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What is This?

Strengthening International Courts and the Early Settlement of Disputes

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Abstract

How does variation in the strength of a court's jurisdiction and enforcement affect strategic behavior by states involved in international disputes? The authors construct a formal model and identify three important ways that legal institutions can have a deleterious effect on international cooperation by magnifying the bargaining problems arising from incomplete information about the quality of the legal claims. First, strong courts create *less* information revelation in pretrial bargaining. Second, strong courts reduce the likelihood of pretrial settlements between states. Third, strong courts lead to more brinksmanship over high-value assets, which leads to conflict if the court refuses to intervene. The authors argue that a key policy implication of their model is that attempts to strengthen international courts must be accompanied by increased precision of international law to ameliorate the deleterious effects of strong courts.

Keywords

dispute settlement, enforcement, international court, international organization, jurisdiction

International politics has become substantially legalized in recent years in areas as diverse as international trade and investment, regional integration, the protection of human rights and the environment, and international criminal law. For example, the creation of the World Trade Organization (WTO) in 1995 significantly increased the role of litigation—rather than diplomatic negotiations—in settling trade disputes.

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Recent decades have seen the creation of new courts to regulate international issues—such as the International Centre for the Settlement of Investment Disputes and the International Criminal Court—while many existing courts have grown stronger over time—such as the European Court of Justice and the European Court of Human Rights.

Studies of domestic courts have generally focused on the impact of courts on policy making. 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 creates constraints in the legislative process (Rogers and Vanberg 2002; Stephenson 2003, 2004). Such accounts of courts rely on the assumptions that there is enforcement of court rulings and the court has jurisdiction to rule on contentious disputes.

Recent empirical scholarship has challenged this monolithic view of courts by demonstrating that even domestic courts are highly sensitive to limits on their powers. For example, Carrubba and Rogers (2003) argue that the U.S. Supreme Court has tempered its doctrine on the dormant Commerce Clause because of concerns about noncompliance by the other branches of government. Similarly, Vanberg (2005) argues that the German Constitutional Court is sensitive to the likelihood of government compliance with an adverse ruling, and that a key factor influencing the likelihood of compliance is voter awareness of the issue in contention. Staton (2004, 2006) shows that similar dynamics are at work in Mexican domestic courts, in which court rulings are publicized strategically to build voter support for the court's authority.[1]

Such concerns about limited power are even more heightened for international courts. As Posner and Yoo (2005, 13) note, ''International tribunals do not operate as part of a coherent and unified world government. They exist in an interstitial legal system that lacks a hierarchy, an enforcement mechanism, and a legislative instrument that allows for centralized change.'' Some scholars argue that certain international courts, such as the European Court of Justice, have managed to develop a strong body of jurisprudence that, at the very least, ensures that domestic governments act as if the rulings of these international courts are binding (Helfer and Slaughter 1997–98). However, other studies have presented evidence that enforcement remains a key concern in even these ostensibly strong courts (Carrubba, Gabel, and Hankla 2008). In sum, we know that international courts have limited powers of jurisdiction and enforcement that can vary greatly across different institutions. That is, courts can vary in the *strength* of their ability to hear cases and their enforcement regimes.

Formal scholars have provided multiple explanations for the endogenous development of international courts (e.g., Carrubba 2005, 2009; Johns 2009). In these accounts, a key concern is that courts serve as self-enforcing institutions: that is, nation-states have incentive to both accept jurisdiction of the court and enforce its rulings. However, we lack an understanding of how variation in the design of a court affects international conflict. Namely, we do not know, *how does variation in the strength of a court's jurisdiction and enforcement affect strategic behavior by states involved in international disputes?*

Courts—like all international organizations—are explicitly and strategically designed by member states with an eye to such effects. However, the issue of the strategic incentives of states to design institutions in specific ways is orthogonal to our key issue of interest: the effects of changes in design on the behavior of disputants. Before making empirical or theoretical claims about the strategic design of a court's level of jurisdiction and enforcement, we must first understand the impact of such design choices on state behavior. We intend for this article to serve as a first step in this research agenda.

To address this question, we construct a model in which two states are involved in a dispute over an asset that the defendant possesses.[2] The plaintiff has private information regarding the quality of his legal claim to the asset. This corresponds to the likelihood that the court will award the asset to the plaintiff if the court is willing to rule on the merits. Bargaining between states can take place both before and after the court has ruled. The court's *strength of jurisdiction* is defined as the probability that the court will be willing to rule on the merits of the case. If the court refuses to issue a ruling on the merits (i.e., does not assert jurisdiction), then states enter a crisis bargaining game that can sometimes result in conflict. In contrast, if the court does rule on the merits, then the court announces a winner who is chosen as a function of the quality of the legal claims in dispute. The court's *strength of enforcement* is defined as the extent to which the winner of adjudication gains a privileged position in postadjudicative bargaining. That is, we do not assume that court rulings are binding but allow for the possibility that they affect subsequent negotiations between states. The extent to which the court affects such bargaining is reflective of the strength of the court's enforcement regime.

There are many reasons why we might expect *ex ante* that strong courts will lead to good outcomes from a social welfare perspective. First, stronger enforcement and jurisdiction of courts might lead to more cooperation between states. Downs, Rocke, and Barsoom (1996, 383) argue that we can define the depth of an international cooperative agreement as "the extent to which [the agreement] requires states to depart from what they would have done in its absence." Deeper cooperation—such as lower tariff barriers or enhanced regulation of the environment—requires more enforcement: "The deeper the agreement is, the greater the punishments required to support it" (Downs, Rocke, and Barsoom 1996, 386). Such logic supports the belief that stronger courts could lead to enhanced international cooperation. Second, presumably international law is created in the first place to pursue particular normative ends. The availability of strong legal fora may ensure that real-life outcomes more closely resemble the outcomes prescribed by the law.[3] Hence, strong courts may be socially beneficial in certain circumstances.

However, our analysis shows that any attempt to strengthen courts—be it to enhance cooperation or to bring dispute outcomes closer to what the law intends—comes with costs. We focus on identifying three counterintuitive ways in which strong courts can harm social welfare. All of these effects follow directly from the impact of the institution on strategic behavior by states that are involved in a preexisting international dispute.

First, strong courts create *less* information revelation in pretrial bargaining. If using the court involves relatively low fixed costs or if disputes take place over relatively high-valued assets, then the threat of costly litigation is sufficient to induce full information revelation in pretrial bargaining. By the time that the defendant decides whether to go to trial, she can perfectly infer the strength of her opponent's legal claim. However, as the cost of using the court increases or the value of the disputed asset declines, the plaintiff no longer has incentive to fully reveal her private information in pretrial bargaining. Increasing the jurisdiction of the court reduces the likelihood of information revelation.

Second, strong courts reduce the likelihood of pretrial settlements between states. In those situations where states do completely reveal their private information, strong courts magnify the bargaining problems arising from incomplete information about the quality of the disputants' legal claims. When the court is weak (i.e., has a low probability of deciding the case on the merits or has little impact on final bargaining outcomes because of a lack of enforcement), the quality of legal claims is largely irrelevant. Making the court stronger increases the importance of asymmetric information, which in turn hinders pretrial settlement.

Third, strong courts lead to more brinksmanship over high-value assets, which can lead to conflict if the court refuses to intervene. Increasing the enforcement of court rulings always increases the likelihood of conflict over the disputed asset. In contrast, the impact of changing the court's jurisdiction is non-monotonic. When the court is relatively weak in its degree of jurisdiction, strengthening its jurisdiction increases conflict. However, if the court is a relatively strong institution, then strengthening its jurisdiction can reduce the likelihood of conflict.

Since we are interested in how changing the strength of a court affects strategic behavior by states, both the probability that the court will rule on the merits and the level of enforcement are exogenous in our model. However, there are two major reasons why this might be considered a limitation of the theory. First, if states design an international court, then they must endogenously choose levels of a court's jurisdiction and enforcement *prior* to the incidence of a dispute. This requires states to weigh the benefits of strong institutions against the associated costs that we identify. What constitutes an ''optimal'' balance of such factors is beyond the scope of this analysis because any such theory would have to presuppose state preferences over the design of the law itself, that is, the process by which the ''quality'' of legal claims is generated. Nonetheless, we discuss some of our theory's implications for the optimal design of an international legal regime after presenting our model.

Second, there is ample empirical evidence showing that international judges are strategic, policy-motivated actors, not monolithic disinterested umpires (e.g., Carrubba, Gabel, and Hankla 2008; Posner and de Figueiredo 2005; Voeten 2008). However, such concerns are somewhat orthogonal to our focus: the impact of institutional design on the strategic behavior of disputants (not judges). Our model is not inconsistent with the premise that judges are policy-motivated actors. Indeed, asymmetric information in the model below might include uncertainty about the preferences of judges over which state should prevail in litigation. However, our model does rely

on the assumption that increasing the powers of the court can be accomplished *independently* of judicial preferences; that is, that there are ways to increase a judge's willingness to rule on a case and the enforcement of rulings independent of judicial preferences over who should win a dispute. We believe that this is a reasonable place to begin in theory building, particularly since strategic accounts of judicial behavior have not yet been able to provide insight into how variation in the design of courts affects strategic behavior by disputants.

1. Strengthening International Courts

We focus on two dimensions of international courts. First, we define the court's *strength of jurisdiction* as the probability that the court will be willing to rule on the merits of the case. This term includes the traditional legal use of the term *jurisdiction* as well as other reasons why international courts sometimes refuse to issue substantive rulings, including admissibility criteria and concerns about judicial propriety. Second, we define the court's *strength of enforcement* as the extent to which the winner of adjudication gains a privileged position in postadjudicative bargaining. We discuss below the various ways that punishment by third parties, including both domestic and international actors, can create such enforcement of court rulings.

Jurisdiction

For an international court to issue a substantive ruling on the merits of a particular case, it must first decide that the disputants are subject to the authority of the court and that the subject matter lies within the realm of issues on which the court is authorized to rule. The authority of the court is usually determined by the text of an international treaty. State disputants must have acceded to the authority of the court (with or without reservations), and the dispute in question must lie within the purview of the court as described in the treaty text. Because the court itself is the final interpreter of the meaning of the language in the treaty, the court itself will establish whether it has been delegated the authority to hear the case and to rule on the merits.

Basic principles of international law provide courts with a variety of reasons for refusing to rule on the merits of a given case, which fall under the general rubric of what legal scholars call the ''justiciability'' of a case. First, the court can find that it lacks jurisdiction or competence to rule in a given dispute. Second, if jurisdiction exists, the court can find that the given claims are inadmissible for reasons such as excessive delay in initiating a lawsuit or nonexhaustion of local remedies. Finally, even if jurisdiction exists and a case is admissible, a court may decline to issue a ruling if it believes that such a ruling would violate judicial propriety.[4] Whether a court will choose to review a case on its merits is often a matter of great uncertainty even for legal experts (e.g., White 1999). As Pomerance (1997, 308) states, ''[The] line dividing . . . the 'non-justiciable' from the 'justiciable' remains undefined and probably undefinable except by some of the tautological and circuitous formulae which tend to be quoted and requoted unthinkingly.''

Consider the following three well-known examples from the docket of the International Court of Justice (ICJ). In 1984, Nicaragua filed a complaint against the United States alleging that the United States had illegally mined Nicaraguan harbors and engaged in other acts of conflict. Although the United States had accepted the jurisdiction of the court, it did so with several reservations, one of which was applicable in the case.[5] Nonetheless, the court ruled that it did in fact have jurisdiction under customary law—a startling claim to legal scholars at the time (e.g., D'Amato 1987). The *South West Africa* case illustrates a similar situation with an opposite result. In 1960, Ethiopia and Liberia filed cases with the ICJ alleging that South Africa had violated its UN mandate over the South West Africa territory by introducing a policy of apartheid. The court dismissed the case in 1966, stating that Ethiopia and Liberia had no ''legal right or interest in the subject-matter.''[6] This was an unexpected *volte-face* in light of the court's earlier 1962 ruling stating that it *did* have jurisdiction in this case (Janis 1987, 144).[7] Finally, consider the lawsuit brought by the Republic of Cameroon against the United Kingdom in 1961. Cameroon alleged that the United Kingdom had violated its duties under a UN Trusteeship Agreement as an Administering Authority for the Northern Cameroons territory. Shortly after the lawsuit was filed, Northern Cameroons joined the independent state of Nigeria and the relevant trusteeship agreement was dissolved. The court refused to hear the case, claiming that ruling on the merits would violate judicial propriety: since the relevant agreement was no longer in effect, any ruling ''would be inconsistent with [the court's] judicial function'' because its judgment would be ''devoid of purpose.''[8]

While the ICJ made different legal arguments in the three cases above, they all had the same effect: no substantive ruling was made on the merits of the case. Basic principles of international law provide courts with a variety of reasons for refusing to rule on the merits of a given case. While the three classes of issues examined above—jurisdiction, admissibility, and judicial propriety—have different names, all are essentially limits on the ability and willingness of a court to rule on the merits of disputes. In this sense, all three issues capture the probability that the court will be willing to rule on the merits of the case.

Enforcement

In our model, disputants can engage in bargaining even after the court has ruled on the merits of a case. Such postadjudicative bargaining is common in the international context (Johns 2009). For example, consider the WTO's archetypal case: the 1995 dispute between the United States and Venezuela regarding gasoline. In 1994, the United States mandated restrictions on imported gasoline that it did not apply to domestically refined gasoline. Venezuela argued that this action violated the ''national treatment'' principle and could not be justified under exceptions to normal WTO rules. The dispute panel agreed with Venezuela. After the ruling, the United States reopened negotiations and weakened its regulations in the light of the panel's ruling and further negotiations.[9] More generally, even if a finding of the WTO's dispute settlement procedure (DSP) authorizes compensation or the suspension of concessions, the

procedure encourages the reopening of negotiations to find mutually acceptable implementation strategies. Similarly, many cases heard by ICJ result in subsequent negotiations. ICJ judgments often contain explicit provisions urging litigants to return to negotiations and reach a new settlement in accordance with the principles established by the court.[10] Third parties often facilitate posttrial bargaining, such as the UN Secretary General's involvement in settling the Bakassi dispute after a ruling by the ICJ.[11] Postadjudicative bargaining is not only the norm but also actively encouraged by treaty signatories and institutional actors as a method of settling disputes.

The prospect of enforcement of the court's rulings plays an important role in such bargaining (Johns 2009). It is rare for an international court to have explicit enforcement powers.[12] Rather, an international court is dependent on third parties to enforce its rulings by punishing disputants who fail to implement the court's rulings or reach a peaceful negotiated settlement. As extensively documented by scholars, countries can face meaningful costs from refusing to comply with an international court's judgments (Fang 2006; Paulson 2004; Schulte 2004). One example is the reaction to France's 1973 decision not to comply with an ICJ ruling on nuclear testing.[13] French noncompliance was highly criticized within international organizations and prompted formal opposition from governments all over the world (Trumbull 1973). 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). France soon bowed to the pressure and pledged to refrain from any future atmospheric nuclear tests, illustrating that even powerful states can find compliance with an international court ruling to be less costly than blatant defiance (Stiles 2000).

Noncompliance punishments can vary both in form and substance and may have as their source international or domestic political pressure. At the international level, affected states may threaten retaliation if a defendant state is ruled against and fails to take measures to return to compliance. Such punishments include trade sanctions and restrictions, the withdrawal of concessions along other policy dimensions (i.e., issue linkage), reductions in loans and foreign aid, and even military conflict and coercion. In addition, compliance with a ruling may follow from reputational considerations. A failure to comply might hinder a state's ability to remain within a cooperative regime or to enter into other cooperative agreements in the future. At the domestic level, political interests may punish leaders if they fail to rescind offending measures.[14] Affected voters or regime supporters may require some other compensating policy to be implemented, withhold political support, or even demand leadership change (McGillivray and Smith 2008). Regardless of their source, the costs for failure to comply with rulings of an international court are largely external to the institution itself.

In our model, we examine the degree to which judicial decisions constrain disputants (directly or indirectly) in bargaining that takes place after a court has ruled on the merits. A judicial ruling on the merits of a case opens the door to third party enforcement by domestic or international actors. These noncompliance punishments affect bargaining interactions after the court has ruled. For example, suppose that the court

has issued a ruling and the loser of adjudication threatens to leave the bargaining table and exercise an outside option rather than reaching a negotiated settlement (Johns 2007). The loser knows that such an action will result in a noncompliance punishment by third parties. This in turn reduces his ability to leave the bargaining table, which weakens his bargaining position. When there is a high level of enforcement, third parties are willing to impose large punishments for noncompliance with the court's ruling. This in turn gives the winner a strong bargaining position in subsequent negotiations. In contrast, when there is weak enforcement of the court's rulings, third parties will impose only minor punishments for noncompliance. This means that a favorable ruling by the court provides little subsequent bargaining advantage to the winner. So increasing enforcement of the court's ruling is equivalent to increasing the bargaining power of the winner of adjudication, relative to the loser. Rather than explicitly modeling the enforcement process, we focus on the substantive effect of enforcement on bargaining between states.[15]

2. Theoretical Model

Primitives and Structure

The model is an extension of Reinganum and Wilde (1986). There are two unitary-actor nation-states, a plaintiff (P) and a defendant (D), both of whom potentially have standing before the international court. The defendant has taken some action such that ownership of an asset is in dispute. The value of the asset to the plaintiff and defendant, v_P and v_D, respectively, is common knowledge. The plaintiff possesses private information about the quality of his legal claim, which is his expected probability of success at trial, $\pi \in [0, 1]$, should the case be heard. The defendant does not know the quality of the plaintiff's claim but has prior beliefs that π is distributed with full support along the unit interval according to a density function f. Her expectation of the value of π based on her prior beliefs is denoted by $E[\pi] \equiv \int_0^1 \pi f(\pi) d\pi$.

One way to interpret this information structure is that the action of the defendant has caused some damage or loss to the plaintiff and the actual value of the loss is known perfectly to the plaintiff who has filed the case, while the magnitude of this loss is less certain to the defendant. For institutions in which the plaintiff must prove a loss to prevail in litigation, the plaintiff will have an informational advantage. When the information is revealed, either in settlement negotiations or in court, this information affects the likelihood of the court finding in favor of the plaintiff. For example, consider a typical antidumping case at the WTO, where a country has raised a barrier to the imports from a trading partner—say the United States on steel imports from Brazil and others. For a finding of a violation to be obtained, Brazil must show that its domestic steel industry has suffered injury as a result of U.S. action. Brazil is likely to be more aware of (or have better information about) the political and economic costs of this reduction in its ability to export steel than is the United States. Hence, Brazil will have better information about the strength of its case than will the United States.[16]
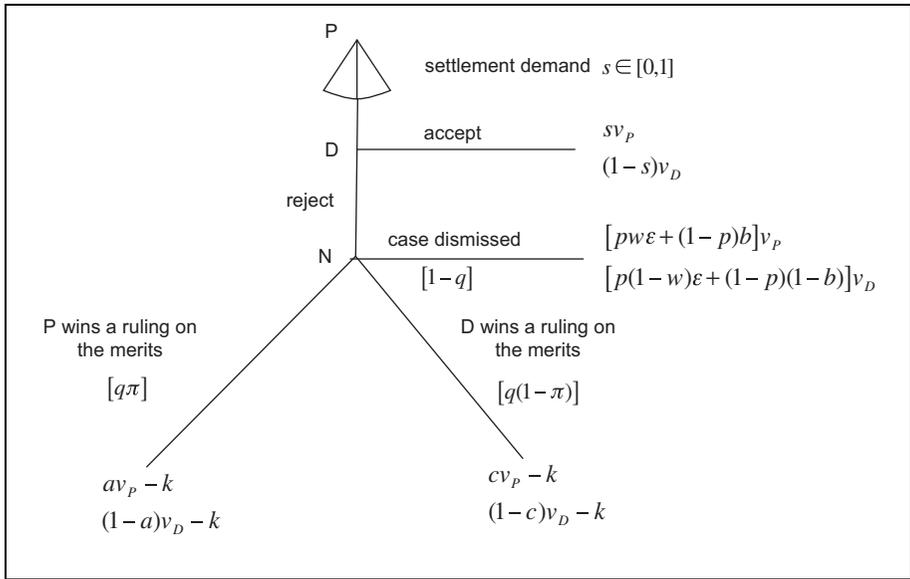
Figure 1. Structure of the model

An alternative interpretation of the information structure is that while political elites of the defendant state may be aware of their own past transgressions, they may be uncertain about the plaintiff's ability to produce evidence in court of the illegality of past behavior. For example, the U.S. foreign policy and military elite surely possessed complete information about the extent of U.S. involvement in the Nicaraguan conflict in the 1980s. However, they were likely uncertain about the extent to which Nicaragua could produce compelling evidence to the ICJ to prove its allegations of the illegal use of force. As the recent controversial ICJ ruling on Bosnian allegations of genocide by Serbia illustrates, even cases with well-documented violations of international law can fall apart if the plaintiff is unable to meet the evidentiary demands of the court.[17] As such, the model structure is compatible with many different interpretations of the uncertainty inherent in the legal process.[18]

Figure 1 displays a game tree of the model. After the plaintiff privately learns the true value of π, he has the opportunity to demand a settlement from the defendant. This settlement consists of a division of the asset, where $s \in [0, 1]$ is the share of the asset that the plaintiff demands. The defendant must then decide whether or not to accept the plaintiff's demand. If she accepts, then the asset is divided according to the settlement demand and the dispute is resolved. In contrast, if the defendant rejects the plaintiff's settlement demand, the dispute is referred to the court.[19]

Both players are uncertain about whether the court will be willing to rule on the merits but have common beliefs about the probability that the court will issue such a ruling, denoted $q \in (0, 1)$. If the case is dismissed on procedural grounds, then the

court makes no determination regarding which player has a legal ''right'' to the asset. States then enter into a crisis bargaining game that can sometimes result in conflict. Our primary substantive interest is in pretrial bargaining and litigation behavior, not crisis bargaining. As such, we model this crisis bargaining game in reduced form with the following parameter definitions (Banks 1990). Let p denote the probability that conflict occurs in equilibrium of the subgame such that $p \in (0, 1)$. If conflict occurs, let w denote the expected share of the asset secured by P in conflict such that $w \in [0, 1]$ and ε denote the share of the asset that survives conflict (i.e., efficiency of fighting), such that $\varepsilon \in (0, 1)$. If conflict does not occur, let b denote the expected share of the asset secured by P in crisis negotiations such that $b \in [0, 1]$. So while strengthening the court has an impact on the likelihood of litigation, it can also affect the likelihood of conflict. Indeed, intuition might suggest that a stronger judicial institution means that conflict is less likely to take place over the disputed asset. Below we examine whether this intuition is consistent with equilibrium behavior in the game.

If the court asserts jurisdiction and is willing to issue a ruling on the merits, then the legal process is costly for both players, where the cost of litigation is denoted by $k > 0$. The plaintiff's legal right to the asset is upheld with probability π. Following the court's judgment on the merits, players have the opportunity to engage in postadjudicative bargaining.

Rather than explicitly modeling the postadjudicative bargaining process, we present a general framework that is consistent with many different bargaining protocols. A bargaining outcome consists of a share of the asset $x \in [0, 1]$ that the plaintiff receives, while the defendant receives the share $1 - x$. Let $x = a$ if the plaintiff wins a ruling on the merits and $x = c$ if the defendant wins a ruling on the merits. Recall that $x = b$ if the case is dismissed by the court and a peaceful outcome is reached in the crisis bargaining subgame. We assume throughout that $a > b > c$, which ensures that successful litigation results in the winner of a court ruling on the merits having a privileged bargaining position.[20] While the plaintiff and defendant can differ in the value that they derive from possessing the asset (as reflected in the parameters v_P and v_D), both disputants prefer to secure as large a share of the asset as possible. So the plaintiff's value from its share of the asset is $x v_P$, while the defendant derives the value $(1 - x) v_D$ from its complementary share of the asset.

The game structure ensures that the plaintiff's strategy is a mapping, $s : [0, 1] \rightarrow [0, 1]$, where $s(\pi)$ denotes a settlement demand conditional on π. The defendant's strategy is a mapping, $r : [0, 1] \rightarrow [0, 1]$, where $r(s)$ denotes the probability that an offer s will be rejected, which is equivalent to the probability that the case is referred to the court. This means that the ex ante probability that a trial (on the merits) takes place in equilibrium is $T^* \equiv q \int_0^1 r^*(s^*(\pi)) f(\pi) d\pi$. Similarly, the ex ante probability that conflict takes place in equilibrium is $W^* \equiv (1 - q) p \int_0^1 r^*(s^*(\pi)) f(\pi) d\pi$.

Equilibrium Selection and Characterization

The standard solution concept for games of this structure is the weak Perfect Bayesian Equilibrium (wPBE), which requires that (1) each player's action at a particular decision node is sequentially rational, given her beliefs at that decision node and the strategies of the other players, and (2) beliefs are updated according to Bayes's rule and the strategy profile where possible. We begin by stating some general properties that must hold in any wPBE of the game.

Proposition 1: In all wPBE equilibria of the game,

- $r(s)$ is weakly increasing in equilibrium demands, and $r(s)$ is strictly increasing in equilibrium demands when $r(s) < 1$
- $s(\pi)$ is weakly increasing in π anytime $r(s) < 1$
- $r(s(\pi))$ is weakly increasing in π

The interpretation of the second part of this result is straightforward: as the quality of the plaintiff's legal claim increases, his expected utility from litigation increases while his opponent's expected utility from a trial decreases. This means that it is optimal for the plaintiff to demand a larger share of the asset in pretrial negotiations as long as there is a positive probability that his demand will be accepted.[21] The first component of this result is less intuitive. Since higher settlement offers, s, indicate that the plaintiff has a stronger case, one might expect that the defendant is more likely to accept higher offers to avoid litigation. However, the probability that a trial takes place must be increasing in the size of the settlement offer for the plaintiff to have incentive to credibly convey the quality of his legal claim. This serves to ''discipline'' the plaintiff and ensures that he does not have an incentive to raise his offer in an attempt to convince his opponent that his claim is better than it is in reality.

To understand the intuition behind this latter result, suppose that the probability that the defendant rejects the offer (i.e., that litigation takes place) is *decreasing* in the settlement offer. Consider a plaintiff who has a relatively poor legal claim. If he raises his settlement offer and ''mimics'' the behavior of a plaintiff with a better claim, then the defendant will believe that the plaintiff's case is better that it is in reality. This in turn will mean both that costly litigation is less likely to occur and that the plaintiff can extract more when his settlement is accepted. Clearly, such a situation does not create incentives for the plaintiff to credibly reveal his private information: when the plaintiff has a relatively poor claim, he will want to bluff and pretend that his claim is better than it really is. So the defendant must reject higher offers with a higher probability to forestall this bluffing and ensure that the only plaintiffs who have an incentive to make large demands are those that really do have higher chances of winning the case. This leads to the third component of Proposition 1: stronger types are more likely to have their equilibrium offers rejected by the defendant.

These results hold for all possible wPBEs. However, this solution concept places no restrictions on beliefs that are off of the equilibrium path of play. In what follows, we restrict attention to equilibria that satisfy the equilibrium refinement of ''universal

divinity'' (Banks and Sobel 1987). This criterion puts restrictions on out-of-equilibrium beliefs that are relatively unobjectionable. Suppose that the plaintiff makes an unexpected offer that is not chosen in a given strategy profile. What should the defendant believe about the strength of the plaintiff's case? Universal divinity requires that the defendant put positive weight only on those types of plaintiff who have the most to gain from the observed deviation. As such, this refinement takes explicit account of the strategic incentives of the plaintiff to deviate from a prescribed course of action.

> *Proposition 2:* The unique universally divine equilibrium that maximizes efficiency is as follows.

- For sufficiently low litigation costs ($k \leq k'$) or high values of the asset ($v_D'' \leq v_D$),[22] there is fully separating behavior characterized by,

$$s^*(\pi) = (1-q)[p(1-\varepsilon+w\varepsilon)+(1-p)b]+q\pi a+q(1-\pi)c$$
$$+\frac{qk}{v_D} \text{ for all } \pi \in [0,1]$$

$$r^*(s) = \begin{cases} 0 & \text{if } s < s^*(\pi=0) \\ 1-exp\left(-\frac{s-s^*(\pi=0)}{\Gamma}\right) & \text{if } s \in [s^*(\pi=0),\ s^*(\pi=1)] \\ 1 & \text{if } s > s^*(\pi=1) \end{cases}$$

  where $\Gamma \equiv qk\left(\frac{1}{v_D}+\frac{1}{v_P}\right)+(1-q)p(1-\varepsilon)$.

- For sufficiently high litigation costs $k'' \leq k$ or low values of the asset $v_D \leq v_D'$,[23] there is pooling behavior characterized by $s^*(\pi)=1$ for all $\pi \in [0,1]$, and $r^*(s=1)=0$.
- For moderate litigation costs ($k \in (k',k'')$) or values of the asset ($v_D \in (v_D',v_D'')$), there is semiseparating behavior characterized by,

$$s^*(\pi) = \begin{cases} (1-q)[p(1-\varepsilon+w\varepsilon)+(1-p)b]+q\pi a+q(1-\pi)c \\ +\frac{qk}{v_D} \text{ for all } \pi \in [0,\hat{\pi}) \\ \\ 1 \text{ for all } \pi \in [\hat{\pi},1] \end{cases}$$

$$r^*(s) = \begin{cases} 0 & \text{if } s < s^*(0) \\ 1-exp\left(-\frac{s-s^*(\pi=0)}{\Gamma}\right) & \text{if } s \in [s^*(0),\hat{s}] \\ 1 & \text{if } s \in \hat{s},1) \\ 1-exp\left(-\frac{\hat{s}-s^*(\pi=0)}{\Gamma}\right)\left[\frac{\hat{s}v_P-R_P(\hat{\pi})}{v_P-R_P(\hat{\pi})}\right] & \text{if } s = 1 \end{cases}$$
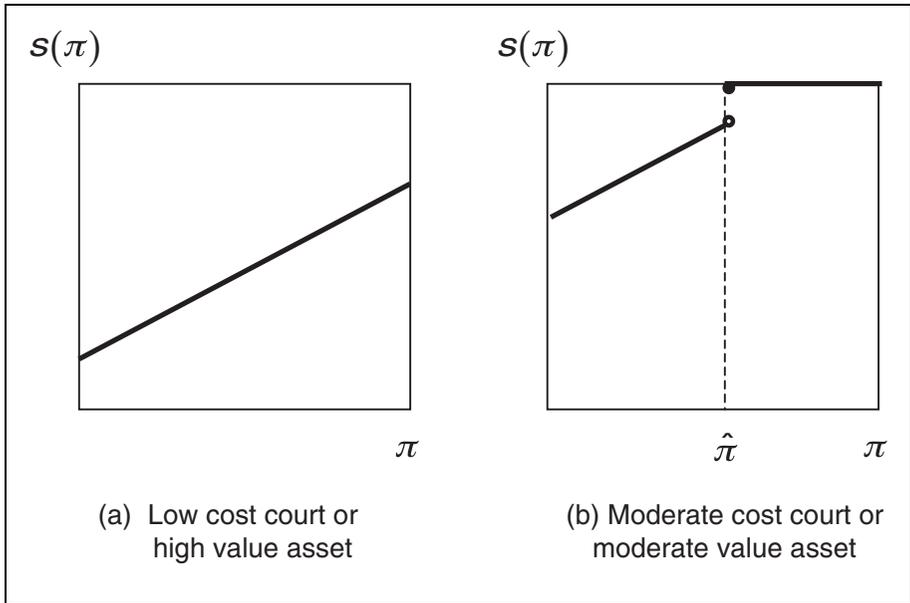
Figure 2. Universally divine separating and semiseparating equilibria

where $\hat{\pi}$ is implicitly defined in the appendix, $\hat{s} = (1-q)[p(1-\varepsilon+w\varepsilon)$ $+(1-p)b] + q\hat{\pi}a + q(1-\hat{\pi})c + \frac{qk}{v_D}$, and $R_P(\pi) = \{(1-q)[pw\varepsilon+(1-p)b]$ $+q\pi a + q(1-\pi)c\}v_P - qk$.

When there is a low-cost court ($k \leq k'$) or the dispute takes place over a high-value asset ($v_{D''} \leq v_D$), fully separating behavior occurs. In a fully separating equilibrium, each type of the plaintiff makes a unique settlement demand, $s(\pi)$. Such a demand function is shown in panel (a) of Figure 2. After observing the plaintiff's demand, the defendant can perfectly infer the type of the plaintiff. The plaintiff always chooses a demand that makes the defendant indifferent between accepting and rejecting his offer, given the information that his demand reveals about his type. The structure of the game ensures that there are an infinite number of rejection functions, $r(s)$, that are consistent with equilibrium play. The defendant is indifferent over the choice of this function since in equilibrium she is indifferent between accepting and rejecting the plaintiff's demand. However, both joint and individual welfare of the players are maximized for the choice of $r(s)$ that minimizes the overall probability of rejection.[24] This is the strategy characterized above, which minimizes the probabilities of both trial and conflict.[25]

In contrast, when the cost of litigation is sufficiently large ($k'' \leq k$) or the defendant places relatively low value on the asset ($v_D \leq v'_D$), there exists a pooling equilibrium in which the plaintiff always demands full ownership of the asset ($s = 1$) and this offer is always accepted. The defendant would rather completely give up the asset than take the gamble of incurring litigation or conflict costs to maintain her control over the

asset. The defendant learns no information about the type of her opponent in this equilibrium because all types of the plaintiff behave in the same way and the dispute never proceeds to trial.

Finally, for moderate costs of litigation ($k \in (k', k'')$) or values of the asset ($v_D \in (v'_D, v''_D)$), a semiseparating equilibrium exists. In this equilibrium, high types of the plaintiff are able to demand full control over the asset ($s = 1$), and this offer is accepted with positive probability. However, lower types of the plaintiff continue to engage in separating behavior. This settlement demand strategy is displayed in panel (b) of Figure 2. Some (but not all) information is revealed in this equilibrium. If the plaintiff is a low type ($\pi < \hat{\pi}$), then the defendant perfectly learns his type. However, if the plaintiff is a high type ($\pi \geq \hat{\pi}$), then the defendant can infer that $\pi \in [\hat{\pi}, 1]$ but never learns the precise type of her opponent.

Information Revelation

Note that the efficiency loss from litigation and conflict is lowest when *no* information is revealed in equilibrium. This challenges conventional accounts of the value of international organizations as information providers. Increasing the court's jurisdiction means that conditional on a given offer being rejected, the court is more likely to adjudicate the dispute. Since the court's ruling on the merits is a function of the legal claims of the disputants, a naive view of the court might suggest that states can learn more about the strength of legal claims by increasing the ability of the court to assert jurisdiction and issue rulings on the merits. However, this view does not take into account the strategic dynamics of pretrial negotiations. For parameter regions in which full separation occurs, strengthening the court's jurisdiction has no effect on information provision because all private information is fully revealed before the court is even used. Similarly, for parameter regions in which there is pooling behavior, no information is revealed in pretrial bargaining. For parameter regions in which semiseparation occurs, increasing the court's jurisdiction means that the plaintiff has increased incentive to signal that he is a high type by demanding full control over the asset ($s = 1$). This in turn means that less information is revealed in pretrial negotiations as jurisdiction is strengthened since fewer types adopt a separating strategy.

> *Proposition 3:* The amount of information revealed in pretrial bargaining in equilibrium is decreasing in the strength of jurisdiction (q).[26]

Trial and Conflict Incidence

We now consider the effect of changes in the exogenous parameters of the game on the likelihood that trial and conflict occur. International courts are likely to be venues where disputes over substantial issues are brought. Moreover, these courts are more likely to be used both when costs of litigation are low enough relative to the expected benefits of litigation and when these costs are lower than the costs of using alternative strategies for settling disputes. We therefore restrict attention to parameter regions in

which the costs of using the court are relatively low ($k \leq k'$) or the issue at hand is substantially salient or valuable ($v_D'' \leq v_D$). This permits us to examine comparative statics on the fully separating equilibrium behavior.

We can now consider the effect of enforcement regimes on the likelihood that settlements are reached "in the shadow of the court." While enforcement of court judgments is not explicitly characterized in this model structure, recall that the post-adjudicative bargaining outcomes implicitly capture the strength of the court's enforcement regime. When a increases, the plaintiff derives greater benefit from prevailing in a judgment on the merits of the case and the defendant pays more dearly. Similarly, when c decreases, the plaintiff suffers increased harm from losing a judgment on the merits and the defendant's payoff from successful litigation increases. Such changes implicitly capture the strengthening of an enforcement regime since higher punishments for noncompliance with a court ruling on the merits serve to increase the postadjudicative bargaining power of the winner of litigation (Johns 2009). So an increase in the strength of the court's enforcement regime corresponds to an increase in the quantity $(a - c)$. For example, in a perfect enforcement regime, in which court judgments are always implemented fully, litigation would be a "winner-takes-all" system, in which $a = 1$ and $c = 0$. In contrast, when there is imperfect enforcement of the court's ruling, the winner of the court's ruling should still derive some advantage in postadjudicative bargaining, but she may need to surrender part of the asset to ensure compliance, that is, $0 < c < a < 1$ so $0 < a - c < 1$. Regardless of the specific strength of the enforcement regime, the following results hold.

> *Proposition 4:* For a low-cost court or a dispute over a high-value asset, as the plaintiff's share after winning a court judgment (a) increases, the probabilities that a settlement demand is rejected, a trial takes place, or conflict occurs in equilibrium all increase. As the plaintiff's share after losing a court judgment (c) increases, the probabilities that a settlement demand is rejected, a trial takes place, or conflict occurs in equilibrium all decrease.

So the probabilities of litigation and conflict are increasing in a and decreasing in c. As the strength of the court's enforcement regime increases, the quantity $(a - c)$ grows, which in turn means that both litigation and conflict are more likely to occur. So the prospect of strong enforcement of court judgments does not encourage prelitigation settlement: it makes players more willing to bear the costs of litigation and conflict.

> *Corollary 1:* For a low-cost court or a dispute over a high-value asset, as enforcement ($a - c$) increases, the probabilities that a settlement demand is rejected, a trial takes place, or conflict occurs in equilibrium all increase.

The key factor driving this result is that increasing the level of enforcement magnifies the variation in settlements that are offered by the plaintiff.[27] This increases the temptation of a plaintiff with relatively poor legal claims to mimic the behavior of a higher type. For the plaintiff to credibly reveal his private information via his

settlement demand, the defendant must impose more discipline by increasing the likelihood that a given offer will be rejected. This in turn increases the probabilities of conflict and trial in equilibrium. In effect, the level of enforcement $(a - c)$ affects the degree to which the players care about the quality of legal claims. When $(a - c)$ is small, π is not very important to the disputants' welfare because whether the plaintiff wins or loses the case on the merits has little impact on the final postadjudicative bargaining outcome. When $(a - c)$ is large, π becomes more important to the disputants' welfare because winning or losing a trial on the merits can have a substantial impact on final allocations. So increasing enforcement serves to magnify the impact of incomplete information over π.

A similar mechanism is at work with regard to changes in the jurisdiction of the court. However, the impact of the court's jurisdiction on the probability of conflict is more nuanced.

> *Proposition 5:* For a low-cost court or a dispute over a high-value asset, an
> increase in jurisdiction (q) raises the probability that the defendant will reject
> a given settlement offer, raises the overall probability that a trial takes place,
> and raises the probability of conflict for low levels of q and lowers the prob-
> ability of conflict for high levels of q.

Strengthening the jurisdiction of a court (by increasing the value of q) magnifies the variation in settlements that are offered by the plaintiff. This in turn increases the need for the defendant to ''discipline'' the plaintiff by raising the probability that all offers will be rejected. So as Proposition 5 highlights, increasing the jurisdiction of an adjudicatory body over disputes involving high-value assets unambiguously decreases the probability that two disputants will settle out of court and increases the probability that a trial will take place.

However, the impact of the court's jurisdiction on the probability of conflict in equilibrium is more subtle. As shown in Figure 3, if the court has no jurisdiction ($q = 0$) or perfect jurisdiction ($q = 1$), then conflict never occurs in equilibrium. Increasing q means that conditional on a given offer being rejected, the dispute is less likely to escalate to conflict. However, increasing q also makes the defendant more likely to reject initial settlement demands, thereby opening the door to the possibility of subsequent conflict. When the court is relatively weak (i.e., has a low value of q), the latter effect dominates the former, meaning that strengthening the court's jurisdiction increases the probability that conflict takes place. When the court is relatively strong (i.e., has a high value of q), the former effect outweighs the latter and strengthening the court's basis for jurisdiction makes conflict less likely. This non-monotonicity is displayed in Figure 3.

Our key substantive interest lies in examining the impact of court strength on the incidence of trial and conflict over high-valued assets. Nevertheless, we briefly consider some ancillary analytical results that support the appropriateness of our modeling framework.

Figure 3. Impact of jurisdiction on the equilibrium probability of conflict

> *Proposition 6:* For a low-cost court or a dispute over a high-value asset, as lit-
> igation becomes more costly (i.e., k increases) or conflict becomes more
> destructive (i.e., ε decreases), settlement offers increase, and the probabilities
> that a given settlement demand is rejected, a trial takes place, or conflict
> occurs in equilibrium all decrease.

Increases in litigation costs or the destructiveness of conflict allow the plaintiff to demand more in prelitigation settlements, and these higher settlement demands are more likely to be accepted by the defendant. This is ensured by the sequential structure of the game. When k increases or ε decreases, the range of settlements that the defendant would prefer as an alternative to the lottery over litigation and conflict expands for every possible value of π. Even though full separation continues to occur and the defendant is still able to infer the quality of the plaintiff's legal claim based on his settlement offer, the plaintiff is able to demand more and knows that these demands will be accepted with a higher probability than if litigation costs were lower or conflict were less destructive.

Similarly, since conflict is costly because a share of the asset is destroyed in fighting, increasing the likelihood of conflict in the crisis bargaining subgame (by increasing the parameter p) reduces the defendant's expected utility from rejecting a given settlement demand. This in turn reduces the likelihood of trial. However, the impact of increases in p on deterring the defendant from rejecting demands is not sufficient to outweigh the increased likelihood of conflict when the states reach the crisis

bargaining subgame. So the overall probability of conflict in equilibrium is increasing in the value of p. This is established by the next result.

> *Proposition 7:* For a low-cost court or a dispute over a high-value asset, as the likelihood of conflict in the crisis bargaining subgame (p) increases, the probability that a settlement demand is rejected or a trial takes place decrease and the probability of conflict in equilibrium increases.

These results on the impact of changes in the cost of litigation (k), the destructiveness of conflict (ε), and the likelihood of conflict in the crisis bargaining subgame (p) are all fairly intuitive. This suggests that the model framework we have chosen is appropriate for examining our key interest: the effect of the strength of jurisdiction and enforcement on the likelihood that states will engage in conflict and litigation over high-valued assets.[28]

3. Discussion and Implications

The theoretical model above identifies and isolates three important ways that legal institutions can have a deleterious effect on international cooperation. First, strong courts create less information revelation in pretrial bargaining. Second, strong courts reduce the likelihood of pretrial settlements between states. Third, strong courts lead to more brinksmanship over high-value assets, which leads to conflict if the court refuses to intervene.

The results on information revelation challenge a key insight from the study of international institutions—namely, that institutions are created (at least in part) to assist in resolving informational problems between states (e.g., Keohane 1986). The threat of litigation creates incentive for information revelation by states in some circumstances. In this sense, the existence of the institution can facilitate communication between states. However, increasing the jurisdiction of the court also creates incentives for the plaintiff to signal that he has high-quality legal claims by demanding full control over the asset. This reduces the overall likelihood of information revelation in pretrial bargaining. The presence of a strong institution also elevates the importance of the information asymmetry about the quality of legal claims, which is irrelevant in the absence of a strong court. This suggests that institutions can have mixed effects on informational problems. Courts both provide incentives for the resolution of informational asymmetries and exacerbate the negative effects caused by such asymmetries by increasing the importance of such information.

This is precisely the mechanism driving the negative impact of strong courts on the likelihood of pretrial settlement. Robert Hudec (1993, 360) argues, ''No functioning legal system can wait until [the final verdict] to exert its primary impact.'' As such, a key function of courts is to prompt disputants to settle their disputes before engaging in costly litigation.[29] Strengthening the jurisdiction and enforcement of international courts magnifies the bargaining problems arising from incomplete information about the quality of legal claims. This hinders pretrial settlement.

Finally, making courts stronger leads to more brinksmanship in negotiations. When pretrial settlement is less desirable because of the presence of a strong institution, there can be an increase in war and conflict between states. As Karen Alter (2003, 796) asserts, ''We should not . . . expect international courts to solve problems diplomacy cannot.'' Strong courts cannot remove the possibility of conflict between states, and (in some cases) strong courts can even exacerbate such conflict. Strengthening the enforcement of court rulings has an unambiguous effect of increasing the likelihood of conflict over the disputed asset. In contrast, the impact of changing the court's jurisdiction is non-monotonic. Courts with weak jurisdiction cannot be made stronger without increasing the likelihood of conflict. However, strengthening the jurisdiction of relatively strong courts can reduce the likelihood of conflict by increasing the likelihood that disputes will be resolved via costly litigation.

While these results provide insight into how variation in the strength of a court's jurisdiction and enforcement affects strategic behavior in international disputes, they also have broader implications for the study of optimal institutional design. Scholars of legalization have identified three key dimensions of legal institutions: delegation, obligation, and precision (Goldstein et al. 2000; Abbott et al. 2000). Delegation refers to the ability of impartial third party bodies to interpret rules, find facts, and judge state policy in the context of an international agreement. This corresponds to our conception of jurisdiction. Obligation is the extent to which judicial rulings are perceived as binding on states. This corresponds to our conception of the strength of a court's enforcement regime. Finally, precision is the degree to which ''rules unambiguously define the conduct they require, authorize, or proscribe'' (Abbott et al. 2000, 401).

The precision of international law can vary greatly from vague principles that regulate state behavior—such as the obligation of states to abide by treaty commitments in ''good faith''—to legal texts that clearly articulate a set of obligations—such as the Marrakesh Agreement of 1994 that created the WTO. One salient characteristic of an international court is the precision of the legal rules on which it operates. For example, the ICJ and the WTO DSP differ greatly in terms of the precision of the areas of law that they oversee. The ICJ is somewhat notorious for overseeing an unwieldy and imprecise body of law. The court has no inherent subject matter limitations, and states can accept jurisdiction of the court in many different ways. In addition, states and judges can invoke a hodgepodge of different legal principles and documents to support their case. The strongest deference is usually given to plain text readings of binding treaties. However, states can appeal to a broad diversity of other sources, including diplomatic exchanges between political leaders, unilateral public statements of political leaders, the negotiating history of relevant documents (*travaux preparatoires*), resolutions adopted by international organizations, the history of state practice, and even broad principles of law such as ''equity.'' In contrast, the WTO DSP adjudicates on the basis of a precise set of legal texts, all of which are components of the Marrakesh Agreement of 1994. To be sure, some degree of imprecision remains: states that use the DSP have principled disagreements regarding the content of trade agreements and appropriate remedies for trade violations. Nonetheless, the body of law overseen

by the WTO DSP is much more precise than the panoply of sources of law used by the ICJ. When precision is low, the rules permit a variation of interpretations, and this is likely to create uncertainty about the quality of a plaintiff's legal claim. In such a case, we find that greater delegation and obligation can have a deleterious effect on international cooperation via the three effects identified above.

Our analysis suggests that when there is a high degree of imprecision regarding the content or application of the law, the presence of a strong judicial institution exacerbates informational problems between states, which leads to bargaining inefficiencies. So if the law is imprecise, then the costs of strengthening courts outweigh the benefits. This suggests that greater delegation and obligation are best suited to bodies of law that are more precise, such as regional integration and international trade law. Strengthening the jurisdiction and enforcement powers of specialized courts with precise legal texts, such as the European Court of Justice or the WTO DSP, is likely to be more successful than strengthening courts that are more general and rule on the basis of broader, less precise areas of law, such as the ICJ.[30]

In addition, the non-monotonic effect of the court's jurisdiction on the likelihood of conflict suggests important dynamics for the "hardening" of law over time via increases in delegation, obligation, and precision (Abbott and Snidal 2000). Recall that strengthening the jurisdiction of relatively weak institutions, such as the ICJ, is likely to have a deleterious effect on the ability of the court to prevent conflict. However, strengthening the jurisdiction of relatively strong courts, such as the European Court of Justice, should reduce the likelihood that states will engage in conflict over disputed assets. In sum, there are reasons to believe the strong institutions should be made stronger to prevent conflict, but weak institutions should remain weak. This means that if states want a weak court to grow strong, they will need to implement major—rather than incremental—changes to both its powers and the precision of its legal texts.

We believe that the historical development of trade adjudication provides compelling support for the institutional design implications of our theory. The post–World War II international trading regime created by the General Agreement on Tariffs and Trade (GATT) began with a relatively weak DSP. A primitive form of court did exist under GATT: a panel of trade experts could hear allegations of trade violations and then issue a report of their findings. Under relevant GATT texts, such reports could then be used as a basis for retaliation if the guilty country did not change its behavior. However, the ability of the DSP to effectively adjudicate trade disputes under GATT was limited in two major ways. First, the creation of a panel required unanimous consent of the GATT member states. This limit on the jurisdiction of the DSP to hear cases meant that any country belonging to the GATT, including the country accused of having committed the trade violation, could veto the formation of a panel. Second, even if a panel was formed and wrote a report of its findings, unanimous consent by GATT member states was required for the report to be adopted as binding law. This requirement served as a constraint on the enforcement of panel rulings since states that were found guilty of trading violations could veto adoption of the

report. This in turn ensured that the DSP findings were not considered a legal basis for subsequent retaliation.

The creation of the WTO in 1994 by the Marrakesh Agreement provided two key innovations. First, it transformed the DSP into a legal institution with strong powers of both jurisdiction and enforcement. Under WTO law, if a country alleges that a trading violation has occurred and the two states are unable to negotiate a settlement within a specified time period, a panel is formed to hear the case unless all WTO member states block the formation of the panel. This negative-consensus voting rule ensures that there is automatic jurisdiction of the panel to hear the case unless the country that originally filed the trade complaint is willing to abandon its claim. Similarly, once the panel has written its findings for a particular case, the panel report constitutes a binding ruling unless all WTO member states block the adoption of the report. So there is an automatic legal basis for enforcement of the panel's ruling (via retaliation by the injured state) unless the legal victor decides to abandon its claim. The second key innovation of the Marrakesh Agreement was to significantly increase the precision of international trade law. For example, treaty texts eliminated vast lacunae in trading obligations created by ''grandfather provisions'' from the 1940s as well as created clearer rules regarding the adjudication process.[31]

From our theoretical perspective, the design and development of the GATT/WTO DSP illustrate two important points. First, when increasing the jurisdiction and enforcement of the DSP, member states *simultaneously* increased the precision of the law on which the DSP ruled. Strengthening the powers of the court alone—without increasing the precision of trade law—would likely have exacerbated the impact of asymmetric information over the quality of legal claims. Precision of the law had to be increased to ameliorate the deleterious effects of strong courts identified above. Second, the evolution of the GATT/WTO DSP was accomplished via major—rather than incremental—changes to the DSP's legal texts. Since the initial GATT DSP was very weak, our results suggest that strengthening the powers of the court via incremental changes would have increased the likelihood of conflict between states. Drastic steps were necessary to make the institution stronger without exacerbating international conflict.

Our analysis suggests several possible avenues for future research. First, as discussed above, our analysis begins with the assumption that states are involved in a conflict. As such, we do not examine the implications of strengthening a court on the likelihood of initial compliance with a set of legal rules. Analyzing the impact of courts on initial compliance decisions by states might provide insight into the claims of Downs, Rocke, and Barsoom (1996) regarding the relationship between the depth of cooperation and the design of international institutions. Second, strengthening international courts may affect the willingness of states to join and remain members of these institutions. Our intuition is that as a court grows stronger with regard to enforcement and jurisdiction, it will become more costly for states to remain members of the cooperative regime when unavoidable defection occurs. This will decrease the stability of the court (Rosendorff 2005). However, this remains an important area for future research. Finally, a large empirical literature exists on the impact of state-level

characteristics—such as regime type, military capabilities, and legal capacity—on the likelihood that states will engage in adjudication or accede to the authority of a court (e.g., Allee and Huth 2006; Raymond 1994; Simmons 2002; Busch, Reinhardt, and Shaffer 2007). Incorporating such state-level variation might provide interesting insight into the design of international courts.

4. Conclusion

The importance of law to international dispute resolution is evident by the wide variety of international legal fora available for states involved in conflicts. International institutions that formerly took a diplomatic, negotiating track to solve conflicts are now relying more on legal, adjudicatory processes. Moreover, these institutions exhibit wide variation in their structure and use, varying from ''hard'' to ''soft,'' from the more legalistic to the more politically and diplomatically driven (Smith 2000). This article addresses the question, how does variation in the strength of a court's jurisdiction and enforcement affect strategic behavior by states involved in international disputes? More specifically, we examine the effect of a court's strength of jurisdiction and enforcement on the likelihood of pretrial settlement, litigation, and conflict.

We show three important ways that legal institutions can have a deleterious effect on international cooperation. First, increasing the court's jurisdiction has a deleterious effect on the incentive for states to reveal their private information: as the court grows stronger, less information is revealed in pretrial negotiations. Second, strong courts reduce the likelihood of pretrial settlement. Increasing the strength of the court's jurisdiction or enforcement raises the likelihood that settlement offers are rejected and costly litigation ensues. Third, strong courts lead to more brinksmanship over high-value assets, which can lead to conflict. Increasing the enforcement of court rulings unambiguously increases the probability of conflict. However, the effect of the court's strength of jurisdiction on the likelihood of conflict is more subtle. If the court is a relatively weak institution, then strengthening its jurisdiction can lead to increased conflict. In contrast, if the court is a relatively strong institution, then strengthening its jurisdiction further reduces the likelihood of conflict in equilibrium.

We have examined a court with imperfect enforcement power and uncertain jurisdiction. As recent scholarship on domestic courts demonstrates, the extreme assumption of perfect enforcement and jurisdiction rarely applies to any court (e.g., Carrubba and Zorn 2009; Staton 2004, 2006; Vanberg 2005). In that sense, this model may be more general in its scope than solely international courts. However, if international courts are more likely to have limited enforcement and jurisdiction than domestic courts, then the results here are more likely to be appropriate and relevant for international conflict adjudication. Whether they also apply to domestic courts is certainly worth further consideration but is beyond the scope of this article. Nevertheless, we have identified three important, and perhaps unintended, consequences of increased legalization: less information revelation in pretrial bargaining, less pretrial settlement, and more conflict.

In our separating equilibrium, all information about the strength of the plaintiff's case is revealed at the pretrial stage. However, the court has a role in resolving the dispute since it can make a determination as to the rightful owner of the asset. The decision of the court cannot be perfectly predicted by the disputants ex ante. In this sense, the court does reveal something that the parties to the dispute do not know: which state has a legal right to the asset. While pretrial negotiation results in common beliefs between the disputants about the expected outcome of the case should it go to court, the disputants do not know what the court will actually rule. In this sense, our approach is consistent with the view that courts have an informational role in resolving disputes.[32]

Of course, there are many reasons why states might believe that a strong court might lead to higher social welfare than a weak court. For example, stronger enforcement and jurisdiction of courts might lead to more cooperation between states, or the availability of strong legal fora may ensure that real-life outcomes more closely resemble the outcomes prescribed by the law. However, our analysis shows that any attempt to strengthen courts comes with the three costs identified above. This is because strong courts magnify the importance of asymmetric information about the quality of legal claims.

From a policy perspective, this suggests the importance of enhancing the *precision* of international law. To achieve the benefits of strong legal institutions while ameliorating the associated costs, we expect that successful attempts to strengthen the authority of international courts will be accompanied by efforts to reduce uncertainty about the quality of legal claims. In addition, our model suggests an important non-monotonic relationship between strong institutions and conflict. There are reasons to believe that states might benefit from making strong institutions—such as the European Court of Justice and the WTO DSP—even stronger to prevent conflict. However, our analysis suggests that weak institutions—such as the ICJ—should remain weak. This means that if states want for a weak court to grow strong, then they will need to implement major—rather than incremental—changes to both its powers and the precision of its legal texts.

5. Appendix

Define $V \equiv \frac{1}{v_D} + \frac{1}{v_P}$ and $\Delta_\pi = q\pi(a - c)$. For demand $\hat{s}$, define the support of $\hat{s}$ as: $\sigma(\hat{s}) \equiv \{\pi \in [0, 1] | s(\pi) = \hat{s}\}$. Then posterior beliefs are,

$$g(\pi|\hat{s}) = \frac{f(\pi)}{\int\limits_{\sigma(\hat{s})} f(\hat{\pi})d\hat{\pi}} \text{ for all } \pi \in \sigma(\hat{s}); = 0 \text{ for all } \pi \notin \sigma(\hat{s})$$

The posterior expectation of π given demand $\hat{s}$ is, $E[\pi|\hat{s}] \equiv \int\limits_0^1 \pi g(\pi|\hat{s})d\pi$. P's expected utility from rejection is, $R_P(\pi) = \{(1 - q)[pw\varepsilon + (1 - p)b] + q\pi a + q(1 - \pi)c\}v_P - qk$.

Proof of Proposition 1. (1.) Consider two settlement demands s' and s'' s.t. $s' < s''$. Suppose an equilibrium strategy profile in which $r(s') \geq r(s'')$. Consider a type $\pi' \in \sigma(s')$. He has no incentive to deviate to s'' if and only if, $r(s')R_P(\pi') + [1 - r(s')] s'v_P \geq r(s'')R_P(\pi') + [1 - r(s'')]s''v_P$. Individual rationality requires that $R_P(\pi') < s'$. So as long as $r(s'') < 1$, type π' has incentive to deviate from the equilibrium strategy profile. This is a contradiction. (2.) Consider $\pi' < \pi''$. Suppose $s(\pi') \equiv s' > s(\pi'') \equiv s''$. By definition of an equilibrium, $r(s')R_P(\pi') + [1 - r(s')]s'v_P \geq r(s'') R_P(\pi') + [1 - r(s'')]s''v_P$ and $r(s'')R_P(\pi'') + [1 - r(s'')]s''v_P \geq r(s')R_P(\pi'') + [1 - r(s')]s'v_P$. This ensures that,

$$\{r(s')R_P(\pi') + [1 - r(s')]s'v_P\} - \{r(s')R_P(\pi'') + [1 - r(s')]s'v_P\}$$
$$\geq \{r(s'')R_P(\pi') + [1 - r(s'')]s''v_P\} - \{r(s'')R_P(\pi'') + [1 - r(s'')]s''v_P\}$$
$$\Leftrightarrow [r(s') - r(s'')][R_P(\pi') - R_P(\pi'')] \geq 0.$$

Note that $R_P(\pi)$ is increasing in π, so the first part above means that the constraint can only hold if $r(s') = r(s'') = 1$. Otherwise, there is a contradiction. (3.) If $r(s(\pi)) < 1$ for all π, the third part follows directly from the first and second parts above. Suppose there exists at least one equilibrium demand s.t. $r(s(\pi)) = 1$. Choose arbitrary demands s' and s'' s.t. $r(s') < 1$ and $r(s'') = 1$. For any $\pi' \in \sigma(s')$ and $\pi'' \in \sigma(s'')$, by definition of an equilibrium, $r(s')R_P(\pi') + [1 - r(s')]s(\pi')v_P \geq R_P(\pi')$ and $R_P(\pi'') \geq r(s')R_P(\pi'') + [1 - r(s')]s(\pi')v_P$. This ensures that,

$$\{r(s')R_P(\pi') + [1 - r(s')]s(\pi')v_P\} - \{r(s')R_P(\pi'') + [1 - r(s')]s(\pi')v_P\}$$
$$\geq R_P(\pi') - R_P(\pi'')$$
$$\Leftrightarrow r(s')[R_P(\pi') - R_P(\pi'')] \geq R_P(\pi') - R_P(\pi'')$$

Since $r(s') < 1$, this holds if and only if, $R_P(\pi') - R_P(\pi'') < 0 \Leftrightarrow \pi' < \pi''$.

Proof of Proposition 2. We demonstrate existence here. Results on uniqueness and efficiency are available in the technical appendix. Note that,

$$0 \leq (1 - q)[p(1 - w)\varepsilon + (1 - p)(1 - b)]v_D + q(1 - a)v_D - qk$$
$$\Leftrightarrow k \leq \frac{1 - q}{q}[p(1 - w)\varepsilon + (1 - p)(1 - b)]v_D + (1 - a)v_D \equiv k'$$
$$\Leftrightarrow v_D \geq \frac{qk}{(1 - q)[p(1 - w)\varepsilon + (1 - p)(1 - b)] + q(1 - a)} \equiv v_D''$$

$$0 \geq (1 - q)[p(1 - w)\varepsilon + (1 - p)(1 - b)]v_D + q(1 - a)E[\pi]v_D$$
$$+ q(1 - c)(1 - E[\pi])v_D - qk$$

$$\Leftrightarrow k \geq \frac{1 - q}{q}[p(1 - w)\varepsilon + (1 - p)(1 - b)]v_D + (1 - a)E[\pi]v_D$$
$$+ (1 - c)(1 - E[\pi])v_D \equiv k''$$

$\Leftrightarrow v_D$

$$\leq \frac{qk}{(1-q)[p(1-w)\varepsilon + (1-p)(1-b)] + q(1-a)E[\pi] + q(1-c)(1-E[\pi])} \equiv v_D'$$

Case 1: $k \leq k'$. In a fully separating equilibrium, each type π sends a unique message $s(\pi)$, so after observing a demand s, player D can perfectly infer π. Universal divinity requires that (1) if D observes out-of-equilibrium demand $s' > s(\pi = 1)$, D believes $\pi = 1$; and (2) if D observes out-of-equilibrium demand $s'' < s(\pi = 0)$, D believes $\pi = 0$. D is indifferent between accepting and rejecting an offer if and only if,

$$s = (1-q)[p(1-\varepsilon + w\varepsilon) + (1-p)b] + q\pi a + q(1-\pi)c + \frac{qk}{v_D} \tag{1}$$

The defendant will strictly prefer to reject any offer larger than this value of s and accept any offer less than this value. For the plaintiff to adopt a separating strategy, it must be the case that equation (1) holds for all offers made in equilibrium. The plaintiff's expected utility from an offer s is, $EU_P(s) = r(s)R_P(\pi) + [1 - r(s)]sv_P$. This means that the optimal offer s must satisfy the following first-order condition:

$$s = (1-q)[pw\varepsilon + (1-p)b] + q\pi a + q(1-\pi)c - \frac{qk}{v_P} + \frac{1-r(s)}{r'(s)} \tag{2}$$

Since both equation (1) and equation (2) must simultaneously hold in equilibrium,

$$-r'(s)\left[\frac{qk}{v_D} + \frac{qk}{v_P} + (1-q)p(1-\varepsilon)\right] + 1 - r(s) = 0$$

So there exists a class of fully separating universally divine equilibrium strategies,

$$s^*(\pi) = (1-q)[p(1-\varepsilon + w\varepsilon) + (1-p)b] + q\pi a + q(1-\pi)c + \frac{qk}{v_D} \text{ for all } \pi \in [0,1]$$

$$r^*(s) = \begin{cases} 0 & \text{if } s < s^*(\pi = 0) \\ 1 - exp\left(-\frac{s-\theta}{\Gamma}\right) & \text{if } s \in [s^*(\pi = 0), s^*(\pi = 1)] \\ 1 & \text{if } s > s^*(\pi = 1) \end{cases}$$

where $\Gamma \equiv qkV + (1-q)p(1-\varepsilon)$ and $\theta \leq s^*(\pi = 0)$.[33] The separating demand strategy is well-defined if and only if, $s(\pi = 1) \leq 1 \Leftrightarrow k \leq k'$.

Case 2: $k'' \leq k$. In any pooling equilibrium, $s(\pi) = s^P$ for all $\pi \in [0, 1]$. So D learns nothing about π after observing s^P. D is willing to accept $s^P = 1$ if and only if,
$0 \geq (1-q)[p(1-w\varepsilon) + (1-p)(1-b)]v_D + q(1-a)E[\pi]v_D + q(1-c)(1-E[\pi])v_D - qk$
$\Leftrightarrow k'' \leq k$. Since all types of P achieve their maximum possible payoff of v_P from this strategy profile, there is never incentive for any type to deviate.

Case 3: $k \in (k', k'')$. After observing demand $s = 1$ sent by types $\pi \in [\hat{\pi}, 1]$ for $\hat{\pi} \in (0, 1)$, D is indifferent between accepting and rejecting if and only if,

$$0 = \frac{(1-q)[p(1-w)\varepsilon + (1-p)(1-b)]v_D + q(1-c)v_D - qk}{q(a-c)v_D} - \left[\frac{\int_{\hat{\pi}}^{1} \pi f(\pi)d\pi}{1 - F(\hat{\pi})}\right] \equiv \Psi$$

where $\dfrac{\partial \Psi}{\partial \hat{\pi}} = -\dfrac{\partial}{\partial \hat{\pi}}\left[\dfrac{\int_{\hat{\pi}}^{1} \pi f(\pi)d\pi}{1 - F(\hat{\pi})}\right] = \dfrac{\hat{\pi}f(\hat{\pi})[1 - F(\hat{\pi})] - f(\hat{\pi})\int_{\hat{\pi}}^{1} \pi f(\pi)d\pi}{[1 - F(\hat{\pi})]^2}$

$$= \frac{f(\hat{\pi})}{[1 - F(\hat{\pi})]^2}\int_{\hat{\pi}}^{1}(\hat{\pi} - \pi)f(\pi)d\pi < 0$$

$$\Psi(\hat{\pi} = 0) = \frac{(1-q)[p(1-w)\varepsilon + (1-p)(1-b)]v_D + q(1-c)v_D - qk}{q(a-c)v_D} - E[\pi] > 0$$

$$\Leftrightarrow (1-q)[p(1-w)\varepsilon + (1-p)(1-b)]v_D + q(1-c)v_D - qk$$

$$- E[\pi]q(a-c)v_D > 0 \Leftrightarrow k < k''$$

$$\Psi(\hat{\pi} = 1) = (1-q)[p(1-w)\varepsilon + (1-p)(1-b)]v_D + q(1-a)v_D$$
$$- qk < 0 \Leftrightarrow k' < k$$

So monotonicity of Ψ in $\hat{\pi}$ ensures that for any parameters s.t. $k \in (k', k'')$, there exists a unique value of $\hat{\pi} \in (0, 1)$ s.t. $\Psi(\hat{\pi}) = 0$. By the above, full separation for $\pi \in [0, \hat{\pi})$ requires,

$$s^*(\pi) = (1-q)[p(1 - \varepsilon + w\varepsilon) + (1-p)b] + q\pi a + q(1-\pi)c + \frac{qk}{v_D} \text{ for all } \pi \in [0, \hat{\pi}]$$

$$r^*(s) = 1 - exp\left(-\frac{s - \sigma}{\Gamma}\right) \text{ for all } s \in [s^*(0), s^*(\hat{\pi})) \text{ where } \sigma \leq s^*(\pi = 0)$$

By definition of $\hat{\pi}$ and the fact that $\hat{\pi} < \int_0^1 \pi g(\pi|s = 1)d\pi$,

$$0 = (1-q)[p(1-w)\varepsilon + (1-p)(1-b)]v_D + q(1-c)v_D - qk$$

$$- q(a-c)v_D\int_0^1 \pi g(\pi|s = 1)d\pi$$

$$< (1-q)[p(1-w)\varepsilon + (1-p)(1-b)]v_D + q(1-c)v_D - qk - q(a-c)\hat{\pi}v_D$$

$$\Leftrightarrow \hat{s} = (1-q)[p(1-\varepsilon+w\varepsilon)+(1-p)b] + q\hat{\pi}a + q(1-\hat{\pi})c + \frac{qk}{v_D} < 1$$

So there exists an interval of messages $[\hat{s}, 1)$ that are not sent in equilibrium. Universal divinity requires that conditional on observing such a message, D believes that P is of type $\hat{\pi}$. This means that $r(s) = 1$ is D's best response for $s \in (\hat{s}, 1)$ and D is indifferent when $s = \hat{s}$. Given the definition of $\hat{\pi}$, D is indifferent over the choice of $r(s = 1)$. Player $\pi \in [\hat{\pi}, 1]$ has no incentive to deviate to $s(\pi')$ for $\pi' \in [0, \hat{\pi})$ if and only if,

$$r(s=1)R_P(\pi) + [1 - r(s=1)]v_P \geq r(s(\pi'))R_P(\pi) + [1 - r(s(\pi'))]s(\pi')v_P$$

$$\Leftrightarrow R_P(\pi)[r(s=1) - r(s(\pi'))] - [1 - r(s(\pi'))]s(\pi')v_P + [1 - r(s=1)]v_P \geq 0$$

Since $r(s=1) - r(s(\pi')) > 0$ in equilibrium, the temptation to deviate is largest for $\hat{\pi}$. Continuity of the type space ensures that for this equilibrium to hold, player $\hat{\pi}$ must be indifferent between demanding $s = 1$ and playing according to the separating strategy. This is true if and only if,

$$r(s=1)R_P(\hat{\pi}) + [1 - r(s=1)]v_P$$
$$= \left[1 - exp\left(-\frac{\hat{s}-\sigma}{\Gamma}\right)\right]R_P(\hat{\pi}) + exp\left(-\frac{\hat{s}-\sigma}{\Gamma}\right)\hat{s}v_P$$

$$\Leftrightarrow r(s=1)[v_P - R_P(\hat{\pi})] = v_P - R_P(\pi) - exp\left(-\frac{\hat{s}-\sigma}{\Gamma}\right)[\hat{s}v_P - R_P(\hat{\pi})]$$

$$\Leftrightarrow r(s=1) = 1 - exp\left(-\frac{\hat{s}-\sigma}{\Gamma}\right)\frac{\hat{s}v_P - R_P(\hat{\pi})}{v_P - R_P(\hat{\pi})} \in (0,1)$$

For such values of $r(s = 1)$, no type $\pi \in [\hat{\pi}, 1]$ has incentive to deviate from $s = 1$ to another on-the-eqm-path-demand. Indifference of $\hat{\pi}$ for this value of $r(s = 1)$ ensures that no type $\pi \in [0, \hat{\pi})$ has incentive to deviate to $s = 1$.

Proof of Proposition 3. Suppose $k \in (k', k'')$. Then there exists a value $\hat{\pi} \in (0, 1)$ such that $\Psi(\hat{\pi}) = 0$. By the implicit function theorem,

$$\frac{\partial \hat{\pi}}{\partial q} = -\frac{\frac{\partial \Psi}{\partial q}}{\frac{\partial \Psi}{\partial \hat{\pi}}} \quad \text{where} \quad \frac{\partial \Psi}{\partial \hat{\pi}} = \frac{f(\hat{\pi})}{[1-F(\hat{\pi})]^2}\int_{\hat{\pi}}^{1}(\hat{\pi}-\pi)f(\pi)d\pi < 0$$

$$\frac{\partial \Psi}{\partial q} = -\left[\frac{p(1-w)\varepsilon + (1-p)(1-b)}{q^2(a-c)}\right] < 0 \Rightarrow \frac{\partial \hat{\pi}}{\partial q} < 0$$

Suppose $k = k'$. Then $\Psi(\hat{\pi} = 1) = 0$. So an increase in q yields a continuous change from the fully separating equilibrium to a semiseparating equilibrium. Suppose $k = k''$. Then $\Psi(\hat{\pi} = 0) = 0$. So an increase in q yields a continuous change from the semiseparating equilibrium to a pooling equilibrium.

Proof of Proposition 4.

$$\frac{\partial r^*(s^*(\pi))}{\partial a} = \frac{\partial}{\partial a}\left\{1 - exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\right\} = exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\left[\frac{q\pi}{\Gamma}\right]$$

$$\Rightarrow \frac{\partial r^*(s^*(\pi))}{\partial a} \geq 0 \Rightarrow \frac{\partial T^*}{\partial a} > 0 \text{ and } \frac{\partial W^*}{\partial a} > 0$$

$$\frac{\partial r^*(s^*(\pi))}{\partial c} = \frac{\partial}{\partial c}\left\{1 - exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\right\} = exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\left[\frac{-q\pi}{\Gamma}\right]$$

$$\Rightarrow \frac{\partial r^*(s^*(\pi))}{\partial c} \leq 0 \Rightarrow \frac{\partial T^*}{\partial c} < 0 \text{ and } \frac{\partial W^*}{\partial c} < 0$$

Proof of Corollary 1. Follows directly from proposition 4.
Proof of Proposition 5.

$$\frac{\partial r^*(s^*(\pi))}{\partial q} = exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\frac{\pi(a-c)}{\Gamma^2}p(1-\varepsilon) \Rightarrow \frac{\partial r^*(s^*(\pi))}{\partial q} \geq 0 \Rightarrow \frac{\partial T^*}{\partial q} > 0$$

$$\frac{\partial W^*}{\partial q} = p\left[(1-q)\int_0^1 \frac{\partial r^*(s^*(\pi))}{\partial q}f(\pi)d\pi - \int_0^1 r^*(s^*(\pi))f(\pi)d\pi\right]$$

$$= p\left[\int_0^1 exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\left(\frac{\pi(a-c)p(1-q)(1-\varepsilon)+\Gamma^2}{\Gamma^2}\right)f(\pi)d\pi - 1\right]$$

$$\Rightarrow \frac{\partial^2 W^*}{\partial q^2} = p\int_0^1 \frac{\partial}{\partial q}\left[exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\left(\frac{\pi(a-c)p(1-q)(1-\varepsilon)}{\Gamma^2}+1\right)\right]f(\pi)d(\pi)$$

Consider the integrand, $I(\pi, q) \equiv exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\left(\frac{\pi(a-c)p(1-q)(1-\varepsilon)}{\Gamma^2}+1\right)$

$$\frac{\partial I(\pi, q)}{\partial q} = exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\frac{\pi(a-c)}{\Gamma^4}[-p(1-\varepsilon)]\{\pi(a-c)p(1-q)(1-\varepsilon)+2\Gamma kV\} \leq 0$$

So $\frac{\partial^2 W^*}{\partial q^2} < 0$ for all $q \in [0,1]$. Consider the first derivative at $q = 0$ and $q = 1$,

$$\frac{\partial W^*}{\partial q}(q=0) = p \int_0^1 \frac{\pi(a-c)}{p(1-\varepsilon)} f(\pi) d\pi = \frac{a-c}{1-\varepsilon} \int_0^1 \pi f(\pi) d\pi > 0$$

$$\frac{\partial W^*}{\partial q}(q=1) = p \left[\int_0^1 exp\left(-\frac{\pi(a-c)}{kV}\right) f(\pi) d\pi - 1 \right]$$

Consider, $\quad I(\pi) \equiv exp\left(-\frac{\pi(a-c)}{kV}\right) \quad$ where $\quad I(\pi=0) = exp(0) = 1 \quad$ and $\quad \frac{\partial I(\pi)}{\partial \pi} = exp\left(-\frac{\pi(a-c)}{kV}\right)\left(\frac{-(a-c)}{kV}\right) < 0$. So $\int_0^1 I(\pi) f(\pi) d\pi < 1$, which implies $\frac{\partial W^*}{\partial q}(q=1) < 0$.

Proof of Proposition 6.

$$\frac{\partial s^*(\pi)}{\partial k} = \frac{q}{v_D} > 0$$

$$\frac{\partial r^*(s^*(\pi))}{\partial k} = \frac{\partial}{\partial k}\left\{ 1 - exp\left(-\frac{\Delta_\pi}{\Gamma}\right) \right\} = -exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\left[\frac{\Delta_\pi}{\Gamma^2}\right]\frac{\partial \Gamma}{\partial k}$$

$$\Rightarrow \frac{\partial r^*(s^*(\pi))}{\partial k} \leq 0 \Rightarrow \frac{\partial T^*}{\partial k} < 0 \text{ and } \frac{\partial W^*}{\partial k} < 0$$

$$\frac{\partial s^*(\pi)}{\partial \varepsilon} = (1-q)p(w-1) < 0$$

$$\frac{\partial r^*(s^*(\pi))}{\partial \varepsilon} = exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\frac{\partial}{\partial \varepsilon}\left[\frac{\Delta_\pi}{\Gamma}\right] = exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\left(\frac{\Delta_\pi}{\Gamma^2}\right)p(1-q)$$

$$\Rightarrow \frac{\partial r^*(s^*(\pi))}{\partial \varepsilon} \geq 0 \Rightarrow \frac{\partial T^*}{\partial \varepsilon} > 0 \text{ and } \frac{\partial W^*}{\partial \varepsilon} > 0$$

Proof of Proposition 7.

$$\frac{\partial r^*(s^*(\pi))}{\partial p} = exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\frac{\partial}{\partial p}\left[\frac{\Delta_\pi}{\Gamma}\right] = exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\left(-\frac{\Delta_\pi(1-q)(1-\varepsilon)}{\Gamma^2}\right)$$

$$\Rightarrow \frac{\partial r^*(s^*(\pi))}{\partial p} \leq 0 \Rightarrow \frac{\partial T^*}{\partial p} < 0$$

$$\frac{\partial W^*}{\partial p} = (1-q)\left[1 - \int_0^1 exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\left(\frac{\Delta_\pi p(1-q)(1-\varepsilon) + \Gamma^2}{\Gamma^2}\right) f(\pi) d\pi \right]$$

Consider the integrand, $I(\pi) \equiv exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\left(\frac{\Delta_\pi p(1-q)(1-\varepsilon)+\Gamma^2}{\Gamma^2}\right)$, where $I(\pi = 0) = exp(0) = 1$ and $\frac{\partial I(\pi)}{\partial \pi} = exp\left(-\frac{\Delta_\pi}{\Gamma}\right)\frac{q(a-c)}{\Gamma^2}\left[-\frac{\Delta_\pi p(1-q)(1-\varepsilon)}{\Gamma} - qkV\right] < 0$. So $\int_0^1 I(\pi)f(\pi)\,d\pi < 1$, which implies $\frac{\partial W^*}{\partial p} > 0$.

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Notes

1. Also see Carrubba and Zorn (2009).
2. Different institutions vary in the names that they give to the legal disputants. To avoid confusion, we use the common terms *plaintiff* and *defendant*.
3. We thank Erik Voeten for highlighting this point in personal communications.
4. For a more extensive introduction, see Brownlie (1998, 479-510, 713-25).
5. The United States recognized International Court of Justice jurisdiction over multilateral agreements only if all other affected members of the agreement were also impleaded. The United States argued that jurisdiction did not exist for this dispute because the court excluded El Salvador from the proceedings. See *Case Concerning Military and Paramilitary Activities in and Against Nicaragua*, Order of October 4, 1984.
6. *South West Africa Case,* Judgment of July 18, 1966, 51.
7. Also see Pomerance (1999) and Falk (1967).
8. *Case Concerning the Northern Cameroons,* Judgment of December 2, 1963, 37-38.

9. http://www.wto.int/english/thewto_e/whatis_e/tif_e/disp3_e.htm (accessed November 19, 2009).
10. For example, *Case Concerning the Gabcikovo-Nagymaros Project,* Judgment of September 25, 1997, par. 155(2)(B).
11. See UN press release, AFR/1397, June 12, 2006, at www.un.org/News/Press/docs/2006/afr1397.doc.htm.
12. While the general legal principle of good faith requires states to abide by their international legal commitments, decisions of international tribunals have a controversial status as enforceable under domestic law. For example, see the recent 2008 U.S. Supreme Court ruling on *Medellin v. Texas.*
13. *Nuclear Test Case*, Order of June, 22 1973.
14. Of course, domestic constituencies may also generate the initial pressure for noncompliance. See Johns and Rosendorff (2009), Rosendorff and Milner (2001), and Rosendorff (2005).
15. This simplification does not limit the scope of our analysis since our reduced-form bargaining outcomes follow from Johns (2009), in which the enforcement process is explicitly modeled as an endogenous process.
16. Article 3, par. 8. of the Dispute Settlement Understanding declares that when a case is filed and an infringement is established, this is "considered prima facie to constitute a case of nullification or impairment. This means that there is normally a presumption that a breach of the rules has an adverse impact on other Members parties to that covered agreement, and in such cases, it shall be up to the Member against whom the complaint has been brought to rebut the charge." This suggests that the defendant is at an informational disadvantage.
17. See *Application of the Convention on the Prevention and Punishment of the Crime of Genocide*, Judgment of February 26, 2007, and Simons (2007).
18. Our results do not rely on the plaintiff having better information than the defendant. However, the results do rely on the assumption that the player with better information is the player who makes the initial settlement demand.
19. Note that we are implicitly assuming that the plaintiff is always willing to initiate litigation when her settlement is rejected, so the cost of trial is sufficiently low that the threat of litigation is always credible. As such, we set aside issues stemming from the legal capacity of states (Busch, Reinhardt, and Shaffer 2009).
20. For example, Johns (2009) shows that if the Nash bargaining solution is adopted and losers of litigation are punished for engaging in conflict over the asset, it follows that $a > b > c$. Alternatively, we might assume that postadjudicative bargaining has a protocol of take-it-or-leave-it offers or alternating offers where the winner of a court ruling on the merits is given the role of first proposer and either player is equally likely to be chosen as the first proposer when the case is dismissed by the court. This results in $a > b > c$.
21. Monotonicity of s(π) need not hold if $r(s) = 1$ because the defendant is indifferent over all offers for which $r(s) = 1$.
22. As characterized in the appendix, these are the values of k and v_D such that when the defendant knows that she is matched against the highest possible type of the plaintiff, the defendant will reject a demand of $s = 1$.
23. As characterized in the appendix, these are the values of k and v_D such that the defendant would rather give up the asset completely than take the gamble of trial and conflict if there is no information revelation.

24. As such, this equilibrium is classically and Pareto efficient, given strategic behavior and the equilibrium concept.
25. This means that the choice of the rejection function is conservative from a theoretical perspective because it favors efficacy of the court as an institution. The likelihood of trial and conflict will be even higher under all other forms of the rejection function.
26. This result always holds weakly. The result holds strictly when $k \in [k,' k'']$.
27. To see this, note that $s * (\pi) - s * (\pi = 0) = q\pi(a - c)$ for all π.
28. Comparative statics results for w and b are available in the technical appendix.
29. Also see Bilder (1987).
30. However, even when law is precise, the disputants may still possess asymmetric information about the *facts* of a given case. Precise law can lessen but not eliminate asymmetric information about the quality of legal claims, and therefore greater delegation and obligation always have the potential of reducing the probability of pretrial settlements and increasing the probability of costly litigation and conflict.
31. See Jackson (1997, 35-49).
32. That is, the court is not necessarily a ''coin-flipping'' randomization device. The court can be interpreted as knowing the ''true'' validity of legal claims and making rulings accordingly.
33. The choice of $\theta = s * (\pi = 0)$ on efficiency grounds is justified in the technical appendix.

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