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CREDITORS' RIGHTS AND MANAGEMENT FORECAST DECISIONS: EVIDENCE FROM A QUASI-NATURAL EXPERIMENT

A DISSERTATION APPROVED FOR THE
MICHAEL F. PRICE COLLEGE OF BUSINESS

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Creditors' Rights and Management Forecast Decisions: Evidence from a Quasi-Natural Experiment

Abstract

I study how creditors' rights affect management's disclosure decisions, employing the introduction of anti-recharacterization laws in the United States as an exogenous shock to creditors' rights. These laws increased the rights of creditors by enhancing their ability to repossess collateral pledged for secured lending. I find that after the enactment of the laws, managers were more likely to issue a forecast and the number of forecasts increased. However, there is no evidence to suggest that management sacrifices forecast quality in the process. Further tests reveal that the response is stronger for companies with higher levels of shareholder monitoring, implying an indirect effect of creditors' rights as a governance mechanism.

Keywords: creditor rights, governance, management forecast, anti-recharacterization laws

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Creditors' Rights and Management Forecast Decisions: Evidence from a Quasi-Natural Experiment

1. Introduction

In recent years, corporate debt levels have increased to record highs, triggering concerns from stakeholders (PricewaterhouseCoopers 2022; Buckley et al. 2021). However, debt financing is not inherently detrimental because it can serve as a governance mechanism to discipline management, especially when the legal rights of creditors are protected (Shleifer and Vishny 1997; Hart 1995). For example, the protection of creditors' rights has been shown to act as an effective governance mechanism in terms of encouraging higher-quality financial reporting (Tan 2013). Another key outcome of effective governance is transparency in the form of disclosure to key stakeholders (Armstrong et al. 2012). However, due to different demands and incentives between equity and debt holders, it is unclear whether the protection of creditors' rights affects management's decision to provide transparent disclosures to equity stakeholders. To better understand this phenomenon, I examine if and how creditors' rights influence firms' forecasting decisions.

I focus on management's forecasting decisions because this reflects a valuable aspect of the disclosure environment of companies (Hirst et al. 2008; Graham et al. 2005). However, providing this information is costly. The equilibrium level of management guidance is determined by various players, including managers, analysts, investors, creditors, and other stakeholders. The cost-benefit tradeoff among these players may affect the relationship between creditors' rights and management's forecasting practices. Arguments supporting the relationship reflect either an increase or a decrease in forecasting decisions.

In the wake of an increase in creditors' rights, lenders may either increase or decrease their monitoring of management. An increase in monitoring by creditors may lead to a demand for more

information from management, thus leading to the supply of more forward-looking information to the market. Alternatively, creditors may reduce their monitoring, resulting in shareholders increasing their oversight and demanding more guidance. Thirdly, we know one of the primary reasons managers provide guidance is to manage analysts' expectations, which are important in both the equity and debt-contracting markets (e.g., Mansi et al. 2011). Managers may increase their forecasting behavior in anticipation of adjusting corporate policies to take advantage of enhanced access to debt when creditors' rights are strengthened. Doing so will help them to meet analysts' demands for forward-looking information. These factors all indicate that we may observe an increase in forecasting practices when creditors' rights are strengthened.

However, when managers are disincentivized or distracted from providing guidance this may reduce the supply of forecasts to the market. The limited attention and resources of management and the severity of penalties for violating covenants may shift management's focus towards the demands and bonding activities of creditors, leading to a reduction in management guidance following an increase in creditors' rights. The economic theory of rational inattention suggests that people are unable to process all available information and choose what to focus on (Maćkowiak et al. 2023). Therefore, when management is disincentivized or distracted this may potentially lead to a decrease in management's forecasting behavior when creditors' rights are strengthened. An expected shift towards financial leverage may also disincentivize management from engaging in forecasting behavior. Thus, ex-ante, it is unclear if or how an increase in creditors' rights affects management's forecast decisions.

To examine whether there is a relationship between creditors' rights and management forecasts, I identify a setting that resulted in a shift in creditors' rights. Specifically, I exploit the exogenous variation in creditors' rights created by the introduction of anti-recharacterization laws

in states across the United States, a setting that has been validated by several recently published studies (e.g. Favara et al. 2021; Chu 2020). The anti-recharacterization laws strengthened the rights of secured lenders by increasing their opportunity amid bankruptcy to repossess resources pledged as collateral. Identifying an exogenous setting to examine governance factors is critical to drawing useful causal inferences (Armstrong et al. 2010).

My research design features a staggered difference-in-difference[1] model in which my treated group consists of companies incorporated in states that enacted anti-recharacterization laws. I first examine whether there is, on average, a relationship between creditors' rights and management's forecast decisions, by looking at forecast quantity (firms issuing a forecast and forecast count) and forecast quality (forecast precision, horizon, and accuracy). Using a sample of firm-years covering the period 1994 to 2008 three years before the first state enacted the legislation and three years after the last state enacted the legislation I find that management forecasts increased following an increase in creditors' rights and that more companies issue a forecast following an increase in creditors' rights. After the passage of the laws, firms were 3% more likely, on average, to issue a forecast within a year. I also find that stronger creditors' rights are associated with a 9% increase in the number of forecasts issued by a firm within a year. Considering the multiplicity of factors impacting management's forecasting behavior, I consider these results economically meaningful.

However, a closer examination of forecast characteristics reveals no statistical difference in terms of forecast quality when comparing treated and control firm-years. Specifically, I find no association between the passage of the anti-recharacterization laws and subsequent forecast

[1] I also present alternative specifications (Callaway and Sant'Anna 2021; De Chaisemartin and D'Haultfœuille 2020; Borusyak et al. 2022) such that my inferences are robust to concerns about staggered difference-in-difference design (Baker et al. 2022). See Table 6 and Figure 2.

precision, horizon, or accuracy.[2] Collectively, this evidence suggests that management responds favorably to an increase in creditors' rights without sacrificing quality.

To better understand the relationship between creditors' rights and management forecasting, I perform multiple cross-sectional analyses. Specifically, I examine how the relationship between creditors' rights and management guidance is impacted when there is a higher level of monitoring by shareholders and creditors. I measure shareholder monitoring using the levels of institutional ownership and analysts following as well as the issuance of equity shares. I examine the moderating effect of an increase in creditor monitoring measured using asset-backed securities. I find that higher levels of all three measures of shareholder monitoring lead to an increase in management's forecast frequency when creditors' rights are strengthened. However, in the presence of higher levels of monitoring by shareholders when creditors' rights are strengthened there is no effect of higher levels of creditor monitoring on forecast practices. Collectively, the evidence suggests that shareholder monitoring may be the primary driver of the observed relationship between creditors' rights and management forecasting practice, implying an indirect role of creditors' rights as a governance mechanism.

This paper makes several contributions to the literature. Research often examines how companies' reporting environments influence the credit market (e.g. Dechow et al. 2010; Givoly et al. 2017). However, this study helps us to assess how the credit market impacts companies' reporting environments. Additionally, this paper contributes to the literature on corporate governance and management forecast decisions by providing new empirical support for the theoretical discussions of creditors as a governance mechanism for corporations (e.g. Shleifer and Vishny 1997). While much of the literature on debt as a governance mechanism focuses on the

[2] Further tests of these no effect results as per Cready et al. (2022) are considered in this paper.

effects of boards and their committees, institutional owners, and family ownership (e.g. Abramova et al. 2020; Ajinkya et al. 2005; Karamanou and Vafeas 2005; Armstrong et al. 2014; Chen et al. 2008), I focus on creditors' rights. My results provide strong support relating to the effect of creditors' rights on management forecast frequency. My study provides a detailed synthesis of the factors that may lead to an effect of creditors' rights on management forecasting decisions, and the inferences suggest that the interrelationship between governance players impacts the relationship in a significant way.

This paper also contributes to our understanding of the determinants of voluntary disclosure (e.g. Ball et al. 2012; Abramova et al. 2020) by providing evidence of the relationship between creditors' rights and management's forecast. Examining this area allows me to identify one of the rare instances in which management adjusts its long-term disclosure policy, which is often considered static, to account for legislative changes and shifts in the demand for its forecasts. Finally, this paper allows us to understand the spillover effect of an indirect intervention (creditors' rights) on management's voluntary disclosure decisions.

2. Literature Review & Hypothesis Development

2.1 Anti-recharacterization Laws

A secured lender's claim to specific assets lessens the lender's losses if the company goes bankrupt (Rajan and Winton 1995). However, under the US Bankruptcy Code secured lenders are unable to cease collateral pledged as security because of the principle of automatic stay.[3] Automatic stay keeps creditors at bay while the value of secured collateral declines because of

[3] Automatic stay temporarily prevents creditors or their agents, government entities, and any other entity with a claim against a debtor that files for bankruptcy, from recovering the money owed by the debtor.

lengthy delays for secured creditors to access resources pledged as collateral. To circumvent this issue and appease creditors borrowers use special-purpose vehicles (SPVs) to secure financing.

SPVs are subsidiary companies set up by the parent to facilitate specific business activities, and more pertinently secured borrowing. They provide corporations with an opportunity to isolate risk and structure debt efficiently. The parent sells the asset(s) to be used as collateral to the SPV and the SPV as a separately identifiable entity borrows the money from the creditor, using such assets as collateral. As a bankruptcy-remote entity, the SPV is safe from insolvency should the parent file for bankruptcy. As such the assets of the SPV are not subject to automatic stay. But courts can recharacterize assets sold to an SPV as a loan if the judge thinks this was not a genuine sale. Essentially, this recharacterization makes the lender a creditor of the parent and not the SPV, and as governed under the US Bankruptcy Code the pledged assets are subject to automatic stay.

To mitigate against the issue of recharacterization, some states enacted anti-recharacterization laws, which prevent the recharacterization of a sale. This intern reduced judges' ability to reassign assets of SPVs to the parent company. These anti-recharacterization provisions not only strengthened the rights of creditors but also increased the value of pledged assets because of the increased level of protection (Favara et al. 2021).

To further explain this concept let us turn our attention to Figure 1. The first block of Figure 1 explains the securitization process. Essentially, a parent company or sponsor, let's call this Boomer Corporation, creates an SPV, called Sooner Inc, to isolate risk. Boomer Corporation sells the related assets to Sooner Inc (SPV) and Sooner Inc uses these assets to provide security for bonds it issues to investors. These bondholders as secured creditors are unaffected by the survival status of the parent company because the SPV is bankruptcy remote.[4] Now as per the second block,

[4] Bankruptcy remote means that the insolvency of this entity will have minimal impact on others in the group and vice versa.

let's further assume that Boomer Corporation (Parent company) files for Bankruptcy, and Judge UT Dallas decides that the sale to Sooner Inc (SPV) was not a true sale. This decision by Judge UT Dallas results in the assets and related transactions being recharacterized as those of the Parent company and hence the bondholders of the SPV become creditors of the Parent instead of the SPV. Hence, the secured assets of these bondholders are subject to automatic stay. To prevent this recharacterization, some states enacted anti-recharacterization laws, which limit judges like UT Dallas' ability to recharacterize assets sold to SPV. Thus, this provides the type of protection secured borrowers expect under the securitization process mentioned initially. Hence, the anti-recharacterization laws allow these bondholders to breathe a sigh of relief because their legal rights are better protected.

[Insert Figure 1]

Seven states enacted these legislations either as an amendment to existing legislation, specifically the Uniform Commercial Code (UCC), or as standalone legislation. In 1997 two states, Louisiana and Texas, introduced these anti-recharacterization laws as amendments to the UCC, and this was followed by standalone legislation in Alabama in 2001, Delaware in 2002, South Dakota in 2003, Virginia in 2004, and Nevada in 2005 (Kettering 2008).[5] See Appendix A for the codification of these laws and excerpts of the Acts.

It should be noted that the strengthening of the legal rights of creditors under these legislations extends beyond the creation of special purpose vehicles, given that the statutes help to

[5] See Kettering (2008, p. 517) for more details. Additionally, Ohio and North Carolina also enacted anti-recharacterization laws in 2001 and 2002, respectively. However, a unique feature of the statutes adopted in these states limits the legislation to sales made by insured depository institutions, which are not governed by the US Bankruptcy Code. Given the unique nature of these laws and the fact that financial institutions lobbied heavily for these legislations across all states in which these laws were enacted, the statutes enacted in Ohio and North Carolina are not considered in this study. I also do not include financial institutions in my sample.

strengthen securitization. A review of court cases reveals that the legislation is used to support the position of litigants in a lawsuit. Additionally, corporations cite these laws in their filings with the SEC. Appendix A provides excerpts from a case and an SEC filing relating to these laws. These excerpts help us to better understand how these laws contribute to an increase in creditors' rights. The citations also help to strengthen the use of these laws as a measure of creditors' rights and anecdotally suggest that management is paying attention to these laws.

A further consideration is a decision on June 26, 2003, by the Fifth Circuit Court of Appeals to uphold the ruling of the district court in *Reaves Brokerage Company, Inc. v. Sunbelt Fruit & Vegetable Company, Inc., et al* which resulted in some uncertainties regarding anti-recharacterization state legislations because the ruling ignored the anti-recharacterization laws in Texas. However, as explained by Favara et al. (2021) despite the uncertainties created by the ruling, anti-recharacterization laws are normally upheld, increasing creditors' rights to repossess assets pledged as collateral in bankruptcy. Therefore, following Favara et al. (2021) the statutes of interest relate to the seven states: Louisiana, Texas, Alabama, Delaware, South Dakota, Virginia, and Nevada.

I consider that the anti-recharacterization laws led to an increase in creditors' rights and study the effect of this shift in creditors' rights on management's forecasting behavior.

2.2 Creditors' Rights

Creditors as agents of governance have been an important area of theoretical discussion in the corporate governance literature (e.g. Hart 1995; Gray 1997; Jandik and McCumber 2018; Whitehead 2012). They are critical to the efficient functioning of enterprises (Gray 1997); but, their effectiveness is embedded in the protection of their legal rights (Hart 1995; Shleifer and

Vishny 1997). The salience of the legislative system in assuring the rights of creditors rests in the ability of statutes to empower creditors to repossess collaterals. One such strengthening of creditors' rights and the ability to repossess assets pledged as collateral has come through anti-recharacterization laws enacted at the state level. Despite the evidence arguing that an increase in creditors' rights leads to a reluctance by firms to borrow (Acharya et al. 2011; Vig 2013; Cho et al. 2014), Favara et al. (2021) find that stronger creditors' rights, based on anti-recharacterization laws, increased debt financing. Relying on the evidence garnered by Favara et al. (2021), this paper assumes that the anti-recharacterization laws not only increased creditors' rights but also the level of credit financing by corporations. Additionally, the introduction of anti-recharacterization laws resulted in increased use of SPVs (Li et al. 2016).

Monitoring is a key mechanism that makes creditors an important part of a company's governance system. Rajan and Winton (1995) argue that covenants and collateral can encourage a lender to monitor its borrower. However, as explained by Leeth and Scott (1989) collateral when compared to covenants reduces a lender's monitoring cost because collateral lowers enforcement costs, which are pertinent to covenants. Thus, the incentive for monitoring by creditors when their interest is secured by collaterals may be lower. Nonetheless, monitoring can either be active or passive (Gray 1997). Gray explains that active monitoring involves hands-on assessment and evaluation of management actions and decisions. Baer et al. (1995) explain that passive monitoring rest in the security interest of collateral; but, even when lending is secured, creditors will engage in some level of active monitoring because of the transactional costs involved in foreclosing on collateral. Collectively, the evidence suggests that creditors engage in both passive and active monitoring depending on their cost/benefit evaluation.

Within the context of this paper and the setting examined, we could expect there to be on average more passive monitoring by creditors. This passive monitoring behavior is assumed because active monitoring involves hands-on evaluation of corporate decisions relating to firms' investments and operations (Baer et al. 1995). Jandik and McCumber (2018) argue that the traditional view of creditors asserts a more passive monitoring role, but more recent work has shown that creditors are not always passive. Earlier work, for example, Shleifer et all (1997), also explains that large creditors engage in more active monitoring.

Active monitoring as a governance mechanism is self-explanatory. But if creditors engage in more passive monitoring, how do secured creditors serve as a governance mechanism? While debt financing may help to mitigate the conflict between equity participants and managers, seminal work by Jensen and Meckling (1976) explains that this generates conflict between equity and debt participants. When firms engage in financial leverage this incentivizes greater risk-taking by shareholders since they reap all the rewards of a successful project and suffer limited liability should the project fail. Debtholders are therefore not tolerant of this and are more focused on minimizing their risk and protecting their investments. With equity and debt participants having different risk appetites and agendas their actions will mirror their self-interest, and arguably this situation is exacerbated when there is an increase in creditors' rights. When creditors are more secure this means that equity participants are less secure and this can lead to conflict between debt and equity participants (Adler 2019). This conflict may evoke a response from management and so despite creditors not being active monitors their presence creates a response because of the interrelationship with other firm participants. Additionally, to the extent secured creditors are more comfortable in their state of affairs and reduce their monitoring, we may observe a spill-over effect on equity participants in that they increase their oversight either directly or through their other

governance mechanisms because now their liability increases. Thus, creditor governance can either be direct or indirect.

Alternatively, the negative effects of creditors' rights have not gone unnoticed in the literature. Arguably the very mechanism used to motivate managers may lead to undesirable outcomes. In an international study examining the effect of creditors' rights on the investment decisions of companies, Acharya et al. (2011) find that greater creditors' rights lead to value-reducing merger and acquisition activities. Further evidence examining almost 2,400 banks in 69 countries shows that stronger creditors' rights increase the chance of a financial crisis (Houston et al. 2010). Espenlaub et al. (2020) also find that stronger protection for creditors results in weaker post-IPO performance and firm survival. So ex-ante it is unclear how an increase in creditors' rights will affect management's behavior.

2.3 Management Forecast

Management's voluntary disclosures and the reliability of these disclosures are noteworthy empirical questions, and a key motive for such disclosures relates to capital market activities (Healy and Palepu 2001). One credible voluntary disclosure is management forecasts, which like other voluntary disclosures is used to reduce information risk (Healy and Palepu 2001). Management forecasts provide investors, analysts, and other stakeholders with valuable insight that helps in decision-making. While management forecasts may not be primarily geared toward creditors as they are more focused on analysts and investors, survey responses from corporate managers regarding the benefits of providing guidance indicate that 48% of the respondents anticipate managing their relationship with creditors, specifically reducing borrowing cost, as a

benefit of providing guidance (Call et al. 2022).[6] Arguably, management guidance may reflect a pertinent element of voluntary disclosure to examine given its possible relationship to creditors and creditor monitoring.[7] The management forecast literature focuses on both the quantity and quality of these forecasts. Management forecast quantity has to do with the issuance of forecasts, while management forecast quality examines the characteristics of these forecasts.

Management issue forecast to enhance the information environment of their firm and reduce agency cost. Guay et al. (2016) find that management issues more forecasts to circumvent the adverse effects of financial statement complexity on the information environment. When GAAP limits management's financial statement reporting discretion, Hribar et al. (2022) find that managers issue more management forecasts. The mandatory adoption of International Financial Reporting Standards also results in a greater likelihood of management issuing a forecast (Li and Yang 2015). The signaling theory also predicts that management will issue forecasts to show their competence or to mitigate career concerns. Consistent with this theory Baik et al. (2011) find that both the likelihood and frequency of management forecasts increase with managerial competence.

Evidence relating to the effect of litigation on management forecast decisions is mixed. Some evidence suggests that entities with greater levels of bad news when faced with high litigation risk issue more forecasts (Cao and Narayanamoorthy 2011; Houston et al. 2019). However, Bourveau et al. (2018) find that when litigation risk is low firms issue more forecasts

[6] Table 4 of Call et al. (2022) indicates that analyst and investor factors account for the top six benefits managers expect from providing guidance. Reducing borrowing costs was ranked seventh, with 8.04% of respondents indicating "very much" (5 or 6) and 51.75% indicating "not at all" (0 or 1). Based on those who indicated not at all, the percentage who anticipate reducing borrowing costs as a possible benefit of issuing guidance was determined to be 48%.

[7] If we consider other forms of voluntary disclosures such as Non-GAAP disclosures, it would be pertinent to relate these to creditors and creditor monitoring when there is an egregious event such as a covenant violation, an area studied by e.g., Christensen et al. (2019). Conference calls also pose a challenge because it is difficult to identify the extent of creditors' participation in these calls given that the participants disclosed are usually analysts. Though companies have lender conference calls or invite lenders to their conference calls these are often not voluntary because they are based on a clause that was included in a debt contract. Nonetheless, the ability to examine lender-based conference calls or the participation of lenders on conference calls could provide an opportunity for future research.

and the evidence holds whether there is good news or bad news. This paradox is explained by Huang et al. (2020), which find that the quality of the forecast, specifically the forecast horizon, is an important consideration in this debate.

To reduce agency costs due to high outside ownership, firms become forecasting entities (William et al. 1990) or issue fewer forecasts when family ownership is strong (Chen et al. 2008). Overall, when governance mechanisms are strong management is more likely to issue forecasts and issue more forecasts. Both Ajinkya et al. (2005) and Armstrong et al. (2014) find that management forecast behavior changes positively with more outside directors. Confirming this evidence and incrementally providing other support for a positive effect of governance (i.e. boards and audit committees) on management forecast behavior, Karamanou and Vafeas (2005) find that effective governance mechanisms increase the likelihood of management issuing a forecast. Additionally, Abramova et al. (2020) provide supporting evidence that managers respond to increases in institutional investor attention by becoming forecasting firms and issuing more forecasts. Despite these and other evidence relating to governance, there is a dearth of literature on creditors or creditors' rights and management forecasting behavior.

Management forecast decision also relates to management forecast quality. I discuss here three areas of management forecast quality, i.e., forecast precision, accuracy, and horizon. Strong governance positively impacts the accuracy of management forecasts (Ajinkya et al. 2005) and the precision of these forecasts (Armstrong et al. 2014). Additionally, management is sometimes very deliberate and strategic, issuing more precise estimates when there are positive incentives to be accrued (Cheng et al. 2013). Evidence also suggests that CEO overconfidence impacts forecast precision (Hribar and Yang 2016). Forecast horizons tend to impact precision (Baginski and Hassell 1997) and firms with more unstable income (Waymire 1985) and a more litigious

environment (Baginski et al. 2002) tend to issue forecasts with shorter horizons. The evidence also shows that CEOs bear career costs (turnover) when they issue inaccurate forecasts (Lee et al. 2012), and that forecast accuracy increases with CEO ability (Baik et al. 2011). Collectively, these findings indicate that forecast quality is affected by both firm characteristics and the environment within which firms operate.

2.4 Hypotheses - Creditors' Rights and Management Forecast Decisions

Intuitively we know that debt influences management's disclosure decision given that payments to shareholders are contingent on the amount of debt a company has (Beyer and Dye 2021). However, the equilibrium level of voluntary disclosure and particularly management guidance is jointly determined by many players including managers, analysts, investors, creditors, and other stakeholders. The cost-benefit tradeoff between and among these players may ultimately impact the relationship between creditors' rights and management forecasting decisions. However, what is not ex-ante clear is how creditors and by extension creditors' rights affect the forecasting behavior of companies. A synthesis of the literature on management forecast decisions leads to two possible outcomes of the effect of creditors' rights on management's forecasting behavior. Firstly, a strengthening of creditors' rights may increase management forecast quantity and improve management forecast quality.

Recall, that under the anti-recharacterization laws, lenders are given greater protection concerning pledged collateral as the laws reduce claim dilution. This may incentivize lenders to reduce their monitoring because collaterals reduce enforcement and monitoring costs (Leeth and Scott 1989). Generally, the literature supports a lowering of monitoring by creditors when their interests are protected (e.g., Kim et al. 2018). Therefore, I theorize that in anticipation of this

reduced monitoring by creditors, shareholders respond by increasing their monitoring of management and thus demand more information in the presence of an increase in creditors' rights. This reaction may be direct or through their governance mechanisms. In response, management may supply forecasts to the market. This expectation is consistent with the general theme in the voluntary disclosure literature that shareholders demand this type of information to better monitor managers (e.g., Armstrong et al. 2010).

Interestingly, the literature also suggests that creditors may increase their monitoring in the presence of an increase in repossession rights given that collaterals encourage lenders to monitor their borrowers (Rajan and Winton 1995). Equally relevant is that creditors may demand more information from managers if the information facilitates their monitoring of these collaterals. Minnis and Sutherland (2017) find that borrowers requested frequent financial information to monitor collaterals. To the extent that an increase in creditors' rights is aligned with an incentive to disclose management forecasts, an increase in creditor monitoring may cause an increase in management forecasting behavior.

Another consideration may relate to managers supplying forecasts independent of any demand from stakeholders. One argument is that the presence of creditors with this increased protection may signal a need for management to provide more and better information to the market to reduce agency costs. Jensen and Meckling (1976) reason that the level of statutory law affects the level of agency costs within an entity. Additionally, Costello and Wittenberg-Moerman (2011) find that financial reporting quality and collateral serve as substitutes in the debt contracting market. Thus, managers in the presence of an increase in collateral protection created by the anti-

recharacterization laws may increase their information disclosure through management guidance as a substitute for making costly pledges of collaterals.[8]

One of the primary reasons for supplying guidance is to manage analysts' expectations (Call et al. 2022). Not only are analyst forecasts pertinent to equity participants, but they are also important in the debt-contracting market. For example, Mansi et al. (2011) find that analyst forecasts help to reduce yield spread. Therefore, in anticipation of adjusting their corporate policies to take advantage of the enhanced access to the debt market created by the enactment of anti-recharacterization laws, managers may increase their forecasting behavior to meet analysts' demands. This is consistent with the information theory of credit, which states that information matters for lending. Collectively, the evidence so far suggests that we may observe an increase in management forecasting behavior following a strengthening of creditors' rights.

However, an increase in creditors' rights may adversely affect management's forecast behavior to the extent that these rights present a distraction or disincentive for management to disclose forecasts. This consideration will lead to a decrease in management forecasting behavior. This notion may be supported by the economic theory of rational inattention, which argues that people are unable to process all information that is available and so they choose what information they attend to and which ones they ignore (Maćkowiak et al. 2023). Evidence relating to disclosure and inattention in the literature suggests that market players underperform when they are distracted or disincentivized (e.g., Bourveau et al. 2022; Abramova et al. 2020). In extending these findings to the context of the anti-recharacterization laws, I rely on Favara et al. (2021) conclusions that companies increased their leverage and implicitly their debt contracting activities after the laws were enacted. The fact that management's attention and resources are inherently limited (Simon

[8] I thank an anonymous reviewer for suggesting this theorized view.

1997) and based on the tenets of the rational inattention theory, management may shift its focus towards the specific demands and bonding activities of creditors with less attention focused on the demands of other market participants such as shareholders. Management guidance, as we know, is not primarily geared towards creditors; but matters more closely related to covenants and collaterals are creditor central. Given the severity of penalties for violating covenants and the fact that these are sometimes used as "trip wires" (Chava and Roberts 2008), management may shift its focus towards the demands and bonding activities of creditors resulting in a reduction in management guidance. Additionally, one may think that an adjustment in a company's capital structure towards financial leverage after the laws are enacted may result in less equity financing, which disincentivizes management to engage in forecasting behavior.

Collectively, the effect of an increase in creditors' rights on management forecasting behavior depends on the motivation and intentions of monitors and how these desires align with issuing forward-looking statements. Considering the demand and supply factors that may influence management forecasting behavior led me to the following hypotheses:

Hypothesis 1A: There is no relationship between creditors' rights and management forecast quantity.

Hypothesis 1B: There is no relationship between creditors' rights and management forecast quality.

3. Data & Research Design

3.1 Sample

I commence my sample with firm-year observations from 1994 to 2008, three years before the first state enacted the anti-recharacterization laws and three years after the last state enacted

these laws. I then use Spamann and Wilkinson (2019) historical state of incorporation data, which these authors obtained from SEC filings on EDGAR, to identify the state of incorporation for these firms.[9] I obtain data on management forecasts and analysts following from the Institutional Brokers Estimate System (I/B/E/S), institutional ownership data from Thomson-Reuters, and stock market data from the Center for Research in Security Prices (CRSP). The intersection of these databases without missing variables, the removal of entities in the financial and utility industries as well as the elimination of singleton observations resulted in a sample of 45,967 firm-years.[10] The paper also uses data on asset-backed securities from Lemmon et al. (2014) and covenant violation data from Nini et al. (2012).

This sample allowed for the examination of hypothesis 1A, which focuses on whether a firm became a forecasting entity and on the number of forecasts issued by a firm within a given financial year. The decision to remove firms within the financial services sector was motivated by a desire to mitigate against endogeneity concerns relating to self-selection bias because firms within this industry lobbied heavily for these laws. The utility industry was also excluded because of differences in its reporting environment and oversight. For further details kindly see Table 1, Panel A.

[Insert Table 1]

The evaluation of hypothesis 1B, which looks at the quality of management forecasts, resulted in a sample of 12,380 firm-years for the assessment of forecast precision, 12,382 firm-

[9] Historical state of incorporation as per Spamann and Wilkinson (2019) was matched to CRSP historical cik data and only matched companies are included in the study. I do not use Compustat's state of incorporation variable because it is a header variable.

[10] The presence of singleton observations in linear regressions with fixed effects nested within clusters may lead to overstated statistical significance and incorrect inferences. Following the recommendation of Correia (2015), I remove singleton observations from the regressions.

years for the examination of forecast horizon, and 5,391 firm-years for the analysis of forecast accuracy. The reduction in sample size can be accounted for based on the removal of firm-year observations with no dependent variables relating to forecast quality, missing variables for horizon and the removal of singleton observations. For further details kindly see Table 1, Panel B.

3.2 Measurement of Main Variables

3.2.1 Creditors' Rights

I use the anti-recharacterization laws to measure creditors' rights. These laws enhance creditors' rights for firms incorporated in states where the laws are enacted. The laws increased creditors' rights by strengthening the protection afforded to creditors via special purpose vehicles (SPVs) by limiting the ability of judges to recharacterize assets of SPVs to the parent company experiencing distress or more generally by strengthening securitization of assets. Favara et al. (2021) explain that the increased level of protection also increased the value of pledged assets thereby increasing the protection for creditors. In this study, the effect of the strengthening of creditors' rights is considered beyond distressed firms given the evidence by Nini et al. (2012) that creditor governance matters way beyond firms that are experiencing default concerns. I further develop this point in section 4.1 of this paper.

For the seven states that enacted the laws, firms incorporated in these states are considered treated firms. The post-period for these states represented by variable LAW is the period of interest and takes the value of 1 for the years of enactment onwards, which are as follows: Louisiana and Texas, 1997; Alabama, 2001; Delaware, 2002; South Dakota, 2003; Virginia, 2004; and Nevada, 2005.

3.2.2 *Measures of Management Forecast Quantity*

I measure management's forecast practices by looking at forecast quantity from the standpoint of whether a company issues a forecast (*FORECAST*) and based on the number of forecasts issued by a company (*FORECAST_COUNT*). Following Abramova et al. (2020), the number of forecasts measures all types of forecasts including earnings, revenues, dividends, cash flow, etc. Likewise, if a company had more than one forecast on the same day each is treated as a separate forecast. For example, if a company issues guidance on earnings, cash flow, and dividends on the same day these are counted as three separate forecasts. Additionally, a quarterly forecast, as well as an annual forecast issued on the same day, are treated as separate forecasts. I aggregate these annual and quarterly measures at the firm-year level for each financial year and this is consistent with the approach used by Houston et al. (2019). To make the forecast count more symmetrical and less skewed, I use the natural logarithm of 1 plus the forecast count as the final measure of the *FORECAST_COUNT* variable. *FORECAST* is an indicator variable equal to one for firms that issue forecasts within a given year and zero otherwise.

3.2.3 Measures of Management Forecast Quality

Management forecast quality focuses on forecast properties by looking specifically at forecast precision (*PRECISION*), forecast horizon (*HORIZON*), and forecast accuracy (*ACCURACY*). Forecast precision includes all types of forecasts and refers to the nature or specificity of the forecast issued by management. To measure forecast precision, I follow Cheng et al. (2013) by first determining the width of the estimate and then multiplying by -1 for ease of interpretation. The width of the estimate is the difference between the upper value and lower value of the estimate, divided by the absolute value of the mid-point of the estimate. For point estimates,

this works out to be 0. The final measure for each firm-year observation is an average of the forecast precision over the financial year.

Forecast horizon includes all types of forecasts and refers to the average number of days between the issuance of the forecast and the financial year-end. Forecast accuracy refers only to earnings-per-share forecasts issued by management. It is measured as the absolute value of the difference between the actual earnings per share at the end of the financial year and the average of the annual earnings per share estimates issued by management scaled by the share price on or before the last announcement date. If management's earnings per share estimate is a range, the estimate is calculated by taking the midpoint of the upper and lower values of the estimate. I use the absolute value of the difference as my final measure. Therefore, lower numbers indicate that the forecasts are more accurate as these would reflect smaller differences between expectation and actual values.[11]

3.3 Research Design

To examine the relationship between management forecasting behavior and creditors' rights, my multivariate analyses use a staggered difference-in-difference research design in which my treated group consists of companies incorporated in the seven states that enacted the anti-recharacterization laws. This choice of research design is influenced by the fact that firms endogenously determine their information disclosure and as encouraged by Armstrong et al. (2014), considering the econometric and economic implications of this endogenous choice is critical in corporate governance research. Further, Larcker et al. (2011) argue that as long as the legislative change does not result from actions by every individual firm, this change can be

[11] In future versions of this manuscript, I will multiply forecast accuracy by -1 for ease of interpretation.

considered exogenous. So, like prior studies (e.g. Armstrong et al. 2014), I consider the anti-recharacterization laws exogenous to the firms included in this study. My tests use the following regression model:

$$MF_{j,t} = \beta_0 + \beta_1 LAW_{j,t} + \gamma' Z_{j,t} + \lambda_j + \varphi_{i,t} + \varepsilon \quad (1)$$

The dependent variable, $MF_{j,t}$, captures the management forecast behavior for company *j* in year *t*. It represents either one of management's forecast quantity measures (*FORECAST* or *FORECAST_COUNT*) or one of the management forecast quality measures (*PRECISION*, *HORIZON*, or *ACCURACY*). $LAW_{j,t}$ is the independent variable of interest and is an indicator variable that takes the value of 1 if the firm-year is for a period on and after the anti-recharacterization law was enacted in the state an entity is incorporated in, and zero otherwise.

$Z_{j,t}$ represents a vector of control variables related to management forecast and creditors' rights. Guided by other studies, I control for company performance (*ROA, LOSS, and SALESGROWTH*), leverage (*LEV*), firm size (*LOG_MVE*), innovation (*R_D*), market-related factor (*RETURN_VOLATILITY*) and growth opportunities measured using the market-to-book ratio (*MB*). Given that I desire to understand the incremental effect of creditors' rights beyond just the issuance of debt, I also control for debt issuance (*DEBT_ISSUE)*, and the issuance of common and preferred stock (*EQUITY_ISSUE)*. Finally, I control for external monitoring using the proportion of ownership by institutional investors (*IOR*) and the level of analysts following (*LOG_NAF*). See Appendix B for a description of the variables.

The model also includes firm fixed effect (λ_j), which absorbs the 'treat' variable in the difference-in-difference model. Following Favara et al. (2021) I also include industry-times-year fixed effect ($\varphi_{i,t}$) rather than just the year fixed effect. Abramova et al. (2020) explain that including

the industry-times-time fixed effect helps to control for the possibility that management adjusts their forecast behavior because of changes in industry-wide macroeconomic conditions, competition, performance, mergers, and external monitoring. They also explain that the industry-times-year fixed effect helps to remove variations in disclosure regulations affecting all firms, which for this paper would include regulations such as the Sarbanes-Oxley Act (SOX) and Regulation Fair Disclosure (Reg FD). Overall, the industry-times-year fixed effect captures industry-wide conditions as well as concurrent changes in regulations that affect all firms, and it absorbs the 'post' variable in the difference-in-difference design by capturing any time trends. Industries are measured using SIC two-digit codes. All continuous level variables are winsorized at the 1st and 99th percentiles. Standard errors are clustered by firm and year. All models use OLS regressions.[12]

Recent literature in econometrics challenges the implementation of the staggered difference-in-difference methodology and recommends various considerations to reduce bias in our results. Guided by these recent work, I also present alternative specifications (Callaway and Sant'Anna 2021; De Chaisemartin and D'Haultfœuille 2020; Borusyak et al. 2022) such that my inferences are robust to concerns about staggered difference-in-difference design (Baker et al. 2022). This is further discussed in Section 5.1.

3.4 Descriptive Statistics

Table 2 provides descriptive statistics for the sample. As shown in the table during the period 1994 to 2008, on average, the majority of companies did not issue management guidance.

[12] Computational challenges are inherent when one attempts to use logit or probit models with large numbers of fixed effects. A significant portion of the sample is dropped because of perfect prediction. So, I use OLS for the *FORECAST* model. This is similar to the approach taken by other studies to alleviate the concerns (Huang et al. 2020).

The results show that 42% of companies issue forecasts within a given financial year (*FORECAST*) of about two forecasts per year (*FORECAST_COUNT*).[13] On average, companies issue forecasts within a 9% range (*PRECISION* $\bar{x}$ = -0.083) relative to the mid-point of the forecast. Forecast accuracy is measured using the absolute value of the error so smaller values reflect more accurate information. As reported in Table 2, the mean(SD) for forecast accuracy is 0.09(0.47), indicating that the accuracy of forecasts is tightly clustered around the mean. Table 2 further reveals that about 31% of the firm-year observations relate to periods when the anti-recharacterization laws were enacted in treated states *(LAW)*. On average firms have about 4 analysts following (*LOG_NAF)*.[14] Similar to other studies (e.g. Favara et al. 2021), the return on assets is negative and averages 4.6%. The results also show that for 34% of the sample period firms reported losses, and for half of the sample period companies were issuing debt.

[Insert Table 2]

4. Main Empirical Results

In this section, I discuss the main empirical results. Firstly, I present evidence that helps to validate the setting, supporting anti-recharacterization laws as a measure of creditors' rights. This is followed by a presentation of the main empirical findings related to my hypotheses.

4.1 Setting Validity

Creditors' rights are embedded in debtholders' legal rights to collect debts from borrowers. The strength of creditors' protection laws and the ease of debt recovery are underlying factors of creditors' rights. Therefore, legislation is an important determinant of creditors' rights. For

[13] The mean *FORECAST_COUNT* of (ln0.713) in integer form is 2.04 [$e^{0.713}$].
[14] The mean *LOG_NAF* of (ln1.372) in integer form is 3.9 [$e^{1.372}$].

example, Porta et al. (1998) consider as an essential element in their measure of creditors' rights, the ability of secured creditors to gain possession of their security when a company is reorganized. This consideration is the most widely used approach in the literature on creditors' rights (e.g., Acharya et al. 2011; Djankov et al. 2007; Houston et al. 2012). As such, it is difficult to escape measuring creditors' rights without incorporating factors of the legislative system that protects creditors and the enactment of anti-recharacterization laws provides an ideal setting to examine creditors' rights as a governance mechanism. But do the legislations only apply to creditors within the specific remits of these laws, or can we more generally apply these legislations to creditors' rights? Relating the measure to factors that indicate a broad or more general influence of creditors' rights beyond companies in distress or bankruptcy and beyond those that use the provisions of the laws may help to provide some support. Therefore, I considered two situations, corporate leverage and forced CEO turnover, which I discuss below.

The supply-side of creditors' rights indicates that a strengthening of creditors' rights should increase company leverage. This is in line with the power theory of credit, which argues that creditors will be more likely to extend credit because they have more power (Djankov et al. 2007). However, if the laws only capture creditors' rights within the remit of companies that seek to utilize the provisions, then we should not observe an association between the enactment of the laws and corporate leverage. That is because the laws would encourage the use of special purpose vehicles, which is an off-balance sheet financing activity. On the other hand, if we observe a positive association between the enactment of the laws and corporate leverage this may support the point that the laws extend beyond the provisions and reflect a broader view of creditors' rights, consistent with the power theory of credit. Favara et al. (2021) find support for corporate leverage increasing after the enactment of anti-recharacterization laws. I also examine whether within my

sample this observed positive association exists, not just contemporaneously but also within the medium-term measured one year in the future. Table 3, columns (1) and (2) provide the results. It shows a strong association between creditors' rights and corporate leverage both in the short and medium term. This helps to support the case that the enactment of the laws measures a broader more general view of creditors' rights.

I also looked at forced CEO turnover as a measure that may capture not only creditors' rights as a governance mechanism but also help to provide support for the legislation extending beyond companies in distress or bankruptcy. The literature supports creditors' rights as a governance mechanism beyond companies with default concerns (e.g., Nini et al. 2012) and the economic consequences have been found to affect corporations beyond those in distress (e.g., Blaylock et al. 2015). Nini et al. (2012) also provide evidence that creditors play an important advisement role beyond their contractual interest. Additionally, evidence provided by Lehn and Zhao (2006) suggests that governance-related matters are more related to CEO turnover than bankruptcy-specific matters. Within their sample, they find that about 57% of CEOs that were replaced were replaced by internal governance versus only 9% because of bankruptcy.[15] Given that creditors play a role in governance, a positive association between CEO turnover and the anti-recharacterization laws not only supports the role of creditors' rights in governance but also the belief that these laws reflect a broader measure of creditors' rights beyond the provisions of the legislations and companies in distress or near bankruptcy.

I use data from Peters and Wagner (2014) to measure forced CEO Turnover.[16] Forced CEO turnover refers to involuntary CEO turnover that excludes exogenous turnover activities such as

[15] The study reports that 47% of the CEOs were replaced, including 27% by internal governance, 16% by takeover, and 4% by bankruptcy.

[16] I would like to thank these authors for making this data publicly available on their personal website (https://www.florianpeters.org/data/).

death and poor health, and it also excludes the acceptance of another position within or outside the company.[17] Consistent with expectation and the evidence relating to leverage, I find that the enactment of the anti-recharacterization laws is related to forced CEO turnover, suggesting that the laws capture creditors' rights beyond the legislative provisions of the Acts and relate to companies beyond those at or near bankruptcy (Table 3, columns 3 and 4).

[Insert Table 3]

4.2 Main Empirical Results

The results for Equation (1) relating to creditors' rights and management forecast behavior are presented in Tables 4 and 5. Table 4 provides the results for hypothesis 1A, relating to management forecast quantity and Table 5 provides the results for hypothesis 1B, relating to management forecast quality.

The results of Table 3, indicate that the anti-recharacterization laws resulted in more firms issuing forecasts (the coefficient on *LAW* is significant, $p<0.01$, column 2) and in an increase in the number of forecasts issued by these firms (the coefficient on *LAW* is significant, $p<0.01$, column 4). The findings are consistent with the notion that stronger creditors' rights lead to an increase in management forecasting practices regarding forecast frequency. The likelihood of a firm issuing a forecast in the presence of greater creditors' rights increases by 3%, holding other factors constant. In terms of the number of forecasts, the findings suggest that an increase in creditors' rights results in about a 9% increase [$e^{0.0867}$ - 1] in the number of forecasts issued by firms, holding other factors constant. Considering the multiplicity of factors impacting management's forecasting behavior, I consider these results economically meaningful.

[Insert Table 4]

[17] For further details on the definition of forced CEO turnover see Parrino (1997).

However, the findings outlined in Table 5 provide no statistically meaningful results for the effect of stronger creditors' rights on the quality of management forecasts. The results show insignificant coefficients for forecast precision (the coefficient on *LAW* is insignificant, p>0.1, column 2), forecast horizon (the coefficient on *LAW* is insignificant, p>0.1, column 4), and forecast accuracy (the coefficient on *LAW* is insignificant, p>0.1, column 6).

[Insert Table 5]

Following Cready et al. (2022), for the insignificant results observed for forecast quality, I also examine the confidence intervals at 95%. With the columns of interest from Table 5 denoted in parentheses, LB representing the lower bound, and UB reflecting the upper bound, the results are as follows:

(2) *PRECISION*	LB = -0.0105	UB = 0.0141
(4) *HORIZON*	LB = -0.0344	UB = 0.0930
(6) *ACCURACY*	LB = -0.0209	UB = 0.0667

Given that the confidence intervals all overlap zero, the evidence is consistent with a shift in creditors' rights not having an on-average effect on the quality of management forecasts. Additionally, based on the range of these confidence intervals (*PRECISION* is 0.0246, *HORIZON* is 0.1274 and *ACCURACY* is 0.0876) and the fact that these dependent variables are all scaled or are natural log values, none of these ranges seem significant enough to warrant arguments in favor of a possibility that the law may have had a positive effect on forecast quality. In fact, the upper bounds, which would be indicative of this position, are all in the single digits with the greatest

value related to forecast Horizon of 9.3%. Thus, I conclude that the confidence intervals are not excessively wide. Another factor that could affect the reported insignificant results is low power. However, based on the sample sizes it would appear as though this is not an issue. Nonetheless, I perform further analyses encouraged by the rigor of additional tests performed by Blaylock (2016) when observed outcomes are insignificant. These additional analyses cover possible scenarios where the relationship being examined may be more salient underpinned by the theoretical discussions of the expected relationship between creditors' rights and management's forecasting behavior discussed in Section 2.4. Analysis of these areas is provided in Section 5.2.

5. Additional Analyses

5.1 Alternative Model Specification for Staggered Difference-in-Difference

Lauded as one of the most robust econometric methods for decades, the difference-in-difference approach has been used in many studies in accounting, finance, economics, etc. However, as explained by Baker et al. (2022), the staggered difference-in-difference approach can present biased estimates and lead to spurious inferences. In fact, the reexamination of the assumptions and advancement of econometric theory has led several authors to not only elaborate on the problem but also provide suggestions on how to deal with the concerns. The newness of this literature provides no consensus on how to circumvent the problem, so in this paper, I use several alternative specifications to support my empirical evaluations. Specifically, I consider the recommendations of Callaway and Sant'Anna (2021), De Chaisemartin and D'Haultfœuille (2020), and Borusyak et al. (2022). Table 5 provides the comparative results of the staggered difference-in-difference for the first two cited methods. Panel A provides the results without

controls and Panel B outlines the findings with controls. Figure 2 outlines the results of the Borusyak et al. (2022) approach.

[Insert Table 5]

To obtain consistent estimators for the Average Treatment Effect on the Treated (ATT), Callaway and Sant'Anna (2021) assert that the analysis should only consider as the control group those observations that have not-yet been treated or that were never-treated, otherwise, the estimate will be seriously biased. I apply Callaway and Sant'Anna (2021) recommendations to include not-yet treated as my control group, the Abadie (2005) inverse probability weighting difference-in-difference estimator, and an estimation of all groups across all periods.

De Chaisemartin and D'Haultfœuille (2020) propose an adjustment that applies not only to staggered difference-in-difference studies but also more generally to all two-way fixed effect regressions. The intuition behind the approach is to not rely on treatment effect homogeneity condition and instead estimate the treatment effect in the group that switched treatment at the time of switching. Following their approach, I use one placebo group and 100 bootstrap replications to compute the estimators' standard errors.

[Insert Table 6]

Additionally, I used the research design proposed by Borusyak et al. (2022) to account for the staggered treatment adoption, which offers similar control group options to those discussed by Callaway and Sant'Anna (2021). Borusyak et al. (2022) also provide a principled way of testing the identifying assumptions of parallel trends using the same untreated observations discussed

previously. Figure 2 provides the results as an event study plot using not-yet-treated as my control group.

The findings are consistent with the inferences about management's forecasting behavior after a strengthening of creditors' rights. Panel B, Table 5 shows statistically significant results across all methods relating to *FORECAST*, indicating that more firms issue a forecast when creditors' rights increase (*LAW* reported in columns 1, 3, and 5). While the Callaway and Sant'Anna (2021) results indicate a downward bias in the main results relating to companies issuing a forecast, the De Chaisemartin and D'Haultfœuille (2020) findings are consistent with the main results. Arguably, the evidence further supports the position that stronger creditors' rights lead management to issue estimates to the public. On the other hand, I observe conforming results relating to the number of forecasts issued by management but not across all alternative specifications (*LAW* reported in columns 2, 4, and 6 of Table 5, Panel B). The results show that while De Chaisemartin and D'Haultfœuille (2020) findings are consistent with the main results and indicate a slight downward bias in the estimate for the staggered difference-in-difference test, the results based on Callaway and Sant'Anna (2021) is statistically insignificant. Nonetheless, there is some evidence to suggest that the number of forecasts issued by management is affected by an increase in creditors' rights with the possibility of the effect noted in the main results being even stronger than reported. In untabulated results, the findings for forecast quality are consistent with the main results in that they are statistically insignificant under these alternative approaches.

The results of Borusyak et al. (2022), presented in figure 2 show consistency with the main results, and evidence supporting the parallel trend holding for both *FORECAST* and *FORECAST_COUNT*. I observe no statistical difference in the means of the treated and control groups before the laws were enacted, using a 95% confidence interval for both outcome variables.

Only in the year of enactment onwards do I see the increasing trend for both outcome variables being significant. This helps to further confirm the other results summarized in Table 6.

[Insert Figure 2]

5.2 Cross-Sectional Heterogeneity

I further examine whether the effects of creditors' rights on management forecasts as observed in my main results can be better explained by firm heterogeneity. Critical to this process is to see how best I can align the findings with the theoretical expectations provided in Section 2. You may recall that the effect of creditors' rights on management forecasting behavior could reflect one of two competing positions in that these rights either indicate an increasing or a decreasing impact. The main results support the proposition that a strengthening of creditors' rights leads to an increase in forecasting behavior, particularly from the perspective of forecast frequency. The central tenet explaining this increasing effect relates to higher levels of monitoring by shareholders and/or creditors.

I look first at increased shareholder monitoring in the presence of an increase in creditors' rights. The argument is that shareholders may increase their monitoring in response to an anticipated decline in debtholders' monitoring or more generally to protect their interest. To study this further, I consider the issuance of equity shares, the level of institutional investors as well as the number of analysts following as proxies for shareholder monitoring. I also explore a greater level of creditor monitoring given that this may also explain the main results. To tease out variations in the level of monitoring by creditors following the enactment of the anti-recharacterization laws, I incorporate the actual use of securitization as measured by the existence of asset-backed securities, to capture a higher and more direct variation in creditor monitoring.

This discussion leads to the expectation that the relationship between creditors' rights and management forecast behavior is moderated by governance mechanisms. This leads to a modification of equation (1) to reflect the moderation of monitoring on the relationship between creditors' rights and management's forecasting behavior. The revised model is as follows:

$$MF_{j,t} = \beta_0 + \beta_1 LAW*CS_{j,t} + \gamma' Z_{j,t} + \lambda_j + \varphi_{i,t} + \varepsilon \quad (2)$$

$LAW*CS_{j,t}$ is the variable of interest and reflects the interaction of *LAW* with the cross-sectional factors I examined, including monitoring by shareholders captured using institutional ownership (*LAW*IOR*), analysts following (*LAW*LOG_NAF*), and equity issue (*LAW*EQUITY_ISSUE*), as well as monitoring by creditors measured using asset-backed securities (*LAW*ABS*). *EQUITY_ISSUE* reflects the existence of equity issuance, and *IOR* measures the proportion of shares outstanding that are owned by institutional investors. *ABS* refers to the existence of asset-backed securities, and *LOG_NAF* captures the number of analysts following and is the natural logarithm of 1 plus the number of analysts following a company. $Z_{j,t}$ similar to equation (1) captures the control variables and any incremental main effect related to the interaction term. The model also includes firm fixed effect (λ_j), which absorbs the 'treat' variable in the difference-in-difference model, and industry-times-year fixed effect ($\varphi_{i,t}$). All variables are defined in Appendix B.

5.2.1 Creditors' Rights, Management's Forecast Behavior, and Shareholder Monitoring

I use three measures to capture shareholder monitoring, namely institutional investor ownership, equity issue, and the number of analysts following. The results are documented in Tables 7, 8, and 9, respectively. Given that all three measures are concurrently captured in the model, I assert that institutional investors and analysts following will reflect monitoring by

sophisticated equity participants while equity issue captures monitoring by other shareholders.[18] To make a convincing argument that shareholders respond to the possible reduction in creditor monitoring, shareholders must have some level of awareness or anticipate this weakening of monitoring by creditors. Market participants are often aware of the behavior of other players and sophisticated investors reflect some of the most informed players in the market. Therefore, the use of these three measures of shareholder monitoring helps to align theoretical assertions with empirical evaluations.

The evidence shows that in the presence of higher levels of institutional ownership as well as share issuance, there is an increasing effect of creditors' rights on management forecast frequency. However, concerning the forecast quality, the implications are only salient based on the level of institutional ownership, suggesting that sophisticated investors impact forecast quality in a greater way. Specifically, as per Table 7, increasing the proportion of institutional investors by 0.10 (10-percentage points increase) after the enactment of the anti-recharacterization laws results in a 2.6% likelihood that companies will issue forecasts (the coefficient on *LAW*IOR* significant at $p<0.01$, Column 1), and an 11.5% increase $[e^{(1.0893*0.10)} - 1]$ in the amount of management guidance issued by a company (the coefficient on *LAW*IOR* significant at $p<0.01$, Column 2). Considering that the mean forecast count across the sample is two forecasts per year (Table 2, *FORECAST_COUNT*, $\bar{x}$ = ln0.713), a 50% increase in this mean value will result in one additional forecast being issued by management. With this in mind, we could then reason that relative to the average number of forecasts issued by firms in the sample, if we desire to obtain one additional forecast in light of stronger creditors' rights, we will need a 0.37-unit increase in

[18] Equity issue may also reflect management's own reflective interpretation of the demand for forecasts by equity participants in anticipation of the issuance of shares. This proactive expectation of management for shareholders' demand for management guidance is discussed in Section 2 of the paper.

institutional ownership.[19] For at least half of the sample, this is still possible, given the median proportion of institutional ownership of 0.457 (Table 2, *IOR*). The results are economically meaningful considering that most entities do not issue a forecast or issue only a few (Table 2, median for *FORECAST* and *FORECAST COUNT*, 0) and there are significant benefits that accrue to stakeholders when management guidance is issued.

Corroborating inferences are drawn from Table 8 as the likelihood of companies issuing a forecast in the presence of simultaneously issuing equity shares after the laws are enacted increases by 11.75% and in terms of the number of forecasts the impact is an increase of 32% (the coefficient on *LAW*EQUITY_ISSUE* significant at p<0.01, Column 1 and 2). Collectively, the evidence provides support for the paper's theoretical assertion that in the presence of increased creditors' rights and the possibility of creditors reducing their monitoring, shareholders respond by increasing their monitoring and their demand for management forecasts, particularly for forecast frequency.

In terms of forecast quality, we observe no difference in quality when using equity issue as a proxy for shareholder monitoring as per Table 8. However, as per Table 7, in the presence of greater levels of institutional ownership after the laws are enacted we see that forecasts are issued earlier in the year, but these forecasts are less precise. The results for forecast horizon reveal that in the presence of higher levels of institutional ownership, say a 10-percentage points increase, stronger creditors' rights result in a 2.4% increase in forecast horizon, indicating that forecasts are issued earlier (coefficient on *LAW*IOR* significant at p<0.01, Column 4).[20] The existence of stronger creditors' rights coupled with a 0.1 proportional increase in institutional ownership results in a fall in forecast precision of about 0.4% relative to the midpoint of the estimate (coefficient on

[19] To calculate this 0.37-unit increase, I solve for x in the following function: $[e^{1.0893x} = 1.5]$.
[20] The 2.4% increase in forecast horizon is found by solving the following: $[1.1^{0.2512} - 1]$.

*LAW*IOR* significant at p<0.01, Column 3). A closer look at the magnitude of this level of reduction in precision indicates that it is not material and may suggest that this is not very economically meaningful as an adverse effect. Even though more precise information will be of greater value to users than less precise information (Kim and Verrecchia 1991), it is evident that management makes tradeoff decisions in terms of the timeliness versus preciseness of estimates without seriously impacting the economic usefulness of their guidance.

[Insert Table 7]

[Insert Table 8]

To close the expectation gap, corporate leaders are keen to provide forecasts to the market, which helps to manage analysts' expectations. Ensuring analysts have the necessary information to appropriately opine on an entity's future is particularly important when creditors' rights are strengthened because this creates an opportunity for corporations to adjust their corporate financing policies. Table 9 outlines the empirical results relating to creditors' rights, management forecasting behavior, and analysts following. Columns (1) and (2) of Table 9 shows that in the presence of more analysts following, a strengthening of creditors' rights lead firms to not only issue forecast but also issue more forecast within a given year. The findings reveal that the likelihood of issuing a forecast increases by about 2% if a firm were to move from three analysts to four following an increase in creditors' rights.[21] The results also show that increasing analysts

[21] Given that the mean analyst following of about four analysts (Table 3, *LOG_NAF*, ln1.355), I consider when a firm moves from three analysts (ln1.0986) to four analysts (ln1.3863). This shift results in a 26% change in analysts following ($\frac{0.2877}{1.0986}$). Based on this 26% change in analysts following, the effect on forecast count in the presence of stronger creditors' rights when analysts following moves from three to four, is about 2% [β_1=0.0819 * log(1.26)] (Table 9, Column 1, *LAW*LOG_NAF*).

following from three to four analysts in the presence of stronger creditors' rights increases the forecast count by about 9%.[22]

I also find that forecast precision declines and that forecasts are issued earlier, with greater levels of analysts following post the enactment of the anti-recharacterization laws. The findings presented in Table 9, suggest that if we increase analysts following by 26% in the presence of stronger creditors' rights, forecast precision will fall by 0.2%[23] (coefficient on *LAW*LOG_NAF* significant at $p<0.10$, Column 3) and forecasts will be issued earlier as per the horizon result (coefficient on *LAW*LOG_NAF* significant at $p<0.05$, Column 4). Essentially, forecasts issued earlier are less precise but what is equally and more economically meaningful is that there is increased information flow to the market in the presence of an increase in creditors' rights and higher levels of analysts following, but clearly, there are tradeoffs.

[Insert Table 9]

5.2.2 Creditors' Rights, Management's Forecast Behavior, and Creditor Monitoring

To examine the theoretical reasoning that an increase in creditors' rights could increase creditor monitoring, I identify a setting that is aligned with an increase in monitoring by creditors. I considered the use of asset-backed securities as a proxy for increased monitoring by creditors. As discussed in section 2, asset-backed securities, or the use of special purpose vehicles, relates to the anti-recharacterization laws, given that the main intent of the law is to protect this securitization process. Nonetheless, as discussed in Section 4.1 (setting validity), the legislations are relevant to

[22] Based on the explanation in the previous footnote, I determine the effect of a 26% change in analyst following in light of an increase in creditors' rights on the number of forecasts count. The results of 9% is determined as follows: $[1.26^{0.3877} - 1]$ (Table 10, Column 2, *LAW*LOG_NAF*).

[23] Calculating a 26% change in analysts forecast is as follows: [-0.0086 * log(1.26)].

all companies within the states that enacted the laws and therefore the actual use of asset-backed securities captures a more direct form of creditor monitoring, from the standpoint of secured lenders. This test, therefore, helps to tease out creditor monitoring by secured versus unsecured creditors.

Two competing arguments exist concerning collaterals and creditor monitoring. Some authors argue that collateral can incentivize lenders to monitor their borrowers (e.g., Rajan and Winton 1995; Minnis and Sutherland 2017), while others argue that given the reduction in enforcement cost, creditors are encouraged to reduce monitoring cost and by extension their monitoring (e.g., Leeth and Scott 1989). While the former is more in line with what I desire to capture, it is unclear whether asset-backed securities will reflect an increase or a decrease in creditor monitoring. If asset-backed securities capture an increase in creditor monitoring, conditional on a monitoring response from shareholders (vis-à-vis institutional ownership and equity issue), we should observe a positive moderating relationship of asset-backed securities on the relationship between the anti-recharacterization laws and management forecasting behavior, especially for forecast frequency, as per the main results.[24] Data on asset-backed securities was obtained directly from Lemmon et al. (2014).[25] Details on how the data is attained can be found in the online appendix of the paper (Lemmon et al. 2014). The asset-backed securities (*ABS*) measure is an indicator variable for each year a company has these types of securities outstanding and zero otherwise.

Table 10 provides the results of the moderating effect of the use of asset-backed securities on management forecasts after the laws were enacted. The results show that forecast count

[24] A negative effect may suggest a reduction in monitoring and would necessitate further testing to understand the overall governance response and how that impacts what we are observing. This kind of evaluation is discussed further in section 5.2.3.

[25] I sincerely thank Laura Xiaolei Liu and Mike Qinghao Mao for assisting and providing me with the data.

increased by 26% (the coefficient on *LAW*ABS* significant at p<0.01, Column 2), and this is after controlling for shareholder monitoring and other factors. Likewise, forecast accuracy improves (lower numbers indicate that the estimates are more accurate). Overall, the evidence suggests that the use of asset-backed securities reflects an increase in creditor monitoring and after the laws were enacted this increases the number of forecasts management issued and these forecasts were more accurate.

[Insert Table 10]

5.2.3 Shareholder and Creditor Monitoring – A Further Look

To better understand the interplay between shareholder and creditor monitoring in the presence of an increase in creditors' rights and the resulting impact on management forecasting practices, I performed both mediating as well as further moderating tests. These tests help to shed light on why I would observe an increase in shareholder monitoring, which is theoretically underpinned by a decrease in creditor monitoring, and yet, obtain support for an increase in creditor monitoring. Firstly, I tried to determine through what channel (shareholder monitoring or creditor monitoring) the anti-recharacterization laws influenced management forecasting behavior. I used structural equation modeling (SEM) to test these mediating paths.[26] Based on my equation models and the theoretical discussions and results so far, I considered four mediators all used to capture

[26] Structural equation modeling (SEM) is a powerful yet intensive process (e.g., jackknife and bootstrapping) that creates challenges when working with a large panel dataset such as the one I used in the study. Econometric programs to handle large panel datasets within SEM, either do not exist or are not very well developed. For example, most STATA SEM packages are not able to incorporate large numbers of fixed effects. To overcome this challenge, I demean all variables by firm and industry times year fixed effects, in line with the first differencing principle so I could zero out these time-invariant variables prior to performing SEM. As such, I do not interpret coefficients in the SEM models but merely present them so I can provide their corresponding statistical significance indicators. I used the STATA gsem package. Results are robust to using other packages, which facilitates the robust bootstrapping process.

corporate monitoring and other control variables, in modeling the relationship between creditors' rights and management forecasting.

Figures 3 and 4 provide the results of the SEM models for my two forecast quantity measures, *FORECAST* and *FORECAST_COUNT*, respectively. Both models are similar except for the dependent variables. All paths reflect either direct or indirect relationships. Focusing on the mediating paths, what I observe based on the level of significance reported for creditor monitoring (*ABS*) as well shareholder monitoring measured based on institutional investors (*IOR*) and analysts following (*LOG_NAF*) is that creditor rights are medicated through these paths for both the issuance of forecasts (Figure 3) and the number of forecasts (Figure 4). In terms of equity issuance, the mediating path is unconfirmed for the number of forecasts given the insignificant result in Figure 4. These findings suggest that strengthening creditors' rights impacts management's forecasting decisions through higher levels of both creditor monitoring as well as shareholder monitoring, which further confirms the earlier results.

To better understand the results of shareholder and creditor monitoring I perform further moderating tests, incorporating both monitoring by shareholders and creditors into one model. Specifically, I capture in Equation 2 the moderating effect of all my measures of shareholder monitoring as well as creditor monitoring. This test helps to shed light on whether the results are driven more by shareholder monitoring or creditor monitoring. Table 11 provides the results.

The results relating to the moderating effect of all three measures of shareholder monitoring *(LAW*IOR, LAW*EQUITY_ISSUE, and LAW*LOG_NAF*) in relation to the dependent variables relating to forecast frequency (FORECAST and FORECAST_COUNT) indicate that in the presence of a strengthening of creditors' rights and higher levels of shareholder monitoring, management's forecast frequency increases (the coefficients on *LAW*IOR*,

*LAW*EQUITY_ISSUE, and LAW*LOG_NAF* significant at p<0.01, Columns 1 and 2). However, the results relating to monitoring by creditors are insignificant (the coefficients on *LAW*ABS* insignificant at p>0.1, Columns 1 and 2). Collectively the evidence suggests that the results of the relationship between creditors' rights and management forecasts frequency is mainly driven by shareholder monitoring, supporting the theoretical assertions that shareholders respond to an increase in creditors' rights either because they perceive that creditors will reduce their monitoring or more generally to ensure they protect their interest.

[Insert Table 11]

5.3 Alternative Test Relating to Regulation Fair Disclosure (Reg FD)

In October 2000, the Securities and Exchange Commission (SEC) introduced Regulation Fair Disclosure (Reg FD) to prevent material information from being disclosed to only selected individuals. This regulation increased the issuance of management forecasts (Bailey et al. 2003; Heflin et al. 2003). To avoid issues relating to the shift in forecast behavior promulgated by Reg FD, in untabulated results, I re-estimate the results using a post-Reg FD period (2001 to 2008) and the inferences remain unchanged. This substantiation is consistent with the industry-times-year fixed effect helping to control for the effect of disclosure regulation affecting all firms as argued by Abramova et al. (2020). I also argue that controlling for industry-times-year fixed effect also helps to absorb any possible effect of the Sarbanes-Oxley Act (SOX) on the study's results.

6. Conclusion

I examine the relationship between creditors' rights and management forecasting decisions using the anti-recharacterization laws to reflect an exogenous shift in creditors' rights. I find for

my sample of firm-year observations from 1994 to 2008, three years before the first state enacted the law and three years after the last state enacted the law, that stronger creditors' rights lead to an increase in the number of forecasts issued by companies and an increase in the likelihood that firms issue a forecast (forecast quantity). However, evidence relating to forecast quality (forecast precision, horizon, and accuracy) reveal no statistically significant findings, indicating that the quality of forecasts issued by management when creditors' rights are strong is both statistically and economically similar to those issued in periods when there is no strengthening of creditors' rights. This initial evidence helps us to better understand how management forecasting behavior is affected by the presence of stronger creditors' rights. Adjustments in companies' forecasting behavior in terms of forecast quantity but not in terms of forecasting quality suggest that management responds to an increase in creditors' rights by making more forecast disclosures.

Recognizing though that creditors' rights as a governance mechanism do not exist in isolation from other governance systems, I examine how firm heterogeneity informs the relationship observed in my main results. I cross-sectionally evaluate two conditions that theoretically explain the main results. Specifically, I examine increased monitoring by shareholders and creditors. The findings suggest that shareholder monitoring explains the relationship between creditors' rights and management forecasting behavior.

This study offers novel contributions to the literature examining creditors' rights as a governance mechanism. Research relating to creditors' rights normally focuses on factors relating to financial reporting quality and debt financing. However, this paper examines the effect of creditors' rights on a disclosure, primarily geared toward equity participants. I find that managers respond to an increase in creditors' rights by releasing forecasts to the market. The paper provides a detailed synthesis of the factors that may lead to an effect of creditors' rights on management

forecasting decisions, and the inferences suggest that the interrelationship between governance players impacts the relationship in a significant way.

Further research work may look at disclosures in MD&A that are most pertinent to creditors such as the nature and extent of forward-looking liquidity disclosures. Additionally, examining cash flow-related management guidance is an opportunity for further work in this area. Overall further examination of voluntary disclosures that may relate more to the theoretical tenet of how creditors' rights impact management's forecasting behavior may provide further insight and indicate opportunities for future research.

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Appendix A – Evidence of the Anti-Recharacterization Laws

THE ANTI-RECHARACTERIZATION LAWS

The anti-recharacterization laws for the seven states under consideration are outlined below.

- Louisiana — LA. REV. STAT. ANN. § 10:9-109
- Texas — TEX. BUS. & COM. CODE ANN. § 9.109
- Alabama — ALA. CODE §§ 35-10A-1, 35-10A-2, & 35-10A-3
- Delaware — DEL. CODE ANN. tit. 6, §§ 2701A, 2702A, & 2703A.
- South Dakota — S.D. CODIFIED LAWS §§ 54-1-9 & 54-1-10.
- Virginia — VA. CODE ANN. §§ 6.2-2400, 6.2-2401, & 6.2-2402 (previously VA. CODE ANN. §§ 6.1-472 & 6.1-473)
- Nevada — NEV. REV. STAT. ANN. §§ 100.200, 100.210, 100.220, & 100.230

EXCERPT OF THE LAWS

LA. REV. STAT. ANN. § 10:9-109[27]

§ 10:9-109. Scope

(e) Certain sales. — The application of this Chapter to the sale of accounts, chattel paper, payment intangibles, or promissory notes is not intended and shall not be used to recharacterize that sale as a transaction to secure indebtedness, but is intended to protect purchasers of those assets by providing a notice filing system. For all purposes, in the absence of fraud or intentional misrepresentation, the parties' characterization of a transaction as a sale of accounts, chattel paper, payment intangibles, or promissory notes shall be conclusive that the transaction is a true sale and is not a secured transaction and that title has passed to the party characterized as the purchaser, regardless of whether the purchaser (secured party) has any recourse against the seller (debtor), whether the seller is entitled to any surplus, whether the purchaser has possession of the note, contract, account agreement, invoice, or other evidence of indebtedness, or any other term of the parties' agreement.

ALA. CODE §§ 35-10A-1, 35-10A-2, & 35-10A-3[28]

[27] § 10:9-109. Scope, La. R.S. § 10:9-109 (Current through Act 776 of the 2022 Regular Session with exceptions to Acts 128, 152, 188, 189, 252, 271, 273, 322, 398, 422, 461, 466, 472, 484, 491, 492, 531, 545, 548, 574, 622 - 624, 635, 644, 647, 650, 654, 663, 672, 681, 685, 689, 714, 722, and 760. Revisions of the Louisiana State Law Institute remain in progress.). https://advance-lexis-com.ezproxy.lib.ou.edu/api/document?collection=statutes-legislation&id=urn:contentItem:668J-C573-GXF6-83FV-00000-00&context=1516831.

28 § 35-10A-1. Short title., Code of Ala. § 35-10A-1 (Current through Acts 2022, No. 22-442 of the 2022 Session, but not including corrections and changes made to the 2022 session laws by the Code Commissioner.). https://advance-

§ 35-10A-1. Short title.

This chapter may be referred to as the "Asset-Backed Securities Facilitation Act." It is intended by the Legislature that the term "securitization transaction" be construed broadly.

§ 35-10A-2. Rights of the transferor.

(a) Notwithstanding any other provision of law including, but not limited to, Section 7-9-506 [repealed] and Section 7-9A-623, to the extent set forth in the transaction documents relating to a securitization transaction:

(1) Any property, assets, or rights purported to be transferred, in whole or in part, in the securitization transaction shall be deemed to no longer be the property, assets, or rights of the transferor;

(2) A transferor in the securitization transaction, its creditors or, in any insolvency proceeding with respect to the transferor or the transferor's property, a bankruptcy trustee, receiver, debtor, debtor in possession, or similar person, to the extent the issue is governed by Alabama law, shall have no rights, legal or equitable, whatsoever to reacquire, reclaim, recover, repudiate, disaffirm, redeem, or recharacterize as property of the transferor any property, assets, or rights purported to be transferred, in whole or in part, by the transferor; and

(3) In the event of a bankruptcy, receivership, or other insolvency proceeding with respect to the transferor or the transferor's property, to the extent the issue is governed by Alabama law, such property, assets and rights shall not be deemed to be part of the transferor's property, assets, rights, or estate.

(b) Nothing contained in this chapter shall be deemed to require any securitization transaction to be treated as a sale for federal or state tax purposes or to preclude the treatment of any securitization transaction as debt for federal or state tax purposes or to change any applicable laws relating to the perfection and priority of security or ownership interests of persons other than the transferor, hypothetical lien creditor or, in the event of a bankruptcy, receivership, or other insolvency proceeding with respect to the transferor or its property, a bankruptcy trustee, receiver, debtor, debtor in possession, or similar person.

§ 35-10A-3. Construction with future law.

Any act which becomes effective after September 12, 2001, shall not be construed to amend or repeal any provision of this chapter unless the subsequent chapter specifically references this chapter and states that this chapter is repealed or states the manner in which this chapter is to be amended. Without limiting the foregoing, Act 2001-481, 2001 Regular Session, does not amend or repeal any provision of this chapter.

lexis-com.ezproxy.lib.ou.edu/api/document?collection=statutes-legislation&id=urn:contentItem:5CCY-J671-6RDJ-70D2-00000-00&context=1516831.

EXCERPT OF COURT CASE

Tetra Applied Techs., Inc. v. H.O E., Inc., 878 So. 2d 708[29]
Court of Appeal of Louisiana, Third Circuit
May 26, 2004, Decided
03-1523

Case Summary

Procedural Posture

Plaintiff company sued defendant manufacturer for breach of contract. Appellant bank held a security interest in the manufacturer's account receivables. The 15th Judicial District Court, Parish of Lafayette, Louisiana, granted summary judgment in favor of appellee trade creditors where were also owed money by the manufacturer. The bank appealed.

Overview

The bank entered into a security agreement with the manufacturer that granted the bank a security interest in the manufacturers' accounts and contracts. The manufacturer also assigned to the bank each invoice representing an account receivable to the manufacturer. The bank perfected the security interest in June 1999 by filing a UCC-1 Financial Statement. In the suit filed by the company, the company deposited funds that represented the accounts receivables owed to the manufacturer. The bank claimed that it was entitled to the money based on its perfected security interests, and the trade creditors claimed they were entitled to the money for services performed for the manufacturer but not yet paid. The appellate court reversed the grant of summary judgment in favor of the trade creditors. The appellate court held that as the bank had perfected its security interest, the trade creditors did not have a superior interest in the accounts that in which the bank had perfected its interest. The appellate court noted that as the trade creditors failed to take any steps to protect their right to the funds, the trial court erred in granting the trade creditors' summary judgment motion.

Outcome

The grant of summary judgment in favor of the trade creditors was reversed, and summary judgment was granted in favor of the bank.

Citation of statute

Louisiana Revised Statutes 10:9-109 provides in pertinent part:

> ***HN3*** **(a) General scope of Chapter** [**9] . Except as otherwise provided in subsections (c) and (d), this Chapter applies to:
>
> . . . .
>
> (3) *a sale of accounts*, chattel paper, payment intangibles, or promissory notes;
>
> . . . .
>
> **(d) Inapplicability of Chapter**. This Chapter does not apply to:
>
> . . . .
>
> (2) a lien, other than an agricultural lien, given by statute for services or materials, but R.S. 10:9-322(h) and 9-333 apply with respect to priority of the lien;

[29] Tetra Applied Techs., Inc. v. H.O E., Inc., 03-1523 (La.App. 3 Cir. 05/26/04);, 878 So. 2d 708, 2004 La. App. LEXIS 1363, 53 U.C.C. Rep. Serv. 2d (Callaghan) 650 (Court of Appeal of Louisiana, Third Circuit May 26, 2004, Decided). https://advance-lexis-com.ezproxy.lib.ou.edu/api/document?collection=cases&id=urn:contentItem:4CG8-YPK0-0039-42H0-00000-00&context=1516831.

EXCERPT OF COMPANY FILING

SIRVA INC[30]
CIK: 1181232
Annual Report 10-K (2008-03-12)

Exhibit 10.19

LOAN PARTICIPATION SALE AGREEMENT (COLB WET& DRY MORTGAGE LOANS Program)

THIS LOAN PARTICIPATION SALE AGREEMENT (COLB Wet& Dry Mortgage Loans Program) (the **Agreement**) is made and entered into as of the 21 day of December, 2007, by and between **SIRVA MORTGAGE, INC.**, an Ohio corporation, whose address is 6070 Parkland Boulevard, Mayfield Heights, Ohio 44124 (the **Seller**) and **COLONIAL BANK, N.A.**, a national banking association, whose address is One Commerce Street, Montgomery, Alabama 36104 (the **Buyer**).

BACKGROUND

The Seller originates, acquires, markets, sells and services one-to-four family, residential real estate loans secured by a lien on the real property (and improvements) encumbered pursuant to such loans (collectively, the **Mortgage Loans**). The Seller wishes to sell, and the Buyer wishes to purchase, undivided participation ownership interests (each, a **Participation Interest**, and collectively, the **Participation Interests**) in the Mortgage Loans (and all collections received or receivable from the Mortgage Loans and all escrow and reserve accounts and funds held on deposit therein) identified in the Participation Certificate(s)(as defined below) issued pursuant to this Agreement. The Mortgage Loans in which the Buyer is purchasing a Participation Interest hereunder shall be closed and funded contemporaneously with the payment by the Buyer of the purchase price for the Participation Interest in such Mortgage Loan or shall be closed and

13. **Securitization Transaction**. **EACH OF THE SELLER AND BUYER AGREES THAT, WITH RESPECT TO THE POOLING OF THE PARTICIPATED MORTGAGE LOANS AND ANY PARTICIPATION INTEREST IN THE PARTICIPATED MORTGAGE LOANS SOLD PURSUANT TO THIS AGREEMENT, SUCH POOLING AND SALE SHALL BE DEEMED TO CONSTITUTE A SECURITIZATION TRANSACTION AS DEFINED IN THE ALABAMA ASSET-BACKED SECURITIES FACILITATION ACT, ALA. CODE 35-10A-1 ET. SEQ. IN ADDITION, EACH OF THE SELLER AND BUYER AGREES THAT ANY SALE OF A PARTICIPATION INTEREST IN ANY PARTICIPATED MORTGAGE LOAN PURSUANT TO THIS AGREEMENT BY THE SELLER SHALL BE SUBJECT TO THE PROVISIONS OF THE ALABAMA ASSET-BACKED SECURITIES FACILITATION ACT, ALA. CODE 35-10A-1 ET. SEQ., ALL OF WHICH ARE SPECIFICALLY INCORPORATED HEREIN AND MADE A PARTHERETO BY THIS REFERENCE.**

[30] EX-10.19. (March 12, 2008). SIRVA INC. https://advance-lexis-com.ezproxy.lib.ou.edu/api/document?collection=company-financial&id=urn:contentItem:5Y9W-04G1-FCK4-G51G-00000-00&context=1516831.

Appendix B - Definition of Variables

VARIABLE NAME	*DESCRIPTION*
Dependent Variables	
FORECAST	An indicator variable equals 1 if the firm provides a management forecast within a given year and 0 otherwise.
FORECAST_COUNT	The natural logarithm of 1 plus the number of management forecasts by a company within a year.
PRECISION	Management forecast precision, calculated by taking the average of the annual *forecast width* times -1. *Forecast width* is 0 for a point estimate and is the difference between the high-end estimate and the low-end estimate, divided by the absolute value of the mid-point of the estimate for a range estimate.
HORIZON	The average of the natural logarithm of 1 plus the number of calendar days between the forecast announcement date and the end of the financial year for all annual estimates.
ACCURACY	The absolute value of the actual annual earnings per share minus the average of the annual management forecast of earnings per share during the year scaled by the share price on or before the last announcement date. For range estimates, the midpoint of the upper and lower values are used.
Main Independent Variable of Interest	
LAW	An indicator variable equal to one for companies incorporated in Louisiana and Texas from 1997 onwards, Alabama from 2001 onwards, Delaware from 2002 onwards, South Dakota from 2003 onwards, Virginia from 2004 onwards, and Nevada from 2005 onwards.
Other Variables	
IOR	The proportion of shares outstanding that are owned by institutional investors.
LOG_NAF	The natural logarithm of 1 plus the number of analysts following a company.
ROA	Net income to total assets at the end of the year.
LEV	Long-term debt to total assets at the end of the year.
LOG_MVE	The natural logarithm of 1 plus the market value of equity at the end of the year.

VARIABLE NAME	*DESCRIPTION*
MB	Market to book ratio.
R_D	Research and development expenditure scaled by total assets at the end of the year.
LOSS	An indicator variable equal 1 for net income less than zero and 0 otherwise.
RETURN_VOLATILITY	The standard deviation of daily stock returns over the current financial year.
SALESGROWTH	The sales growth for the current year times 100.
DEBT_ISSUE	An indicator variable equal to 1 if the firm issued debt during the financial year and 0 otherwise. Firm-years with missing Compustat *dltis* variable are coded 0.
EQUITY_ISSUE	An indicator variable equal to 1 if the firm issued common and/or preferred shares during the financial year and 0 otherwise. Firm-years with missing Compustat *sstk* variable are coded 0.
SA_INDEX	The SA Index using size and age based on Hadlock and Pierce (2010), calculated as [(-0.737*size)+(0.043*size2)-(0.040*Age)]. Size refers to the natural logarithm of total assets while age is the number of years the firm is listed in the Compustat database.
WW_INDEX	The WW Index is based on Whited and Wu (2006), calculated as (index=−0.091*CF−0.062*DIVPOS+0.021*TLTD−0.044*LNTA+0.102*ISG −0.035*SG). CF is the ratio of cash flow to the book value of assets; DIVPOS is a dummy variable that equals one if the firm pays cash dividends in a given year, and zero otherwise; TLTD is the ratio of the long-term debt to the book value of assets; LNTA is the book value of assets in natural log form; ISG is the firm's three-digit SIC industry classification sales growth; and SG is the firm's sales growth.
ABS	This is based on data from Lemmon et al. (2014). It is an indicator variable equal to one if the company had asset-backed securities in a given year, and zero otherwise. This captures the period of the instrument.
COV_VIOL	This is based on data from Nini et al. (2012). It is the number of covenant violations a company had within a given year.

Figure 1 - The Securitization Process

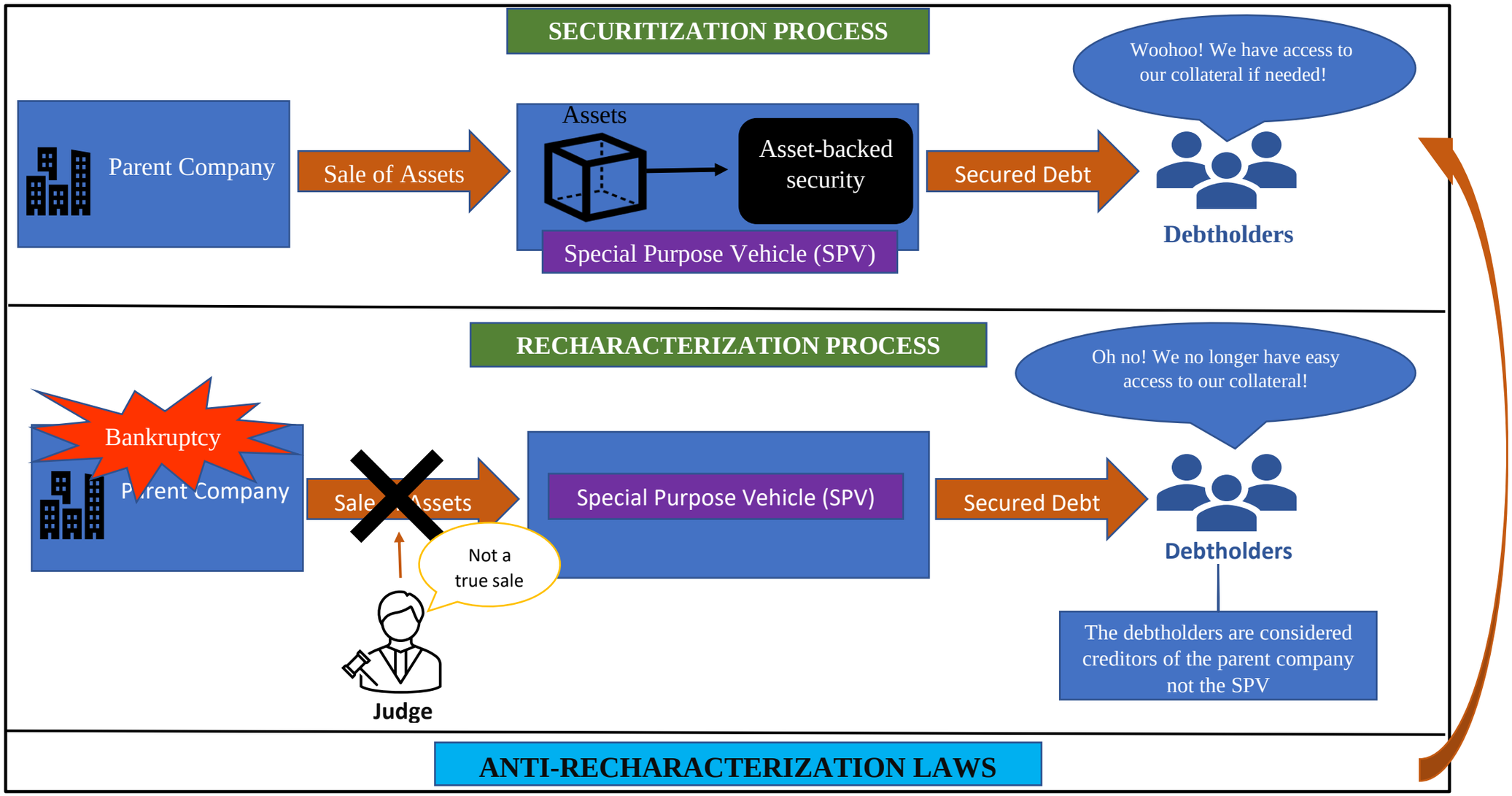


Figure 2 - The Effect of Creditors' Rights on Management Forecast Quantity

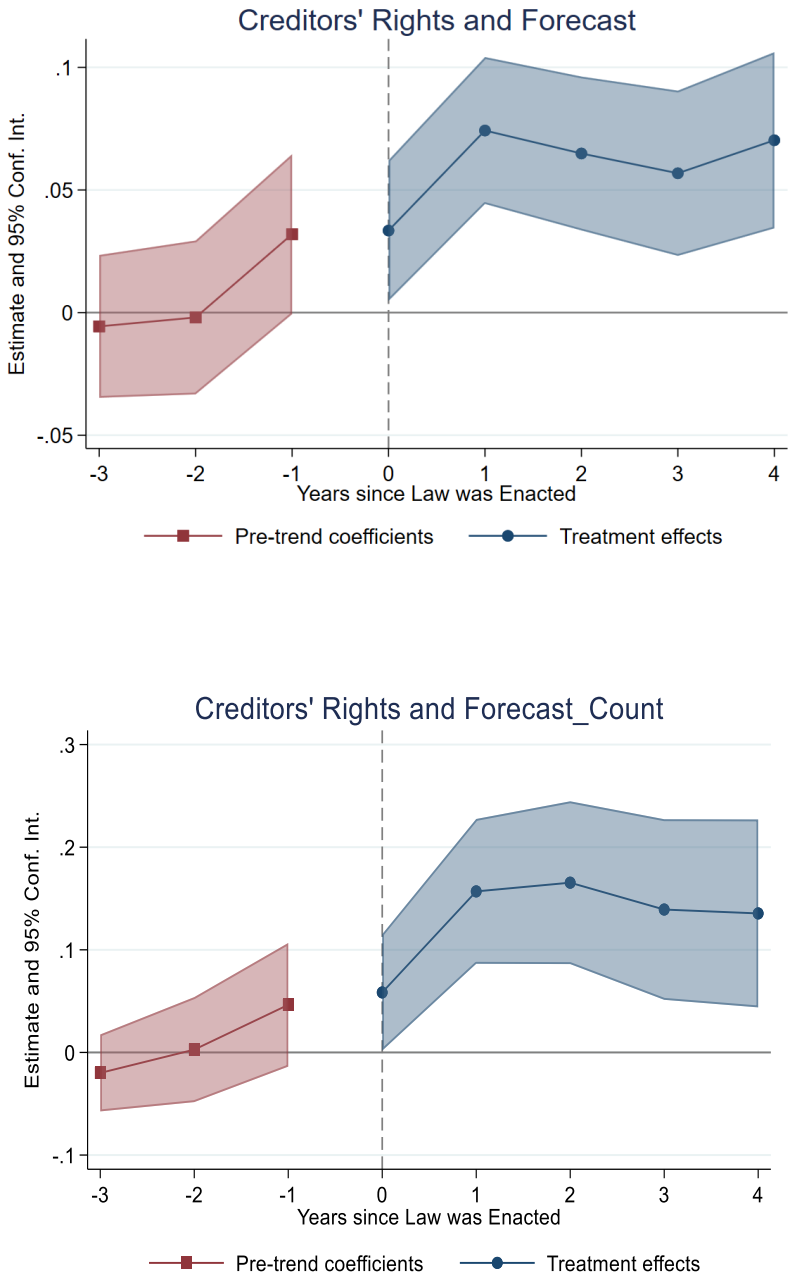


Figure 2 presents the effect of creditors' rights on management forecast quality (FORECAST and FORECAST_COUNT). The evaluation follows Borusyak et al. (2022) recommended adjustments for a staggered difference in difference methodology and uses not yet treated as the control group. The dots reflect the coefficient estimates and the shaded areas reflect the confidence interval at the 95% level. The horizontal axis is the time since the law was enacted.

Figure 3 - Structural Equation Modeling of Creditors' Rights and Forecast Issuance

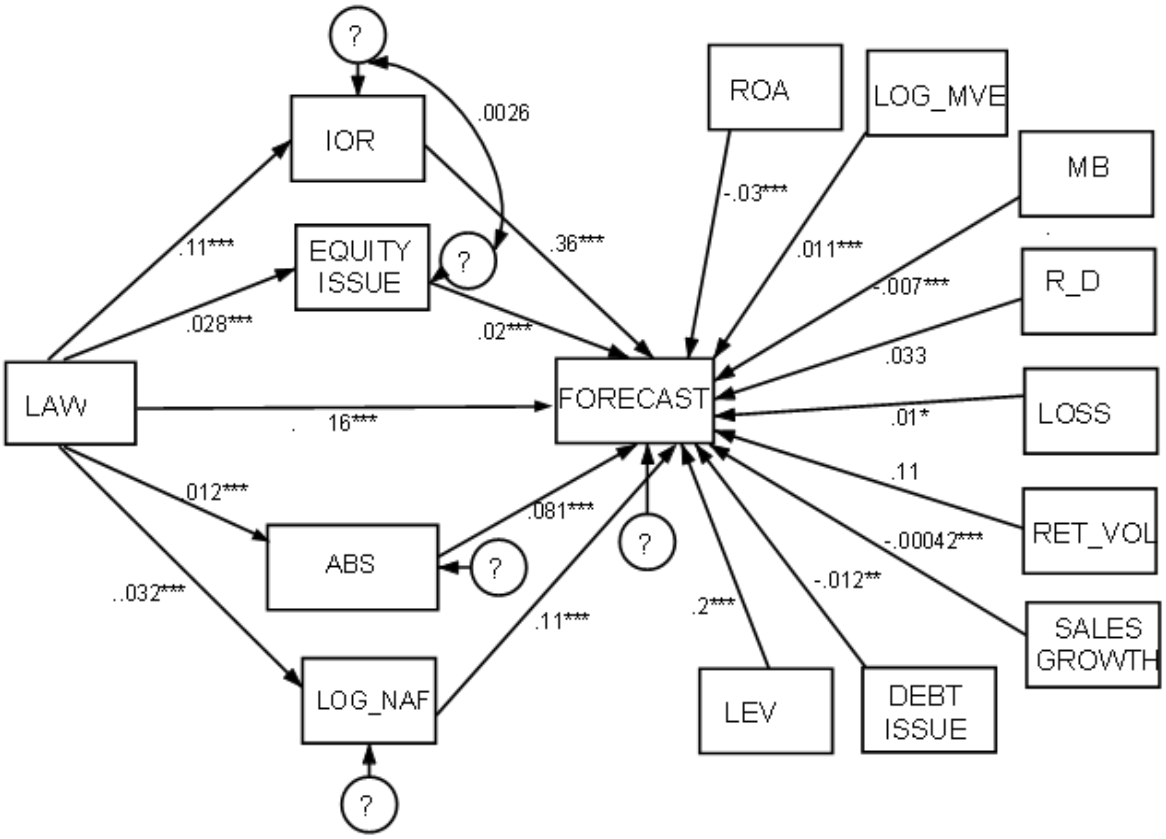


Figure 3 provides details of the structural equation model used to examine the mediating effect of Institutional Investor Ownership (IOR), Equity Issue (*EQUITY_ISSUE*), Asset-Backed Securities (*ABS*), and Analysts Following (*LOG_NAF*) on *FORECAST*. ABS is used to proxy for creditor monitoring while equity issue serves as a proxy for shareholder monitoring. The model is prepared using STATA gsem package. Before using the gsem package all variables were demeaned by FIRM as well as Industry times YEAR. All variables are described in Appendix B. Standard errors are robust standard errors clustered by firm and year. Statistical significance of 1%, 5%, and 10% are denoted by ***, **, and *, respectively. Industry-related demeaning is based on SIC two-digit codes. All continuous level variables are winsorized at the 1st and 99th percentiles.

Figure 4 - Structural Equation Modeling of Creditors' Rights and the Number of Forecasts

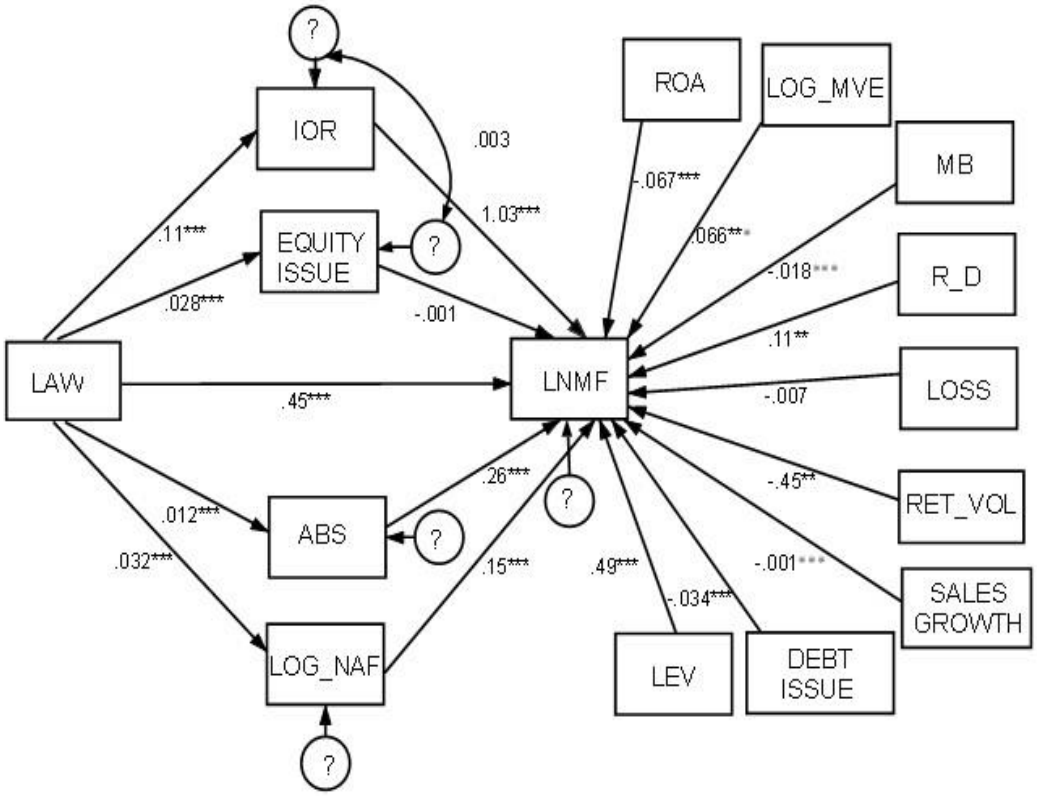


Figure 4 provides details of the structural equation model used to examine the mediating effect of Institutional Investor Ownership (IOR), Equity Issue (*EQUITY_ISSUE*), Asset Backed Securities (*ABS*), and Analysts Following (*LOG_NAF*) on *FORECAST_COUNT*. ABS is used to proxy for creditor monitoring while equity issue serves as a proxy for shareholder monitoring. The model is prepared using STATA gsem package. Before using the gsem package all variables were demeaned by FIRM as well as Industry times YEAR. All variables are described in Appendix B. Standard errors are robust standard errors clustered by firm and year. Statistical significance of 1%, 5%, and 10% are denoted by ***, **, and *, respectively. Industry-related demeaning is based on SIC two-digit codes. All continuous level variables are winsorized at the 1st and 99th percentiles.

Table 1 - Sample Selection and Sample Size

Panel A: Sample for Forecast & Forecast_Count

Firm-year observations from 1994 to 2008	73,152
Less: Financial and utility companies	(17,780)
Less: Missing independent variables of interest	(7,324)
Less: Missing control variables	(1,204)
Less: Singleton observations	(877)
Sample for Forecast and Forecast_Count	45,967

Panel B: Sample for Forecast Quality

	Precision	*Horizon*	*Accuracy*
Sample for Forecast and Forecast_Count	45,967	45,967	45,967
Less: Missing *Horizon* variable	(32,796)	(32,796)	(32,796)
Less: Missing dependent variable			(6,961)
Less: Singleton observations	(791)	(789)	(819)
Sample for Forecast Quality	12,380	12,382	5,391

Table 1 presents the sample selection process and the final number of firm-year observations included in the sample related to forecast quantity (*FORECAST and FORECAST_COUNT*) and forecast quality (*PRECISION, HORIZON, and ACCURACY).* Further details are provided in Section 3.1.

Table 2 - Descriptive Statistics

	Mean	SD	p25	Median	p75	N
Dependent Variables						
FORECAST	0.415	0.493	0.000	0.000	1.000	45,967
FORECAST_COUNT	0.713	1.007	0.000	0.000	1.386	45,967
PRECISION	-0.083	0.136	-0.091	-0.043	-0.016	12,380
HORIZON	5.035	0.553	4.829	5.113	5.369	12,382
ACCURACY	0.090	0.472	0.003	0.011	0.032	5,391
Independent Variable of Interest						
LAW	0.309	0.462	0.000	0.000	1.000	45,967
Other Variables						
ABS	0.047	0.212	0.000	0.000	0.000	45,967
EQUITY_ISSUE	0.842	0.365	1.000	1.000	1.000	45,967
IOR	0.457	0.293	0.193	0.446	0.699	45,967
LEV	0.192	0.188	0.011	0.152	0.319	45,967
LOG_MVE	5.550	1.952	4.139	5.463	6.836	45,967
LOG_NAF	1.355	0.985	0.693	1.386	2.079	45,967
LOSS	0.338	0.473	0.000	0.000	1.000	45,967
MB	3.340	4.562	1.234	2.097	3.691	45,967
R_D	0.062	0.120	0.000	0.006	0.078	45,967
RETURN_VOLATILITY	0.040	0.022	0.024	0.035	0.050	45,967
ROA	-0.046	0.290	-0.044	0.032	0.075	45,967
SALESGROWTH	23.963	70.097	-1.158	9.906	27.004	45,967
SA_INDEX	-3.269	0.813	-3.711	-3.179	-2.713	45,967
WW_INDEX	-0.125	0.422	-0.299	-0.209	-0.107	45,876
COV_VIOL	0.215	0.651	0.000	0.000	0.000	40,837

Table 2 provides summary statistics for the variables used in the study. The sample covers the period from 1994 to 2008. Data relating to asset-backed securities (*ABS*) were obtained from Lemmon et al. (2014) and covenant violation data was obtained from Nini et al. (2012). All variables are defined in Appendix B. All continuous level variables are winsorized at the 1st and 99th percentiles.

Table 3 – The Anti-Recharacterization Laws as a Measure of Creditors' Rights

VARIABLES	(1) LEV_t	(2) LEV_{t+1}	(3) CEO_FORCED_t	(4) CEO_FORCED_{t+1}
LAW	0.0059**	0.0099***	0.0068***	0.0042*
	(0.002)	(0.003)	(0.002)	(0.002)
Observations	45,967	41,869	45,967	45,967
Adjusted R-squared	0.712	0.669	-0.009	-0.014
Firm FE	YES	YES	YES	YES
Industry times year FE	YES	YES	YES	YES
Constant	YES	YES	YES	YES

This table provides the results of the relationship between the anti-recharacterization laws and company leverage (*LEV*) as well as forced CEO turnover (*CEO_FORCED*). The outcome variables are measured at time *t* and *t+1*. The tests provide support for the use of the anti-recharacterization laws as a measure of creditors' rights. The data on *LEV* and *CEO_FORCED* covers the sample period 1994 to 2008. The data on forced CEO turnover is obtained from Peters and Wagner (2014). All variables are described in Appendix B. Standard errors appear in parentheses and represent robust standard errors clustered by firm and year. Statistical significance of 1%, 5%, and 10% are denoted by ***, **, and *, respectively. Industry-related fixed effect is based on SIC two-digit codes. All continuous level variables are winsorized at the 1st and 99th percentiles.

Table 4 - Creditors' Rights and Management Forecast Quantity

VARIABLES	(1) *Forecast*	(2) *Forecast*	(3) *Forecast_Count*	(4) *Forecast_Count*
LAW	0.0482***	0.0348***	0.1114***	0.0867***
	(0.009)	(0.008)	(0.015)	(0.015)
ROA		-0.0113		-0.0198
		(0.011)		(0.019)
LEV		0.1801***		0.4323***
		(0.020)		(0.034)
LOG_MVE		-0.0016		0.0424***
		(0.004)		(0.007)
MB		-0.0058***		-0.0138***
		(0.001)		(0.001)
R_D		0.0314		0.1027*
		(0.037)		(0.060)
LOSS		0.0001		-0.0348***
		(0.006)		(0.009)
RETURN_VOLATILITY		0.0216		0.3658
		(0.152)		(0.253)
SALESGROWTH		-0.0003***		-0.0005***
		(0.000)		(0.000)
DEBT_ISSUE		-0.0059		-0.0170**
		(0.005)		(0.008)
EQUITY_ISSUE		0.0156**		-0.0108
		(0.007)		(0.011)
IOR		0.2091***		0.5657***
		(0.017)		(0.030)
LOG_NAF		0.1293***		0.2164***
		(0.005)		(0.008)
Constant	0.3997***	0.1214***	0.6784***	-0.1188***
	(0.003)	(0.023)	(0.006)	(0.038)

Observations	45,967	45,967	45,967	45,967
Adjusted R-squared	0.468	0.494	0.624	0.651
Firm FE	YES	YES	YES	YES
Industry times year FE	YES	YES	YES	YES

This table presents the empirical results of creditors' rights and management forecast quantity (*FORECAST* and *FORECAST_COUNT*). While *FORECAST* captures whether management issued a forecast within a given year, *FORECAST_COUNT* reflect the number of forecasts in log form. All variables are described in Appendix B. Standard errors appear in parentheses and represent robust standard errors clustered by firm and year. Statistical significance of 1%, 5%, and 10% are denoted by ***, **, and *, respectively. Industry-related fixed effect is based on SIC two-digit codes. All continuous level variables are winsorized at the 1st and 99th percentiles.

Table 5 - Creditors' Rights and Management Forecast Quality

VARIABLES	(1) Precision	(2) Precision	(3) Horizon	(4) Horizon	(5) Accuracy	(6) Accuracy
LAW	0.0003	0.0018	0.0345	0.0293	0.0189	0.0229
	(0.006)	(0.006)	(0.033)	(0.033)	(0.023)	(0.022)
ROA		-0.0056		-0.0771		-0.4625***
		(0.015)		(0.050)		(0.166)
LEV		-0.0112		-0.0181		0.0508
		(0.016)		(0.075)		(0.074)
LOG_MVE		0.0235***		-0.0311*		-0.0743***
		(0.004)		(0.016)		(0.022)
MB		0.0008		-0.0026		0.0073**
		(0.001)		(0.002)		(0.004)
R_D		-0.0077		-0.3426*		0.1458
		(0.051)		(0.199)		(0.457)
LOSS		-0.0387***		0.0981***		0.0065
		(0.006)		(0.022)		(0.037)
RETURN_VOLATILITY		0.2976		-0.0555		4.3360***
		(0.192)		(0.806)		(1.252)
SALESGROWTH		0.0002***		-0.0012***		0.0001
		(0.000)		(0.000)		(0.000)
DEBT_ISSUE		0.0012		-0.0217		-0.0023
		(0.003)		(0.015)		(0.011)
EQUITY_ISSUE		0.0001		-0.0301		0.0114
		(0.006)		(0.030)		(0.028)
IOR		0.0225*		0.1278**		-0.0147
		(0.013)		(0.058)		(0.062)
LOG_NAF		-0.0064		0.0393**		0.0250
		(0.004)		(0.018)		(0.021)

HORIZON		-0.0012				0.0256**
		(0.003)				(0.010)
Constant	-0.0832***	-0.2458***	5.0165***	5.1374***	0.0801**	0.2620
					*	
	(0.004)	(0.030)	(0.019)	(0.115)	(0.013)	(0.179)
Observations	12,380	12,380	12,382	12,382	5,391	5,391
Adjusted R-squared	0.321	0.343	0.111	0.123	0.618	0.654
Firm FE	YES	YES	YES	YES	YES	YES
Industry times year FE	YES	YES	YES	YES	YES	YES

This table presents the empirical results of creditors' rights and management forecast quality (*PRECISION*, *HORIZON* and *ACCURACY*). All variables are described in Appendix B. Standard errors appear in parentheses and represent robust standard errors clustered by firm and year. Statistical significance of 1%, 5%, and 10% are denoted by ***, **, and *, respectively. Industry-related fixed effect is based on SIC two-digit codes. All continuous level variables are winsorized at the 1st and 99th percentiles.

Table 6 – Forecast Behavior: Alternative Specification

Panel A: Without Controls

	Staggered DiD		Callaway and Sant'Anna		De Chaisemartin and D'Haultfœuille	
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	*Forecast*	*Forecast_Count*	*Forecast*	*Forecast_Count*	*Forecast*	*Forecast_Count*
LAW	0.0482***	0.1114***	0.0669***	0.1111***	0.0384***	0.0578**
	(0.009)	(0.015)	(0.016)	(0.031)	(0.014)	(0.026)
Observations	45,967	45,967	42,536	42,536	27,541	27,541
Controls	NO	NO	NO	NO	NO	NO

Panel B: With Controls

	Staggered DiD		Callaway and Sant'Anna		De Chaisemartin and D'Haultfœuille	
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	*Forecast*	*Forecast_Count*	*Forecast*	*Forecast_Count*	*Forecast*	*Forecast_Count*
LAW	0.0348***	0.0867***	0.0584***	0.0456	0.0323**	0.0547**
	(0.008)	(0.015)	(0.017)	(0.032)	(0.017)	(0.025)
Observations	45,967	45,967	42,536	42,536	27,541	27,541
Controls	YES	YES	YES	YES	YES	YES

This table provides a comparison of the effect of creditors' rights on management forecast quantity (*FORECAST* and *FORECAST_COUNT*) based on the main results in the paper (columns 1 and 2 of Panels A and B) and adjustments using two alternative methods. These methods are recommended by Callaway and Sant'Anna (2021) as presented in (columns 3 and 4 of Panels A and B) and De Chaisemartin and D'Haultfœuille (2020) as presented in (columns 5 and 6 of Panels A and B). While *FORECAST* captures whether management issued a forecast within a given year, *FORECAST_COUNT* reflect the number of forecasts in log form. All variables are described in Appendix B. Standard errors appear in parentheses and represent robust standard errors clustered by firm and year. Statistical significance of 1%, 5%, and 10% are denoted by ***, **, and *, respectively. Industry-related fixed effect is based on SIC two-digit codes. All continuous level variables are winsorized at the 1st and 99th percentiles.

Table 7 – Creditors' Rights, Management's Forecast Behavior, and Institutional Investors

VARIABLES	(1) *Forecast*	(2) *Forecast_Count*	(3) *Precision*	(4) *Horizon*	(5) *Accuracy*
*LAW*IOR*	0.2645***	1.0893***	-0.0449***	0.2512***	-0.0378
	(0.017)	(0.029)	(0.017)	(0.074)	(0.068)
LAW	-0.1117***	-0.5167***	0.0340**	-0.1513**	0.0503
	(0.013)	(0.020)	(0.015)	(0.062)	(0.057)
ROA	-0.0093	-0.0116	-0.0067	-0.0706	-0.4645***
	(0.011)	(0.018)	(0.015)	(0.050)	(0.166)
LEV	0.1678***	0.3817***	-0.0100	-0.0243	0.0511
	(0.020)	(0.033)	(0.016)	(0.075)	(0.074)
LOG_MVE	-0.0028	0.0374***	0.0236***	-0.0314**	-0.0740***
	(0.004)	(0.006)	(0.004)	(0.016)	(0.021)
MB	-0.0054***	-0.0122***	0.0007	-0.0022	0.0072**
	(0.001)	(0.001)	(0.001)	(0.002)	(0.004)
R_D	0.0349	0.1171**	-0.0038	-0.3638*	0.1459
	(0.036)	(0.057)	(0.051)	(0.198)	(0.457)
LOSS	0.0001	-0.0346***	-0.0392***	0.1007***	0.0061
	(0.006)	(0.009)	(0.006)	(0.022)	(0.037)
RETURN_VOLATILITY	-0.1474	-0.3302	0.3234*	-0.2000	4.3593***
	(0.152)	(0.245)	(0.191)	(0.806)	(1.251)
SALESGROWTH	-0.0003***	-0.0005***	0.0002***	-0.0012***	0.0001
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
DEBT_ISSUE	-0.0050	-0.0131	0.0010	-0.0206	-0.0022
	(0.005)	(0.008)	(0.003)	(0.015)	(0.011)
EQUITY_ISSUE	0.0149**	-0.0136	0.0001	-0.0301	0.0116
	(0.007)	(0.011)	(0.006)	(0.030)	(0.028)
IOR	0.0996***	0.1146***	0.0458***	-0.0029	0.0036
	(0.019)	(0.031)	(0.016)	(0.072)	(0.061)
LOG_NAF	0.1275***	0.2089***	-0.0062	0.0382**	0.0253

	(0.005)	(0.008)	(0.004)	(0.018)	(0.021)
HORIZON			-0.0009		0.0259**
			(0.003)		(0.010)
Constant	0.1878***	0.1544***	-0.2645***	5.2340***	0.2455
	(0.023)	(0.037)	(0.031)	(0.119)	(0.174)
Observations	45,967	45,967	12,380	12,382	5,391
Adjusted R-squared	0.497	0.664	0.344	0.124	0.654
Firm FE	YES	YES	YES	YES	YES
Industry times year FE	YES	YES	YES	YES	YES

This table presents the empirical results of creditors' rights, management forecast behavior and institutional ownership. All variables are described in Appendix B. Standard errors appear in parentheses and represent robust standard errors clustered by firm and year. Statistical significance of 1%, 5%, and 10% are denoted by ***, **, and *, respectively. Industry-related fixed effect is based on SIC two-digit codes. All continuous level variables are winsorized at the 1st and 99th percentiles.

Table 8 – Creditors' Rights, Management's Forecast Behavior, and Equity Issue

VARIABLES	(1) *Forecast*	(2) *Forecast_Count*	(3) *Precision*	(4) *Horizon*	(5) *Accuracy*
LAW EQUITY_ISSUE*	0.1175***	0.2794***	0.0159	-0.0110	0.0568
	(0.013)	(0.023)	(0.012)	(0.052)	(0.050)
LAW	-0.0677***	-0.1571***	-0.0127	0.0393	-0.0284
	(0.014)	(0.024)	(0.012)	(0.057)	(0.047)
ROA	-0.0110	-0.0191	-0.0058	-0.0770	-0.4630***
	(0.011)	(0.019)	(0.015)	(0.050)	(0.166)
LEV	0.1765***	0.4238***	-0.0110	-0.0182	0.0512
	(0.020)	(0.034)	(0.016)	(0.075)	(0.074)
LOG_MVE	-0.0026	0.0402***	0.0234***	-0.0310*	-0.0746***
	(0.004)	(0.007)	(0.004)	(0.016)	(0.022)
MB	-0.0056***	-0.0135***	0.0008	-0.0026	0.0073**
	(0.001)	(0.001)	(0.001)	(0.002)	(0.004)
R_D	0.0302	0.0999*	-0.0077	-0.3426*	0.1478
	(0.037)	(0.060)	(0.051)	(0.199)	(0.457)
LOSS	0.0002	-0.0346***	-0.0387***	0.0981***	0.0063
	(0.006)	(0.009)	(0.006)	(0.022)	(0.037)
RETURN_VOLATILITY	0.0479	0.4282*	0.3122	-0.0655	4.3973***
	(0.152)	(0.252)	(0.193)	(0.805)	(1.255)
SALESGROWTH	-0.0003***	-0.0005***	0.0002***	-0.0012***	0.0001
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
DEBT_ISSUE	-0.0062	-0.0178**	0.0012	-0.0217	-0.0023
	(0.005)	(0.008)	(0.003)	(0.015)	(0.011)
EQUITY_ISSUE	-0.0122*	-0.0770***	-0.0064	-0.0256	-0.0088
	(0.007)	(0.012)	(0.006)	(0.039)	(0.021)
IOR	0.2039***	0.5533***	0.0226*	0.1277**	-0.0154
	(0.017)	(0.030)	(0.013)	(0.058)	(0.062)

LOG_NAF	0.1296***	0.2172***	-0.0064	0.0393**	0.0249
	(0.005)	(0.008)	(0.004)	(0.018)	(0.021)
HORIZON			-0.0012		0.0255**
			(0.003)		(0.010)
Constant	0.1506***	-0.0496	-0.2398***	5.1333***	0.2806
	(0.023)	(0.038)	(0.030)	(0.118)	(0.178)
Observations	45,967	45,967	12,380	12,382	5,391
Adjusted R-squared	0.495	0.652	0.343	0.123	0.654
Firm FE	YES	YES	YES	YES	YES
Industry times year FE	YES	YES	YES	YES	YES

This table presents the empirical results of creditors' rights, management forecast behavior and the issuance of equity share within a year. All variables are described in Appendix B. All variables are described in Appendix B. Standard errors appear in parentheses and represent robust standard errors clustered by firm and year. Statistical significance of 1%, 5%, and 10% are denoted by ***, **, and *, respectively. Industry-related fixed effect is based on SIC two-digit codes. All continuous level variables are winsorized at the 1st and 99th percentiles.

Table 9 - Creditors' Rights, Management's Forecast Behavior, and Analysts Following

VARIABLES	(1) *Forecast*	(2) *Forecast_Count*	(3) *Precision*	(4) *Horizon*	(5) *Accuracy*
LAW LOG_NAF*	0.0819***	0.3877***	-0.0086*	0.0573**	-0.0128
	(0.005)	(0.008)	(0.005)	(0.023)	(0.029)
LAW	-0.0828***	-0.4701***	0.0193	-0.0872	0.0500
	(0.011)	(0.018)	(0.013)	(0.059)	(0.076)
ROA	-0.0102	-0.0144	-0.0054	-0.0784	-0.4626***
	(0.011)	(0.018)	(0.015)	(0.050)	(0.166)
LEV	0.1615***	0.3446***	-0.0100	-0.0259	0.0530
	(0.020)	(0.033)	(0.016)	(0.075)	(0.074)
LOG_MVE	-0.0034	0.0338***	0.0234***	-0.0298*	-0.0744***
	(0.004)	(0.006)	(0.004)	(0.016)	(0.022)
MB	-0.0052***	-0.0113***	0.0007	-0.0023	0.0072**
	(0.001)	(0.001)	(0.001)	(0.002)	(0.004)
R_D	0.0316	0.1035*	-0.0065	-0.3498*	0.1456
	(0.036)	(0.057)	(0.051)	(0.198)	(0.457)
LOSS	0.0004	-0.0333***	-0.0389***	0.0990***	0.0064
	(0.006)	(0.009)	(0.006)	(0.022)	(0.037)
RETURN_VOLATILITY	-0.0918	-0.1712	0.2942	-0.0330	4.3322***
	(0.152)	(0.242)	(0.192)	(0.806)	(1.253)
SALESGROWTH	-0.0003***	-0.0004***	0.0002***	-0.0012***	0.0001
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
DEBT_ISSUE	-0.0046	-0.0105	0.0011	-0.0206	-0.0025
	(0.005)	(0.008)	(0.003)	(0.015)	(0.011)
EQUITY_ISSUE	0.0177***	-0.0011	-0.0001	-0.0286	0.0110
	(0.007)	(0.010)	(0.006)	(0.030)	(0.029)
IOR	0.1906***	0.4779***	0.0217*	0.1327**	-0.0155
	(0.017)	(0.029)	(0.013)	(0.057)	(0.062)
LOG_NAF	0.1020***	0.0873***	-0.0018	0.0090	0.0312

	(0.005)	(0.008)	(0.005)	(0.022)	(0.028)
HORIZON			-0.0011		0.0257**
			(0.003)		(0.010)
Constant	0.1795***	0.1561***	-0.2535***	5.1841***	0.2504
	(0.023)	(0.037)	(0.030)	(0.117)	(0.178)
Observations	45,967	45,967	12,380	12,382	5,391
Adjusted R-squared	0.497	0.671	0.344	0.123	0.654
Firm FE	YES	YES	YES	YES	YES
Industry times year FE	YES	YES	YES	YES	YES

This table presents the empirical results of creditors' rights, management forecast behavior and the level of analysts following. All variables are described in Appendix B. Standard errors appear in parentheses and represent robust standard errors clustered by firm and year. Statistical significance of 1%, 5%, and 10% are denoted by ***, **, and *, respectively. Industry-related fixed effect is based on SIC two-digit codes. All continuous level variables are winsorized at the 1st and 99th percentiles.

Table 10 – Creditors' Rights, Management's Forecast Behavior, and Asset-Backed Securities

VARIABLES	(1) *Forecast*	(2) *Forecast_Count*	(3) *Precision*	(4) *Horizon*	(5) *Accuracy*
*LAW*ABS*	0.0332	0.2318***	-0.0072	-0.0364	-0.1306*
	(0.022)	(0.041)	(0.010)	(0.062)	(0.070)
LAW	0.0327***	0.0714***	0.0027	0.0343	0.0386
	(0.009)	(0.015)	(0.007)	(0.034)	(0.024)
AB	0.0438**	0.1210***	-0.0025	0.0881*	0.0457*
	(0.017)	(0.029)	(0.007)	(0.052)	(0.022)
ROA	-0.0114	-0.0201	-0.0055	-0.0774	-0.4617**
	(0.011)	(0.019)	(0.015)	(0.050)	(0.208)
LEV	0.1796***	0.4316***	-0.0112	-0.0201	0.0462
	(0.020)	(0.034)	(0.016)	(0.075)	(0.075)
LOG_MVE	-0.0021	0.0405***	0.0236***	-0.0319**	-0.0744**
	(0.004)	(0.007)	(0.004)	(0.016)	(0.027)
MB	-0.0057***	-0.0136***	0.0008	-0.0025	0.0075*
	(0.001)	(0.001)	(0.001)	(0.002)	(0.004)
R_D	0.0304	0.0988*	-0.0074	-0.3439*	0.1450
	(0.037)	(0.060)	(0.051)	(0.198)	(0.459)
LOSS	-0.0001	-0.0357***	-0.0387***	0.0977***	0.0064
	(0.006)	(0.009)	(0.006)	(0.022)	(0.035)
RETURN_VOLATILITY	0.0077	0.2876	0.3032	-0.0588	4.4316***
	(0.152)	(0.252)	(0.192)	(0.806)	(1.304)
SALESGROWTH	-0.0003***	-0.0005***	0.0002***	-0.0012***	0.0001
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
DEBT_ISSUE	-0.0061	-0.0178**	0.0013	-0.0219	-0.0010
	(0.005)	(0.008)	(0.003)	(0.015)	(0.012)
EQUITY_ISSUE	0.0156**	-0.0111	0.0001	-0.0297	0.0131
	(0.007)	(0.011)	(0.006)	(0.030)	(0.026)
IOR	0.2098***	0.5689***	0.0221*	0.1289**	-0.0168
	(0.017)	(0.030)	(0.013)	(0.058)	(0.057)

LOG_NAF	0.1293***	0.2167***	-0.0064	0.0388**	0.0246
	(0.005)	(0.008)	(0.004)	(0.018)	(0.020)
HORIZON			-0.0012		0.0249**
			(0.003)		(0.010)
Constant	0.1224***	-0.1110***	-0.2463***	5.1343***	0.2573
	(0.023)	(0.038)	(0.030)	(0.115)	(0.222)
Observations	45,967	45,967	12,380	12,382	5,391
Adjusted R-squared	0.494	0.652	0.343	0.123	0.653
Firm FE	YES	YES	YES	YES	YES
Industry times year FE	YES	YES	YES	YES	YES

This table presents the empirical results of creditors' rights, management forecast behavior and the disclosure of using asset-backed securities within a given year. Data relating to asset-backed securities were obtained from Lemmon et al. (2014). All variables are described in Appendix B. Standard errors appear in parentheses and represent robust standard errors clustered by firm and year. Statistical significance of 1%, 5%, and 10% are denoted by ***, **, and *, respectively. Industry-related fixed effect is based on SIC two-digit codes. All continuous level variables are winsorized at the 1st and 99th percentiles.

Table 11 – Shareholder and Creditor Monitoring

VARIABLES	(1) Forecast	(2) Forecast_Count	(3) Precision	(4) Horizon	(5) Accuracy
*LAW*IOR*	0.1349***	0.3835***	-0.0407**	0.2117***	-0.0795
	(0.023)	(0.040)	(0.018)	(0.081)	(0.073)
*LAW*EQUITY_ISSUE*	0.0794***	0.1030***	0.0181	-0.0257	0.0447
	(0.013)	(0.022)	(0.012)	(0.052)	(0.049)
*LAW*LOG_NAF*	0.0527***	0.3103***	-0.0043	0.0357	0.0086
	(0.007)	(0.012)	(0.006)	(0.025)	(0.028)
*LAW*ABS*	-0.0228	-0.0436	-0.0031	-0.0585	-0.1393**
	(0.022)	(0.040)	(0.010)	(0.063)	(0.062)
LAW	-0.1832***	-0.6581***	0.0237	-0.1642**	0.0374
	(0.016)	(0.025)	(0.020)	(0.082)	(0.085)
ROA	-0.0094	-0.0124	-0.0068	-0.0723	-0.4214**
	(0.011)	(0.018)	(0.015)	(0.050)	(0.179)
LEV	0.1586***	0.3385***	-0.0094	-0.0308	0.0186
	(0.020)	(0.033)	(0.016)	(0.075)	(0.075)
LOG_MVE	-0.0043	0.0319***	0.0234***	-0.0311*	-0.0875***
	(0.004)	(0.006)	(0.004)	(0.016)	(0.021)
MB	-0.0051***	-0.0110***	0.0007	-0.0020	0.0070*
	(0.001)	(0.001)	(0.001)	(0.002)	(0.004)
R_D	0.0317	0.1046*	-0.0035	-0.3656*	0.5605
	(0.036)	(0.057)	(0.051)	(0.198)	(0.480)
LOSS	0.0003	-0.0338***	-0.0392***	0.1006***	0.0037
	(0.006)	(0.009)	(0.006)	(0.022)	(0.037)
RETURN_VOLATILITY	-0.1191	-0.2921	0.3391*	-0.1778	5.1934***
	(0.152)	(0.242)	(0.193)	(0.806)	(1.309)
SALESGROWTH	-0.0003***	-0.0004***	0.0002***	-0.0012***	-0.0001
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
DEBT_ISSUE	-0.0049	-0.0111	0.0010	-0.0202	0.0017
	(0.005)	(0.008)	(0.003)	(0.015)	(0.011)
EQUITY_ISSUE	-0.0022	-0.0283**	-0.0074	-0.0181	0.0190

	(0.007)	(0.011)	(0.006)	(0.039)	(0.019)
IOR	0.1379***	0.3328***	0.0432***	0.0209	-0.0001
	(0.019)	(0.031)	(0.016)	(0.075)	(0.065)
LOG_NAF	0.1109***	0.1105***	-0.0039	0.0190	-0.0179
	(0.005)	(0.008)	(0.005)	(0.023)	(0.028)
ABS	0.0561***	0.1789***	-0.0037	0.0962*	0.0591**
	(0.017)	(0.029)	(0.007)	(0.052)	(0.026)
HORIZON			-0.0008		
			(0.003)		
Constant	0.2113***	0.2208***	-0.2601***	5.2337***	0.5122***
	(0.023)	(0.037)	(0.031)	(0.122)	(0.153)
Observations	45,967	45,967	12,380	12,382	5,789
Adjusted R-squared	0.499	0.673	0.344	0.124	0.644
Firm FE	YES	YES	YES	YES	YES
Industry times year FE	YES	YES	YES	YES	YES

This table provides evaluations of the moderating effect of shareholder monitoring and creditor monitoring on creditors' rights and management forecasting behavior. It captures simultaneous monitoring by shareholders measured using the existence of equity issue (*EQUITY_ISSUE*), and the levels of institutional ownership (*IOR*) and analysts following. Data relating to asset-backed securities were obtained from Lemmon et al. (2014). All models include firm, industry times year fixed effects, controls and an intercept. All variables are described in Appendix B. Standard errors appear in parentheses and represent robust standard errors clustered by firm and year. Statistical significance of 1%, 5%, and 10% are denoted by ***, **, and *, respectively. Industry-related fixed effect is based on SIC two-digit codes. All continuous level variables are winsorized at the 1st and 99th percentiles.