Judicial Proficiency and Contract Design: The Role of Business Courts in Shaping Supply Contracts

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Abstract

We examine whether access to specialized business courts that are more proficient in resolving contractual disputes influences the design of firms' supply contracts. We use the staggered creation of these courts in different states at different times as our research setting and find evidence that firms with access to these courts tend to negotiate less specific contracts with their suppliers and customers. This effect is more pronounced when it is more difficult and costly to specify contingent obligations. We find that this inverse relationship between judicial proficiency and contract specificity is attenuated when firms have higher-quality accounting, suggesting that accounting quality substitutes for judicial proficiency in making contracts more obligationally complete. Furthermore, firms with access to business courts are more likely to rely on contracts rather than vertical integration to mitigate "holdup" risk, suggesting that judicial proficiency influences the boundaries of firms in their jurisdiction. Finally, viewing firms as a "nexus of contracts," we show that firms with access to these courts tend to be more valuable than their otherwise similar counterparts that lack access to these more proficient legal venues.

Keywords: judicial proficiency; relationship-specific investment; supply contracts; accounting quality; vertical integration; holdup; business courts; organizational structure; firm value

JEL Classification: K12, K40, K42, L00, L14, L22, G30

1. Introduction

In customer-supplier relationships, the risk of hold up, where a supplier makes relationship-specific investments and becomes vulnerable to *ex post* appropriation from its customer, can distort incentives and reduce the efficiency of trade (Costello, 2013; Dou, Hope and Thomas, 2013; Klein, Crawford, and Alchian, 1978; Williamson, 1985). To mitigate this risk, firms can draft more detailed contracts *ex ante* that more precisely specify contingencies, obligations, rights, and remedies to reduce ambiguity and enhance enforceability (Williamson, 1979).

While prior studies have examined these and other contracting and governance mechanisms, they often abstract away from the institutional realities of enforcement, implicitly assuming that contracts are costlessly and, perhaps more importantly, consistently enforced (Shleifer, 2012; Djankov et al., 2003). However, a growing body of theoretical work highlights the central role of judicial frictions in shaping optimal contract design. For example, Battigalli and Maggi (2002) formalize the trade-off between rigid, rules-based contracts and less formal, standards-based arrangements, showing that the optimal level of contract specificity balances *ex ante* drafting costs against *ex post* enforcement frictions. Similarly, Hermalin, Katz, and Craswell (2007) demonstrate that contract design and the remedies for breach are jointly determined by the legal environment, particularly the court's capacity to verify and enforce contractual rights and obligations.

We build on these insights by examining whether and how judicial proficiency—namely, the expertise and efficiency of courts in resolving contractual disputes—influences the nature (e.g., specificity and completeness) of firms' supply contracts, organizational structure, and value.[1] We use a comprehensive, hand-collected sample of supply contracts disclosed in

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[1] Judicial proficiency includes a court's expertise in resolving disputes about complex transactions and other business matters, as well as the efficiency of administration, proceedings, trials, and settlements, and its consistency and predictability in interpreting statutes and applying legal precedent. We discuss these comparative advantages of specialized business courts, as well as other institutional details, in Section 2.

firms' Securities and Exchange Commission (SEC) filings, and argue that contracting parties' *ex ante* expectations about the proficiency of the court that would adjudicate any subsequent dispute should influence the *ex ante* design of their supply contracts in several ways.

First, the effect of judicial proficiency on contract specificity is theoretically ambiguous. On one hand, the *enforcement hypothesis* posits that more proficient courts encourage parties to draft more detailed and specific contracts. Judicial expertise enhances the enforceability of contractual provisions, thereby increasing the returns to investing in *ex ante* contract design. When firms expect courts to interpret and enforce complex provisions accurately, they are more willing to incur the cost of drafting highly tailored contracts (Bergman and Nicolaievsky, 2007; Gennaioli and Shleifer, 2007). On the other hand, the *drafting cost hypothesis* suggests that more proficient courts lessen the need for contractual specificity (Battigalli and Maggi, 2002; Hermalin, Katz, and Craswell, 2007). Rather than incur relatively high upfront costs to draft more comprehensive contracts, the parties may instead decide to defer to the courts to resolve contract disputes if and when they arise (Geis, 2008; Klein and Murphy, 1997).[2] This strategy can be particularly attractive when there are significant costs to draft more (obligationally) complete contracts.[3] In such settings, access to proficient courts may encourage firms to shift

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[2] Courts can address contractual incompleteness through several well-established legal doctrines. When specific terms are omitted, courts may supply missing provisions by referencing trade usage, course of dealing, or prevailing industry customs, particularly for routine terms such as delivery schedules, pricing mechanisms, or warranties (UCC §§2-314, 2-315). Courts may also invoke the implied covenant of good faith and fair dealing to prevent opportunistic behavior in the presence of vague or ambiguous language, as illustrated in *Market Street Associates v. Frey* (1991). In addition, judicial default rules, such as "reasonable efforts," "commercially reasonable time," or "reasonable price, are commonly used to fill gaps where explicit obligations are not stated, as in *Wood v. Lucy, Lady Duff-Gordon* (1917). Even broadly framed clauses such as "best efforts" or "material adverse change" require courts to interpret intent and apply contextual judgment to the particular facts at hand. Specialized business courts, by virtue of their subject-matter expertise and procedural efficiency, are arguably better equipped to interpret and enforce these and other terms consistently. Consequently, when parties anticipate adjudication by proficient courts, they may optimally choose to negotiate less precise certain contractual provisions and instead rely on judicial mechanisms to resolve any *ex post* disputes that may arise. We provide more discussions on how courts interpret contracts in Section 2.2.

[3] As we explain in more detail below, contracting costs are incurred *ex ante* and with certainty, while enforcement costs are only incurred in certain *ex post* states of the world and are therefore evaluated in expectation. Upfront contracting costs include those associated with negotiating and drafting more complete and comprehensive contracts (e.g., the use of more specific terms and conditions). They also include costs associated with identifying potential future states of the world and specifying the rights and obligations of each party, many of which are neither verifiable nor contractible during the negotiation and drafting stage. Enforcement costs include those

away from drafting more costly "rules-based" contracts, which explicitly delineate the parties' rights and remedies in the event of more exhaustive set of contingencies, to more "standards-based" contracts that are less specific, less costly, and leave more to judicial interpretation.[4] Consequently, whether access to specialized business courts leads to more or less specific contracting is ultimately an empirical question.

Second, we argue that firms' accounting quality should moderate any effect that access to business courts has on the specificity of their supply contracts. Prior studies highlight the important role of firms' accounting information in their contracts as it provides, *inter alia*, contractible signals that measure and allocate supply chain surplus between the contracting parties (Aghion and Bolton, 1992; Costello, 2013; Dou, et al, 2013; Hart and Moore, 1988). Related studies also show that debt contracts are less likely to include accounting-related provisions and are therefore more likely to rely on non-accounting information when borrowers have lower financial reporting quality (Costello and Wittenberg-Moerman, 2011). Applying similar intuition to supply contracts, we argue that when firms have lower financial reporting quality, accounting-related provisions are less informative for their supply chain partners and are less useful for measuring and allocating any relationship-specific surplus. Conversely, higher financial reporting quality can mitigate information asymmetries between contracting parties and diminish the need and scope for courts to resolve any contractual disputes if and when they arise.

On the other hand, higher quality accounting alone may not be sufficient for mitigating information asymmetries between the parties. Prior literature (e.g., Kothari, 2000; Ball et al.,

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associated with enforcing the contract (e.g., legal fees, the use of corporate resources) and the economic losses in the event of a breach.

[4] The extent to which contracts should be formulated as rules or standards emphasizes the distinction between whether the contractual terms are given content *ex ante* or *ex post*. A rule may entail an advance determination of what conduct is permissible under contract, leaving only factual issues for the court to decide should a dispute arise. For example, a rule might require a supplier to "keep goods refrigerated at −20 degrees to ensure the quality of the goods." A standard may entail leaving both the specification of what conduct is permissible and the factual issues for the court. For example, a standard might require a supplier to "exercise reasonable care to ensure the quality of the goods."

1999) suggests that the enforcement of contractual rights and the threat of litigation are as, if not more, important than accounting quality in mitigating information asymmetries. Lack of access to specialized courts might discourage the parties from incorporating accounting-related provisions in their contracts, despite having higher quality accounting, if there is uncertainty surrounding the enforceability of these provisions. Consequently, the way in which firms' accounting quality moderates the relationship between judicial proficiency and the properties of their supply contracts is theoretically ambiguous.

Third, the relationship between judicial proficiency and contract specificity may also depend on the amount of contracting risk or uncertainty at the negotiation stage. When there is a high degree of contracting uncertainty (e.g., when future contingencies are difficult to predict, articulate, specify, and agree to), firms may prefer less formal, standards-based contracts that instead rely on specialized business courts' expertise and proficiency to resolve any disputes. Conversely, when there is less uncertainty (e.g., when future contingencies are more foreseeable), firms might opt for more precise, rules-based contracts that specify clear contingencies, rights, and remedies, thereby minimizing the need and scope for adjudication.

There are several challenges to identify how having access to specialized business courts influences the design of firms' contracts. For example, any observed statistical relationship between access to these courts and contract features might be confounded by unobservable institutional factors (e.g., financial development).[5] To address this concern, we use the staggered establishment of specialized business courts throughout the U.S. in various states at different times to examine their effect on the contracts of firms in their jurisdiction. An important advantage of this research setting is that it provides a source of variation in judicial proficiency that is arguably exogenous with respect to any particular firm and

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[5] For example, Khanna and Palepu (2000) show that rather than relying on arm's-length contracts to address the holdup problem, vertical integration is more prevalent in developing countries that lack the requisite judicial institutions for contract enforcement and dispute resolution.

contractual features that we examine. Consequently, our research setting and design allow us to draw more credible inferences about the causal effect of judicial proficiency on firms' supply contracts.[6]

Business courts specialize in adjudicating commercial disputes. For example, the Delaware Court of Chancery has helped shape U.S. corporate law since 1792 and, more recently, the emergence of business courts in at least 22 states reflects the broader trend towards an increasingly specialized judiciary. As Geis (2008, p. 588) notes, "many courts don't show greater sensitivity to the economic substratum beneath individual transactions… and keep their eye closed on the use of economic tools and models to understand, shape and inform contract law." To address these and other perceived shortcomings of general state courts, specialized business courts are staffed with judges who are more experienced in complex commercial matters (Bach and Applebaum, 2004). Consequently, these courts "provide the expertise needed to improve substantially the quality of decision making and the efficiency of the courts with respect to such business cases" (American Bar Association, 1997). Accordingly, they are less likely to misunderstand litigants' economic incentives for making deals, and create unintended consequences with their rulings (Geis, 2008). Their proficiency enhances the accuracy, consistency, and predictability of these courts' decisions in commercial cases. As evidence of their efficacy, business courts resolve complex contract claims an average of 1,138 days faster than general courts and receive higher satisfaction ratings from their litigants (Meade, 1997; Renck and Thomas, 2014).

Using a difference-in-difference design, our first set of tests examines the effect of judicial proficiency on contract specificity. Following Costello (2013), we measure contract specificity using six key provisions that are commonly found in supply contracts. For each

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[6] Moreover, since the states in our sample are all within a single federal government, our setting minimizes the confounding effects of the vast institutional differences that are inherent in cross-country studies.

contract, we create indicators for the presence of: (i) product warranties, (ii) audit rights, (iii) collateral requirements, (iv) exclusivity clauses, (v) ISO certification requirement, and (vi) financial covenants. We find that ("treated") firms with access to business courts tend to rely on less specific contracts that include roughly 15% fewer terms and conditions than the contracts of their counterparts without access to these specialized legal venues (i.e., "control" firms). The economic magnitude of these differences is comparable to those documented in prior studies that examine supply contract design. For example, Costello (2013) shows that one standard deviation more information asymmetry between suppliers and customers translates into a 26% higher likelihood that the contract includes additional restrictions on the supplier.

Although the measure of contract specificity based on the presence of six predefined provisions has an antecedent in prior literature (e.g., Costello, 2013), it may not fully capture all of the variation (i.e., heterogeneity) in contractual details across supply agreements and, consequently, may understate the true extent of specificity. To ensure that our results are not simply an artefact of term count, we consider several alternative measures that capture different aspects of contract specificity. These empirical proxies allow us to evaluate whether the observed effects are driven by the inclusion of particular terms or instead reflect broader patterns in contract design. First, we examine provision-level detail using the average word count per term, as longer clauses typically indicate more specificity about obligations and contingencies. Second, we assess structural specificity of contracts by counting the number of distinct sections and computing the average number of words per section. Third, we analyze linguistic flexibility by calculating the proportion of flexible terms (e.g., "may") relative to rigid ones (e.g., "should", "shall" and "must"), since flexible terms reduce upfront drafting costs but potentially increase reliance on judicial interpretation. Finally, we aggregate these dimensions into a composite index of contract specificity using principal component analysis (PCA). Across all these proxies, we consistently find that firms' contracts become less specific

after they gain access to business courts, suggesting that enhanced judicial proficiency alters the tradeoff between *ex ante* negotiation and drafting and *ex post* enforcement. When firms expect that contract disputes will be adjudicated by more proficient courts, they draft less specific contracts, effectively relying on these courts to interpret and fill contractual gaps and ambiguities.

Our second set of tests examines how firms' accounting quality interacts with (i.e., moderates) judicial proficiency to influence their contract specificity. We find evidence of a more modest relationship between judicial proficiency and contract specificity when the parties have higher quality accounting, suggesting that accounting quality and judicial proficiency are substitutes with respect to the specificity of contractual provisions. Moreover, we also find that firms with higher quality accounting tend to include more accounting-based terms in their supply contracts. These findings suggest that higher quality financial reporting can serve as an alternative to more proficient judicial enforcement in making contracts more obligationally complete. When customers and suppliers have higher accounting quality, they are more likely to rely on more accurate and verifiable financial information to govern transactions, reducing their reliance on courts to fill in contractual gaps. This implies that improvements in contracting parties' financial reporting practices can enhance contracting efficiency, especially when they lack access to specialized business courts.

In our third test, we find evidence that the relationship between judicial proficiency and contract specificity depends on the amount of contracting risk or uncertainty at the time of negotiation. When there is more uncertainty surrounding a customer-supplier relationship, it is arguably more costly for the parties to draft more complete and comprehensive contracts. We find evidence consistent with this conjecture: standards-based contracts that are more deferential to subsequent judicial interpretation are more prevalent when there is more uncertainty. And, conversely, firms in more certain environments tend to draft more rules-

based contracts that cover more contingencies and clearly define the parties' rights and obligations.

We also conduct several supplemental analyses to assess the sensitivity of our inferences to alternative research design choices. First, our inferences from the difference-in-differences specifications rely on the validity of our maintained common (or "parallel") trends assumption. We find no difference in trends in outcomes preceding the creation of business courts, suggesting that this assumption is not violated in our research setting. Second, prior studies (e.g., Baker et al., 2022) discuss concerns with staggered treatment research designs when there are heterogeneous treatment effects. Following their recommendations, we estimate a "stacked" difference-in-differences specification which provides evidence that leads to similar inferences. Third, we show that our inferences are unaltered when we use alternative fixed effects structures and methods for clustering standard errors. Fourth, to ensure that our empirical estimates are not confounded by differences in the ability or quality of the parties' attorneys, we estimate an alternative specification that controls for whether firms have any attorneys as executives (Morse et al., 2016) and draw similar inferences.

Fifth, because contracts are negotiated and drafted *before* a dispute arises, it is typical—and arguably reasonable—to assume that the parties are unlikely to have *systematically* anticipated a subsequent dispute and identified the particular forum that would be more favorable to their side. Nevertheless, we address this forum selection concern by estimating our primary specifications using subsamples of contracts that are less susceptible to this potential source of bias. Specifically, we exclude contracts that adopt the governing laws of a state with no substantial business nexus to the contractual arrangement since contracts that intentionally specify an unrelated forum for dispute resolution are arguably more susceptible to forum selection bias. Our inferences are largely unchanged based on estimates from these alternative specifications. Finally, several states established "complex litigation" programs that

are meant to offer similar benefits, but also have a broader focus in that they target complex litigation regardless of whether it is business-related. We estimate our primary specifications after excluding contracts with governing laws from states with complex litigation programs and our estimates lead to similar inferences.

In supplemental analyses, we study the implications of judicial proficiency on firms' organizational structure and valuation. When contract enforcement is costly and unpredictable, vertical integration can be a more efficient alternative to mitigate the risk of holdup (Grossman and Hart, 1986; Hart and Moore, 1990). We find that firms with access to specialized business courts are less likely to vertically integrate—and, if they do, it is to a lesser extent—than their counterparts that lack access to these courts. This evidence suggests that access to business courts allows firms to rely less on internal governance mechanisms to mitigate the risk of holdup and influences their "boundaries" by allowing them to operate as more vertically disintegrated entities.

Finally, we examine the effect of access to specialized business courts on firm value. If access to these courts improves *ex post* enforcement and *ex ante* contracting efficiency, it should also enhance firm value. In other words, viewing a firm as a "nexus of contracts," more efficient drafting and enforcement of key agreements—particularly those with customers and suppliers—should enhance firms' value. Consistent with our conjecture, we find that firms with access to specialized business courts have significantly higher valuations than their otherwise similar counterparts that lack access to specialized courts. This finding suggests that judicial proficiency enhances firm value by reducing contracting frictions and improving the efficiency of supply chain relationships.

Our study contributes to several different streams of literature. First, we provide new evidence about the role of legal institutions in the design and efficiency of contracts (e.g., Djankov et al., 2003; Ponticelli and Alencer, 2016). Prior research highlights the importance

of effective legal frameworks in reducing transaction costs, mitigating opportunistic behavior, and enhancing enforcement efficiency (La Porta et al, 1997; Kim, Shi and Verdi, 2024; Williamson, 1985). We extend this literature by showing that access to specialized business courts—which are an increasingly important legal institution—allows for more efficient contracting by making contracts *de jure* "more complete".[7]

Second, our study contributes to the growing literature on the relationship between firms' accounting quality and the provisions they negotiate in their contracts (Christensen, Nikolaev and Wittenberg-Moerman,2016). Prior studies in this stream show the importance of accounting information in reducing conflicts of interest between contracting parties (Watts and Zimmerman, 1986; Costello and Wittenberg-Moerman, 2011; Bharath et al., 2008; Dou, et al, 2013; Honigsberg et al., 2021). However, few studies have examined how judicial proficiency influences the relationship between firms' accounting quality and the attributes of their contracts (Kothari, 2000; Ball et al., 2000). Our paper fills this gap by showing that the proficiency of the judicial system is an important factor for understanding how firms use accounting information in their supply contracts.

Third, our paper is related to the stream of literature that studies the boundaries of the firm (Grossman and Hart, 1986; Hart and Moore, 1990; Bourveau, Kepler, She and Wang, 2024; Hui, Oh, She and Yeung, 2025). Grossman and Hart (1986) show that asset ownership can serve as a governance mechanism to mitigate *ex post* holdup problems. By allocating state contingent ownership rights, firms can better guard against opportunistic behavior from trading partners, thereby supporting more efficient investment decisions. We add to this literature by highlighting the role of legal institutions on firms' ownership decisions, which can, in turn,

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[7] In legal terms, a *de jure* complete contract is one that, while not necessarily specifying all contingencies upfront, can still be enforced in a way that fills in contractual gaps through judicial interpretation and precedent. The contract becomes *de jure* more complete because access to specialized business courts enhances the enforceability of contractual provisions, effectively reducing the need for excessively detailed and rigid agreements. Consequently, from a legal standpoint, the contract functions as if it were more complete, even if it remains *de facto* incomplete in terms of explicit provisions.

affect both their organizational structure and the structure of the industries and markets in which they operate and transact. Our evidence suggests that firms in states with specialized business courts are less likely to rely on integration to "internalize" these holdup costs.

Fourth, our paper contributes to the literature that studies the link between judicial proficiency and firm value. Prior studies have used important case law decisions to show that the interpretation of existing laws and the creation of new legal standards affect firms' policies and value (Fang and Huang, 2024; Karpoff and Wittry, 2018; Huang et al., 2020; Colonnello and Herpfer, 2021). Our paper extends this literature beyond studying the alteration of specific laws and the enforcement of one type of contractual provision by instead examining the effects of a more expansive notion of the legal system—namely the introduction of new, specialized legal venues.

Although we focus on supply contracts, the implications of our findings may extend to other types of contracts, e.g., incentive-compensation and debt contracts. Just as access to specialized business courts enables more efficient contracting in supply chain relationships, it can also shape executive compensation contracts by affecting the enforceability of performance-based incentives and the resolution of disputes over contractual terms. Similarly, in debt contracting, judicial proficiency can influence the use and terms of financial covenants, renegotiation dynamics, and the reliance on accounting-based terms versus alternative control mechanisms. More broadly, by reducing enforcement uncertainty and providing clearer legal standards, a more proficient judiciary can arguably enhance contracting efficiency in multiple domains, reinforcing the broader economic significance of legal institutions in governing a variety of firms' contractual relationships.

The remainder of the paper is as follows. Section 2 provides background information on business courts and develops our theoretical framework and empirical predictions. We describe our research design in Section 3 and sample selection and variable measurement in

Section 4. We present our primary results in Section 5 and the results of the aforementioned supplemental analyses in Section 6. We provide concluding remarks in Section 7.

2. Background and theoretical framework

2.1. Establishment of state business courts

A business court is a specialized court that primarily hears business disputes. While the Delaware Court of Chancery has played a leading role in shaping U.S. corporate and contract law, the movement to create specialized business courts originated in New York in the early 1990s when litigants in business cases became frustrated by court systems that utilized the master calendar system, under which multiple judges would hear and address different stages of the same case. This inefficient judicial process often led to pre-trial mismanagement of cases, delays, inconsistent judicial decisions, and decreased accountability for case supervision, and it revealed an overall lack of knowledge and experience in specific areas of law (ABA, 1997).

In response to these complaints, New York County's Manhattan Supreme Court initiated a pilot program in 1993. Under this program, each business case was assigned a judge experienced in litigating complex business cases and that judge would then preside over the case from inception to resolution. The program aimed to minimize delays and surprises by involving judges with cumulative experience and expertise who would interpret and apply the laws and regulations consistently (Stempel, 1995). Unlike traditional state courts in which trial judges often rule orally, business courts strive to improve common law predictability by publishing trial opinions at the court level. As this body of common law grows and becomes more uniform, it further increases case efficiency and predictability (Moorhead, 2017). The pilot program achieved immediate success, with a 35% increase in case disposition within one year of creation and three specialized business judges handling the workload of more than four generalist judges using the same resources (ABA, 1997). As a result, the Commercial Division

of the Supreme Court of New York was established in November 1995 and continues to operate as a business court in the State of New York.

New York's success prompted the business community to call for the creation of business courts in other states and jurisdictions. The ABA (1997, p947) recommends that these "courts which hear a substantial number of corporate and commercial disputes establish specialized court divisions to provide the expertise needed to improve substantially the quality of decision making and the efficiency of the courts with respect to such business cases." The ABA also formed a subcommittee to advise states on the creation of business courts. As of 2018, 23 U.S. states have established business courts (see Appendix A).

In 2014, the ABA commissioned a study to understand the impact of these courts on judicial performance (Renck and Thomas, 2014). It found that business courts handle complex contract claims 1,138 days faster, on average, than regular courts and that business courts handle complex tort-based claims 718 days faster, on average, than their non-specialized counterparts (Renck and Thomas, 2014). Business courts also tend to receive high satisfaction ratings from their litigants (Meade, 1997).

2.2. Courts' role in resolving contractual disputes

When courts interpret contracts, they attempt to define how terms and provisions should be understood (Farnsworth and Wolfe, 2019). Depending on the details of the transaction and the legal question at issue, the court might interpret words independently or in context, such as an agreement's purposes or what the parties believed or intended. This section aims to provide a brief overview of how courts might interpret contracts to resolve contractual disputes.[8]

In resolving questions related to contract interpretation, courts commonly apply the principle that the contract should reflect and promote the parties' intention at the time they

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[8] We refer readers to Patterson (1964), Burton (2009), and Bix (2012) for more detailed discussions of contract law and the role of courts.

entered into the contract.[9] Recognizing that contracting parties voluntarily enter into agreements with terms they control, courts typically do not decide which terms to include or exclude but rather clarify and give legal authority to the choices made by the contracting parties.

Their interpretive role notwithstanding, courts often restrict the scope of admissible evidence in interpreting a contract, focusing only on the text of the contract when contracts are written clearly and unambiguously. Thus, a contract should be written so that "a reader who is competent in English but unaware of the agreement's context would think the writing admitted of only one meaning" (Posner, 2004, p. 1596). A well-written contract is also important because courts consider the contract itself to be the best evidence of intent when making their interpretations and rulings. For example, some rules, such as the parol evidence rule, prevent parties to a written contract that is "clear on its face" from introducing external evidence (e.g., additional oral or written agreements outside the parameters of the written contract).

Complications arise when parties are held to terms to which they did not assent, either expressly or fully, or when preferences are not stated clearly and precisely. Ambiguous contract language may require additional deliberations to determine the intended meaning. For example, a court might rule that all words of an agreement should be construed wherever possible as consistent with one another and interpret the contract as a whole. This approach attempts to harmonize conflict by using specific terms to qualify general terms. Courts also may invoke various doctrines to resolve ambiguity.[10] For example, the doctrine of ejusdem generis provides

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[9] See for example, Comrie v. Enterasys Networks Inc, 837 A.2d 1, 13 (Del Ch 2003).

[10] In *Market Street Associates v. Frey*, 941 F.2d 588 (7th Cir. 1991), Market Street Associates (MSA) leased a commercial property from the General Electric Pension Trust under an agreement that included a complex financing arrangement granting MSA the option to repurchase the property under certain conditions. The contract, however, was silent as to whether MSA was required to explicitly notify GE when initiating this repurchase provision. MSA proceeded in a manner that it knew could activate the clause, but did so without clearly informing GE of its intent. Judge Richard Posner held that although the lease did not expressly impose a disclosure obligation, MSA's conduct violated the implied duty of good faith and fair dealing. The court found that MSA had a responsibility to be forthright, as its failure to do so sought to exploit an ambiguity in the contract. By interpreting the contractual silence in light of commercial reasonableness and the parties' expectations, the court effectively filled in the gap, illustrating how judicial interpretation can substitute for missing explicit terms in commercial agreements.

that a general word or phrase following a list of specifics will be interpreted as having the discrete characteristics of the specific words. The doctrine of noscitur a sociis stipulates that words or terms should be understood with reference to those that accompany them and that a word's meaning in one part of a contract is presumed to be the same wherever it appears.

The various aspects of contract interpretation depend on the particulars of the case and the relevant legal questions. Courts have significant discretion when interpreting contracts. Thus, judicial proficiency can have profound effects on the contracting parties. A judge who is knowledgeable about the commercial context of a contract can better interpret ambiguous language without requiring the contracting parties to incur the time and expense of presenting additional testimonial and documentary evidence beyond what is in the contract itself.

2.3. Courts' role as described in the legal versus economics literature

Economists acknowledge the importance of legal frameworks and enforcement mechanisms in resolving contractual disputes and addressing contractual incompleteness (La Porta et al., 1997). However, their modeling approaches often overlook the practical details of how courts fulfill their role. Instead, many studies adopt a simplified categorization of contract provisions as either "verifiable" or "non-verifiable" (Williamson, 1975; Grossman and Hart, 1986). While verifiability is crucial for addressing holdup problems, it fails to consider the administrative inefficiencies in the judicial system that affect contract design.

Several studies highlight that contracts are not drafted or enforced without costs (Fama and Jensen, 1983a, 1983b; Fama, 1990). These costs stem from information asymmetries and moral hazard that affect drafting, negotiating, and enforcing contracts. Fama and Jensen (1983a, 1983b) recognize contracting costs as a significant factor influencing the effectiveness of governance mechanisms in addressing agency conflicts within corporations. They acknowledge that one of the main challenges in aligning the interests of shareholders and managers is the costs associated with drafting, monitoring, and enforcing contracts between

principal and agent. Fama (1990) explores how the contracting costs influence a firm's decisions regarding its capital structure and financing sources. His study suggests that firms consider these contract-related costs when determining optimal financing arrangements.

However, these studies often do not explicitly address the role of courts in contract drafting, monitoring, and enforcement. Shleifer (2012) sheds light on an essential yet often underestimated aspect—the cost of judicial friction in contract enforcement. He highlights that assumptions regarding judges' motivation, knowledge, and impartiality might not align with reality. Even if judges are assumed to be unbiased, knowledgeable, and motivated, judicial discretion stemming from legal, contractual, and factual uncertainties remains an essential feature of litigation. This discretion introduces risks for litigants, emphasizing the critical role of courts in shaping contractual outcomes and enforcing agreements. Shleifer's insights underscore the importance of examining the functioning of courts within the context of contract design and enforcement, as their decisions have a significant impact on contractual relationships and economic outcomes.

In contrast, legal scholars take a different approach and focus on the *ex post* rights and obligations of the contracting parties in litigation and the role of courts in dispute resolution (Patterson, 1964). Whether a particular contract or provision is actually *ex post* verifiable in court is arguably better viewed as a matter of degree rather than as a sharp dichotomy. A court's ability to verify a specific provision and determine whether it has been breached depends on the evidence and laws governing the standards and burdens of proof, as well as the court's discretion in applying the law in the context of the specific dispute. For example, if parties decide not to include a contingency because they prefer to defer the associated time and cost to the courts (Schwartz and Scott, 2003), then the assigning of rights and obligations for these incomplete contracts when a dispute arises is a central question for legal scholars. Our study

aims to bridge these two streams of literature by considering the role of judicial proficiency in contract design.

2.4. Hypotheses development

2.4.1. Judicial proficiency and contract specificity

A core feature of contract design is the decision to trade off the upfront transaction costs of contracting (e.g., negotiating and drafting) with the expected costs (e.g., enforcement and potential losses) in the event of an *ex post* dispute (Kaplow, 1992). Rather than incur these upfront costs with certainty, the parties may deliberately decide to defer to the courts to address ambiguities, unspecified terms, or disputes if and when they arise. Consequently, the contracting parties' perceptions about these court's arguably superior ability to resolve any such disputes should influence the *ex ante* design of their supply contracts.

We argue that judicial proficiency should influence the specificity with which the parties draft contractual terms. On one hand, the *enforcement hypothesis* posits that more proficient courts encourage parties to draft more detailed and specific contracts. More proficient courts are less likely to err in their judgment, rely on inconsistent reasoning, or misinterpret legal principles. When parties are confident that courts will accurately interpret and enforce even highly tailored provisions, they have stronger incentives to invest in detailed contract design up front, especially in settings with significant ex post enforcement stakes (Bergman and Nicolaievsky, 2007; Gennaioli and Shleifer, 2007).

However, drafting highly specific contracts is costly. It requires parties to anticipate a wide array of future contingencies, determine appropriate obligations under each scenario, and encode those obligations using precise legal language. This process consumes significant time and legal resources and may be infeasible when transaction complexity is high or when future states are difficult to predict. Consequently, the *drafting cost hypothesis* suggests that more proficient courts lessen the need for contractual specificity. Contracting parties may

deliberately leave terms vague or unspecified, deferring to the court's interpretive authority to resolve any gaps ex post (Battigalli and Maggi, 2002; Hermalin et al., 2007). Rather than incur relatively high upfront cost to draft more comprehensive contracts, firms economize on ex ante contract design and rely on courts to uphold the spirit of the agreement if and when a dispute arises. This strategy is especially appealing when drafting "obligationally complete" contracts is prohibitively expensive (Geis, 2008; Klein and Murphy, 1997).

Specialized business courts, by virtue of their commercial proficiency, are more likely to adjudicate disputes in ways that are faithful to the parties' original intent. Consequently, access to these courts may encourage firms to shift away from drafting more costly "rules-based" contracts, which explicitly delineate the parties' obligations in the event of various contingencies, to more "standards-based" contracts that are less specific and leave more to judicial interpretation. This approach minimizes upfront contracting efforts by allowing courts to fill contractual gaps and establish terms *ex post*, leveraging their expertise to align outcomes with the parties' original intent. Consequently, the effect of access to specialized business courts on the specificity of supply contracts of firms in their jurisdiction is theoretically ambiguous and is therefore an empirical question.

2.4.2. The role of accounting quality

Positive accounting theory posits that the use of accounting information enhances contracting efficiency by minimizing contracting costs (Watts and Zimmerman, 1986). Accounting information plays a crucial role in supply contracts, as it provides the contractible signals needed for the distribution of supply chain surplus (Dou et al., 2013; Costello, 2013; Aghion and Bolton, 1992; Hart and Moore, 1988). Instead of solely depending on proficient courts for *ex post* governance, contracting parties could leverage accounting information to boost contracting efficiency by improving the state-contingent distribution of supply chain surplus.

We hypothesize that accounting quality should moderate the effects of judicial proficiency on contract specificity. Previous studies on debt contracting indicate that contractual terms relying on accounting numbers are less utilized and often substituted with non-accounting-based terms when financial reporting quality is low (Costello and Wittenberg-Moerman, 2011). Applying similar intuition to supply contracts, when firms have lower financial reporting quality, accounting-related provisions are less informative for their supply chain partners and are less useful for monitoring and allocating any relationship-specific surplus. Conversely, higher financial reporting quality can mitigate information asymmetries between contracting parties and diminish the need and scope for courts to resolve contractual disputes. On the other hand, high accounting quality alone might not be sufficient for mitigating information asymmetries. Prior literature (see e.g., Kothari, 2000; Ball et al., 1999) suggests that enforcement of contractual rights and the threat of litigation are as, if not more, important than accounting quality in mitigating information asymmetries. Lack of access to proficient courts might deter the parties from using of accounting-based provisions in their contracts, despite high accounting quality, if there is uncertainty regarding the enforcement of these provisions. Consequently, how accounting quality may moderate the relationship between judicial proficiency and supply contracting is theoretically ambiguous and is therefore an open empirical question.

3. Research design

We use the staggered creation of specialized business courts as a source of variation in judicial proficiency that is arguably exogenous to any particular firms and to the contractual outcomes that we examine. This design allows us to estimate the effects of and draw more credible inferences about any resulting improvements in economic proficiency provided by this judicial forum on the design of firms' supply contracts and organizational structures.

To examine the effects on supply contract design, we estimate the following difference-in-difference specification at the contract-year level:

$$Specificity_{it} = \beta_0 + \beta_1 BC_{it} + \gamma'X_{it-1} + FE + \varepsilon_{it}, \qquad (1)$$

where i indexes contracts, and t indexes time, respectively. *Specificity* measures the contract specificity in terms of the number of terms in the supply contracts (see Section 4.2 for more detailed definitions). The independent variable of interest, *BC*, is an indicator that equals one for contracts in which the specified governing law is from a state that has created a business court by year t. X represents a vector of control variables, discussed in more detail below (in Section 4.3). We include industry fixed effects to control for time-invariant unobservable industry characteristics, year fixed effects to abstract away from systematic temporal effects, and state fixed effects for the state whose governing laws are used in the contract.[11] We cluster standard errors by state of governing laws. The coefficient β_1 estimates the average treatment effect of the creation of business courts on contract design.

4. Sample selection and variable measurement

4.1. Sample selection

For our analysis of supply contracts, we hand-collect data about material supply contracts filed with the SEC from 1996 to 2022. Regulation S-K of the Securities Act of 1933 requires publicly filing companies to disclose material supply contracts, in their entirety, as exhibits to Forms 10-K, 10-Q, or 8-K.

We start by identifying material contracts through the WRDS SEC Analytics Suite, which provides the filing description (item *DESCRIPTION* or *FILENAME*) of each exhibit. We retain those with filing descriptions or filing names containing at least one of the following words: *Supply*, *Supplie**, *Manufacture**, *Vendor*, *OEM*, *Product*, or *Goods*. Recognizing that

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[11] The filing firm is the one that formally filed the supply contracts with the SEC.

recent years may lack detailed filing descriptions due to XBRL, we further employ a keyword search for all filings with exhibits (TYPE is EX-10 or EX-99). We further remove non-supply contracts by excluding cases in which one of the following words appears in the filing description: *Revis**, *Modif**, *Restate*, *Supplement*, *Addendum*, *Memorandum*, *Letter*, *Warranty*, *Terminate*, *Dismiss*, *Settle*, *Discontinue*, *Suspend*, *Cessation*, *Lease*, *Stock*, *Equity*, *Security*, *Loan*, *Credit*, *Employ*, *Mortgage*, *Escrow*, or *Incentive*. Finally, after obtaining the exhibits from SEC filings, we read the first 20 lines of each exhibit to exclude duplicate contracts. This process yields an initial sample of 6,396 unique contracts.

We then manually collect the contracting dates (entering dates), names and addresses of suppliers and customers, governing law, and contractual terms related to audit, warranty, collateral, exclusivity, financial covenants, and certification. Finally, we further exclude contracts that adopt non-U.S. governing laws or that do not contain governing law information. Table 1, Panel A reports the sample attrition. Our final sample consists of 4,716 contracts for 2,101 firms from 1996 to 2022. Table 1, Panel B reports the yearly distribution of our contract sample.

4.2. Measurement of contract specificity

We measure contract specificity using hand-collected data from SEC filings, focusing on the number of contractual terms. Our main variable, *LnNumTerms*, is the natural logarithm of one plus the number of contractual terms in the supply contract.

To capture contractual specificity, we identify six commonly studied and economically significant supply contract provisions. For each supply contract, we create separate indicators that equal one if the contract contains terms that govern the following six provisions: (i) supplier product warranties for a specified period of time (*Warranty*); (ii) audit rights allowing one party to inspect or audit the counterparty's production or sales plants or financial statements (*Audit*); (iii) collateral requirements for the buyer (*Collateral*); (iv) exclusivity

requiring one party to buy or sell exclusively to the other (*Exclusivity*); (v) ISO certification requirements (*Certification*); and (vi) financial covenants (*Financial*).[12] We then define the number of contractual terms as the sum of these six provisions, ranging from zero to six

We consider these six provisions because they directly address two main frictions in supplier-customer relationships: information asymmetries and moral hazard. Warranties and certifications serve as ex ante quality assurances, protecting buyers from substandard goods. Audit rights and financial covenants reduce ex post information asymmetry by enabling ongoing monitoring of counterparty behavior. Collateral requirements protect suppliers from the risk of buyer default, and exclusivity clauses limit the risk of opportunistic behavior through outside options. These provisions reflect distinct mechanisms to mitigate opportunism and align incentives in relationship-specific investments. They also vary in legal and economic complexity and are therefore particularly sensitive to the institutional environment in which enforcement occurs. For example, audit rights and covenants may require interpretation of accounting data, while exclusivity and collateral clauses often raise legal disputes over scope and enforceability. More importantly, these provisions are clearly defined, consistently disclosed, and empirically tractable—facilitating reliable measurement and comparability across firms. This approach aligns with prior literature, particularly Costello (2013), and allows us to capture economically meaningful variation in contract specificity. Nonetheless, we acknowledge that other contractual terms may also reflect or shape contract completeness. To address this, we complement our analysis with alternative measures derived from textual analysis of contract, as discussed in Section 5.1. These additional measures help ensure the robustness and generalizability of our findings.

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[12] To facilitate comparability of our findings and inferences with those of prior studies, we follow Costello (2013) and others and use a keyword search to identify financial terms in the contracts in our sample. We thank Anna Costello for discussing her approach with us.

4.3. Measurement of control variables

We include several control variables identified by prior research (e.g., Costello, 2013; Kale and Shahrur, 2007). We control for firm characteristics of buyers and sellers, including firm size (*Size*), which is measured as the natural logarithm of the firm's total assets; leverage (*Leverage*), which is the sum of short- and long-term debt scaled by total assets; profitability (*Profit*), measured as EBITDA over total assets; and firm age (*Age*). The inclusion of these variables controls for differences in contract design driven by differences in underlying business.

We control for several contract characteristics. Costello (2013) finds that information asymmetry between buyers and suppliers affects contract design. She also finds some evidence that contracting with private firms increases information asymmetry and dealing with prior business partners reduces it. To ensure that any changes in contract design that we document are not attributable to information problems, we control for prior business relation (*Relationship*), which is an indicator that equals one if the same pair of buyers and suppliers filed any material supply contracts before, contracting with private firms (*Private*), which is an indicator that equals one if one of the contracting parties is a private firm, and location proximity (*Same State*), which is an indicator that equals one if the contracting parties are headquartered in the same state according to the address information in the contracts, and zero otherwise. We control for whether one of the contracting parties is an international firm (*International*). We control for whether the SEC filing party is the supplier or customer (*FilingSupplier*). Given that Anand and Khanna (2003) find that licensing contracts are more likely to contain exclusive dealing clauses and are more likely to be signed with firms with whom the licensor has prior relationships, we create an indicator that equals one if the supply contract is a licensing contract (*LicenseSupply*).

To mitigate the concerns that the creation of business court might be confounded by the development of local economy and business environment, we control for variation in socioeconomic factors that can affect the contracting environment. These variables include *GDP Growth*, *Unemployment*, political affiliation (*BlueState*), and a state's general litigation environment measured by a ranking of fairness and reasonableness of the state's liability system by the business community (*LawsuitClimate*).[13,14]

4.4. Descriptive statistics

Table 2 reports descriptive statistics for our sample. All continuous variables are winsorized at the 1% percentile in each tail. Panel A reports the choice of governing law specified in the supply contracts. The most natural expected choices of law are states with direct connections to the contract. It could be a firm's business (e.g., headquarters or plant) location or a company's state of incorporation if state law relates to issues that arise under contracts. We find that 68% of contracts (i.e., 3,215 out of 4,716 contracts) use either buyers' or suppliers' connected states as the choice of governing law of the contracts.[15] The remaining 1,501 contracts specify governing law from non-connected states, mostly New York with over 73.2%

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[13] Lawsuit Climate Survey, conducted by the U.S. Chamber Institute for Legal Reform, provides information regarding the attitudes of the business community towards the state legal systems. Participants in the survey comprise in-house general counsel, senior litigators or attorneys, and other senior executives at companies with at least $100 million in annual revenue who indicated they (1) are knowledgeable about litigation matters, and (2) have firsthand, recent litigation experience within the past five years in each state they evaluate. Respondents were asked to give states a grade in each of the following areas: (1) enforcing meaningful venue requirements, (2) treatment of tort and contract litigation, (3) treatment of class action suits and mass consolidation suits, (4) damages, (5) proportional discovery, (6) scientific and technical evidence, (7) trial judges' impartiality, (8) trial judges' competence, (9) juries' fairness, and (10) quality of appellate review. Grading in these 10 elements were then combined to create an overall ranking of state liability systems (U.S. Chamber Institute for Legal Reform, 2019).

[14] To gain insight into the determinants of establishing business courts, we conduct a regression analysis using state-year-level data. Specifically, we regress the BC dummy variable (*BC*), which takes a value of one for the period following the creation of the business court, on states' judicial environment measured by state lawsuit climate (*LawsuitClimate*), economic conditions measured by GDP growth (*GDP Growth*) and unemployment rate (*Unemployment*), and the states' political environment indicated by whether it is a blue state (*BlueState*). Overall, while we find some evidence that economic or political conditions impact the likelihood of establishing a business court, a substantial portion of the variation is attributed to time-invariant state and year characteristics. Once we incorporate state and year fixed effects, *GDP Growth, Unemployment* and *BlueState* are no longer statistically significant.

[15] Buyer- or supplier-connected states refer to buyers' or suppliers' state of incorporation, state of headquarters, or states where plants are located. In other words, the choice of law and forum is likely to be upheld in court because nexus rules are satisfied.

of forum designations, followed by Delaware with 8.7%. New York's popularity as the forum for commercial matters is closely related to its reputation for respecting contractual designations in New York law and forums and its creation of specialized business courts offering prompt, reliable, and high-quality services for adjudicating commercial matters (Eisenberg and Miller, 2009). Delaware has a similar reputation for competence and integrity, particularly in the context of corporate law, but also for contract law.

Panel B reports the choice of governing law based on whether the filers are suppliers or customers. New York (NY), California (CA), and Delaware (DE) are the top three choices of governing law and account for nearly 60% of contracts. Tests of differences in means show no significant difference in the percentage of contracts filed in two of the three states by suppliers or customers (p-values are 0.475, 0.110, and 0.006 for NY, CA, and DE, respectively), which to some extent alleviates the concern that filers strategically choose a forum to their own advantage. We further address this potential forum selection bias in Section 5.5.

Panel C reports descriptive statistics. Out of the six terms and conditions coded, our sample of supply contracts contains, on average, two terms. Less than half (39.2%) use exclusive dealing provisions; 72.7% require audit rights; 12.4% require ISO certification; 34.4% contain at least one financial provision; 23% and 24.3% are with an international or a private firm, respectively; and 29% are between parties with prior business dealings. The suppliers file 37.9% of the contracts, and the average total assets of the filers are $1,993 million. Filers are on average smaller than the counterparties, which have average total assets of $40,485 million. This finding is not surprising because the smaller the firm size, the higher the likelihood that the contract is material to the business and hence requires filing with the SEC. The median filer has an accounting performance of −4.23% relative to 10.9% of their counterparty.[16]

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[16] Mean accounting performance is negative because some firms file material supply contracts during the early stage of their life cycles before they become profitable. The 25th percentile of firm age (number of years since it first appears in the Compustat database) is two, implying that a quarter of the firms in our sample file supply

5. Results

5.1. The relationship between judicial proficiency and contract specificity

5.1.1. Baseline results

Our first set of tests examine the effect of judicial proficiency on contractual specificity and report the results in Table 3, Panel A. To mitigate concerns related to "bad control" or "endogenous control" problems (Angrist and Pischke, 2009; Gormley and Matsa, 2016), we first report the results in absence of any control variables. Column (1) reports a negative and statistically significant coefficient on *BC* (*t*-statistic of −4.40). Columns (2) through (5) progressively add time-varying contract-, firm-, and state-level controls. When contract-level controls are included, results in column (2) show that the coefficient on *BC* is negative and statistically significant (*t*-statistic of −4.48), indicating that treated firms with access to business courts tend to rely on less specific contracts following the creation of specialized business courts. Columns (3) and (4) report similar results after the inclusion of customer and supplier characteristics. Column (5) shows that our inference remains the same when we further control for time-varying state characteristics. [17] In terms of economic magnitude, the estimated coefficient in column (5) suggests that following the creation of business courts, treated firms include roughly 15% fewer terms and conditions than do their counterparts without access to these specialized legal venues. The economic magnitude of these differences is comparable to those documented in prior studies that examine supply contract design. For example, Costello (2013) shows that one standard deviation more information asymmetry between suppliers and

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contracts during their first five years of public listing. Our main results remain robust after excluding firms with negative returns.

[17] The sample size decreases when additional control variables are included because the data necessary to construct control variables are not available when one of the contracting parties is a private firm. In columns (4) and (5), we only include public firms so that we can measure *Size*, *Leverage*, *Profit*, and *Age* for the customers and suppliers. Consequently, *Private* is omitted from the specification.

customers translates into a 26% higher likelihood that the contract includes additional restrictions on the supplier.

The decline in contract specificity is consistent with our *drafting cost hypothesis* that contracting parties trade off upfront contracting costs with the *ex post* cost of enforcement and proficient courts reduce the need for contractual specificity. Instead of incurring (with certainty) the initial costs of identifying the numerous conditions, rights, and obligations of the parties in each state—many of which are neither verifiable nor contractible—the parties instead rationally choose to resolve these contingencies in court if and when they arise. As a consequence, there is less need to write exhaustive contracts to address holdup problems.

5.1.2. Stacked difference-in-differences specification

Baker et al. (2022) discuss the empirical challenges associated with a staggered treatment design when treatment effects are heterogeneous. The issue arises when already-treated units can act as effective comparison units whose outcome changes may reflect treatment effects that are subtracted from the changes of later-treated units. To address this concern, Baker et al. (2022) propose a stacked difference-in-differences estimation approach that involves aligning and stacking different events in event time. This approach circumvents the heterogeneity problems by preventing previously treated units from acting as controls for subsequently treated groups. We follow the authors' recommendations and estimate our main specification using this alternative stacked differences-in-differences design, and present the results in Table 3, Panel B. For each treatment year in our sample, we use states that never create a business court as the control group. We stack the samples of each treatment event together and align them based on the treatment year. Importantly, our results remain robust to this alternative specification, further supporting our conclusion that firms with access to judicially proficient courts negotiate contracts that include fewer provisions.

5.1.3. Alternative measures of contract specificity

Our primary measure of contract specificity relies on six predefined provisions commonly used in prior literature (e.g., Costello, 2013). While this provides a useful benchmark, it may not fully capture the heterogeneity of contractual detail across supply agreements and could understate the true extent of specificity. To address this concern, we re-estimate our regressions with alternative measures that capture other dimensions of contract specificity. These proxies allow us to evaluate whether the observed effects are driven by the inclusion of particular terms or instead reflect broader patterns in contract design.

First, we measure contract specificity using the word count per provision, which captures the level of detail with which each contractual provision is articulated.[18] Higher word counts may reflect greater specificity in defining obligations, mitigating ambiguity, or addressing contingencies. Column (1) of Table 3, Panel C shows that, following the establishment of business courts, each provision is written with fewer words, consistent with a decline in drafting specificity.

Second, we examine the structural specificity of supply contracts. Most contracts are organized into discrete sections outlining obligations, contingencies, and governance mechanisms. We count the number of sections in the contract.[19] To mitigate the concerns about significant variations across industries in the number of sections, we create an indicator (*More Sections*) that equals one if the total number of sections in the contract is greater than the industry median during the filing year and zero otherwise. To further capture specificity at the section level, we compute the average number of words per section and define an indicator (*More Words Per Section*) that equals one if the average number of words in each section is

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[18] We exclude redacted contracts because we cannot obtain an accurate word count for these contracts, resulting in a reduction in the sample.
[19] We exclude some common introductory sections from our measurement because almost all supply contracts in our sample contain these sections and these sections do not meaningfully address information asymmetry. In particular, we exclude recitals, pricing, volume, and termination clauses.

greater than the industry median value during the filing year and zero otherwise. The results are reported in Column (2) and (3) of Table 3, Panel C. The coefficients on *BC* in both specifications are negative and statistically significant at the conventional levels, suggesting that treated firms draft contracts with fewer sections and with less detail per section following the creation of the business court.

Third, we examine the degree of flexibility in contract language. Contracts across various business settings routinely use flexible terms such as "best efforts," "good faith," or "reasonable causes." While these provisions can reduce up-front drafting costs and make the contract "de jure" more complete, they may also lead to conflicting interpretations during disputes. A judicially proficient court is less likely to misinterpret such contract language, thereby increasing the likelihood that contracting parties will opt for flexible language in the contract provisions. Following Kosnik (2014), we count pairs of flexible and inflexible words (e.g., "may" versus "must", "should" and "shall") and measure the percentage of flexible word in a contract. Specifically,

$$FlexibleLanguage = \frac{\sum_i("may")}{\sum_i("may" + "must" + "shall" + "should")}$$

Column (4) of Table 3, Panel C presents the results from estimating Eq (1) using *FlexibleLanguage* as the main dependent variable. We find that supply contracts of treated firms use more flexible language after the introduction of business courts.

Finally, we create a composite measure of contract specificity using principal component analysis (*Specificity$_{PCA}$*). We extract the first principal component, which loads positively on the four variables that increase with specificity (*LnNumTerms*, *Word Count per Term*, *More Sections*, *More Words per Section*) and negatively on *FlexibleLanguage*, which is expected to decrease with specificity. Following Allee et al. (2022), we check for sample adequacy and find that KMO statistic is 0.519 and the Bartlett test is significant (p-value < 0.001). This confirms that our PCA measure of contract specificity contain common variance

(Bartlett 1951). We re-estimate our primary specifications using *Specificity_{PCA}* as the main dependent variable. Column (5) of Table 3, Panel C shows that *Specificity_{PCA}* decreases with the creation of business courts, consistent with our main findings. Overall, our results are robust across multiple measures capturing different dimensions of contract specificity—provision-level detail, structural specificity, language flexibility, and composite variation—further supporting the conclusion that firms write less specific supply contracts in response to improved judicial proficiency, consistent with *the drafting cost hypothesis*.[20]

5.2. The role of accounting quality

To examine our second hypothesis on the moderating role of accounting quality on the relationship between judicial proficiency and contract specificity, we re-estimate our main specification to include an interaction between *BC* and accounting quality. To measure accounting quality, we follow prior literature (e.g., Dechow and Dichev, 2002; McNichols, 2002; Srinidhi et al., 2011; Kothari et al., 2016) and calculate accruals estimation errors as the residual from the following regression, estimated separately for each industry-year with at least 20 firms along with firm and year fixed effects:

$$\Delta WC_{it} = \beta_0 + \beta_1 CFO_{i,t-1} + \beta_2 CFO_{i,t} + \beta_3 CFO_{i,t+1} + \beta_4 \Delta Sales_{i,t} + \beta_5 PPE_{it} + \varepsilon_{it} \qquad (2)$$

i denotes firm and *t* denotes the year. Consistent with Francis et al. (2005), we use the change in operating non-cash working capital as the dependent variable. A high value of accruals estimation error denotes poor accruals quality. *HighAccgQuality* is defined as an indicator that equals one if estimated accrual quality is smaller than the sample median, and zero otherwise. A positive coefficient for the interaction term between *BC* and *HighAccgQuality* would indicate that higher accounting quality can mitigate information asymmetries between contracting parties and diminish the need and scope for courts to resolve contractual disputes.

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[20] The results still hold if we use these alternative measures for contract specificity in stacked difference-in-difference specifications.

We report the results in Table 4. In column (1), we find a positive and significant coefficient for the interaction term, suggesting that accounting quality can serve as an alternative to more proficient judicial enforcement in making contracts more obligationally complete. In columns (2) and (3), we further categorize contract provisions into accounting-based and non-accounting-based terms. We find that firms rely more on accounting-based terms when financial reporting quality is high. Our finding indicates that high-quality accounting information can, in part, replace the role of courts in ex post settling up. When financial reporting quality is high, firms use these measures more extensively to mitigate opportunistic behavior and improve contracting efficiency.[21]

5.3. The effects of contracting uncertainty

Contract design is complicated by uncertainty about future states (Shavell, 1984; Ash, Morelli, and Vannoni, 2024). A contract provision that initially appears to benefit both parties (e.g., by producing a shared surplus) may no longer be efficient by the time performance is due. When facing greater uncertainty, specifying upfront the parties' obligations in the event of potential contingencies becomes more costly. To save costs, certain performance elements are unspecified and deferred to a court's interpretation if and when disputes arise. Consequently, we expect the relation between judicial proficiency and contract specificity to be more pronounced when parties face greater uncertainty.

We measure uncertainty (*HighUncertainty*) using two proxies. Our first proxy explores the uncertainties related to firm's earnings volatility or stock return volatility. Specifically, *HighUncertainty* is an indicator that equals one if the filer's earnings volatility (stock return volatility) during the year prior to entering into the contract is greater than the sample median, and zero otherwise. High earnings or stock return volatility signals the inherent challenges in

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[21] We also examine the independent role of enhanced accounting quality in supply contract. We estimate the specifications with only *HighAccgQuality* or *HighAccgQuality* and *BC* (without interaction term). In the untabulated results, we find that supply contracts include more provisions, especially accounting-related provisions, when accounting quality is higher.

anticipating and specifying future contingencies at the time of contracting and thus imposing greater contracting risk. We re-estimate our main specification to include an interaction term between *HighUncertainty* and *BC*. Results in Panel A of Table 5 show that the coefficients on *BC*HighUncertainty* are negative and statistically significant when uncertainty is measured using either earnings volatility (Column 1) or return volatility (Column 2). Our findings suggest that firms that face more uncertainty tend to favor less specific contracts that are more deferential to subsequent judicial interpretation.

Our second proxy explores the contracting uncertainties related to industry competition. When market competition is higher, it is easier for customers (or suppliers) to switch to a different supplier (or customer). As a result, firms may be more vulnerable to *ex post* opportunistic renegotiation, which increases ex ante contracting risk. In addition, such firms face more industry competition, which in turn increases the uncertainty of future cash flow. We expect that contracting uncertainty moderates the relationship between judicial proficiency and contract specificity. In particular, we expect the relationship to be stronger (weaker) for firms in more (less) competitive industry environments. We develop a binary variable, *LowHHI*, that equals one if the filer's industry Herfindahl-Hirschman index (HHI) is less than the sample median, and zero otherwise. A lower HHI value implies greater competition in the industry. In addition, we also incorporate the firm's market share in defining the company's competitive position. Our second variable is an indicator variable that equals one if the filer's industry Herfindahl-Hirschman index is less than the sample median and the filer's market share percentage in terms of firm revenue within the industry is less than 5%. Results in Table 5 Panel B show that the coefficients on *LowHHI*BC* are significantly negative in both columns, suggesting that the effect is concentrated among firms facing high contracting uncertainty.

5.4. Sensitivity analyses

5.4.1. Assessing parallel trends

Inferences from difference-in-difference specifications rely on the parallel trend assumption that treated and control groups would have continued to exhibit similar trends in the outcomes of interest in the absence of the shock (i.e., the staggered creation of business courts). To assess the validity of this assumption, we examine whether treatment and control firms exhibit parallel trends in contract specifications before the establishment of business courts. Firms may modify contract design in anticipation of the establishment of business courts (Hennessy and Strebulaev, 2020). In this case, we would expect to observe contract adjustments during the pre-event window in the parallel trend analysis. We re-estimate Eq. (1) and also stacked difference-in-differences specification, except that we replace the *BC* indicator with separate indicators for each of the two years before, the year of, and the two years after the creation of business courts: *BC(T=-2)*, *BC (T=-1)*, *BC (T=0)*, *BC (T=1)*, and *BC (T>=2)*. We present the results in Table 6, Panel A. Column (1) of Table 6, Panel A reports the parallel trend analysis results for baseline, and column (2) of Table 6, Panel A reports the parallel trend analysis results for the stacked difference-in-difference design. We also provide a figure to assess the parallel trend assumption. Figure 1 displays the coefficient estimates by year and their 95% confidence intervals. In both specifications, none of the pre-event variables are significant, suggesting that the parallel trend assumption is not violated and firms are not adjusting contracts in anticipation of the creation of business courts.

5.4.2. Alternative model specifications

In this section, we estimate the robustness of our results to alternative model specifications. First, in a random sample of contracts, Costello (2013) shows that supply contracts are more extensively used in the chemical, allied product, electrical, and electronic equipment industries. To mitigate the concern that our results might be driven by some industry

shocks, we re-estimate our main tests after including the industry of the filers and year joint fixed effects. Further, we also include filing firm fixed effects. The resulting specification controls for any cross-sectional differences between states of governing law, firms, or industries that might otherwise confound our results. Results in columns (1) and (2) in Table 6, Panel B show that our results are not driven by characteristics associated with any particular industry. Second, throughout the paper, we have clustered our standard errors at the level of the state of contract governing law to account for potential serial correlation among groups that we use to define our treatment variable (Bertrand et al., 2004). One concern with finite samples is that a small number of clusters may overestimate the precision of our coefficient of interest. To ensure the robustness of our results, we repeat our main tests from Table 3 using alternative clustering methods. Results in columns (3) and (4) in Table 6, Panel B show that our results remain the same when we cluster standard errors at firm or industry level.

5.4.3. Opportunistic behavior

Our main results are consistent with the notion that less specific supply contracts are the result of an efficient trade-off between saving on front-end transaction costs (with certainty) and the potential cost of any *ex post* litigation that might arise from enforcing the contracts. However, we acknowledge the potential concern that less specific supply contracts might instead be symptomatic of opportunism by one or both parties. In particular, when one party has greater bargaining power, it might deliberately negotiate terms and conditions that are more favorable for it in case of a dispute. Further, if one party proposes certain contingencies or contractual provisions, it may reveal private information to its counterparty. Finally, one or both parties may be reluctant to add additional terms especially when it might also lead to an adjustment in the deal price.

Our evidence that firms with access to more proficient courts write less specified contracts is inconsistent with these explanations because incentives to act opportunistically are

stronger when firms do not have access to proficient courts. Less proficient courts are more likely to err in their judgments, and consequently, they would serve as a less efficient governance mechanism to discipline opportunistic contracting behavior. If opportunism explains our study results, we would expect to find that firms with less access to proficient courts (i.e., the control firms) would write less specific supply contracts. However, we instead find that firms with access to more proficient courts (i.e., the treatment firms) tend to make more adjustments to the terms of their supply contracts following the creation of business courts, which is inconsistent with the alternative explanations.

5.4.4. Control for attorney effects

We cannot ascertain the extent to which corporate attorneys may participate in constructing supply contracts in our sample because we do not observe attorney information from the contract. However, it is reasonable to assume that in-house general counsel is the most important internal governance actor involved in contract design and would oversee legal compliance and risk monitoring (Kwak et al., 2012; Jagolinzer et al., 2011). To mitigate concerns that our results are driven by differences in the quality of attorneys, we re-estimate Eq. (1) and control for whether the firm has a general counsel in the executive team. Estimates presented in Table 6, Panel C show that our inference remains the same after controlling for attorney effects.

5.4.5. Potential forum selection bias

Because contracts are negotiated and drafted *before* a dispute arises, it is typical—and arguably reasonable—to assume that the parties are unlikely to have *systematically* anticipated all disputes and identified the particular forum that would be most favorable for resolving

them. [22] Business courts provide a legal forum with judicial expertise and administrative efficiency and do not systematically cater to any particular business interests.

There could be several reasons why parties to supply contracts may prefer the jurisdiction of one state over another. First, and arguably most significantly, the court might possess greater expertise in handling issues related to supply contracts, thus reducing uncertainties regarding contract enforcement. Second, the procedural rules and court system of a state may be more favorable, making its judicial process more appealing. However, this fact does not imply that firms can select legal forums arbitrarily. Courts may not always uphold the choice of governing law provisions in commercial contracts, disallowing contracts to be adjudicated in another jurisdiction. The Second Restatement of Conflict of Laws (amended 1989) Section 187(2) imposes a nexus rule and indicates that

> "*The law of the state chosen by the parties to govern their contractual rights and duties will be applied unless either (a) the chosen state has no substantial relationship to the parties or the transaction and there is no other reasonable basis for the parties' choice, or (b) application of the law of the chosen state would be contrary to a fundamental policy of a state which has a materially greater interest than the chosen state in the determination of the particular issue.*"

The nexus rule suggests that firms typically opt for a jurisdiction where nexus rules are fulfilled and often where their business is located or incorporated. A notable exception to the nexus rule is New York, which permits firms to litigate there even if the contract has no other connection to the state (Eisenberg and Miller, 2009). New York's Section 5-1402 of the General Obligations Law allows contract disputes to be litigated in New York regardless of whether the parties have any other connections with the state, provided that the contract contains a New York choice-of-law clause, a New York choice-of-forum clause, a clause that submits the parties to New York jurisdiction, and the transaction involves at least $1 million. New York case law provides further assurance that such contracts will be upheld.

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[22] Note that a subset of the contracting literature focuses on the notion of "strategic ambiguity," in which the more sophisticated contracting party might anticipate disputes and deter the other party from contracting in the first place, in which case the presence of any contract indicates less susceptibility to this potential auxiliary concern.

Nevertheless, we address this potential forum selection bias through a series of robustness tests. First, relocation or reincorporation is a costly process, and approximately 13.93% (relating to 657 supply contracts) of firms undergo such changes within a five-year window around the contract year (i.e. 5-year before and 5-year after). We re-estimate our main specification, excluding firms that relocate or reincorporate within [-5,5] year window around the contract year, potentially for the purpose of satisfying nexus rules. We report the estimation in column (1) of Table 6, Panel D. Our conclusions remain unchanged. In the untabulated test, we further exclude firms that ever relocate or reincorporate during our sample period, and our results remain the same.[23] Secondly, we re-estimate our primary specifications on the subset of contracts for which endogeneity is likely to be least severe by excluding contracts that adopt the governing laws of a state lacking business nexus (e.g., New York). These contracts may intentionally select the specific forum for dispute resolution and thus may be most susceptible to forum selection bias. As incorporation and headquarters states are typically determined long before a contract or business court is established, the remaining subsample of contracts should be less susceptible to forum selection bias concerns. We find that our conclusions are largely unaffected based on estimates from these alternative specifications as shown in column (2) of Table 6, Panel D. Third, we re-estimate our primary specifications, excluding contracts with governing laws from New York or Delaware, on the assumption that the forum selection is less of a "choice" in the remaining sample. The results are reported in column (3) of Table 6, Panel D. We find that our conclusions remain largely unchanged, providing greater confidence that our results are not driven by selection bias. [24]

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[23] As shown in Panel A of Table 2, the most natural and expected choices of governing law are states with direct connections to the contract—such as the firm's business location (e.g., headquarters) or state of incorporation. It is possible, however, that firms strategically establish a new entity in a state with a specialized business court to influence any subsequent legal proceedings. To account for this possibility, we estimate our main specification, excluding firms that create a new establishment (e.g., office) in a state with a business court within a five-year window around the contract year or at any point during our sample period. Our primary inferences are unchanged when we impose this sample restriction.

[24] Although it is unlikely that forum selection is responsible for our results, we acknowledge that we cannot completely rule out this possibility.

5.4.6. Excluding effects of Complex Litigation Programs

In our main results, we use the establishment of specialized business courts to capture the proficiency of contract enforcement. Recognizing potential concerns that such courts may appear to privilege corporate interests over those of ordinary citizens, several states instead implemented "complex litigation" programs. These programs are similarly designed to streamline costly and time-consuming litigation but have a broader mandate, targeting complex cases irrespective of whether they are business-related. Like business courts, complex litigation programs feature judicial specialization and aim to improve efficiency and expertise in adjudication, including in commercial cases. For instance, California launched a pilot Complex Litigation Program in 1999, and a three-year evaluation by the National Center for State Courts (2000–2003) reported faster case resolution and higher satisfaction with judicial handling of commercial matters.[25] To ensure that our results are not confounded by the presence of such programs, we collected data on their adoption across states and re-estimated our main specifications after excluding contracts governed by laws in states with complex litigation programs.[26] The results are reported in Table 6, Panel E. We find that our conclusions remain largely unchanged, providing greater confidence that our results are not affected by Complex Litigation Program.[27]

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[25] https://courts.ca.gov/sites/default/files/courts/default/2024- 12/compcivlitpub.pdf

[26] Among them, Connecticut adopted the program in 1998, California adopted it in 1999, Arizona adopted it in 2002, Oregon adopted it in 2006 and Minnesota adopted in 2013. We code the contracts with Complex Litigation Program for those in which the specified governing law is from a state that has created a Complex Litigation Program by year t.

[27] The results remain very similar when we control for participation in the Complex Litigation Program, rather than excluding those observations.

6. Supplemental Analyses

6.1. Judicial proficiency and firms' organizational structure

When contract enforcement is costly and unpredictable, vertical integration—which provides more flexibility to make post-contract adjustments—can be a more efficient alternative way to mitigate the risk of holdup (Grossman and Hart, 1986; Hart and Moore, 1990). According to Transaction Cost Economics, internalizing transactions within a firm aligns incentives and reduces agency costs (Williamson, 1975). Consequently, when writing long-term contracts between upstream and downstream firms is difficult, vertical integration often becomes the prevailing organizational structure, encouraging relationship-specific investments and reducing holdup problems. However, this theoretical prediction is not entirely unambiguous. Grossman and Hart (1986) show that vertical integration may not fully resolve holdup problems but rather replace agency problems with external contractors with contractual problems with employees. Their rationale is that employees, like outside suppliers, need incentives to invest, and because employees do not have property rights to tangible assets, their incentives may be weakened. Accordingly, it is not entirely clear whether and how access to a proficient judiciary affects vertical integration.

Moreover, empirical evidence about how contracting costs (and the courts' role in determining these costs) affect firms' vertical integration decisions is mixed and scarce. In a cross-country study of credit market development, Acemoglu et al. (2009) find no evidence that firms in countries with high contracting costs (measured by credit market frictions) are more vertically integrated. Lerner and Schoar (2005) examine how cross-country differences in legal enforcement affect private equity investment. They find that private equity relies on contractual provisions for investment in high enforcement and common law countries, but in low enforcement countries, it relies more on ownership and board control for investment. These findings suggest that legal enforcement and vertical integration substitute for one another. In

light of this mixed theoretical and empirical evidence, we examine the relation between judicial proficiency and the likelihood of vertical integration in a more homogenous institutional environment.

To examine the effect on organizational structure, we estimate the following difference-in-difference specification at the firm-year level:

$$VerticalIntegrat_{jt} = \beta_0 + \beta_1 Access\ to\ BC_{jt} + \gamma'X_{jt-1} + FE + \varepsilon_{jt}, \qquad (3)$$

where j and t index firms and time, respectively. The independent variable, *Access to BC*, is an indicator that equals one for firms with access to a business court in year t. *VerticalIntegrat_{jt}* is a measure of the degree of vertical integration for each firm j at time t. Following prior work in the industrial organization literature, our first measure of vertical integration, *Integration*, is an indicator that equals one if a firm has at least one segment in an upstream or downstream industry in year t, and zero otherwise (Kale and Shahrur, 2007). We use historical industry segment data from Compustat to identify firm segments. Our second measure of vertical integration is based on mergers and acquisitions (M&A) that occur along the supply chain. Following Fan and Goyal (2006), *MA Integration* is an indicator that equals one if a firm acquired either a supplier or a customer in year t, and zero otherwise. We obtain M&A data from the SDC database.

We construct the supplier and customer industry pairs, using commodity flow data from the input-output (IO) *Use Table* provided by the Bureau of Economic Analysis. The *Use Table* reports, for each pair of industries, the dollar value of the output from one industry that is required to produce the total output from another industry (for background details on the *Use Table*, see Lawson, 1997). For each firm in our sample, we first identify its primary SIC code using Compustat's historical SIC Code. *Use Table* is constructed based on the IO six-digit coding system, so we use the IO-SIC codes mapping table provided by Fan and Lang (2000) to identify a firm's IO code. We then use the firm's IO code to identify its supplier and customer

industries from the *Use Table*. The Bureau of Economic Analysis updates the *Use Table* every five years. Following prior studies (e.g., Kale and Shahrur, 2007; Fan and Lang, 2000; Fan and Goyal, 2006), we use the latest available *Use Table* for years between each update.[28]

Transactions associated with vertical integration generally fall under corporate law, and the court is limited by the principle of personal jurisdiction: without personal jurisdiction over the litigants, the court lacks authority to decide the case. General personal jurisdiction allows a court authority over a corporate defendant for essentially any lawsuit filed in a state in which the defendant is "at home." For example, in BNSF Railway Co. v. Tyrrell, the U.S. Supreme Court held that a corporate defendant is generally considered to be at home in one of two jurisdictions: the state of incorporation and the state of the corporation's principal place of business.[29] In practice, corporate litigation involving Delaware firms tends to be brought in Delaware, regardless of whether other courts are available to resolve the dispute (Romano, 1993). Krishnan et al. (2014) show that 93% of M&A litigation (including that related to vertical integration) is filed in state courts and half of those cases are filed in Delaware courts. M&A litigation is relatively rare in federal or multi-jurisdictional courts.

In our setting, access to state business courts is defined as the headquarter state or incorporation state having a business court. When individual states create business courts, the impact on a firm headquartered in the state depends on where the firm is incorporated. If incorporation states do not have business courts, then the establishment of business courts in the headquarter states provides a better forum for external litigation. For firms incorporated in states that already have functioning business courts, the creation of business courts in the headquarter states provides little benefit. The Compustat database reports only the current incorporation and headquarter location of firms. Thus, we extract the firms' historical

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[28] We use the 1992, 1997, 2002, 2007, 2012, and 2017 *Use Table*s for the periods 1992–1996, 1997–2001, 2002–2006, 2007–2011, 2012–2016, and 2017–2022, respectively.
[29] Tyrrell v. BNSF Railway Co., 2016 MT 126, 383 Mont. 417, 373 P. 3d 1 (2016).

incorporation and headquarter location from their 10-K filings, downloaded from the SEC's EDGAR database.

In Eq. (3), we include firm fixed effects to account for any time-invariant unobservable characteristics of firms that might affect their organizational structure, year fixed effects to abstract away from any secular trends, and state of incorporation and headquarters location fixed effects to control for any differences in business and economic conditions across states. We cluster standard errors by firms. The coefficient β_1 in Eq. (3) estimates the average treatment effect of the creation of business courts on vertical integration.

We report the results in Table 8. When no control variables are included, column (1) shows that the coefficient on *Access to BC* is negative and significant at the 1% level (t-statistic of -2.79), columns (2) and (3) progressively add time-varying firm- and state-level controls. When firm-level controls are included, results in column (2) show that the coefficient on *Access to BC* is negative and statistically significant (t-statistic of -2.69), suggesting that access to business court reduces the extent of vertical integration. We obtain similar inferences when we further include state-year controls in column (3). Columns (4) to (6) examine how the creation of business courts affects the likelihood of engaging in vertical integration through M&A activities. The coefficient on *Access to BC* is negative and statistically significant, indicating that the likelihood of engaging in M&A along supply chain is lower.[30] Together with the results in the first three columns, our evidence suggests that access to more proficient judiciaries reduces *ex ante* contracting costs and makes firms less likely to use non-market mechanisms to address holdup problems. We find that firms with access to specialized business courts are less likely to vertically integrate—and, if they do, it is to a lesser extent—than their counterparts that lack access to these courts. This evidence suggests that access to business courts allows

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[30] We also assess the parallel trend. Specifically, we re-estimate Eq. (3) by replacing the *Access to BC* indicator with *Access to BC (T=-2)*, *Access to BC (T=-1)*, *Access to BC (T=0)*, *Access to BC (T=1)*, and *Access to BC (T>=2)*. None of the pre-event variables are significant, suggesting that the parallel trend assumption is not violated. We also find that the likelihood of engaging in vertical M&A activities decreases from *t+1* onwards.

firms to rely less on internal governance mechanisms to mitigate the risk of holdup and influences their "boundaries" by allowing them to operate as more vertically disintegrated entities.

6.2. Judicial proficiency and firm value

Finally, we explore the effect of access to specialized business courts on firm value. If accessing proficient courts improves *ex post* enforcement and *ex ante* contracting efficiency, we expect judicial proficiency to enhance firm value. In other words, viewing a firm as a "nexus of contracts," more efficient drafting and enforcement of key agreements—particularly those with customers and suppliers—represent crucial levers for value creation because they mitigate opportunistic behavior, reduce uncertainty over enforcement outcomes, and foster collaborative investment in relationship-specific assets (Williamson, 1985; Hart and Moore, 1990). We measure firm value using Tobin's Q (*TobinQ*), which is defined as the market value of the firm's equity plus the difference between the book value of the firm's assets and the book value of the firm's equity and deferred tax, divided by the book value of the firm's assets. Using a difference-in-differences specification, results in Table 9 indicate that the value of firms with access to specialized business court is significantly higher than that of their otherwise similar counterparts that lack similar access. The coefficient on *BC* is 0.064, suggesting that treated firms experience an approximately 2.99% (= 0.64 / 2.14) increase in firm value relative to their unconditional mean following the establishment of business courts. Our results suggest that judicial proficiency has important economic consequences through reducing contracting costs in firms' supply chain relationships.

7. Conclusion

We examine how judicial proficiency influences the design of supply contracts. Our results suggest that firms respond to changes in the legal environment by adjusting the structure

and specificity of their supply contracts. We find that firms with access to business courts tend to rely on less specific contracts that include roughly 15% fewer terms and conditions than do their counterparts without access to these specialized legal venues. This finding is consistent with the notion that contracting parties trade off the upfront transaction costs of contracting against the expected cost of enforcement and potential losses in the event of a contractual breach. The results indicate that access to a court proficient in business matters improves parties' *ex ante* contracting efficiency. We also find that the relation between business courts and contract specificity is less pronounced with higher accounting quality, suggesting that the enhanced accounting quality can substitute the governance function of judicial proficiency. Furthermore, we document a significant decline in the extent and likelihood of vertical integration, highlighting the importance of legal institutions in shaping the boundaries of the firm. Lastly, we document a significant increase in firm value following the establishment of business courts, suggesting that organization structure and firm valuation are affected by the design of the judicial system. Overall, our results show that the proficiency of the legal system affects how firms manage their risk of holdup.

While a complete accounting of all the benefits and costs of proficient courts is beyond the scope of any single study, understanding the various margins of response to court reforms is central to optimal design of judicial system and relevant for future accounting research. For example, accounting regulations such as the Generally Accepted Accounting Principles (GAAP) or the International Financial Reporting Standards (IFRS) play a significant role in influencing legal decisions in commercial cases. It would be beneficial for future accounting research to investigate how these regulations affect legal decision-making within specialized business courts. Additionally, accounting expertise proves invaluable in assessing cases of financial fraud, a prevalent issue in commercial disputes. Future research could explore how

specialized business courts handle financial fraud cases and the role of accounting expertise in

detecting and preventing fraud.

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Appendix A Staggered Creation of Business Courts

This table reports the first year that the business courts are created in each state, from 1996 to 2022.

State	Adoption Year	Note
DE	1792	
IL	1992	
NY	1993	
NJ	1993	
NC	1995	
PA	1999	
MA	2000	
NV	2000	
RI	2001	
MD	2003	
FL	2004	
GA	2005	
CO	2007	End in 2015
ME	2007	
SC	2007	
NH	2008	
OH	2008	
AL	2009	End in 2013
WV	2010	
MI	2011	
IA	2012	
AZ	2015	
TN	2015	
IN	2015	
WI	2017	

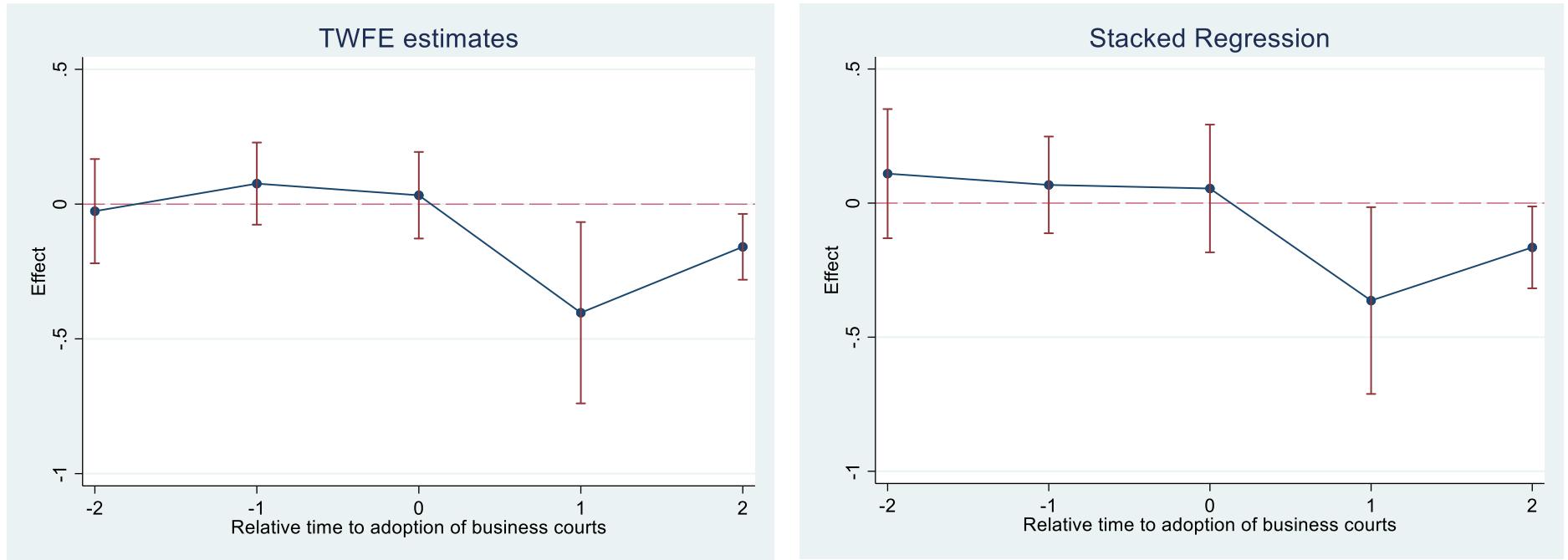## Appendix B Variable Definitions

Variable	Definition
Supply Contracts	
BC	An indicator variable that equals one if the contract specifies that any dispute should be governed by a state with a business court, and zero otherwise.
NumTerms	The total number of terms specified in the contract, including warranty, audit, collateral, exclusivity, certification, and financial.
LnNumTerms	The natural logarithm of one plus the total number of terms specified in the contract.
Warranty	An indicator variable that equals one if the contract requires the supplier to provide a product warranty and specify a certain period for it, and zero otherwise.
Audit	An indicator variable that equals one if the contract allows one party to inspect or audit the counterparty's production or sales plants or financial statements, and zero otherwise.
Collateral	An indicator variable that equals one if the buyer is required to provide collateral, and zero otherwise.
Exclusivity	An indicator variable that equals one if the contract requires buyers or sellers to purchase or sell exclusively to each other, and zero otherwise.
Certification	An indicator variable that equals one if the contract requires any ISO certification, and zero otherwise.
Financial	An indicator variable that equals one if the contract includes at least one financial covenant, and zero otherwise.
Word Count per Term	The natural logarithm of one plus the total words for each term: *Warranty*, *Audit*, *Collateral*, *Exclusivity*, *Certification*, and *Financial*.
More Sections	An indicator variable that equals one if the number of sections (excluding the introductory sections) in the contracts is greater than the industry sample median during the filing year, and zero otherwise.
More Words Per Section	An indicator variable that equals one if the average number of words for each section (excluding the introductory sections) in the contracts is greater than the industry sample median during the filing year, and zero otherwise.
Flexible Language	The number of times "may" that occurs in the supply contract scaled by the total number of times "may," "must," "should," and "shall" that occur in the supply contract.
Specificity$_{PCA}$	First principal component from principal component analysis of *LnNumTerms*, *Word Count Per Term*, *Flexible Language*, *More Sections* and *More Words Per Section*.
HighUncertainty	An indicator that equals one if the filer's earnings volatility (stock return volatility) during the year prior to entering into the contract is greater than the sample median, and zero otherwise. Earnings volatility is defined as the standard deviation of the annual return on total assets over the past five years with at minimum three non-missing observations. Stock return volatility is defined as the standard deviation of the monthly stock return during the year.
LowHHI	An indicator that equals one if the filer's industry Herfindahl-Hirschman index is less than the sample median (and the filer's market share percentage in terms of firm revenue within the industry is less than 5%), and zero otherwise.
HighAccgQuality	We calculate accruals estimation errors as the residual from the following regression, estimated separately for each industry-year with at least 20 firms along with firm and year fixed effects: $\Delta WC_{it} = \beta_0 + \beta_1 CFO_{i,t-1} + \beta_2 CFO_{i,t} + \beta_3 CFO_{i,t+1} + \beta_4 \Delta Sales_{i,t} + \beta_5 PPE_{it} + \varepsilon_{it}$, where i denotes firm and t denotes the year. Consistent with Francis et al. (2005), we use the change in operating non-cash working capital as the dependent variable. *CFO* is operating cash flow from the cash flow statement. All variables are scaled by lagged total assets. *HighAccgQuality* is defined as an indicator variable that equals one if the accrual quality of filing firm is smaller than sample median.
International	An indicator variable that equals one if the plant of the counterparty in the contract is located outside of the United States, and zero otherwise.
Relationship	An indicator variable that equals one if the same buyer–supplier pair filed a material supply contract on a date prior to the current contract, and zero otherwise.
Same State	An indicator variable that equals one for contracts where the contracting parties are headquartered in the same state according to the address information in the contracts, and zero otherwise.
LicenseSupply	An indicator variable that equals one if the contract includes license supply, and zero otherwise.

Private	An indicator variable that equals one if the non-filing counterparty is a private firm, and zero otherwise.
FilingSupplier	An indicator variable that equals one if the contract is filed by the supplier, and zero otherwise.
Filer Size	The natural logarithm of the filer's total assets in the year prior to entering into the contract.
Counterparty Size	The natural logarithm of the counterparty's total assets in the year prior to entering into the contract.
Filer Leverage	The ratio of short debt plus long debt to total assets for filer, calculated in the year prior to entering into the contract.
Counterparty Leverage	The ratio of short debt plus long debt to total assets for counterparty, calculated in the year prior to entering into the contract.
Filer Profit	The ratio of EBITDA to total assets for the filer, calculated in the year prior to entering into the contract.
Counterparty Profit	The ratio of EBITDA to total assets for counterparty, calculated in the year prior to entering into the contract.
Filer Age	The number of years between the contract year and the first year the filer was listed in Compustat.
Counterparty Age	The number of years between the contract year and the first year the counterparty was listed in Compustat.
Integration	An indicator variable that equals one if a firm has at least one segment in an upstream or downstream industry in year t, and zero otherwise, following Kale and Shahrur (2007).
MA Integration	An indicator variable that equals one if the firm acquired a firm in a supplier or customer industry during the year, and zero otherwise, following Fan and Goyal (2006).
TobinQ	The market value of the firm's equity plus the difference between the book value of the firm's assets and the book value of the firm's equity and deferred tax, divided by the book value of the firm's assets.
Access to BC	An indicator variable that equals one if the firm has access to business court (i.e., the firm's headquarters or incorporation state created business court).
Size	The natural logarithm of the firm's total assets at the end of year t-1
Leverage	The ratio of long-term debt plus short-term debt to total assets at the end of year t-1.
Profit	The ratio of EBITDA to total assets at the end of year t-1.
Age	The natural logarithm of one plus the number of years a firm is listed in Compustat.
MB	The market-to-book ratio of a firm's assets at the end of year t-1, where the market value of assets is estimated as the book value of assets plus the difference between the market and book values of equity.
CAPX	The ratio of capital expenditures to total assets at the end of year t-1.
Sales Growth	Sales in year t-1 minus sales in fiscal year t-2, scaled by sales in year t-2.
Return	The cumulative monthly market-adjusted returns in year t-1, where market-adjusted return equals raw monthly return minus the CRSP monthly value-weighted index return.
RetVol	The standard deviation of monthly returns in year t-1.
LawsuitClimate	Lawsuit Climate Survey, conducted by U.S. Chamber Institute for Legal Reform (2019), provides information regarding the attitudes of the business community towards the state legal systems. Participants in the survey comprise in-house general counsel, senior litigators or attorneys, and other senior executives at companies with at least $100 million in annual revenue who indicated they (1) are knowledgeable about litigation matters, and (2) have first-hand, recent litigation experience within the past five years in each state they evaluate. Respondents were then asked to give states a grade in each of the following areas: (1) enforcing meaningful venue requirements, (2) treatment of tort and contract litigation, (3) treatment of class action suits and mass consolidation suits, (4) damages, (5) proportional discovery, (6) scientific and technical evidence, (7) trial judges' impartiality, (8) trial judges' competence, (9) juries' fairness, and (10) quality of appellate review. Grading in these 10 elements is then combined to create an overall ranking of state liability systems.
GDP Growth	State GDP growth.
Unemployment	State unemployment rate.

BlueState	An indicator variable that equals one if the firm's headquarters state favors a Democratic candidate in the most recent presidential election prior to year *t*, and zero otherwise.

Figure 1 Parallel Trends-TWFE and Stacked Regressions

Figure 1 plots the coefficients for parallel trend estimates and 95% confidence intervals for relative-time periods from t-1 to t+2 around the adoption of business courts. The left figure plots the coefficients from specifications with two-way fixed effects (TWFE) and the right figure plots the coefficients from specification of stacked difference-in-difference.

Table 1 Sample

The sample period is from 1996 to 2022. Panel A reports the sample attrition. Panel B reports the yearly distribution of supply contracts. All variables are defined in Appendix B.

Panel A: Sample attrition	
Number of unique supply contracts during 1996–2022	6,396
Less:	
Missing governing law	678
Foreign governing law	1,002
Total number of unique supply contracts	4,716

Panel B: Yearly distribution for supply contracts		
Filing Year	No. of Supply Contracts	Percentage
1996	184	3.90
1997	247	5.24
1998	242	5.13
1999	238	5.05
2000	248	5.26
2001	154	3.27
2002	225	4.77
2003	158	3.35
2004	227	4.81
2005	198	4.20
2006	222	4.71
2007	219	4.64
2008	179	3.80
2009	89	1.89
2010	135	2.86
2011	85	1.80
2012	108	2.29
2013	207	4.39
2014	214	4.54
2015	187	3.97
2016	132	2.80
2017	125	2.65
2018	154	3.27
2019	128	2.71
2020	142	3.01
2021	162	3.44
2022	107	2.27
Total	4,716	100

Table 2 Descriptive Statistics

Panel A reports the choice of governing law in supply contracts. Panel B reports the Top 10 choice of governing law by filers. Panel C provides descriptive statistics. The sample period is from 1996 to 2022. All variables are defined in Appendix B.

Panel A: Choice of governing law

Choosing connected states		
State Governing Law = Buyer-connected states	2,184	
State Governing Law = Supplier-connected states	2,080	
Total number of contracts choosing connected states		3,215
Choosing non-connected states		
State Governing Law = NY	1,099	
State Governing Law = DE	130	
Other states	272	
Total number of contracts choosing non-connected states		1,501
Total number of contracts		4,716

Panel B: Top 10 choice of governing law by filer

Filer = supplier (N = 1,786)		
State	N	Percentage
NY	578	32
CA	248	14
DE	234	13
TX	100	6
NJ	66	4
MA	58	3
IL	57	3
OH	57	3
FL	41	2
PA	36	2
Filer = customer (N = 2,930)		
State	N	Percentage
NY	919	31
DE	470	16
CA	457	16
TX	125	4
NJ	90	3
OH	90	3
MA	82	3
IL	69	2
WA	66	2
MN	64	2

Table 2 Descriptive Statistics, Continued

Panel C: Descriptive statistics-supply contracts analyses

	(1) N	(2) Mean	(3) Std	(4) p25	(5) Median	(6) p75
NumTerms (Raw)	4,716	2.086	1.247	1.000	2.000	3.000
BC	4,716	0.617	0.486	0.000	1.000	1.000
Exclusivity	4,716	0.392	0.488	0.000	0.000	1.000
Audit	4,716	0.727	0.446	0.000	1.000	1.000
Certification	4,716	0.124	0.329	0.000	0.000	0.000
Warranty	4,716	0.381	0.486	0.000	0.000	1.000
Collateral	4,716	0.118	0.323	0.000	0.000	0.000
Financial	4,716	0.344	0.475	0.000	0.000	1.000
International	4,716	0.230	0.421	0.000	0.000	0.000
Private	4,716	0.243	0.429	0.000	0.000	0.000
Relationship	4,716	0.290	0.454	0.000	0.000	1.000
Same State						
FilingSupplier	4,716	0.379	0.485	0.000	0.000	1.000
LicenseSupply	4,716	0.067	0.249	0.000	0.000	0.000
Filer Size (Raw)	4,115	1,992.82	6,197.80	24.99	98.13	541.89
Counterparty Size (Raw)	2,085	40,484.70	127,653.40	392.25	2,943.82	22,967.92
Filer Leverage	4,115	0.355	0.658	0.015	0.182	0.412
Counterparty Leverage	2,085	0.265	0.240	0.105	0.227	0.357
Filer Profit	4,115	−0.399	1.256	−0.423	−0.042	0.116
Counterparty Profit	2,085	0.025	0.397	0.054	0.109	0.149
Filer Age	4,115	9.535	10.370	2.000	5.000	13.000
Counterparty Age	2,085	18.040	13.280	7.000	15.000	29.000
LawsuitClimate	4,716	25.900	14.720	18.000	27.000	36.000
GDP Growth	4,716	0.051	0.032	0.033	0.053	0.070
Unemployment	4,716	0.056	0.017	0.045	0.053	0.064
BlueState	4,716	0.839	0.368	1.000	1.000	1.000

Table 3 The Impact of Judicial Proficiency on Contract Specificity

This table presents the results of estimating the regressions given by Eq. (1). Panel A reports the baseline results, Panel B reports the results for stacked difference-in-difference and Panel C reports the results using alternative measures of specificity. In Panel C, we include the same set of control variables as in Column (5) of Panel A. The sample period is from 1996 to 2022. All variables are defined in Appendix B. Intercepts are included but unreported. The *t*-statistics are presented below the coefficients in parentheses. ***, **, and * denote statistical significance (two-sided) at the 1%, 5%, and 10% levels, respectively. Standard errors are corrected for heteroscedasticity and are clustered by state.

Panel A Baseline results

	(1) LnNumTerms	(2) LnNumTerms	(3) LnNumTerms	(4) LnNumTerms	(5) LnNumTerms
BC	**-0.195**	**-0.195**	**-0.207**	**-0.168**	**-0.159**
	(-4.40)* **	**(-4.44)*** **	**(-6.72)*** **	**(-3.25)*** **	**(-2.88)*** **
International		-0.001	-0.007	-0.016	-0.018
		(-0.03)	(-0.23)	(-0.40)	(-0.42)
Relationship		0.013	0.001	-0.000	-0.001
		(0.66)	(0.03)	(-0.01)	(-0.03)
Same State		-0.025	-0.030	-0.068	-0.074
		(-1.14)	(-1.00)	(-1.57)	(-1.72)*
FilingSupplier		0.012	0.024	0.034	0.033
		(0.43)	(0.86)	(1.09)	(1.04)
LicenseSupply		0.090	0.083	0.060	0.062
		(3.86)***	(4.05)***	(1.56)	(1.56)
Private		-0.055	-0.059		
		(-3.41)***	(-3.81)***		
Filer Size			0.008	0.019	0.018
			(1.72)*	(4.35)***	(4.12)***
Counterparty Size				-0.002	-0.002
				(-0.33)	(-0.36)
Filer Leverage			-0.025	-0.028	-0.027
			(-1.62)	(-1.21)	(-1.16)
Counterparty Leverage				0.011	0.008
				(0.33)	(0.23)
Filer Profit			0.012	-0.008	-0.007
			(1.78)*	(-0.98)	(-0.86)
Counterparty Profit				0.052	0.051
				(0.98)	(0.96)
Filer Age			-0.001	-0.000	-0.000
			(-1.29)	(-0.03)	(-0.07)
Counterparty Age				-0.000	-0.000
				(-0.31)	(-0.23)
LawsuitClimate					0.001
					(0.42)
GDP Growth					0.094
					(0.14)
Unemployment					0.588
					(0.25)
BlueState					-0.152
					(-1.46)
Industry FE	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Observations	4,716	4,716	4,115	2,085	2,085
R-squared	0.193	0.199	0.203	0.204	0.206

Panel B Stacked difference-in-difference

	(1)	(2)	(3)	(4)	(5)
	LnNumTerms	*LnNumTerms*	*LnNumTerms*	*LnNumTerms*	*LnNumTerms*
BC	**-0.169**	**-0.169**	**-0.185**	**-0.153**	**-0.167**
	(-3.95)* **	**(-3.97)*** **	**(-5.49)*** **	**(-2.18)** **	**(-2.20)** **
International		0.068	0.039	0.036	0.040
		(10.01)***	(3.54)***	(3.27)***	(3.69)***
Relationship		0.018	0.018	0.003	-0.002
		(1.09)	(1.03)	(0.24)	(-0.15)
Same State		0.022	0.029	-0.025	-0.021
		(4.53)***	(5.00)***	(-2.71)***	(-2.46)**
FilingSupplier		-0.039	-0.024	0.042	0.042
		(-4.57)***	(-3.37)***	(3.51)***	(3.55)***
LicenseSupply		0.099	0.106	0.097	0.094
		(10.72)***	(8.68)***	(7.48)***	(6.56)***
Private		-0.110	-0.090		
		(-11.11)***	(-8.91)***		
Filer Size			0.020	0.032	0.033
			(14.39)***	(12.09)***	(12.96)***
Counterparty Size				0.008	0.009
				(2.02)**	(2.14)**
Filer Leverage			-0.005	-0.015	-0.011
			(-1.48)	(-1.02)	(-0.77)
Counterparty Leverage				-0.062	-0.067
				(-1.93)*	(-2.25)**
Filer Profit			0.013	-0.048	-0.049
			(2.85)***	(-4.85)***	(-5.04)***
Counterparty Profit				-0.040	-0.034
				(-1.84)*	(-1.68)*
Filer Age			-0.001	-0.001	-0.002
			(-1.20)	(-0.83)	(-1.38)
Counterparty Age				0.002	0.002
				(4.38)***	(4.03)***
LawsuitClimate					-0.011
					(-7.73)***
GDP Growth					0.588
					(2.60)***
Unemployment					2.506
					(3.28)***
BlueState					0.293
					(2.83)***
Cluster	By cohort state	By cohort state	By cohort state	By cohort state	By cohort state
Cohort Industry FE	Yes	Yes	Yes	Yes	Yes
Cohort State FE	Yes	Yes	Yes	Yes	Yes
Cohort Year FE	Yes	Yes	Yes	Yes	Yes
Observations	17,137	17,137	14,840	7,287	7,287
R-squared	0.223	0.240	0.249	0.300	0.309

Panel C Additional measures for contract specificity

	(1) *Word Count Per Term*	(2) *More Sections*	(3) *More Words Per Section*	(4) *Flexible Language*	(5) *Specificity$_{PCA}$*
BC	**-0.548**	**-0.126**	**-0.176**	**0.057**	**-0.726**
	(-2.07)**	**(-1.70)***	**(-3.13)*****	**(2.09)****	**(-3.40)*****
Controls	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Observations	1,962	1,962	1,962	1,962	1,962
R-squared	0.244	0.125	0.105	0.187	0.223

Table 4 The Role of Accounting Quality

This table presents the results of effects of accounting quality on the association between business courts and design of supply contracts. The sample period is from 1996 to 2022. All variables are defined in Appendix B. Intercepts are included, but unreported. Both panels include the full set of control variables as in column (5) of Table 3. The t-statistics are presented below the coefficients in parentheses. ***, **, and * denote statistical significance (two-sided) at the 1%, 5%, and 10% levels, respectively. Standard errors are corrected for heteroscedasticity and are clustered by state.

	(1)	(2)	(3)
	LnNumTerms	*AccountingTerms*	*NonAccountingTerms*
BC	-0.281	-0.108	-0.269
	(-4.95)***	(-1.75)*	(-3.51)***
BC*HighAccgQuality	**0.118**	**0.084**	**0.042**
	(2.44)**	**(2.76)*****	**(0.78)**
HighAccgQuality	-0.032	-0.030	0.023
	(-0.81)	(-0.93)	(0.66)
Controls	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
State FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	1,352	1,352	1,352
R-squared	0.253	0.264	0.273

Table 5 The Effects of Contracting Uncertainty

This table presents the results of effects of contracting uncertainties on the association between business courts and design of supply contracts. The sample period is from 1996 to 2022. *HighUncertainty* in column (1) Panel A is an indicator that equals one if the filer's earnings volatility during the year prior to entering into the contract is greater than the sample median, and zero otherwise. *HighUncertainty* in column (2) Panel A is an indicator that equals one if the filer's stock return volatility during the year prior to entering into the contract is greater than the sample median, and zero otherwise. In Panel B, *LowHHI* in column (1) equals one if the filer's industry Herfindahl-Hirschman index is less than the sample median, and zero otherwise. *LowHHI* in column (2) Panel B is an indicator variable that equals one if the filer's industry Herfindahl-Hirschman index is less than the sample median and the filer's market share percentage in terms of firm revenue within the industry is less than 5%. All variables are defined in Appendix B. Intercepts are included, but unreported. Both panels include the full set of control variables as in column (5) of Table 3. The t-statistics are presented below the coefficients in parentheses. ***, **, and * denote statistical significance (two-sided) at the 1%, 5%, and 10% levels, respectively. Standard errors are corrected for heteroscedasticity and are clustered by state.

Panel A: Partition on uncertainty

	(1)	(2)
HighUncertainty=	*Earnings Volatility*	*Stock Return Volatility*
	LnNumTerms	*LnNumTerms*
BC	-0.152	-0.109
	(-1.43)	(-1.35)
BC*HighUncertainty	**-0.126**	**-0.116**
	(-2.04)**	**(-3.06)*****
HighUncertainty	0.134	0.111
	(3.07)***	(2.85)***
Controls	Yes	Yes
Industry FE	Yes	Yes
State FE	Yes	Yes
Year FE	Yes	Yes
Observations	1,177	1,609
R-squared	0.271	0.239

Panel B: Partition on industry HHI

	(1)	(2)
LowHHI=	HHI	HHI + Rev Share
	LnNumTerms	*LnNumTerms*
BC	-0.116	-0.117
	(-2.01)*	(-2.06)**
BC*LowHHI	**-0.099**	**-0.096**
	(-2.21)**	**(-2.29)****
LowHHI	0.139	0.141
	(2.85)***	(2.97)***
Controls	Yes	Yes
Industry FE	Yes	Yes
State FE	Yes	Yes
Year FE	Yes	Yes
Observations	2,085	2,085
R-squared	0.210	0.210

Table 6 Sensitivity Analyses

This table presents the results for sensitivity analyses on the association between business courts and design of supply contracts. Panel A reports the results for assessing parallel trend, Panel B reports the results for alternative specifications, Panel C reports the results for controlling attorney effects, and Panel D reports the results for considering potential forum selection bias. The sample period is from 1996 to 2022. All variables are defined in Appendix B. Intercepts are included, but unreported. Both panels include the full set of control variables as in column (5) of Table 3. The t-statistics are presented below the coefficients in parentheses. ***, **, and * denote statistical significance (two-sided) at the 1%, 5%, and 10% levels, respectively. Standard errors are corrected for heteroscedasticity and are clustered by the unit indicated in the table.

Panel A: Assessing parallel trend

	(1)	(2)
	LnNumTerms	*LnNumTerms*
	TWFE	Stacked DID
BC (T=-2)	0.081	0.113
	(1.04)	(0.94)
BC (T=-1)	-0.015	0.070
	(-0.16)	(0.75)
BC (T=0)	**0.026**	**0.057**
	(0.35)	**(0.48)**
BC (T=1)	**-0.414**	**-0.362**
	(-2.51)**	**(-2.02)****
BC (T≥2)	**-0.164**	**-0.164**
	(-2.66)**	**(-2.11)****
Controls	Yes	Yes
Cluster	By state	By cohort state
Industry/Cohort Industry FE	Yes	Yes
State/Cohort State FE	Yes	Yes
Year/Cohort Year FE	Yes	Yes
Observations	2,085	7,287
R-squared	0.209	0.310

Panel B: Alternative specifications

	(1) LnNumTerms	(2) LnNumTerms	(3) LnNumTerms	(4) LnNumTerms
BC	**-0.279**	**-0.472**	**-0.159**	**-0.159**
	(-3.35)***	(-2.75)***	(-2.15)**	(-2.28)**
Controls	Yes	Yes	Yes	Yes
Cluster	By state	By state	By firm	By industry
Industry FE	No	No	Yes	Yes
Industry*Year FE	Yes	Yes	No	No
Firm FE	No	Yes	No	No
State FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	2,085	2,085	2,085	2,085
R-squared	0.467	0.894	0.206	0.206

Panel C: Controlling for attorney effects

	(1) LnNumTerms
BC	**-0.150**
	(-2.54)**
Filer Executive Attorney	0.017
	(0.79)
Counterparty Executive Attorney	0.078
	(2.72)***
Controls	Yes
Cluster	By state
Industry FE	Yes
State FE	Yes
Year FE	Yes
Observations	2,085
R-squared	0.211

Panel D: Potential forum selection bias

	(1) Exclude relocation sample during [−5, +5] around the contract year	(2) Exclude contracts with governing laws from non-connected states	(3) Exclude contracts with governing laws from DE and NY
	LnNumTerms	*LnNumTerms*	*LnNumTerms*
BC	**-0.149**	**-0.158**	**-0.168**
	(-2.80)*	**(-2.33)****	**(-2.48)****
Controls	Yes	Yes	Yes
Cluster	By state	By state	By state
Industry FE	Yes	Yes	Yes
State FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	1,744	1,423	1,077
R-squared	0.223	0.252	0.280

Panel E: Exclude contracts with governing laws from state with Complex program

	(1) *LnNumTerms*
BC	**-0.152**
	(-2.59)**
Controls	Yes
Cluster	By state
Industry FE	Yes
State FE	Yes
Year FE	Yes
Observations	1,797
R-squared	0.239

Table 7 Judicial Proficiency and Organizational Structure

This table presents the results of estimating the regressions given by Eq. (3). The sample period is from 1996 to 2022. All variables are defined in Appendix B. Intercepts are included, but unreported. t-statistics are presented below the coefficients in parentheses. ***, **, and * denote statistical significance (two-sided) at the 1%, 5%, and 10% levels, respectively. Standard errors are corrected for heteroscedasticity and are clustered by firm.

	(1) Integration	(2) Integration	(3) Integration	(4) MA Integration	(5) MA Integration	(6) MA Integration
Access to BC	**−0.045**	**−0.043**	**−0.044**	**−0.013**	**−0.016**	**−0.016**
	(−2.79)*	**(−2.69)***	**(−2.77)***	**(−1.69)***	**(−2.19)**	**(−2.22)**
Size		0.008	0.008		−0.001	−0.001
		(1.88)*	(1.94)*		(−0.42)	(−0.39)
Leverage		0.004	0.004		−0.081	−0.081
		(0.31)	(0.26)		(−10.76)***	(−10.78)***
Profit		0.001	0.000		0.027	0.026
		(0.04)	(0.04)		(3.83)***	(3.81)***
Age		0.008	0.009		−0.027	−0.027
		(0.54)	(0.59)		(−3.71)***	(−3.69)***
MB		−0.001	−0.001		0.007	0.007
		(−0.59)	(−0.56)		(7.05)***	(7.06)***
CAPX		−0.010	−0.008		−0.058	−0.058
		(−0.23)	(−0.20)		(−2.60)***	(−2.58)***
Sales Growth		0.002	0.002		0.004	0.004
		(1.10)	(1.12)		(2.79)***	(2.80)***
Return		0.003	0.002		0.012	0.012
		(0.98)	(0.89)		(6.13)***	(6.12)***
RetVol		−0.161	−0.160		−0.055	−0.055
		(−6.88)***	(−6.84)***		(−4.04)***	(−4.03)***
LawsuitClimate			0.001			0.000
			(1.39)			(0.71)
GDP Growth			0.273			0.046
			(4.39)***			(1.05)
Unemployment			−0.002			0.045
			(−0.01)			(0.39)
BlueState			0.003			−0.002
			(0.35)			(−0.52)
HQ State FE	Yes	Yes	Yes	Yes	Yes	Yes
Incorp State FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	83,372	83,372	83,372	83,372	83,372	83,372
R-squared	0.556	0.557	0.557	0.283	0.288	0.288

Table 8 Judicial Proficiency and Firm Value

This table presents the results of estimating the association between business courts and firm value. The sample period is from 1996 to 2022. All variables are defined in Appendix B. Intercepts are included, but unreported. t-statistics are presented below the coefficients in parentheses. ***, **, and * denote statistical significance (two-sided) at the 1%, 5%, and 10% levels, respectively. Standard errors are corrected for heteroscedasticity and are clustered by firm.

	(1) TobinQ	(2) TobinQ	(3) TobinQ
Access to BC	**0.140**	**0.066**	**0.064**
	(2.99)*	**(2.10)**	**(2.05)**
Size		−0.304	−0.304
		(−23.62)***	(−23.59)***
Leverage		0.303	0.299
		(6.30)***	(6.22)***
Profit		−0.080	−0.081
		(−1.27)	(−1.28)
Age		−0.168	−0.162
		(−4.55)***	(−4.39)***
MB		0.398	0.398
		(39.63)***	(39.69)***
CAPX		−0.468	−0.457
		(−3.73)***	(−3.65)***
Sales Growth		−0.015	−0.015
		(−1.45)	(−1.43)
Return		−0.008	−0.009
		(−0.73)	(−0.82)
RetVol		−0.449	−0.442
		(−5.35)***	(−5.27)***
LawsuitClimate			0.000
			(0.06)
GDP Growth			1.706
			(8.45)***
Unemployment			−0.964
			(−1.85)*
BlueState			−0.035
			(−1.70)*
HQ State FE	Yes	Yes	Yes
Incorp State FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	83,132	83,132	83,132
R-squared	0.579	0.672	0.673