leverage* in Panel A and *Market Leverage* in Panel B) on the indicator for the recognition of the IDD in the state where a firm is headquartered and control variables. In both panels, we split the sample according to whether the values of selected industry characteristics are below or above the sample median. The first characteristic is the *Fraction of Workers in Managerial Occupations*, defined as the fraction of workers employed in managerial occupations in the firm's 3-digit NAICS industry and state. The second characteristic is the *Fraction of Workers in Science Occupations*, defined as the fraction of workers that are employed in science-related occupations in the firm's 3-digit NAICS industry and state. The third characteristic is the *Fraction of Workers with a Bachelor's Degree*, defined as the fraction of workers with at least a bachelor's degree that are employed in the firm's 3-digit NAICS industry and state. All other variables are defined in Table 2. Standard errors are corrected for heteroskedasticity and clustering at the state level (t-statistics are in parentheses). *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

Panel A: Dependent Variable is Book Leverage

	Fraction of Workers in Managerial Occupations		Fraction of Workers in Science Occupations		Fraction of Workers with a Bachelor's Degree	
	Above Median	Below Median	Above Median	Below Median	Above Median	Below Median
	(1)	(2)	(3)	(4)	(5)	(6)
Inevitable Disclosure	0.021***	0.004	0.017***	0.006	0.015***	0.005
	(6.51)	(0.55)	(3.51)	(0.90)	(2.73)	(0.60)
Log Book Assets	0.026***	0.035***	0.025***	0.037***	0.025***	0.037***
	(6.04)	(13.17)	(5.80)	(12.96)	(6.15)	(12.16)
Market-to-Book Assets	-0.003***	-0.006***	-0.003***	-0.006***	-0.003***	-0.005***
	(-6.34)	(-5.33)	(-5.38)	(-4.17)	(-4.02)	(-4.50)
Return on Assets	-0.145***	-0.192***	-0.140***	-0.209***	-0.141***	-0.209***
	(-10.10)	(-19.71)	(-11.60)	(-22.54)	(-15.27)	(-18.63)
Fixed Assets	0.267***	0.218***	0.276***	0.206***	0.289***	0.198***
	(22.25)	(12.87)	(22.31)	(11.49)	(33.36)	(10.50)
Industry Cash Flow Volatility	-0.003	-0.205**	0.045	-0.232**	0.128	-0.288**
	(-0.02)	(-2.25)	(0.47)	(-2.41)	(1.14)	(-2.63)
Dividend Payer	-0.040***	-0.052***	-0.038***	-0.054***	-0.037***	-0.054***
	(-6.63)	(-9.26)	(-6.48)	(-9.99)	(-6.84)	(-11.23)
State GDP Growth	-0.072	-0.018	-0.049	-0.040	-0.034	-0.069*
	(-1.37)	(-0.67)	(-0.95)	(-1.47)	(-0.72)	(-1.97)
Political Balance	0.000	-0.005	0.004	-0.000	0.005	-0.003
	(0.02)	(-0.41)	(0.35)	(-0.01)	(0.41)	(-0.25)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	65,539	65,754	65,631	65,662	65,583	65,710
Adjusted R^2	0.611	0.656	0.605	0.660	0.618	0.649

Table 7 - (*Continued*)

Panel B: Dependent Variable is Market Leverage

	Fraction of Worker in Managerial Occupations		Fraction of Workers in Science Occupations		Fraction of Workers with a Bachelor's Degree	
	Above Median	Below Median	Above Median	Below Median	Above Median	Below Median
	(1)	(2)	(3)	(4)	(5)	(6)
Inevitable Disclosure	0.014***	0.006	0.011***	0.007	0.011***	0.005
	(5.35)	(1.09)	(3.03)	(1.22)	(2.74)	(0.86)
Log Book Assets	0.029***	0.041***	0.028***	0.044***	0.028***	0.044***
	(7.19)	(17.39)	(7.41)	(18.99)	(8.52)	(18.43)
Market-to-Book Assets	-0.015***	-0.027***	-0.015***	-0.027***	-0.015***	-0.026***
	(-9.48)	(-18.17)	(-9.52)	(-13.70)	(-9.77)	(-10.51)
Return on Assets	-0.096***	-0.185***	-0.092***	-0.198***	-0.090***	-0.204***
	(-7.73)	(-16.99)	(-8.55)	(-13.91)	(-10.71)	(-11.44)
Fixed Assets	0.187***	0.179***	0.193***	0.170***	0.203***	0.165***
	(25.37)	(13.56)	(20.42)	(13.63)	(22.01)	(12.19)
Industry Cash Flow Volatility	-0.067	-0.256***	-0.067	-0.163*	-0.008	-0.254**
	(-0.85)	(-2.92)	(-0.86)	(-1.83)	(-0.11)	(-2.60)
Dividend Payer	-0.034***	-0.048***	-0.033***	-0.049***	-0.032***	-0.049***
	(-7.92)	(-12.00)	(-7.31)	(-11.90)	(-7.87)	(-14.06)
State GDP Growth	-0.209***	-0.141***	-0.206***	-0.141***	-0.193***	-0.171***
	(-3.00)	(-6.42)	(-3.38)	(-5.01)	(-2.89)	(-5.20)
Political Balance	-0.005	-0.011	-0.007	-0.009	-0.009	-0.008
	(-0.66)	(-1.28)	(-0.85)	(-1.13)	(-1.10)	(-1.09)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	65,539	65,754	65,631	65,662	65,583	65,710
Adjusted R^2	0.658	0.693	0.646	0.697	0.663	0.689

Table 8
Effect of Ex-Ante Employee Mobility

This table reports the results from OLS regressions of financial leverage (*Book Leverage* in Panel A and *Market Leverage* in Panel B) on the indicator for the recognition of the IDD in the state where a firm is headquartered and control variables. In models 1 and 2 of both panels, we split the sample according to whether a firm has a *Defined Benefit Pension Plan* or not. We define a firm as having a defined benefit pension plan if it reports positive pension plan assets (*pbnna>0*) or accumulated obligations (*pbaco>0*). In models 3 and 4, we split the sample according to whether *Employee Market Share*, defined as the firm's share in the 2-digit SIC industry's employment located in the firm's state is below or above the sample median. All other variables are defined in Table 2. Standard errors are corrected for heteroskedasticity and clustering at the state level (t-statistics are in parentheses). *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

Panel A: Dependent Variable is Book Leverage

	Defined Benefit Pension Plan		Employee Market Share	
	No	Yes	Below Median	Above Median
	(1)	(2)	(3)	(4)
Inevitable Disclosure	0.013***	0.006	0.016***	0.006
	(3.24)	(0.66)	(4.00)	(1.10)
Log Book Assets	0.031***	0.036***	0.028***	0.031***
	(8.82)	(6.61)	(5.01)	(14.42)
Market-to-Book Assets	-0.005***	0.003	-0.003***	-0.007***
	(-5.04)	(1.25)	(-4.33)	(-5.62)
Return on Assets	-0.151***	-0.352***	-0.135***	-0.237***
	(-15.03)	(-16.40)	(-11.85)	(-14.29)
Fixed Assets	0.275***	0.099***	0.307***	0.171***
	(19.96)	(3.54)	(18.18)	(8.25)
Industry Cash Flow Volatility	-0.138*	0.082	-0.058	-0.080
	(-1.92)	(0.70)	(-0.61)	(-1.00)
Dividend Payer	-0.040***	-0.057***	-0.041***	-0.051***
	(-11.99)	(-8.79)	(-7.95)	(-10.30)
State GDP Growth	-0.109***	0.015	-0.058	-0.016
	(-3.54)	(0.36)	(-0.95)	(-0.58)
Political Balance	-0.001	-0.002	-0.005	0.002
	(-0.10)	(-0.14)	(-0.49)	(0.19)
Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	98,124	28,157	65,850	65,851
Adjusted R^2	0.639	0.660	0.612	0.673

Table 8 - (*Continued*)

Panel B: Dependent Variable is Market Leverage

	Defined Benefit Pension Plan		Employee Market Share	
	No	Yes	Below Median	Above Median
	(1)	(2)	(3)	(4)
Inevitable Disclosure	0.011***	0.005	0.012***	0.006
	(3.39)	(0.85)	(4.90)	(1.13)
Log Book Assets	0.032***	0.042***	0.031***	0.037***
	(10.42)	(9.23)	(5.58)	(23.65)
Market-to-Book Assets	-0.017***	-0.034***	-0.014***	-0.029***
	(-9.03)	(-11.06)	(-8.75)	(-18.76)
Return on Assets	-0.104***	-0.388***	-0.088***	-0.248***
	(-9.50)	(-18.15)	(-7.44)	(-16.09)
Fixed Assets	0.196***	0.115***	0.218***	0.151***
	(24.60)	(4.98)	(22.52)	(9.05)
Industry Cash Flow Volatility	-0.213***	0.015	-0.148*	-0.137*
	(-4.08)	(0.19)	(-1.88)	(-1.84)
Dividend Payer	-0.040***	-0.045***	-0.038***	-0.046***
	(-13.87)	(-10.39)	(-8.46)	(-11.20)
State GDP Growth	-0.237***	-0.117**	-0.271***	-0.101***
	(-6.37)	(-2.52)	(-4.21)	(-4.44)
Political Balance	-0.014**	-0.000	-0.013	-0.008
	(-2.26)	(-0.04)	(-1.54)	(-1.36)
Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	98,124	28,157	65,850	65,851
Adjusted R^2	0.682	0.715	0.668	0.710

Table 9
Inevitable Disclosure Doctrine and Credit Spreads

Panel A of this table reports the results from OLS regressions of *Log Loan Spread*, defined as the natural logarithm of the amount the borrower pays over LIBOR for each dollar drawn down (in basis points) on the indicators for the recognition, adoption, or rejection of the IDD in the state where a firm is headquartered and control variables. Panel B reports the results from OLS regressions of *Log Loan Spread* on indicators for the timing of changes in state courts' positions regarding the IDD and control variables. *Inevitable Disclosure Adoption*$^{-1}$, *Inevitable Disclosure Adoption*^{0}, *Inevitable Disclosure Adoption*$^{+1}$, *Inevitable Disclosure Adoption*$^{2+}$, *Inevitable Disclosure Rejection*$^{-1}$, *Inevitable Disclosure Rejection*^{0}, *Inevitable Disclosure Rejection*$^{+1}$, and *Inevitable Disclosure Rejection*$^{2+}$ are defined in Table 5. *Log Loan Maturity* is defined as the natural logarithm of the number of months until the loan matures. *Log Loan Size* is defined as the natural logarithm of the loan amount (in millions). All specifications include state fixed effects, 3-digit SIC industry fixed effects, and year fixed effects. Except for model 1 of Panel A, all models further include loan-type fixed effects for each loan type (defined as in Campello, Lin, and Zou (2011), the categories are term loan, revolver greater than one year, revolver shorter than one year, and 364-day facility). All other variables are defined in Table 2. In models 1-3 of Panel A, the sample spans all firms with non-missing data for the period 1987-2011. In model 4 of Panel A and model 1 of Panel B, the sample excludes all observations for firms in Florida, Michigan, and Texas starting the year when their courts rejected the previously adopted IDD. In model 5 of Panel A and model 2 of Panel B, the sample period is restricted to the years 1996-2008, which is five years before the first rejection (Florida in 2001) and five years after the last rejection (Texas in 2003). Also, the sample excludes all observations for firms headquartered in states that adopted the IDD during the years 1996-2008 starting the year when their courts adopted the IDD. Standard errors are corrected for heteroskedasticity and clustering at the state level (t-statistics are in parentheses). *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

Table 9 - *(Continued)*

Panel A: Inevitable Disclosure and Credit Spreads

	(1)	(2)	(3)	(4)	(5)
Inevitable Disclosure	-0.069***	-0.061***	-0.057**		
	(-2.94)	(-2.77)	(-2.38)		
Inevitable Disclosure Adoption				-0.045*	
				(-1.76)	
Inevitable Disclosure Rejection					0.068**
					(2.58)
Log Book Assets	-0.220***	-0.145***	-0.145***	-0.149***	-0.139***
	(-33.64)	(-20.47)	(-20.39)	(-18.68)	(-14.43)
Market-to-Book Assets	-0.079***	-0.064***	-0.065***	-0.063***	-0.061***
	(-7.61)	(-8.29)	(-8.35)	(-7.94)	(-6.53)
Return on Assets	-1.216***	-1.106***	-1.107***	-1.118***	-1.213***
	(-10.36)	(-10.13)	(-10.16)	(-10.00)	(-9.38)
Fixed Assets	-0.235***	-0.202***	-0.202***	-0.224***	-0.211***
	(-4.28)	(-3.95)	(-3.96)	(-4.58)	(-3.58)
Industry Cash Flow Volatility	0.920**	1.193***	1.173***	1.231***	0.695
	(2.23)	(3.29)	(3.25)	(3.20)	(1.31)
Dividend Payer	-0.376***	-0.325***	-0.324***	-0.326***	-0.331***
	(-18.87)	(-19.13)	(-18.93)	(-18.49)	(-15.93)
Book Leverage	1.105***	0.935***	0.935***	0.934***	0.934***
	(33.11)	(40.39)	(40.43)	(36.49)	(26.98)
Log Loan Maturity		0.001	0.001	0.004	-0.001
		(0.13)	(0.12)	(0.36)	(-0.07)
Log Loan Size		-0.068***	-0.068***	-0.065***	-0.086***
		(-11.91)	(-11.87)	(-10.86)	(-13.46)
State GDP Growth			0.355	0.596*	0.490
			(1.11)	(1.93)	(1.32)
Political Balance			-0.039	-0.022	-0.039
			(-0.87)	(-0.44)	(-0.54)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes	Yes
Loan-Type Fixed Effects	No	Yes	Yes	Yes	Yes
Observations	25,017	25,017	25,017	23,173	15,645
Adjusted R^2	0.555	0.608	0.608	0.610	0.627

Table 9 - *(Continued)*

Panel B: Inevitable Disclosure and the Timing of Changes in Credit Spreads		
	(1)	(2)
Inevitable Disclosure Adoption $^{-1}$	0.009	
	(0.30)	
Inevitable Disclosure Adoption ^{0}	0.023	
	(1.02)	
Inevitable Disclosure Adoption $^{+1}$	-0.028	
	(-0.48)	
Inevitable Disclosure Adoption $^{2+}$	-0.059**	
	(-2.39)	
Inevitable Disclosure Rejection $^{-1}$		-0.009
		(-0.35)
Inevitable Disclosure Rejection ^{0}		0.059*
		(1.73)
Inevitable Disclosure Rejection $^{+1}$		0.018
		(0.78)
Inevitable Disclosure Rejection $^{2+}$		0.084**
		(2.29)
Log Book Assets	-0.149***	-0.139***
	(-18.78)	(-14.45)
Market-to-Book Assets	-0.063***	-0.061***
	(-7.89)	(-6.50)
Return on Assets	-1.118***	-1.213***
	(-9.94)	(-9.41)
Fixed Assets	-0.222***	-0.211***
	(-4.55)	(-3.60)
Industry Cash Flow Volatility	1.245***	0.679
	(3.20)	(1.30)
Dividend Payer	-0.327***	-0.331***
	(-18.42)	(-15.90)
Book Leverage	0.935***	0.934***
	(36.25)	(26.82)
Log Loan Maturity	0.003	-0.001
	(0.31)	(-0.06)
Log Loan Size	-0.065***	-0.086***
	(-10.88)	(-13.48)
State GDP Growth	0.558*	0.519
	(1.79)	(1.39)
Political Balance	-0.015	-0.020
	(-0.27)	(-0.25)
Year Fixed Effects	Yes	Yes
Industry Fixed Effects	Yes	Yes
State Fixed Effects	Yes	Yes
Loan-Type Fixed Effects	Yes	Yes
Observations	23,173	15,645
Adjusted R^2	0.610	0.627

Table 10
Inevitable Disclosure Doctrine and Sales Growth

This table reports the results from OLS regressions of *Sales Growth*, defined as (($Sales_t$ / $Sales_{t-1}$) – 1) on the indicator for the recognition of the IDD in the state where a firm is headquartered and control variables. *Capital Expenditures* is capital expenditures (*capex*) divided by book assets (*at*). *R&D Expenditures* is R&D expenses (*xrd*) divided by sales (*sale*). *Advertising Expenditures* is advertising expenses (*xad*) divided by sales (*sale*). All other variables are defined in Table 2. The sample spans the 1977-2011 period. In models 1 and 2 industries are defined at the 3-digit SIC level, and in models 3 and 4 they are defined at the 4-digit SIC level. Standard errors are corrected for heteroskedasticity and clustering at the state level (t-statistics are in parentheses). *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

	(1)	(2)	(3)	(4)
Inevitable Disclosure	0.017***	0.017***	0.019***	0.019***
	(2.92)	(2.94)	(2.80)	(2.81)
Log Book Assets	0.057***	0.058***	0.064***	0.064***
	(10.50)	(11.32)	(10.45)	(11.21)
Return on Assets	0.463***	0.457***	0.453***	0.447***
	(28.39)	(30.57)	(27.58)	(30.38)
Market-to-Book Assets	0.048***	0.048***	0.048***	0.048***
	(14.75)	(14.85)	(13.08)	(13.18)
Capital Expenditures	0.604***	0.603***	0.595***	0.594***
	(13.07)	(13.02)	(13.10)	(13.05)
R&D Expenditures	-0.091***	-0.092***	-0.094***	-0.094***
	(-15.32)	(-15.19)	(-15.68)	(-15.46)
Advertising Expenditures	0.444***	0.438***	0.487***	0.482***
	(3.09)	(3.09)	(3.00)	(3.01)
Book Leverage		-0.033*		-0.028
		(-1.93)		(-1.41)
Firm Fixed Effects	Yes	Yes	Yes	Yes
Year × Industry Fixed Effects	Yes	Yes	Yes	Yes
Industry Definition	3-Digit SIC	3-Digit SIC	4-Digit SIC	4-Digit SIC
Observations	131,979	131,979	131,979	131,979
Adjusted R^2	0.263	0.263	0.229	0.229

Table 11
The Effect of Measurement Error in the Inevitable Disclosure Doctrine Indicator

This table reports the results from OLS regressions of financial leverage (*Book Leverage* in Panel A and *Market Leverage* in Panel B) on the indicator for the recognition of the IDD in the state where a firm is headquartered and control variables. All variables are defined in Table 2. In model 1, we correct the location of headquarters (HQ) over the 1992-2011 period to reduce measurement error in *Inevitable Disclosure*. To do so, we use the state of headquarters information from 10-K filings over the 1992-2011 period when it is available, and when it is not available we assume there were no relocations prior to the earliest date when headquarters information is available. In model 2, we only use the subsample of firm-years for which we can confirm the location of headquarters from 10-K documents. This subsample only spans the 1992-2011 period, but in this subsample *Inevitable Disclosure* is not measured with any error due to relocations of firms' headquarters. In model 3, we exclude all firms whose annual sales or book asset growth exceeded 100% in any year during the sample period. In model 4, we exclude all observations when a firm reports positive foreign income (*pifo*) or foreign taxes (*txfo*). In model 5, we exclude all observations when a firm is in a geographically dispersed industry (retail, wholesale, and transportation). Standard errors are corrected for heteroskedasticity and clustering at the state level (t-statistics are in parentheses). *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

Panel A: Dependent Variable is Book Leverage

	Corrected location of HQ (1977-2011)	Corrected location of HQ (1992-2011)	Exclude if firm growth ever exceeds 100%	Exclude if firm reports foreign income or taxes	Exclude if firm is in dispersed industry
	(1)	(2)	(3)	(4)	(5)
Inevitable Disclosure	0.014***	0.015***	0.009**	0.015***	0.014***
	(3.99)	(3.12)	(2.10)	(3.65)	(3.21)
Log Book Assets	0.030***	0.026***	0.023***	0.033***	0.032***
	(11.38)	(5.47)	(5.50)	(11.89)	(9.55)
Market-to-Book Assets	-0.004***	-0.004***	-0.003**	-0.004***	-0.004***
	(-4.94)	(-4.38)	(-2.47)	(-3.61)	(-5.58)
Return on Assets	-0.164***	-0.138***	-0.249***	-0.158***	-0.165***
	(-15.58)	(-9.93)	(-12.24)	(-15.97)	(-14.80)
Fixed Assets	0.244***	0.212***	0.198***	0.272***	0.252***
	(19.21)	(14.66)	(12.78)	(17.61)	(18.04)
Industry Cash Flow Volatility	-0.098*	-0.100*	-0.106	-0.019	-0.188**
	(-1.76)	(-1.75)	(-1.14)	(-0.22)	(-2.66)
Dividend Payer	-0.050***	-0.031***	-0.050***	-0.052***	-0.047***
	(-15.38)	(-7.62)	(-13.23)	(-10.58)	(-11.65)
State GDP Growth	-0.049*	-0.046	-0.017	-0.046	-0.051
	(-1.74)	(-1.62)	(-0.63)	(-1.13)	(-1.63)
Political Balance	-0.000	0.005	-0.007	-0.004	-0.006
	(-0.01)	(0.53)	(-0.91)	(-0.46)	(-0.78)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	134,428	65,070	63,655	85,321	108,433
Adjusted R^2	0.628	0.694	0.689	0.637	0.612

Table 11 – *(Continued)*

Panel B: Dependent Variable is Market Leverage

	Corrected location of HQ (1977-2011)	Corrected location of HQ (1992-2011)	Exclude if firm growth ever exceeds 100%	Exclude if firm reports foreign income or taxes	Exclude if firm is in dispersed industry
	(1)	(2)	(3)	(4)	(5)
Inevitable Disclosure	0.011***	0.014***	0.008**	0.011***	0.010***
	(3.34)	(3.20)	(2.10)	(3.62)	(2.78)
Log Book Assets	0.035***	0.032***	0.034***	0.037***	0.035***
	(12.87)	(7.06)	(10.77)	(17.03)	(10.85)
Market-to-Book Assets	-0.019***	-0.015***	-0.033***	-0.018***	-0.017***
	(-8.90)	(-7.41)	(-17.51)	(-10.12)	(-9.54)
Return on Assets	-0.129***	-0.104***	-0.247***	-0.117***	-0.125***
	(-9.30)	(-6.55)	(-11.24)	(-10.15)	(-9.26)
Fixed Assets	0.187***	0.154***	0.192***	0.199***	0.186***
	(19.41)	(14.90)	(17.38)	(22.90)	(20.03)
Industry Cash Flow Volatility	-0.156***	-0.203***	-0.049	-0.102*	-0.211***
	(-3.23)	(-4.38)	(-0.59)	(-1.85)	(-3.73)
Dividend Payer	-0.045***	-0.032***	-0.045***	-0.049***	-0.043***
	(-19.07)	(-9.67)	(-14.45)	(-13.08)	(-13.23)
State GDP Growth	-0.197***	-0.137***	-0.132***	-0.221***	-0.213***
	(-5.98)	(-3.91)	(-4.00)	(-5.31)	(-5.34)
Political Balance	-0.010	-0.004	-0.008	-0.009	-0.013**
	(-1.59)	(-0.55)	(-1.24)	(-1.31)	(-2.37)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	134,428	65,070	63,655	85,321	108,433
Adjusted R^2	0.678	0.725	0.719	0.686	0.673

Table 12
Additional Controls in Main Specification

This table reports the results from OLS regressions of financial leverage (*Book Leverage* in models 1-3 and *Market Leverage* in models 4-6) on the indicator for the recognition of the IDD in the state where a firm is headquartered and control variables. *State-Industry HHI* is the sales-based Herfindhal-Hirschmann Index of concentration within the firm's 2-digit SIC industry and state of headquarters. *Strength of Trade Secret Protection* is an index used in Png and Samila (2013) that takes a value between zero and one and that indicates the strength of trade secret protection in a given state (higher values imply greater protection). *Strength of Non-Competes* is an index used in Bird and Knopf (2014) that takes a value between zero and twelve and that indicates the strength of the enforcement of covenants not to compete by courts in the state (higher values imply stronger enforcement). *Log Number of Patents* is the natural logarithm of the number of patents filed by a firm in a given year. *Log Number of Citations* is the natural logarithm of the total number of citations of a firm's patents filed in a given year. All other variables are defined in Table 2. Standard errors are corrected for heteroskedasticity and clustering at the state level (t-statistics are in parentheses). *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

	Book Leverage			Market Leverage		
	(1)	(2)	(3)	(4)	(5)	(6)
Inevitable Disclosure	0.013***	0.014***	0.011***	0.010***	0.011***	0.008**
	(3.42)	(3.95)	(2.79)	(3.04)	(3.76)	(2.27)
State-Industry HHI	-0.000	-0.000	0.005	0.001	0.001	0.009**
	(-0.07)	(-0.08)	(0.92)	(0.43)	(0.44)	(2.09)
Strength of Trade Secret Protection		-0.007	-0.005		0.001	0.001
		(-0.89)	(-0.76)		(0.09)	(0.20)
Strength of Non-Competes		0.001	0.002		0.001	0.002
		(0.37)	(0.51)		(0.50)	(0.70)
Log Number of Patents			-0.011***			-0.012***
			(-3.81)			(-6.66)
Log Number of Citations			-0.000			0.001**
			(-0.20)			(2.18)
Log Book Assets	0.030***	0.030***	0.037***	0.035***	0.035***	0.041***
	(10.02)	(10.03)	(11.43)	(12.11)	(12.11)	(12.87)
Market-to-Book Assets	-0.004***	-0.004***	-0.004***	-0.019***	-0.019***	-0.019***
	(-6.10)	(-6.07)	(-5.11)	(-9.21)	(-9.21)	(-9.61)
Return on Assets	-0.164***	-0.164***	-0.181***	-0.129***	-0.129***	-0.143***
	(-15.52)	(-15.53)	(-18.67)	(-9.37)	(-9.37)	(-10.18)
Fixed Assets	0.244***	0.244***	0.262***	0.187***	0.187***	0.202***
	(18.35)	(18.32)	(19.86)	(21.53)	(21.53)	(22.48)
Industry Cash Flow Volatility	-0.099	-0.098	-0.104	-0.154***	-0.154***	-0.170**
	(-1.59)	(-1.61)	(-1.42)	(-2.94)	(-2.95)	(-2.57)
Dividend Payer	-0.050***	-0.050***	-0.054***	-0.045***	-0.045***	-0.047***
	(-13.45)	(-13.41)	(-14.44)	(-14.80)	(-14.72)	(-14.69)
State GDP Growth	-0.048	-0.048	-0.037	-0.197***	-0.197***	-0.216***
	(-1.54)	(-1.51)	(-1.08)	(-5.33)	(-5.32)	(-5.99)
Political Balance	-0.000	-0.001	-0.007	-0.010*	-0.010*	-0.014***
	(-0.02)	(-0.09)	(-1.06)	(-1.77)	(-1.79)	(-2.97)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	134,428	134,428	102,253	134,428	134,428	102,253
Adjusted R^2	0.628	0.628	0.646	0.678	0.678	0.693