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*Journal of Conflict Resolution* 2012 56: 257 originally published online 3 November 2011  
DOI: 10.1177/0022002711414374

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# Courts as Coordinators: Endogenous Enforcement and Jurisdiction in International Adjudication

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Journal of Conflict Resolution

56(2) 257-289

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DOI: 10.1177/0022002711414374

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## Abstract

Why do states build international courts, submit cases, and enforce court judgments? This article examines the role of a court that is neither a “decider” nor an “information provider.” Litigation is costly and does not reveal private information. The court’s ruling is not binding and bargaining can occur before and after the court has ruled. Nevertheless, an alternative dispute resolution mechanism emerges: court rulings can coordinate endogenous multilateral enforcement. Disinterested states will enforce to ensure that they can profitably use the court in the future. Accepting jurisdiction of the court allows a state to make efficiency-enhancing “trades,” winning high-value disputes in exchange for losing low-value disputes. This is possible because litigation is a screening device: states only sue when they derive relatively high value from the disputed asset. The use of the court as a coordination device for multilateral enforcement allows for the existence of a court with endogenous enforcement and jurisdiction.

## Keywords

international courts, international law, enforcement, jurisdiction, self-enforcing institutions

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Scholars of domestic political institutions emphasize two primary functions of courts: deciding contentious issues via legal rulings and providing information about legal claims or past disputant behavior. However, international institutions can rarely directly enforce their rulings and often have limited private information. This suggests two closely related and important questions. First, can courts do more than decide issues and provide information—is there another way that courts contribute to governance? Second, can a court that is neither a decider nor an information provider be a self-enforcing institution—that is, will strategic actors in an anarchic environment be willing to accept the jurisdiction of the court to rule on future disputes and enforce court rulings in which they have no inherent interest?

Studies of domestic courts usually focus on the role of courts in serving as “deciders” of contentious issues. These accounts assume that court rulings are enforced and the court has jurisdiction to rule on contentious disputes. Legislators and executives can engage in bargaining over various policy choices but a ruling by a court creates a new status quo policy. Other branches of government may subsequently alter policy but a judicial ruling constrains the legislative process (Rogers and Vanberg 2002; Stephenson 2003, 2004). Enforcement and jurisdiction are presumed to be exogenous.

Recent empirical scholarship has challenged this view of courts as “deciders” by demonstrating that even courts that issue ostensibly binding rulings are highly sensitive to concerns about noncompliance. For example, Carrubba and Rogers (2003) argue that the US Supreme Court has tempered its doctrine on the dormant Commerce Clause because of concerns about the enforceability of rulings and noncompliance by the other branches of government (see also Carrubba and Zorn 2010). Similarly, Vanberg (2005) argues that the German Constitutional Court is sensitive to the likelihood of government compliance with an adverse ruling. A key factor influencing the likelihood of compliance is voter awareness of the issue in contention. Greater public awareness creates more pressure for the government to comply with adverse rulings. Staton (2004, 2006) shows that similar dynamics are at work in Mexican domestic courts, with the Mexican Supreme Court strategically publicizing court rulings in order to build up voter support for the court’s authority. Carrubba (2005, 2009) argues that enforcement is a key concern in international regulatory courts, such as the European Court of Justice.

As an alternative to the “decider” model of courts, recent accounts of international courts have emphasized the role that courts play as “information providers.” Such information can be generated by the court ruling itself or by the strategic behavior of disputants with asymmetric information (Gilligan, Johns, and Rosendorff 2010). Johns and Rosendorff (2009) argue that a key function of adjudication in the World Trade Organization (WTO) is to provide information about the legal validity and anticipated consequences of government trade policy. Such information in turn provides consumers and industry groups with the information necessary to lobby their government (Mansfield, Milner, and Rosendorff 2002; Rosendorff 2005). Similarly, Carrubba (2005, 2009) argues that some international courts—such as the

European Court of Justice—may have private information about each state’s cost of compliance with an international regulatory regime. Accepting judicial review is analogous to tolerating defection when the costs of compliance are high. In all of these accounts, the value of the court rests in its ability to provide information that can be used to promote international cooperation.

The scope of these accounts is limited by three key empirical and theoretical dimensions. First, many courts have limited private information about international disputes. While judges may have specialized expertise in the interpretation of legal statutes, international courts often have limited access to private information regarding disputes. International courts have a very limited ability to compel disputants to provide information that is not already publicly available. Second, these accounts all rely upon the presumption that states are involved in prisoner’s dilemmas (PDs) or collective action problems, in which there exist potential benefits to cooperation. However, courts often resolve zero-sum distributional problems in which the preferences of two actors over the division of an asset are directly opposed, as in disputes over land borders and maritime delimitations. While a collective action framework can yield important insight into issues such as economic and environmental regulation, this is not an appropriate framework for examining the role of international courts in many areas, including property rights and international security. Third, most informational accounts of courts ignore the fact that international courts are implicitly nested in bargaining environments. The inability of international law to fully constrain state behavior means that disputants have the opportunity to negotiate settlements both before and after a court has ruled. Even the Dispute Settlement Understanding of the WTO—one of the most “legalized” of international institutions—explicitly promotes negotiated settlement as a preferred alternative to litigation of trade disputes. How does the existence and use of an international court affect such bargaining interactions between states?

In order to address these issues, I construct a theoretical model of a court that issues nonbinding legal rulings and cannot provide private information. States begin by making a onetime decision about whether to accept the jurisdiction of the court. This decision is made behind a “veil of ignorance”—each state knows its own strength within the international system but is uncertain about which international disputes will arise in the future. After these jurisdictional decisions are made, states play an infinitely repeated game. In every period of this game, two players are randomly chosen to be involved in a dispute over the division of an asset. If both of these states have previously accepted jurisdiction of the court, then they can choose whether to engage in bilateral bargaining or to refer the dispute to the court. If adjudication takes place and the loser initiates conflict, then each of the disinterested players (i.e., those players who were not randomly selected as disputants) must decide whether to enforce the court’s judgment by imposing a onetime punishment. This punishment is costly to both the player *receiving* the punishment and the player *imposing* the punishment. This basic stage game is infinitely repeated. Players can develop reputations about their enforcement of court judgments and any player that

is a disinterested party in a given period can reasonably expect that it will be randomly selected as a disputant in a future conflict.

Despite the court's inability to provide private information or issue binding rulings, an alternative dispute resolution mechanism arises: court rulings can coordinate endogenous enforcement by the group of disinterested actors.<sup>1</sup> States that punish noncompliance when they are disinterested players are "providers" of enforcement. States that refuse to punish are "free riders." Suppose that disinterested states enforce court judgments when the winner is a provider of enforcement and do not enforce when the winner is a free rider. Then states that have joined the court's jurisdiction have an incentive to uphold the court's ruling even though it is costly to enforce and they have no inherent interest in the dispute. Even though the courts lacks explicit enforcement mechanisms, it is possible for states to develop a shared set of expectations about behavior that lead to informal enforcement of the institution's decisions (Maggi 1999; Milgrom, North, and Weingast 1990; Weingast 1997). Equilibrium behavior in the game generates a self-enforcing norm of reciprocal multilateral enforcement (Keohane 1986).

The credible threat of such enforcement constrains postadjudicative bargaining between disputants. The winner of adjudication can lock in a favorable position for postadjudicative bargaining. A court ruling is not binding *per se*, yet, the expectation of endogenous enforcement by disinterested states ensures that legal rulings affect distributive outcomes. The absence of informational asymmetries in this framework might suggest that courts can offer little value to disputants because players can always negotiate a Pareto-efficient settlement without resorting to costly adjudication. However, strategic case submission—in order to lock in such favorable bargaining positions—ensures that litigation is a screening device: players only sue when they derive relatively high value from the asset in dispute. This means that the existence of the court enhances the classical efficiency of bargaining outcomes. A player can make efficiency-enhancing "trades" over his future selves by accepting jurisdiction of the court: he increases the likelihood that he wins high-value disputes and loses low-value disputes. This raises his overall expected utility from future disputes and ensures that he will voluntarily accept the court's jurisdiction from behind the "veil of ignorance."

There are three major contributions of this model. First, I show that endogenous enforcement and jurisdiction are possible even if the court is neither a "decider" nor an "information provider." My theoretical framework isolates an alternative mechanism: the ability of courts to serve as coordinators of endogenous multilateral enforcement. Second, my model applies to a broad class of problems not previously examined in the literature: distributional conflicts among actors in a multiplayer environment. Third, I examine the role of courts when litigation is nested in a bargaining framework. I proceed by describing my theoretical model and deriving formal results. After discussing the substantive implications and robustness of these findings, I examine the International Court of Justice (ICJ)—the main judicial organ

of the United Nations—to illustrate and probe the plausibility of my theoretical arguments.

## Theoretical Model

There is a set of unitary-actor nation-states. Each state begins the game at time  $t = 0$  by choosing whether to submit itself to the jurisdiction of the court. This onetime decision is made from behind a “veil of ignorance”—states know their relative strength within the international system but do not know what disputes will arise in the future. Then states play an infinitely repeated game in which they are randomly matched in distributional conflict.

### Dispute Stage Game

In each period  $t > 0$ , the stage game begins with Nature randomly selecting two players,  $i$  and  $j$ , to be involved in a dispute over an asset. Players  $i$  and  $j$  are “disputants,” and the other players are “disinterested” actors. Each player is equally likely to be chosen as a disputant. Nature then randomly selects the value that each player receives from the asset in dispute. These values,  $v_i$  and  $v_j$ , are independently and identically distributed.<sup>2</sup> Each disputant’s value is common knowledge after it is drawn—there is no uncertainty regarding how much player  $i$  and  $j$  value the asset.

If either (or both) of the disputants has not accepted jurisdiction, then recourse to the court is not possible. Players are restricted to bilateral bargaining and each disputant’s payoff from failure to reach an agreement is her expected utility from engaging in conflict over the asset.<sup>3</sup> Let  $\alpha_i$  and  $\alpha_j$  represent the “strength” of player  $i$  and player  $j$  in conflict, respectively. Suppose that the probability that state  $i$  wins the asset in a conflict against player  $j$  is

$$q = \frac{\alpha_i}{\alpha_i + \alpha_j}.$$

The stronger a state becomes, the higher the probability that it will prevail in conflict.<sup>4</sup> Suppose the asset is destroyed during conflict with probability  $0 < \phi < 1$ .<sup>5</sup> Then player  $i$ ’s expected utility from war is  $w_i = q(1 - \phi)v_i$ , and player  $j$ ’s expected utility from war is  $w_j = (1 - q)(1 - \phi)v_j$ . Negotiations in anarchic environments, such as bilateral international disputes, lack fixed rules for bargaining (Johns 2007; Milner and Rosendorff 1996). I assume that bargaining results in the selection of the Nash bargaining solution (NBS) because this yields outcomes that can result from a wide diversity of bargaining games in which a player’s ability to extract concessions is a function of her strength in conflict. Let player  $i$ ’s share of the asset in the NBS be denoted by  $x^B$ .<sup>6</sup>

If both  $i$  and  $j$  have accepted jurisdiction at the beginning of the game ( $t = 0$ ), then each disputant chooses between bilateral bargaining and adjudication. Figure 1

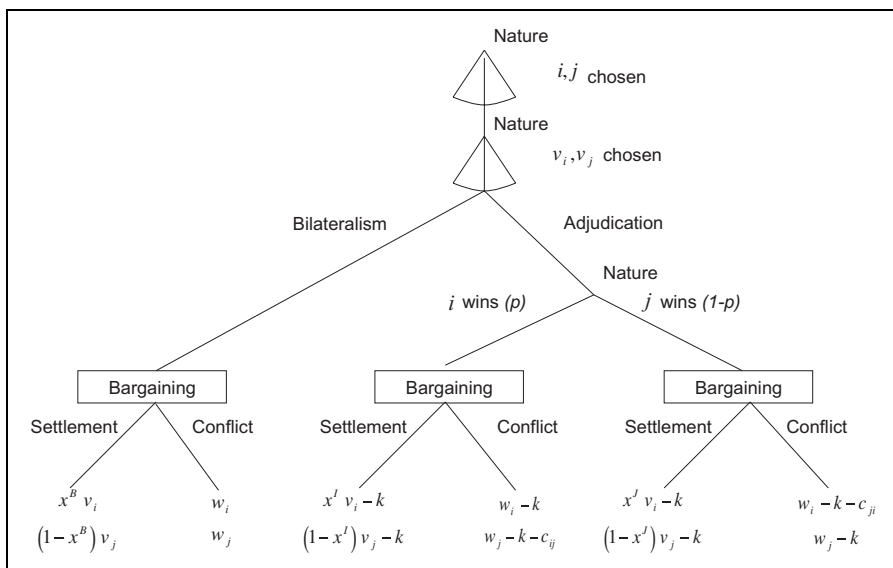


Figure 1. Structure of the dispute stage game when  $i$  and  $j$  accept jurisdiction

shows this subgame. If both  $i$  and  $j$  choose bilateral bargaining, then disputants enter the bargaining framework described above. However, if at least one disputant chooses adjudication, then the court hears the case. The court issues stochastic rulings and the probability that player  $i$  wins the asset is  $0 \leq p \leq 1$ .<sup>7</sup> The legal process is costly, so each disputant pays a cost  $k > 0$  if adjudication takes place.

After the ruling, the disputants can continue negotiations. However, if the loser of the ruling initiates conflict, then all of the disinterested players choose whether to enforce the ruling by punishing the loser. For example, suppose player  $i$  wins a ruling against player  $j$ . Then each disinterested state will choose a level of enforcement,  $e_{nij} \geq 0$ . This punishment imposes a cost,  $-e_{nij}$ , on both the disputant receiving it and the disinterested state imposing it. So the overall noncompliance punishment that player  $j$  faces if he initiates conflict after losing a court ruling is  $c_{ij} = \sum_{n \in N \setminus \{i, j\}} e_{nij}$ . So player  $j$  can only credibly threaten war after losing the ruling if the noncompliance punishment is sufficiently low:  $c_{ij} < (1 - q)(1 - \phi)v_j$ . In such a situation, player  $i$ 's expected utility from conflict is  $w_i$ , but player  $j$ 's expected utility from war to  $w_j - c_{ij}$ . Similar incentives hold if player  $j$  wins the court ruling. Conflict is only a credible threat for player  $i$  if  $c_{ji} < q(1 - \phi)v_i$ , and player  $i$ 's expected utility from war becomes  $w_i - c_{ji}$ , while player  $j$ 's expected utility from war remains as  $w_j$ . I assume that postadjudicative bargaining results in the choice of the NBS, where  $i$ 's share of the asset when  $i$  wins a court ruling is denoted by  $x^i$ , and  $i$ 's share of the asset when player  $j$  wins a court ruling is denoted by  $x^j$ .<sup>8</sup>

## *Reputation and Equilibrium Selection*

In repeated games, most equilibrium concepts (including the subgame perfect Nash equilibrium) allow players to condition their actions on all components of the history of play. The well-known “folk theorems” of infinitely repeated games have established that such a framework can support a large diversity of equilibrium behavior (Fudenberg and Tirole 2000, 150–60). For example, there exist equilibria of the game in which the court is ineffective in resolving disputes. However, the interesting theoretical question is whether a court can be effective even though it lacks basic elements of authority like compulsory jurisdiction and enforcement. Since I want to examine the ability of states to build an endogenous system of jurisdiction and reciprocal enforcement of court judgments, I restrict attention to equilibria in which each player develops a reputation about her past behavior as an enforcer of court judgments.

The history of the game allows all players to be classified as either “free riders” or “providers.”<sup>9</sup> All players start the game with reputations as providers. Suppose that the court rules in favor of player  $i$  and then player  $j$  initiates conflict. Each disinterested state  $n$  must decide how to respond. If both disputant  $i$  and disinterested state  $n$  are providers, then can  $n$  retain her reputation as a provider if she imposes costs that are at least as large as her enforcement threshold,  $\hat{e}_n$ . This threshold is exogenous in the model. If  $n$  does not impose costs that meet or exceed this threshold (i.e., if  $e_{nij} < \hat{e}_n$ ), then she becomes a free rider. The only time that state  $n$  can refuse to punish conflict without becoming a free rider is if the winner of the court ruling is himself an enforcement free rider. That is, disinterested states are not required to enforce court judgments on behalf of states that refused to enforce previous court rulings. This creates a grim trigger reputational mechanism: once a state earns a reputation as a free rider by failing to provide sufficient enforcement for a ruling, it can never regain its reputation as a provider of enforcement.<sup>10</sup> This grim trigger creates the greatest possible incentives for states to preserve their reputations, which in turn leads to the strongest possible system of reciprocal enforcement in a subgame perfect equilibrium.

Given the complexity of the game, I begin by characterizing properties of subgame perfect equilibria in which the grim trigger reputation mechanism holds. I describe bargaining outcomes and properties of enforcement decisions. Next, I characterize properties of equilibrium behavior, when disputants have already accepted jurisdiction of the court. Then I consider the decision by states about whether to initially accept jurisdiction. The conjunction of these properties allows me to prove the existence of equilibria in which states accept jurisdiction of the court, submit cases, and enforce court rulings. Finally, I examine the issue of equilibrium selection as a proxy for endogenous institutional change.

## *Bargaining and Enforcement*

A key factor affecting whether states will use the court and accept its jurisdiction is how the legal process affects the final negotiated agreement. So it is necessary to



characterize explicitly the outcomes of both bilateral and postadjudicative bargaining.

**Lemma 1:** *Equilibrium bargaining outcomes are*

- *in bilateral bargaining, each player receives her expected share of the asset secured from fighting plus half of the surplus generated by settlement (i.e.,  $x^B = q(1 - \phi) + \frac{\phi}{2}$ ); and*
- *in postadjudicative bargaining, the share of the asset for the winner of adjudication is (weakly) increasing in the size of noncompliance punishments (i.e.,  $x^I = x^B + \frac{c_{ij}}{2v_j}$  if war is a credible threat and  $x^I = 1$  if war is not credible, and  $x^J = x^B - \frac{c_{ji}}{2v_i}$  if war is a credible threat and  $x^J = 0$  if war is not credible).*

As shown in Lemma 1, equilibrium bargaining behavior is contingent on the expected punishment for engaging in postadjudicative conflict, the relative strength of the players in conflict, and the values that they derive from the asset. Strength in conflict always translates into better bargaining outcomes, and the winner of adjudication extracts more favorable settlements as noncompliance punishments for her opponent increase. If the punishment for conflict is sufficiently high, then postadjudicative bargaining is effectively forestalled. Engaging in conflict is no longer a credible threat for the loser of adjudication, so the winner retains full control over the asset. This raises an important substantive point: players can have the opportunity to engage in postadjudicative bargaining but choose not to do so. If we observe in a particular case that disputants fully implement a court ruling, that does not necessarily mean that the ruling was fully binding and that players lacked the ability to negotiate a new settlement. This leads to an examination of factors that affect the willingness of disinterested actors to enforce court rulings.

**Lemma 2:** *In equilibrium, a disinterested state will not enforce a judgment if (a) the winner of the court ruling is a free rider, (b) the disinterested state is already a free rider, or (c) the disinterested state has not accepted jurisdiction of the court.*

If an enforcement free rider wins adjudication, no punishment will be imposed if the loser initiates conflict. Second, once a player declines to enforce a court judgment, the player will refuse to enforce any subsequent judgments. Finally, players who do not accept jurisdiction have no incentive to invest in the enforcement of court judgments because they will never be involved in a dispute that can be submitted to the court.

### **Behavior When Jurisdiction Is Established**

Suppose that both disputants have accepted the jurisdiction of the court. When will they want to submit disputes to the court? Adjudication is preferable to bilateral bargaining for each player if

$$px^I v_i + (1 - p)x^J v_i - k \geq x^B v_i \quad \text{for player } i \tag{1}$$

$$p(1 - x^I)v_j + (1 - p)(1 - x^J)v_j - k \geq (1 - x^B)v_j \quad \text{for player } j. \tag{2}$$

Whether each constraint holds is a function of anticipated bargaining outcomes, which depend on the enforcement reputations of the disputants and the level of enforcement. The following result describes key characteristics of these submission decisions.

**Lemma 3:** *Suppose disputants  $i$  and  $j$  have accepted jurisdiction of the court. In equilibrium (a)  $i$  and  $j$  never both want to submit a dispute, (b) free riders will never submit cases to the court, and (c) free riders are more likely than providers to have cases filed against them.*

The adjudication process is a costly lottery over the two possible postadjudicative bargaining outcomes,  $x^I$  and  $x^J$ . If player  $i$  finds this gamble preferable to bilateral bargaining, then player  $j$  prefers the opposite (cf. Allee and Huth 2006; Fang 2010). Second, free riders will not want to submit cases to adjudication. By Lemma 2, if a free rider wins adjudication, then she gains no benefit in bargaining because the ruling will not be enforced. If a free rider loses against a provider, then she will be constrained in postadjudicative bargaining. So free riders never benefit from adjudication. Finally, free riders are desirable targets for litigation by providers of enforcement. If a provider wins a case against a free rider, enforcement will occur so the provider gains a bargaining advantage. If a provider loses against a free rider, then the provider is not constrained in postadjudicative bargaining because disinterested actors will not be willing to enforce.

This suggests a powerful incentive for players who have accepted jurisdiction of the court to provide enforcement for court rulings. Free riders never benefit from the jurisdiction of the court. They also face higher costs from the court’s jurisdiction than providers because they are more desirable targets for litigation by providers. Suppose that a player has accepted jurisdiction and expects that with positive probability she will be involved in a dispute that gets referred to the court. Then she will want to preserve her reputation as providers of enforcement.

**Lemma 4:** *If a player has accepted jurisdiction of the court and there is a positive probability of adjudication, then the expected utility for a player from being involved in a dispute is higher if she has a reputation as a provider than if she is an enforcement free rider.*

A player who has previously accepted jurisdiction of the court benefits from having a reputation as a provider of enforcement if she expects to be a litigant in the future. If a player knows that she will never be involved in a dispute that goes to the

court, then the only possible bargaining outcome is  $x^B$ , which is not affected by her enforcement reputation. Lemmata 2 and 4 allow us to examine the willingness of disinterested players to enforce court judgments.

**Proposition 1:** *In equilibrium, a player who has accepted jurisdiction of the court is willing to impose costly punishments in order to preserve her reputation. The maximum punishment that she will impose is increasing in her expected benefit from preserving her reputation as a provider of enforcement.*<sup>11</sup>

So disinterested states will provide enforcement in equilibrium. As the marginal benefit of being a provider (as opposed to a free rider) increases, the willingness of players to enforce increases. It is now possible to examine the strategic incentives of players to accept jurisdiction.

### Endogenous Jurisdiction Decisions

Each state's initial decision about whether to accept jurisdiction of the court is affected by the level of enforcement for court rulings. Suppose that there is relatively little enforcement of rulings. Then court rulings will have little impact on postadjudicative bargaining and no player will ever be willing to pay the litigation costs of submitting a case to the court. Since no cases will ever be filed with the court, it is trivial to construct equilibria in which states are willing to accept the jurisdiction of the court because its enforcement system is weak.

The more interesting theoretical question is to ask: can we have a *governance equilibrium*, in which some (or all) states accept jurisdiction, submit cases, and provide a high level of enforcement for court rulings? I consider equilibria in which enforcement costs are sufficiently large that states are bound by rulings of the court. In accordance with the legalization literature, I refer to this as a high-obligation system (HOS; Abbott et al. 2000).

**Definition.** An international legal regime is a HOS if the threat of war in postadjudicative bargaining is never credible.

If an international legal system is an HOS, then noncompliance punishments are sufficiently large that court rulings are implemented fully and winners of litigation are unwilling to compensate losers.<sup>12</sup> Strength in conflict has no impact on postadjudicative bargaining outcomes in an HOS. This affects the willingness of states to accept jurisdiction of the court.

**Lemma 5:** *In an equilibrium with an HOS, each player's willingness to submit a case and expected benefit from jurisdiction of the court are both decreasing in her own strength and increasing in the strength of her opponent.*

In an HOS, the court is an imperfect substitute for conflict: as the value of conflict for a particular player increases (via an increase to her  $\alpha$  value), her willingness to

use the court declines. This substitution effect drives jurisdiction decisions in high-obligation legal systems. The greater the value of  $\alpha_n$ , the less player  $n$  benefits from the jurisdiction of the court in an HOS. Players who are weakest in conflict (i.e., have the lowest values of  $\alpha_n$ ) derive the greatest benefit from the availability adjudication relative to bilateral bargaining, while players who are strongest derive the least benefit. This leads to the following result.

**Proposition 2:** *There always exists an anarchic equilibrium in which all players refuse the jurisdiction of the court. All other possible equilibria with an HOS are monotonic: if a player  $n$  accepts jurisdiction, then all players weaker than  $n$  also accept jurisdiction.*

The decision about whether to accept jurisdiction of the court is strategic. If no other player accepts jurisdiction, then the court can never be used and there is no incentive to accept jurisdiction of the court. So there always exists an *anarchic equilibrium* in which no players accept jurisdiction of the court. However, the game can have other equilibria in which some or all players accept jurisdiction of the court. If such an equilibrium exists and only some players accept jurisdiction, then monotonicity means that there must be two groups of players: weak players (with low  $\alpha$ -values) who accept jurisdiction and strong players (with high  $\alpha$ -values) who refuse jurisdiction. When combined with case submission and endogenous enforcement, we can have a governance equilibrium, in which some (or all) states accept jurisdiction, submit cases to the court, and enforce its rulings.

**Proposition 3:** *There exists a non-degenerate set of parameter values and distribution functions for which there exists a governance equilibrium with a HOS.*

This result does not fully characterize the necessary and sufficient conditions for governance. However, it does clearly establish that such strong courts are possible, even if they lack compulsory jurisdiction and enforcement. Elements of the proof of Proposition 3 provide intuition about when courts are likely to be effective in resolving disputes. The first key element driving the proof is that players that accept jurisdiction are relatively similar with regard to their strength parameter. When there are large asymmetries in strength, the strongest player has little (and sometimes no) incentive to accept jurisdiction since she can gain a lot through bilateral bargaining. This suggests that courts with strong enforcement regimes are more likely when they are created by a group of players that are relatively similar with regard to strength.

The second key factor driving the proof of Proposition 3 is that strategic case submission enhances the classical efficiency of outcomes. Consider a player  $n$  who is deciding whether to accept jurisdiction of the court. If  $n$  is later matched against another player who has accepted jurisdiction, three cases are possible: neither player will submit the dispute, player  $n$  will submit, or player  $n$ 's opponent will submit. If neither player submits, then bilateral bargaining will occur. This gives player  $n$  the

same expected payoff as if she had declines jurisdiction. If player  $n$  submits, then it must true that  $n$  places a high value on the asset and is likely to win adjudication; otherwise, she would not be willing to pay the litigation cost,  $k$ . If player  $n$ 's opponent submits, then player  $n$ 's expected valuation of the asset is  $E[v]$ . The screening process that takes place due to litigation costs,  $k$ , ensures that  $n$ 's expected value from the asset when she sues is larger than her expected value when her opponent sues. So player  $n$  is making "trades" over her future selves by accepting jurisdiction.

By committing to the ability to both sue and be sued, a player trades favorable court rulings on issues that she values highly with unfavorable rulings on issues that she values little.<sup>13</sup> If the probability of high-value assets is sufficiently large (i.e., there is sufficiently high density on the upper end of the distribution of  $v$ ), then accepting jurisdiction is optimal. This "trading" dynamic is generated purely by selection effects and not by strategic court rulings (cf. Benvenisti 2004). Even though court rulings are not affected by efficiency concerns (i.e.,  $p$  is not a function of asset valuations), the court can enhance classical efficiency because of strategic case submission. This creates incentives for states to accept jurisdiction of the court from behind the "veil of ignorance" since increasing classical efficiency is equivalent to increasing individual expected utility prior to the realization of  $v$  values.

### *Equilibrium Selection as Institutional Choice*

An anarchic equilibrium always exists, so if governance is possible, then there are multiple equilibria for a given set of parameters of the game. In an anarchic equilibrium, there is no court that is effective in resolving disputes. In a governance equilibrium, there exists a court with jurisdiction that hears cases and has multilateral enforcement of its rulings. How do states evaluate these different possibilities? Would any state invest in creating a court with jurisdiction and enforcement, instead of operating under anarchy? One way to examine equilibrium selection is to consider the payoffs of the players across equilibria to examine which states have the greatest incentive to create an institution (Banks and Calvert 1992; Calvert 1995).

**Proposition 4:** *If governance with an HOS is possible, then this equilibrium is (weakly) preferred by all players to the anarchic equilibrium.*

States who benefit from the court clearly prefer to live in a world with governance rather than a world of anarchy. Players who dislike the court are not bound by the decisions of court-supporters since jurisdiction is reciprocal. A player who declines jurisdiction is not affected by the jurisdictional choices of other state. So if institutional change is possible, such change is hindered by coordination problems, not by distributional problems. We can now consider how the incentives to change equilibria differ across the players in the game.

**Proposition 5:** *If governance with an HOS is possible, then each player's incentive to create a court is decreasing in its strength.*

This means that we should expect weak players to be the most active in creating courts with HOSs.

## Discussion of Results and Robustness

Previous accounts of self-enforcing courts examine the role of an institution in regulating cooperative interactions between players in PD and collective action games (e.g., Carrubba 2005, 2009; Rosendorff 2005; Milgrom, North, and Weingast 1990). Mutual cooperation creates higher payoffs than mutual defection, so actors have short-term incentives to cheat trading partners and long-term incentives to promote trust. I examine the role of courts in regulating distributional conflicts. In each time period, disputants have directly opposing preferences over the division of a common asset: one player's gain is a loss for his rival. The institution does not create a cooperative surplus; the benefit that players derive from the court is driven by a different mechanism. Additionally, I assume that enforcement is costly for disinterested players. This differs from a PD or collective action game in which bilateral punishment occurs by implementing a dominant strategy. It is harder to create an enforcement regime in my model than in past accounts.

Enforcement is multilateral, rather than bilateral, in the model above. One common explanation for why disinterested players uphold legal rulings is belief in the "legitimacy" of an institution or their desire to build up a body of law that may benefit them in the future. However, I assume that a ruling of the court is purely stochastic. Rulings are neither derived from law nor law-creating. There is no positive or normative value from upholding a ruling of the court since it is not derived from pre-existing law and does not generate principles for the settlement of future disputes. This clearly demonstrates that neither legitimacy nor precedential value are necessary for the creation of courts to resolve conflicts. States operating under anarchy can benefit from the creation of courts that are arbitrary and capricious.

Each state has a reputation regarding its enforcement behavior. This affects how it is treated by other states in future disputes. I assume that there is an infinite reputational loss for a one-time failure to enforce a ruling. Alternatively, perhaps states can develop bad reputations in the short run but regain their good reputations over time (McGillivray and Smith 2008). Allowing for such short-term reputation loss does not change any of the substantive results of the model.<sup>14</sup> A key assumption is that disinterested states can refuse to enforce on behalf of free riders without suffering a loss of reputation. However, suppose that disinterested players are required to enforce all judgments equally in order to preserve their reputation. Then the enforcement system collapses: since free riders will no longer be disadvantaged in litigation no states will be willing to enforce. In contrast, suppose that providers must impose some enforcement when a free rider wins adjudication, but less than if the winner had been a provider. All results continue to hold. Finally, disputants may be punished for conflict for reasons that are exogenous to the model. All results are robust when states are punished for any form of conflict, provided that states must

impose larger punishments for conflict following adjudication in order to preserve their reputations as providers, and conflict is still sometimes a credible threat.

Enforcement decisions are affected by each player's enforcement cost threshold,  $\hat{e}_n$ —that is, the level of enforcement that disinterested player  $n$  must provide to preserve her reputation as a provider. These thresholds are exogenous, but the model can accommodate many different enforcement regimes. For example, perhaps weak and/or poor players must bear less of the enforcement burden than strong and/or rich players.<sup>15</sup> Alternatively, perhaps enforcement is affected by factors like colonial ties or trade relations (Goodliffe and Hawkins 2006). Either of these interpretations can be accommodated within the model.<sup>16</sup> These thresholds are exogenous so the model does not comment on how expectations of obligations are formed or which set of expectations is optimal or to be expected empirically. This constitutes an interesting area for future research.

Why do players accept jurisdiction of a court that is neither a “decider” nor an “information provider”? I show that strategic case submission and stochastic court rulings can enhance the classical efficiency of Pareto-efficient bargaining outcomes. The court is a simple “coin-flipper” and rulings are not a function of asset valuations. Nevertheless, a player makes efficiency-enhancing “trades” over his future selves by accepting jurisdiction: in expectation he wins high-value disputes in exchange for losing low-value disputes. This is possible because litigation is a screening device: players only sue when they derive relatively high value from the asset in dispute.

The model addressed jurisdiction and institutional design by examining how a player's strength in conflict affects her willingness to accept jurisdiction in a high-obligation legal system. Past theoretical accounts of the creation of international institutions argue that hegemony will lead in building and promoting international institutions (e.g., see Keohane 1984; Krasner 1983). In the preceding analysis, hegemony has the least incentive to promote adjudication when there is a strong enforcement regime because the court is an imperfect substitute for conflict. The weak gain the most from international courts. In HOSs, we should expect for military strength to be negatively correlated with jurisdiction of the court and leadership in the creation and expansion of courts.

The theoretical model above is not a representation of a particular international court. It is an abstract account of a court that creates governance from anarchy. Nonetheless, in order for this model to be meaningful its assumptions and mechanisms should be plausible for some areas of international politics. In order to illustrate and probe the plausibility of my theoretical arguments, I now examine the ICJ as a coordinator of enforcement for distributional conflicts.

### *The Case of the ICJ*

The ICJ is the judicial organ of the United Nations and has ruled in many high-profile international disputes, since its creation in 1946. The Court is often believed

to be a “toothless” institution because it lacks effective jurisdiction over international disputes and formal enforcement mechanisms. Nonetheless, the Court is often successful in resolving contentious disputes (Schulte 2004). What explains the ICJ’s existence and effectiveness?

Rulings of the Court rarely “decide” contentious issues. International negotiations are common before and after the court rules. Over 60 percent of closed ICJ cases result in further bargaining between the disputants.<sup>17</sup> These negotiations often result in the winner of the Court’s judgment making concessions to the loser. Many Court cases consist of two states arguing over which legal principles should hold in allocating an asset. Once the Court has ruled, the disputants must subsequently negotiate a final settlement.<sup>18</sup> Judgments often contain explicit provisions urging litigants to negotiate in accordance with the principles established by the Court.<sup>19</sup> The ICJ rulings usually support future negotiations, they rarely “decide” disputes.

The Court rarely serves as an “information provider” in distributional disputes. The Court lacks a bureaucracy that can conduct investigations and relies upon information provided by the states themselves in resolving disputes. Lawsuits usually take place over long-standing disputes for which there is likely to be little residual private information between the states. Additionally, evidentiary procedures of the court mean that court rulings are often based on a narrower set of information than is known by the litigants (Simons 2007).

Consider a recent ICJ case. The Bakassi peninsula lays on the border of modern-day Nigeria and Cameroon. When this region was under British colonial rule, Anglo-German diplomatic exchanges specified that Bakassi was part of the Southern Cameroons territory. However, the land was controlled and administered by a regional government in southern Nigeria. As part of the decolonization process, the people of Southern Cameroons voted in 1961 to form the independent state of Cameroon. This new state claimed sovereignty over Bakassi but the territory remained under de facto Nigerian control. This created a long-standing and bloody border dispute. After decades of conflict, the dispute was submitted to the ICJ. The pretrial bargaining positions of the disputants were clear: both Cameroon and Nigeria claimed exclusive rights to the Bakassi peninsula, and each was willing to fight to control the territory.

In 2002, the Court ruled that Bakassi belonged to Cameroon.<sup>20</sup> This provoked intense domestic opposition in Nigeria and Bakassi. The Nigerian Government immediately increased its military deployment. Local and regional politicians from Bakassi were vocal in their refusal to comply. Over time, this dissent even developed into violence by militant groups.<sup>21</sup>

Responding to intense domestic political pressure, Nigerian President Olusegun Obasanjo refused to accept the Court’s ruling and surrender Bakassi immediately. He insisted that further negotiations must take place: “We want peace, but the interest of Nigeria will not be sacrificed. . . . [W]hat may be legally right may not be politically expedient.”<sup>22</sup> However, the ICJ ruling severely limited Nigeria’s



bargaining power. According a Nigerian diplomat, “No matter the situation, Nigeria’s position has been weakened even before such negotiations start.”<sup>23</sup>

Nigeria’s unwillingness to comply with the ICJ ruling triggered intense international pressure to reach a peaceful settlement over Bakassi (Paulson 2004, 451). United Nations (UN) Secretary-General Kofi Annan intervened directly and oversaw multiple rounds of negotiations between the two sides in Geneva. We cannot be sure of what specific threats were issued (and perhaps imposed) by diplomats behind closed doors. However, the United Kingdom, France, Germany, and the United States were all directly involved in pressuring Nigeria to withdraw from Bakassi (e.g., see Day 2002, 2003; BBC 2002b).

Postadjudicative bargaining resulted in two key outcomes. First, the parties created a neutral body of technical experts known as the Cameroon–Nigeria Mixed Commission (CNMC). This Commission oversaw the drawing of final boundaries along the contested territory (Service 2006). Second, UN-led negotiations resulted in the signature of the Greentree Agreement of June 12, 2006, in New York. This agreement set a two-year time line for the phased withdrawal of Nigerian military and political authorities. In exchange, Cameroon agreed to a series of economic and political protections for individuals living on the Bakassi peninsula.<sup>24</sup> Multilateral involvement in treaty negotiations resulted in a peaceful (if belated) transfer of Bakassi to Cameroon, an outcome that had not been possible prior to or immediately after the ICJ’s ruling.<sup>25</sup>

An account of courts as “deciders” would argue that the ICJ was decisive in ending this conflict because it issued a legally binding ruling that created a new status quo between the two nation-states. However, Obasanjo’s unwillingness to comply shows that the ICJ ruling was far from decisive in ending the dispute. Years of negotiations followed the ICJ ruling. An informational account would suggest that litigation revealed new information—for example, about the relative resolve of each state to win the dispute—that helped to resolve the conflict. However, the dispute over Bakassi had been ongoing for decades. The court ruling did not reveal any new payoff-relevant information to the disputants. Both Nigeria and Cameroon continued to want control over Bakassi, and the Nigerian Government was clearly unwilling to comply absent multilateral involvement and pressure.

My theory yields a different perspective: states that had paid little attention to the decades-long Bakassi conflict used the Court ruling to coordinate on which side to support during subsequent negotiations. The ruling did not itself decide the dispute or reveal new information. It changed the bargaining positions of Cameroon and Nigeria by opening the door to coordinated enforcement by disinterested states. The United States and European Union members urged compliance with the ICJ ruling, which coordinated multilateral political pressure against Nigeria.

This dynamic is common in ICJ cases. In difficult cases, when a disputant refuses to comply, an ICJ ruling usually opens the door to third-party involvement. As the Bakassi example illustrates, these third parties coordinate in imposing political and economic pressure to enforce the Court’s decisions. This results in negotiated

outcomes that were not previously acceptable to the disputants. These postadjudicative negotiations differ from bilateral bargaining because open defiance of the Court's ruling through conflict can trigger punishment by disinterested actors. My model establishes that disinterested states can be willing to endogenously enforce court rulings. Disputants always reach a negotiated settlement without actually resorting to conflict, so such punishments are off the equilibrium path. Nevertheless, we can ask whether defiance of the ICJ's rulings has triggered punishments in practice.

Countries usually face positive costs from refusing to comply with ICJ judgments, including diplomatic pressure at the bilateral or multilateral level, trade sanctions, or even domestic pressure from an electorate or interest groups (Allee and Huth 2006; Paulson 2004; Schulte 2004). For example, Australia and New Zealand sued France in 1973, challenging the legality of French atmospheric nuclear tests in the South Pacific. The ICJ ordered France to temporarily cease all tests.<sup>26</sup> France refused to comply, prompting formal opposition from governments all over the world, including the United Kingdom and numerous countries in the South Pacific and Latin America. Domestic constituency groups exerted pressure both internally and externally: the French clergy attacked military policy, while British trade unions boycotted French goods (Lewis 1973; Robertson 1973). French noncompliance was highly criticized within international organizations (Trumbull 1973). France soon bowed to pressure and pledged to refrain from future atmospheric nuclear tests. Even powerful states often find compliance with an ICJ judgment to be less costly than defiance.<sup>27</sup>

The final set of theoretical results relate to the jurisdiction of the court. The ICJ operates on the principle of consent, so states must explicitly accept the jurisdiction of the Court in order to be involved in litigation (see Gill 2003, 67–89). This does not mean that a disputant must consent to a given case before adjudication can proceed. The analytical results above show that two disputants will never both want to submit a given case to the court. This accords with ICJ practice: in over two-thirds of ICJ cases, states have nominally accepted jurisdiction of the Court but argue that it cannot hear the dispute.<sup>28</sup> There must exist an ostensible basis for jurisdiction for a state to submit a case to the Court, but the ICJ can rule that it has the authority to hear a particular case even if one of the disputants argues that the Court lacks jurisdiction. Accepting the jurisdiction of the Court enables a state to both sue and be sued, even if the state does not want the Court to hear a particular case. Thorough empirical testing of the relationship between jurisdiction and strength in conflict should be limited to issue-areas or subsets of states that constitute HOSs. However, past empirical research work provides initial support for my model. Powell and Mitchell (2007) analyze the acceptance of ICJ jurisdiction over time. They find no relationship between military power and initial acceptance of jurisdiction. However, they find that over time powerful states are significantly more likely to renounce jurisdiction of the Court than weaker states. Clearly powerful states derive less value than weaker states from jurisdiction of the ICJ.

So why did major powers like the United States and the United Kingdom initially support the ICJ? The Court was negotiated, along with the Security Council and General Assembly, as part of the broader United Nations system. It is beyond the scope of this analysis to examine which major powers were supportive of the court during these negotiations. However, it is possible that strong states believed that their support for the Court was necessary to ensure their greater powers within political organs of the UN, like the veto power of the permanent five members of the Security Council. Both China and Russia were highly disdainful of the Court from the outset. The US foreign policy elite believed that the Court would significantly constrain the United States in future disputes. This concern was manifest in the notorious Connolly Amendment, which severely restricted the terms of the US acceptance of ICJ jurisdiction (Murphy 2004, 250–55). Finally, note that there is a fundamental difference between incentives to change institutions and the availability of resources to do so. This distinction is not captured in the results above. For example, both Belgium and Botswana can probably expect to gain much through the expansion of international adjudication. However, Botswana lacks the resources for creating and changing institutions. Since changing institutions and expectations about behavior is costly and time-consuming, leadership should come from countries that are rich in economic resources but weak in bilateral conflict. This is apparent in the creation of recent courts, such as the International Criminal Court.

## Conclusion

I present an abstract model of a court that operates in an anarchic environment. This court is neither a “decider” nor an “information provider.” By ruling out past explanations for the existence of courts, I identify another function of courts: the coordination of endogenous multilateral punishments. This endogenous enforcement allows the winner of adjudication to lock in favorable positions for future bargaining interactions. The court’s ruling has no direct binding effect, but the expectation of multilateral enforcement ensures that legal rulings affect distributive outcomes.

This demonstrates that a court that is neither a decider nor an information provider can be a self-enforcing multilateral institution. States in an anarchic environment will accept jurisdiction of the court and provide enforcement for court rulings in which they have no inherent interest. Disinterested states are willing to provide such enforcement to preserve their reputations as “providers” of enforcement. This allows them to profitably appeal to the court in the future. Accepting jurisdiction of the court allows a player to make efficiency-enhancing “trades” over his future selves, winning high-value disputes in exchange for losing low-value disputes. Such trades are possible because litigation is a screening device: players only sue when they derive relatively high value from the asset in dispute.

The starkness of the model is not intended to deny the important role that courts can play as deciders (when their rulings are enforced) and information providers. Rather, the starkness of the model is necessary for us to identify another mechanism

of dispute resolution. This alternative view of courts as coordinators of multilateral enforcement is sufficient for the existence of self-enforcing judicial institutions. My analysis does not invalidate past accounts of courts. It provides a complimentary account of the way that courts can be used in order to create governance from anarchy.

The model above has broad implications for international institutions beyond simply understanding the ICJ. It certainly does not explain all aspects of international conflict and cooperation. However, most international institutions must deal with the challenges of multilateral enforcement and voluntary membership. The mechanisms identified in my model can be useful in understanding a broad set of international institutions.

For example, my model provides a cohesive theoretical account of costly multilateral enforcement by disinterested actors. The key mechanism driving enforcement by disinterested states is that these states benefit from maintaining their reputation as providers of enforcement. This allows them to profitably appeal to the institution in the future.

In the realm of international security, this account of enforcement provides an alternative to realist explanations of the formation of security alliances, which emphasize the role of the distribution of power in the international system (e.g., Waltz 1979, 1987). In realist accounts, states join alliances in order to balance power, and each state will assist its allies because it has a direct interest in preserving the balance of power. My theory implies a simple alternative explanation: perhaps states assist allies in their conflicts today simply to ensure that allies will assist them in their own future conflicts.

This logic of multilateralism can also be informative when thinking about international economic cooperation. For example, if a state experiences a financial crisis—due to bad luck or poor policy choices—the International Monetary Fund (IMF) coordinates the provision of costly assistance by disinterested states. Traditional explanations of the creation of the IMF have emphasized contagion effects: states will assist countries experiencing tough times in order to ensure that adverse financial conditions do not spread through the world economy (see Frieden, Lake, and Schultz 2010; Vreeland 2005). Another possible explanation suggested by my theory is that for many states international economic cooperation is also an insurance scheme: a state provides assistance today in order to ensure that it can receive assistance if it faces adverse economic conditions in the future.<sup>29</sup>

In the model above, states voluntarily decide whether to become members of the court's jurisdiction. Recall that the court is a screening device: the cost of using the institution ensures that states will only file lawsuits if they care a lot about a particular dispute.<sup>30</sup> By joining the institution, a state is committing itself to multilateral enforcement of the institution's ruling. The combination of screening effects and enforcement means that the institution increases a state's payoff when it cares a lot about the dispute in exchange for lowering its payoff when it does not care much about a dispute. This means that joining the multilateral system allows a player to make efficiency-enhancing "trades" over his future selves, winning high-value disputes in exchange for losing low-value disputes.

In international security, this mechanism can provide insight into why many states voluntarily adhere to the norm of UN Security Council (UNSC) authorization of the use of force. Seeking UNSC authorization is a risky gamble. A state benefits when it secures authorization before using force. However, a failure to secure authorization can increase the political costs of taking military action. Past explanations for why states are willing to accept this gamble—that is, why states recognize the legitimacy of the UNSC to authorize force—have emphasized information transmission (see Fang 2008; Thompson 2006; Voeten 2005). Going to the UNSC can be a credible signal to domestic and international audiences about the need for conflict and its potential costs. However, even if there is no need to signal private information, accepting the norm of UNSC authorization can still be beneficial for a state. Since seeking authorization is costly, a state will only secure authorization for disputes that it cares a lot about. This means that accepting the authority of the UNSC allows a state to make “trades” over its future selves: it gets the benefit of authorization for high-value disputes in exchange for the costs of a failure to get authorization in low-value disputes.

Similarly, my jurisdiction mechanism can be useful for understanding why states join international trade agreements. Multilateral trade institutions—like the General Agreement on Tariffs and Trade (GATT) and the WTO—help states to generate cooperative surpluses by jointly lowering trade barriers. This is why most explanations of international trade are based on PD games. However, membership in the GATT/WTO also changes the dynamics of dispute settlement between states. Being a member of the GATT/WTO means that a state must accept the institution’s exclusive legitimacy to authorize retaliation during trade conflicts. States with the most economic power will be able to extract the best outcomes in bilateral bargaining. Hence, they will have the least to gain from a formal dispute settlement system. However, membership in the institution can still be beneficial for even the most economically powerful states because the cost of institutional dispute settlement serves as a screening device. By the mechanism described above, the institution can enhance every state’s long-term benefits from the trade regime.

The model above is not intended to be a comprehensive account of security alliances, monetary cooperation, UN authorization of force, or trade agreements. However, all international institutions deal with the challenges of voluntary membership and enforcement. Each of these examples shows that the mechanisms driving endogenous enforcement and jurisdiction in my model are not unique to international courts.

## Appendix

### *General Assumptions for the Conflict–Success Function*

Let  $q_{ij} = q(\alpha_i, \alpha_j)$  denote the probability that player  $i$  wins conflict against  $j$ , where  $q$  is continuously differentiable in both of its arguments,  $q \in (0, 1)$  for all  $(\alpha_i, \alpha_j)$ ,  $\frac{\partial q}{\partial \alpha_i} > 0$  and  $\frac{\partial q}{\partial \alpha_j} < 0$ . Assume that when states have equal strength, they are equally likely to win conflict (i.e.,  $q_{ij} = \frac{1}{2}$  if  $\alpha_i = \alpha_j$ ). Assume that a

state’s probability of success in conflict is not a function of its role in the legal process (i.e.,  $q_{nm} = 1 - q_{mn}$ ).

**Definition of the Reputation Variable**

For each  $n \in N$  and history of actions  $h^t$ , let  $\rho_n(h^t) = 0$  if there exists a past period  $t'$  in which  $n$  was a disinterested player, the winner of adjudication was a provider, and  $n$  provided enforcement  $e_n < \hat{e}_n$ . Otherwise, let  $\rho_n(h^t) = 1$ . Let a reputation vector be denoted by  $\rho = (\rho_n, \rho_m)$ .

**General Definitions**

- *Jurisdiction*: Let  $r_n \in \{0, 1\}$  and  $r_n = 1$  if and only if  $n$  accepts jurisdiction of the Court. Define  $\mathbf{X}$  as the set of players who accept jurisdiction and  $\mathbf{Y}$  as the set of players who reject jurisdiction.
- *Case submission*: Define case submission regions as:  $I(\rho) \equiv \{(v_i, v_j) \mid i \text{ submits}\}$  and  $J(\rho) \equiv \{(v_i, v_j) \mid j \text{ submits}\}$ .
- *Expected payoffs*: Let  $W_n(\cdot)$  denote the expected payoff to player  $n$  of being a disputant. If player  $n$  is matched with  $m$ , let  $V_n(\rho \mid \alpha_m)$  denote player  $n$ ’s expected utility when jurisdiction exists given  $\rho$ . Let  $B_n(\alpha_m)$  denote  $n$ ’s expected utility when jurisdiction is not established. Then,

$$W_n(\cdot) = \begin{cases} \frac{1}{|N| - 1} \sum_{m \in N \setminus \{n\}} B_n(\alpha_m) & \text{if } r_n = 0; \text{ and} \\ \frac{1}{|N| - 1} \left[ \sum_{m \in \mathbf{X} \setminus \{n\}} V_n(\rho \mid \alpha_m) + \sum_{m \in \mathbf{Y}} B_n(\alpha_m) \right] & \text{if } r_n = 1. \end{cases}$$

Let  $\Delta_n(\rho \mid \alpha_m) \equiv V_n(\rho \mid \alpha_m) - B_n(\alpha_m)$  denote player  $n$ ’s expected benefit from availability of the Court, when matched against player  $m$ . To consider matching against a subset of players,  $S$ , let  $V_n(\rho \mid S) = E_{m \in S} [V_n(\rho \mid \alpha_m)]$ ,  $B_n(S) = E_{m \in S} [B_n(\alpha_m)]$ , and  $\Delta_n(\rho \mid S) = E_{m \in S} [\Delta_n(\rho \mid \alpha_m)]$ .

**Proof of Lemma 1**

Define the set of possible bargaining agreements as:  $X \equiv \{(x_i, x_j) \mid x_i \in [0, 1] \text{ and } x_j = 1 - x_i\}$ . Let  $U_k(x_k)$  denote player  $k$ ’s one-period utility from a share  $x_k$ . Each player’s disagreement payoff,  $d_k$  is her one-period utility from a failure to reach an agreement. By definition, the NBS is the agreement that solves the following optimization problem:

$$\max_{(x_i, x_j) \in X} \left( U_i(x_i) - d_i \right) \left( U_j(x_j) - d_j \right).$$

For bilateral bargaining  $(U_i(x_i), U_j(x_j)) = (x^B v_i, (1 - x^B)v_j)$  and  $(d_i^B, d_j^B) = (w_i, w_j)$ . For postadjudicative bargaining when  $i$  has won the legal ruling  $(U_i(x_i), U_j(x_j)) = (x^I v_i - k, (1 - x^I)v_j - k)$ ;  $(d_i^I, d_j^I) = (w_i - k, w_j - k - c_{ij})$  if war is a credible threat (i.e.,  $c_{ij} < (1 - q_{ij})(1 - \phi)v_j$ ); and  $(d_i^I, d_j^I) = (v_i - k, -k)$  if war is not credible. For postadjudicative bargaining when  $j$  has won the legal ruling,  $(U_i(x_i), U_j(x_j)) = (x^J v_i - k, (1 - x^J)v_j - k)$ ;  $(d_i^J, d_j^J) = (w_i - k - c_{ji}, w_j - k)$  if war is a credible threat (i.e.,  $c_{ji} < q_{ij}(1 - \phi)v_i$ ); and  $(d_i^J, d_j^J) = (-k, v_j - k)$  if war is not credible. There is a unique NBS for every bargaining subgame (Muthoo 1999, 22–55).

**Proof of Lemma 2**

Suppose disinterested actor  $n$  reaches a decision node in period  $t$  at which she must choose a level of enforcement. Suppose that  $i$  has won the ruling. In equilibrium  $e_n \in \{0, \hat{e}_n\}$ .

- (a) Suppose  $i$  is a free rider. Then  $e_n$  does not affect  $\rho_n$  and  $e_n = 0$  is optimal.
- (b) Suppose  $n$  is a free rider. Then  $e_n = 0$  is optimal.
- (c) Suppose  $n$  has not accepted jurisdiction. Then  $W_n$  is invariant to  $\rho_n$  and  $e_n = 0$  is optimal.

**Proof of Lemma 3**

- (a) Equations (1) and (2) are equivalent to

$$[px^I + (1 - p)x^J - x^B]v_i \geq k \quad \text{for player } i, \tag{A1}$$

$$[x^B - px^I - (1 - p)x^J]v_j \geq k \quad \text{for player } j, \tag{A2}$$

Both constraints cannot hold at the same time.

- (b) If player  $i$  is a free rider, then there is no enforcement if he wins. So  $x^I = x^B$  and  $x^J \leq x^B$ , which means that equation (A1) fails. An analogous argument holds for player  $j$ .
- (c) Suppose  $j$  is a provider. If  $j$  wins, then the outcome,  $x^J$ , does not depend upon whether  $i$  is a free rider. If  $i$  wins, then the outcome,  $x^I$ , is lower if  $i$  is a free rider than if he is a provider. So equation (A2) holds for a larger set of  $v_j$ -values if  $i$  is a free rider than if he is a provider. An analogous argument holds for player  $j$ .

**Proof of Lemma 4**

Choose an arbitrary pair of players ( $n, m$ ) who have accepted jurisdiction. Suppose that the probability of trial is positive. Then,

$$\begin{aligned}
 & V_n(\rho|\alpha_m) = Pr(i = n)V_n(\rho|i = n) + Pr(i = m)V_n(\rho|i = m) \\
 &= \frac{1}{2} \left[ \iint_{I(\rho|i=n) \cup J(\rho|i=n)} \left[ (px'_{i=n} + (1-p)x'_{i=n} - x^B_{i=n})v_i - k \right] dF(v_i)dF(v_j) \right. \\
 &+ \iint_{I(\rho|i=m) \cup J(\rho|i=m)} \left[ (x^B_{i=m} - px'_{i=m} - (1-p)x'_{i=m})v_j - k \right] dF(v_i)dF(v_j) \\
 &+ \left. \iint_{[0,1]^2} x^B_{i=n}v_i dF(v_i)dF(v_j) + \iint_{[0,1]^2} (1-x^B_{i=m})v_j dF(v_i)dF(v_j) \right]. \tag{A3}
 \end{aligned}$$

By the Proof of Lemma 3, expansions in  $I(\rho)$  raise  $i$ 's utility and decrease  $j$ 's utility; the opposite holds for  $J(\rho)$ . Then parts (b) and (c) of Lemma 3 establish the result.

**Proof of Proposition 1**

Suppose  $n$  has accepted jurisdiction of the court and reaches a decision node at which the winner of a ruling is a provider and the loser initiates conflict. (In equilibrium, the probability of arriving at such a decision node is zero.) If player  $n$  adopts a strategy in which she always pays the enforcement threshold cost, when the winner of the dispute is a provider and does not enforce otherwise, then her expected utility at this decision node is  $-\hat{e}_n + \sum_{t=t'+1}^{\infty} \delta^{t-t'} \frac{2}{|N|} W_n(\rho_n = 1)$ .<sup>31</sup> Player  $n$ 's expected utility from providing zero enforcement at this decision node is  $\sum_{t=t'+1}^{\infty} \delta^{t-t'} \frac{2}{|N|} W_n(\rho_n = 0)$ . So player  $n$  will enforce if and only if

$$\begin{aligned}
 \hat{e}_n &\leq \sum_{t=t'+1}^{\infty} \delta^{t-t'} \frac{2}{|N|} W_n(\rho_n = 1) - \sum_{t=t'+1}^{\infty} \delta^{t-t'} \frac{2}{|N|} W_n(\rho_n = 0) \\
 &= \frac{\delta}{1-\delta} \frac{2}{|N|} \frac{1}{|N|-1} \sum_{m \in X \setminus \{n\}} [V_n(\rho_n = 1|\alpha_m) - V_n(\rho_n = 0|\alpha_m)].
 \end{aligned}$$

**Proof of Lemma 5**

- (a) By Lemma 1,  $x^I = 1$  and  $x^J = 0$  in an HOS. So case submission constraints are  $(\dagger) \equiv (p - x^B) v_i - k \geq 0$  and  $(\ddagger) \equiv (x^B - p) v_j - k \geq 0$ . Note that  $\frac{\partial}{\partial \alpha_i} (\dagger) = -v_i(1 - \phi) \frac{\partial q}{\partial \alpha_i} < 0$ ,  $\frac{\partial}{\partial \alpha_j} (\dagger) = -v_i(1 - \phi) \frac{\partial q}{\partial \alpha_j} > 0$ ,  $\frac{\partial}{\partial \alpha_i} (\ddagger) = v_j(1 - \phi) \frac{\partial q}{\partial \alpha_i} > 0$ , and  $\frac{\partial}{\partial \alpha_j} (\ddagger) = v_j(1 - \phi) \frac{\partial q}{\partial \alpha_j} < 0$ .



- (b) On the equilibrium path, states that accept jurisdiction are always providers because  $\rho_n(h^1) = 1$  and enforcement decision nodes are never reached in equilibrium play. So by Equation (A3), player  $n$ 's expected benefit from availability of the court, when matched with  $m$  is

$$\Delta_n(\rho_n = 1|\alpha_m) = \frac{1}{2} \left[ \iint_{I(1,1|i=n) \cup J(1,1|i=n)} [(p - x_{i=n}^B)v_i - k]dF(v_i)dF(v_j) + \iint_{I(1,1|i=m) \cup J(1,1|i=m)} [(x_{i=m}^B - p)v_j - k]dF(v_i)dF(v_j) \right].$$

Suppose  $i = n$ . Then an increase in  $\alpha_n$  contracts  $I(1, 1 | i = n)$  and expands  $J(1, 1 | i = n)$  by (a). Similarly, an increase in  $\alpha_m$  expands  $I(1, 1 | i = n)$  and contracts  $J(1, 1 | i = n)$ . Additionally, (a) shows that the first integrand is decreasing in  $\alpha_n$  and increasing in  $\alpha_m$  at all points. So the first term of  $\Delta_n(1 | \alpha_m)$  is decreasing in  $\alpha_n$  and increasing in  $\alpha_m$ . Suppose  $i = m$  and apply the same proof strategy to the second term of  $\Delta_n(1 | \alpha_m)$ .

**Proof of Proposition 2**

- (a) Suppose all players reject jurisdiction. Deviation by one player does not affect her expected payoff because all outcomes continue to be  $x_B$ .
- (b) Suppose  $\mathbf{X} \neq \emptyset$  and  $\mathbf{Y} \neq \emptyset$ . Player  $y \in \mathbf{Y}$  has no incentive to deviate by accepting jurisdiction if and only if:

$$B_y(N \setminus \{y\}) \geq \frac{|\mathbf{X}|}{|\mathbf{N}| - 1} V_y(\rho|\mathbf{X}) + \frac{|\mathbf{Y}| - 1}{|\mathbf{N}| - 1} B_y(\mathbf{Y} \setminus \{y\}) \Leftrightarrow 0 \geq \Delta_y(\rho|\mathbf{X}).$$

Player  $x \in \mathbf{X}$  has no incentive to deviate by rejecting jurisdiction if and only if:

$$\frac{|\mathbf{X}| - 1}{|\mathbf{N}| - 1} V_x(\rho|\mathbf{X} \setminus \{x\}) + \frac{|\mathbf{Y}|}{|\mathbf{N}| - 1} B_x(\mathbf{Y}) \geq B_x(N \setminus \{x\}) \Leftrightarrow \Delta_x(\rho|\mathbf{X} \setminus \{x\}) \geq 0.$$

Let  $x^*$  denote the strongest player in  $\mathbf{X}$ . Suppose that there exists a player  $y' \in \mathbf{Y}$  s.t.  $\alpha_{y'} < \alpha_{x^*}$ . Note the following:  $\Delta_{x^*}(\rho|\mathbf{X} \setminus \{x\}) = \frac{1}{|\mathbf{X}|-1} \sum_{j \in \mathbf{X} \setminus \{x^*\}} \Delta_{x^*}(\rho|\alpha_j) \geq 0$  and  $\Delta_{y'}(1|\mathbf{X}) = \frac{1}{|\mathbf{X}|} \sum_{j \in \mathbf{X}} \Delta_{y'}(\rho|\alpha_j) \leq 0$ . By Lemma 4(b),  $\Delta_{x^*}(\rho|\alpha_j) < \Delta_{y'}(\rho|\alpha_j)$  for all  $j \in \mathbf{X} \setminus \{x^*\}$  and  $\Delta_{y'}(\rho|\alpha_j) < \Delta_{y'}(\rho|\alpha_{x^*})$  for all  $j \in \mathbf{X} \setminus \{x^*\}$ . So  $\Delta_{y'}(\rho|\mathbf{X}) > \Delta_{x^*}(\rho|\mathbf{X} \setminus \{x\}) \geq 0$ , which is a contradiction. This implies the monotonicity of jurisdiction in  $\alpha_n$ .

**Proof of Proposition 3**

The proof is broken into two parts. First, I suppose an HOS and prove that there exist parameter values for which states accept jurisdiction of the court and submit cases to it. Second, I show that the HOS is sustainable for these parameter values.

1. Suppose an HOS and all players accept jurisdiction of the Court. Let  $n$  denote the strongest state and  $m$  denote the weakest state. Define the probability that the Court rules in favor of player  $i$  as follows:  $p \equiv x_{i=n}^B + \varepsilon$ , such that  $\varepsilon \in (\frac{2k}{1-E[v]}, 1 - x_{i=n}^B)$ .<sup>32</sup> Then  $x_{i=m}^B < x_{i=n}^B < p$ , so a state will never want to submit a case to the Court when it is assigned to role  $j$  (i.e.,  $J(1, 1 | i = n) = J(1, 1 | i = m) = \emptyset$ ). The set of  $(v_i, v_j)$ -values for which a player assigned to role  $i$  will submit the case are

$$I(1, 1 | i = n) = \left\{ (v_i, v_j) | v_i \geq \frac{k}{p - x_{i=n}^B} = \frac{k}{\varepsilon} \equiv \hat{v}_{in} \right\}$$

$$I(1, 1 | i = m) = \left\{ (v_i, v_j) | v_i \geq \frac{k}{p - (1 - x_{i=n}^B)} = \frac{k}{\varepsilon + (1 - \phi)[2q_{nm} - 1]} \equiv \hat{v}_{im} \right\}.$$

Note that  $q_{nm} > \frac{1}{2}$ , so  $0 < \hat{v}_{im} < \hat{v}_{in} < 1$ . So each player is sometimes willing to submit a case when it is assigned to role  $i$ . The benefit to player  $n$  of having accepted jurisdiction of the Court when he is matched against player  $m$  is

$$\Delta_n(\rho_n = 1 | \alpha_m) = \frac{1}{2} \left[ \iint_{I(1,1|i=n)} [(p - x_{i=n}^B)v_i - k] dF(v_i) dF(v_j) \right. \\ \left. + \iint_{I(1,1|i=m)} [(1 - x_{i=n}^B - p)v_j - k] dF(v_i) dF(v_j) \right] \\ \propto \int_{\hat{v}_{in}}^1 [\varepsilon v - k] dF(v) + \int_{\hat{v}_{im}}^1 \{[(1 - \phi)(1 - 2q_{nm}) - \varepsilon]E[v] - k\} dF(v).$$

Note that  $\lim_{\alpha_n \rightarrow \alpha_m} q_{nm} = \frac{1}{2}$ , so  $\lim_{\alpha_n \rightarrow \alpha_m} \hat{v}_{im} = \hat{v}_{in}$ . This means that

$$\lim_{\alpha_n \rightarrow \alpha_m} \Delta_n(\rho_n = 1 | \alpha_m) \propto \int_{\frac{k}{\varepsilon}}^1 [\varepsilon(v - E[v]) - 2k] dF(v).$$

The integrand,  $\varepsilon(v - E[v]) - 2k$ , is monotonically increasing in  $v$ . So when sufficiently high density is placed on values from the interval  $(\frac{2k}{\varepsilon} + E[v], 1)$  relative to values from the interval  $(\frac{k}{\varepsilon}, \frac{2k}{\varepsilon} + E[v])$ , then  $\lim_{\alpha_n \rightarrow \alpha_m} \Delta_n(1 | \alpha_m) > 0$ . Continuity of the parameter space and monotonicity of  $\Delta_n(1 | \alpha_m)$  in  $\alpha_n$  and  $\alpha_m$  ensure that no player has incentive to deviate by rejecting jurisdiction.

To show that all of these constraints can hold at the same time, consider the following numerical example. Let  $v$  be distributed according to a Beta distribution with parameters  $A = 4$  and  $B = 1$ . Suppose  $\alpha_1 = \alpha_2 = \dots = \alpha_n = 0.5$ ,  $\varepsilon = 0.499995$ , and  $k = 0.000001$ . It is easy to show via a computer simulation that for such parameters,  $\lim_{\alpha_n \rightarrow \alpha_m} \Delta_n(\rho_n = 1 | \alpha_m) > 0$ .<sup>33</sup> So the equilibrium exists. In this numerical example, all states have the same level of strength. Since  $\varepsilon$  is large, any state assigned to the role of player  $i$  is very likely to win a court ruling, while any state assigned to role  $j$  is very likely to lose the court ruling. Conditional on a case being filed, player  $i$ 's value from the asset is relatively large, while player  $j$ 's expected value is  $E[v]$ . The distribution in the numerical example above places relatively high weight on large values of  $v$ . So the expected benefit of accepting jurisdiction outweighs the expected cost, which includes the expected loss from adjudication when a state is assigned to role  $j$  and the cost of litigation,  $k$ . Continuity ensures that there exists a neighborhood around these parameters for which the condition continues to hold. For example, use  $k = 0.000002$  in the numerical example above. Hence, the set of parameters that satisfy Proposition 3 is nondegenerate.

2. To see that the HOS can hold in equilibrium, suppose that each player's enforcement threshold is set at its upper bound from Proposition 1 for each enforcement decision node. Then the level of enforcement that is provided when players  $i$  and  $j$  are involved in a dispute is

$$\begin{aligned}
 c_{ji} = c_{ij} &= \sum_{n \in N \setminus \{i,j\}} \hat{e}_n \\
 &= \sum_{n \in N \setminus \{i,j\}} \frac{\delta}{1 - \delta} \frac{2}{|N|} \frac{1}{|N| - 1} \sum_{m \neq n} [V_n(\rho_n = 1 | \alpha_m) - V_n(\rho_n = 0 | \alpha_m)] \\
 &= \frac{\delta}{1 - \delta} \frac{2}{|N|} \frac{1}{|N| - 1} \sum_{n \in N \setminus \{i,j\}} \sum_{m \neq n} [\Delta_n(\rho_n = 1 | \alpha_m) - \Delta_n(\rho_n = 0 | \alpha_m)]
 \end{aligned}$$

Define  $\bar{c}$  as the limit of  $c_{ij}$  as  $\alpha = (\alpha_1, \dots, \alpha_{|N|})$  approaches  $\bar{\alpha} = (\hat{\alpha}, \dots, \hat{\alpha})$ . Then,

$$\begin{aligned}
 \bar{c} &= \frac{\delta}{1 - \delta} \frac{2}{|N|} \frac{1}{|N| - 1} \sum_{n \in N \setminus \{i,j\}} \sum_{m \neq n} \lim_{\alpha \rightarrow \bar{\alpha}} [\Delta_n(\rho_n = 1 | \alpha_m) - \Delta_n(\rho_n = 0 | \alpha_m)] \\
 &= \frac{\delta}{1 - \delta} \left( 2 - \frac{4}{|N|} \right) \left[ \lim_{\alpha \rightarrow \bar{\alpha}} \Delta_n(\rho_n = 1 | \alpha_m) - \lim_{\alpha \rightarrow \bar{\alpha}} \Delta_n(\rho_n = 0 | \alpha_m) \right].
 \end{aligned}$$

Note that for  $|N| > 2$ , it must be that  $2 - \frac{4}{|N|} \in (1, 2)$ . Also, as  $\delta \rightarrow 1$ ,  $\frac{\delta}{1 - \delta} \rightarrow \infty$ . So there always exist values of  $(\delta, |N|)$  such that  $\bar{c}$  can be made arbitrarily large if

$$\lim_{\alpha \rightarrow \bar{\alpha}} \Delta_n(\rho_n = 1 | \alpha_m) - \lim_{\alpha \rightarrow \bar{\alpha}} \Delta_n(\rho_n = 0 | \alpha_m) > 0. \tag{A4}$$

Note that

$$\lim_{\alpha \rightarrow \bar{\alpha}} \Delta_n(\rho_n = 0 | \alpha_m) = \lim_{\alpha \rightarrow \bar{\alpha}} \frac{1}{2} \left[ \iint_{J(0,1|i=n)} [(p-1)x_{i=n}^B v_i - k] dF(v_i) dF(v_j) + \iint_{I(1,0|i=m)} [-px_{i=n}^B v_j - k] dF(v_i) dF(v_j) \right]$$

Since  $\lim_{\alpha \rightarrow \bar{\alpha}} x_{i=n}^B = \frac{1}{2}$ , the integrands above are always negative. So  $\lim_{\alpha \rightarrow \bar{\alpha}} \Delta_n(\rho_n = 0 | \alpha_m) \leq 0$ , which implies that equation (A4) holds. This means that there exist parameters  $(\delta, |M|)$  for which there is an HOS in equilibrium.

**Proof of Proposition 4**

The expected utility to player  $n$  of declining jurisdiction (in either an anarchic or a governance equilibrium) is

$$\frac{1}{1 - \delta} \frac{2}{|N|} B_n(N \setminus \{n\}).$$

The expected utility to player  $n \in \mathbf{X}$  from accepting jurisdiction in a governance equilibrium is

$$\frac{1}{1 - \delta} \frac{2}{|N|} \left[ \frac{|\mathbf{X}| - 1}{|N| - 1} V_n(\mathbf{X} \setminus \{n\}) + \frac{|\mathbf{Y}|}{|N| - 1} B_n(\mathbf{Y}) \right].$$

Existence of the governance equilibrium ensures that this is higher than  $n$ 's payoff from anarchy.

**Proof of Proposition 5**

Suppose that the anarchic equilibrium is in place. Let  $\mathbf{X}$  and  $\mathbf{Y}$  denote the jurisdiction sets for a possible governance equilibrium. As shown in the Proof of Proposition 4, any player  $n \in \mathbf{Y}$  is indifferent between the two equilibria. Consider a player  $n \in \mathbf{X}$ . Her expected benefit from the governance equilibrium (as opposed to anarchy) is

$$\begin{aligned} & \frac{1}{1 - \delta} \frac{2}{|N|} \left[ \frac{|\mathbf{X}_{PJ}| - 1}{|N| - 1} V_n(\mathbf{X}_{PJ} \setminus \{n\}) + \frac{|\mathbf{Y}_{PJ}|}{|N| - 1} B_n(\mathbf{Y}_{PJ}) - B_n(N \setminus \{n\}) \right] \\ & = \frac{1}{1 - \delta} \frac{2}{|N|} \frac{|\mathbf{X}_{PJ}| - 1}{|N| - 1} \Delta_n(\mathbf{X}_{PJ} \setminus \{n\}). \end{aligned}$$

This is decreasing in  $\alpha_n$ .

## Acknowledgments

Many thanks to Bruce Bueno de Mesquita, Cliff Carrubba, Songying Fang, Mark Fey, Michael Gilligan, Catherine Hafer, Susan Hyde, Hyeran Jo, Dimitri Landa, Sara Mitchell, Peter Rosendorff, Alastair Smith, Art Stein, and Erik Voeten.

## Author's Note

Drafts were presented at the 2007 Annual Conference of the Midwest Political Science Association, the 2007 Journeys in World Politics Workshop at the University of Iowa, the 2007 Annual Conference of the American Political Science Association, and seminars at the California Institute for Technology, University of California at Davis, Emory University, University of California at San Diego, Harris School at the University of Chicago, Princeton University, University of California at Berkeley, Stanford University, Yale University, and University of California at Los Angeles.

## Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author received no financial support for the research, authorship, and/or publication of this article.

## Notes

1. This stands in stark contrast to most other models of self-enforcing institutions, where enforcement takes place at the bilateral (not multilateral) level via reversion to an inefficient Nash equilibrium (e.g., Carrubba 2005, 2009; Rosendorff 2005).
2. I assume full support along the unit interval according to the distribution function  $F$ .
3. See Muthoo (1999) for an introduction to bargaining problems.
4. This functional form of  $q$  is chosen for expositional purposes. Results are more robust to generic forms of  $q$ . See the appendix for sufficient conditions on the conflict–success function.
5. This ensures that conflict is costly in expectation. Model results are robust to assuming a fixed cost for conflict. See the Supplemental Appendix for a discussion of this point.
6. See Nash (1950) and Muthoo (1999) for an overview of the Nash bargaining solution (NBS). Results are robust to alternative bargaining solutions, as discussed in the Supplemental Appendix.
7. As discussed in the Supplemental Appendix, all results hold if  $p$  is a function of asset valuations and  $\frac{\partial p}{\partial v_i} > 0$  and  $\frac{\partial p}{\partial v_j} < 0$ . The assumption that either  $i$  or  $j$  wins the entire asset is made to simplify the exposition of the model. Suppose that the court is able to divide the asset between the two players and the stochastic process is a probabilistic distribution over a set of possible divisions, as in Fang (2010). Then all model results continue to hold, as shown in the Supplemental Appendix.

8. An alternative modeling approach would allow for the court to serve as an outside option in the bilateral bargaining framework so that players are bargaining in the shadow of the court (Fang 2010; Muthoo 1999). This would ensure that no cases are actually submitted to the court in equilibrium but all other substantive results would continue to hold. Results are in the Supplemental Appendix.
9. A formal definition of the reputation variable is in the appendix.
10. Robustness of model results to this reputational mechanism is discussed below.
11. This upper bound on punishments is characterized in the appendix.
12. While we might interpret an HOS as an attribute of a particular institution, we could also interpret it as describing a particular area of law or subset of actors, as discussed below.
13. Note that this holds *in expectation*. In equilibrium, there is always positive probability that a state will lose a case that it cares a lot about and win a case that it cares little about.
14. See Supplemental Appendix for this result and other robustness checks discussed below.
15. I thank Susan Hyde for this insight.
16. As shown in Supplemental Appendix, all results are robust to a framework where enforcement thresholds are conditioned on decision nodes. So thresholds and strategies can be conditioned on which players are involved in a dispute and/or who has won a given conflict.
17. Data were collected by the author. Coding details and data are available upon request.
18. For example, *North Sea Continental Shelf*, judgment on the merits of February 20, 1969.
19. For example, *Case Concerning the Gabcikovo-Nagymaros Project*, judgment on the merits of September 25, 1997.
20. See *Land and Maritime Boundary between Cameroon and Nigeria*, judgment on the merits of October 10, 2002.
21. For accounts of Nigerian domestic reactions to the ruling, see Champion (2002), News (2002), BBC (2002a), France-Presse (2002), and Connors (2008).
22. Quoted in Paulson (2004, 450).
23. Anonymous source quoted in Obisesan (2002).
24. See Agreement between the Republic of Cameroon and the Republic of Nigeria concerning the modalities of withdrawal and transfer of authority in the Bakassi Peninsula, June 12, 2006.
25. The actual transfer of Bakassi did not take place until August 14, 2008.
26. *Nuclear Tests Case*, Order on Interim Measures of Protection of June 22, 1973.
27. Even the recent US Bush Administration has been pressured into complying with International Court of Justice (ICJ) rulings (Kirgis, 2005).
28. Data were collected by the author.
29. For a more general account of the role of international institutions in providing insurance, see Abbott and Snidal (1998).
30. That is, a state only sues if it receives a sufficiently large value from ownership of the asset in dispute.

31. Note that this dominates a strategy in which  $n$  enforces at this node but not necessarily at other nodes. This strategy yields an expected utility of  $-\hat{e}_n + \sum_{t=t'+1}^{\infty} \delta^{t-t'} \frac{2}{|N|} W_n(\rho_n(h'))$ .
32. Note that for a given set of parameters of the game, the value of  $p$  is still fixed across all disputes and is exogenous. Also, we can always choose parameters and a distribution function such that  $\frac{2k}{1-E|v|} < 1 - x_{i=n}^B$ .
33. Details of the simulation are included in the Supplemental Appendix.

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