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

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Abstract

What happens to a public, domestic institution when its authority is delegated to a privately-run, transnational institution? In this article, I argue that outsourcing traditionally national legal responsibilities to transnational bodies can lead to the stagnation of domestic institutional capacity. I examine this through a study of 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, suggesting that firms use ICA as an escape from domestic institutions. This article contributes to debates on globalization and development as well as work on the second-order effects of global governance institutions.

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1 Introduction

Private, transnational governance regimes with the power to write, interpret and enforce commercial rules have proliferated in recent decades. As Braithwaite wrote, many countries have "become rule-takers rather than rule-makers."[1] Because much of the scholarly work on 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. The exit of such actors from domestic institutions 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 the deleterious effects of international commercial arbitration (ICA) on national courts.

ICA is a widely-used system for privately adjudicating international commercial disputes.[2] Parties typically enter into ICA through contractual provisions stipulating that

1. Braithwaite 2008, 3.
2. Dezalay and Garth 1996; Mattli 2001; Hale 2015.

future disputes will be removed from national courts' jurisdiction and instead sent to private arbitration. 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. With the expansion of commercial arbitration in the 20th century, the practice has sparked intense debate about the role of private authority in public affairs.[3] This debate has taken on added urgency in light of the increasing deference legislatures and judiciaries around the world have granted to arbitration.[4]

Regimes such as ICA have proliferated in recent decades.[5] Private governance regimes refer to institutions, often created by private businesses or other non-governmental organizations, with the ability to provide services or create rules that other actors follow.[6] We witness this in a variety of issue areas including environmental regulation,[7] financial accounting standards,[8] human rights,[9] and others. On its face, there might be a net gain when governance tasks like contract enforcement are privatized. 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. While much of the scholarship in this area focuses on first-order outcomes within each regime's targeted policy domain, the central theoretical claim I put forward below, however, is that the emergence of private authority can have important implications beyond their specific policy domains.

In what follows, I first argue that the implications of unbundling for the underlying public institution—the institution whose services are being augmented or replaced by the private regime—depends on how the public and private bodies interact, specifically

3. Cutler 2003.
4. Stone Sweet and Grisel 2017.
5. Abbott, Green and Keohane 2016.
6. Green 2014, 29.
7. Prakash and Potoski 2006.
8. Büthe and Mattli 2011.
9. Thrall 2021.

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 domestically or abroad remain invested in the quality of the public institution. I then apply this framework to the case of ICA, arguing that it serves as a substitute for national courts.

Empirically, this article focuses 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 which allow parties to use ICA as a substitute for national courts for commercial dispute resolution. The Model Law 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. Without such protections, national courts can intervene or obstruct arbitration proceedings. 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 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. 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. 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, though, I argue arbitration can also carry negative spillover effects for a country's broader, public legal institutions.

I seek to contribute to two strands of research within the extensive scholarship on global and private governance in international relations. First, I extend the literature on ICA to examine more directly its relationship with national judiciaries.[10] In doing so, I bring new evidence to the debate between those who argue arbitration has the potential to act as a boon for domestic legal development[11] and those who warn of the possibility for negative consequences.[12] My findings complement work on the domestic effects of globalization[13] including the private-governance strategies firms employ to escape the reach of public institutions[14] or influence domestic regulatory outcomes.[15]

Second, I build on scholarship on the interaction between domestic- and global-

10. Mattli 2001; Mattli and Dietz 2014; Hale 2015; Stone Sweet and Grisel 2017.
11. Franck 2007; Rogers and Drahozal 2022.
12. Ginsburg 2005; Sattorova 2018.
13. Perlman 2020b.
14. Johns, Pelc and Wellhausen 2019.
15. Perlman 2020a.

governance[16] and the growing tensions between globalization and democratic institutions.[17] The privatization and export of services traditionally entrusted to public institutions is not new. In her account of how states are pushed to transform national institutions in order to accommodate the demands of economic globalization at the expense of domestic accountability, Saskia Sassen describes the "denationalizing of several highly specialized national institutional orders...[that are] partial and incipient but strategic."[18] It is increasingly clear that resource-rich individuals and firms can access these strong, "denationalized" institutions while those without such resources are left to deal with sub-par domestic institutions.[19] In the next section, I attempt to build on this work by offering a framework for conceptualizing the second-order effects of global, private governance on domestic public institutions.

2 Global Governance & the Unbundled State

While early debate on the relationship between global and domestic governance institutions was often concerned with 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.[20] This article aims to build on this growing body of work by contextualizing substitution and complementarity within the domestic institutional environment. Rather than focusing on how a global governance arrangement is successful (or not) at accomplishing its goals, 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 governance arrangement offers a partial, independent functional

16. Farrell and Newman 2014.
17. Milner 2021.
18. Sassen 2002, 93.
19. Nougayrède 2013; Sharafutdinova and Dawisha 2017; Cooley and Heathershaw 2017; Pistor 2019.
20. Andonova, Hale and Roger 2017.

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.[21] An alternative possibility is that 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). While beyond the empirical scope of this article, I would expect such 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 before applying the argument to ICA in the following section.

2.1 Unbundling as a Substitute

To start, we can think of the typical modern state as 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 judicial organization and often sit on other courts hearing non-commercial cases. Such an arrangement 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.[22] Because the policies

21. Hirschman 1970.
22. Gerring and Thacker 2004, 322-324.

of a bundled institution affect a wider range of actors, it is easier to identify negative externalities. Bundling thus 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. Delegation to modern global governance regimes thus tends to be *partial* with respect to the domestic institutions from which some governing task was delegated. Such partial outsourcing risks undermining the positive externalities of centralized, public institution-building. In the context of human rights and legal development, for example, Milli Lake shows that, particularly in states with weak legal capacity, international NGOs can improve legal accountability for gender violence.[23] A potential problem arises, however, when an outside authority substitutes for or bypasses the public institution it is meant to augment. 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."[24]

We see this dynamic play out in the area of public security, as well. Leander argues that the international market for security forces undermines investments in public security forces, particularly in weak states.[25] Privatization leads to what she calls a "swiss cheese"

23. Lake 2018.
24. 215. See also Blair 2021
25. Leander 2005.

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. Recent scholarship has also found a similarly corrosive effect of the growth of international credit markets on domestic fiscal capacity in weak states.[26]

While the logic here is similar to that behind the potentially harmful effects of aid dependence on institutional outcomes,[27] my theoretical and empirical focus is more targeted. Rather than arguing that transnational governance can harm 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.

2.2 Unbundling as a Complement

Unbundling is not necessarily harmful to domestic institutional development, however.[28] Where private authority does not substitute for domestic institutions, domestic capacity can be maintained or even enhanced because the private authority to which some task is outsourced 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 argues that the success of private, transnational timber regulation hinges largely on the degree to which it operates through domestic institutions and laws.[29] 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

26. Queralt 2022.
27. Knack 2001.
28. Green 2014.
29. Bartley 2018, 258-83.

the transnational timber regime. For example, public investments in the capacity to regulate timber can spillover into other areas within the agency's broader ambit such as air or water pollution. Such positive externalities come 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,[30] 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.

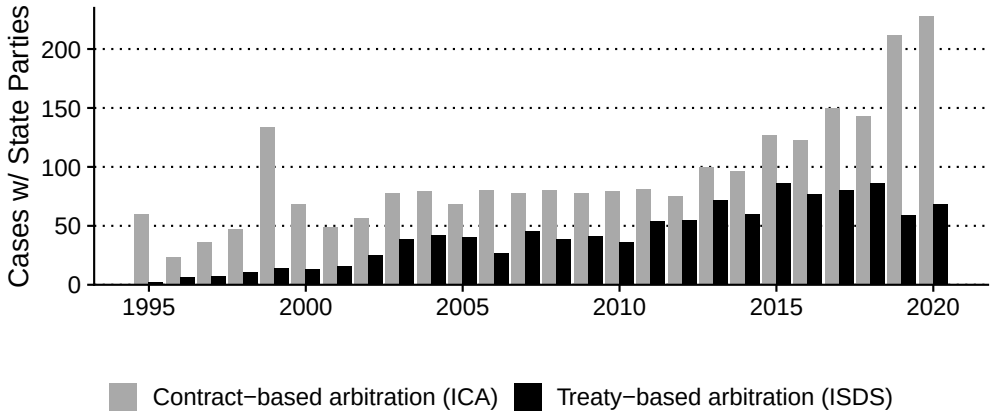
30. Davis 2010.

3 ICA as an Unbundling Institution

In this section, I argue that ICA 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, enforceable, and extrajudicial 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.[31] We can see this just in the number of cases sent to arbitration each year. There were 842 cases filed at the International Chamber of Commerce in 2018 and hundreds more in its competitors like the London Court of International Arbitration. While most of these disputes are likely 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 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

31. Mattli and Dietz 2014; Hale 2015.



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

to manage violations of international law—ICA is equipped to resolve almost any cross-border contract dispute. 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.[32] 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.[33] And leaders are aware of this. For example, in his study of reform of the Egyptian judiciary, Tamir Moustafa quotes from an official

32. Besley and Persson 2009.
33. Staats and Biglaiser 2012; Wang 2015.

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."[34]

Arbitration can diminish outside pressure on the state to invest in legal capacity because it is a highly effective and private alternative to contract enforcement through national courts. With their exit into arbitration, politically influential firms have less of a stake in the quality of domestic courts. Arbitration thereby 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 Tom Ginsburg 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."[35]

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, Mark Massoud 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.[36] 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 repression. 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."[37] Indeed, an international survey of in-house counsel found that 92% of respondents prefer arbitration to cross-border

34. Moustafa 2007, 77.
35. Ginsburg 2005, 119.
36. Massoud 2014.
37. 16.

litigation in national courts.[38]

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.[39] 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.[40] Outsourcing otherwise public adjudication tasks to private substitutes can help resolve this dilemma.[41]

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 like human rights.[42] Egypt enacted pro-ICA reforms based on the Model Law in 1994 and was able to maintain its reputation as an attractive site for ICA despite subsequent political interventions into the judiciary. As these examples show, 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 other matters.

The growth of global governance disconnected from public accountability not only risks reducing international reform pressure, but domestic pressures as well. Because of

38. Queen Mary University of London 2018.
39. Gerring and Thacker 2004, 318.
40. Wang 2015.
41. Liu and Weingast 2020.
42. Moustafa 2007, Ch. 6.

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 ICA, as well. Russian oligarchs and commercial interests, for example, 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.[43] 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.[44] 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.[45] As they write, "business elites take advantage of weak institutions at home to make profits, while using strong institutions abroad to safeguard them."[46] 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."[47] 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

43. Sharafutdinova and Dawisha 2017, 369-71.
44. 364-5.
45. See also Sonin 2003.
46. Sharafutdinova and Dawisha 2017, 363.
47. Franck 2007, 367-8.

those costs would be. National judges do not internalize the benefits of the law they provide.[48] 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 a domestic institution 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.

In the interest of promoting ICA globally, the goals of the Model Law were twofold: first, to encourage countries to adopt a globally harmonized legal regime facilitating and protecting ICA domestically; and, second, to ensure such laws prevent public and judicial intervention into ICA. The Model Law severely restricts judicial intervention through various rules including: 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

48. Ginsburg 2005, 119.

the pressure for reform also comes from a desire to attract capital, rather than reform of the judiciary, countries have opted into adopting the Model Law with minimal revision.[49] Moreover, competition for trade and investment drives 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. As a consequence, actors gained an avenue for circumventing mandatory rules in areas like securities law and antitrust.[50] European courts have similarly granted increased authority to arbitrators to root decisions in their own interpretations of mandatory EU law.[51] 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 finds that the culture of ICA has led arbitrators to arrive at distinct, though internally consistent, interpretations of domestic law.[52]

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. 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

49. Binder 2010.
50. Guzman 2000.
51. Stone Sweet and Grisel 2017, 178-85.
52. Karton 2013.

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..."[53] 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."[54]

A final potential avenue for complementarity 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.[55] 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.[56]

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.

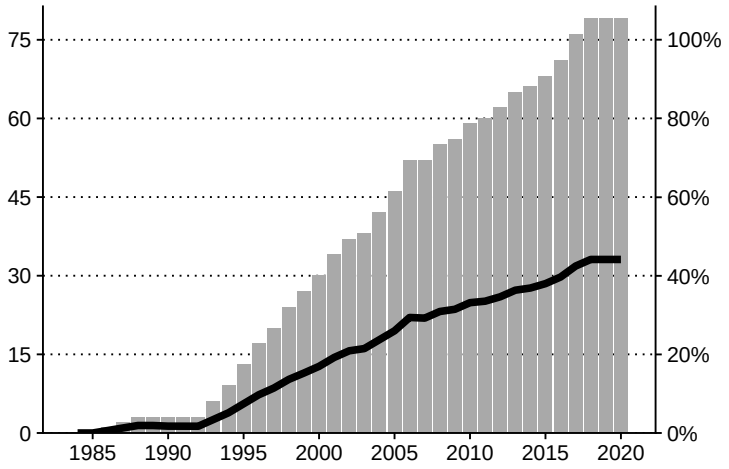
53. Hlophe 2005, 31.
54. Thomas 2016, 2.
55. Stone Sweet and Grisel 2017, 147-50.
56. Blackaby, Partasides and Redfern 2022, 594-5.

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 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.[57] 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). V-Dem's index 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 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 targeted measures of judicial capacity from the Fraser Institute.

57. Coppedge et al. 2020.



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. Written in the early 1980s and approved by the UN General Assembly in 1985, the model law was meant to correct deficiencies that international commercial and legal communities felt were hindering ICA outside of a few arbitration "hubs" like the US or France. 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.[58] 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

58. Due 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.

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. For that reason, UNCITRAL will not approve a country as a "Model Law country" if it deviates too far from the text or spirit of the Model Law. As one Senior Legal Officer at UNCITRAL writes, there is a "high degree of substantive uniformity in the implementation of the [Model Law.]"[59] 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."[60] 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.[61] 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 PanelMatch difference-in-differences (DiD) estimator with weighted matched sets.[62] This estimator avoids potential issues with the two-way fixed effects 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

59. Faria 2005, 22.
60. 20.
61. See Binder 2010, and Table A1.
62. Imai, Kim and Wang 2021.

time periods than similar strategies such as synthetic control methods.[63] To assess the robustness of the findings to alternative specifications, I re-run the analysis using the unbiased, linear estimator proposed by Borusyak, Jaravel, and Speiss as well.[64]

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 three 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 a dummy variable indicating whether a country has ratified the New York Convention. Third, 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.[65]

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 total trade (imports + exports) as a percentage of GDP, 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 FDI, I obtained data on the total inward FDI stock as a percentage of GDP from UNCTADstat. I lag all explanatory variables by one year.

The final step of the procedure is to estimate the average effect of treatment on the

63. Imai, Kim and Wang 2021, 2.
64. Borusyak, Jaravel and Spiess 2022.
65. I exclude the lagged dependent variable from the linear estimator as it requires that all covariates must be unaffected by treatment. See 9.

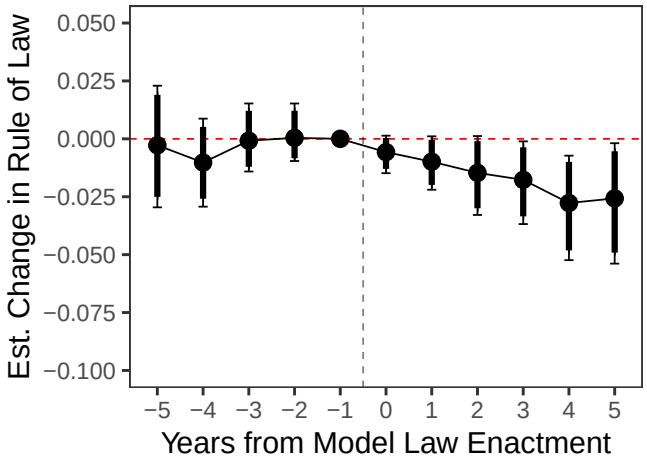
treated (ATT) in the year of enactment of the Model Law (t_i) and for each of the five years thereafter (F). I apply the following DiD estimator for each time period F:

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

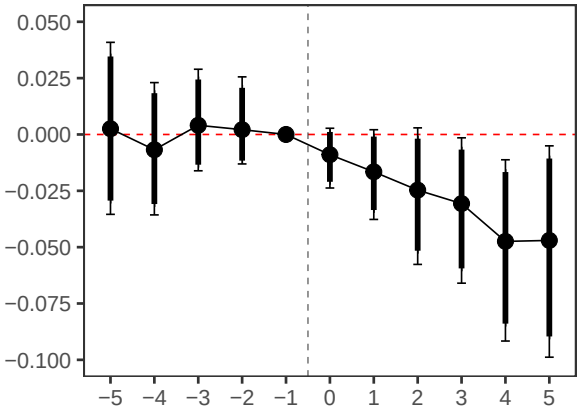
N is the number of countries within the sample that have enacted the Model Law. t_i is the year in which the Model Law enters into force for each country i. $Y_{i,t}$ and $Y_{i',t}$ are the rule of law scores for Model Law and matched non-Model Law countries. The term $\omega_i^{i'}$ denotes the normalized weight applied to the rule of law score for 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

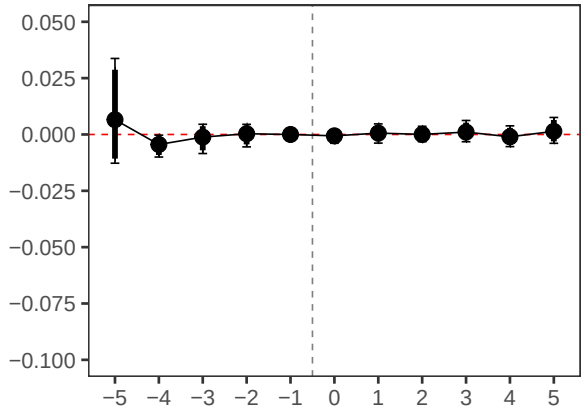
The main results are presented in Figure 3. Figure 3a reports the estimates from the full sample. While the Model Law and control groups are indistinguishable in the year of enactment, we see an increasingly large relative decrease in the Rule of Law score for Model Law countries, consistent with the 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



(a) Full Sample



(b) Low Rule-of-Law Sample



(c) High Rule-of-Law 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 summarizes the full results.

Figure 3. Main results

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 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. And if 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 parallel trends assumption: that Model Law countries and their matched sets would not differ in the absence of Model Law enactment. The flat line prior to enactment (i.e., years −5 through −2) 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 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..."[66] The sample in Figure 3a includes all

66. Rogers and Drahozal 2022, 468.

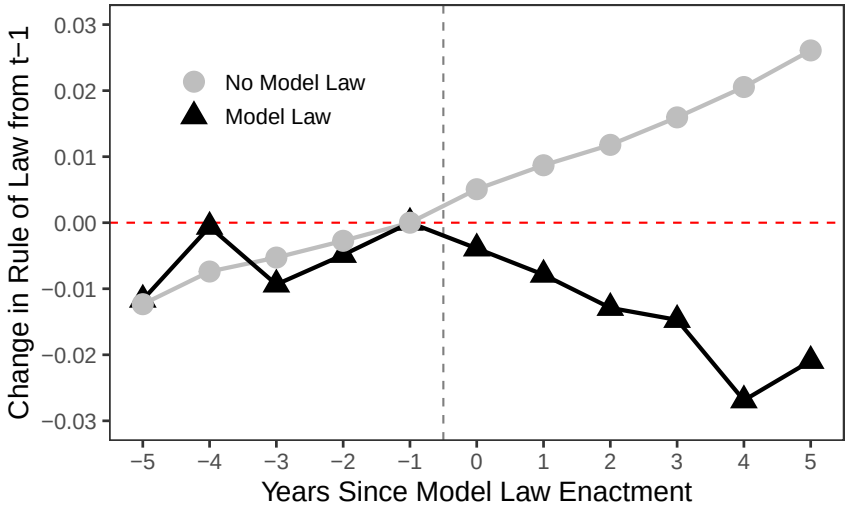
enacting countries, which may be biasing the results towards zero for a couple of reasons. First, countries that enjoy robust legal systems may not be actively engaged in legal reform, so a reduction in pressure for reform would have little effect on institutional outcomes. Second, weak rule-of-law countries 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 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.[67] 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.[68]

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

67. This 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.

68. These results are also robust to examining a 10-year window, see Figure A2.



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).

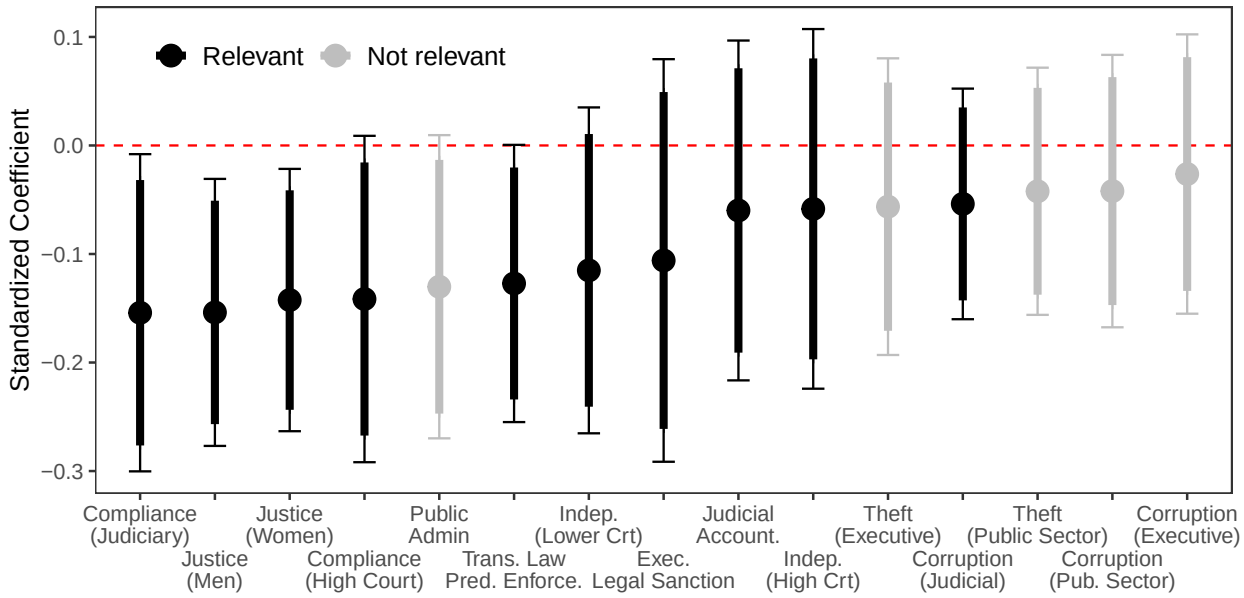
Figure 4. First Differences

yields very similar estimates (Column 5 of Table A5).

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



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).

Figure 5. Estimates of effect of Model Law on individual sub-components of the V-Dem Rule of Law Index

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 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.

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.[69]

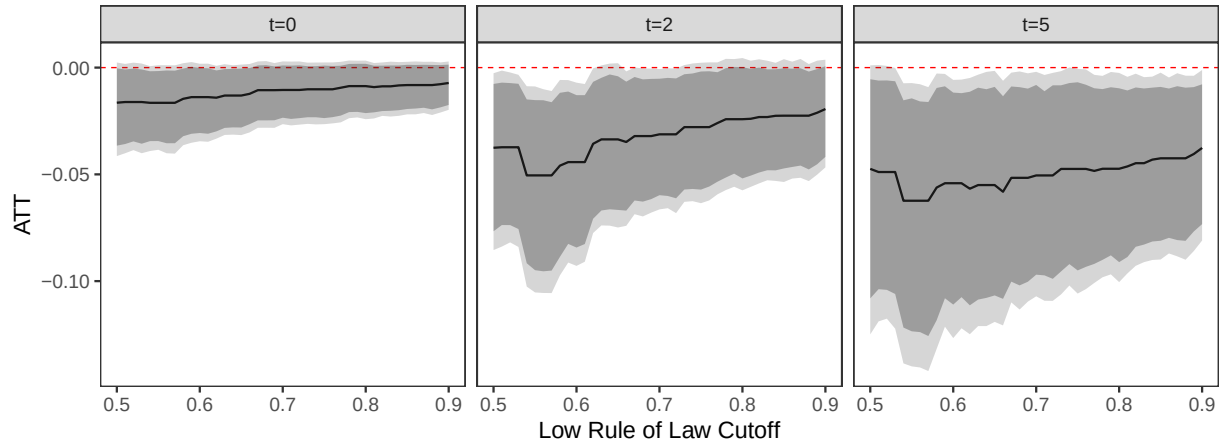
69. For more, see Appendix C.

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, linear estimator[70] with the same set of covariates but I replace the composite Index with each of its sub-components. The results are presented in Figure 5. 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 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. 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: 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 6. 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

70. Borusyak, Jaravel and Spiess 2022.



Note: Figures plot estimates for $F = [0, 2, 5]$ from analyses that implement various cut points to define "low rule-of-law" countries. 90% (dark shaded region) and 95% (light shade) confidence intervals are estimated via blocked bootstrap with 5,000 iterations. For complete results see Figure A4.

Figure 6. Alternative cutoffs

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 A3).

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 is associated with a statistically significant decline in judicial independence (Figure A6a). Enactment is also negatively associated with the integrity of the legal system (Figure A6b). 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 A6c).

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."[71] The report then raises regional economic competitors explicitly to justify its recommendation for enacting reforms based on the Model Law.[72] 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."[73]

I instrument for Model Law enactment using the global rate of Model Law adoption

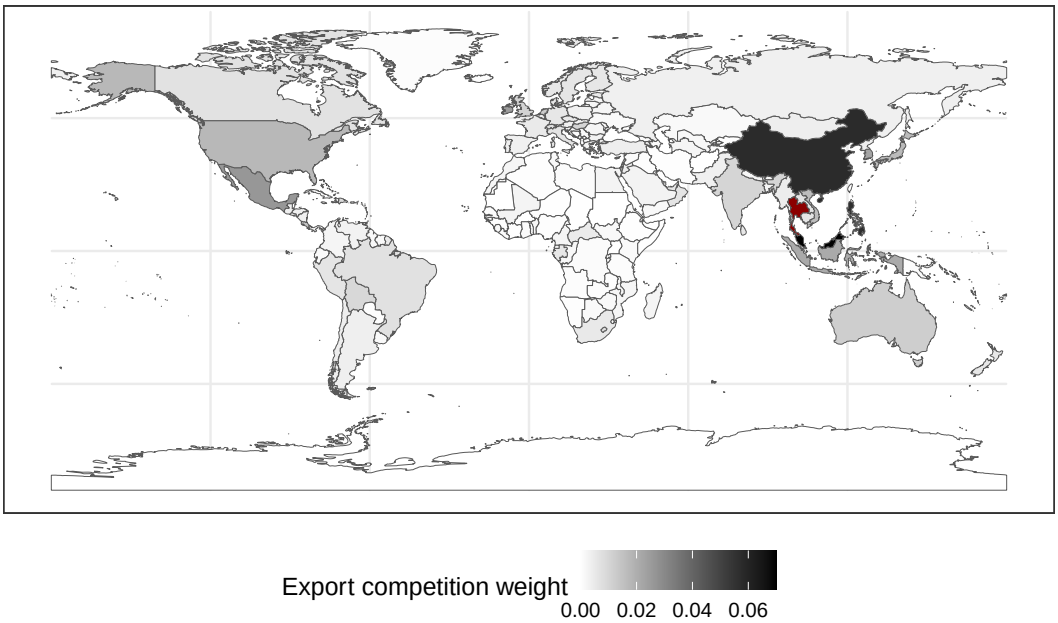
71. SALC 1998, 20.
72. 24.
73. Quoted in Plimpton 2017.

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 1996–2019.[74] I then 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.[75] 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.

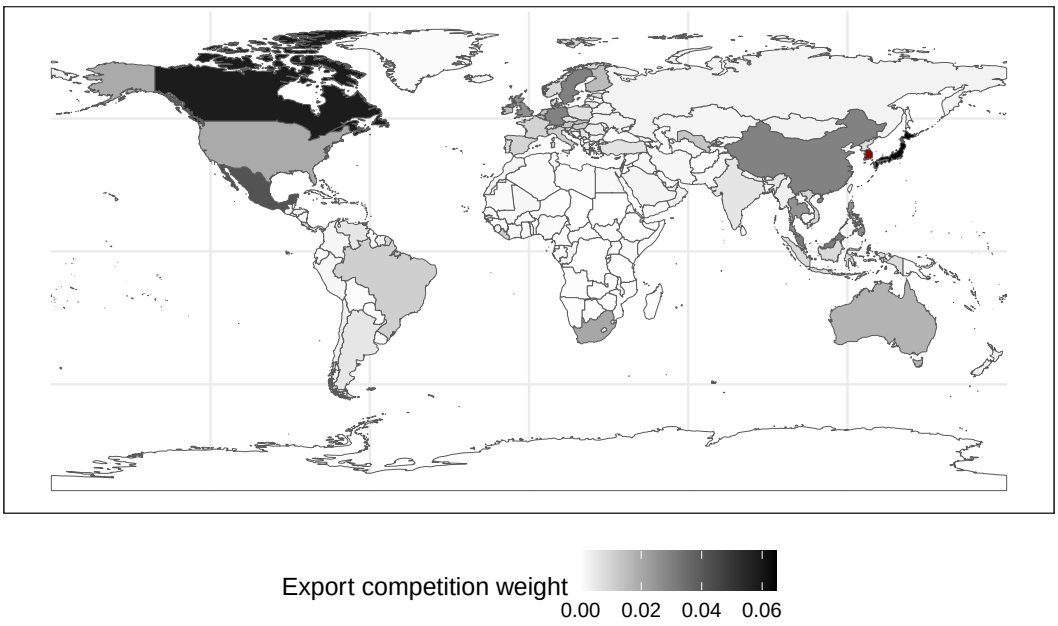
From these data, I construct an $N \times N \times T$ matrix containing the correlation of the value of exports at the importer-product level between each country-pair ij in each year t, denoted w_{ijt}. I replace negative correlation coefficients with 0 because I only expect positive trade similarity to induce competitive pressure.[76] 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 7. After comparing Panels A and B it is apparent 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

74. Gaulier and Zignago 2010.
75. These data are derived from Rauch 1999.
76. As in Cao and Prakash 2010.



(a) Thailand



(b) South Korea

Figure 7. Export competition in contract-intensive trade, averaged over sample period

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.

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.

One potential issue is that the F-stats for the excluded instrument hover slightly above or below 10. This suggests the possibility of a weak instrument, which could introduce bias into the 2SLS estimates. I assess the robustness of my estimates to this possibility in three ways. First, re-estimating the models using the limited-information maximum likelihood estimator produces estimates that are essentially equivalent to those of 2SLS (see Table A8).[77] Second, the reduced-form specification (in which I regress legal capacity on the instrument) is unbiased in the presence of a weak instrument. As seen in Table 2, the reduced-form estimates are highly stable and statistically significant across all specifications. Finally, I estimate 95% confidence intervals using the Anderson-Rubin test, which provides correct coverage regardless of instrument strength.[78] As seen in Table 1, the weak-IV robust confidence intervals are all highly statistically significant and consistent with my theoretical expectation that enactment of the Model Law will have deleterious effects on legal development.

As an indirect method of validating the instrument, I re-ran the analysis using export competition in undifferentiated 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 A9 and A10).

77. Sovey and Green 2011.
78. Chernozhukov and Hansen 2008; Andrews, Stock and Sun 2019.

	DV: V-Dem Rule of Law Index			
	(1)	(2)	(3)	(4)
Second stage				
$\widehat{\text{Model Law}}$	−0.267**	−0.244**	−0.262**	−0.325*
	(0.113)	(0.103)	(0.116)	(0.194)
Weak-IV Robust CI	[−0.72, −0.10]	[−0.62, −0.08]	[−0.78, −0.08]	[−3.68, −0.05]
p-value	0.002	0.003	0.006	0.022
First stage				
Export $\text{Comp}_{\text{Diff.}}$	0.068***	0.071***	0.067***	0.052**
	(0.021)	(0.021)	(0.023)	(0.024)
Controls				
Legal		✓	✓	✓
Econ. Int'l			✓	✓
Econ. Domestic				✓
Country & year FE	✓	✓	✓	✓
Observations	3,529	3,529	3,127	3,093
Effective *F*-stat	10.17	11.33	8.83	4.63

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 pre-treatment data are excluded. Effective *F*-stat estimated using method described by Olea and Pflueger (2013). The weak-IV robust CI reports the 95% confidence intervals generated from the Anderson-Rubin test (Chernozhukov and Hansen 2008). Full results and discussion in Appendix F.

Table 1. 2SLS estimates

	DV: V-Dem Rule of Law Index			
	(1)	(2)	(3)	(4)
Export Competition$_{\text{Diff.}}$	−0.018***	−0.017***	−0.017***	−0.017**
	(0.006)	(0.006)	(0.006)	(0.007)
Omitted Variable Bias Robustness Values				
$R^2_{Y\sim Z\|\mathbf{X}}$	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	3,093

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01. 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 ($RV_{q=1,\alpha=.05}$). $R^2_{Y\sim Z|\mathbf{X}}$ denotes the partial R^2 of export competition conditional on the included covariates.

Table 2. Reduced-form estimates

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.[79] I find no evidence, however, that contract-intensive export competition influences BIT ratification (see Table A11). 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 A12).

79. Sattorova 2018.

Similarly, I find no effect of total export competition in the reduced form (see Table A13). 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[80] on the reduced-form specification. This will provide 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.

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 R^2 (on both treatment and outcome) of about 15 times that of logged Trade Dependence or about 5 times logged GDP per capita. So while one can never entirely rule out the possibility of a violation of the exclusion restriction, these statistics suggest 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.

80. Cinelli and Hazlett 2020.

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 substitution 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 on 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 2019.[81] 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 of

81. These 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.

some the largest firms and international deals. And, second, the ICC is both a highly active ICA center and a distinctly *international* one. The range of arbitral seats in the ICC's caseload is uniquely diverse compared to its closest competitors. Given the stature of the ICC within the field of ICA, patterns within the ICC are legally and politically important in their own right. 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.[82] 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; $\mathbf{X}_{it}$ 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,[83] though I transform the case count variables with the inverse hyperbolic sine for these analyses.

The results are presented in Table 3. 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 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

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

83. Borusyak, Jaravel and Spiess 2022.

Panel A — Seat of ICC arbitration

	Total			ICC	Parties
	(1)	(2)	(3)	(4)	(5)
	Poisson 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]	[.052]	[.664]
	Borusyak, Jaravel and Spiess (2022) Estimates				
Model Law	0.233**	0.153	0.152	0.061**	0.114*
	(0.091)	(0.095)	(0.095)	(0.026)	(0.068)
Pretrend p-value	[.161]	[.474]	[.468]	[.226]	[.432]
Start Year	1992	1992	1992	1994	1994
Economic Controls		✓	✓	✓	✓
Institutional Controls			✓	✓	✓
Country & Year FE	✓	✓	✓	✓	✓

Panel B — Nationality of parties to ICC arbitrations

	Total			Complain.	Defendant
	(1)	(2)	(3)	(4)	(5)
	Poisson PML Estimates				
Model Law	0.263**	0.202***	0.223***	0.295***	0.166**
	(0.107)	(0.075)	(0.069)	(0.082)	(0.072)
Pretrend p-value	[.619]	[.955]	[.975]	[.679]	[.721]
	Borusyak, Jaravel and Spiess (2022) Estimates				
Model Law	0.229***	0.164*	0.169*	0.170***	0.084
	(0.084)	(0.086)	(0.086)	(0.064)	(0.067)
Pretrend p-value	[.200]	[.383]	[.382]	[.072]	[.753]
Start Year	1993	1993	1993	1994	1994
Economic Controls		✓	✓	✓	✓
Institutional Controls			✓	✓	✓
Country & Year FE	✓	✓	✓	✓	✓

Notes: * $p < .1$, ** $p < .05$, *** $p < .01$. Standard errors 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

the addition of institutional controls (though 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 weak effect. Column 4 presents results using the count of cases in which the seat was determined by the ICC rather than the parties. This suggests that the Model Law has a slighlty larger effect on the viability of the jurisdiction in the eyes of the ICC, though the pre-trends are significant and in the same direction as the estimated effect in the Poisson regressions.

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 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.

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. 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 developing countries hardest.[84] The broader consequences of ICA for legal development is particularly salient in light of concerns from legal scholars regarding the growth within nondemocracies of new forms of commercial dispute resolution, including arbitration, that are meant to enhance those regimes' legitimacy as legal service providers without extending these services to the broader public.[85]

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. Particularly in light of the competing findings within the literature across ISDS and now ICA, there remain important open questions regarding how transnational and domestic institutions in this and other domains interact. Future research could explore alternative mechanisms of institutional interaction 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 areas with more fluid transnational movement of people and ideas.[86]

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. In this vein, Judge Abdulqawi Yusuf, former President of the International Court of Justice, described the importance of "re-localizing" arbitration in order to promote the rule of law in counties where it is lacking.[87] This suggests a need for increased focus on methods for promoting complementarity between

84. Bodea and Ye 2020.
85. Bookman and Erie 2021.
86. Kahraman, Kalyanpur and Newman 2020.
87. Yusuf 2017.

transnational institutions and their domestic counterparts.[88]

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 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. 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.

88. Puig and Shaffer 2018.

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Supplementary Material for "Unbundling the State: Legal Development in an Era of Global, Private Governance"

Table of Contents

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 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.

Indicator	Theory Relevant?	Est. 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 5 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 (10-11).

First, I set a time-window for the analysis, F. I then construct a matched set for each treated unit i, denoted $\mathcal{M}_i$, 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 Force (F)	PanelMatch				BJS
	(1)	(2)	(3)	(4)	(5)
0	−0.006	−0.009	−0.009	−0.001	−0.013
	(0.004)	(0.007)	(0.007)	(0.002)	(0.012)
1	−0.010*	−0.017*	−0.017*	0.001	−0.016
	(0.006)	(0.010)	(0.010)	(0.002)	(0.013)
2	−0.015*	−0.025*	−0.025*	0.000	−0.024
	(0.009)	(0.015)	(0.015)	(0.002)	(0.015)
3	−0.018**	−0.031**	−0.031**	0.001	−0.028*
	(0.009)	(0.016)	(0.016)	(0.002)	(0.016)
4	−0.028***	−0.047***	−0.047***	−0.001	−0.048***
	(0.012)	(0.021)	(0.021)	(0.002)	(0.018)
5	−0.026**	−0.047**	−0.047**	0.001	−0.045**
	(0.013)	(0.024)	(0.024)	(0.003)	(0.021)
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.

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).

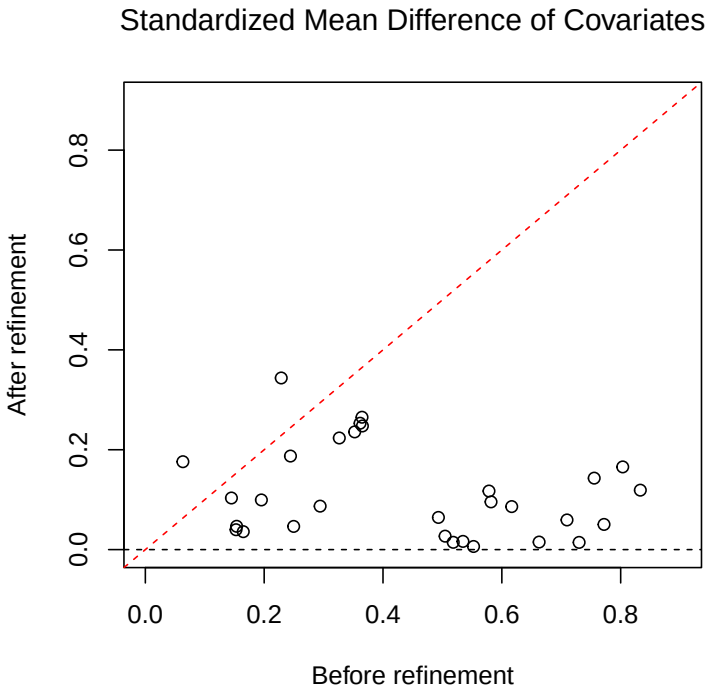
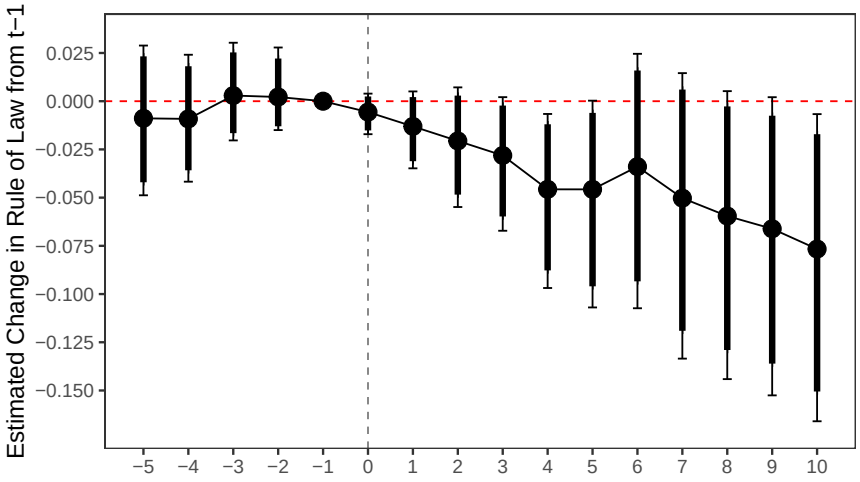


Figure A1. Covariate Balance

D.3 10-year window, Low Rule of Law Sample

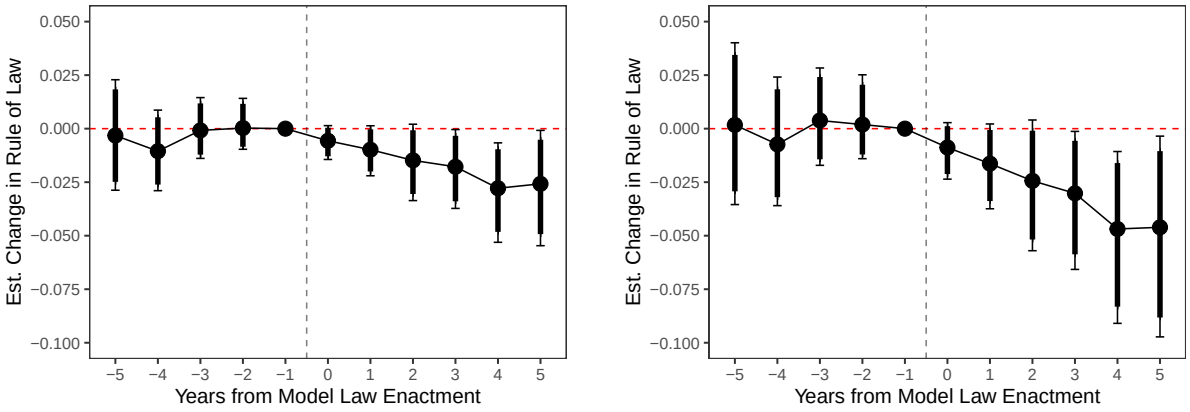
In Figure A2, I re-estimate the model on the low rule-of-law sample but over a 10-year window. This reduces the number of Model Law countries included in the sample to 37 and reduces the average size of their matched sets. As was the case with the 5-year sample, the non-Model Law and Model Law groups 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.



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 A2. Estimated change in Rule of Law Index after Model Law enactment

D.4 Excluding non-Model Law arbitration "hubs"



(a) Full Sample **(b)** Low Rule of Law Sample

Figure A3. Results after excluding non-Model Law arbitration hubs (USA, UK, France, Sweden, and Switzerland)

D.5 Alternative Rule of Law cut-offs

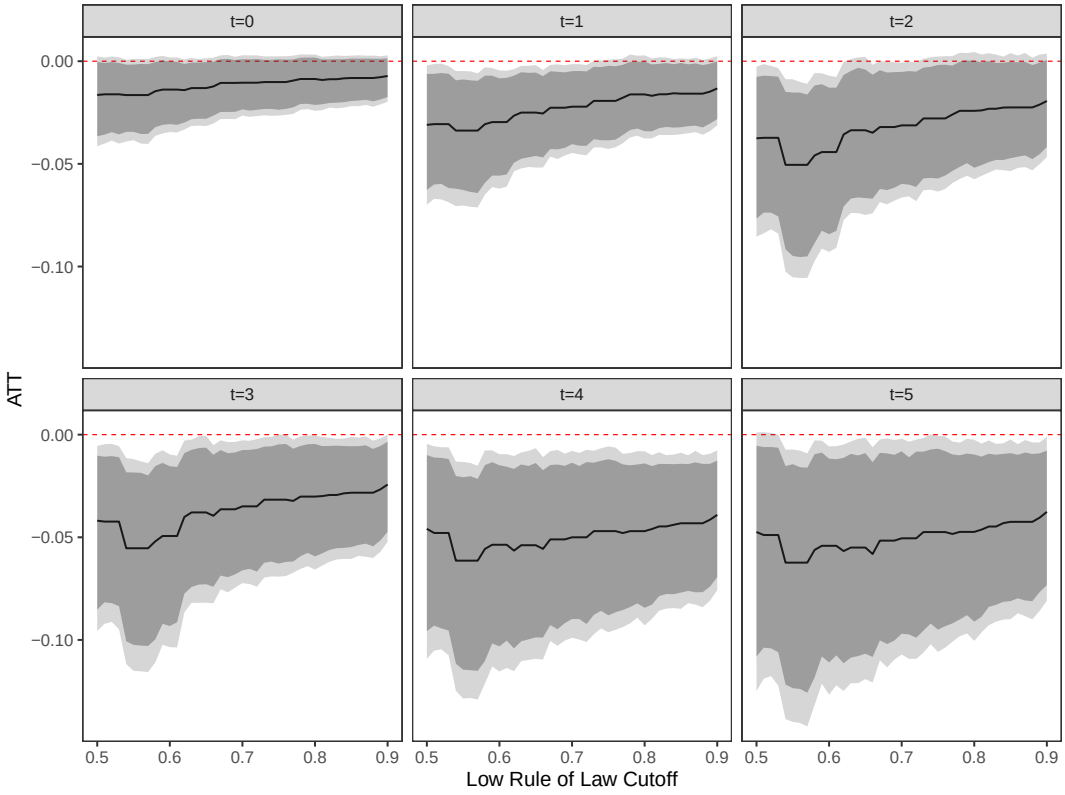
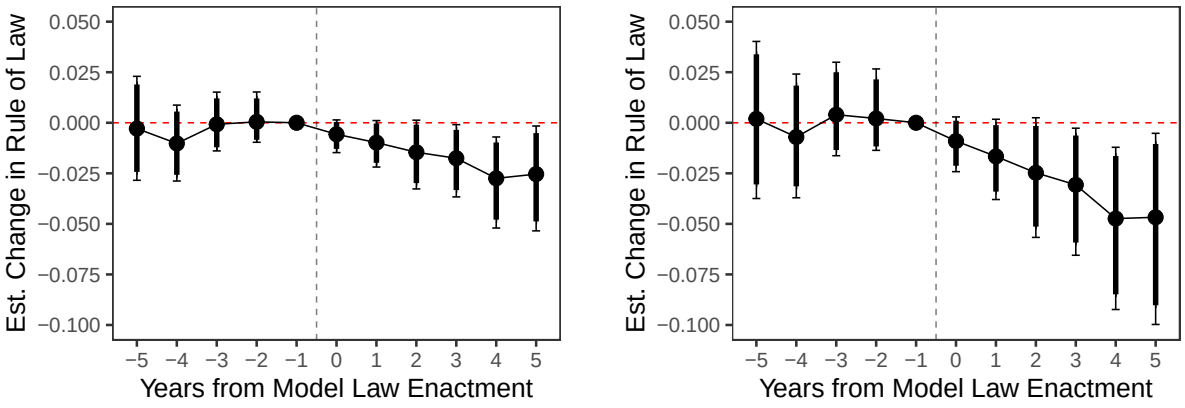


Figure A4. Alternative Low Rule of Law Cut Points

D.6 Adjusting for Polyarchy



(a) Full Sample

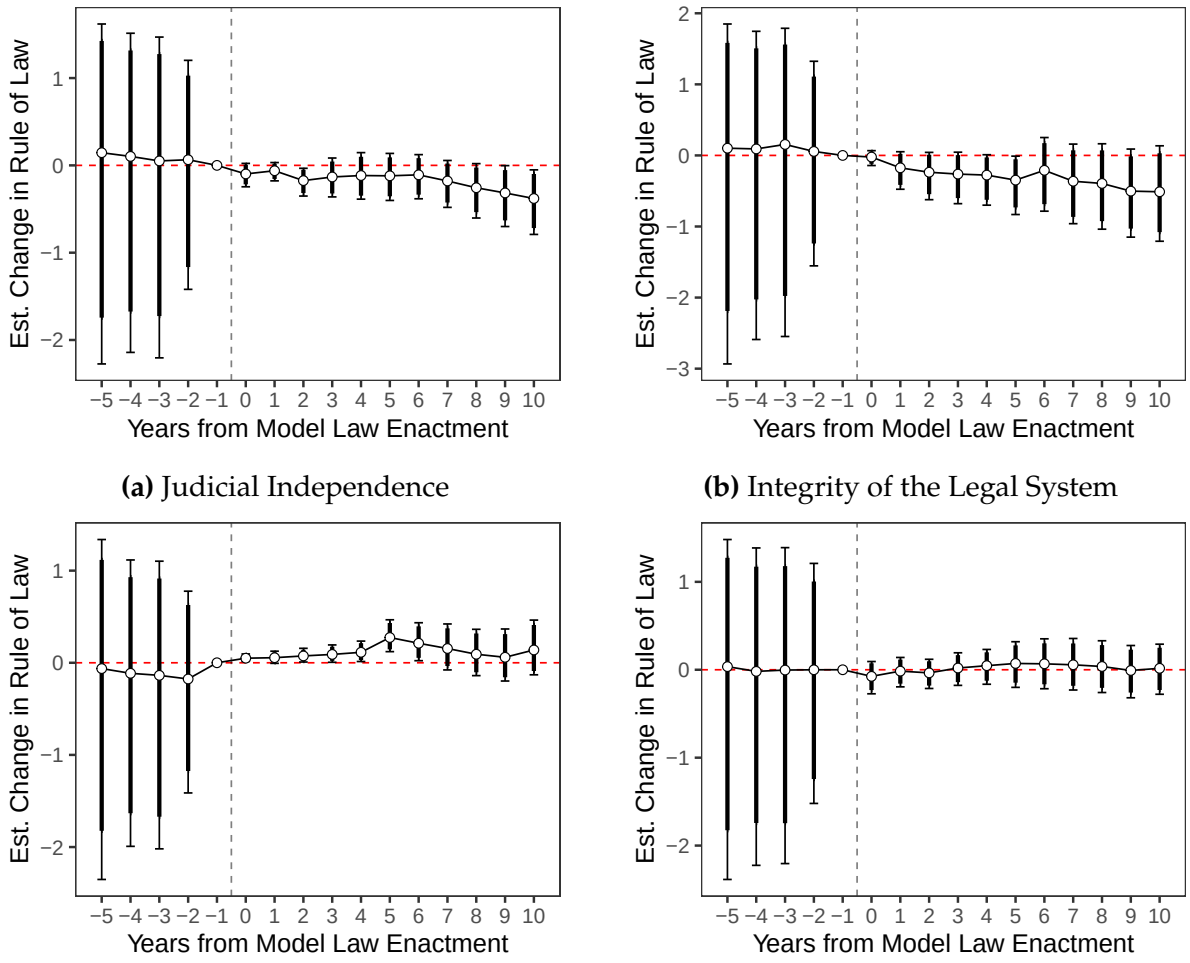
(b) Low Rule of Law Sample

Figure A5. 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 A6.

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.



(a) Judicial Independence

(b) Integrity of the Legal System

(c) Contract Enforcement

(d) Impartial Courts

Figure A6. 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 1996–2019. 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:

$$\text{Model Law}_{it} = \tau \text{Exp. Comp.}_{i,t-1} + \delta \mathbf{X}_{i,t-1} + \gamma_i + \omega_t + \varepsilon_{it}$$

Where $\mathbf{X}_{i,t-1}$ 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:

$$\text{Rule of Law}_{it} = \beta \widehat{\text{Model Law}}_{i,t} + \rho \mathbf{X}_{i,t-1} + \gamma_i + \omega_t + \varepsilon_{it}$$

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				
$\widehat{\text{Model Law}}$	−0.267**	−0.244**	−0.262**	−0.325*
	(0.113)	(0.103)	(0.116)	(0.194)
NYC		0.033	0.019	0.027
		(0.027)	(0.027)	(0.030)
log BITs+1		−0.006	−0.002	−0.002
		(0.014)	(0.016)	(0.021)
log FDI Stock			0.002	0.005
			(0.012)	(0.013)
log Trade Dep.			0.055*	0.051*
			(0.033)	(0.030)
log GDP per cap.				0.203
				(0.146)
log GDP				−0.099
				(0.109)
Growth				−0.001
				(0.001)
Adj. R^2	0.916	0.923	0.914	0.895
Panel B — First stage				
Export Competition$_{\text{Diff.}}$	0.068***	0.071***	0.067***	0.052**
	(0.021)	(0.021)	(0.023)	(0.024)
NYC		0.049	0.052	0.068
		(0.061)	(0.067)	(0.065)
log BITs+1		0.018	0.023	0.025
		(0.036)	(0.042)	(0.045)
log FDI Stock			0.009	0.013
			(0.023)	(0.021)
log Trade Dep.			0.040	0.027
			(0.042)	(0.036)
log GDP per cap.				0.498***
				(0.162)
log GDP				−0.299*
				(0.176)
Growth				−0.001
				(0.001)
Adj. R^2	0.702	0.703	0.707	0.718
Country & year FE	✓	✓	✓	✓
Observations	3,529	3,529	3,127	3,093
Effective F-stat	10.17	11.33	8.83	4.63

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$_{\text{Diff.}}$	−0.018***	−0.017***	−0.017***	−0.017**
	(0.006)	(0.006)	(0.006)	(0.007)
NYC		0.022	0.006	0.004
		(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 Robustness Values				
$R^2_{Y\sim Z\|\mathbf{X}}$	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%
Country & year FE	✓	✓	✓	✓
Adj. R^2	0.954	0.954	0.952	0.952
Observations	3,529	3,529	3,127	3,093

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 ($RV_{q=1,\alpha=.05}$). $R^2_{Y\sim Z|\mathbf{X}}$ 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)
$\widehat{\text{Model Law}}$	−0.267**	−0.244**	−0.262**	−0.325*
	(0.112)	(0.102)	(0.115)	(0.192)
Weak-IV Robust CI	[−0.72, −0.10]	[−0.63, −0.08]	[−0.78, −0.08]	[−3.68, −0.05]
p-value	0.002	0.003	0.006	0.022
Controls				
Legal		✓	✓	✓
Econ. International			✓	✓
Econ. Domestic				✓
Country & year FE	✓	✓	✓	✓
Observations	3,529	3,529	3,127	3,093
1st Stage *F*-stat	9.66	10.76	8.36	4.38

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

Table A8. Limited information maximum likelihood estimates. Export competition in contract-intensive products

	DV: V-Dem Rule of Law Index			
	(1)	(2)	(3)	(4)
Panel A — Second stage				
$\widehat{\text{Model Law}}$	−0.096	−0.065	−0.131	−0.377
	(0.198)	(0.176)	(0.277)	(1.595)
NYC		0.028	0.015	0.030
		(0.023)	(0.024)	(0.099)
log BITs+1		−0.009	−0.005	−0.001
		(0.011)	(0.013)	(0.049)
log FDI Stock			0.001	0.006
			(0.011)	(0.024)
log Trade Dep.			0.049	0.053
			(0.034)	(0.061)
log GDP per cap.				0.232
				(0.920)
log GDP				−0.119
				(0.635)
Growth				−0.001
				(0.002)
Adj. R^2	0.949	0.951	0.943	0.875
Panel B — First stage				
Export Competition$_{\text{Undiff.}}$	0.024	0.026	0.022	0.007
	(0.019)	(0.019)	(0.021)	(0.022)
NYC		0.035	0.035	0.060
		(0.061)	(0.067)	(0.065)
log BITs+1		0.017	0.023	0.028
		(0.037)	(0.043)	(0.046)
log FDI Stock			0.008	0.011
			(0.023)	(0.021)
log Trade Dep.			0.045	0.031
			(0.040)	(0.035)
log GDP per cap.				0.552***
				(0.166)
log GDP				−0.381**
				(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	3,093
Effective F-stat	1.61	1.90	1.10	0.09

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

Table A9. 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$_{\text{Undiff.}}$	−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)
Country & year FE	✓	✓	✓	✓
Observations	3,529	3,529	3,127	3,093
Adj. R^2	0.953	0.953	0.951	0.951

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

Table A10. 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$_{\text{Diff.}}$	−0.036	−0.027	−0.024	0.010
	(0.025)	(0.024)	(0.026)	(0.024)
NYC		0.186**	0.171**	0.132*
		(0.081)	(0.082)	(0.079)
log FDI Stock			0.082**	0.086**
			(0.036)	(0.034)
log Trade Dep.			0.070*	0.068*
			(0.041)	(0.036)
log GDP per cap.				−0.172
				(0.154)
log GDP				0.411**
				(0.166)
Growth				−0.004**
				(0.002)
Year & Unit FE	✓	✓	✓	✓
Observations	3,529	3,529	3,127	3,093
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 A11. Export competition in contract-intensive products is uncorrelated with BIT ratification.

	DV: Model Law in force			
	(1)	(1)	(1)	(1)
Export Competition$_{\text{Total Diff.}}$	−0.016	−0.015	−0.023	−0.022
	(0.014)	(0.014)	(0.016)	(0.015)
NYC		0.024	0.019	0.050
		(0.060)	(0.065)	(0.064)
log BITs+1		0.014	0.018	0.026
		(0.037)	(0.042)	(0.046)
log FDI Stock			0.008	0.010
			(0.023)	(0.021)
log Trade Dep.			0.050	0.033
			(0.038)	(0.034)
log GDP per cap.				0.558***
				(0.160)
log GDP				−0.403**
				(0.169)
Growth				−0.001
				(0.001)
Country & year FE	✓	✓	✓	✓
Observations	3,529	3,529	3,127	3,093
Adj. R^2	0.697	0.698	0.704	0.716

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01. Robust standard errors are clustered by country. Export Competition$_{\text{Total Diff.}}$ 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, First stage estimates

	DV: V-Dem Rule of Law Index			
	(1)	(2)	(3)	(4)
Export Competition$_{\text{Total Diff.}}$	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				0.032
				(0.039)
Growth				0.000
				(0.000)
Country & year FE	✓	✓	✓	✓
Observations	3,529	3,529	3,127	3,093
Adj. R^2	0.953	0.953	0.952	0.951

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01. Robust standard errors are clustered by country. Export Competition$_{\text{Total Diff.}}$ 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 A13. 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)
ln 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?	✓	✓	✓	✓	✓
Country FE?	✓	✓	✓	✓	✓
Pre-trends p-value	.115	.539	.514	.052	.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 A14. ICC Seats, PPML estimator

	Total			ICC	Parties
	(1)	(2)	(3)	(4)	(5)
Model Law	0.233**	0.153	0.152	0.061**	0.114*
	(0.091)	(0.095)	(0.095)	(0.026)	(0.068)
ln 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$_{t-2}$	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 A15. 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)
ln 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?	✓	✓	✓	✓	✓
Pretrends p-value	.619	.955	.975	.679	.721
Observations	4,811	3,992	3,992	3,763	3,854

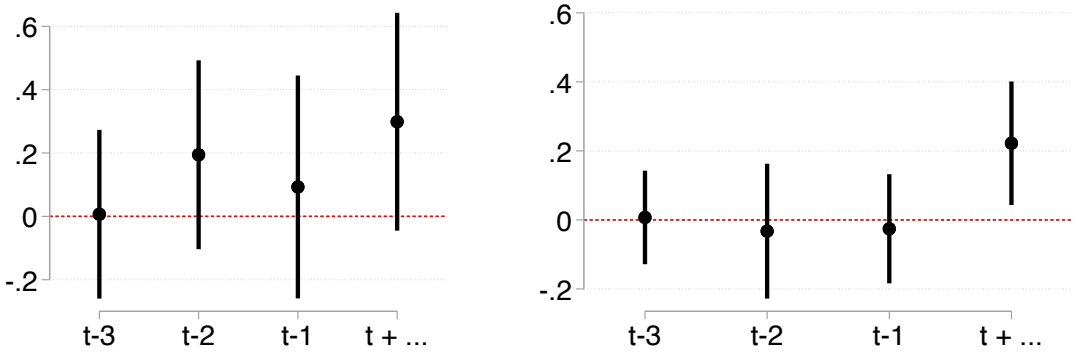
Note: * $p < .1$, ** $p < .05$, *** $p < .01$. Regression coefficients using either Poisson PML estimator. Standard errors in parentheses are clustered by country.

Table A16. 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)
ln 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)
ln 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 A17. ICC Party, BJS estimator



(a) Seat of Arbitration **(b)** Nationality of Party

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 A7. Effect of Model Law on Seat Selection and Nationality of Parties to ICC arbitrations

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