Unbundling the State: Legal Development in an Era of Global, Private Governance*

Michael O. Allen Yale University michael.allen@yale.edu

June 2023

Abstract

What happens to a public, domestic institution when its authority is delegated to a privately-run, transnational institution? In this article, I first present a theoretical framework for understanding how governmental tasks that traditionally are "bundled" together in state institutions become "unbundled" and outsourced to private bodies. I apply this framework to international commercial arbitration (ICA), a widely-used system of cross-border commercial dispute resolution. I argue that ICA provides commercial actors an "exit option" from weak public institutions, thereby reducing pressure on the state to invest in capacity-enhancing reform. I find that the enactment of strong protections for ICA leads to the gradual erosion of the capacity of domestic legal institutions, particularly in countries with already weak legal systems. I test the mechanism driving this dynamic using dispute data from the International Chamber of Commerce. I find that pro-arbitration laws increase the use of international arbitration by national firms. This suggests that firms use ICA as an escape from domestic institutions. This article contributes to debates on globalization and development as well as burgeoning work on the second-order effects of global governance institutions.

Word count: 13,955

^{*}Acknowledgments: For their valuable comments on earlier versions of this paper, the author would like to thank Elizabeth Acorn, Oumar Ba, Kathleen Claussen, Matthew Evangelista, Terence Halliday, David Lektzian, Odette Lienau, David Di Micheli, Paula Rettl, Aditi Sahasrabuddhe, Ken Scheve, Whitney Taylor and Christopher Way as well as the participants at the Cornell International Relations Workshop, the 2020 Annual Meeting of the Southern Political Science Association, the 2022 Junior International Law Scholars Association Annual Meeting, the 2022 Meeting of the International Political Economy Society and the Graduate Students in International Political Economy Workshop.

1 Introduction

Private, transnational governance regimes with the power to write, interpret and enforce commercial rules have proliferated in recent decades. As Braithwaite (2008, 3) wrote, many countries have "become rule-takers rather than rule-makers." Because much of the scholarly work on this form of private regulation focuses on the transnational regimes themselves, we know relatively little about the consequences of this changing international institutional landscape for domestic political development. In this article, I argue that the growth of private, transnational authority carries with it an implicit model of political and legal development, what I call the "unbundled state," that cuts against traditional models of political development. "Unbundling" governance refers to the partial delegation of authority—that is, the power to write, interpret or enforce rules—that has traditionally been "bundled" in centralized public institutions. Under this model, rather than supporting holistic competence building within centralized institutions, states have the option of delegating piecemeal governance tasks to actors with little accountability to domestic publics. One unintended byproduct of the growth of transnational institutions is that countries with weak state capacity may suffer from institutional stagnation and divestment as powerful domestic and foreign actors, who would otherwise have a stake in the strength of domestic institutions, instead make use of transnational substitutes for the same services. This in turn diminishes the incentives states face to engage in capacity-enhancing reform. In this article, I offer a theory for understanding the domestic consequences of the growth of global governance institutions and apply this theory through an empirical analysis of international commercial arbitration (ICA), a highly effective, privately-run system of international contract enforcement.

On its face, there might be a net gain when states privatize governance tasks like contract enforcement. Perhaps contract enforcement through private arbitration, for example, simply eases the process by which firms involved in international business enforce contracts and settle disputes while no one else is made worse off. The central theoretical claim I put forward below, however, is that the emergence of transnational governance institutions can have important implications beyond their specific policy domains. I argue that this is due to the externalities of bundled and centralized institutions. Centralization establishes simple lines of accountability and creates externalities that, when positive, benefit a wider constituency, and, when negative, ease the process of building broad political coalitions for reform.

The implications of unbundling for the underlying public institution depends on how the public and private bodies interact, specifically whether the private body acts as a complement or substitute to the public institution. Substitution provides actors an "exit option" from the public institution, thereby reducing the incentive for states to invest in maintaining or improving the quality of service. Complementarity, by contrast, implies that unbundled institutions will enhance governing quality because civil society actors remain invested in the quality of the public institution.

The privatization and export of services traditionally entrusted to public institutions is not new. In her account of the how states are pushed to transform national institutions in order to accommodate the demands of economic globalization at the expense of domestic accountability, Sassen (2002, 93) describes the "denationalizing of several highly specialized national institutional orders...[that are] partial and incipient but strategic." Sassen writes that strategic "denationalization" is particularly prevalent in the area of commercial dispute resolution (Dezalay and Garth, 1996; Mattli, 2001; Hale, 2015). Resource-rich individuals and firms can access strong contract enforcement institutions by submitting disputes to foreign jurisdictions or arbitral bodies, while those without such resources are left to deal with sub-par domestic legal institutions. Nougayrède (2013) refers to this phenomenon as the "outsourcing" of law. Legal outsourcing through ICA has become a central pillar of modern global economic governance. ICA refers to a widely-used system of private arbitration for international commercial disputes. Parties typically enter into

ICA through contractual provisions stipulating that future disputes will be sent to private arbitration rather than national courts. ICA allows disputants to choose the relevant procedural and substantive laws and pick the arbitrators who will hear the case, among other things. Most importantly, an award issued by an arbitration panel can be enforced through national courts almost anywhere in the world.

Since the inception of modern commercial arbitration in the early 20th century, arbitration has sparked intense debate about the role of private authority in public affairs (Kronstein, 1963; Cutler, 2003). This debate has taken on added urgency in light of the increasing deference legislatures and judiciaries around the world have granted to arbitration (Stone Sweet and Grisel, 2017). Through my examination of ICA, I seek to contribute to the growing literature on global governance by providing a framework for conceptualizing the second-order effects of interactions between global governance and domestic institutions.

Specifically, I focus on the consequences of enacting pro-arbitration domestic laws based on the United Nations Commission on International Trade Law's (UNCITRAL) Model Law on International Commercial Arbitration (hereafter, the Model Law). The Model Law is a ready-made legislative text incorporating key features of the "state-of-the-art" in ICA: it limits judicial intervention in the arbitral process by severely circumscribing the scope of judicial oversight while at the same time requiring courts to enforce arbitration agreements and awards without substantive review unless one of a very narrow set of exceptions are met. Consistent with my argument that ICA operates as a substitute for domestic courts, I find that enactment of the Model Law has a deleterious effect on the development of domestic legal institutions, particularly in countries with already weak legal institutions.

The main empirical findings presented in this article are as follows. First, I present difference-in-differences (DiD) estimates of the effect of enacting pro-arbitration laws on subsequent legal development. I estimate that the strength of a country's legal institutions

gradually decay after the enactment of pro-arbitration reforms, resulting in an estimated decline of about 9% of a standard deviation five years after enactment of the reforms. This effect is largely driven by countries whose pre-existing institutions are weak prior to enactment of the reforms. Disaggregating this estimate, I show that it is characterized by both unrealized improvements as well as declines in the quality of domestic legal institutions in enacting countries. I then break down the index I use to measure legal capacity to find that the effect is driven by changes in the strength, predictability and independence of the domestic judiciary and is unrelated to phenomena such as corruption or embezzlement. These findings are robust to different DiD estimators, alternative indices of legal-institutional quality as well as alternative codings of the implementation of arbitration reforms. I find consistent results when using an instrumental variables strategy that exploits plausibly exogenous variation in the enactment of arbitration reforms amongst a country's export competitors in contract-intensive trade. Finally, I present cross-national evidence consistent with an important mechanism of the theory: that arbitration facilitates firms' exit from the public judicial system. I use new data collected from the International Chamber of Commerce's (ICC) Court of Arbitration to show that pro-arbitration reforms increase the use of arbitration by domestic firms, though it is less clear that the law increases arbitration subject to domestic jurisdiction.

In sum, these findings are consistent with arbitration's goal to ease the process by which firms can resolve disputes and enforce contracts outside of the judiciary, which I argue also carries negative spillover effects for a country's broader, public legal institutions. In the next section, I present my theory of global governance and domestic unbundling before applying this framework to the case of international commercial arbitration and turning to the empirics.

2 Global Governance & the Unbundled State

While early debate on the relationship between global and domestic governance institutions was often concerned about whether global institutions substituted or complemented their domestic counterparts, more recent scholarship seeks rather to identify the conditions under which global governance will substitute or complement domestic institutions (Andonova, Hale and Roger, 2017). This article aims to build on this growing body of work by contextualizing substitution and complementarity within the broader domestic institutional environment. Rather than focusing on how some global governance arrangement is successful (or not) at accomplishing its goals, in this article I examine the consequences global governance carries for domestic, public institutions.

The framework presented here highlights the importance of focusing on not just whether governance tasks are delegated to transnational institutions, but how. One possibility is that the resulting public-private governance arrangement offers a partial, independent functional equivalent to the public institution that allows for minimal or even no state oversight (i.e., a substitute). The availability of such a private "exit option" can harm the capacity of the domestic institution from which the task was delegated because it removes a constituency that would otherwise have an interest in exerting political pressure to maintain some level of quality or demand improvements (Hirschman, 1970). An alternative possibility is that the delegation of tasks to a global authority retains private actors' reliance on the capacity of domestic institutions. That is, the global institution does not substitute for the tasks that were delegated from the domestic institution, but in some way relies on the domestic institution to function well (i.e., it is complementary to it). In that case, I expect integration with a transnational authority to sustain or even increase political pressure from interest groups to maintain governing quality and generate positive spillovers within the domestic institution. I discuss each of these possibilities in turn and apply the argument to ICA in the following section.

To start, we can think of the typical modern state as being composed of largely centralized institutions that "bundle" together a wide set of governance tasks. The judiciary is a prime example of a bundled, public institution. Broadly speaking, the same court will hear cases in any number of issue areas. The same judge might sit on a national security case one week then an intellectual property case the next. Even in jurisdictions with distinct commercial courts, such as England and Wales, the judges appointed to the court are part of broader, more general judicial organization and often sit on other courts hearing non-commercial cases. This allows for a high degree of professional movement and knowledge sharing within bundled institutions.

In addition to intra-institutional knowledge building, bundling also provides simple lines of accountability linking task to institution to outcome. Bundling thereby "internalizes externalities" which helps resolve collective action problems (Gerring and Thacker, 2004, 322-324). Because the policies of a bundled institution affect a wider range of actors, it is easier to identify negative externalities. This eases the process of building a coalition for reform as the policy affects a larger set of actors than it would have if the policy were implemented by an institution with a smaller task-set. This is especially true with respect to legal infrastructure. Bundled legal institutions enhance public accountability by developing and applying broad principles to disparate cases, reducing the risk of contradictory rules forming in different issue areas.

Global governance arrangements are often much narrower by comparison. This means that delegation to modern global governance regimes tends to be *partial* with respect to the domestic institutions from which some governing task was delegated. This risks undermining the positive externalities of centralized, public institution-building. In the context of human rights and legal development, for example, Lake (2018) shows that, particularly in states with weak legal capacity, international NGOs can successfully improve judicial accountability for gender violence. A potential problem arises, however, when an outside authority substitutes for or bypasses the public institution it is meant to augment.

While it is not the central focus of her study, Lake discusses the possibility that NGO involvement may erode the judiciary's connections with local populations. This could narrow the scope of the judiciary's attention onto the topics that receive external funding and reduce the incentives the state faces to invest its own resources in capacity-enhancing legal reform. While Lake finds that substituting for the state was a success with respect to the NGO's first-order goals, that form of delegation may nevertheless carry potentially harmful second-order effects that "undermine rights in other areas" (p. 215). Similarly, Blair (2021) finds that post-conflict legal development assistance from the United Nations that bypasses the state to perform governance tasks itself is associated with declining rule-of-law outcomes.

We see this dynamic play out in the area of public security, as well. Leander (2005) argues that the international market for security forces undermines investments in public security forces, particularly in weak states. Privatization leads to what she calls a "swiss cheese" security environment characterized by isolated pockets of stability where there exist funds to support it (such as areas where international NGOs or MNCs operate), further diminishing incentives to commit public resources towards enhancing the public security forces capable of bridging these gaps.

While the logic here is similar to that behind the potentially harmful effects of aid dependence on institutional outcomes (Knack, 2001), my theoretical and empirical focus is much more targeted. Rather than arguing that transnational governance can produce a decline in the quality of domestic institutions in general, I argue that unbundling risks undermining the broader functions carried out by the specific domestic institution that has been partially outsourced.

Unbundling is not necessarily harmful to domestic institutional development, however. This is most likely where private authority does not substitute for domestic institutions (Green, 2014). In such arrangements, domestic institutions can be maintained or even enhanced because the transnational institution to which some tasks are outsourced (or

where the private authority fills in domestic governance gaps) still depends on domestic capacity or engagement to succeed. We can see the potential for positive externalities in areas of public-private governance that promote complementarity such as efforts to regulate the global timber trade. Bartley (2018, 258-83) argues that the success of private, transnational timber regulation hinges largely on the degree to which it operates through domestic institutions and laws. While some governance has been delegated to global governors, the private regulatory regime retains a stake in the capacity of the domestic institutions with and through which it operates. The logic presented in this article is that this form of public-private symbiosis would also carry positive spillovers for the broader domestic environmental agency tasked with cooperating with and regulating the transnational timber regime. This occurs as public investments in the capacity to regulate timber spillover into other areas within the agency's broader ambit such as air or water pollution. This positive externality comes from the fact that the transnational institution still depends on the operation of its domestic counterpart; it remains a "client" of the domestic institution.

Transnational anti-corruption efforts provide another example of the capacity-enhancing potential of global governance. While debate remains within this literature on the consequences of the growth of transnational anti-bribery enforcement on the development of domestic capacity (e.g., Davis, 2010), the framework presented here would predict an increase in domestic capacity, given the reliance of transnational actors on domestic law enforcement for investigatory assistance and illicit-payment detection.

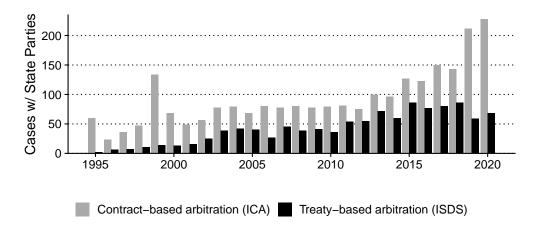
To summarize, institutions can be thought of as bundles of tasks and authorities. Increasing economic interdependence has put pressure on state institutions to partially delegate authority to private transnational authorities. As private, transnational institutions increasingly take over tasks that were previously bundled in more general public institutions, rulemaking authority becomes more diffuse, decentralized and complex. Increased complexity risks entrenching the power of well-resourced actors, while the export

of governance authority risks undermining political and legal development incentives. I expect therefore that high dependence or complementarity between private and public bodies should have an *enhancing* effect on domestic institutions. Whereas I expect substitution to weaken dependence and have a *stagnating* effect. In the next section, I apply this framework to the case of international commercial arbitration and argue that, by substituting for courts, arbitration reduces powerful commercial actors' reliance on the judiciary, to the detriment of the broader judiciary.

3 ICA as an Unbundling Institution

In this section, I argue that international commercial arbitration puts public investment in domestic legal capacity at risk by reducing pressure on the state to commit political and financial resources to do so. In a nutshell, ICA reduces commercial actors' reliance on domestic courts by providing them with a private, reliable and enforceable means of resolving contract disputes. Firms also prefer arbitration because it is typically confidential and the parties control the entire process. Unlike judicial proceedings, arbitration allows the parties to determine nearly all aspects of the dispute resolution process such as, who the arbitrators are; what rules will govern the merits of a dispute (i.e. what law will be used to determine the issues at stake); the rules governing the procedure of the arbitration; as well as in what jurisdiction the award will be enforced. For example, a Chinese firm may use an arbitration provision in a contract with an American counter-party and take them to arbitration in England. Despite taking place in England, Chinese law may apply to the case. If the American firm loses, the Chinese firm can ask an American court to enforce the award with the same legal force as an American judicial ruling. Except under a very narrow set of exceptions, the American court is bound to enforce the award.

The legal flexibility that ICA provides has turned it into a crucial backbone of the global legal framework that makes trade and investment possible (Mattli and Dietz, 2014; Hale,



Notes: Yearly treaty-based cases obtained from the UNCTAD Investment Dispute Settlement Navigator. ICC case counts are derived from various issues of the ICC Court of Arbitration Bulletin from 1992–2021 (on file with the author). State parties includes governments and para-statal entities such as state-owned enterprises.

Figure 1. Contract- versus treaty-based arbitration between private and public actors, 1995–2020

2015). We can see this just in the number of cases sent to arbitration each year. There were 842 cases that were filed at just the International Chamber of Commerce in 2018; 301 cases at the London Court of International Arbitration; 152 cases at the Stockholm Chamber of Commerce; and 343 cases at the Singapore International Arbitration Center. While most of these disputes are likely to be between private parties, ICA does not only handle purely private disputes. In fact, more public-private disputes are arbitrated through ICA than treaty-based investor-state dispute settlement (ISDS). And perhaps because of the recent backlash against ISDS, reliance on ICA over ISDS has been growing in the last few years (see Figure 1). It is important to note that, in contrast to ISDS—which is designed to manage violations of international law (though these cases are often rooted in contract disputes)—ICA is equipped to resolve almost any cross-border contract dispute (very broadly defined). ICA therefore offers a more complete substitute for a country's domestic contract enforcement institutions that applies to both fully private as well as public-private disputes. While this system may create localized benefits for large firms and cross-border trade, I argue below that the way ICA is currently practiced—substituting

for domestic courts—risks undermining the public legal infrastructure within countries that facilitate ICA.

3.1 How ICA hinders legal development

Legal capacity is in large part a political outcome (Besley and Persson, 2009). The prospect of boosting international trade and development creates an important incentive for judicial reform, as it is widely understood that international (and domestic) commercial actors are highly sensitive to the capacity of domestic institutions (Staats and Biglaiser, 2012; Wang, 2015). And leaders are aware of this. For example, in his study of reform of the Egyptian judiciary, Moustafa (2007, 77) quotes from an official involved in designing Egypt's newly independent (in economic matters) constitutional court in 1979 as saying that while there was domestic and international pressure, "...more importantly, from the outside there was pressure from foreign investors and even the foreign embassies."

Arbitration undermines this incentive to commit resources to the judiciary by unbundling commercial dispute resolution from the public judiciary and providing a highly effective private alternative to the public supply of contract enforcement. With their exit into arbitration, politically influential firms have less of a stake in the quality of domestic courts. Arbitration reduces the incentives political leaders face to carry out politically and financially costly reforms and similarly diminishes the economic costs of political intervention in the judiciary. As Ginsburg (2005, 119) argues, the availability of international arbitration therefore "may reduce courts' incentives to improve performance by depriving key actors from a need to invest in institutional improvement" (see also Puig and Shaffer, 2018, 395-7).

The harmful effect of substitution is likely exacerbated in countries where legal capacity is already quite low due to lack of funding or political support. For example, in a study of commercial arbitration in Sudan, Massoud (2014) argues that the Sudanese regime promoted ICA in order to provide high-quality legal services demanded by foreign

investors without risking spillover of liberal rule-of-law norms into the broader judiciary. Arbitration thus grants key interest groups access to an effective and neutral contract enforcement institution, without undermining the regime's use of the judiciary as a tool for maintaining a repressive public order. Massoud quotes an international lawyer who states bluntly how the growth of arbitration has altered political leaders' incentives, "Given how well-established international arbitration is and how [strong] it's become, money saying 'look at our courts and how independent they are' might not be money well spent" (p. 16). Indeed, an international survey of in-house counsel found that 92% of respondents prefer arbitration to cross-border litigation in national courts. Arbitration thus targets the demands of specific economically important actors at the expense of those with less influence. It splits constituencies that would otherwise share an interest in pressuring the state to maintain or enhance public legal capacity. This reduces the political and economic costs states face for failing to invest in reforms promoting legal education, transparency, accountability and efficiency within domestic legal institutions.

A resource-constrained state may benefit from a private exit option for discontented actors (Gerring and Thacker, 2004, 318). The growth of a private alternative to national courts relieves pressure from commercial interests on leaders to implement reforms promoting judicial neutrality, predictability, and expertise. Without a private alternative, leaders face a dilemma in which they may prefer to have a strong judiciary in order to promote investment but fear that an independent judiciary may turn against the regime's interests in other areas (Wang, 2015). Outsourcing otherwise public adjudication tasks to private substitutes can help resolve this dilemma (Liu and Weingast, 2020).

Egypt faced this dilemma in the 1990s. After granting its Constitutional Court greater levels of independence over the prior decade, the Egyptian government cracked down on the Court after it tried to parlay the legitimacy it won in the economic realm into matters

¹White & Case and Queen Mary, University of London 2018, p. 6. Accessible at https://www.whitecase.com/sites/whitecase/files/files/download/publications/qmul-international-arbitration-survey-2018-18.pdf

like human rights (Moustafa, 2007, Ch. 6). Egypt enacted pro-ICA reforms in 1994 and was able to maintain its reputation as an attractive site for ICA despite subsequent political interventions into the judiciary. ICA enables states with weak public legal capacity to provide neutral, efficient judicial-like adjudication while reducing the costs of maintaining tight control over the judiciary in matters of public order.

The growth of global governance disconnected from public accountability not only risks reducing international reform pressure, but domestic pressures as well. Because of the latitude given to contractual parties in defining what constitutes an "international" contract or dispute and the mobility of capital, domestic actors can take advantage of the growth of arbitration, as well. Sharafutdinova and Dawisha (2017) argue that Russian oligarchs and commercial interests have taken their capital abroad in order to avoid domestic institutions and take advantage of British courts and international arbitration bodies like the London Court of International Arbitration or the ICC to settle disputes and enforce contracts (pp. 369-71). The availability of these institutional exit options in the 1990s worsened the collective action problem plaguing Russian commercial interests when faced with an increasingly extortionate and illiberal state (pp. 364-5). It became easier to simply rely on transnational contract enforcement institutions than to lobby for domestic reforms. Sharafutdinova and Dawisha argue that the availability of high-quality, transnational contract enforcement institutions not only reduces political pressure for domestic reform but also increases the incentives for domestic business elites to maintain the illiberal domestic status quo (see also Sonin, 2003). As they write, "business elites take advantage of weak institutions at home to make profits, while using strong institutions abroad to safeguard them" (p. 363). In other words, beyond simply reducing pressure on the state to improve public institutions, strengthening private institutions could even generate an anti-reform constituency that benefits from their more ready access to private substitutes of weak public institutions.

3.2 Can ICA improve legal development?

Some argue that unbundling might produce *positive* externalities, such as competition between arbitration and courts that generates a "race to the top" (Franck, 2007, 367-8). For competition to produce a "race to the top," however, there must be some mechanism by which competition creates costs that the public institution will seek to minimize or recoup. It is unclear what those costs would be. As Ginsburg (2005, 119) puts it, national judges do not internalize the benefits of the law they provide. Therefore, there is little reason to expect courts to suffer when dispute resolution is outsourced to a third-party—judges do not lose from the growth of arbitration.

According to the argument given in Section 2, a private authority could be designed to be complementary to the domestic institutions if it remains reliant on the capacity of the domestic body to function well. Could this be the case with ICA? As I argue below, opportunities for states to regulate ICA have been declining for decades. The two main opportunities for overseeing ICA are in the design of domestic legislation governing ICA and in the judicial enforcement of arbitration agreements and awards. I deal with each of these factors in turn.

In theory, there are ways a country could both promote ICA and oversee its practice, thereby promoting a potentially *complementary* relationship between arbitration and the judiciary. A country could grant the right to judicial review on the merits; require arbitrators to state the reasons for their decisions; require that awards be made public; etc. Few countries do so. Instead, most countries enacting ICA reforms today base those reforms on the UNCITRAL Model Law on International Commercial Arbitration (often considered the "gold standard" of a modern ICA regime), which expressly limits potential mechanisms through which a court might oversee arbitration. The Model Law severely restricts judicial intervention in the arbitration process. A few of these features include rules like: arbitral awards cannot be appealed; courts must enforce awards and arbitration

agreements except under very limited circumstances; arbitrators can find their own jurisdiction (i.e. "Kompetenz-Kompetenz"). UNCITRAL's advocacy has been instrumental in harmonizing and increasing ICA protections around the world. Because the pressure for reform typically comes from a desire to attract capital, rather than reform of the judiciary, countries have opted into adopting the Model Law with minimal revision (Binder, 2010). Moreover, competition for trade and investment drive states towards focal standards such as the Model Law and incentivizes states to limit the scope of public oversight over the practice.

Another mechanism for retaining firms' reliance on courts is to carve out certain areas of law over which the judiciary has oversight or exclusive jurisdiction. But arbitrators today have wide latitude to base decisions on their own interpretations of almost any relevant rules of law. Judiciaries in major arbitration states have been gradually increasing the authority of arbitrators to interpret and apply public law. For example, through a series of interpretations of the Federal Arbitration Act, the United States Supreme Court has increased arbitrator's powers to rule on mandatory rules. This has given actors an avenue to circumvent mandatory rules in areas like securities law and antitrust (Guzman, 2000). European courts have similarly granted increased authority to arbitrators to root decisions in their own interpretations of mandatory EU law (Stone Sweet and Grisel, 2017, 178-85). Stone Sweet (2006) argues that this deference has led to the transnationalization of commercial law and its decoupling from domestic law. Using both legal analysis and interviews with practitioners, Karton (2013) finds that the culture of ICA has led arbitrators to arrive at unique, though internally consistent, interpretations of domestic law.

Karton's findings are particularly important in light of concerns that arbitration decreases the predictability and transparency of domestic law by preventing commercial law from developing in public view (Resnik, 2015). Inconsistencies between private and public applications of public law could be resolved if arbitral awards were reviewable by a court for legal errors. But the Model Law bars courts from reviewing arbitral awards,

further limiting the opportunity for judicial oversight. A South African Judge President wrote in 2005 how arbitration gave White business interests a tool for undermining attempts to integrate the judiciary: "This [commercial arbitration] is clearly an attempt to undermine the transformation of the judiciary. Arbitration does not contribute towards the development of the law..." (Hlophe, 2005, 31). Similarly, the English Lord Chief Justice warned that the growth of arbitration provisions in commercial contracts "has been a serious impediment to the development of the common law by the courts in the UK" (Thomas, 2016, 2).

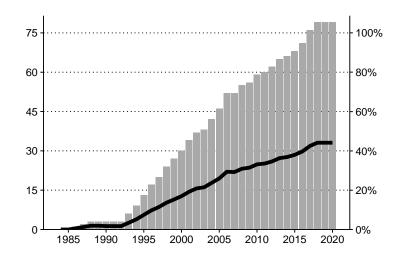
A final potential avenue for state dependence written into the Model Law is an exception that allows courts to deny enforcement of awards that cut against "public policy." The scope of this exception is very narrow and shrinking, further limiting domestic authorities' abilities to oversee arbitration practice (Stone Sweet and Grisel, 2017, 147-50). Recently, courts in major enforcement states have increasingly interpreted this exception to refer only to *international* public policy—even if it contravenes domestic law. An array of courts in important enforcement countries such as the US, Italy, India, Egypt, France, Switzerland and others have ruled along these lines (Blackaby, Partasides and Redfern, 2022, 594-5).

In sum, the modern ICA regime is designed to prevent domestic oversight. It removes the state from the regulation of commercial disputes, thereby reducing dependence on public legal institutions. Pushing the state into the background minimizes incentives that would otherwise exist to invest in costly legal reforms. I therefore expect to find stagnation or a *negative* association between the promotion of ICA and legal development. In the next section, I test this hypothesis on a cross-national panel of countries that have implemented UNCITRAL's Model Law on ICA.

4 Data & Methods

Dependent variable: legal development. I adopt a definition of legal development that is tied to the capacity, efficiency and fairness of the judiciary specifically. This definition is narrower in scope than traditional conceptions of the "rule of law" because it is primarily from the judiciary that tasks are being unbundled and delegated to ICA. In the absence of an exit option, commercial actors would have an interest in pressuring the state to pursue goals that improve the capacity of the judiciary to enforce contracts and resolve disputes efficiently and fairly.

I use the Rule of Law Index from the Varieties of Democracy Project (V-Dem) to measure the capacity of judicial institutions cross-nationally and over time. V-Dem's Index is ideal in this case because it is an aggregation of expert-coded measures primarily pertaining to theoretically relevant features of the domestic legal system including both the independence and competence of multiple levels of each country's judiciary along with other aspects of modern legal development including the openness and transparency of laws, access to judicial justice, and the predictability of enforcement. Aside from the substantive similarity of the Index to the definition of legal capacity adopted here, another benefit of the measure is that it has very wide coverage. It allows for the inclusion of over 150 countries in the sample across the full length of the relevant time span (beginning in 1985, the year the UN General Assembly adopted the Model Law). This measure is preferable compared to other measures such as the rule-of-law indices maintained by the World Bank or Freedom House for both conceptual reasons as well as its more expansive temporal and geographic coverage. Unlike V-Dem's measure, these seek to measure a much broader conception of the rule of law that incorporates outcomes that are only very tenuously linked to the judicial capacity like crime, war and violence, corruption, policing and others. In the robustness checks, I disaggregate the V-Dem measure and examine other, more targeted measures of judicial capacity from the Fraser Institute.



Notes: Grey bars represent the total number of countries with Model Law-based legislation in force per year. The black line plots the global percentage of such countries per year (count of total countries per year is derived from Varieties of Democracy Dataset).

Figure 2. Rate of National Legislation based on UNCITRAL Model Law on International Commercial Arbitration, 1985-2020

Independent variable: protections for ICA. To proxy for integration into the ICA regime, I collected data on the enactment of domestic legislation based on the UNICTRAL Model Law on ICA. Introduced in 1985, the Model Law is considered to be the "state-of-the-art" in permissive arbitration laws. By 2020, over 75 countries had enacted national legislation based on the Model Law (see Figure 2). The data were collected from the UNCITRAL's yearly "Status of Conventions" reports. These reports update UNCITRAL members when a country is recognized by UNCITRAL for having legislation based on the Model Law (and other UNCITRAL initiatives) enter into force. While countries can shape domestic implementation of the Model Law as they see fit, UNCITRAL's primary goal is transnational legal harmony. UNCITRAL has an interest in maintaining the value of its legal instruments not only as guides for commercial law reform, but also as heuristics for the international legal and commercial communities. This means that UNCITRAL will not approve a country as a "Model Law country" if it deviates too far from the text or spirit

²Due to some inconsistencies in the yearly reports, I verified all dates of entry into force by examining the implementing legislation in all Model Law countries.

of the Model Law. This has led to significant harmony across Model Law jurisdictions. As one Senior Legal Officer at UNCITRAL writes, there is a "high degree of substantive uniformity in the implementation of the [Model Law]" (Faria, 2005, 22). Additionally, a law will not be considered an enactment of the Model Law if it "contain[s] any provision incompatible with the basic philosophy of the Model Law" (p. 20).³ Consistent with these norms and the incentives countries face for harmony, an independent analysis of all Model Law countries in 2010 found a extremely high degree of similarity between jurisdictions (Binder, 2010).⁴ Thus the rules governing who is eligible for UNCITRAL's imprimatur as well as independent, in-depth, legal analyses of the laws themselves both demonstrate a very high degree of uniformity across jurisdictions. In this way, the Model Law is a "bundled treatment" in that it implements a network of rules that together facilitate the privatization of dispute resolution by shielding the process and outcomes of arbitration from judicial scrutiny, while at the same time requiring courts to enforce arbitration agreements and awards. Enactment thus implies at least a very high level of restrictions placed on judicial intervention into arbitration.

Estimation strategy. I estimate the effect of enacting strong protections for ICA on the quality of domestic legal institutions using the difference-in-differences (DiD) estimator with weighted matched sets proposed by Imai, Kim and Wang (2021). This estimator avoids potential issues with the two-way fixed effects (TWFE) estimator as it accommodates treatment effects that are heterogeneous across units and time and prevents mismatched comparisons between already-treated and newly-treated units. The PanelMatch estimator is also better equipped to handle unbalanced panels with staggered adoption and relatively fewer pre-treatment time periods than similar strategies such as synthetic control methods (Imai, Kim and Wang, 2021, 2). To assess the robustness of the findings to alternative specifications, I re-run the analysis using the unbiased, linear estimator

³Indeed, despite its arbitration laws being inspired by the Model Law, Romania was not recognized as a Model Law country because of a provision that allowed Romanian courts to annul an arbitration award if the award were based on a legal provision that was deemed unconstitutional, see Leaua (2013).

⁴See Table A1.

proposed by Borusyak, Jaravel and Spiess (2022).

The propensity scores used to create the weights for the matched sets are estimated by regressing the treatment variable, enactment of the Model Law, on a set of covariates prior to enactment. I include two institutional covariates. First, I include a count of BITs in force. BITs often provide access for foreign investors to international investor-state arbitration (ISDS). ISDS and ICA are dispute resolution frameworks with similar relationships to domestic courts, so it is possible that having ratified BITs in the past may increase the odds of enacting the Model Law. Second, I include the dependent variable of the second stage of the analysis, the V-Dem Rule of Law Index in case enactment is correlated with the pre-existing level of legal capacity.

I also include a set of economic covariates. Countries that are more integrated into the global economy face greater pressure to provide neutral dispute resolution services and therefore may be more likely to invest in both capacity-enhancing legal reforms and transnational contract enforcement regimes like ICA. I therefore include economic variables that could influence both pressure for reform and access to legal development assistance. I include measures of logged GDP, GDP per capital, GDP growth to help adjust for any confounding effects of market size and economic development trajectory. These data were obtained from the World Bank's World Development Indicators. To measure a country's dependence on foreign direct investment (FDI), I obtained data on the total inward FDI stock as a percentage of GDP from UNCTADstat. Finally, I include a measure of total trade (imports + exports) as a percentage of GDP. I lag all explanatory variables by one year.

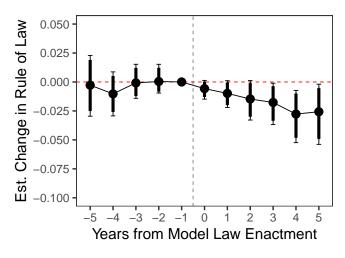
The final step of the procedure is to estimate the average effect of treatment on the treated (ATT) in the year of enactment of the Model Law (t_i) and for each of the five years thereafter (F). I apply the following DiD estimator for each time period F:

$$\widehat{ATT_F} = 1/N \times \sum_{i}^{N} \left((Y_{i,t_i+F} - Y_{i,t_i-1}) - \sum_{i' \in \mathcal{M}_i} \omega_i^{i'} (Y_{i',t_i+F} - Y_{i',t_i-1}) \right)$$

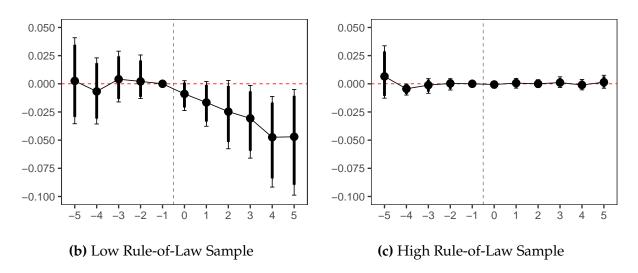
N is the number of countries within the sample that have enacted the Model Law. t_i is the year in which the Model Law enters into force for each country i. $Y_{i,t}$ and $Y_{i',t}$ are the rule of law scores for Model Law and matched non-Model Law countries. The term $\omega_i^{i'}$ denotes the normalized weight applied to the rule of law score for each unit i' in the matched set of Model Law-enacting state i (\mathcal{M}_i). This equation yields an estimate of the change in the rule of law score from one year before the Model Law enters into force to years $t_i + F$ for Model Law countries minus the weighted average of the change within each Model Law country's matched set over the same duration. I calculate this for each Model Law country then average the results for each time period. The $\widehat{ATT_F}$ is therefore the estimated average effect of the Model Law entering into force for each year beginning from the year it enters into force through each of the following five years. A more thorough description of the estimation procedure is given in Appendix D.

5 Results

The main results are presented in Figure 3. Figure 3a reports the estimates from the full sample. While the Model Law and control groups are indistinguishable in the year of enactment, we see an increasingly large relative decrease in the Rule of Law score for Model Law countries, consistent with the framework presented above. The difference becomes statistically significant at the 95% level three to four years post-enactment. It takes time for the legal and behavioral changes brought on by the Model Law to influence broader legal development in the country. Parties must opt-out of national judicial institutions by negotiating arbitration clauses into their contracts. Therefore, there should be some lag as firms shift their attention away from the domestic judiciary and rules and into transnational arbitration centers. Exit by commercial parties from national legal institutions lowers outside pressure on the state to invest in the progressive reforms like reforming archaic procedures, improving judicial training, increasing salaries, funding domestic law



(a) Full Sample



Note: These figures plot the yearly estimates of the average treatment effect on the treated using the difference-in-differences estimator recommended by Imai, Kim and Wang (2021). 90% and 95% confidence intervals are estimated via blocked bootstrap with 5,000 iterations. Table A5 also summarizes these results as well as analyses using an alternative weighting algorithm as well as the alternative diff-in-diff estimator proposed by Borusyak, Jaravel and Spiess (2022).

Figure 3. Main results

schools, legal training, and so on. This process leads to the gradual reduction in political pressure for investment in progressive rule-of-law reforms, which allows for problems in the legal system to persist and accumulate. Moreover, the economic costs for having a low-capacity or politically-motivated judiciary are expected to be lower in countries that promote the use of arbitration. For any given jurisdiction, change may be bumpy because it is often through crises or cases that new information is revealed about the capacity and independence of the judiciary. But as the Model Law makes such events more likely on average, we should see a gradually increasing separation between non-Model Law and Model Law countries as a result.

Figure 3 also presents the results of a placebo test to assess the common trends assumption: that Model Law countries and their matched sets would not differ in the absence of Model Law enactment. A common test for this assumption is to see if there is any observable difference between the trajectories of the treatment and control groups before the treatment comes into effect. I therefore estimate the "effect" of the Model Law on legal development prior to enactment of the Model Law. The flat line prior to enactment (i.e., years –5 through –2 in the figures) in all three figures does not provide any evidence that the results are driven by pre-existing differences in the trajectories between the two groups in the years leading up to enactment.

We are most interested, however, in the effect of ICA on institutions in counties that do not already enjoy a high-capacity, consolidated legal regime. Unpacking how ICA influences domestic legal institutions in weak rule-of-law countries is important because the Model Law is often embedded within broader development efforts to promote the rule of law in countries where legal capacity is low. As Rogers and Drahozal (2022, 1) put it, there is "an implicit promise of investment arbitration...that it will not only provide protection of foreign investors, but also foster good governance..." The sample in Figure 3a includes all enacting countries, which may be biasing the results towards zero for a couple of reasons. First, countries that enjoy robust legal systems may not

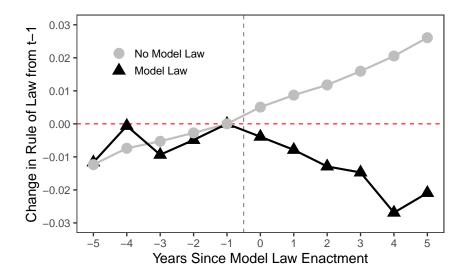
be actively engaged in legal reform, so a reduction in pressure for reform would have little effect on institutional outcomes. Second, weak rule-of-law countries tend to have fewer resources, so they face higher opportunity costs when investing in different reform projects. Minimizing pressure for legal reform may have a larger negative impact in those countries than in better-resourced countries. Third and related, arbitration will diffuse concerns about illiberal interventions into the judiciary.

To examine the effect of the Model Law on countries with weaker legal infrastructure, I re-run the analysis but exclude all cases of countries that enact the Model Law with pre-existing strong rule-of-law institutions. I classify as "low rule-of-law" any country with a Rule of Law Index less than .8 at the time of enactment of the Model Law.⁵ As a frame of reference, Bulgaria, a Model Law country, has hovered around .75 for the last decade. Another Model Law country, Mexico, has fluctuated between .5 and .65 over the same period. Just above the cut point is Greece, which had a score of .82 in 2017. The results for this subsample are reported in Figure 3b.

Comparing Figures 3a and 3b we see that the ATT for Low Rule of Law countries is roughly double that of the full sample (though the difference is not statistically significant). We also see the same pattern of gradual institutional degradation relative to the control group. The model estimates that, on average, five years after enacting the Model Law a country is around .047 points below where it would otherwise have been. This comes out to a cumulative effect over five years of a decrease of roughly 15% of a standard deviation of the Rule of Law score in the sample. This finding is robust to alternative specifications. The difference between weighting by propensity scores or covariate balancing propensity scores is negligible (compare Columns 2 and 3 of Table A5). The unbiased, linear estimator proposed by Borusyak, Jaravel and Spiess (2022) yields estimates that are very similar in magnitude (Column 5 of Table A5).

Does the Model Law exert a similar effect on countries with already consolidated legal

⁵This is roughly the 73 percentile. A full list and categorization of the Model Law countries included in the analysis can be found in Appendix B.



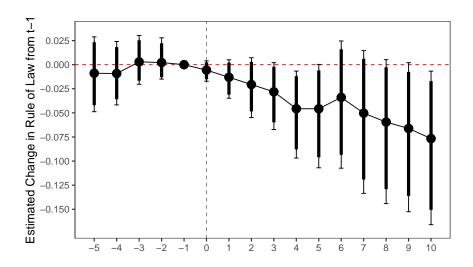
Note: This graph plots the average changes in Rule of Law Index from year t-1 for Model Law and non-Model Law countries separately based on estimates from Figure 3b (see also Table A5, Column 2).

Figure 4. First Differences

regimes? It appears not. Figure 3c plots the results for the high rule-of-law sample. Unlike the estimates with weak rule-of-law regimes, there appears to be no effect of the promotion of ICA on legal development in consolidated legal regimes. The estimated effect is highly statistically insignificant and very close to zero.

Are legal institutions within recent Model Law countries weakening or are they simply not improving at the rate they otherwise would have? We can examine the first differences to see what is driving the growing divergence between Model Law and non-Model Law countries.

Figure 4 plots the estimated trajectories of the Model Law and non-Model Law groups separately. Corroborating the placebo tests visualized above, Model Law and non-Model Law countries experience similar pre-enactment trajectories, with both groups exhibiting gradual improvement prior to enactment. The grey line reveals that the non-Model Law group continues to experience steady improvement over time. By contrast, the black line, representing the trajectory of the Model Law group, shows an absolute and relative decline in the quality of domestic legal institutions post-enactment. This figure suggests that the



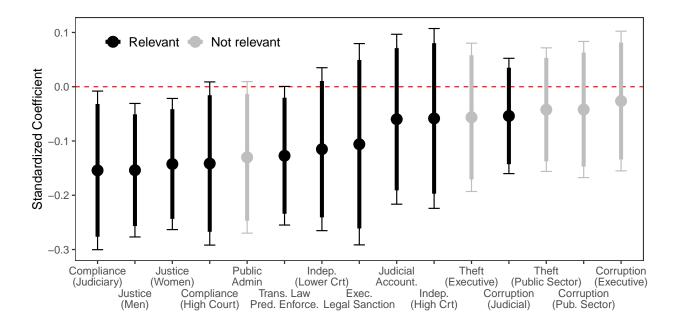
Note: Plots yearly estimated change in Rule of Law Index over a decade from the year prior to Model Law enactment for the low rule of law sample (where year 0 is the year the Model Law was implemented). 90% and 95% confidence intervals are estimated via blocked bootstrap with 5,000 iterations.

Figure 5. Estimated change in Rule of Law Index after Model Law enactment

effect is driven partly by institutional erosion within Model Law countries, but also partly by the continuation of improvements in the non-Model Law countries that halts in Model Law countries after enactment. This is consistent with the theory presented above in which the exit of international and domestic commercial actors from the domestic legal system is expected to lower pressure on governments to invest in the costly reforms to improve the neutrality, competence and efficiency of national legal institutions, while at the same time reducing the economic costs faced by regimes with weaker public legal systems.

In Figure 5, I re-estimate the model on the low rule-of-law sample but over a 10-year window.⁶ As was the case with the 5-year sample, the non-Model Law and Model Law groups are statistically indistinguishable for the first 3 years after enactment. While the estimates lose statistical significance from years 6 and 7, there is a clear, increasingly negative trend in the Model Law group. After a decade, I estimate a decline of roughly 25% of a SD.

⁶This reduces the number of Model Law countries included in the sample to 37 and reduces the average size of their matched sets.



Note: This figure plots the standardized coefficient on the Model Law in a series of static DiD analyses using the unbiased estimator proposed by Borusyak, Jaravel and Spiess (2022). See Appendix C for more on the definitions and categorization of theoretically-relevant sub-components.

Figure 6. Estimates of the effect of Model Law on individual sub-components of the V-Dem Rule of Law Index

As noted above, the V-Dem Rule of Law Index is a composite indicator. Some of the Index's sub-components are of direct theoretical relevance but others are less so. Which of the sub-components is driving the results found above? To assess this question, I conducted a series of static DiD analyses using the robust estimator proposed by Borusyak, Jaravel and Spiess (2022) with the same set of covariates but I replace the composite Index with each of its sub-components. The results are presented in Figure 6. For ease of interpretation, I categorize each sub-component based on its theoretical relevance. The primary drivers are almost exclusively theoretically relevant. While the Model Law is found to have a null effect on judicial independence, it is associated with worse judicial outcomes: Compliance with the judiciary as a whole (and, to a slightly lesser extent, the high court alone) declines post-enactment, as does the availability of judicial remedies for men and women. Similarly, by removing commercial dispute resolution from public

⁷For more, see Appendix C.

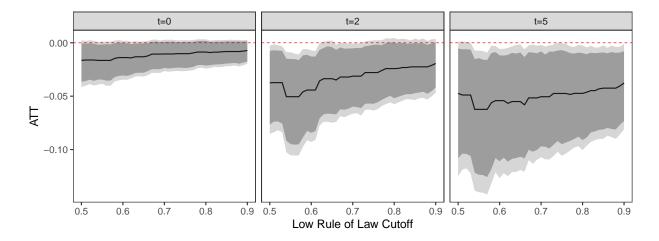
scrutiny and facilitating the importation of foreign law, the Model Law diminishes the relevance of domestic law and thereby reduces the need for the state to commit resources to improving the quality of domestic legislation (Cutler and Lark, 2022). Accordingly, we also see a reduction in the transparency and predictability of domestic laws. Alternatively, the sub-components with the weakest associations are all related to matters unrelated to the Model Law: public corruption and embezzlement.

5.1 Robustness Checks

Alternative low rule-of-law cut-offs. To ensure these results are not driven by how I categorize "high" and "low" rule-of-law countries, I re-run the low rule-of-law analysis using other cut points. The results for 0, 2 and 5 years after enactment are presented in Figure 7. These plots show that estimates presented in Figure 3b are largely consistent across a range of other plausible cut points (between .5 and .9). As in the main results, we see a gradual reduction in Rule of Law scores after Model Law enactment across all analyses. Interestingly, the upward slope in each plot indicates that the effect size decreases as the mean rule-of-law score in the "low" rule-of-law group increases, suggesting further that countries with weaker legal systems prior to enactment are more susceptible to institutional stagnation.

Alternative measures of dependent and independent variables. Some popular "arbitration hubs" have not enacted the Model Law, often because they were the early adopters and promoters of commercial arbitration that set the standard on which the Model Law was based. These countries include the France, Sweden, Switzerland, the US, and the UK. Since these countries tend to have highly efficient judicial systems, their inclusion in the control group might bias the results. Excluding these countries from the analysis does not materially alter the estimates (see Figure A2).

I also re-run the main analysis on weak rule-of-law countries using alternative measures of the rule of law created by the Fraser Institute. I find that Model Law enactment



Note: Figures plot estimates for F = [0, 2, 5] from analyses that implement various cut points to define "low rule-of-law" countries. As above, 90% (dark shaded region) and 95% (light shade) confidence intervals are estimated via blocked bootstrap with 5,000 iterations. For the complete results see Figure A3 in the Appendix.

Figure 7. Alternative cutoffs

is associated with a statistically significant decline in judicial independence (Figure A5a). Enactment is also negatively associated with the integrity of the legal system (Figure A5b). And as further evidence of the Model Law's impact on domestic contract enforcement, I also find that, despite its negative effect on broader legal institutions, Model Law enactment *increases* the quality of contract enforcement within a country (Figure A5c).

Instrumental variables estimation. While I find no evidence that legal institutions in Model Law countries and non-Model Law countries are on different trajectories prior to enactment of the Model Law, my estimates could be biased if, for example, a large subset of leaders enact the Model Law in anticipation of policy that would erode the quality of domestic legal institutions independently of Model Law enactment. In this section, I develop an original instrument for Model Law enactment to help allay concerns from the risk of endogeneity. The instrument I propose helps deal with such issues because it predicts Model Law enactment using variation in the rate of Model Law adoption among a country's export competitors in contract-intensive trade, which is plausibly unrelated to unobserved domestic factors that might generate a spurious correlation between Model

Law enactment and legal stagnation.

The intuition motivating this instrument is that higher levels of competition with Model Law countries in *contract-intensive products* will increase the incentive for countries to also enact the Model Law in order to improve the attractiveness of their contracting institutions in the eyes of foreign purchasers or investors. Examining government reports and speeches demonstrates how Model Law enactment among a country's trade competitors influences domestic considerations. In South Africa, for example, a report advocating for Model Law enactment by the South African Law Commission noted that the end of apartheid led to "increased regional trade and economic links with other countries" that made it increasingly "important that the country's arbitration law should be in line with international norms" (SALC, 1998, 20). The report then raises regional economic competitors explicitly to justify its recommendation for enacting reforms based on the Model Law (p. 24). Elsewhere, an official from Argentina's Ministry of Justice supported adopting the Model Law in part because a regional economic competitor, Uruguay, was taking steps to enact the Model Law. In his words, "the global market demands an increasingly uniform legal system" (quoted in Plimpton, 2017).

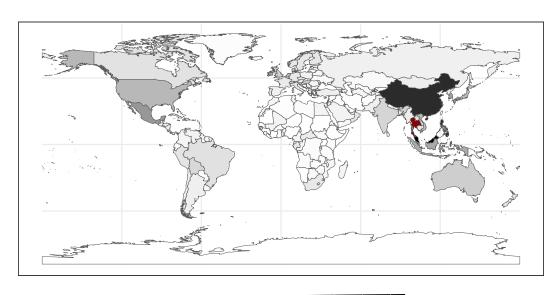
I instrument for Model Law enactment using the global rate of Model Law adoption weighted by how much a given home country *i* competes with Model Law countries in contract-intensive export markets. In order to construct a measure of competition in contract-intensive trade, I first obtain product-level trade data spanning 1996–2020 from Gaulier and Zignago (2010). I then use data from Rauch (1999) to identify products at the 4-digit level under SITC (Rev. 3) that are "differentiated," meaning they are not traded on an exchange or tied to a reference price. I examine only exports of differentiated products as they tend to be more complex and therefore trade in such goods is more reliant on relationship-specific contracts (Nunn, 2007).

From these data, I construct an $N \times N \times T$ matrix containing the correlation of the value of exports at the importer-product level between each country-pair ij in each year

t, denoted w_{ijt} . As in Cao and Prakash (2010), I replace negative correlation coefficients with 0 because I only expect positive trade similarity to induce competitive pressure. I then normalize every correlation for each country i by the sum of its correlations with all other countries j, or $w_{ijt}^* = \frac{w_{ijt}}{\sum_{i\neq j}^n w_{ijt}}$. This ensures that the weights are not homogeneous across country-pairs but are instead relative to each country's overall level of competition. Following this, I multiply each w_{ijt}^* by 1 if the Model Law is in force in competitor country j in year t and 0 otherwise then sum the result. The yields the global Model Law adoption rate weighted by the level of export competition each country i faces with Model Law countries in contract-intensive trade.

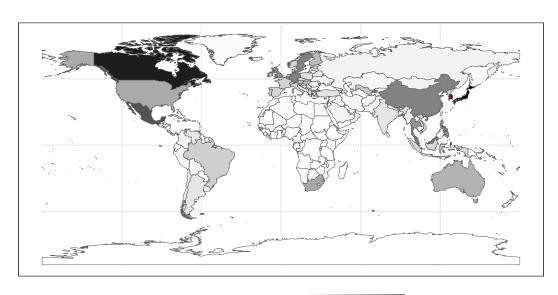
To illustrate the face validity of the measure, I plot the average export competition weights (before multiplying by Model Law enactment) for South Korea and Thailand in Figure 8. After comparing Panels A and B it is first clear that Thailand's biggest competitors are largely restricted to the South Asian region, while South Korea's competitors span the globe with darker regions in East Asia, North America and Europe. This difference likely reflects the relative position of each country in global value chains as the kinds of countries from which Thailand faces the stiffest competition also tend to be lower down the value chain than Korea's. Thailand's largest export competitors are Malaysia and China, whereas South Korea's are Canada and Japan. And Korea's darker regions in Europe are driven by competition with countries like the UK, Germany, and Sweden which also specialize in manufacturing cars and high-end electronics.

Finally, I estimate the effect of Model Law enactment on the capacity of domestic legal institutions using two-stage least squares (2SLS) regression in which I instrument for Model Law enactment using contract-intensive export competition (see Appendix F for full details). The main results are presented in Table 1. Consistent with the DiD findings, I find a negative effect of Model Law enactment on the quality of domestic legal institutions. The effect is statistically significant in all specifications. As an indirect method of validating the instrument, I re-ran the analysis using export competition in undifferenti-



Export competition weight 0.00 0.02 0.04 0.06

(a) Thailand



Export competition weight 0.00 0.02 0.04 0.06

(b) South Korea

Figure 8. Export competition in contract-intensive trade, averaged over sample period

	DV: V-Dem Rule of Law Index					
	(1)	(2)	(3)	(4)		
Second stage						
Model Law	-0.267** (0.113)	-0.244** (0.103)	-0.262** (0.116)	-0.326* (0.195)		
Adj. R ²	0.916	0.923	0.914	0.896		
First stage						
Export Competition _{Diff.}	0.068*** (0.021)	0.071*** (0.021)	0.067*** (0.023)	0.051** (0.023)		
Adj. R ²	0.702	0.703	0.707	0.718		
Controls Legal Econ. International Econ. Domestic		1	√ √	√ √ √		
Country & year FE	✓	\checkmark	✓	✓		
Observations	3,529	3,529	3,127	3,105		
1 st Stage <i>F-</i> stat Wu-Hausman test	61.06*** 46.38***	65.62*** 41.41***	46.35*** 34.67***	25.13*** 28.06***		

Notes: *p < 0.1, **p < 0.05, *** p < 0.01. Standard errors clustered by country. Export Competition is scaled to have mean 0, SD 1. "Legal" controls: NYC ratification and log of # BITs+1 ratified; "Econ. International:" log of inbound FDI stock and trade dependence; "Econ. Domestic:" log GDP per capita, GDP and GDP growth. All explanatory variables are lagged by one year. Model Law countries without pretreatment data are excluded. Full results are in Appendix F.

Table 1. 2SLS estimates

ated products (i.e., less contract-intensive trade). Export competition in undifferentiated products predicts neither Model Law enactment in the first stage, nor changes in the rule of law in the reduced form (see Tables A8 and A9).

Outside of its ability to predict Model Law enactment, for contract-intensive export competition to be a valid instrument it must only influence the quality of legal institutions in the home country through its effect on Model Law enactment. Due to similarities between investor-state arbitration and ICA, one might worry that competition with Model

Law countries might also increase the propensity of a country to ratify BITs as well, which some have argued may have harmful effects on domestic governance (Sattorova, 2018). I find no evidence, however, that contract-intensive export competition influences BIT ratification (see Table A10). Or perhaps it is simply export competition driving the results. I find no association between total export competition in differentiated products and Model Law enactment in the first stage (see Table A11). Similarly, I find no effect of total export competition in the reduced form analysis (see Table A12). It is otherwise unclear how Model Law enactment among a country's competitors might influence the development of its legal institutions. While this assumption is unfortunately untestable, I can assess how my estimates would change under hypothetical violations and provide some benchmarks for thinking about how threatening a potential violation of this assumption is to my estimates. To do that, I conduct a sensitivity analysis using the method proposed by Cinelli and Hazlett (2020) on the reduced-form specification, in which I regress V-Dem's Rule of Law indicator on export competition. This will give us a sense of how robust the 2SLS estimate is to omitted variable bias (i.e. violations of the exclusion restriction) given that the 2SLS coefficient is equal to the ratio of the estimated coefficients from the reduced-from and first-stage models.

I present reduced form estimates in Table 2. As expected, I estimate that increased export competition from Model Law countries generates declines in the quality of domestic legal institutions. The coefficient estimates are highly stable and statistically significant across all specifications.

The results from the sensitivity analysis are presented below the coefficient estimates in Table 2. The robustness values, $RV_{q=1}$ and $RV_{q=1,\alpha=0.05}$, indicate the percent of the variation in both Export Competition and Rule of Law that an unobserved confounder would have to account for in order to drive the coefficient to 0 or the p-value above .05, respectively. Here is a more concrete benchmark: in order to drive the coefficient on Export Competition to zero, a potential confounder would need a partial \mathbb{R}^2 (on both treatment

	DV: V-Dem Rule of Law Index						
	(1)	(2)	(3)	(4)			
Export Competition _{Diff.}	-0.018*** (0.006)	-0.017*** (0.006)	-0.017*** (0.006)	-0.017** (0.007)			
Omitted Variable Bias Robustness Values							
$R^2_{Y \sim Z \mid \mathbf{X}}$	1.4%	1.3%	1.2%	1.0%			
$RV_{q=1}$	11.2%	10.6%	10.5%	9.6%			
$RV_{q=1,\alpha=0.05}$	8.1%	7.6%	7.2%	6.2%			
Controls							
Legal		✓	✓	✓			
Econ. International			✓	✓			
Econ. Domestic				✓			
Country & year FE	✓	✓	✓	✓			
Adj. R ²	0.954	0.954	0.952	0.952			
Observations	3,529	3,529	3,127	3,105			

Notes: * p < 0.1, *** p < 0.05, *** p < 0.01. Robust standard errors are clustered by country. Export Competition is scaled to have mean 0, SD 1. OVB Robustness Values are derived from the method proposed by Cinelli and Hazlett (2020). These statistics provide the percentage of variation a potential, unobserved confounder would have to account for in both the treatment and outcome to drive the coefficient on Export Competition to 0 ($RV_{q=1}$) or its p-value above .05 ($RV_{q=1,\alpha=.05}$). $R^2_{Y\sim Z|X}$ denotes the partial R^2 of export competition conditional on the included covariates.

Table 2. Reduced form estimates

and outcome) of about 15 times that of logged Trade Dependence (the strongest predictor in the reduced form estimates) or about 5 times logged GDP per capita (the strongest predictor of treatment in the first-stage estimates). So while one can never entirely rule out the possibility of a violation of the exclusion restriction, these statistics suggests that the results presented here are fairly robust even if the exclusion restriction is violated to some degree. In sum, the IV estimates combined with the DiD estimates presented in the previous section suggest a negative relationship between the promotion of arbitration and the subsequent development of a country's legal institutions.

6 Does the Model Law increase the use of arbitration?

ICA carries important political and legal implications in large part because of the structural factors discussed in Section 3, such as the absence of any system of appeal. But the lack of appeal and so on should not be confused with the absence of any system of control or supervision. There remains a limited set of tools available to national courts for overseeing arbitration (such as setting aside awards, issuing interim measures), so long as the arbitration is seated in that court's jurisdiction. Importantly, the decision on where to seat an arbitration is made by the parties. The effect of the Model Law on the authority of national courts is therefore partly a function of the behavior of private (and public) actors negotiating where to seat their arbitration. This means dependency is not only a legal question, but also an empirical one, as dependence on national courts for contract enforcement is influenced by where the parties decide to have their arbitration. While in Section 3 I argue that the structure of modern ICA reduces its dependence on public institutions, in this section I examine the behavioral implications of enactment. I find that Model Law enactment weakens dependence on courts: enactment increases the use of arbitration by nationals in an enacting jurisdiction, but I do not find consistent evidence of an increase in the rate by which that jurisdiction is selected as the seat of arbitration. This suggests that, beyond the structure of ICA, party behavior is further reducing dependence on domestic institutions and thereby decreasing pressure on states for capacity-enhancing reform.

To examine the impact of Model Law enactment of dispute resolution behavior, I gathered yearly data on both the location of the seat of arbitration as well as the nationality of parties to cases managed by the International Chamber of Commerce (ICC) from 1992 to 2020.8 The ICC is an especially useful case study here for two reasons. First, the ICC tends to manage very high value disputes, so its cases tend to represent the behavior

⁸These data are obtained from the ICC's annual "Statistical Report" of each yearly volume of the ICC *International Court of Arbitration Bulletin* from 1993-2021. Copies are available upon request from the author.

of some the largest firms and international deals. And, second, the ICC is both highly prestigious and active as well as a distinctly *international* ICA center. The range of arbitral seats in the ICC's caseload is uniquely diverse compared to its closest competitors such as the London Court of Arbitration, American Arbitration Association and the China International Economic and Trade Arbitration Commission, which tend to manage cases seated in their home jurisdictions. Given the stature of the ICC within the field of global economic governance, patterns within the ICC are legally and politically important in their own right. Due to both its prominence as an institution within the field of ICA as well as its unique international character, we can interpret trends seen within it as broadly indicative of shifts in ICA practice for high-value disputes.

I control for a variety of economic and institutional factors that may increase the probability that commercial disputes arise, including the size of the country's economy, its inbound FDI stock and its dependence on trade. I control for the level of development with GDP per capita. And because disputes tend to arise more often during periods of economic downturn, I add a measure for GDP growth. I also control for membership in the New York Convention and the strength of domestic legal institutions using the V-Dem Rule of Law Index. I estimate the following equation using the Poisson pseudo-maximum likelihood estimator:

$$Y_{it} = \exp(\beta \text{Model Law}_{it} + \delta \mathbf{X}_{it} + \gamma_i + \omega_t)$$

 Y_{it} represents the outcome; X_{it} is a vector of controls; and γ_i and ω_t are country- and year-fixed effects. As above, I also present results using the unbiased, linear estimator proposed by Borusyak, Jaravel and Spiess (2022), though I transform the case count variables with the inverse hyperbolic sine for these analyses.

⁹The 2018 International Arbitration Survey conducted by White & Case and Queen Mary, University of London, asked respondents to list their 4 most preferred international arbitral institutions. At 77%, the ICC was the most listed institution by a wide margin.

¹⁰GDP, GDP per capita, and trade dependence data are obtained from the World Bank's World Development Indicators. FDI stock data are taken from UNCTAD.

The results are presented in Table 3.11 Panel A presents the results for the yearly counts of ICC-managed arbitrations seated in a given country. The Model Law exhibits a positive but inconsistent (and model-dependent) effect on the number of cases seated in a given jurisdiction. In the full sample (Columns 1-3), we see that the effect is strong in the bivariate specification, loses significance after adding economic controls, and becomes significant at the 10% level with the addition of institutional controls (and fails at the 10% level in the BJS estimates). Columns 4 and 5 subset the outcome based on how the seat was determined. In Column 5, the outcome is the number of cases in which the location of the seat was chosen by the parties themselves. Here again we see a small and weak effect. Column 4 presents results using the count of cases in which the seat was determined not by the parties, but instead by the ICC itself (because the parties either could not agree or for whatever reason choose to have the ICC determine the location of the arbitration). While we see a stronger effect of Model Law enactment, it is statistically significant at the 10% level but the pre-trends are significant and in the same direction as the estimated effect in the Poisson regressions. This may suggest that the Model Law has some effect on the viability of the jurisdiction in the eyes of the ICC.

We now turn to Panel B of Table 3, in which I shift the outcome from the seat of arbitration to a yearly count of the nationality of parties to arbitration at the ICC. Here we see a much stronger and stable effect of the Model Law on arbitral behavior. The estimates on the Model Law are highly significant and consistent across all specifications of the pooled sample (Panel B, Columns 1-3). The substantive effect is significant as well. The model with a full set of controls (Column 3) estimates that enactment of the Model Law leads to an increase in a country's nationals represented at ICC proceedings by roughly 25%. I subset this analysis based on the party's role in the arbitration as either the complainant or the defendant. The models estimate a larger effect on the complainant

¹¹To assess the parallel trends assumption, I rerun all models with dummy variables representing each of the three years prior to enactment of the Model Law. I then report the p-value of a hypothesis test that all of the indicators are equal to 0. Plots of the estimated coefficients on the leading dummies for Model 3 in Panels A and B of Table 3 are presented in Figure A6.

Panel A — Seat of ICC arbitration							
		Total		ICC	Parties		
	(1)	(2)	(3)	(4)	(5)		
		Por	isson PML	Estimates			
Model Law	0.437**	0.209	0.230*	0.430*	0.202*		
	(0.190)	(0.129)	(0.126)	(0.224)	(0.116)		
Pretrend p-value	[.115]	[.539]	[.514]	[.015]	[.664]		
	Borusyak, Jaravel and Spiess (2022) Estimates						
Model Law	0.233**	0.153	0.152	0.061**	0.114*		
	(0.092)	(0.096)	(0.095)	(0.027)	(0.068)		
Pretrend p-value	[.161]	[.474]	[.468]	[.226]	[.432]		
Start Year	1992	1992	1992	1994	1994		
Economic Controls		\checkmark	✓	✓	✓		
Institutional Controls			\checkmark	✓	✓		
Country & Year FE	✓	✓	✓	✓	✓		
Panel B — Nationality	of partie	s to ICC a	rbitration	S			
		Total		Complain.	Defendant		
	(1)	(2)	(3)	(4)	(5)		
		Por	Poisson PML Estimates				
			isson PML	Estimates	(0)		
Model Law	0.263**	0.202***	usson PML 0.223***	<i>Estimates</i> 0.295***	0.166**		
Model Law	0.263** (0.107)			0.295***			
Model Law Pretrend p-value			0.223***	0.295***	0.166**		
	(0.107) [.619]	(0.075) [.956]	0.223*** (0.069) [.975]	0.295*** (0.082)	0.166** (0.072) [.721]		
	(0.107) [.619]	(0.075) [.956]	0.223*** (0.069) [.975]	0.295*** (0.082) [.679]	0.166** (0.072) [.721]		
Pretrend p-value	(0.107) [.619] Bor	(0.075) [.956] 	0.223*** (0.069) [.975]	0.295*** (0.082) [.679]	0.166** (0.072) [.721] stimates		
Pretrend p-value	(0.107) [.619] Bor 0.229***	(0.075) [.956] rusyak, Jara 0.164*	0.223*** (0.069) [.975] avel and Sp 0.169**	0.295*** (0.082) [.679] viess (2022) Es	0.166** (0.072) [.721] stimates 0.084		
Pretrend p-value Model Law	(0.107) [.619] Bor 0.229*** (0.084)	(0.075) [.956] susyak, Jara 0.164* (0.086)	0.223*** (0.069) [.975] avel and Sp 0.169** (0.086)	0.295*** (0.082) [.679] viess (2022) Es 0.170*** (0.064)	0.166** (0.072) [.721] stimates 0.084 (0.067)		
Pretrend p-value Model Law Pretrend p-value	(0.107) [.619] Bor 0.229*** (0.084) [.200]	(0.075) [.956] ***usyak, Jara 0.164* (0.086) [.383]	0.223*** (0.069) [.975] avel and Sp 0.169** (0.086) [.382]	0.295*** (0.082) [.679] viess (2022) Es 0.170*** (0.064) [.072]	0.166** (0.072) [.721] stimates 0.084 (0.067) [.753]		
Pretrend p-value Model Law Pretrend p-value Start Year	(0.107) [.619] Bor 0.229*** (0.084) [.200]	(0.075) [.956] ***usyak, Jara 0.164* (0.086) [.383]	0.223*** (0.069) [.975] avel and Sp 0.169** (0.086) [.382]	0.295*** (0.082) [.679] viess (2022) Es 0.170*** (0.064) [.072]	0.166** (0.072) [.721] stimates 0.084 (0.067) [.753]		

Notes: * p < .1, ** p < .05, *** p < .01. Regression coefficients using either Poisson PML or the estimator proposed by Borusyak, Jaravel and Spiess (2022). Standard errors in parentheses are clustered by country. Values in brackets denote the p-value that 3 yearly leading treatment indicators jointly equal 0. Full tables can be found in Appendix G.

Table 3. Estimates of the effect of Model Law enactment on various caseload outcomes at the ICC

side than the defendant side: a 34% increase in the number of cases with nationals as complainants versus an 18% increase for defendants. This suggests that the Model Law is exerting a greater influence on the behavior of domestic firms that choose to submit disputes to arbitration. The findings are consistent, though slightly less precise, when using the BJS estimator.

7 Conclusion

The findings presented here suggest that the growth of transnational substitutes for domestic institutions may carry costs for the very countries they are often purported to assist. Particularly in light of the competing findings within the literature across ISDS and now ICA, extensions of the findings presented above should include greater empirical attention to the mechanisms of interaction between transnational and domestic institutions in this and other domains. Fruitful areas for future research could examine the how privatization affects recourse to third-party dispute resolution and settlement behavior in ways that may elucidate heterogeneity in the effect of the Model Law on subsequent legal development. For example, some countries may successfully divert more cases to domestic arbitration centers versus centers like the ICC. Further, future research could explore alternative mechanisms of institutional change such as norm diffusion. While the dynamics of the arbitration profession tend to limit competitive pressure on courts and, because of the lucrative salaries, pull legal talent *out* of domestic practice rather than into it, there may be opportunities for normative diffusion in issue areas with more fluid transnational movement of people and ideas.

More broadly, the findings presented here lend support to the emerging body of scholarship in global economic governance that considers not just first-order effects but potential second-order effects of global governance as well. The findings reported here resonate, for example, with Bodea and Ye (2020), who find that—beyond its effects on

FDI—the international investment regime may be harming human rights practices abroad by limiting states' abilities to implement rights-enhancing reforms that an arbitrator might deem harmful to the rights of foreign investors. Before declaring international arbitration a success for the rule of law (because of the relative ease by which firms can enforce international contracts), we need to evaluate potential downstream effects that are likely to hit emerging markets hardest.

To that end, much work remains to be done to better understand not just the effectiveness of transnational authorities themselves, but how the interaction between transnational and national authorities influences domestic governance outcomes outside of the narrow domain of any given transnational governance scheme. This requires increased focus on mechanisms for promoting complementarity between transnational institutions and their domestic counterparts. In this vein, Judge Abdulqawi Yusuf, former President of the International Court of Justice, described the importance of "re-localizing" ICA in order to promote the rule of law in counties where it is lacking (Yusuf, 2017). This could mean, for example, requiring arbitrators to submit legal questions to a judge, which would then be binding on the arbitrators.¹² In short, progressive rule-of-law reform is most likely to succeed when commercial and other civil society groups have a joint interest in pressuring the state to invest in such reforms. The growth of substitutive international institutions risks undermining efforts in countries with weaker legal capacity to invest in broad-based legal reforms by giving commercial actors an exit option unavailable to others. Future research could exploit variation in domestic laws to explore how particular rules might help promote complementarity.

This growth of private global governance is especially important given the complexity of political accountability in such regimes. Simple lines of accountability channeled through visible, bundled domestic institutions facilitate coalitions for reform by clarifying the causal connections between governing institutions, tasks and outcomes. But the

¹²For example, arbitrations seated in England and Wales allow for appeals to a court on the basis of legal errors (though parties can opt-out of this).

decentralized world of transnational authority diffuses accountability across an ever-growing array of overlapping institutions and shrouds political decision-making behind the veil of expertise. The theory and empirical findings presented here suggest that the design of transnational institutions is key and that we should focus on both the institutional and socio-political dimensions of global governance. My results suggest that global governance institutions that are not designed to lock-in interdependence between transnational and national authorities may have the unintended consequence of causing domestic institutions to atrophy.

References

- Andonova, Liliana B., Thomas Hale and Charles Roger. 2017. "National Policy and Transnational Governance of Climate Change: Substitutes or Complements?" *International Studies Quarterly* 61(2):253–268.
- Bartley, Tim. 2018. Rules without Rights: Land, Labor, and Private Authority in the Global Economy. Oxford University Press.
- Besley, Timothy and Torsten Persson. 2009. "The Origins of State Capacity: Property Rights, Taxation, and Politics." *American Economic Review* 99(4):1218–1244.
- Binder, Peter. 2010. International Commercial Arbitration and Conciliation in UNCITRAL Model Law Jurisdictions. London: Sweet & Maxwell.
- Blackaby, Nigel, Constantine Partasides and Alan Redfern. 2022. *Redfern and Hunter on International Arbitration*. Oxford University Press.
- Blair, Robert A. 2021. "UN Peacekeeping and the Rule of Law." *American Political Science Review* 115(1):51–68.
- Bodea, Cristina and Fangjin Ye. 2020. "Investor Rights versus Human Rights: Do Bilateral Investment Treaties Tilt the Scale?" *British Journal of Political Science* 50(3):955–977.
- Borusyak, Kirill, Xavier Jaravel and Jann Spiess. 2022. Revisiting Event Study Designs: Robust and Efficient Estimation. Working Paper 2108.12419 arXiv: .
- Braithwaite, John. 2008. Regulatory Capitalism: How It Works, Ideas for Making It Better. Cheltenham, UK: Edward Elgar.
- Cao, Xun and Aseem Prakash. 2010. "Trade Competition and Domestic Pollution: A Panel Study, 1980–2003." *International Organization* 64(3):481–503.
- Cinelli, Carlos and Chad Hazlett. 2020. "Making Sense of Sensitivity: Extending Omitted Variable Bias." *Journal of the Royal Statistical Society: Series B (Statistical Methodology)* 82(1):39–67.
- Cutler, A. Claire. 2003. *Private Power and Global Authority: Transnational Merchant Law in the Global Political Economy.* Cambridge: Cambridge University Press.
- Cutler, A. Claire and David Lark. 2022. "The Hidden Costs of Law in the Governance of Global Supply Chains: The Turn to Arbitration." *Review of International Political Economy* 29(3):719–748.
- Davis, Kevin E. 2010. Does the Globalization of Anti-Corruption Help Developing Countries? In *International Economic Law, Globalization and Developing Countries*, ed. Julio Faundez and Celine Tan. Northmapton, MA: Edward Elgar pp. 283–306.

- Dezalay, Yves and Bryant G. Garth. 1996. Dealing in Virtue: International Commercial Arbitration and the Construction of a Transnational Legal Order. Chicago: University of Chicago Press.
- Faria, José Angelo Estrella. 2005. "Legal Harmonization through Model Laws: The Experience of the United Nations Commission on International Trade Law.".
- Franck, Susan D. 2007. "Foreign Direct Investment, Investment Treaty Arbitration, and the Rule of Law." *Pacific McGeorge Global Business & Development Law Journal* 1(2):337–374.
- Gaulier, Guillaume and Soledad Zignago. 2010. BACI: International Trade Database at the Product-Level. The 1994-2007 Version. Working Papers 2010-23 CEPII.
- Gerring, John and Strom C. Thacker. 2004. "Political Institutions and Corruption: The Role of Unitarism and Parliamentarism." *British Journal of Political Science* 34(2):295–330.
- Ginsburg, Tom. 2005. "International Substitutes for Domestic Institutions: Bilateral Investment Treaties and Governance." *International Review of Law and Economics* 25(1):107–123.
- Green, Jessica. 2014. Rethinking Private Authority: Agents and Entrepreneurs in Global Environmental Governance. Oxford: Oxford University Press.
- Guzman, Andrew. 2000. "Arbitrator Liability: Reconciling Arbitration and Mandatory Rules." *Duke Law Journal* 49(5):1279–1334.
- Hale, Thomas. 2015. *Between Interests and Law: The Politics of Transnational Commercial Disputes*. Cambridge: Cambridge University Press.
- Hirschman, Albert O. 1970. Exit, Voice, and Loyalty. Cambridge, MA: Harvard University Press.
- Hlophe, John. 2005. Report on Racism in the Cape Provincial Division. Report.
- Imai, Kosuke, In Song Kim and Erik Wang. 2021. "Matching Methods for Time-Series Cross-Sectional Data." *American Journal of Political Science*.
- Karton, Joshua. 2013. *The Culture of International Arbitration and the Evolution of Contract Law.* Oxford: Oxford University Press.
- Knack, Stephen. 2001. "Aid Dependence and the Quality of Governance." Southern Economic Journal 68(2):310–329.
- Kronstein, Heinrich. 1963. "Arbitration Is Power." New York University Law Review 38(4):661–700.
- Lake, Milli M. 2018. Strong NGOs and Weak States. Cambridge: Cambridge University Press.
- Leander, Anna. 2005. "The Market for Force and Public Security: The Destabilizing Consequences of Private Military Companies." *Journal of Peace Research* 42(5):605–622.

- Leaua, Crenguta. 2013. Romania. Arbitration Guide IBA Arbitration Committee.
- Liu, Lizhi and Barry R Weingast. 2020. Law, Chinese Style: Solving the Authoritarian's Legal Dilemma through the Private Provision of Law. Working Paper.
- Massoud, Mark Fathi. 2014. "International Arbitration and Judicial Politics in Authoritarian States." *Law & Social Inquiry* 39(1):1–39.
- Mattli, Walter. 2001. "Private Justice in a Global Economy: From Litigation to Arbitration." *International Organization* 55(4):919–947.
- Mattli, Walter and Thomas Dietz, eds. 2014. *International Arbitration and Global Governance*. Oxford, UK: Oxford University Press.
- Moustafa, Tamir. 2007. *The Struggle for Constitutional Power: Law, Politics, and Economic Development in Egypt*. Cambridge: Cambridge University Press.
- Nougayrède, Delphine. 2013. "Outsourcing Law in Post-Soviet Russia." *Journal of Eurasian Law* 3(6):383–449.
- Nunn, Nathan. 2007. "Relationship-Specificity, Incomplete Contracts, and the Pattern of Trade." *Quarterly Journal of Economics* 122(2):569–600.
- Plimpton, Debevoise &. 2017. Adelante: Argentine Senate Approves Model Law on Arbitration as the Country Seeks to Attract Foreign Investment. Client update. Debevoise & Plimpton.
- Puig, Sergio and Gregory Shaffer. 2018. "Imperfect Alternatives: Institutional Choice and the Reform of Investment Law." *American Journal of International Law* 112(3):361–409.
- Rauch, James E. 1999. "Networks Versus Markets in International Trade." *Journal of International Economics* 48(1):7–35.
- Resnik, Judith. 2015. "Diffusing Disputes: The Public in the Private of Arbitration, the Private in Courts, and the Erasure of Rights." *Yale Law Journal* 124(8):2804–2939.
- Rogers, Catherine A. and Christopher R. Drahozal. 2022. Does International Arbitration Enfeeble or Enhance Local Legal Institutions? In *The Legitimacy of Investment Arbitration: Empirical Perspectives*. Cambridge: Cambridge University Press pp. 467–500.
- SALC. 1998. Arbitration: An International Arbitration Act for South Africa. Technical report.
- Sassen, Saskia. 2002. The State and Globalization. In *The Emergence of Private Authority in Global Governance*, ed. Rodney Bruce Hall and Thomas Biersteker. Cambridge University Press pp. 91–112.
- Sattorova, Mavluda. 2018. *The Impact of Investment Treaty Law on Host States: Enabling Good Governance?* Hart Publishing.

- Sharafutdinova, Gulnaz and Karen Dawisha. 2017. "The Escape from Institution-Building in a Globalized World: Lessons from Russia." *Perspectives on Politics* 15(2):361–378.
- Sonin, Konstantin. 2003. "Why the Rich May Favor Poor Protection of Property Rights." *Journal of Comparative Economics* 31(4):715–731.
- Staats, Joseph L. and Glen Biglaiser. 2012. "Foreign Direct Investment in Latin America: The Importance of Judicial Strength and Rule of Law." *International Studies Quarterly* 56(1):193–202.
- Stone Sweet, Alec. 2006. "The New Lex Mercatoria and Transnational Governance." *Journal of European Public Policy* 13(5):627–646.
- Stone Sweet, Alec and Florian Grisel. 2017. *The Evolution of International Arbitration: Judicialization, Governance, Legitimacy*. Oxford, UK: Oxford University Press.
- Thomas, John. 2016. Developing Commercial Law through the Courts: Rebalancing the Relationship between the Courts and Arbitration. Speech.
- Wang, Yuhua. 2015. *Tying the Autocrat's Hands: The Rise of the Rule of Law in China*. New York, NY: Cambridge University Press.
- Yusuf, Abdulqawi. 2017. The Contribution of Arbitration to the Rule of Law The Experience of African Countries. In *International Arbitration and the Rule of Law: Contribution and Conformity*, ed. Andrea Menaker. Wolters Kluwer.

Appendix

Table of Contents

A	Consistency of Model Law Implementation	1
В	List of Included Model Law Countries	2
C	V-Dem Rule of Law Index Sub-components	4
D	The Panel Match Estimator and Alternative Specifications	5
	D.1 Point estimates for Figure 3 & additional results	6
	D.2 Covariate balance pre- and post-refinement	7
	D.3 Excluding non-Model Law arbitration "hubs"	8
	D.4 Alternative Rule of Law cut-offs	9
	D.5 Adjusting for Polyarchy	10
E	Fraser Institute's Rule of Law Indices	11
F	Instrumental Variables Estimates	13
G	Full Tables for ICC Case Analyses	21
	G.1 Panel A: Seat of ICC arbitrations	21
	G.2 Panel B: Nationality of parties to ICC arbitration	23
Н	References	26
T	Software Used	27

A Consistency of Model Law Implementation

Table A1 presents a list of key features and their adoption rates as coded by Binder (2010).

Key Features of the UNCITRAL Model Law	% Adoption
Agreement to Arbitration	
Article 7: Def. of Arbitration Agreement	100%
Article 8: Arb. Agreement and Claim Before Court	
8(1): Court referral of dispute to arbitration	99%
8(2): Arb. may proceed during Court referral	99%
Choice of Arbitrators	
Article 11: Appointment of Arbitrators	100%
No nationality restriction on arbitrators	100%
Decisions of the Tribunal	
Article 16: Competence to Rule on Own Jurisdiction	
"Kompetenz-Kompetenz"	100%
Separability	98%
Article 17: Interim Measures	98%
Enforcement of Awards	
Article 34: Restrictions on Challenging an Award	95%
Article 35: Enforcement of International Awards	91%
Article 36: Grounds for Refusing Enforcement	93%

Note: Data obtained from Binder (2010). Adoption among Model Law countries. Adoption is coded as incorporating the relevant Model Law provision verbatim, with minor revisions, more or less detail or if Binder codes the state as arriving "at a similar result" to the Model Law but with different language. States that create a "different solution" or do not implement the respective Model Law provision are coded as not adopting.

Table A1. Key features of the UNCITRAL Model Law

B List of Included Model Law Countries

Country	t_i	Rule of Law	Country	t_i	Rule of Law
Armenia	2006	0.25	Mexico	1993	0.36
Azerbaijan	1999	0.04	Nicaragua	2005	0.39
Bahrain	1994	0.21	Oman	1997	0.57
Bangladesh	2001	0.29	Paraguay	2002	0.35
Belarus	1999	0.30	Peru	1996	0.14
Cambodia	2006	0.09	Philippines	2004	0.48
Croatia	2001	0.77	Russia	1993	0.31
Domin. Rep.	2008	0.31	Rwanda	2008	0.66
Egypt	1994	0.25	Saudi Arabia	2012	0.27
Guatemala	1995	0.29	Serbia	2006	0.58
Honduras	2000	0.31	Sri Lanka	1995	0.62
India	1996	0.70	Thailand	2002	0.51
Iran	1997	0.37	Tunisia	1993	0.22
Jordan	2001	0.61	Turkey	2001	0.73
Kenya	1995	0.21	Uganda	2000	0.41
Macedonia	2006	0.65	Ukraine	1994	0.27
Madagascar	1998	0.26	Venezuela	1998	0.54
Malaysia	2005	0.40	Zambia	2000	0.62
Maldives	2013	0.27	Zimbabwe	1996	0.62
Mauritius	2009	0.77			

Table A2. List of Low Rule of Law Countries

Country	t_i	Rule of Law	Country	t_i	Rule of Law
Australia	2010	0.99	Hungary	1994	0.90
Austria	2006	0.96	Ireland	1998	0.96
Belgium	2013	0.98	Japan	2004	0.97
Bhutan	2013	0.92	Lithuania	2012	0.95
Bulgaria	2002	0.82	Malta	1996	0.89
Chile	2004	0.97	New Zealand	1997	0.99
Costa Rica	2011	0.96	Norway	2004	0.99
Denmark	2005	1.00	Poland	2005	0.95
Estonia	2006	0.97	Singapore	1995	0.97
Georgia	2010	0.81	Slovakia	2014	0.83
Germany	1998	0.99	Slovenia	2008	0.90
Greece	1999	0.85	Spain	2003	0.99
Hong Kong	2010	0.94	_		

Table A3. List of High Rule of Law Countries

C V-Dem Rule of Law Index Sub-components

Table A4 lists all of the sub-components that make up the V-Dem Rule of Law Index that I use as the outcome variable in the results presented in the main text. I also indicate which indicators are theoretically relevant to the quality of domestic legal institutions for the purpose of this paper. I include *v2exrescon* as a theoretically-relevant indicator because the component's question-wording (see p.114 of the V-Dem codebook, v12) is directly related to the strength of legal sanction against an executive that violates the constitution and is therefore of relevance to the independence and standing of the judiciary.

	Theory	Est.	
Indicator	Relevant?	Effect	Description
v2juhccomp	✓	_	Compliance with high court rulings
v2jucomp	✓	_	Compliance with the judiciary
v2juhcind	✓		High court independence
v2juncind	✓		Lower court independence
v2exrescon	✓		Exec. respects the constitution without legal sanction?
v2clrspct		_	Rigorous and impartial public administration
v2cltrnslw	✓	_	Transparency and predictability of the laws of the land
v2clacjstm	✓	_	Access to judicial justice — Men
v2clacjstw	✓	_	Access to judicial justice — Women
v2juaccnt	✓		Judicial accountability
v2jucorrdc	✓		Judicial corruption
v2excrptps			Public sector corrupt exchanges
v2exthftps			Public sector theft
v2exbribe			Executive bribery and corrupt exchanges
v2exembez			Executive embezzlement and theft

Note: The "Est. Effect" column indicates the sign of the coefficient found in the Figure 6 only if it is significant at the 90% level. An empty cell means the estimated coefficient is null.

Table A4. Overview of V-Dem Rule of Law Index Sub-components

D The Panel Match Estimator and Alternative Specifications

I estimate the effect of Model Law enactment on subsequent legal development using the difference-in-differences estimator proposed by Imai, Kim and Wang (2021). The goal of the procedure is to estimate change in the trajectory of the quality of a country's legal institutions caused by enacting the Model Law. The problem is that we cannot observe what a country that did enact the Model Law would have looked like if it had not enacted the Model Law. To estimate that counterfactual, I construct a unique "control group" for each Model Law country made up of non-enacting countries. To improve the comparability between each Model Law country and its matched set, I weight the observations within every matched set based on how similar (based on observables) each country is to its matched Model Law country. Countries that did not enact the Model Law but are just as likely to have enacted the Model Law (compared to the country the did enact it) are given a greater weight than countries that are more or less likely to have done so. I then calculate the change in the weighted control group's rule-of-law score from the year prior to the Model Law entering into force and subtract this from the change in the Model Law country's rule-of-law score over the same duration. I average the difference-in-differences across all of the Model Law countries for each time period to yield an average effect of the Model Law on legal development for the year it enters into force and each of the following five (or ten) years. Importantly, this estimator relies on the common trends assumption that the difference between the trajectories of the treated and control units would have remained stable in the absence of treatment, conditional on a set of time varying covariates (Imai, Kim and Wang, 2021, 10-11).

First, I set a time-window for the analysis, F. I then construct a matched set for each treated unit i, denoted M_i , which includes all countries that have not yet enacted legislation based on the Model Law. Any unit that enacts the Model Law between the time country i enacts the Model Law and five years thereafter is dropped from i's matched set. The next step is to refine each matched set to improve the comparability between the Model Law countries and their matched sets through propensity-score weighting. The weights used in the results reported in Table A5 are calculated from either propensity scores (PS) or the covariate-balancing propensity score (CBPS) developed by Imai and Ratkovic (2014). I use the covariates described in the main text to estimate the propensity scores. A further benefit of this method is that it allows for the simple evaluation of covariate balance (see Figure A1).

D.1 Point estimates for Figure 3 & additional results

Years in		Panel	Match		BJS
Force (F)	(1)	(2)	(3)	(4)	(5)
0	-0.006	-0.009	-0.009	-0.001	-0.014
U	(0.004)	(0.007)	(0.007)	(0.002)	(0.011)
1	-0.010^*	-0.017^*	-0.017^*	0.001	-0.017
1	(0.006)	(0.010)	(0.010)	(0.002)	(0.013)
2	-0.015^*	-0.025^*	-0.025^*	0.000	-0.026^*
2	(0.009)	(0.015)	(0.015)	(0.002)	(0.015)
3	-0.018**	-0.031**	-0.031**	0.001	-0.030**
3	(0.009)	(0.016)	(0.016)	(0.002)	(0.016)
4	-0.028^{***}	-0.047^{***}	-0.047^{***}	-0.001	-0.050^{***}
7	(0.012)	(0.021)	(0.021)	(0.002)	(0.018)
5	-0.026^{**}	-0.047^{**}	-0.047^{**}	0.002	-0.047^{**}
	(0.013)	(0.024)	(0.024)	(0.003)	(0.020)
Refinement	CBPS	CBPS	PS	CBPS	N/A
Sample	Full	Low RoL	Low RoL	High RoL	Low RoL
ML Countries	64	39	39	25	39

Note: * p < .1, ** p < .05, *** p < .01. Table reports yearly estimates of the average treatment effect on the treated using the difference-in-differences methods recommended by Imai, Kim and Wang (2021) and Borusyak, Jaravel and Spiess (2022). See Figure A1 for plot of improvement in covariate balance. PanelMatch standard errors in parentheses are estimated via blocked bootstrap with 5,000 iterations. BJS SEs are clustered by country and averaged over 5-year groupings of treated units, see Section 4.3 of Borusyak, Jaravel and Spiess (2022).

Table A5. Main Results

D.2 Covariate balance pre- and post-refinement

This figure presents the standardized mean difference between treated and control countries for all covariates each year prior to enactment of the Model Law. This graph is based on the analysis summarized in Table A5, Column 2 (see Imai, Kim and Wang, 2021, 10-1).

Standardized Mean Difference of Covariates

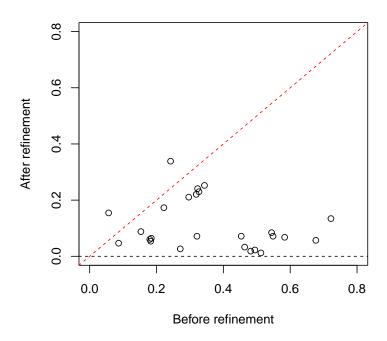


Figure A1. Covariate Balance

D.3 Excluding non-Model Law arbitration "hubs"

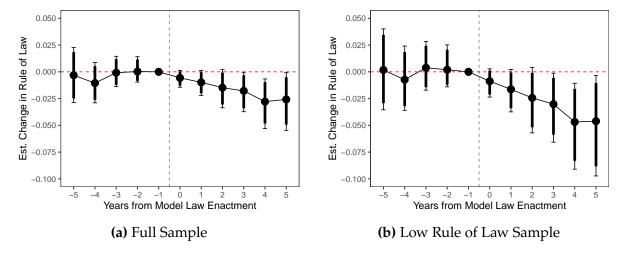


Figure A2. Results after excluding non-Model Law arbitration hubs (USA, UK, France, Sweden, and Switzerland)

D.4 Alternative Rule of Law cut-offs

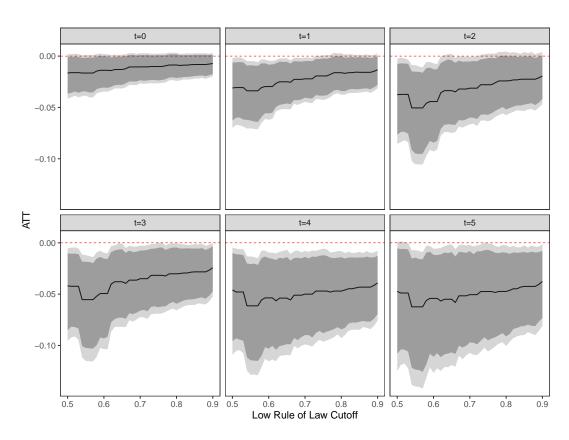


Figure A3. Alternative Low Rule of Law Cut Points

D.5 Adjusting for Polyarchy

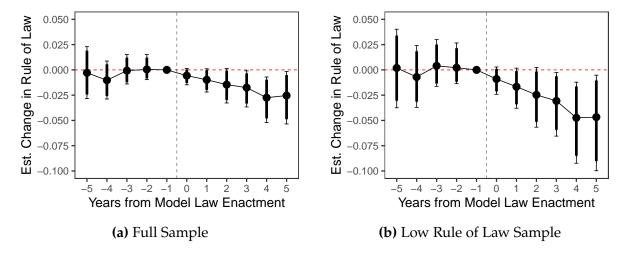


Figure A4. Main results replicated while also adjusting propensity score estimates for V-Dem's Polyarchy index

E Fraser Institute's Rule of Law Indices

The primary concern in interpreting these data is missingness, because the dataset is only updated every five years prior to 2000. Requiring complete pre-enactment data, limits the number of cases of enactment I can analyze to 6. Therefore, I relax this constraint and include countries with missing pre-treatment data. This increases my sample size to 18 instances of Model Law enactment. As in the main low rule of law sample, I drop countries that enact with values on each indicator in the top quartile. This discrepancy in pre- and post-missingingness explains the shrinkage of the estimated confidence intervals after enactment of the Model Law, as seen in Figure A5.

In summary, I find that the Model Law is associated with declines in the Fraser Institute Judicial Independence and Integrity of the Legal System indices. I also find an *increase* in their Contract Enforcement index. I do, however, find a null result on their Impartial Courts index. This result is likely due to the index's construction as it aggregates V-Dem's Judicial Corruption measure (which I found to be essentially unrelated to Model Law enactment) and the World Bank's Rule of Law Index, which is itself an aggregation of numerous outcomes that are not directly tied to the theoretical outcomes of interest. More information on each measure can be found at https://www.fraserinstitute.org/sites/default/files/uploaded/2022/economic-freedom-of-the-world-2022-appendix.pdf.

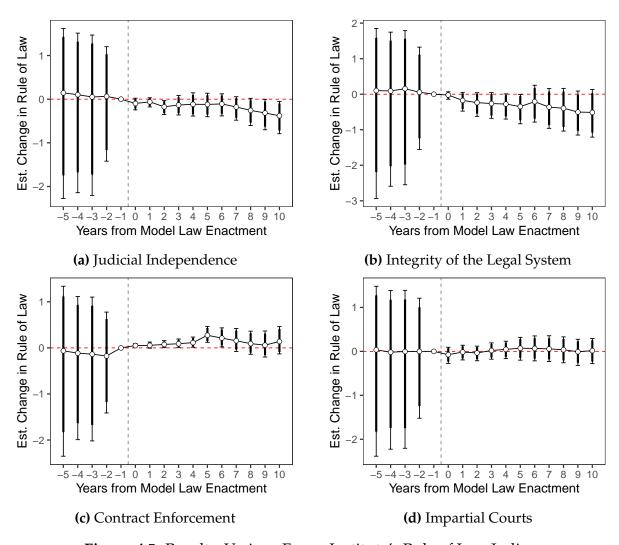


Figure A5. Results, Various Fraser Institute's Rule of Law Indices

F Instrumental Variables Estimates

Data. I first obtain trade data from Gaulier and Zignago (2010). This dataset covers bilateral, product-level trade between over 200 countries at the 6-digit HS1 level between 1996–2020. These data are originally sourced from the United Nation's Comtrade service, though Gaulier and Zignago (2010) improve these data in various ways such as by reconciling discrepancies in reported trade flows between importers and exporters. I then aggregate these data into 1,217 4-digit HS1 product categories.

I identify differentiated and undifferentiated products based on data from Rauch (1999). Rauch (1999) classifies 4-digit SITC Rev. 3 product codes into one of three categories. A product is either (a) traded on an exchange, (b) subject to a reference price, or (c) neither (which Rauch classifies as a "differentiated" good). In line with earlier work on contract-intensity and trade (e.g., Berkowtiz, Moenius and Pistor, 2006; Nunn, 2007), I consider products that are exchange-traded or reference-priced to be less contract intensive because such goods are categorized and priced independently from any negotiation with the supplier. Alternatively, I consider differentiated products to be more complex and therefore more likely to rely on negotiation and agreement prior any transaction occurring. Trade in such goods is therefore more likely to be sensitive to the contracting environment. These data are commonly used to measure the contract-intensity of trade (see, e.g., Berkowtiz, Moenius and Pistor, 2006; Nunn, 2007; Ma, Qu and Zhang, 2010; Antràs and Chor, 2013; Azomahou, Maemir and Wako, 2021).

Estimation. I estimate the effect of Model Law enactment on the V-Dem Rule of Law Index using two-stage least squares (2SLS) regression. I also adjust for a variety of covariates. I first include a set of institutional variables equal to 1 if a country has ratified the New York Convention and the log of 1 + the number of BITs a country has ratified. I include log of a country's inbound FDI stock (from from UNCTADstat). I also adjust for trade dependence ($\frac{\text{imports+exports}}{\text{GDP}}$), log GDP and GDP per capita, and GDP growth, which I obtained from the World Bank's World Development Indicators. In the first stage, I predict Model Law enactment using the following equation:

Model Law_{it} =
$$\tau$$
Exp. Comp._{i,t-1} + δ **X**_{i,t-1} + γ _i + ω _t + ε _{it}

Where $X_{i,t-1}$ is a vector of time-varying covariates lagged by one year and γ_i and ω_t denote country- and year-fixed effects, respectively. I then use the predictions from this model to estimate the following equation in the second stage:

Rule of Law_{it} =
$$\beta$$
Model Law_{i,t} + ρ X_{i,t-1} + γ _i + ω _t + ε _{it}

I cluster standard errors at the country level and exclude Model Law countries without pre-enactment data.

	DV: V-Dem Rule of Law Index				
	(1)	(2)	(3)	(4)	
Panel A — Second stage					
Model Law	-0.267**	-0.244**	-0.262**	-0.326*	
	(0.113)	(0.103)	(0.116)	(0.195)	
NYC		0.033	0.019	0.027	
1 DIT 4		(0.027)	(0.027)	(0.030)	
log BITs+1		-0.006	-0.002	-0.003	
log EDI Charle		(0.014)	(0.016)	(0.021)	
log FDI Stock			0.002	0.005	
log Trada Don			(0.012) 0.055*	(0.013)	
log Trade Dep.			(0.033)	0.051*	
log GDP per cap.			(0.033)	(0.030) 0.204	
log GD1 per cap.				(0.147)	
log GDP				-0.101	
log GD1				(0.110)	
Growth				-0.001	
Growth				(0.001)	
Adj. R ²	0.916	0.923	0.914	0.896	
<i>Panel B</i> — First stage					
Export Competition _{Diff.}	0.068***	0.071***	0.067***	0.051**	
	(0.021)	(0.021)	(0.023)	(0.023)	
NYC		0.049	0.052	0.069	
		(0.061)	(0.067)	(0.065)	
log BITs+1		0.018	0.023	0.023	
		(0.036)	(0.042)	(0.045)	
log FDI Stock			0.009	0.013	
			(0.023)	(0.021)	
log Trade Dep.			0.040	0.027	
1 CDD			(0.042)	(0.036)	
log GDP per cap.				0.499***	
log CDP				(0.163)	
log GDP				-0.303* (0.176)	
Growth				-0.001	
Glown				(0.001)	
Adj. R ²	0.702	0.703	0.707	0.718	
Country & year FE					
Observations	3,529	3,529	3,127	3,105	
1st Stage E stat	·		46.35***	25.13***	
1 st Stage <i>F</i> -stat Wu-Hausman test	61.06*** 46.38***	65.62*** 41.41***	34.67***	28.06***	

Notes: *p < 0.1, **p < 0.05, ***p < 0.01. Table presents 2SLS estimates. All explanatory variables are lagged by one year.

Table A6. 2SLS estimates. Export competition in contract intensive products.

	DV: V-Dem Rule of Law Index					
	(1)	(2)	(3)	(4)		
Export Competition _{Diff.}	-0.018***	-0.017***	-0.017***	-0.017**		
1	(0.006)	(0.006)	(0.006)	(0.007)		
NYC		0.022	0.006	0.005		
		(0.021)	(0.019)	(0.018)		
log BITs+1		-0.010	-0.009	-0.010		
		(0.011)	(0.011)	(0.011)		
log FDI Stock			0.000	0.001		
			(0.009)	(0.009)		
log Trade Dep.			0.045*	0.042*		
			(0.024)	(0.023)		
log GDP per cap.				0.041		
				(0.055)		
log GDP				-0.002		
				(0.043)		
Growth				0.000		
				(0.000)		
Omitted Variable Bias Rob	 ustness Valu	es				
$R^2_{Y \sim Z \mid \mathbf{X}}$	1.4%	1.3%	1.2%	1.0%		
$RV_{q=1}$	11.2%	10.6%	10.5%	9.6%		
$RV_{q=1,\alpha=0.05}$	8.1%	7.6%	7.2%	6.2%		
		<u>√</u>		<u>√</u>		
Country & year FE	•	-	•	•		
Adj. R ² Observations	0.954 3,529	0.954	0.952	0.952 3,105		
——————————————————————————————————————	3,329	3,529	3,127	3,103		

Notes: *p < 0.1, *** p < 0.05, *** p < 0.01. Robust standard errors are clustered on country. Export Competition is scaled to have mean 0, SD 1. OVB Robustness Values are derived from the method proposed by Cinelli and Hazlett (2020). These statistics provide the percentage of variation a potential, unobserved confounder would have to account for in both the treatment and outcome to drive the coefficient on Export Competition to 0 ($RV_{q=1}$) or its p-value above .05 ($RV_{q=1,\alpha=.05}$). $R^2_{Y\sim Z|X}$ denotes the partial R^2 of export competition conditional on the included covariates.

Table A7. Reduced form estimates. Export competition in contract intensive products

	DV: V-Dem Rule of Law Index				
	(1)	(2)	(3)	(4)	
Panel A — Second stage					
Model Law	-0.096	-0.065	-0.131	-0.410	
NYC	(0.198)	(0.176) 0.028 (0.023)	(0.277) 0.015 (0.024)	(1.819) 0.032 (0.115)	
log BITs+1		-0.009 (0.011)	-0.005 (0.013)	-0.001 (0.052)	
log FDI Stock		,	0.001 (0.011)	0.006 (0.026)	
log Trade Dep.			0.049 (0.034)	0.054 (0.068)	
log GDP per cap.			(0100 -)	0.251 (1.047)	
log GDP				-0.134 (0.730)	
Growth				-0.001 (0.003)	
Adj. R ²	0.949	0.951	0.943	0.862	
Panel B — First stage					
Export Competition _{Undiff.}	0.024	0.026	0.022	0.006	
NYC	(0.019)	(0.019) 0.035	(0.021) 0.035	(0.022) 0.061	
log BITs+1		(0.061) 0.017 (0.037)	(0.067) 0.023 (0.043)	(0.065) 0.026 (0.046)	
log FDI Stock		(0.037)	0.008 (0.023)	0.011 (0.021)	
log Trade Dep.			0.045 (0.040)	0.031 (0.035)	
log GDP per cap.			(0.010)	0.553*** (0.166)	
log GDP				-0.385** (0.175)	
Growth				-0.001 (0.001)	
Adj. R ²	0.698	0.698	0.703	0.715	
Country & year FE Observations	√ 3,529	√ 3,529	√ 3,127	/ 3,105	
1 st Stage <i>F-</i> stat Wu-Hausman test	8.64*** 0.78	9.8*** 0.38	5.74** 1.00	0.44 0.78	

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01. Table presents 2SLS estimates. All explanatory variables are lagged by one year.

Table A8. 2SLS estimates. Export competition in non-contract intensive products does not predict Model Law enactment or the quality of domestic legal institutions.

	DV: V-Dem Rule of Law Index				
	(1)	(2)	(3)	(4)	
Export Competition _{Undiff.}	-0.002	-0.002	-0.003	-0.002	
	(0.004)	(0.004)	(0.005)	(0.006)	
NYC		0.026	0.011	0.007	
		(0.022)	(0.019)	(0.018)	
log BITs+1		-0.010	-0.008	-0.011	
		(0.011)	(0.011)	(0.011)	
log FDI Stock			0.000	0.002	
			(0.009)	(0.009)	
log Trade Dep.			0.043*	0.041*	
			(0.025)	(0.024)	
log GDP per cap.				0.024	
				(0.055)	
log GDP				0.024	
				(0.040)	
Growth				0.000	
				(0.000)	
Observations	3,529	3,529	3,127	3,105	
Adj. R ²	0.953	0.953	0.951	0.952	

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01. Robust standard errors are clustered by country.

Table A9. Reduced-form estimates. Export competition in non-contract intensive products is uncorrelated with change in quality of domestic legal institutions.

	DV: ln(BITS+1)				
	(1)	(2)	(3)	(4)	
Export Competition _{Diff.}	-0.036	-0.027	-0.024	0.010	
	(0.025)	(0.024)	(0.026)	(0.024)	
NYC		0.186**	0.171**	0.130	
		(0.081)	(0.082)	(0.079)	
log FDI Stock			0.082**	0.087**	
			(0.036)	(0.034)	
log Trade Dep.			0.070*	0.068*	
			(0.041)	(0.036)	
log GDP per cap.				-0.174	
				(0.154)	
log GDP				0.422**	
				(0.165)	
Growth				-0.004**	
				(0.002)	
Year & Unit FE	✓	✓	✓	✓	
Observations	3,529	3,529	3,127	3,105	
Adj. R ²	0.961	0.962	0.960	0.963	

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01. Robust standard errors are clustered by country.

Table A10. Export competition in contract-intensive products is uncorrelated with BIT ratification.

	DV: Model Law in force				
	(1)	(1)	(1)	(1)	
Export Competition _{Total Diff.}	-0.016	-0.015	-0.023	-0.022	
ND/C	(0.014)	(0.014)	(0.016)	(0.015)	
NYC		0.024	0.019	0.051	
		(0.060)	(0.065)	(0.064)	
log BITs+1		0.014	0.018	0.025	
		(0.037)	(0.042)	(0.045)	
log FDI Stock			0.008	0.010	
			(0.023)	(0.021)	
log Trade Dep.			0.050	0.033	
0 1			(0.038)	(0.034)	
log GDP per cap.			,	0.559***	
				(0.161)	
log GDP				-0.407**	
				(0.169)	
Growth				-0.001	
				(0.001)	
Country & year FE	√	✓	✓	✓	
Observations	3529	3529	3127	3105	
Adj. R ²	0.697	0.698	0.704	0.716	
1 st Stage <i>F</i> -stat	6.71	5.6	9.87	8.84	

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01. Robust standard errors are clustered by country. Export Competition_{Total Diff.} is the yearly sum of a country's differentiated product market export competition scores. It is meant to measure total levels of export competition in contract intensive trade, not just that with Model Law countries. It is scaled to have mean 0 and SD 1.

Table A11. Total export competition, First stage estimates

19

	DV: V-Dem Rule of Law Index				
	(1)	(2)	(3)	(4)	
Export Competition _{Total Diff.}	0.004	0.004	0.005	0.007	
	(0.004)	(0.004)	(0.005)	(0.005)	
NYC		0.028	0.014	0.010	
		(0.021)	(0.019)	(0.017)	
log BITs+1		-0.009	-0.007	-0.011	
		(0.011)	(0.011)	(0.011)	
log FDI Stock			0.000	0.002	
			(0.009)	(0.009)	
log Trade Dep.			0.042*	0.041*	
			(0.025)	(0.024)	
log GDP per cap.				0.022	
				(0.053)	
log GDP				0.031	
				(0.039)	
Growth				0.000	
				(0.000)	
Country & year FE	✓	✓	✓	✓	
Observations	3529	3529	3127	3105	
Adj. R ²	0.953	0.953	0.952	0.952	

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01. Robust standard errors are clustered by country. Export Competition_{Total Diff.} is the yearly sum of a country's differentiated product market export competition scores. It is meant to measure total levels of export competition in contract intensive trade, not just that with Model Law countries. It is scaled to have mean 0 and SD 1.

Table A12. Total export competition, Reduced form estimates

G Full Tables for ICC Case Analyses

G.1 Panel A: Seat of ICC arbitrations

		Total	ICC	Parties	
	(1)	(2)	(3)	(4)	(5)
Model Law	0.437**	0.209	0.230*	0.430*	0.202*
	(0.190)	(0.129)	(0.126)	(0.224)	(0.116)
In Trade Openness		0.467	0.353	0.510	0.319
		(0.382)	(0.357)	(0.557)	(0.340)
ln FDI stock		0.288***	0.276***	0.252^{*}	0.267***
		(0.081)	(0.080)	(0.145)	(0.079)
ln GDP		2.020***	1.706***	1.599*	1.734***
		(0.488)	(0.475)	(0.889)	(0.475)
ln GDP per cap.		-1.648***	-1.363**	-1.076	-1.412***
		(0.545)	(0.543)	(0.997)	(0.532)
Growth		-0.013	-0.014	-0.000	-0.016*
		(0.009)	(0.009)	(0.017)	(0.009)
NYC			1.477^{**}	0.431	1.641***
			(0.629)	(0.706)	(0.603)
Rule of Law			0.024	0.247	0.022
			(0.522)	(1.080)	(0.644)
Start Year	1992	1992	1992	1994	1994
Year FE?	\checkmark	✓	✓	\checkmark	✓
Country FE?	✓	✓	✓	✓	✓
Pre-trends p-value	.115	.539	.514	.015	.664
Observations	3,186	2,764	2,764	1,951	2,611

Note: * p < .1, ** p < .05, *** p < .01. Regression coefficients using either Poisson PML estimator. Standard errors in parentheses are clustered by country.

Table A13. ICC Seats, PPML estimator

		Total		ICC	Parties
	(1)	(2)	(3)	(4)	(5)
Model Law	0.233**	0.153	0.152	0.061**	0.114*
	(0.092)	(0.096)	(0.095)	(0.027)	(0.068)
In Trade Openness		0.099	0.102	0.019	0.056
•		(0.072)	(0.068)	(0.018)	(0.054)
ln FDI stock		-0.001	0.000	0.003	0.008
		(0.010)	(0.011)	(0.003)	(0.009)
ln GDP		-0.368	-0.363	0.123	-0.022
		(0.472)	(0.469)	(0.112)	(0.441)
ln GDP per cap.		0.350	0.347	-0.077	0.015
		(0.485)	(0.481)	(0.108)	(0.461)
Growth		-0.004**	-0.004**	-0.001	-0.003*
		(0.002)	(0.002)	(0.000)	(0.001)
Rule of Law			-0.047	0.037	-0.064
			(0.274)	(0.049)	(0.293)
Pretrends					
Model Law $_{t-1}$	0.194**	0.151	0.151	0.046	0.148
	(0.087)	(0.097)	(0.097)	(0.048)	(0.094)
Model Law $_{t-3}$	0.154*	0.122	0.123	0.071*	0.120
	(0.087)	(0.095)	(0.095)	(0.041)	(0.091)
Model Law $_{t-3}$	0.101	0.078	0.079	0.073*	0.057
	(0.076)	(0.082)	(0.082)	(0.043)	(0.073)
Joint p-value	0.161	0.474	0.468	0.226	0.432
Economic Controls		√	✓	✓	✓
Political Controls			✓	✓	✓
Observations	5,056	4,077	4,077	3,713	3,713

Note: $^*p < .1$, $^{**}p < .05$, $^{***}p < .01$. Regression coefficients using BJS estimator. Standard errors in parentheses are clustered by country. Country, year and NYC fixed effects not reported.

Table A14. ICC Seats, BJS estimator

G.2 Panel B: Nationality of parties to ICC arbitration

		Total		Complain.	Defendant
	(1)	(2)	(3)	(4)	(5)
Model Law	0.263**	0.202***	0.223***	0.295***	0.166**
	(0.107)	(0.075)	(0.069)	(0.082)	(0.072)
In Trade Openness		0.299^*	0.266^{*}	0.059	0.381**
		(0.175)	(0.162)	(0.204)	(0.155)
ln FDI stock		0.071	0.062	0.089*	0.036
		(0.060)	(0.056)	(0.048)	(0.056)
ln GDP		1.836***	1.619***	1.279***	1.825***
		(0.229)	(0.219)	(0.237)	(0.261)
ln GDP per cap.		-1.430***	-1.228***	-0.942***	-1.419***
		(0.198)	(0.212)	(0.214)	(0.274)
Growth		-0.015***	-0.016***	-0.009**	-0.018***
		(0.004)	(0.004)	(0.004)	(0.006)
NYC			0.653**	0.830**	0.562**
			(0.316)	(0.390)	(0.252)
Rule of Law			0.295	0.019	0.460^{*}
			(0.204)	(0.263)	(0.242)
Start Year	1993	1993	1993	1994	1994
Year FE?	✓	✓	✓	✓	✓
Country FE?	✓	✓	✓	✓	\checkmark
Pretrends p-value	.619	.955	.975	.679	.721
Observations	4,811	3,992	3,992	3,763	3,854

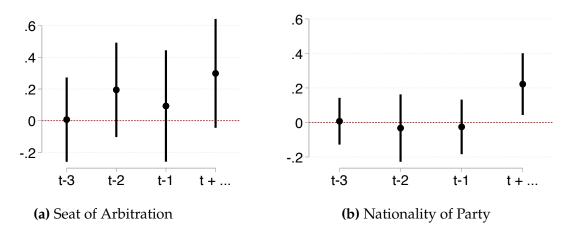
Note: * p < .1, ** p < .05, *** p < .01. Regression coefficients using either Poisson PML estimator. Standard errors in parentheses are clustered by country.

Table A15. Full party analysis, PPML estimator

	Total			Complain.	Defendant
	(1)	(2)	(3)	(4)	(5)
Model Law	0.229***	0.164*	0.169**	0.170***	0.084
	(0.084)	(0.086)	(0.086)	(0.064)	(0.067)
In Trade Openness		0.077	0.065	0.048	0.066
		(0.077)	(0.081)	(0.061)	(0.082)
ln FDI stock		0.006	0.004	0.020^*	-0.014
		(0.027)	(0.027)	(0.011)	(0.033)
In GDP		0.665**	0.652**	0.372	0.650**
		(0.288)	(0.282)	(0.268)	(0.317)
ln GDP per cap.		-0.563*	-0.558*	-0.340	-0.607*
		(0.294)	(0.288)	(0.278)	(0.329)
Growth		-0.008***	-0.008***	-0.005***	-0.008**
		(0.003)	(0.003)	(0.002)	(0.003)
Rule of Law			0.213	0.024	0.299
			(0.235)	(0.188)	(0.227)
Pretrends					
Model Law $_{t-1}$	0.142	0.089	0.087	0.143*	0.008
	(0.089)	(0.090)	(0.091)	(0.082)	(0.099)
Model Law $_{t-2}$	-0.036	-0.068	-0.071	0.034	-0.064
	(0.106)	(0.108)	(0.107)	(0.106)	(0.094)
Model Law $_{t-3}$	0.100	0.076	0.075	0.175**	0.040
	(0.083)	(0.084)	(0.085)	(0.072)	(0.089)
Joint p-value	0.200	0.383	0.382	0.072	0.753
Economic Controls		✓	✓	✓	√
Political Controls			✓	✓	✓
Observations	4,801	3,910	3,910	3,713	3,713

Note: * p < .1, ** p < .05, *** p < .01. Regression coefficients using BJS estimator. Standard errors in parentheses are clustered by country. Country, year and NYC fixed effects not reported.

Table A16. ICC Party, BJS estimator



Note: Coefficient plots with 95% confidence intervals for dummy variables indicating the number of years from enactment of the Model Law. These are based on the models presented in Column 3 of Panels A and B of Table 3.

Figure A6. Effect of Model Law on Seat Selection and Nationality of Parties to ICC arbitrations

H References

- Antràs, Pol and Davin Chor. 2013. "Organizing the Global Value Chain." *Econometrica* 81(6):2127–2204.
- Azomahou, Théophile T., Hibret Maemir and Hassen A. Wako. 2021. "Contractual Frictions and Margins of Trade." *Journal of Comparative Economics* 49(4):1048–1067.
- Berkowtiz, Daniel, Johannes Moenius and Katharina Pistor. 2006. "Trade, Law, and Product Complexity." *The Review of Economics and Statistics* 88(2):363–373.
- Binder, Peter. 2010. International Commercial Arbitration and Conciliation in UNCITRAL Model Law Jurisdictions. London: Sweet & Maxwell.
- Borusyak, Kirill, Xavier Jaravel and Jann Spiess. 2022. Revisiting Event Study Designs: Robust and Efficient Estimation. Working Paper 2108.12419 arXiv: .
- Cinelli, Carlos and Chad Hazlett. 2020. "Making Sense of Sensitivity: Extending Omitted Variable Bias." *Journal of the Royal Statistical Society: Series B (Statistical Methodology)* 82(1):39–67.
- Gaulier, Guillaume and Soledad Zignago. 2010. BACI: International Trade Database at the Product-Level. The 1994-2007 Version. Working Papers 2010-23 CEPII.
- Imai, Kosuke, In Song Kim and Erik Wang. 2021. "Matching Methods for Time-Series Cross-Sectional Data." *American Journal of Political Science*.
- Imai, Kosuke and Marc Ratkovic. 2014. "Covariate Balancing Propensity Score." *Journal of the Royal Statistical Society* 76(1):243–263.
- Ma, Yue, Baozhi Qu and Yifan Zhang. 2010. "Judicial Quality, Contract Intensity and Trade: Firm-level Evidence from Developing and Transition Countries." *Journal of Comparative Economics* 38(2):146–159.
- Nunn, Nathan. 2007. "Relationship-Specificity, Incomplete Contracts, and the Pattern of Trade." *Quarterly Journal of Economics* 122(2):569–600.
- Rauch, James E. 1999. "Networks Versus Markets in International Trade." *Journal of International Economics* 48(1):7–35.

I Software Used

Arel-Bundock, Vincent. 2022a. "modelsummary: Data and Model Summaries in R." *Journal of Statistical Software* 103(1):1–23.

Arel-Bundock, Vincent. 2022b. WDI: World Development Indicators and Other World Bank Data. R package version 2.7.8.

URL: https://CRAN.R-project.org/package=WDI

Arel-Bundock, Vincent. 2023. *marginaleffects: Predictions, Comparisons, Slopes, Marginal Means, and Hypothesis Tests*. R package version 0.11.1.

URL: https://CRAN.R-project.org/package=marginaleffects

Arel-Bundock, Vincent, Nils Enevoldsen and CJ Yetman. 2018. "countrycode: An R package to convert country names and country codes." *Journal of Open Source Software* 3(28):848.

URL: https://doi.org/10.21105/joss.00848

Bergé, Laurent. 2018. "Efficient estimation of maximum likelihood models with multiple fixed-effects: the R package FENmlm." CREA Discussion Papers (13).

Butts, Kyle. 2021. didimputation: Difference-in-Differences estimator from Borusyak, Jaravel, and Spiess (2021).

URL: https://github.com/kylebutts/didimputation

Cinelli, Carlos, Jeremy Ferwerda and Chad Hazlett. 2022. *sensemakr: Sensitivity Analysis Tools for Regression Models*. R package version 0.1.5.

URL: https://github.com/carloscinelli/sensemakr

Dowle, Matt and Arun Srinivasan. 2023. data.table: Extension of 'data.frame'. R package version 1.14.8.

URL: https://CRAN.R-project.org/package=data.table

Kim, In Song, Adam Rauh, Erik Wang and Kosuke Imai. 2022. *PanelMatch: Matching Methods for Causal Inference with Time-Series Cross-Sectional Data*. R package version 2.0.1. **URL:** https://CRAN.R-project.org/package=PanelMatch

Liao, Steven, In Song Kim, Sayumi Miyano and Hao Zhang. 2022. *concordance: Product Concordance*. R package version 2.1.0.

Massicotte, Philippe and Andy South. 2023. *rnaturalearth: World Map Data from Natural Earth*. R package version 0.3.2.

URL: https://CRAN.R-project.org/package=rnaturalearth

Pasek, Josh, with some assistance from Alex Tahk, some code modified from R-core; Additional contributions by Gene Culter and Marcus Schwemmle. 2021. *weights: Weighting and Weighted Statistics*. R package version 1.0.4.

URL: https://CRAN.R-project.org/package=weights

Robinson, David, Alex Hayes and Simon Couch. 2022. *broom: Convert Statistical Objects into Tidy Tibbles*. R package version 1.0.0.

URL: https://CRAN.R-project.org/package=broom

Solymos, Peter and Zygmunt Zawadzki. 2023. *pbapply: Adding Progress Bar to '*apply' Functions*. R package version 1.7-0.

URL: https://CRAN.R-project.org/package=pbapply

South, Andy. 2017. rnaturalearthdata: World Vector Map Data from Natural Earth Used in 'rnaturalearth'. R package version 0.1.0.

URL: https://CRAN.R-project.org/package=rnaturalearthdata

Wickham, Hadley. 2016. ggplot2: Elegant Graphics for Data Analysis. Springer-Verlag New York.

URL: https://ggplot2.tidyverse.org

Wickham, Hadley. 2022. *stringr: Simple, Consistent Wrappers for Common String Operations*. R package version 1.5.0.

URL: https://CRAN.R-project.org/package=stringr

Wickham, Hadley and Dana Seidel. 2022. *scales: Scale Functions for Visualization*. R package version 1.2.1.

URL: https://CRAN.R-project.org/package=scales

Wickham, Hadley, Evan Miller and Danny Smith. 2022. haven: Import and Export 'SPSS', 'Stata' and 'SAS' Files. R package version 2.5.0.

URL: https://CRAN.R-project.org/package=haven

Wickham, Hadley and Jennifer Bryan. 2022. *readxl: Read Excel Files*. R package version 1.4.0.

URL: https://CRAN.R-project.org/package=readxl