We'll See You in . . . Court! The Lack of Arbitration Clauses in International Commercial Contracts

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Abstract

It is a widely held assumption that sophisticated parties prefer arbitration over litigation in international agreements for three reasons. First, the flexibility granted by arbitration would allow parties to write dispute settlement clauses that are tailored to their individual preferences. Second, concerns for home biases would provide incentives to remove the dispute settlement process from either parties' domestic judicial system. And third, a greater ease of enforcement would cause parties to prefer arbitration over litigation.

This study examines the validity of these theoretical claims relying on over half a million contracts filed with the SEC between 2000 and 2016. The results suggest that arbitration clauses are less frequently adopted than clauses referring parties to the domestic court system. If they are included, arbitration clauses serve the specific purpose of strategically reducing the discretion granted to the courts enforcing the decision. Absent serious threats to enforcement, parties prefer courts over arbitration, making arbitration a second-best-alternative to a well-functioning domestic judiciary.

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1 Introduction

International arbitration is an intriguing phenomenon. Some view it as the hallmark for the settlement of cross-border disputes, arguing that it promotes efficiency of the dispute settlement process by providing a reliable enforcement mechanism (Fisher and Haydock, 1995). Arbitration is also viewed as an important instrument to overcome "hostage-taking", which originates from exchanges that require specialized investments (Williamson, 1983). Others, both in- and outside of the international commercial setting, are skeptical, pointing to the fact that arbitration creates a private and largely secret alternative court system. Some argue that, since decisions tend to not be available to the public and thus, are inadequate to establish precedent, arbitration does not provide a public good through its rendering of a decision (Landes and Posner, 1979). Others criticize the nontransparency associated with the arbitral process that would diminish its legitimacy (Lew, 1982; Buys, 2003; Gruner, 2003). However, for all debate on the normative desirability of international arbitration, it is striking how little we know about its actual use in practice.

Empirical uncertainty surrounds the question of how prevalent international arbitration is to begin with. Estimates for the share of international agreements that include arbitration clauses range from 15% to 90% (Casella, 1996; Weidemaier, 2015; Eisenberg and Miller, 2007), leading to considerable disagreement on whether arbitration is an essential pillar in the landscape of international dispute settlement or a mechanism that is used in only a narrow, more or less coherent subset of contracts.

In addition to the question *if* parties are relying on arbitration to a significant degree, it is also unclear *why* parties would prefer arbitration over courts in a commercial context. The standard narrative suggests three sets of reasons. First, arbitral proceedings, being privately organized, are believed to be more susceptible to the specific needs of the business community, in turn allowing for a more efficient resolution of the dispute. Second, it is assumed that parties have an incentive to avoid foreign courts due to concerns for home biases, and that arbitration allows them to remove the dispute from the domestic court system of either party. And third, arbitral awards are viewed as more easily enforceable than foreign court decisions. However, while all these motivations might seem theoretically appealing, so far none of them have been validated empirically.

This article then provides the most comprehensive look at the practice and relevance of international commercial arbitration to date. It uses the population of over half a million material contracts of publicly held com-

panies registered with the SEC between 2000 and 2016 to examine the role of arbitration in international contracts. The analysis yields two main findings. First, U.S. parties and those with close economic ties to the U.S. only rarely rely on arbitration. Whereas 25% of international agreements include arbitration clauses, 34% include clauses referring parties to domestic courts. Under the assumption that parties routinely opt for the optimal procedure, this implies that parties do not view arbitration procedures as more efficient than litigation. Second, there is little evidence to suggest that litigating in another countries' court is a general concern for parties. Instead, companies strategically use arbitral tribunals only if the contractual partner comes from a country with judicial institutions that pose a risk to the enforcement of a U.S. court decision. If the quality of the foreign judicial institutions is not in doubt, parties are much more likely to refer disputes to the U.S. judiciary than to arbitration.

Together, the findings shine a new light on the relevance of international arbitration in a commercial context. Whereas arbitration has often been portrayed as a broadly applicable solution to idiosyncratic problems arising out of complex international business agreements, the results of this study imply that it serves a much more limited and specific function. In particular, parties treat international arbitration as a second-best alternative to a well-functioning domestic court system that is used not in order to avoid foreign courts, but in an attempt to avoid supposedly dysfunctional court systems.

The rest of the article proceeds as follows: The next section provides the theoretical underpinnings and an overview of the empirical literature on arbitration clause usage. Section 3 describes the data used in this study. Section 4 presents the analytical results, Section 5 discusses them and a last section concludes.

2 Theory and Literature Review

The perfect contract necessarily leads to a pareto improvement. That is, it makes no party worse off while making at least one party better off than it would have been without the contract. However, in reality, such a perfect contract does not exist. Language is, by definition, imprecise and requires interpretation. Parties lack precise information about the future and thus, are unable to specify the desired outcome for every possible contingency that might be realized. And even if they could write down a precise contract and foresee all possible contingencies, monitoring is necessarily imperfect, giving rise to disagreements over whether performance in accordance to the

terms of the contract occurred or not. In short, wherever there is a contract, there is the possibility for a contractual dispute.

The Market for Dispute Settlement

Parties to a contract have the possibility to define the rules by which to solve potential disputes *ex ante*. In doing so, they act similar to consumers on a market for contractual instruments (Landes and Posner, 1979; Miller and Eisenberg, 2009; Ribstein and O'Hara, 2009). On this "market for contracts",[1] business entities are the consumers, shopping for dispute settlement forums (among others). The two main goods offered on the market that parties can use to solve their cross-border disputes are international arbitration and domestic court litigation. The most significant suppliers of arbitration are large, often private organizations such as the American Arbitration Association (AAA) and the International Chamber of Commerce's arbitration division. The supplier of court forums are the states.

The theory of optimal contract design (see e.g. Schwartz and Scott, 2003), which has been extended to the negotiation of procedural rules between sophisticated parties (Shavell, 1995; Scott and Triantis, 2006; Dodge, 2011) assumes that parties will agree on the dispute settlement mechanism that maximizes their joint utility. The market framework then assumes that arbitration organizations and states compete for a market share generated by the demand for international dispute settlement. Competition takes place on two levels. First, in the wake of *inter-industry* competition, states compete with arbitration organizations. Second, there is *intra-industry* competition, with states competing with one another and similarly arbitration organizations competing with each other. Both inter- and intra-industry competition exerts pressure on the suppliers of dispute settlement procedures to improve the efficiency of their respective settlement processes. However, while the competitive forces are comparable on a number of dimensions, the specific incentives differ between the different types of suppliers.

Arbitration organizations are incentivized by the monetary benefits they receive when being selected as the forum of choice. These benefits can be quite substantial. For example, at the International Chamber of Commerce (ICC), a dispute over $20,000,000 creates average liabilities of about $450,000 for administrative expenses and arbitrators' fees.[2] For states, the

[1] As coined by Miller and Eisenberg (2009).

[2] These numbers originate from Jones and Lloyd (2011) and have been consolidated in an ICC Arbitration Cost Calculator available at https://www.international-arbitration-attorney.com/icc-arbitration-costs-calculator/.

benefits can be both monetary and non-monetary. A study conducted by Cornerstone Research for the State of New York projects that international dispute settlement alone creates 2 billion dollars in annual revenue for law firms headquartered in the state, which amounts to about 10% of their total revenue. This number does not yet take into account additional revenue created by hotels, the gastronomy, the transportation industry etc. In addition, being the primary state forum for the settlement of international disputes allows states to spearhead the development of international business law, in turn solidifying their position as a commercial hub with substantial economic and political power (Ribstein and O'Hara, 2009).

It should be noted, however, that these benefits are reserved to a small subset of states, namely those which are most frequented. The reason lies in the existence of strong positive externalities. For instance, lawyers have a strong incentive to become well-versed in the laws and competent litigators before the courts of the states that currently attract the most litigation, because the expected return on their educational investment is highest in said states. A small court with a negligible amount of commercial disputes will have difficulties attracting the legal profession, even if it increases the efficiency of its dispute settlement procedure significantly. Against the backdrop of these positive externalities, it becomes clear that only a limited number of countries and states such as the U.K., New York, Delaware, California or Texas have an incentive to compete on the market for dispute settlement provisions, whereas smaller courts do not have a substantial incentive to attract more litigation and might in fact be better off reducing their docket as much as possible.

Comparing Arbitration to Courts

In the literature, it is a widely held assumption that the recent increase in the transnational movement of goods and services has lead to an increase in the popularity of arbitration as the primary dispute settlement mechanism in international contracts (Knull III and Rubins, 2000). Many even believe that arbitration retains the majority of the international dispute settlement market (Knull III and Rubins, 2000; Stipanowich, 2009; Craig, 2010; Menon, 2014; Wagner, 2014). There are several theoretical arguments for this conjecture which can broadly be collected under two distinct categories.

The first category of arguments pertains to supposed efficiency of arbitration and applies both in an international and in a domestic context. Arbitration is believed to be more flexible than courts, allowing disputes to be settled faster and cheaper. The reason is that arbitration is not bound

to the same procedural rules as courts. Many arbitration institutions offer their users a lot of room to customize the dispute settlement process, e.g. by limiting or avoiding discovery, preventing the use of motion practice or by setting fixed time limits for each stage of the process (Stipanowich, 2009). It is believed that this discretion is used by the parties to streamline the procedure, leading to a fast and efficient resolution of disputes (Fisher and Haydock, 1995). In addition, arbitration as a private dispute settlement process is confidential, which is especially relevant to commercial disputes in which parties often have a significant interest not to reveal certain information pertaining to their businesses to the public. Also, arbitration commonly allows parties to choose their own arbitrators and many large arbitration organizations provide their users with a subject specific list of experts from which the parties choose their arbitrators (Franck, 2006). This is believed to result in greater expertise of the adjudicator who is then better suited to resolve a dispute in the interest of the parties (Knull III and Rubins, 2000).

The second set of arguments for why arbitration is viewed as superior to litigation pertains specifically to dispute settlement in an international context, where arbitration is perceived as especially relevant for two reasons. First, parties are assumed to have a fundamental distrust in each others' court systems due to the possibility for home bias (Drahozal, 1999). Arbitration in a neutral, third country is viewed as a way for parties to circumvent these potential biases. Second, the enforcement of arbitral awards is considered easier than the enforcement of foreign judicial decisions. Most commentators see the reason in the existence of an international legal regime that governs the enforcement of arbitral awards, most importantly the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards, which is often referred to as a "cornerstone" in the international transactional environment (Van den Berg, 1981). The treaty greatly reduces the discretion domestic courts have in reviewing the legality of arbitral awards rendered in another member state. In this way, arbitration is viewed as helping parties incorporated in states with a weak judiciary to overcome the commitment problem they face. Foreign judgments lack a comparable international institutional framework and thus, their enforcement faces a greater threat of non-compliance (Bühring-Uhle et al., 2006; Wagner, 2014).

However, while all these considerations seem intuitively appealing, the underlying assumptions leave room for doubt. Consider first the claim that arbitral proceedings are more efficient and better able to cater to the preferences of commercial parties. The underlying scholarly debate often focuses on efforts by arbitration organizations to improve the efficiency of

their procedures while neglecting that states have powerful incentives to retain a large share of the market as well, as discussed above. This then leads to the incorrect assumption that arbitration organizations have successfully catered to the preferences of commercial parties while traditional court systems are inflexible and too cumbersome to be frequently relied upon in a business environment. There is substantial evidence to suggest otherwise. For instance, since 1992, twenty-eight states in the U.S. have created specialized business courts designed to handle complex commercial disputes more efficiently and with greater expertise. Dammann (2016) shows that the creation of these courts is associated with a subsequent increase in firm performance. State courts, especially those characterized as "textualist" such as New York (Dammann and Hansmann, 2009; Gilson et al., 2014), often pay great attention to develop a jurisprudence that maximizes predictability with the goal to minimize uncertainty in business dealings.[3] Contractual waivers of provisions viewed with skepticism by the business community, such as jury trials and punitive damages, find increasing acceptance by courts. And even under the assumption that arbitration provides parties with more flexibility in designing their preferred dispute settlement process, some scholars are doubtful that parties adequately take advantage of this flexibility. For instance, Stipanowich (2009) cautions of the increased tendency to turn arbitration into just another form of litigation, with discovery processes and submissions of evidence comparable to U.S. litigation. This, in turn, would

[3]See e.g. the position of courts in New York in regards to the "four corners" rule: *[The four corners] rule imparts "stability to commercial transactions by safeguarding against fraudulent claims, perjury, death of witnesses * * * infirmity of memory * * * [and] the fear that the jury will improperly evaluate the extrinsic evidence." (Fisch, New York Evidence § 42, at 22 [2d ed].) Such considerations are all the more compelling in the context of real property transactions, where commercial certainty is a paramount concern.* (W.W.W. Assocs., Inc. v. Giancontieri, 77 N.Y.2d 157, 162, 566 N.E.2d 639, 642 (1990)); Regarding refiling financial statements after a name change as an expression of a general duty to act in good faith: *While UCC 1-203 provides that every contract or duty within the UCC imposes an obligation of good faith in its performance or enforcement, to impose a generalized duty to refile, not fairly precisely fixed in a particular section of the UCC, would upset the preference for definiteness, regularity and predictability in commercial dealings.* (Fleet Factors Corp. by Ambassador Factors Div. v. Bandolene Indus. Corp., 86 N.Y.2d 519, 519–20, 658 N.E.2d 202 (1995)); On the applicability of a choice of law clause: *New York has an overriding and paramount interest in the outcome of this litigation. It is a financial capital of the world, serving as an international clearinghouse and market place for a plethora of international transactions, such as to be so recognized by our decisional law (Intercontinental Planning v Daystrom, Inc., supra, at pp 383-384). (...) In order to maintain its pre-eminent financial position, it is important that the justified expectations of the parties to the contract be protected.* (J. Zeevi & Sons, Ltd. v. Grindlays Bank (Uganda) Ltd., 37 N.Y.2d 220, 227, 333 N.E.2d 168 (1975))

annul many of the benefits in speed and costs arbitration is supposed to provide. Yet other commentators criticize that arbitration has the potential to lead to unexpected outcomes, since arbitrators are paid by the parties and thus have an incentive to "split the baby" (Farber and Bazerman, 1984; Dammann and Hansmann, 2009).[4] Together, these rationales raise serious doubts as to the supposed advantage in efficiency of the arbitral process.

Consider now the claim that arbitration is especially popular in international contracts due to concerns for home biases. While home bias might be of concern in some commercial contracts, many countries are perceived to have a well developed judicial system that is largely immune to influences from political or private parties. Given that most cross-border business is conducted between highly developed countries with an independent judiciary, it seems questionable why the potential for disparate treatment should be a major concern in a majority of commercial contracts. Instead, it seems reasonable to assume that arbitration is especially popular in contracts between companies from jurisdictions with vastly different judicial quality, whereas it is of less relevance if judicial quality is not a concern.

Regarding the consideration that the New York Convention would ease the enforcement of a decision rendered outside of the country in which it is enforced, it should be noted that even for arbitration awards, the domestic judiciary does not necessarily become a passive bystander. While the New York Convention intends to prevent domestic courts from reevaluating the merits of an arbitral award, survey evidence suggests that the perception of the ease with which an award can actually be enforced differs significantly by country. Indeed, respondents in a 2008 survey on the enforcability of arbitration awards described many developing countries as hostile towards the enforcement of foreign arbitral awards, echoing concerns that the domestic judiciary will not assist foreign parties in their efforts to enforce.[5] Due to the impossibility to eliminate the role of the judiciary as the final decision maker in the process of enforcing a claim arising out of an international contract, it is thus possible that assertions focusing on the easier enforcability under the New York Convention are overstated. To be sure, this does not necessarily imply that enforcement considerations are irrelevant. Even absent the New York Convention and similar treaties, arbitral awards might be easier to enforce simply because the enforcement of a privately issued opinion does not infringe on a nation's sovereignty in the same way that the enforcement

[4]However, the validity of this argument remains questionable in the light of a wave of most recent studies on the amount granted in arbitration awards, see Weber et al. (2014).

[5]See Lagerberg and Mistelis (2008).

of a foreign decision does. Indeed, ratification of the New York Convention could merely be a reflection of states' greater willingness to enforce arbitral awards in the first place, with the treaty not changing state preferences over enforcement in an observable way (Downs et al., 1996).

Existing Empirical Evidence

While a theoretical assessment does not provide a clear answer as to the relevance of arbitration in an international commercial framework, the empirical landscape on arbitration usage is similarly inconclusive. Scholars often point to a reported increase in the rates of arbitration filings at the large arbitral organizations as an indication for its increasing popularity and widespread acceptance. For example, in 2016 alone, the International Chamber of Commerce (ICC) reports an increase in their caseload by 20%, compared to the previous year.[6] However, caseload alone is a poor indicator for the popularity of international arbitration, as the difference could be solely driven by an increase in international commercial activity and does not take into account the number of cases that are resolved through informal means such as negotiations (Wagner, 2014).

A second piece of empirical evidence often employed are surveys. In surveys on arbitration usage in practice, respondents commonly report quite high usage rates. For instance, the periodic International Arbitration Survey consistently reports that about 90% of their respondents prefer arbitration over other forms of dispute settlement.[7] The usage rates in the Litigation Trends Annual Survey are somewhat more modest, even though arbitration is more popular than litigation here as well, with 48% of surveyed companies in the latest survey reporting a preference for arbitration over litigation in international contracts.[8] However, both surveys struggle with a significant share of non-respondents. They ask detailed questions about a companies' arbitration practice that imposes a considerable research cost on its respondents. It is thus likely that those most interested in international arbitration are the most likely to respond, potentially subjecting the studies to severe response bias. In addition, since the surveys prime the respondents to trade off arbitration against courts, reported rates could differ significantly from actual usage rates.

For a long time, conducting quantitative studies analyzing the *de facto*

[6] See https://iccwbo.org/media-wall/news-speeches/icc-reveals-record-number-new-arbitration-cases-filed-2016/

[7] For the latest survey, see Friedland and Mistelis (2015).

[8] See Pecht (2015).

prevalence of international arbitration clauses was difficult due to a lack of comprehensive and accessible data on international commercial contracts. Scholars were thus limited to anecdotal evidence[9] or samples provided by third parties, which tend to employ an nontransparent procedure to preselect the contracts they make available.[10] It is only more recently that scholars have begun to sample contracts either directly from the SEC or through the use of LexisNexis, which is not subject to any known selection biases.[11]

Among the quantitative studies on the usage rate of arbitration clauses, two stand out in particular for their extensive and rigorous approach to the analysis. The first is a study by Eisenberg and Miller (2007). They analyze 272 international contracts filed with the SEC in 2002 and find that arbitration clauses are used in only 20% of international agreements. The other is a recent study by Weidemaier (2015) relying on a hand-coded sample of 136 international contracts in the SEC database filed between 2000 and 2012. Weidemaier finds that 61% of those contracts include arbitration clauses. Both studies employ a rigorous process to analyze the contracts at hand, but the results vary widely. There are several potential reasons for this discrepancy. The overall sample size for international contracts is modest and because neither study controls for contract characteristics, it is possible that observed differences in arbitration clause usage are caused by differences in the contracts studied.[12] For instance, joint venture agreements are particularly likely to include an arbitration clause and are disproportionately concluded between parties from different countries. Further, the study by Eisenberg and Miller (2007) is a cross-section of 2002, whereas Weidemaier (2015) tracks usage rates over time. Lastly, Eisenberg and Miller (2007) sample their contract directly from the SEC, whereas Weidemaier (2015) accesses the agreements through Bloomberg Law using search terms and selection algorithms capable of introducing biases.[13]

[9] For example, Casella (1996) relies on anecdotal evidence by the Netherlands Arbitration Institution, which states that 80% of international contracts include arbitration clauses.

[10] For example, Drahozal and Naimark (2005) study 17 international joint venture agreements between 1993 and 1996 that have been preselected by the University of Missouri-Columbia's Contracting and Organizations Research Institute. They find that 88% include arbitration clauses, but because it is unclear how the Institute preselects its agreements, extrapolation to any broader population of contracts other than those studied is problematic.

[11] See e.g. Drahozal and Ware (2010), who procure a sample of 31 joint venture agreements submitted in 2008 through LexisNexis and find that 71% of them include arbitration clauses.

[12] While Eisenberg and Miller (2007) run regressions controlling for contract type, those are limited to the full set of contracts which predominantly include domestic contracts.

[13] In particular, instead of sampling from all agreements, a search query subsets agreements to those of a specific type, resulting in only 700 agreements per year from which a

Overall, it appears that prior empirical studies do not provide clear guidance on the importance of international arbitration, a state lamented by scholars calling for more comprehensive empirical evidence as a precondition to understanding the role of arbitration in today's business environment Born (2014); Drahozal (2016).

3 Data & Methodology

The data set studied here is based on all filings of 'material contracts' with the SEC through its electronic filing system EDGAR between 2000 and 2016. The SEC requires registered companies to report every "material contract", which encompasses "[e]very contract not made in the ordinary course of business which is material to the registrant."[14]. Companies registered with the SEC are those that made a public offering or have "total assets exceeding $10,000,000 and a class of equity security (...) held (...) by five hundred or more persons."[15]. The lack of a precise definition of the word "material" provides these companies with some discretion in deciding which agreements to disclose. However, this discretion is limited by general principles established in judicial decisions or administrative guidelines taken into account by the companies.[16] For instance, since the purpose behind this and similar disclosure rules is to remove information asymmetries and allow investors to make informed investment decisions, the SEC staff typically applies the standard established by the Supreme Court in *Basic v. Levinson*[17] when determining whether information falling under a disclosure requirement is "material." Accordingly, materiality implies that "'there is a substantial likelihood that a reasonable shareholder would consider [the contract] important' in making an investment decision."[18] In practice, contracts that meet this definition are often asset and stock purchasing agreements, loan contracts as well as agreements governing the employment and compensation of key employees such as CEOs. SEC staff actively monitors the compliance of companies with the contract disclosure requirement and notifies them if the financial

sample of 40 is drawn.

[14]17 C.F.R. § 229.601(b)(10)(i)

[15]See Securities Exchange Act § 12(g)

[16]See Correspondence between Marketo, Inc. and the SEC staff about Marketo's procedure on how to determine disclose requirements, available at https://www.sec.gov/Archives/edgar/data/1490660/000110465914004115/filename1.htm (dated January 24st 2014).

[17]Basic Inc. v. Levinson, 485 U.S. 224, 108 S. Ct. 978, 99 L. Ed. 2d 194 (1988).

[18]SEC Release No. 33-7881 (Aug. 75, 2000).

statements indicate an omission.[19]

Companies attach the agreements to their annual reports (Form 10-K), quarterly reports (Form 10-Q) and to reports filed due to important events and changes between quarterly reports (Form 8-K). Similar provisions exist for foreign companies, who have the option to report using Forms 20-F and 6-K. In addition, during Mergers & Acquisitions, the relevant contracts are reported as exhibits to Form S-4. The electronic forms and exhibits are available for all registered companies through the SEC Electronic Data Gathering, Analysis, and Retrieval system (EDGAR) from its establishment in 1996 to 2016. Because the SEC has continuously changed and extended the filing requirements through EDGAR pursuant to the system's phase-in in 1996, this study is limited to contracts filed between 2000 and 2016, when filing requirements were largely uniform for the forms examined here.[20].

Overall, the data set includes 780,689 agreements. Of those, 272,837 filings are dropped because they are duplicates or mere amendments to already existing contracts, leaving a total of 507,852 unique contracts submitted by a total of 18,641 companies.

Identifying International Agreements

In order to identify which agreements are international and which are domestic, it is necessary to obtain information on the parties of the agreement. EDGAR includes data on the party that made the filing and its industry. The filing party is assumed to be the first party to the contract and its industry is assumed to be the industry pertaining to the contract. A search algorithm based on regular expressions then identifies the paragraph in the contract that includes the parties to the dispute. The algorithm is described in detail in the Appendix. For purposes of illustration, below is one of those paragraphs:

This Note Exchange Agreement (this "Agreement") is made and entered into as of April 2, 2009, by and among (i) Sculptor Finance (MD) Ireland Limited, Sculptor Finance (AS) Ireland Limited and Sculptor Finance (SI) Ireland Limited (the "Existing Noteholder"), (ii) OZ Master Fund, Ltd., OZ Asia Master Fund, Ltd. and OZ Global Special Investments Master Fund, L.P. (collectively, the "Existing Warrant Holders," and together with the Existing Noteholders, the "Holders"), and (iii) Network CN Inc., a Delaware corporation (the "Company").

[19] Id.

[20] For example, in 1999, the SEC allowed submission of filings in HTML format (and the attachment of PDFs), which made filing much easier and is by far the most frequent form of submission today.

The program scans this and similar paragraphs for the mention of any of the 630,106 companies and individuals that have ever disclosed information through filings with the SEC, as well as the mention of foreign companies that are not registered with the SEC by searching for country names in their noun and adjective form. For example, in the paragraph above, the parties under (i) are not registered with the SEC but are found by and associated with the country of Ireland due the mention of the country in its noun form. The parties' place of incorporation then determines whether the contract is a contract only between U.S. parties (*U.S.–U.S.*), an international contract (*U.S.–Foreign*) or an entirely foreign contract (*Foreign–Foreign*).[21]

Identifying Contract Characteristics

Next, it is necessary to identify whether a given agreement includes a forum selection clause and if so, what type of dispute settlement provision the parties agreed on. Due to the large number of contracts, a machine learning algorithm is required that is able to identify forum selection provisions. To achieve this goal, 5,226 paragraphs are coded by hand for their inclusion of dispute settlement clauses. The paragraphs are then randomly divided into a training set and a test set. Using the training set, a Naive-Bayes classifier[22] is trained to identify words and word-combinations that are most indicative of each type of dispute settlement clause. The classifier is then used to predict the types of paragraphs in the test set, which in turn allows for an assessment of the classifier's performance.

The approach correctly classifies 99.88 percent of the paragraphs. However, the correct classification rate alone can be misleading, since it does not take into account the number of relevant items. For instance, for a test set consisting of 99 irrelevant and 1 relevant paragraphs, a simple algorithm that always considers all paragraphs irrelevant would achieve a correct classification rate of 99 percent. This is why –in addition to the correct classification rate– studies in information retrieval and machine learning use precision, recall, F_1 scores and Matthew's Correlation Coefficients (MCC) to assess the quality of automated classification procedures.[23] Together, these

[21] When the place of incorporation is not available in the SEC database, the location on file is used.

[22] For a thorough examination of the performance of the Naive-Bayes classifier, see Rish (2001). While there are other popular options available, the Naive-Bayes classifier yields the best results.

[23] Let TP be the number of true positives, i.e. the number of correctly classified forum selection clauses; FP the number of false positives, i.e. the number of paragraphs that have incorrectly been classified as forum selection clauses when they are not; TN the number

can be thought of as relative measures of performance that take into account the total number of relevant items. The classifier trained here achieves a precision of 0.89, a recall of 0.94, and an F1-Score as well as a Matthew's Correlation Coefficient of 0.91. It can thus be considered as very accurate, with no strong tendency for false positives or negatives.

The assessment of the classifier is further complemented by inspecting the Receiver Operating Characteristic (ROC) curve. The ROC curve plots the rate of false positives against the rate of false negatives for each unique predicted probability. Intuitively, it can be viewed as an indication of how well the classifier can discriminate between forum selection clauses and other text for different thresholds. The area under the ROC is bounded between 0 and 1, with a classifier that perfectly discriminates yielding area of 1 under the ROC. Figure 1 plots the ROC curve. The area under the ROC is 0.98, implying that the classifier is very good at discriminating.

A similar process is used to identify whether a contract includes a clause specifying the substantive law governing the contract and if so, which law governs. In a last step, a combination of search terms / phrases and regular expressions is used to identify the type of the document (e.g. employment contract, credit / loan agreement etc.) and the form of the document (e.g. agreement, plan, policy). The entire procedure is described in greater detail in the Appendix.

Summary Statistics

Tables 1, 2 and 3 contain summary statistics describing the data. As can be seen, 10% of contracts are international in nature and only 1% of contracts does not include a U.S. party at all. Overall, 44% of contracts

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of true negatives, i.e. the number of correctly classified paragraphs that are not forum selection clauses; and FN the number of false negatives, i.e. the number of paragraphs that have been classified as not containing a forum selection clause when in fact they do. Then

$$Precision = \frac{TP}{TP+FP}$$

$$Recall = \frac{TP}{TP+FN}$$

$$F_1 = 2 \cdot \frac{Precision \cdot Recall}{Precision+Recall}$$

$$MCC = \frac{TP \cdot TN - FT \cdot FN}{\sqrt{(FT+FN)(TP+FN)(TN+FP)(TN+FN)}}$$

specify some sort of dispute resolution mechanism, where 30% specify that dispute resolution should take place before national courts and 19% opt for arbitration.[24] At the same time, clauses that specify the governing law are very common, appearing in 74% of the contracts. Most contracts in the data set are employment contracts (21%) but international employment contracts are relatively rare (5%). Lease, consulting, employment, licensing and joint venture agreements have a higher propensity to include an arbitration clause than a court selection clause, with joint venture agreements being the contract type most likely to include an arbitration clause (44%) and also with the highest share of international contracts (41%). The agricultural industry is the industry most likely to rely on arbitration, though with only 13 observations, those results are of questionable reliability. Other than agriculture, all industries are more likely to rely on courts than on arbitration.

Figures 2, 3, 4 and 5 depict the use of forum selection and governing law clauses over time. First, it should be noted that the use of forum selection clauses overall increases over time, which could indicate an increase in the awareness of the parties for the dangers of leaving the forum in which disputes should be settled unspecified. Second, international (U.S.–Foreign) contracts are more likely to include a forum selection clause than domestic contracts. However, both of these differences are largely driven by trends in dispute resolution through a national court system, where there is both a sizable difference in usage rates between domestic and international agreements as well as an increasing trend over time. For arbitration, the rates between domestic and international contracts are very similar and remained stagnant over the period of examination. If no U.S. party is involved, arbitration is most likely to occur. Lastly, it is somewhat more likely to find clauses specifying the substantive law in international contracts than it is to find them in domestic contracts, though the rate of such clauses remained high for both kinds of contracts over the entire period of observation.

Next, Tables 4 and 5 indicate which dispute settlement forums are the most prominent in domestic, international and foreign contracts. Note that these numbers represent dispute settlement forums conditional on the parties opting for the respective dispute settlement device (e.g. the propensity to choose New York, given that courts are the forum of choice). New York courts are by far the most popular, with 34% of domestic contracts designating New York as their court forum of choice. Interestingly, with 45% this share is even greater in international contracts. For both domestic

[24]Note that the dispute resolution mechanisms are non-exclusive. For example, a contract might refer only a subset of issues to arbitration.

and international contracts, Delaware courts are the second most opted for, with California courts third. The other jurisdictions are rarely used. As for arbitration organizations, first note that for international contracts, if parties opt for arbitration, it is usually outside of one of the established arbitration organizations. Surveying a random sample of 100 of those contracts suggests that parties commonly tend to either (1) specify the arbitral proceeding in great detail, including the number of the arbitrators, the venue and the applicable procedure, thus making the specification of an international arbitration organization partially obsolete; or (2) make a vague remark indicating that their disputes should be solved through arbitration, without specifying anything about the arbitral procedure. Second, while naturally, domestic contracts rely on the American Arbitration Association (AAA) more frequently than international contracts, the AAA is still the most popular established arbitration organization in international and in foreign contracts. The International Chamber of Commerce (ICC), which is often characterized as the most important arbitration organization for international commercial contracts, is relied upon only rarely.

Limitations

Before moving forward, it is important to highlight two limitations of the data set. First, the contracts studied here are part of the filing requirement of the SEC. As such, all contracts in the data set include at least one party with substantial economic ties to the U.S. Similarly, contracts with some sort of relationship to the U.S. are overrepresented in the sample. Even though the data set includes a subset of contracts with only non-U.S. parties, even these contracts should not be understood as being representative of commerce conducted outside of the U.S. Instead, the data is best understood as a representation of how U.S. companies and those with strong economic ties to the U.S. act in a domestic and international commercial context.

A second limitation lies in the fact that all contracts reported here are "material" and outside the "ordinary course of business." As such, they do not represent contracts concluded in the day-to-day business dealings of a company, but only those with significant potential interest to shareholders. Some have argued that this subsets the population of contracts to those contracts that are least likely to include arbitration clauses, because arbitration is predominantly used for transactions of small value (Drahozal and Ware, 2010). However, while it is difficult to ascertain the merits of this claim without data on small stakes contracts, it should be noted that the underlying theory is at least inconsistent with the descriptive statistics presented above.

For example, the same theory assumes –by extension– that arbitration is rarely found in M&A contracts due to their character as bet-the-company contracts, which regularly involves very significant economic stakes. Table 2 does not support this conjecture, indicating that, with 23% of domestic and 31% of international contracts, M&A agreements regularly include clauses referring parties to arbitration. In addition, the contracts studied here are the ones most likely to receive significant care and attention in their design (Eisenberg and Miller, 2007). If the economic stakes are small, transaction costs incurred by elaborate negotiations can quickly exceed the marginal gain attained by specifying an efficient forum, making it more likely that the issue of specifying a dispute settlement forum is solved through standard clauses or not at all. The observed choice of forum is then less reflective of the parties' preferences towards dispute settlement and more reflective of other factors such as norms, standards and convenience. Nonetheless, it is acknowledged that inferences drawn based on this data set should be cabined to material contracts. Future research aimed at examining the extent to which the findings are applicable to non-material contracts could provide an informative and necessary contribution in the future.

4 Analysis

The descriptive statistics alone are sufficient to refute the claim that arbitration is the predominant dispute settlement mechanism in either domestic or international commercial contracts.[25] However, they do not directly speak to the motivation for parties to choose between both available instruments. This section supplements the descriptive statistics with additional analyses aimed at understanding when and why arbitration is used in an international commercial context.

4.1 Greater Efficiency of the Arbitration Process

As discussed above, one often suggested motivation for parties to rely on international arbitration is its flexibility, which would allow parties to tailor procedures to their individual preferences. Under the assumption that companies choose the forum that is optimal for their needs, the descriptive statistics seem sufficient to refute this conjecture. Given that court clauses

[25] With the mentioned caveat that these are all material contracts with some relationship to the U.S.

are more prevalent than arbitration clauses in both domestic and international agreements, it appears that parties, on average, view courts as the more efficient instrument to settle their disputes. However, one observation that might give pause is the fact that the dispute settlement process is strongly centered around the U.S., with New York being the most popular court forum and the AAA being the most popular arbitration organization. This could indicate a disparity in bargaining power, with U.S. companies successfully imposing their preferred dispute settlement process onto their foreign counterparts. If true, the specific forum choice would then be a mere reflection of U.S. company preferences to litigate most of their disputes in the U.S. However, the observed choice of dispute settlement device would then be a poor proxy for the overall efficiency of the instrument.

In order to investigate the possibility that U.S. companies impose their preferred dispute settlement provisions, I consider the influence that U.S. and foreign companies have on the wording of the dispute settlement clause. In particular, I calculate similarity scores for each company in the data set that represent how similar the forum selection clauses a company uses are. If U.S. companies get to dictate the terms of the forum selection clauses to non-U.S. companies, it should be the case that clauses used by U.S. companies look more similar to one another than clauses used by non-U.S. companies, since U.S. companies get to reuse their preferred clause repeatedly when contracting with non-U.S. companies, whereas non-U.S. companies use forum selection clauses that change with each U.S. counter party. U.S. companies should thus have higher similarity scores than foreign parties.

The similarity of two documents can be measured as the cosine similarity of their respective frequency-inverse document frequency (tf-idf) vectors (Baeza-Yates and Ribeiro-Neto, 1999; Manning et al., 2008). tf-idf vectors are a representation of how important a word is in a document, given its prevalence in all other documents. They can be thought of as a numeric representation of the characteristic terms in a given document using vectors in a high-dimensional space. The cosine between two vectors is a representation of the angle between them, with a small angle between two very similar vectors having a cosine close to 1 and a wide angle between two dissimilar vectors having a cosine close to -1. tf-idf vectors are restricted to the positive occurrence of words, such that the cosine similarity is bounded between 0 and 1, with a value close to 1 indicating a high degree of similarity and a value close to 0 indicating a lot of dissimilarity. To illustrate how the cosine similarity translates into differences in the actual wording of a clause, the Appendix includes two clauses that have a cosine similarity that is close to 1 and two clauses with a similarity of 0.6. The similarity score for each com-

pany in the data set is computed by collecting all its forum selection clauses, computing their cosine similarity pairwise and then taking the average over all similarities. If companies do not negotiate forum selection clauses, there should be a substantial amount of companies with similarity scores close to 1. If, on the other hand, dispute resolution clauses are negotiated every time, then the clauses a company uses in its contracts should look largely dissimilar, with most companies receiving a low similarity score.

Table 6 compares the difference in the means and distributions of similarity scores for U.S. companies and for foreign companies using a T-test and a Kolmogorov-Smirnov Test. If U.S. companies impose their clauses, then they should receive higher similarity scores than foreign companies, as U.S. companies get to repeatedly use the same (or a similar) clause in their international contracts, whereas foreign companies have to use the clause offered by their changing U.S. counterpart. As can be seen, neither the means nor the distributions of similarity scores are substantively or statistically significantly different between U.S. companies and those incorporated outside of the U.S.. Hence there is no evidence to support the conjecture that U.S. companies impose their preferred dispute settlement mechanism on foreign parties. Under the assumption that parties are choosing the dispute settlement process that is most beneficial to them, the descriptive statistics thus suggest that, on average, litigation is indeed viewed as more efficient than arbitration.

4.2 Concerns for Court Biases

As discussed, many commentators believe that international contracts are more likely to include arbitration clauses than domestic contracts because parties are generally skeptical of another nation's courts. If true, we should be able to observe that parties substitute court provisions for dispute settlement clauses if the the agreement is international. At the same time, they should substitute arbitration clauses for court clauses in domestic agreements. In order to examine whether such a dynamic is at play, I run two separate logit regressions. The first regresses arbitration clause usage on an indicator variable for whether a contract is international. The second regress court clause usage on the same international indicator variable.[26] I then compare the results of both regressions.

Table 7 depicts the outcome for arbitration clause usage rates.[27] Mod-

[26] Recall that a contract can include both arbitration and court selection clauses and thus, a single regression will not obtain the relevant quantity of interest.

[27] More detailed tables specifying the fixed effects are included in the Appendix.

els (1) to (3) include time-fixed effects. The first Model does not include any further control variables. Model (2) includes fixed effects for the 11 industries in which the contracts can be concluded, the 15 types of contracts and 8 different formats. Model (3) includes interaction effects between the indicator for international contracts and the industry, as well as the type of the contract. This is in order to allow the rate at which international contracts use arbitration clauses differently from domestic contracts to vary with industry and type. Model (4) includes time not as a fixed effect, but as a numeric variable in order to analyze time trends in arbitration clause usage. It also interacts this linear time trend with the dummy variable on international contracts to analyze whether the gap in arbitration clause usage between domestic and international contracts increased or decreased over time. Foreign contracts with no U.S. party are omitted from the analysis. As can be seen, regardless of the model specification, international contracts do include more arbitration clauses than domestic contracts. However, contrary to popular belief, this is a trend that has not been increasing over time. Indeed, the coefficient on the time trend is negative, suggesting that the use of arbitration has slightly declined over the past years. There also is no statistically significant difference in time trends for domestic and international contracts, suggesting that that both types of contracts used arbitration at a decreasing rate for time.

Table 8 depicts the outcome for court clause usage and paints a similar picture. International contracts are significantly more likely to include a clause that refers dispute settlement to the courts than domestic contracts. Contrary to the slight decrease in usage rates over time for arbitration, the use of forum selection clauses referring parties to courts has increased for both for domestic and international contracts, though for international contracts at a slower rate.

In order to make the coefficients in both regressions comparable, Table 9 translates the findings into average marginal changes in dispute settlement clause usage rates across all contracts. What can be seen is that the average change in usage rates for arbitration clauses between domestic and international contracts is 4-5%. This difference is more pronounced in the case of court clauses, where the average difference between usage rates is 4-17%, depending on model specification. This finding suggests that parties' primary response to the internationality of an agreement is not the inclusion of an arbitration clause, but that the inclusion of a court clause is at least as common, if not more common.[28] Concerns for home biases thus seem an

[28]The only exception is Model (2), where the increase in arbitration clauses is 1% higher

unlikely motivation for parties to rely on international arbitration.

4.3 Enforcement Concerns

A third supposed reason to prefer arbitration over litigation in international agreements is a suggested ease in enforcability of arbitration clauses. If true, then arbitration should be especially relevant in a context that appears particularly challenging to the enforcement of foreign court decisions. At the same time, parties should be more likely to rely on courts in environments that pose no serious risk to the enforceability of a foreign judgments.

To assess the presence of this dynamic, I first subset the data to all international contracts, where each observation is a contract with a country dyad. Each dyad consists of at least one U.S. party and one foreign party (i.e. *U.S.–Canada*, *U.S.–France* etc.).[29] The country dyads allow for combining the contractual data with country-specific covariates.

Table 10 displays the number of dyads between U.S. companies and selected countries in the data set, together with the rate at which arbitration clauses and court selection clauses occur and how often disputes are settled in U.S. courts. What can be noticed immediately is that arbitration rates vary widely by country, with the Virgin Islands having the lowest rate with 7% of contracts and Ghana having the highest rate with 60%. A second noticeable feature is that litigation occurs almost exclusively in U.S. courts, with the only striking exception being Argentina, where U.S. courts are referred to in only half the contracts. Unsurprisingly, most cross-border relationships to which a U.S. company is a party are concluded with Canadian companies, followed by those incorporated in the United Kingdom and China. Another important aspect of the table is that arbitration is particularly rare in countries that are considered tax havens.

I now complement the data set with two measures of legal institutional quality. The first measure is the World Bank's World Governance Indicator on the Rule of Law. The indicator "captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence." (Kaufmann et al., 2009). It is one of the standard indicators for measuring the rule of law in the literature on institutional economics and development (see

than that for court clauses. However, the consistency across all other model specifications suggests that this is a spurious finding.

[29] Contracts with more than one foreign party are excluded, since it is not possible to accurately determine country dyads.

e.g. Rigobon and Rodrik, 2004; Ginsburg, 2005; Licht et al., 2007; Berggren and Bjørnskov, 2013). Note that the indicator is not only influenced by judicial performance, but also by perceptions of other organs such as the police. To ameliorate potential concerns with how broadly this measure is defined, the analysis is supplemented with a popular indicator for *de facto* judicial independence introduced by Linzer and Staton (2015), measuring the underlying latent quantity of judicial independence that is the subject of the investigation of several other studies up to the year 2012. In doing so, the indicator combines information derived from state departments, expert surveys and objective measurements.

Compiling the data in this way, I regress arbitration- and court-clause usage on the different measures of judicial institutional quality. The underlying rationale is that enforcement concerns should make it likely for companies to rely on U.S. courts if and only if the counter-party is incorporated in a country with a reliable judiciary that does not pose a serious threat to the enforcement of foreign court decisions. If, however, judicial quality poses a serious threat to the enforcement, companies should opt for arbitration instead.

To be sure, both measures for judicial quality used here are not a direct proxy for enforcement probability. In particular, one might contend that a low rule of law score is correlated not only with difficulties at the enforcement stage, but also at the initial trial stage. Thus if companies opt for arbitration in the face of low judicial quality, this could simply mean that these companies do not wish to litigate initial disputes before a dysfunctional court system. However, the previous analysis makes this interpretation unlikely. In particular, what was shown is that parties generally prefer litigation over arbitration. If their only concern was to avoid initial litigation before a dysfunctional court system, parties could simply opt for U.S. courts instead of the dysfunctional court system. However, if they respond to low judicial quality not by choosing courts but by opting for arbitration as a second-best alternative, it would suggest that parties are not worried about the initial stage of litigation, but about consecutive enforcement of the decision.

As mentioned, one important feature of the data is that arbitration is particularly rare in contracts between U.S. companies and those inorporated in tax heavens. These contracts could potentially look very different from the rest of the contracts, given that the contractual partner could closely resemble a U.S. company by substance and be incorporated outside of the U.S. only for tax purposes. All regressions thus control for whether the country of incorporation is considered a tax heaven, where the categorization is adopted from Dyreng and Lindsey (2009). In addition, it is possible that

forum choice is a function of the marginal costs of litigation, with companies being more likely to litigate if they share a common legal system. The regressions thus control for the legal system in the country of incorporation. Also included are the GDP and inflow of foreign direct investments on the country level as potentially relevant for the amount of cross-border commerce. This information is obtained from the World Bank's World Development Indicators.[30] Because data on economic covariates is sometimes incomplete, missing values are imputed by imputation based on the EMB algorithm (Honaker and King, 2010), using the Amelia II package for R (Honaker et al., 2011).

All models also control for contract type, industry and format, as well as an indicator for whether a country is a party to the New York Convention. Though desirable, a model specification including country-fixed effects is not informative due to very low within-country variation of the outcome measures that is often caused by changes in the individuals surveyed.[31] The within-country variance can thus not be explained meaningfully. To nonetheless address concerns about unobserved heterogeneity, all model specifications include region-fixed effects.

The results are presented in Table 11. As can be seen, arbitration clauses are more prevalent if the foreign company scores low on the rule of law or judicial quality index and less prevalent if it scores high. On the flipside, court selection clauses become more prevalent if the quality of legal institutions is high. This suggests that companies strategically use arbitration as an instrument if problematic legal institutions could endanger the enforcement of a court decision.

To further understand what the relationship between institutional quality and forum selection clause means practically, for each contract I compute the predicted mean difference between the probability that the contract refers the parties to courts and that it refers the parties to arbitration. Figure 7 plots that mean difference over institutional quality. Since institutional quality is measured on different scales and is ordinal in nature, scores have been standardized using percentiles, such that 50 on the x-Axis indicates the median rule of law score and judicial quality rating. The graph indicates that for low institutional quality, contracts are more likely to include an arbitration clauses than court selection clauses. For institutional quality above the 13th percentile, court clauses are the primary forum of choice.

[30] Available at http://databank.worldbank.org/.

[31] Whereas the between-country variance is 0.94 for rule of law scores and 0.09 for judicial independence ratings, the average within-country variance is 0.02 for rule of law scores and 0.001 for judicial independence ratings.

5 Discussion

The findings in this paper cast a new light on the role of arbitration, its relevance in an international contractual business environment and its relation to domestic court systems. A widely held belief among scholars of international arbitration is that arbitration dominates the international dispute culture because domestic court systems are ill-equipped to handle disputes between entities of different nations to the parties' satisfaction. As far as U.S. companies and those with economic ties to the U.S. are concerned, this view does not withstand empirical scrutiny, as arbitration clauses are absent in a majority of international contracts between two business entities. In addition, it was shown that parties of international contracts can and do use arbitration clauses strategically when an unbiased court trial or the enforcement of a foreign judgment is called into question due to weak judicial institutions in a parties' home state. However, if the quality of judicial institutions is not in doubt, companies registered with the SEC substitute arbitral proceedings for court proceedings. Together, the evidence provided here can be interpreted as parties treating arbitration not as a one-size-fits-all approach to cross-border challenges, but as a second-best solution to a well-functioning court system that is primarily of relevance to solve commitment problems related to weak judicial institutions. This result is particularly important given the strong scholarly focus in the literature on international arbitration, while the domestic judiciaries' role in the settlement of international disputes is often neglected.

What might explain the striking and increasing popularity of court selection clauses in material contracts in contrast to arbitration? To understand this phenomenon, it is useful to recall the supposed advantages of arbitration, which is often described to be more flexible, cheaper, faster and staffed with more experts than courts. What is notable is that all these supposed advantages can and have successfully been copied by courts in the wake of increased inter-industry competition. As mentioned initially, many states made a considerable effort to tailor their procedures to the preferences of the commercial world by establishing business courts, allowing for customization of procedural rules and in turn streamlining the dispute settlement process. One particularly striking illustration of the competitive pressure exerted on states by the growing number of arbitration organizations is the 2011 Task Force of New York Law in International Matters Report. The report was conducted to assess how New York can continue to attract international dispute settlement and explicitly warns:

> *It is significant that jurisdictions around the world, many with government support, are taking steps to increase their arbitration case load. New arbitration laws were enacted in 2010 and 2011 in France, Ireland, Hong Kong, Scotland, Ghana and other nations to enhance their attractiveness as seats of arbitration. Maintaining New York's position, which already generates hundreds of millions of dollars in revenues for law firms and related businesses and millions of dollars of tax revenues, and which complements and reinforces New York's position as a center of commerce and finance, requires that attention be directed to the measures discussed in this Report.*[32]

These recommended measures included, among others:[33]

- The specialization of judges in the Commercial Division on international matters
- A "rocket docket" to fast-track disputes for parties that do not wish to make use of the entire array of procedures commonly available
- The possibility for New York courts to make "judicial referee" decisions on matters submitted to them by other courts that involve the interpretation of New York law

In addition to competitive pressures exerted on adjudicative systems, what is often overlooked is that courts, too, have idiosyncratic advantages over arbitration. Some of these advantages can and have been emulated by arbitration organizations. For instance, while Drahozal and Ware (2010) argue that a court system's advantage over arbitration is the possibility for review by a court of higher instance, today, numerous arbitration organizations have established an appellate level that allows parties have arbitration decisions reviewed for legal errors. Among them are the International Institute for Conflict Prevention & Resolution, the AAA's International Centre for Dispute Resolution and JAMS, all of which created optional appeal mechanisms that parties can use if they so desire. This development is still quite recent and it can be expected that other arbitral organizations will follow if the measure proves to be successful. However, other key advantages of courts

[32] See Hurlock et al. (2011, at 4).
[33] See Hurlock et al. (2011, at 27–28).

cannot or have not been emulated by arbitration organizations and it can be assumed that these advantages are a significant contributor to the continuous popularity of courts. In particular, three defining characteristics stand out.

First, many court opinions are published. Courts strive to act consistently in order to appear legitimate. The principle of *stare decisis* even explicitly invokes consistency as grounds for legitimacy. Thus, previous opinions on comparable issues provide parties with a credible signal on how courts would decide a similar legal question in the future. The publication of previous judicial decisions allows parties to update their priors about the outcome of a potential legal dispute, in turn reducing uncertainty associated with a contract (Dammann and Hansmann, 2009). Risk-averse parties are naturally drawn to courts as the instrument with a higher degree of certainty. But even for risk-neutral parties, uncertainty increases the possibility of a legal dispute (Priest and Klein, 1984), making the contract more costly. Arbitration organizations could, in theory, publish opinions in a way similar to general court practice. However, the organizations who have done so are highly selective in the choice of decisions and awards they publish, making it difficult for observers to acquire a coherent set of rulings that would be representative of legal doctrine that helps conditioning one's expectations. And even those published decisions are often so heavily redacted that they include hardly any useful information at all.[34] The arbitral practice is understandable, given that arbitration prioritizes confidentiality of the parties. But even if arbitration organizations were more liberal in their publication practice, it is questionable whether extending the accessibility of previous decisions would help parties update their priors in a meaningful way. Given that arbitrators are not subject to the same legitimacy concerns that courts face and are drawn from a more heterogeneous population of individuals, consistency is not of paramount interest in arbitral proceedings, thus making it more likely that two similar cases come out differently despite the existence of prior case law.

A second important market advantage that many domestic court systems have over arbitral institutions is the cross-subsidy that parties to a dispute receive from the general public (Drahozal and Ware, 2010). Studies indicate that about 20% of the total expenditures by the parties to an arbitration are paid to the arbitration organization and arbitrators.[35] In court proceedings, these costs are born almost entirely by the general public. Indeed, Kakalik

[34]For an example obtained by Westlaw's collection on arbitral awards, see ICC Award No. 10947, attached in the Appendix.

[35]See Jones and Lloyd (2011); Wolrich (2011).

and Ross (1983) find that the court fees that parties pay are roughly sufficient to cover court expenditures only if a case is immediately dismissed after it has been filed. Any additional work by the court creates costs that are paid through public subsidies. Given that legal expenditures are of paramount concern of publicly registered companies (Simkin, 2005), these subsidies provide an important advantage when settling disputes in domestic courts over arbitration institutions. While in theory, it is imaginable that arbitration is similarly subsidized, in practice, to most this is normatively undesirable and politically unfeasible. As pointed out above, a court decision creates important positive externalities as the development of an accessible and coherent body of legal decisions allows future parties to condition their behavior (Landes and Posner, 1979). This positive externality legitimizes public expenditures in exchange for a public good. Without the provision of a public good, it appears difficult to justify sizable subsidies for arbitral organizations which exclusively provide private goods by settling a private dispute between the parties (Ware, 2013).

A third advantage of court systems over arbitral tribunals has traditionally been the possibility for interim relief that arbitration tribunals did not grant in the same way. This is due to the fact that arbitrators have to be appointed prior to making any decision, and this process alone can take a substantial amount of time if the parties cannot initially agree on the arbitrators (Bennett, 2002). It should be noted that, over the past decade, many arbitration organizations have created different forms of emergency arbitration that address these concerns. However, as of today, these emergency instruments have only rarely been used (Savola, 2016) and can thus not be considered well-established.

All these reasons suggest that a rational actor conducting a cost-benefit analysis may have good reasons to choose courts over arbitration. The benefits discussed above give court systems an important advantage over arbitral tribunals.[36] Because the virtues of arbitration are non-exclusive while it is difficult to emulate the advantages of a domestic court system, it would at least be reasonable to assume that parties view arbitration as a second-best alternative to a well-functioning and efficient court system. However, these findings should not lead one to believe that there is no profound role for arbitration in the international commercial business environment. The fact that arbitration is the predominant instrument to solve disputes where courts are less likely to make and enforce decisions impartially suggest two distinct

[36]Scholars have recognized that these are especially pronounced in the context of intellectual property, see O'Connor and Drahozal (2014).

functions of arbitration organizations. First, they exert competitive pressure on courts to improve their own judicial proceedings in order to retain a high share on the market for dispute settlement provisions, as exemplified by the case of New York. Second, arbitration enables companies from states with weak judicial institutions to nonetheless engage in international commercial relationships they would otherwise be locked out of due to a fundamental distrust in their local courts.

6 Conclusion

Arbitration as an alternative dispute resolution mechanism is associated with many hopes and many concerns. To supporters, arbitration offers a cheap, quick possibility to have disputes decided by qualified experts, with a process that is tailored to parties' individual needs. To critics, arbitration creates a quasi-legal, parallel settlement system that foregoes all the positive externalities that the public court systems are associated with. Most importantly, since arbitration decisions are generally private, they do not establish useful precedent that helps parties to condition their behavior.

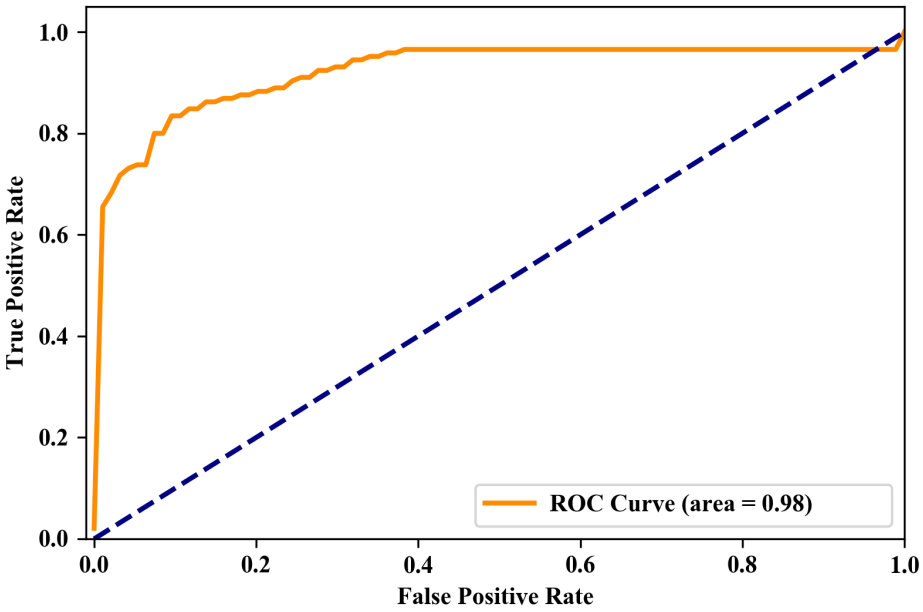
As this study shows, the reality is that the impact of arbitration on the commercial environment is often overstated. Neither for domestic nor for international contracts, the rate at which arbitration clauses are included is particularly high, alleviating both hopes and concerns that arbitration will replace the domestic judiciary in the near future. In those instances where parties rely on arbitration, their choice is motivated neither by efficiency concerns nor by a general desire to avoid litigating before another's domestic courts. Instead, the evidence presented suggests that arbitration has a narrower purpose as a tool that addresses concerns arising out of dysfunctional courts at the enforcement stage.

The overall attractiveness of courts is best explained through states' deliberate effort over the past decades to make their court proceedings amicable to the resolution of international business disputes by offering an efficient, predictable and sophisticated framework. In this way, state courts emulate many of the benefits that are often said to be exclusive to arbitration while retaining the benefits of a heavily subsidized judiciary, high predictability and interim relief. Nonetheless, one should not conclude from these findings that the international business community has outgrown the need for arbitral organizations. That is because, first, arbitration organizations on the market for contracts exert strong incentives on governments to improve the efficiency of their domestic court proceedings in order to retain a significant

market share. And second, arbitration allows parties from countries with weak judicial institutions to participate in a market they would otherwise be locked out of.

7 Figures and Tables

Figure 1: Receiver Operating Characteristics



This graph depicts the receiver operating characteristic at each unique threshold.

Table 1: Summary Statistics

	Mean	SD	Min	Max	Med	IQR
Year	2008	4.35	2000	2016	2008	7
Forum Selection Clause	0.44	0.50	0	1	0	1
Courts Selection Clause	0.30	0.46	0	1	0	1
Court Clause Length	220	154	29	809	181	196
Arbitration Clause	0.19	0.39	0	1	0	0
Arb. Clause Length	324	245	27	1,128	255	313
Governing Law Clause	0.75	0.43	0	1	1	1
GLC Length	79	77	16	401	47	66
International Contract	0.10	0.30	0	1	0	0
Foreign Contract	0.01	0.09	0	1	0	0
Domestic Contracts	0.89	0.31	0	1	1	0

Summary Statistics for non-categorical variables used in the analysis.

Table 2: Agreement Types

Type	Obs	Freq	Int'l	Foreign	Arb.	Courts
Joint Venture	1,399	0.00	0.41	0.01	0.44 (0.58)	0.26 (0.20)
Licensing	9,431	0.02	0.25	0.01	0.39 (0.49)	0.32 (0.31)
Employment	108,313	0.21	0.05	0.01	0.33 (0.31)	0.23 (0.30)
Consulting	7,860	0.02	0.13	0.01	0.28 (0.47)	0.25 (0.18)
Lease	16,076	0.03	0.07	0.01	0.27 (0.32)	0.21 (0.25)
Transportation	1,313	0.00	0.16	0.02	0.24 (0.43)	0.30 (0.42)
M&A	62,839	0.12	0.15	0.01	0.23 (0.31)	0.53 (0.55)
Sales	15,898	0.03	0.15	0.01	0.21 (0.37)	0.37 (0.41)
Legal	10,002	0.02	0.16	0.01	0.11 (0.13)	0.30 (0.32)
Loan	57,086	0.11	0.19	0.01	0.10 (0.10)	0.53 (0.62)
Security	21,084	0.04	0.16	0.01	0.09 (0.11)	0.44 (0.49)
Incentives	130,236	0.26	0.03	0.01	0.09 (0.19)	0.12 (0.26)
Neg. Instrument	14,024	0.03	0.09	0.00	0.05 (0.05)	0.36 (0.42)
Other	42,391	0.08	0.15	0.01	0.15 (0.23)	0.37 (0.41)

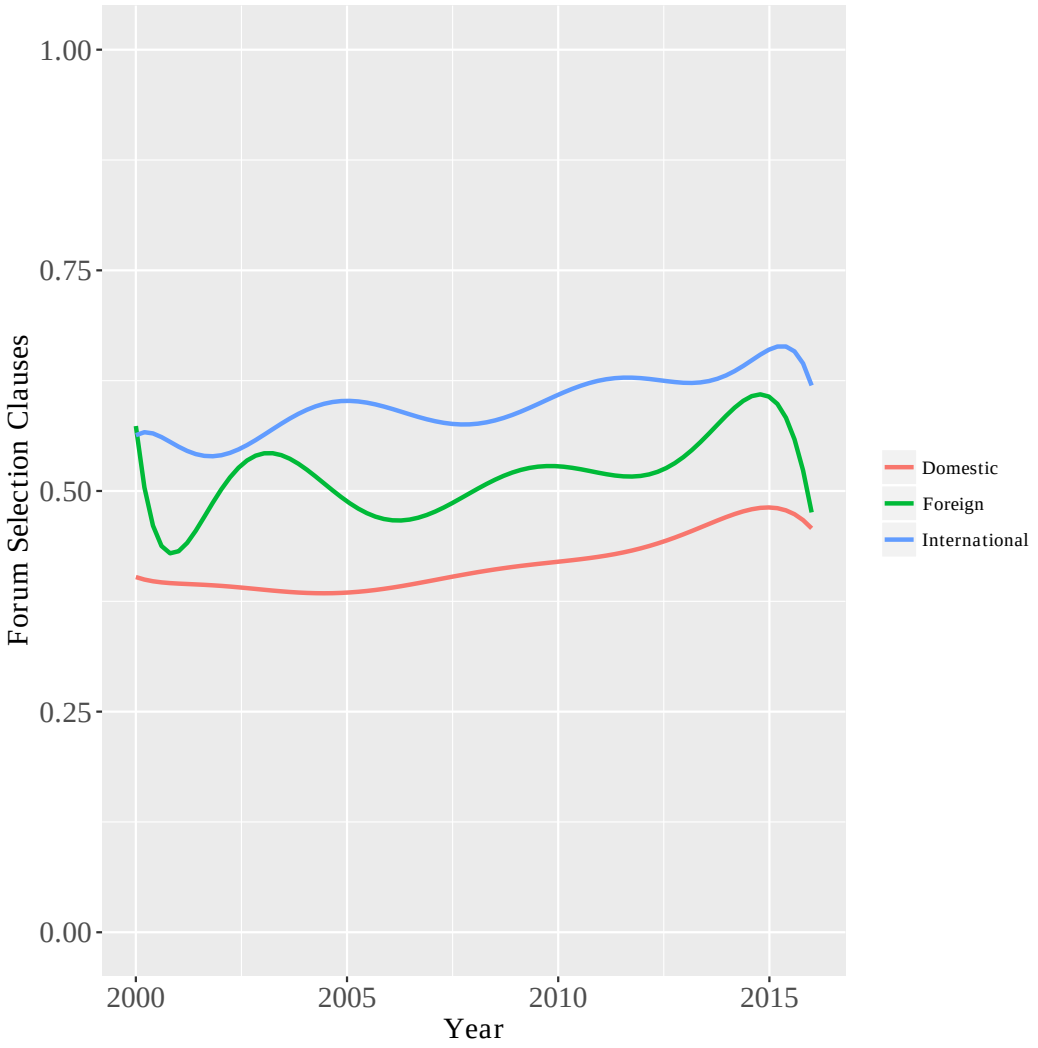
Agreement types in the data set, as well as the frequency of their occurrence, their share of international contracts, of arbitration and of court selection clauses. Statistics in parentheses are based on the subset of international contracts. Sorted by arbitration clause frequency.

Table 3: Industries

Industry	Obs	Freq	Int'l	Foreign	Arb.	Courts
Agriculture	13	0.00	0.15	0.00	0.38 (0.50)	0.23 (1.00)
Services	99,596	0.20	0.10	0.00	0.21 (0.24)	0.32 (0.44)
Manufacturing	175,413	0.35	0.11	0.01	0.19 (0.26)	0.30 (0.44)
Finance	100,608	0.20	0.07	0.01	0.19 (0.21)	0.28 (0.44)
Trade	40,671	0.08	0.09	0.00	0.18 (0.21)	0.30 (0.45)
Mining	31,451	0.06	0.15	0.02	0.18 (0.21)	0.32 (0.42)
Transportation	45,472	0.09	0.11	0.01	0.18 (0.20)	0.31 (0.51)
Construction	5,268	0.01	0.07	0.01	0.15 (0.23)	0.30 (0.41)
Other	9,360	0.02	0.12	0.00	0.18 (0.21)	0.33 (0.47)

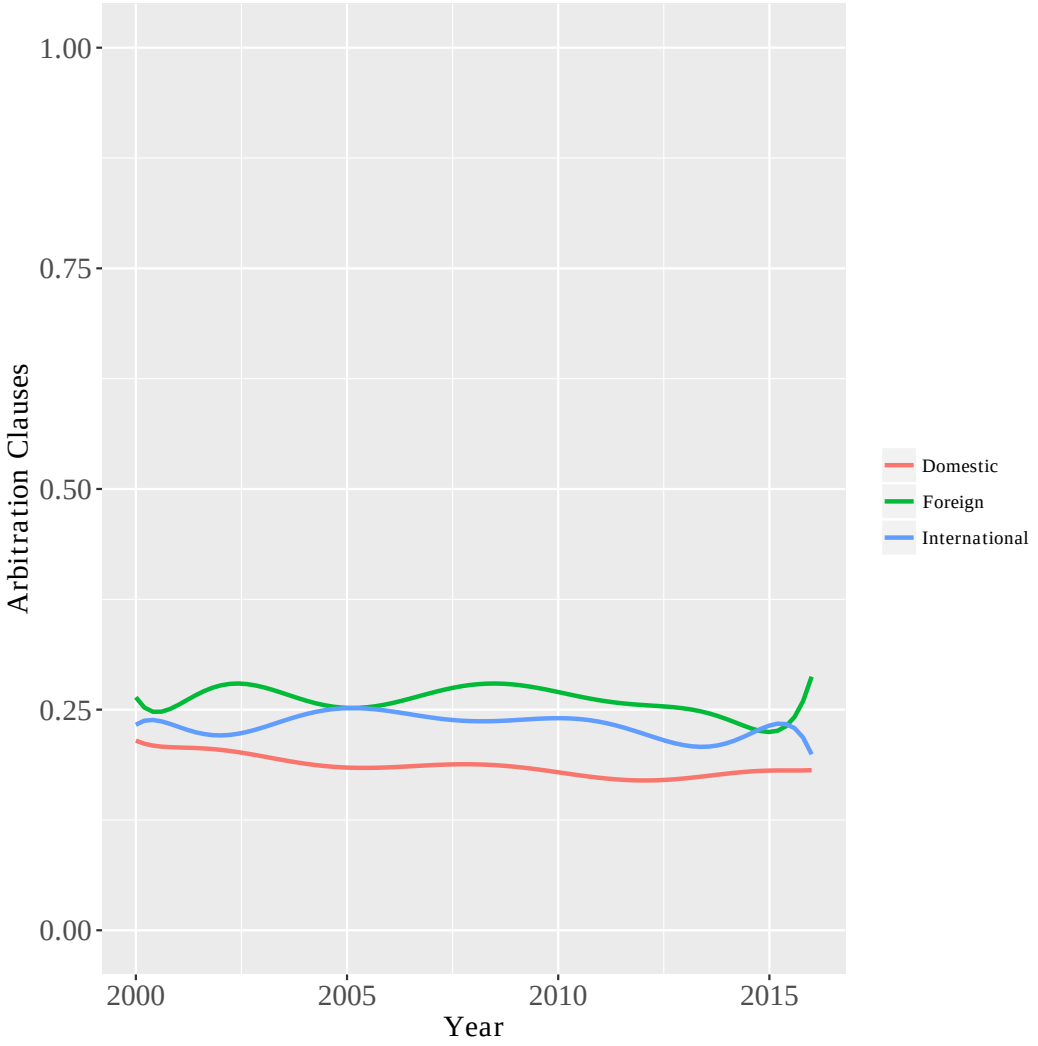
Industries of the contracts in the data set, as well as the frequency of their occurrence, their share of international contracts, of arbitration and of court selection clauses. Statistics in parentheses are based on the subset of international contracts. Sorted by arbitration clause frequency.

Figure 2: Forum Selection Clause Usage over Time



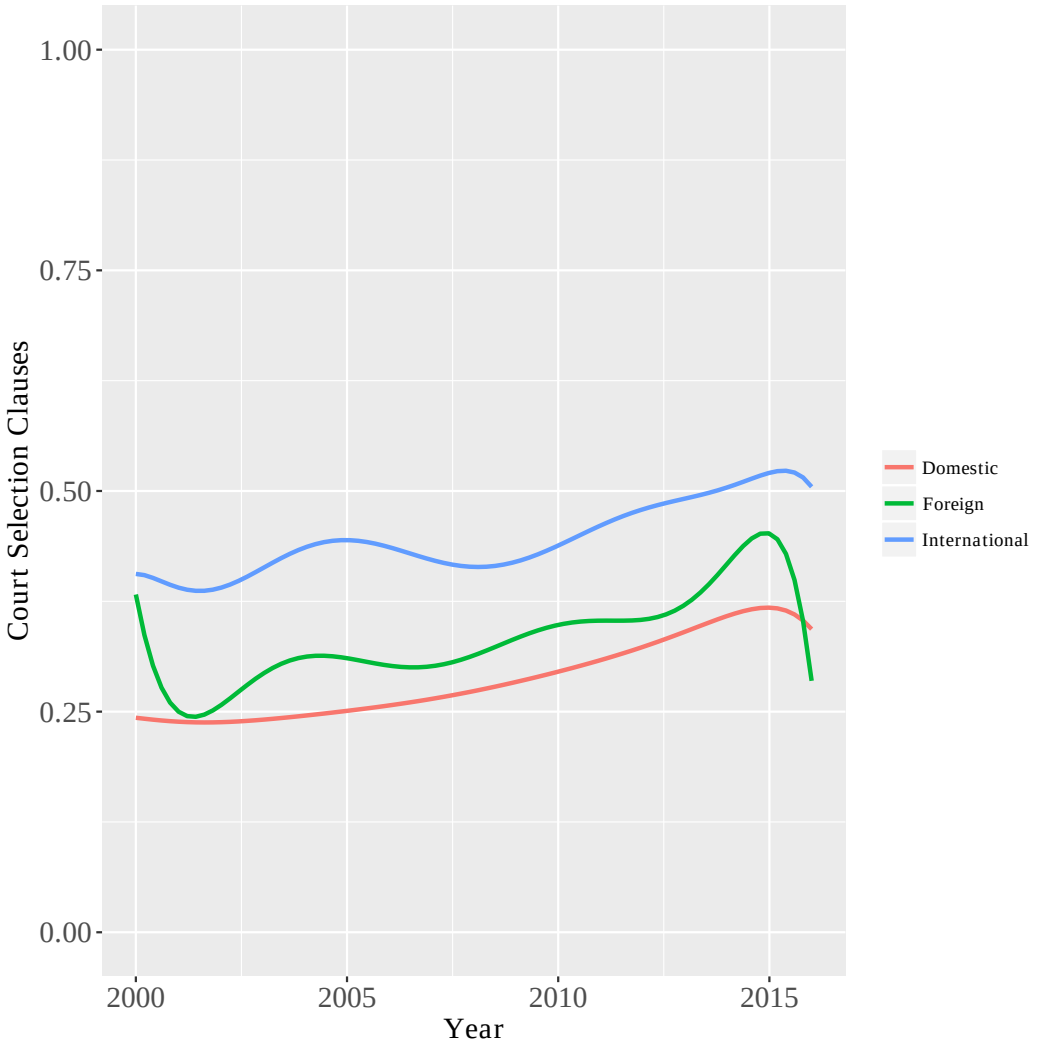
This graph depicts the proportion of contracts that include a forum selection clause over time. The minimum number of contracts per year is 11,489 for U.S.–U.S. contracts, 1,225 for U.S.–Foreign contracts and 42 for Foreign–Foreign contracts. The lines are smoothed using an 8th degree polynomial.

Figure 3: Arbitration Clause Usage over Time



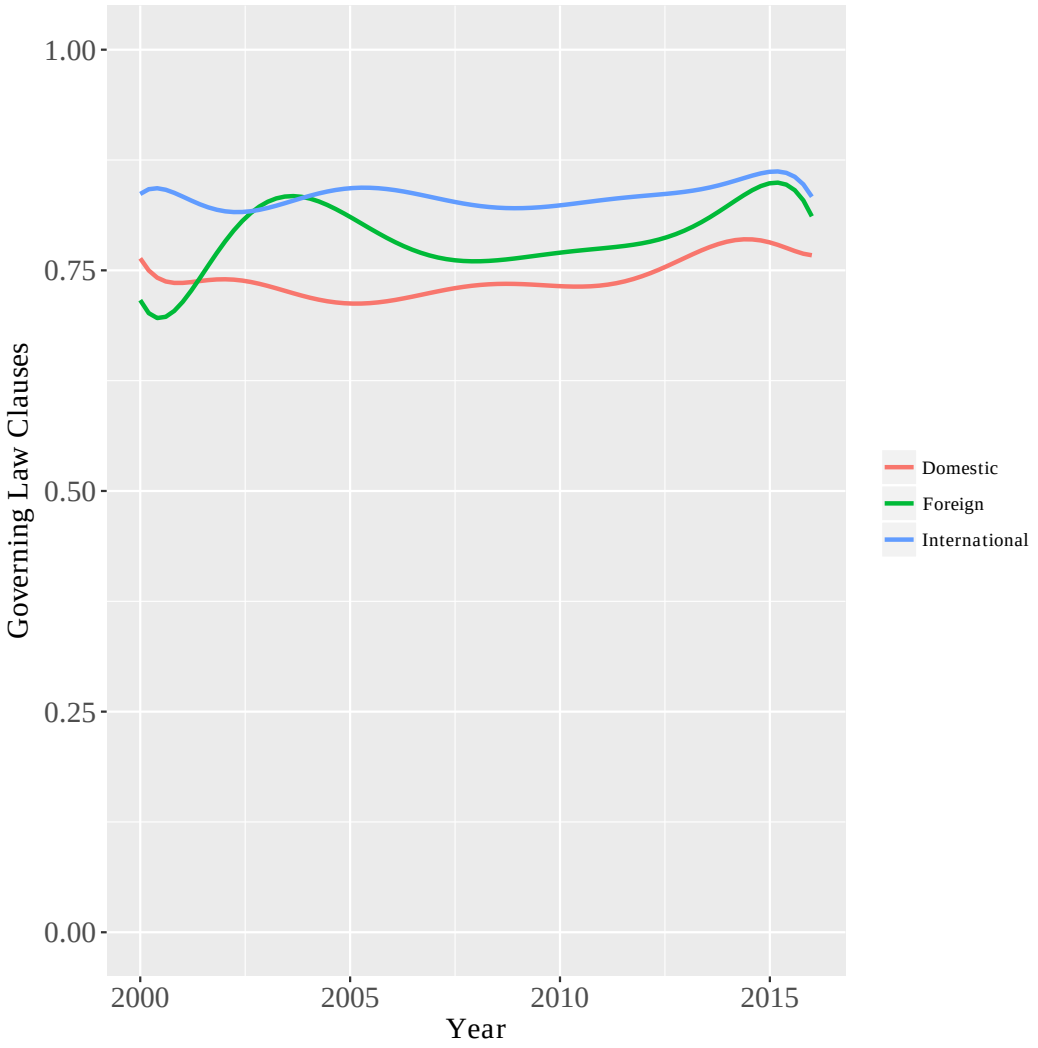
This graph depicts the proportion of contracts that include an arbitration clause over time. The minimum number of contracts per year is 11,489 for U.S.–U.S. contracts, 1,225 for U.S.–Foreign contracts and 42 for Foreign–Foreign contracts. The lines are smoothed using an 8th degree polynomial.

Figure 4: Court Clause Usage over Time



This graph depicts the proportion of contracts that include a court clause over time. The minimum number of contracts per year is 11,489 for U.S.–U.S. contracts, 1,225 for U.S.–Foreign contracts and 42 for Foreign–Foreign contracts. The lines are smoothed using an 8th degree polynomial.

Figure 5: Governing Law Clause Usage over Time



This graph depicts the proportion of contracts that include a governing law clause over time. The minimum number of contracts per year is 11,489 for U.S.–U.S. contracts, 1,225 for U.S.–Foreign contracts and 42 for Foreign–Foreign contracts. The lines are smoothed using an 8th degree polynomial.

Table 4: Most Popular Arbitration Institutions

	Overall	U.S.–U.S.	U.S.–Foreign	Foreign–Foreign
AAA	0.51	0.54	0.28	0.30
JAMS	0.06	0.06	0.04	0.02
ICC	0.02	0.01	0.08	0.06
CIETAC	0.01	0.00	0.05	0.06
LCIA	0.00	0.00	0.01	0.04
HKIAC	0.00	0.00	0.02	0.02
SIAC	0.00	0.00	0.00	0.01
SCC	0.00	0.00	0.00	0.01
Other	0.40	0.38	0.51	0.49

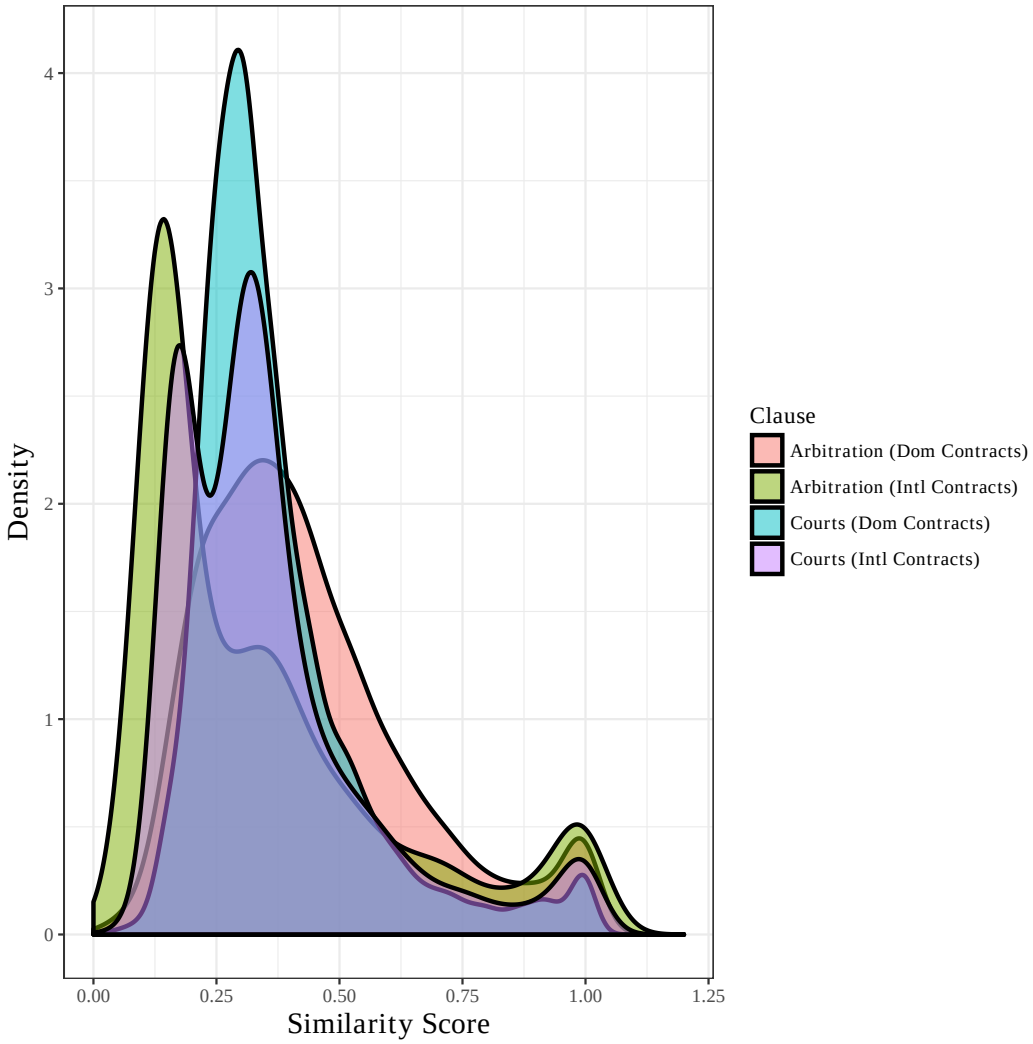
The table depicts the most popular arbitration organizations, conditional on parties opting for arbitration, across all contracts. Full names of arbitration organizations in the Appendix.

Table 5: Most Popular Court Forums

	Overall	U.S.–U.S.	U.S.–Foreign	Foreign–Foreign
New York	0.37	0.34	0.51	0.37
Delaware	0.11	0.12	0.09	0.04
California	0.08	0.08	0.05	0.02
Texas	0.05	0.05	0.03	0.03
Florida	0.03	0.04	0.02	0.02
Illinois	0.03	0.03	0.02	0.01
Nevada	0.02	0.02	0.02	0.02
New Jersey	0.02	0.02	0.01	0.01
Massachusetts	0.02	0.02	0.01	0.02
Pennsylvania	0.02	0.02	0.01	0.00
Ohio	0.01	0.02	0.01	0.00
Colorado	0.01	0.01	0.01	0.02
Minnesota	0.01	0.01	0.01	0.00
Georgia	0.01	0.01	0.01	0.01
England*	0.01	0.01	0.02	0.07
Canada*	0.01	0.00	0.03	0.11
Hong Kong*	0.00	0.00	0.01	0.00

The table depicts the most popular courts, conditional on the parties opting for court litigation, across all contracts. Jurisdictions that are used less than 0.5% of the time in international contracts have been omitted.

Figure 6: Density Plot of Similarity Scores



This graph depicts a weighted density plot of the company similarity scores for four different forum selection clauses: (1) arbitration clauses in international contracts; (2) arbitration clauses in domestic contracts; (3) court clauses in international contracts; (4) court clauses in domestic contracts. The unit of observation is a company. The density is weighted by the number of observations for each company.

Table 6: Significance Tests for Differences between Forum Selection Clauses

	Mean Dom	Mean Intl	T-Test	KS-Test
Arbitration	0.50	0.53	0.14	0.55
Courts	0.51	0.49	0.14	0.37

The p-values in this table relate to the Null-hypothesis that the forum selection clauses domestic and foreign companies use are of equal similarity. More technically, comparing domestic to foreign companies, the Null-hypothesis is that there is no difference with regard to the mean cosine-difference in tf-idf vectors of the companies' respective forum selection clauses.

Table 7: Logit-Regression on Arbitration Clause Usage

	Dependent variable:			
	Arbitration Clause			
	(1)	(2)	(3)	(4)
International	0.297***	0.332***	0.354***	0.366***
	(0.011)	(0.012)	(0.046)	(0.052)
Year				−0.005***
				(0.001)
Year*International				−0.001
				(0.003)
Constant	−1.318***	−1.442***	−1.446***	−1.491***
	(0.022)	(0.025)	(0.025)	(0.014)
Type-Fixed Effects		✓	✓	✓
Industry-Fixed Effects		✓	✓	✓
Format-Fixed Effects		✓	✓	✓
Time-Fixed Effects	✓	✓	✓	
Interactions			✓	✓
Observations	504,119	504,119	504,119	504,119
Log Likelihood	−244,467	−221,595	−221,044	−221,082
Akaike Inf. Crit.	488,970	443,282	442,237	442,285
Note:				*p<0.05; **p<0.01; ***p<0.001

The table depicts the estimates for a logit regression of a dummy indicating whether a contract includes an arbitration clause on a dummy indicating whether a contract is an international contract. Standard errors in parentheses. Model (1) includes year-fixed effects. Model (2) additionally controls for type, industry and form of the agreement.

Model (3) includes interaction effects between the dummy for international contracts and the type of agreement, as well as the industry. Model (4) imposes a linear time trend and interacts it with the dummy for international contracts. Other interaction effects are omitted to increase readability. The reference categories for categorical variables are the most prevalent categories. For type, that is Incentives; for industry, it is Manufacturing; for format, it is agreement.

Table 8: Logit-Regression on Court Clause Usage

	Dependent variable:			
	Court Clause			
	(1)	(2)	(3)	(4)
International	0.696***	0.221***	0.591***	0.807***
	(0.010)	(0.010)	(0.042)	(0.047)
Year				0.060***
				(0.001)
Year*International				−0.026***
				(0.002)
Constant	−1.126***	−1.914***	−1.929***	−1.950***
	(0.021)	(0.024)	(0.024)	(0.013)
Type-Fixed Effects		✓	✓	✓
Industry-Fixed Effects		✓	✓	✓
Format-Fixed Effects		✓	✓	✓
Time-Fixed Effects	✓	✓	✓	
Interactions			✓	✓
Observations	504,119	504,119	504,119	504,119
Log Likelihood	−304,258	−267,526	−267,134	−267,147
Akaike Inf. Crit.	608,552	535,145	534,416	534,413
Note:				*p<0.05; **p<0.01; ***p<0.001

The table depicts the estimates for a logit regression of a dummy indicating whether a contract includes an arbitration clause on a dummy indicating whether a contract is an international contract. Standard errors in parentheses. Model (1) includes year-fixed effects. Model (2) additionally controls for type, industry and form of the agreement.

Model (3) includes interaction effects between the dummy for international contracts and the type of agreement, as well as the industry. Model (4) imposes a linear time trend and interacts it with the dummy for international contracts. Other interaction effects are omitted to increase readability. The reference categories for categorical variables are the most prevalent categories. For type, that is Incentives; for industry, it is Manufacturing; for format, it is agreement.

Table 9: Average Marginal Difference in Forum Selection Clause Usage

	Arbitration	Courts
Model (1)	0.05	0.16
Model (2)	0.05	0.04
Model (3)	0.04	0.07
Model (4)	0.04	0.07

The table depicts the average marginal difference between domestic and international contracts with respect to their usage of forum selection clauses.

Table 10: Selected Contracting Countries

Country	Arb Freq	Ct Freq.	Ct In U.S.	# Dyads
Anguilla	0.11	0.63	1.00	27
Argentina	0.25	0.36	0.60	27
Australia	0.24	0.47	0.87	338
Brazil	0.31	0.37	0.89	181
Canada	0.18	0.44	0.98	4395
Chile	0.33	0.33	0.93	61
China	0.42	0.25	0.96	2404
Colombia	0.32	0.33	1.00	48
Cuba	0.27	0.42	1.00	16
Egypt	0.51	0.40	1.00	30
France	0.25	0.41	0.98	577
Germany	0.26	0.42	0.96	734
Ghana	0.61	0.22	0.80	31
Hong Kong	0.33	0.39	0.75	584
India	0.42	0.41	0.95	510
Ireland	0.21	0.51	0.90	495
Israel	0.19	0.39	0.77	420
Italy	0.31	0.36	0.94	198
Japan	0.32	0.39	0.93	661
Mexico	0.27	0.42	0.92	415
Netherlands	0.20	0.50	0.98	665
Russian Federation	0.51	0.29	0.95	72
Singapore	0.26	0.39	0.90	170
Spain	0.28	0.42	0.95	175
Sweden	0.47	0.39	0.93	125
Switzerland	0.20	0.40	0.96	612
United Arab Emirates	0.36	0.18	1.00	14
United Kingdom	0.20	0.53	0.88	2551
Virgin Islands, U.S.	0.07	0.42	1.00	21

The table depicts a selection of contract-dyads between U.S. and foreign companies, their arbitration clause frequency, court selection clause frequency, how often courts within the U.S. are opted for and the number of contract-dyads.

Table 11: Logit-Regression of Forum Selection Usage on Judicial Institutions

	Dependent variable:			
	Arbitration Clause		Court Clause	
	(1)	(2)	(3)	(4)
Rule of Law	−0.185***		0.063*	
	(0.033)		(0.030)	
Judicial Independence		−0.258*		0.319***
		(0.102)		(0.094)
NYConvention	−0.325	−0.396*	−0.017	0.128
	(0.223)	(0.195)	(0.200)	(0.174)
Common Law	−0.315***	−0.374***	0.312***	0.283***
	(0.044)	(0.047)	(0.036)	(0.039)
Tax Haven	−0.165***	−0.179**	−0.200***	−0.174***
	(0.050)	(0.056)	(0.042)	(0.047)
GDP	−1.483	−5.038**	6.287***	6.998***
	(1.457)	(1.571)	(1.256)	(1.358)
FDI Inflow	0.003***	0.004***	0.002	0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Constant	1.350	1.451	8.537	8.341
	(1.439)	(1.441)	(84.444)	(84.411)
Type Controls	✓	✓	✓	✓
Industry Controls	✓	✓	✓	✓
Format Controls	✓	✓	✓	✓
Region-Fixed Effects	✓	✓	✓	✓

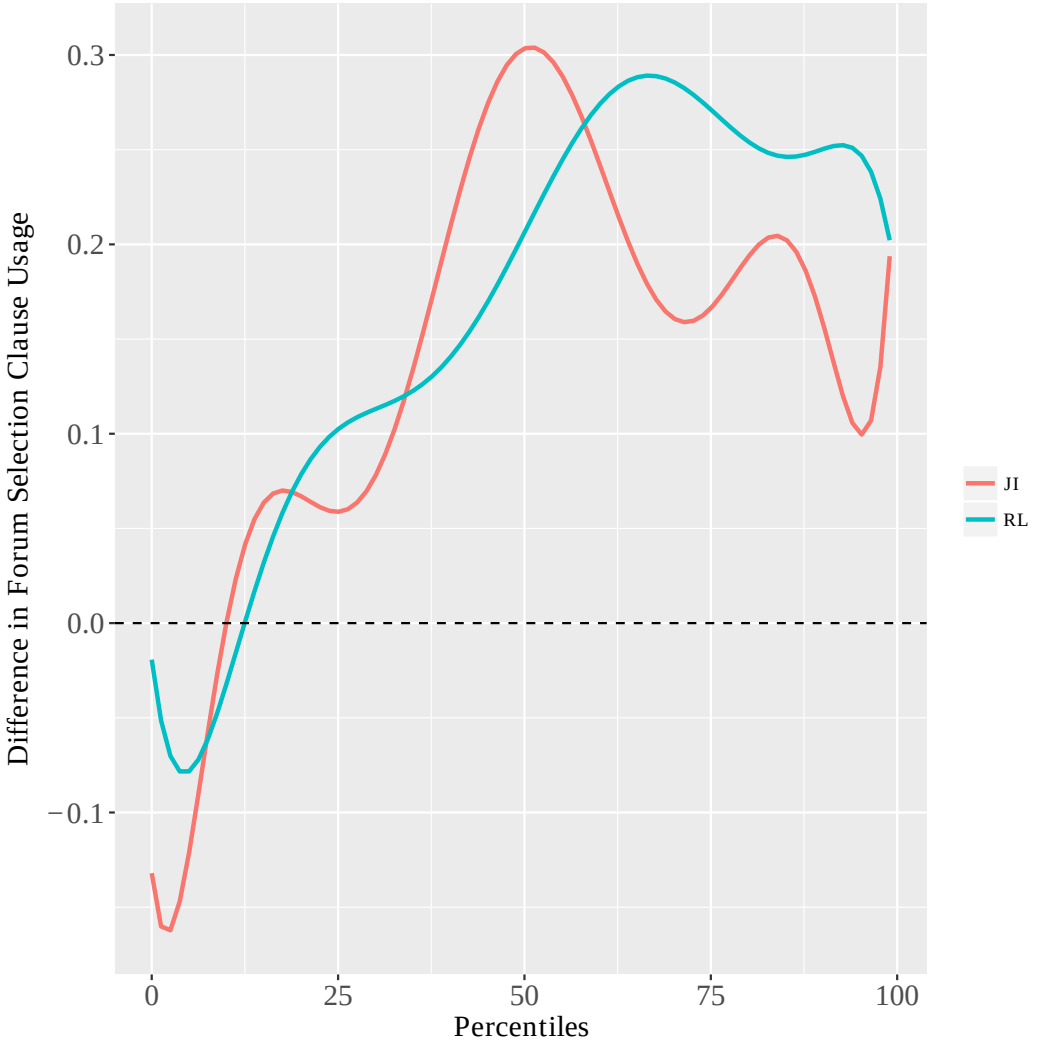
Continued on next page

Table 11 – continued from previous page

	(1)	(2)	(3)	(4)
Time-Fixed Effects	✓	✓	✓	✓
Observations	33,134	30,170	33,134	30,170
Log Likelihood	−16,517	−15,098	−20,675	−18,725
Akaike Inf. Crit.	33,143	30,304	41,459	37,558
Note:				*p<0.05; **p<0.01; ***p<0.001

The table depicts the estimates for a logit regression of a dummy indicating whether a contract includes an arbitration or court clause on rule of law scores and judicial independence ratings for the companies' country of origin. Standard errors in parentheses. GDP in mio $, FDI Inflow as percentage of GDP.

Figure 7: Forum Selection Clause Usage over Rule of Law Scores



This graph depicts the difference between the probability to include a court selection clause and the probability to include an arbitration clause over Judicial Independence (JI) and Rule of Law (RL) scores. Negative values indicate a higher probability to include arbitration, whereas positive values indicate a higher probability to include a court selection clause. The lines are smoothed using an 8th degree polynomial.

References

Baeza-Yates, R. and B. Ribeiro-Neto (1999). *Modern Information Retrieval*, Volume 463. New York City, New York: ACM Press New York.

Bennett, S. C. (2002). *Arbitration: Essential Concepts*. New York City, New York: ALM Media, LLC.

Berggren, N. and C. Bjørnskov (2013). Does Religiosity Promote Property Rights and the Rule of Law? *Journal of Institutional Economics 9*(2), 161–185.

Bird, S., E. Loper, and E. Klein (2009). *Natural Language Processing with Python*. Sebastopol, California: O'Reilly Media Inc.

Born, G. (2014). *International Commercial Arbitration: International and USA Spectscommentary and Materials* (2 ed.). Alphen aan den Rijn, Netherlands: Kluwer Law International.

Buys, C. G. (2003). The Tensions between Confidentiality and Transparency in International Arbitration. *American Review of International Arbitration 14*, 121–138.

Bühring-Uhle, C., L. Kirchhoff, and G. Scherer (2006). *Arbitration and Mediation in International Business*. Alphen aan den Rijn, Netherlands: Kluwer Law International.

Casella, A. (1996). On Market Integration and the Development of Institutions: The Case of International Commercial Arbitration. *European Economic Review 40*(1), 155–186.

Craig, W. L. (2010). The Arbitrator's Mission and the Application of Law in International Commercial Arbitration. *American Review of International Arbitration 21*, 243–293.

Dammann, J. (2016). Business Courts and Firm Performance. *(unpublished manuscript)*. available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2889898.

Dammann, J. and H. Hansmann (2009). Globalizing Commercial Litigation. *Cornell Law Review 94*(1), 1–72.

Dodge, J. (2011). The Limits of Procedural Private Ordering. *Virginia Law Review 97*(4), 723–799.

Downs, G. W., D. M. Rocke, and P. N. Barsoom (1996). Is the Good News about Compliance Good News about Cooperation? *International Organization 50*(3), 379–406.

Drahozal, C. R. (1999). Privatizing Civil Justice: Commercial Arbitration and the Civil Justice System. *Kansas Journal of Law & Public Policy 9*(3), 578–591.

Drahozal, C. R. (2016). Empirical Findings on International Arbitration: An Overview. *(unpublished manuscript)*. available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2888552.

Drahozal, C. R. and R. W. Naimark (2005). *Towards a Science of International Arbitration*. Alphen aan den Rijn, Netherlands: Kluwer Law International.

Drahozal, C. R. and S. J. Ware (2010). Why Do Businesses Use (or Not Use) Arbitration Clauses? *Ohio State Journal on Dispute Resolution 25*(2), 433–476.

Dyreng, S. D. and B. P. Lindsey (2009). Using Financial Accounting Data to Examine the Effect of Foreign Operations Located in Tax Havens and Other Countries on U. S. Multinational Firms' Tax Rates. *Journal of Accounting Research 47*(5), 1283–1316.

Eisenberg, T. and G. P. Miller (2007). Flight from Arbitration: An Empirical Study of Ex Ante Arbitration Clauses in the Contracts of Publicly Held Companies, The. *DePaul Law Review 56*(2), 335–374.

Farber, H. S. and M. Bazerman (1984). The General Basis of Arbitrator Behavior: An Empirical Analysis of Conventional and Final-Offer Arbitration. Working Paper 1488, National Bureau of Economic Research.

Fisher, R. D. and R. S. Haydock (1995). International Commercial Disputes Drafting an Enforceable Arbitration Agreement. *William Mitchell Law Review 21*, 941–988.

Franck, S. (2006). The Role of International Arbitrators. *ILSA Journal of International & Comparative Law 12*(2), 499–522.

Friedland, P. and L. Mistelis (2015). International Arbitration Survey: Improvements and Innovations in International Arbitration. Survey, Queen Mary University of London and White & Case LLP.

Gilson, R. J., C. F. Sabel, and R. E. Scott (2014). Text and Context: Contract Interpretation as Contract Design. *Cornell Law Review 100*(1), 23–98.

Ginsburg, T. (2005). International Substitutes for Domestic Institutions: Bilateral Investment Treaties and Governance. *International Review of Law and Economics 25*(1), 107–123.

Gruner, D. M. (2003). Accounting for the Public Interest in International Arbitration: The Need for Procedural and Structural Reform. *Columbia Journal of Transnational Law 41*(3), 923–964.

Honaker, J. and G. King (2010). What to do about Missing Values in Time-Series Cross-section Data. *American Journal of Political Science 54*(2), 561–581.

Honaker, J., G. King, M. Blackwell, and others (2011). Amelia II: a Program for Missing Data. *Journal of Statistical Software 45*(7), 1–47.

Hurlock, J. B., J. Kaye, J. T. McLaughlin, and S. Younger (2011). Task Force on New York Law in International Matters. Survey, New York State Bar Association.

Jones, D. and H. Lloyd (2011). Techniques for Controlling Time and Costs in Arbitration. Survey 843, Chartered Institute of Arbitrators.

Kakalik, J. S. and R. L. Ross (1983). Costs of the Civil Justice System. Technical report, RAND Corporation, Santa Monica, California.

Kaufmann, D., A. Kraay, and M. Mastruzzi (2009). Governance Matters VIII: Aggregate and Individual Governance Indicators, 1996-2008. *World Bank Policy Research Paper* (4978).

Knull III, W. H. and N. D. Rubins (2000). Betting the Farm on International Arbitration: Is It Time to Offer an Appeal Option? *American Review of International Arbitration 11*, 531–607.

Lagerberg, G. and L. Mistelis (2008). International Arbitration: Corporate Attitudes and Practices. Survey, Queen Mary University of London and PricewaterhouseCoopers.

Landes, W. M. and R. Posner (1979). Adjudication as a Private Good. *Journal of Legal Studies 8*(2), 235–284.

Lew, J. D. (1982). The Case for the Publication of Arbitration Awards. In A. J. van den Berg and J. C. Schultsz (Eds.), *The Art of Arbitration: Essays on International Arbitration Liber Amicorum*. New York City, New York: Kluwer Law and Taxation.

Licht, A. N., C. Goldschmidt, and S. H. Schwartz (2007). Culture Rules: The Foundations of the Rule of Law and other Norms of Governance. *Journal of Comparative Economics 35*(4), 659–688.

Linzer, D. A. and J. K. Staton (2015). A Global Measure of Judicial Independence, 1948–2012. *Journal of Law and Courts 3*(2), 223–256.

Lodhi, H., C. Saunders, J. Shawe-Taylor, N. Cristianini, and C. Watkins (2002). Text Classification Using String Kernels. *Journal of Machine Learning Research 2*, 419–444.

Manning, C. D., P. Raghavan, and H. Schütze (2008). *Introduction to Information Retrieval*. Cambridge, UK: Cambridge University Press.

Menon, S. (2014). The Transnational Protection of Private Rights: Issues, Challenges, and Possible Solutions. *Proceedings of the Annual Meeting, published by the American Society of International Law 108*, 219–242.

Miller, G. P. and T. Eisenberg (2009). The Market for Contracts. *Cardozo Law Review 30*(5), 2073–2098.

Mosteller, F. and D. L. Wallace (1964). *Applied Bayesian and Classical Inference: The Case of the Federalist Papers*. New York City, New York: Springer Verlag.

O'Connor, E. O. and C. R. Drahozal (2014). Essential Role of Courts for Supporting Innovation. *Texas Law Review 92*(7), 2177–2210.

Pecht, G. (2015). Annual Litigation Trends Survey. Survey, Norton Rose Fulbright.

Priest, G. L. and B. Klein (1984). The Selection of Disputes for Litigation. *The Journal of Legal Studies 13*(1), 1–55.

Ribstein, L. E. and E. A. O'Hara (2009). *The Law Market*. Oxford, UK: Oxford University Press.

Rigobon, R. and D. Rodrik (2004). Rule of Law, Democracy, Openness, and Income: Estimating the Interrelationships. Working Paper, National Bureau of Economic Research.

Rish, I. (2001). An Empirical Study of the Naive Bayes Classifier. In *IJCAI 2001 workshop on empirical methods in artificial intelligence*, Volume 3, pp. 41–46. IBM.

Savola, M. (2016). Interim Measures and Emergency Arbitrator Proceedings. *Croation Arbitration Yearbook 23*, 73–97.

Schwartz, A. and R. E. Scott (2003). Contract Theory and the Limits of Contract Law. *Yale Law Journal 113*(3), 541–619.

Scott, R. E. and G. G. Triantis (2006). Anticipating Litigation in Contract Design. *The Yale Law Journal 115*(4), 814–879.

Shavell, S. (1995). Alternative Dispute Resolution: An Economic Analysis. *The Journal of Legal Studies 24*(1), 1–28.

Simkin, G. (2005). Litigation Trends Survey. Survey, Fulbright & Jaworski LLP.

Stipanowich, T. (2009). Contract and Conflict Management. *Wisconsin Law Review 2001*(3), 831–918.

Van den Berg, A. J. (1981). *The New York Arbitration Convention of 1958: Towards a Uniform Judicial Interpretation*. Alphen aan den Rijn, Netherlands: Kluwer Law International.

Wagner, G. (2014). The Dispute Resolution Market. *Buffalow Law Review 62*(5), 1085–1158.

Ware, S. J. (2013). Is Adjudication a Public Good? "Overcrowded Courts" and the Private Sector Alternative of Arbitration. *Cardozo Journal of Conflict Resolution 14*(3), 899–921.

Weber, A. C., C. A. Pascuzzo S, G. d. S. Pastore, and R. D. Marques (2014). Challenging the "Splitting the Baby" Myth in International Arbitration. *Journal of International Arbitration 31*(6), 719–734.

Weidemaier, W. M. C. (2015). Customized Procedure in Theory and Reality. *Washington & Lee Law Review 72*(4), 1865–1946.

Williamson, O. E. (1983). Credible Commitments: Using Hostages to Support Exchange. *The American Economic Review 73*(4), 519–540.

Wolrich, P. M. (2011). CIArb Costs of International Arbitration Survey. Survey 843, International Chamber of Commerce Commission on Arbitration.

Appendix

A.1 Detailed Description of Text Analysis Procedures

The textual analysis of the contracts was conducted in Python 2.7, relying to a great extent on the Natural Language Toolkit (NLTK). Most of the techniques used are described in detail in Bird et al. (2009).[37] Due to the large number of contracts and the associated computational intensity, the program was executed on the Savio Institutional Cluster of UC Berkeley's BRC High Performance Computing.

A.1.1 Identification of Parties

In order to identify which agreements are international, I scan each agreement for party names. However, scanning the entire contract for party names is computationally intensive and leads to many false matches, as companies that are not party to the agreement might be mentioned later in the text. I thus first identify the paragraph containing the parties to the agreement.

Virtually all contracts begin by naming the parties and then specifying how the contracts refers to them. The term by which the parties are referenced is specified in quotation marks contained in parentheses. For example, an agreement might begin stating

This purchasing agreement (this "Agreement") is entered into by and between company A and B (together referred to as "the parties").

I use the following regular expression to identify the first paragraph that contains quotation marks encapsulated within parentheses:

$$\backslash(.*\backslash"(.+?)\backslash"$$

I include the first matching paragraph into the list of paragraphs containing party information. In addition, I add the two paragraphs preceding the match and all consecutive paragraphs that also contain quotation marks within parentheses. That is because the party information is sometimes broken up across multiple paragraphs, even though these cases are the rare exception.

I then define a list of 632,442 companies and individuals that have disclosed information through filings with the SEC. These parties are included in lowercase and in different forms to take into account that parties might

[37] The most current version of this book is accessible online at http://www.nltk.org/book/.

write company names differently. For example, the algorithm identifies with the company "PT Holdings, Inc." all mentions of "pt holdings, inc.", "pt holdings inc", "pt holdings incorporated" and "pt holdings." Versions that exclusively include lemmatized words mentioned in a collection of 234,377 words of the English vocabulary are dropped. This is necessary as there are company names such as "Hungary" which lead to many false hits. In total, the final list includes 630,106 companies with their place of incorporation and their economic headquarters.

The program scans the defined paragraphs for the mention of these companies. If multiple company names are included in a paragraph but one company name is fully included in another company name, only the longest company name is regarded a party to the contract. This is done because some company names are so generic that they are often included in other company names. For instance, the company "Energy Inc." is fully included in "Hawaii Energy Inc." but is certainly not a party if the company name "Hawaii Energy Inc." is mentioned, so "Energy Inc." is then dropped.

The paragraphs are then scanned for the mention of countries in their noun and adjective form. For any given country i, if the list of companies does not yet include a company from country i but i is mentioned in the paragraph, an unidentified company from country i is added to the list of parties.

The program then simply counts the number of companies registered in the U.S. and those registered outside of the U.S. to determine whether the contract is domestic, international or foreign. If information on the place of registration is not available, the location on file with the SEC is used instead.

A.1.2 Identification of Contract Format and Type

In order to identify the contract format, I scan the text for the first mention of one of the following words: *agreement*, *plan*, *note*, *policy*, *guideline*, *program or contract*. The format of the contract corresponds to the word that appears first. For example, if a contract has the heading "*Purchasing Agreement*", the format will be "Agreement", whereas a document entitled "*Note Exchange*" will be considered a "Note."

In order to identify the contract type, I first define terms that are indicative of the type of contract. The following is a breakdown of agreement types and corresponding terms.

Table A.1: Agreement Types and their Terms

Type	Terms
Consulting	consulting
Employment	employer, employee, employment, severance, non competition, termination, management continuity, transition, appointment
Incentives	pension, stock unit, award, incentive, compensation, management stability, stock option, restricted stock, tax deferred savings, reimbursement, retention, separation allowance, retirement, bonus, dsu, medical plan, benefit, indemnification, health plan, executive plan, savings and investment, stock ownership, restoration plan, performance share, stock retainer, performance plan, management stockholders, indemnity, director stock, directors stock, change in control, change of control
Joint Venture	joint venture
Lease	lease, line access, sublease, tenant, landlord
Legal	settlement, tolling, waiver
Licensing	license, licensing
Loan	credit, loan, subordination, borrow, lender, commitment
M&A	merger, separation and distribution, share exchange, earnout, earn out
Neg. Instrument	promissory
Sales	purchase, sale, purchasing, sell, distribution
Security	security, mortgage, collateral
Transportation	transportation, precedent

Terms which determine agreement types.

I then extract from the contract all text up to the first occurrence of one of the words defining the format. Typically, this results in a string that contains only the title of the agreement, such as "*Employment Agreement*" or "*Licensing Agreement*." In most other cases, the string contains all text up the point where the agreement is defined in the contract. For instance, in the above example where a contract begins with

This purchasing agreement (this "Agreement") is entered into by and between company A and B (together referred to as "the parties").

the matched string would contain the words "*This purchasing agreement*", and possibly a preceding table of contents.

The matched string (in lowercase) is scanned for all the terms listed in Table A.1. If a term is included in the text, an internal "score" of the corresponding contract type is increased by 1. The type of the contract is the type with highest score, though typically, only one of the types receives a score greater than 0.

A.1.3 Identification of Clauses

In order to identify governing law and forum selection clauses, I first preprocess the text. The preprocessing consists of the following steps:

1. Break up text into paragraphs
2. Convert paragraph to lowercase
3. Remove punctuation and special characters
4. Remove stop words
5. Tokenization
6. Stemming

Step 1-3 are self-explanatory. Removing stop words such as "the", "is", "at" and "which" is a common procedure in natural language processing, because stop words are typically not meaningful in determining the content of a text (Lodhi et al., 2002).[38] To define the stop words that are to be removed, I rely on the "stopwords" corpus of NLTK.

Text tokenization is essentially the process of breaking up a string of characters into analyzable pieces. A unit of analysis can be words, word combinations, sentences or entire paragraphs. Here, the goal is to use tokens to identify whether a clause is a forum selection clause. A useful unit of analysis is each word. I thus tokenize each paragraph into words.

Text stemming is the process of removing morphological affixes from words, leaving only the word stem. The idea is that words originating

[38]Note that the removal of stop words should depend on the goal of the analysis. For instance, stop words can be useful in identifying the author of a text, because patterns in the use of stop words can vary strongly and consistently from one author to the next. For instance, stop words have been used to identify the original author of disputed federalist papers (Mosteller and Wallace, 1964).

from the same word stem should be treated the same, as morphological affixes are only the product of grammatical rules and conventions which are disassociated from the actual meaning of the word. Stemming is an algorithm-based process that differs from one language to the other. I rely on the popular Snowball algorithm for the English language, included in NLTK. I complement this stemming algorithm with additional rules useful in text classification. For instance, I do not stem the word "arbitration" into its word stem "arbitr", because the word "arbitration" is less predictive of an arbitration clause than words such as "arbitrator."

The following example illustrates the output of the preprocessing procedure:

Before preprocessing: *This is an arbitration clause between two companies that defines the appointment process, the seat and the location of the arbitral proceeding. It serves as an example.*

After preprocessing: *arbitration claus two compani defin appoint process seat locat arbitr proceed serv exampl*

After preprocessing, I manually define a set of text features indicative of whether a clause is a forum selection clause. In essence, a feature is information about the text. Among others, features can help the researcher predict whether the document is of a relevant class or not. In theory, anything about a token can be a feature, such as information about the first or last letter of the token, the occurrence of a particular word within the token, the last letter of a word in the token or a combination of multiple tokens. In document classification, features should be defined to maximize the accuracy of a document's class. I start by allowing every word in a hand-coded sample of 5,226 paragraphs to be its on feature and create a list of the words most predictive of forum selection clauses. I then complement this list using an initial set of words typically used in forum selection clauses, based on my reading of these clauses. I then again repeatedly test the performance of each word feature, keeping highly predictive features and dropping those that are not predictive. I also add certain combinations of words to the list of features. The final list includes the following words and word combinations:

court, forum, irrevoc, proceed, venu, action, jurisdict, brought, district, inconveni, object, placeholderst, sit, lay, southern, suit, waiv, uncondit, bring, appel, submit, exclus, process, fullest, state, heard, recognit, plead, herebi, appointe, nonexclus, judgment, arbitration, aris, hereaft, borough, convenien, counti, suprem, summon, disput, hereto, law, lack, manhattan, parti, settl, (jurisdict,

submit), (exclus, jurisdict), (jurisdict, disput), (jurisdict, nonexclus), (jurisdict, resolv), (jurisdict, venu), (jurisdict, litig), (jurisdict, controversi), (jurisdict, referr), (jurisdict, suit), (jurisdict, proceed), (jurisdict, forum), (jurisdict, submiss), (arbitr, resolv), (submit, exclus), (submit, court), (compet, jurisdict), (disput, parti), (take, place), (consent, jurisdict), (irrevoc, submit),(unit, state, district, court), (exclus, forum), (person, jurisdict), (irrevoc, uncondit), (govern, law), (trial, juri, waiv), (legal, proceed), (agreement, arbitr), (placeholderst, jurisdict), (placeholderst, court), (disput, resolut), (fullest, extent, permit, law), (inconveni, forum), (aforement, court), (aforesaid, court), (final, judgment), (such, court), (govern, author), (waiv, right), (disput, arbitration), (trial, juri, waiver), (settl, arbitration), (resolv, arbitration), (determin, arbitration)[39]

Using these features, I train two different naive Bayes classifiers, one for court selection clauses and one for arbitration clauses. Both classifiers are supplemented with additional manual rules designed to increase accuracy. For instance, when a known arbitration organization is mentioned in the clause, it will automatically be considered an arbitration clause. Similarly, if the word *"arbitration"* is part of an enumaration of words of at least 3 items, the others of which do not contain a word starting with *"arb"*, then the clause is deemed not an arbitration clause. That is because the word *"arbitration"* is often mentioned in a list of legal actions for which a specific consequence is defined in the contract (e.g. *"In the event of any litigation, arbitration, mediation or government action, (...)"*).

Choice-of-law clauses are identified using the word count of a clause as well as a set of manual rules based on the occurrence of the following strings in the unstemmed text:

governing law, law governing, shall be governed by, interpret, construe, govern , governed, governing, the laws, the law

[39]The feature *placeholderst* is a place holder included for state names.

A.2 Arbitration Clauses Illustrating Cosine Similarity

Clauses with a similarity of 0.6

Clause 1:

15. ARBITRATION. ANY CONTROVERSY OR CLAIM BETWEEN OR AMONG THE PARTIES HERETO INCLUDING BUT NOT LIMITED TO THOSE ARISING OUT OF OR RELATING TO THIS INSTRUMENT, AGREEMENT OR DOCUMENT OR ANY RELATED INSTRUMENTS, AGREEMENTS OR DOCUMENTS, INCLUDING ANY CLAIM BASED ON OR ARISING FROM AN ALLEGED TORT, SHALL BE DETERMINED BY BINDING ARBITRATION IN ACCORDANCE WITH THE FEDERAL ARBITRATION ACT (OR IF NOT APPLICABLE, THE APPLICABLE STATE LAW), THE RULES OF PRACTICE AND PROCEDURE FOR THE ARBITRATION OF COMMERCIAL DISPUTES OF J.A.M.S. ENDISPUTE OR ANY SUCCESSOR THEREOF ("J.A.M.S."), AND THE "SPECIAL RULES" SET FORTH BELOW. IN THE EVENT OF ANY INCONSISTENCY, THE SPECIAL RULES SHALL CONTROL. JUDGMENT UPON ANY ARBITRATION AWARD MAY BE ENTERED IN ANY COURT HAVING JURISDICTION. ANY PARTY TO THIS INSTRUMENT, AGREEMENT OR DOCUMENT MAY BRING AN ACTION, INCLUDING A SUMMARY OR EXPEDITED PROCEEDING, TO COMPEL ARBITRATION OF ANY CONTROVERSY OR CLAIM TO WHICH THIS AGREEMENT APPLIES IN ANY COURT HAVING JURISDICTION OVER SUCH ACTION. A. SPECIAL RULES. THE ARBITRATION SHALL BE CONDUCTED IN THE COUNTY OF ANY BORROWERŚ DOMICILE AT THE TIME OF THE EXECUTION OF THIS INSTRUMENT, AGREEMENT OR DOCUMENT AND ADMINISTERED BY J.A.M.S. WHO WILL APPOINT AN ARBITRATOR; IF J.A.M.S. IS UNABLE OR LEGALLY PRECLUDED FROM ADMINISTERING THE ARBITRATION, THEN THE AMERICAN ARBITRATION ASSOCIATION WILL SERVE. ALL ARBITRATION HEARINGS WILL BE COMMENCED WITHIN 90 DAYS OF THE DEMAND FOR ARBITRATION; FURTHER, THE ARBITRATOR SHALL ONLY, UPON A SHOWING OF CAUSE, BE PERMITTED TO EXTEND THE COMMENCEMENT OF SUCH HEARING FOR UP TO AN ADDITIONAL 60 DAYS. B. RESERVATION OF RIGHTS. NOTHING IN THIS ARBITRATION PROVISION SHALL BE DEEMED TO (I) LIMIT THE APPLICABILITY OF ANY OTHERWISE APPLICABLE STATUTES OF LIMITATION OR REPOSE AND ANY WAIVERS CONTAINED IN THIS INSTRUMENT, AGREEMENT OR DOCUMENT; OR (II) BE A WAIVER BY BANK OF THE PROTECTION AFFORDED TO IT BY 12 U.S.C. SEC. 91 OR

ANY SUBSTANTIALLY EQUIVALENT STATE LAW; OR (III) LIMIT THE RIGHT OF BANK HERETO (A) TO EXERCISE SELF HELP REMEDIES SUCH AS (BUT NOT LIMITED TO) SETOFF, OR (B) TO FORECLOSE AGAINST ANY REAL OR PERSONAL PROPERTY COLLATERAL, OR (C) TO OBTAIN FROM A COURT PROVISIONAL OR ANCILLARY REMEDIES SUCH AS (BUT NOT LIMITED TO) INJUNCTIVE RELIEF, WRIT OF POSSESSION OR THE APPOINTMENT OF A RECEIVER. BANK MAY EXERCISE SUCH SELF HELP RIGHTS, FORECLOSE UPON SUCH PROPERTY, OR OBTAIN SUCH PROVISIONAL OR ANCILLARY REMEDIES BEFORE, DURING OR AFTER THE PENDENCY OF ANY ARBITRATION PROCEEDING BROUGHT PURSUANT TO THIS INSTRUMENT, AGREEMENT OR DOCUMENT. NEITHER THIS EXERCISE OF SELF HELP REMEDIES NOR THE INSTITUTION OR MAINTENANCE OF AN ACTION FOR FORECLOSURE OR PROVISIONAL OR ANCILLARY REMEDIES SHALL CONSTITUTE A WAIVER OF THE RIGHT OF ANY PARTY, INCLUDING THE CLAIMANT IN ANY SUCH ACTION, TO ARBITRATE THE MERITS OF THE CONTROVERSY OR CLAIM OCCASIONING RESORT TO SUCH REMEDIES.

Clause 2:

THIS LETTER AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE INTERNAL LAWS OF THE STATE OF NEW YORK WITHOUT GIVING EFFECT TO PRINCIPLES OF CONFLICTS OF LAW. THE UNDERSIGNED AND GLOBAL CROSSING HOLDINGS LTD. EACH WAIVES THE RIGHT TO A JURY TRIAL OR COURT TRIAL. THE SOLE AND EXCLUSIVE METHOD TO RESOLVE ANY CLAIM IS BINDING ARBITRATION UNDER THE RULES OF THE AMERICAN ARBITRATION ASSOCIATION. The parties each waive his/her right to commence an action in any court to resolve any claim arising out of or related to this letter agreement, except for an action for injunctive relief pending resolution of a claim through binding arbitration.

Clauses with a similarity of almost 1 (difference underlined):

Clause 1:

"(A) If a dispute or controversy arises out of or in connection with this Agreement, the parties shall first attempt in good faith to settle the dispute or controversy by mediation under the Commercial Mediation Rules of the American Arbitration Association before resorting to arbitration or litigation. (...) <u>The Executive</u> shall pay all costs and expenses, including attorneys' fees and disbursements, of the Company and the Executive in connection with any legal

proceeding (including arbitration), whether or not instituted by the Company or the Executive, relating to the interpretation or enforcement of any provision of this Agreement, that is resolved in favor of the Company pursuant to a final, unappealable judgment. The non-prevailing party, as set forth above, shall pay prejudgment interest on any money judgment obtained by the prevailing party as a result of such proceeding, calculated at the rate provided in Section 1274(b)(2)(B) of the Code."

Clause 2:

"(A) If a dispute or controversy arises out of or in connection with this Agreement, the parties shall first attempt in good faith to settle the dispute or controversy by mediation under the Commercial Mediation Rules of the American Arbitration Association before resorting to arbitration or litigation. (...) (C) The Company shall pay all costs and expenses, including attorneys' fees and disbursements, of the Company and the Executive in connection with any legal proceeding (including arbitration), whether or not instituted by the Company or the Executive, relating to the interpretation or enforcement of any provision of this Agreement, that is resolved in favor of the Executive pursuant to a final, unappealable judgment. The non-prevailing party, as set forth above, shall pay prejudgment interest on any money judgment obtained by the prevailing party as a result of such proceeding, calculated at the rate provided in Section 1274(b)(2)(B) of the Code."

A.3 Published ICC Award No. 10947

Interim Award in Case No. 10947 in 2002 (June)

Insurance Companies, Subrogated Insurers (France) v State-owned Company (Ecuador)

Industry: Not Available

Case Type: International

Award Amount: Unknown

Claimant's Attorney: Not Available

Respondent's Attorney: Not Available

Award Date: June 2002

Arbitrator: Robert Lawson (Chairman); Charles Poncet; Sean Gates

Country: Switzerland

Place: Geneva

Language: English

Source:
Bulletin de l'Association Suisse d'Arbitrage, 2004, pp. 308-332 (ASA Bulletin 2/2004)

Commentary citations:

Cited documents:

Cited Court Decisions
Ecuadorian Supreme Court, 7 February 1994, "Ecuadorian State v. Empresa Eléctrica del Ecuador Inc."
Swiss Federal Tribunal, ATF II 229-233 (1979), "Hafinag AG v. Modernbau Klier and Rabe KG"
Swiss Federal Tribunal, ATF 118 II 353-358 (1992), "Fincantieri"
Swiss Federal Tribunal, ATF 118 II 193-198 (1992), "G. v. V. SpA."
Swiss Federal Tribunal, ATF 127 III 279, "Fomento de Construcciones y Contratas SA v. Colon Containers Terminal SA"

Cited Awards
Award, "Benteler et al. v. Belgian State"
Cited ICC Rules

Art. 4
Art. 6
Art. 35

Cited Legislation
Ecuadorian Constitution, Art. 14 (ex Art. 16)
Ecuadorian Civil Code, Arts. 7, 1505, 1726
Ecuadorian Code of Civil Procedure, Art. 101
Ecuadorian Law on Arbitration and Mediation, September 1997
Swiss Federal Law on Private International Law, 1987, Arts. 9-177.2

Cited Treaties
Inter-American Convention on International Commercial Arbitration, 1975 (Panama Convention)
Inter-American Convention on Extraterritorial Validity of Foreign Judgments and Arbitral Awards
New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards, 10 June 1958

ICC Award No. 10947

Interim Award in Case No. 10947 in 2002 (June), ICC Award No. 10947

A.4 Names and Abbreviations of Arbitration Organizations

Table A.2: Arbitration Organizations

Abbreviation	Full Name
AAA	American Arbitration Association
JAMS	Judicial Arbitration and Mediation Services
ICC	International Chamber of Commerce
CIETAC	China International Economic and Trade Arbitration Commission
LCIA	London Court of International Arbitration
HKIAC	Hong Kong International Arbitration Centre
SIAC	Singapore International Arbitration Centre
SCC	Stockholm Chamber of Commerce

Abbreviations and corresponding names of arbitration organizations used throughout the article.

A.5 Detailed Regression Results for Arbitration and Court Clauses

Table A.3: Logit-Regression on Arbitration Clause Usage

	Dependent variable:			
	Arbitration Clause			
	(1)	(2)	(3)	(4)
International	0.297***	0.332***	0.354***	0.366***
	(0.011)	(0.012)	(0.046)	(0.052)
Year				−0.005***
				(0.001)
Year*International				−0.001
				(0.003)
	Agreement Type			
Consulting		0.551***	0.440***	0.439***
		(0.027)	(0.030)	(0.030)
Employment		0.993***	1.018***	1.019***
		(0.011)	(0.011)	(0.011)
Joint Venture		1.193***	0.896***	0.897***
		(0.056)	(0.075)	(0.075)
Lease		0.650***	0.657***	0.658***
		(0.020)	(0.021)	(0.021)
Legal		−0.501***	−0.467***	−0.465***
		(0.033)	(0.036)	(0.036)
Licensing		1.027***	0.977***	0.979***

Continued on next page

Table A.3 – continued from previous page

	(1)	(2)	(3)	(4)
		(0.024)	(0.027)	(0.027)
Loan		−0.667***	−0.579***	−0.579***
		(0.017)	(0.019)	(0.019)
M&A		0.310***	0.276***	0.278***
		(0.014)	(0.014)	(0.014)
Neg. Instrument		−0.559***	−0.508***	−0.509***
		(0.047)	(0.050)	(0.050)
Sales		0.338***	0.206***	0.207***
		(0.022)	(0.025)	(0.025)
Security		−0.771***	−0.762***	−0.762***
		(0.026)	(0.029)	(0.029)
Transportation		0.439***	0.281***	0.279***
		(0.067)	(0.077)	(0.077)
Other		−0.134***	−0.187***	−0.185***
		(0.017)	(0.018)	(0.018)
		Industry		
Agriculture		0.416	0.315	0.332
		(0.593)	(0.656)	(0.656)
Construction		−0.135***	−0.146***	−0.147***
		(0.041)	(0.043)	(0.043)
Finance		0.016	0.033**	0.032**
		(0.011)	(0.011)	(0.011)
Mining		−0.058***	−0.019	−0.022

Continued on next page

Table A.3 – continued from previous page

	(1)	(2)	(3)	(4)
		(0.017)	(0.018)	(0.018)
Services		0.052***	0.068***	0.067***
		(0.010)	(0.011)	(0.011)
Trade		−0.037*	−0.026	−0.026
		(0.015)	(0.016)	(0.016)
Transportation		−0.029*	−0.008	−0.009
		(0.014)	(0.015)	(0.015)
Other		−0.216***	−0.201***	−0.200***
		(0.029)	(0.031)	(0.031)
		Document Format		
Contract		0.068**	0.040	0.033
		(0.022)	(0.024)	(0.024)
Guideline		−1.848***	−1.806***	−1.810***
		(0.211)	(0.211)	(0.211)
Note		−1.000***	−1.035***	−1.034***
		(0.029)	(0.032)	(0.032)
Plan		−1.344***	−1.383***	−1.383***
		(0.015)	(0.016)	(0.016)
Policy		−1.304***	−1.345***	−1.345***
		(0.062)	(0.063)	(0.063)
Program		−1.537***	−1.562***	−1.563***
		(0.049)	(0.050)	(0.050)
Other		−5.357***	−5.334***	−5.337***

Continued on next page

Table A.3 – continued from previous page

	(1)	(2)	(3)	(4)
		(0.377)	(0.378)	(0.378)
Constant	−1.318***	−1.442***	−1.446***	−1.491***
	(0.022)	(0.025)	(0.025)	(0.014)
Time-Fixed Effects	✓	✓	✓	
Interactions			✓	✓
Observations	504,119	504,119	504,119	504,119
Log Likelihood	−244,467	−221,595	−221,044	−221,082
Akaike Inf. Crit.	488,970	443,282	442,237	442,285
Note:				*p<0.05; **p<0.01; ***p<0.001

The table depicts the estimates for a logit regression of a dummy indicating whether a contract includes an arbitration clause on a dummy indicating whether a contract is an international contract. Standard errors in parentheses. Model (1) includes year-fixed effects. Model (2) additionally controls for type, industry and form of the agreement. Model (3) includes interaction effects between the dummy for international contracts and the type of agreement, as well as the industry. Model (4) imposes a linear time trend and interacts it with the dummy for international contracts. Other interaction effects are omitted to increase readability. The reference categories for categorical variables are the most prevalent categories. For type, that is Incentives; for industry, it is Manufacturing; for format, it is agreement.

Table A.4: Logit-Regression on Court Clause Usage

	Dependent variable:			
	Court Clause			
	(1)	(2)	(3)	(4)
International	0.696***	0.221***	0.591***	0.807***
	(0.010)	(0.010)	(0.042)	(0.047)
Year				0.060***
				(0.001)
Year*International				−0.024***
				(0.002)
	Agreement Type			
Consulting		0.334***	0.440***	0.436***
		(0.028)	(0.029)	(0.029)
Employment		0.422***	0.437***	0.437***
		(0.012)	(0.012)	(0.012)
Joint Venture		0.411***	0.736***	0.737***
		(0.063)	(0.078)	(0.078)
Lease		0.341***	0.361***	0.363***
		(0.022)	(0.023)	(0.023)
Legal		0.660***	0.709***	0.708***
		(0.024)	(0.026)	(0.026)
Licensing		0.674***	0.767***	0.769***
		(0.025)	(0.028)	(0.028)

Continued on next page

Table A.4 – continued from previous page

	(1)	(2)	(3)	(4)
Loan		1.646***	1.630***	1.631***
		(0.013)	(0.014)	(0.014)
M&A		1.614***	1.653***	1.655***
		(0.012)	(0.013)	(0.013)
Neg. Instrument		1.030***	1.039***	1.035***
		(0.025)	(0.026)	(0.026)
Sales		1.061***	1.085***	1.087***
		(0.019)	(0.021)	(0.021)
Security		1.289***	1.309***	1.310***
		(0.017)	(0.018)	(0.018)
Transportation		0.749***	0.696***	0.693***
		(0.063)	(0.071)	(0.071)
Other		1.027***	1.064***	1.064***
		(0.014)	(0.015)	(0.015)
		Industry		
Agriculture		−0.160	−1.066	−1.063
		(0.694)	(1.071)	(1.071)
Construction		−0.074*	−0.053	−0.053
		(0.034)	(0.035)	(0.035)
Finance		−0.169***	−0.179***	−0.180***
		(0.010)	(0.010)	(0.010)
Mining		−0.120***	−0.119***	−0.124***
		(0.014)	(0.016)	(0.016)

Continued on next page

Table A.4 – continued from previous page

	(1)	(2)	(3)	(4)
Services		0.067***	0.072***	0.074***
		(0.009)	(0.010)	(0.010)
Trade		0.028*	0.034*	0.035*
		(0.013)	(0.014)	(0.014)
Transportation		0.058***	0.034*	0.035*
		(0.013)	(0.014)	(0.014)
Other		−0.019	−0.047	−0.037
		(0.024)	(0.026)	(0.026)
Document Format				
Contract		−0.884***	−0.846***	−0.840***
		(0.024)	(0.026)	(0.026)
Guideline		−2.201***	−2.391***	−2.390***
		(0.231)	(0.264)	(0.264)
Note		−0.182***	−0.182***	−0.183***
		(0.016)	(0.017)	(0.017)
Plan		−1.382***	−1.423***	−1.424***
		(0.015)	(0.015)	(0.015)
Policy		−2.188***	−2.260***	−2.264***
		(0.089)	(0.094)	(0.094)
Program		−1.779***	−1.830***	−1.834***
		(0.051)	(0.053)	(0.053)
Other		−3.607***	−3.621***	−3.622***
		(0.129)	(0.133)	(0.133)

Continued on next page

Table A.4 – continued from previous page

	(1)	(2)	(3)	(4)
Constant	-1.126^{***}	-1.914^{***}	-1.929^{***}	-1.950^{***}
	(0.021)	(0.024)	(0.024)	(0.013)
Time-Fixed Effects	✓	✓	✓	
Interactions			✓	✓
Observations	504,119	504,119	504,119	504,119
Log Likelihood	−304,258	−267,526	−267,134	−267,147
Akaike Inf. Crit.	608,552	535,145	534,416	534,413
Note:				*p<0.05; **p<0.01; ***p<0.001

The table depicts the estimates for a logit regression of a dummy indicating whether a contract includes an arbitration clause on a dummy indicating whether a contract is an international contract. Standard errors in parentheses. Model (1) includes year-fixed effects. Model (2) additionally controls for type, industry and form of the agreement. Model (3) includes interaction effects between the dummy for international contracts and the type of agreement, as well as the industry. Model (4) imposes a linear time trend and interacts it with the dummy for international contracts. Other interaction effects are omitted to increase readability. The reference categories for categorical variables are the most prevalent categories. For type, that is Incentives; for industry, it is Manufacturing; for format, it is agreement.