

Courts, Compliance, and the Quest for Legitimacy in International Law

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International courts are an integral component of the international legal system. These courts have been proliferating over time and increasingly working to ensure state compliance with the rules of the international regulatory regimes they join. However, these courts face a fundamental challenge: while they can rule against governments in violation of the regime's rules, they cannot enforce those decisions. Working from the first principle that the regulatory regime is designed to help resolve collective action problems among the signees, this Article proposes a formal model of international court influence that helps to explain the extent and limits of international court influence on national government behavior.

INTRODUCTION

International courts are an integral component of the international legal system. The most inclusive trade regime in the world, the World Trade Organization (WTO), includes a standing tribunal with a well-defined adjudication procedure. The most significant international economic agreement in the world, the European Union, has a highly integrated supranational legal system with the Court of Justice of the European Union (CJEU) at its head. And international laws on human rights and war crimes are adjudicated by a number of standing courts, including the International Criminal Court (ICC), the European Court of Human Rights (ECtHR), and the International Court of Justice (ICJ).

These dispute resolution mechanisms provide more than simply a legal veneer. The WTO Dispute Settlement Body (WTO DSB) regularly hears complaints on possible violations of the General Agreement on Tariffs and Trade (GATT¹) rules. Between 1990 and 1993, under the GATT system, on

* Emory University and Washington University in St. Louis, respectively.

1 General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194 [hereinafter GATT].

average 15.8 complaints were brought each year before the panel. Since the inauguration of the WTO, the average rose to 33.8 for 1995-2000.² Similarly, the CJEU went from hearing tens of cases a year in the early 1960s, to hundreds a year since the early 1990s. The courts responsible for adjudicating laws on human rights are generally not as active, but the ECtHR, for example, still heard an average of twenty cases a year through the 2000s.³

Across these chambers we observe governments being brought to court and ruled against for violations of international law.⁴ For example, between 1959 and 2000 the CJEU heard nearly one thousand cases in which member state governments were defendants, and the Court ruled against the governments in approximately eighty percent of the cases.⁵ Similarly, all of the cases the WTO DSB hears are against governments and, of those cases, the adjudicating body has ruled against the defendant in approximately ninety percent.⁶ And finally, the ECtHR has found at least one violation of the European Convention on Human Rights⁷ by the respondent state in over eighty-three percent of the cases it has heard since 1959.⁸

The question of what happens once the courts rule is another matter. Enforcement of court rulings is not necessarily a significant issue for some types of human rights courts. For example, while getting potential offenders to the court can be a real challenge, once they are in custody compliance is

2 Daniel Drache, Amy Arnott & Yunxiang Guan, *WTO Dispute Settlement Report Card* 83 (Robarts Ctr. Research Papers, Research Paper, 2000), available at http://www.yorku.ca/drache/academic/papers/wto_dispute_report.pdf.

3 *Grand Chamber Judgments, Advisory Opinions and Decisions (1999-)*, EUROPEAN COURT OF HUMAN RIGHTS, <http://www.echr.coe.int/NR/rdonlyres/8E30641D-6122-439C-9E08-3C712C02A379/0/ListarrGC.pdf> (last updated June 22, 2012).

4 See Abram Chayes & Antonia Handler Chayes, *On Compliance*, 47 INT'L ORG. 175 (1993); see also George W. Downs, David M. Rocke & Peter N. Barsoom, *Is the Good News About Compliance Good News About Cooperation?*, 50 INT'L ORG. 379 (1996).

5 Cliff Carrubba & Matthew Gabel, *European Court of Justice Data*, EMORY UNIV., DEP. OF POL. SCI., http://polisci.emory.edu/home/people/carrubba_ecjd/index.html (last visited Aug. 14, 2012).

6 Bruce Wilson, *Compliance by WTO Members with Adverse WTO Dispute Settlement Rulings: The Record to Date*, 10 J. INT'L ECON. L. 397 (2007).

7 Convention for the Protection of Human Rights and Fundamental Freedoms, Nov. 4, 1950, 213 U.N.T.S. 221.

8 EUROPEAN COURT OF HUMAN RIGHTS, PUBLIC RELATIONS, OVERVIEW 1959-2011 (2012), available at http://www.echr.coe.int/NR/rdonlyres/E58E405A-71CF-4863-91EE-779C34FD18B2/0/APERCU_19592011_EN.pdf.

not voluntary.⁹ The same cannot be said for courts like the WTO DSB, the CJEU, and numerous other arbitrating bodies.¹⁰ For example, if the WTO DSB declares that a U.S. subsidy to domestic steel producers is illegal under GATT, the U.S. government must choose whether to drop the subsidy and may choose not to do so. The DSB only has the power to authorize retaliatory sanctions; they cannot coerce the United States to drop the subsidy. Similarly, if the CJEU declares invalid a German restriction on the sale of Cassis de Dijon in German liquor stores, ultimately the German government must allow Cassis de Dijon to be sold for the ruling to have effect. Under some conditions the CJEU may be able to demand that Germany pay a fine if Germany refuses to comply,¹¹ but even then the German government must voluntarily choose to pay that fine. And, more generally, even if the government respects the decision of the court in some particular case, it does not mean the decision has a broader policy impact; the government could continue with its preexisting practices outside of that particular application of the law.¹²

Does lack of enforcement powers actually undermine a court's influence? Some scholars believe that it does not. They argue that we observe high levels of compliance with international courts, and where we do see noncompliance, it is frequently a result of misunderstandings and errors in implementation, not bad faith.¹³ These skeptics generally use reported figures on rates of compliance with court decisions to substantiate their claim. While an obvious metric to turn to, compliance with court decisions alone cannot resolve the question. For example, these reported figures do not account for situations in which governments would not have complied and, in anticipation of that, are not brought to court in the first place. This is one potentially significant example of the kinds of selection bias that can infect this type of observational data.

9 Emily Hencken Ritter & Scott Wolford, *Bargaining and the Effectiveness of International Criminal Regimes*, 24 J. THEORETICAL POL. 149 (2012).

10 See James McCall Smith, *The Politics of Dispute Settlement Design: Explaining Legalism in Regional Trade Pacts*, 54 INT'L ORG. 156, 156 (2000).

11 See Consolidated Version of the Treaty Establishing the European Community art. 171(2), Aug. 31, 1992, 1992 O.J. (C 224) 61 (allowing the Commission since 1993 to bring a challenge under Article 171 of the Treaty for a failure to comply with a previous infringement decision. If the Court found against the government it could then issue a ruling declaring that the government owed a fine for its failure to comply.).

12 Of course, more petitions could be filed before the CJEU if preexisting practices continued, but governments could continue to only modify behavior in the instant case.

13 See, e.g., Chayes & Chayes, *supra* note 4.

To illustrate this point, consider the following instance of noncompliance by the French government with E.U. rules regarding its assistance to the firm Alstom. In September 2003, France made a decision to bail out Alstom, a large French company that employed approximately 30,000 French citizens at the time. France made this decision without consulting the European Commission, despite the fact that E.U. law requires them to do so.¹⁴ While the Commission quickly responded by declaring that the French plan would constitute illegal state aid under E.U. competition law,¹⁵ ultimately it did approve a version of the bailout on May 25, 2004. This agreement came after the first tranche of support from the French state, support based on the plan deemed illegal by the Commission, was coming to a close.¹⁶

While France and the Commission might argue that the final version of the bailout was not “illegal,” clearly France had pursued and executed state aid that the Commission could have prosecuted before the Court. One plausible explanation is that the Commission avoided court because of concerns with the enforcement of its rulings. The same French government that had been willing to blatantly ignore its E.U. obligations at the outset might have ignored an adverse ruling from the Court. Not surprisingly, then, there was no court case and no opportunity for noncompliance with the ruling to appear in the record.

This illustrates the more general difficulty in interpreting the frequency of observed compliance with rulings as an indicator of the power of a court and the performance of a regulatory regime. To see this, suppose a government violates its obligations ninety out of one hundred times. In only five of those ninety cases, the government would be willing to obey an adverse ruling if one arises. If potential plaintiffs are good at anticipating cases they are sure to lose, maybe they filter out eighty of the eighty-five cases in which governments would not comply. Of the remaining ten cases that go to court, the court astutely anticipates four of the remaining five cases in which governments would not comply. As a result, we observe the government being ruled against in six out of ten cases, and the government complies with five of these six rulings. This record appears to show a powerful court, one that alters government behavior and ensures compliance; the government lost most of its cases and obeyed most of the adverse rulings. However, these are very deceiving statistics considering the government got away with evading the regulatory regime’s

14 *All for One and One for Alstom*, THE ECONOMIST, Aug. 8, 2003, <http://www.economist.com/node/1973533?zid=298&ah=0bc99f9da8f185b2964b6cef412227>.

15 *France Warned on ‘Illegal’ Alstom Aid*, BBC NEWS (Aug. 5, 2003), <http://news.bbc.co.uk/2/hi/business/3126357.stm>.

16 *France, EU Agree on the Fate of Alstom*, TAIPEI TIMES, May 27, 2004, <http://www.taipeitimes.com/News/worldbiz/archives/2004/05/27/2003157180>.

rules the vast majority of the time (and, if taken to court in all instances, we would have expected rampant noncompliance)! Obviously, interpreting the outcome of court rulings and the level of compliance with those rulings requires an appreciation of the entire process, an issue to which we return in our theoretical model.

If compliance data does not resolve concerns with government noncompliance, we are left with an important question: how can a court be effective when governments can simply evade or ignore their rulings. And what influence can a court facing such a challenge actually wield? In this Article we propose a formal model designed to answer these questions.

The answers to these questions are central to our understanding of a court's quest for legitimacy. The concepts of compliance and legitimacy can be intimately linked, particularly for courts.¹⁷ Lacking a direct means of compelling government compliance, a court's authority, and the effectiveness of its rulings, depends on its legitimacy. In the international context, the more "legitimate" the court in the eyes of citizens and governments, the more member-state governments may feel constrained to comply with an adverse ruling. Moreover, governments complying with adverse court rulings can increase the public's perception of the court's legitimacy. These two effects can create a virtuous circle in which legitimacy enhances compliance and compliance enhances legitimacy.

This Article sets aside the notion that legitimacy can enhance compliance. It also does not directly study the link between compliance and legitimacy.¹⁸ Instead it focuses on how compliance can arise and thereby generate public legitimacy in the first place. That is, it focuses on the first principles regarding the source of legitimacy-enhancing compliance. Interestingly, we find that this legitimacy-enhancing behavior arises because the court, in a very specific sense, is imbued with meaningful legitimacy simply by existing.

The rest of the Article proceeds as follows. Part I discusses the first principles upon which our argument is built. In this Part, we argue that a proper answer to these questions must be predicated upon a "complete theory" — one which both (a) is built upon micro-foundations that rationalize why governments would form an agreement and create a court to rule over compliance; and (b) models the entire legal process, from the generation of a possible dispute

17 James L. Gibson & Gregory A. Caldeira, *The Legitimacy of Transnational Legal Institutions: Compliance, Support, and the European Court of Justice*, 39 AM. J. POL. SCI. 459 (1995).

18 For an example of this work, see Clifford J. Carrubba, *A Model of the Endogenous Development of Judicial Institutions in Federal and International Systems*, 71 J. POL. 55 (2009).

over international law to the government's ultimate decision to comply with an adverse ruling or not. Part II defines a model that fulfills the goals laid out in part I. Part III presents the analysis of the model. We demonstrate that international courts can facilitate compliance with international law within limits. The court can facilitate compliance with the international agreement in ways consistent with the governments' *ex ante* goals when they created the agreement, but it cannot go beyond that. The court fulfills this function by acting as a fire alarm and information clearinghouse for the regulatory regime. We also discuss some implications of our theory, including how government amicus briefs filed in a case can be used to test predictions that distinguish our theoretical model from alternative arguments. The last Part concludes.

I. FEATURES OF A COMPLETE THEORY

To answer the questions raised in this Article, a theory ideally should be able to address the following points. Most obviously, it must provide some motivation for voluntary compliance. If a government has no incentive to comply with an adverse decision, why would a government ever obey the ruling? Scholars have identified two mechanisms that provide a rational basis for voluntary compliance: sanctions for noncompliance by other governments participating in the regulatory regime, as well as sanctions for noncompliance by a government's domestic public.¹⁹

Second, the theory should explain activation of the legal system. Most obviously potential complainants must have a rational reason for bringing a case. Challenging a government in court requires use of scarce time and resources, whether the challenger is a government, a firm, or an individual. Because of this fact, the potential challenger must believe that she has a legitimate chance of not only winning the case, but also having the defendant comply once the verdict is in.²⁰ But activation of the system then is not just about the decision of a potential complainant to bring a case; it is also about the decision of the potential defendant to engage in potentially punishable activity in the first place. Thus, the theory must account for the decision of a government to comply with the regulatory regime's rules before a case even arises as well as the complainant's decision to bring a challenge.

Third, the theory should motivate why governments would create a court in the first place. As James McCall Smith demonstrates, the legalization of

19 *See id.*; *see also* XINYUAN DAI, INTERNATIONAL INSTITUTIONS AND NATIONAL POLICIES 10 (2007).

20 We set aside litigation strategies that are certain of defeat, yet are pursued for some public relations or other benefit just from having engaged in the battle.

dispute resolution varies considerably across international agreements.²¹ They vary from the least legalistic treaties without independent third-party review, to the most legalistic treaties with standing tribunals that can be petitioned by a wide array of litigants and that issue binding decisions with direct effect in national law.²² This pattern suggests that legalistic adjudication mechanisms are designed with various purposes in mind. Motivating the decision to create a legalistic system for adjudication is useful since it may provide both a rationale for court influence as well as a rationale for the limits of what a court can do.

Finally, a complete theory should motivate why the participating governments wanted to create a common regulatory regime in the first place. It takes time and resources to create a common regulatory regime. Unless governments are irrational, that means they must have some vested interest in it. And, unless that interest is purely instrumental,²³ this means the governments expect at least some compliance with the regulatory regime's rules. Consequently, if we do not account for what governments are hoping to get out of joining the regulatory regime, we cannot say much about what courts can do above and beyond the goals these governments have set for themselves.

In sum, a complete theory of court influence in an international regulatory regime should start by specifying what the regulatory regime is intended to accomplish and finish by deriving what happens once a decision is rendered. Note that this approach also helps us get a more complete and accurate picture of how to interpret observed compliance with rulings. Furthermore, it also offers some insight into how compliance-generated legitimacy arises. By modeling the dispute generation process we can learn why litigants view the court as having enough legitimacy to be used. And by modeling the dispute resolution process we can learn how legitimacy-enhancing compliance comes about. In the next Part we formally present our theory.

21 Smith, *supra* note 10.

22 In some systems, like the European Union, not all of this legalization was designed into the treaties initially, *see, e.g.*, KAREN J. ALTER, *ESTABLISHING THE SUPREMACY OF EUROPEAN LAW: THE MAKING OF AN INTERNATIONAL RULE OF LAW IN EUROPE* (2001); Karen J. Alter, *Who Are the "Masters of the Treaty"?: European Governments and the European Court of Justice*, 52 *INT'L ORG.* 121 (1998).

23 For example, a government might sign a human rights treaty to appease some audience with no real intention of complying with the treaty.

II. A THEORY OF INTERNATIONAL AGREEMENTS AND THEIR SYSTEMS OF ADJUDICATION

In this Part we present a model based upon a previously published model in the *Journal of Politics*.²⁴ This model is but one of a growing formal literature that studies how international adjudicating bodies can affect government behavior under international agreements. This literature is characterized by models that vary in two important ways. First, some are general models of international organizations with courts,²⁵ while others examine institutional details associated with specific agreements.

Examples of the latter include models designed to demonstrate how the escape clauses and authorized retaliatory sanctions associated with the WTO Dispute Settlement Procedure (WTO DSP) support international cooperation.²⁶ These models are very useful for studying how the institutional design of the WTO influences the ability of states to sustain cooperation, but it makes the models less useful for international adjudicatory regimes that do not have escape clauses or authorized retaliatory sanctions. Second, these models vary in the degree to which they endogenize each step of the dispute resolution process. For example, some models assume disputes are exogenously generated;²⁷ that is, they assume a government deviated from the regime's rules and a plaintiff brought that government to court. Others assume the court's decision to hear a case and its judgment are determined probabilistically, in contrast to allowing the court to be a strategic actor that chooses how to rule on the dispute.²⁸ These assumptions are perfectly appropriate for the questions those models are designed to answer. However, here we want a model that is both not tailored to a specific regime, and that explicitly endogenizes each step of

24 Clifford J. Carrubba, *Courts and Compliance in International Regulatory Regimes*, 67 J. POL. 669 (2005).

25 See, e.g., LESLIE JOHNS, *STRENGTHENING INTERNATIONAL COURTS: THE HIDDEN COSTS OF LEGALIZATION* (2011); Michael Gilligan, Leslie Johns & B. Peter Rosendorff, *Strengthening International Courts and the Early Settlement of Disputes*, 54 J. CONFLICT RESOL. 5 (2010); Leslie Johns, *Courts as Coordinators: Endogenous Enforcement and Jurisdiction in International Adjudication*, 56 J. CONFLICT RESOL. 257 (2012); Giovanni Maggi, *The Role of Multilateral Institutions in International Trade Cooperation*, 89 AM. ECON. REV. 190 (1999).

26 See, e.g., B. Peter Rosendorff, *Stability and Rigidity: Politics and Design of the WTO's Dispute Settlement Procedure*, 99 AM. POL. SCI. REV. 389 (2005); B. Peter Rosendorff & Helen V. Milner, *The Optimal Design of International Trade Institutions: Uncertainty and Escape*, 55 INT'L ORG. 829 (2001).

27 JOHNS, *supra* note 25.

28 Gilligan, Johns & Rosendorff, *supra* note 25; Johns, *supra* note 25.

the adjudication process. The model presented by Clifford J. Carrubba in the *Journal of Politics* meets these criteria and thus we build from that model.²⁹

A. Why Create a Common Regulatory Regime?

Substantively, we observe common regulatory regimes designed to address a variety of policy goals. Sometimes governments are trying to liberalize interstate trade (e.g., WTO/GATT³⁰ and the North American Free Trade Agreement (NAFTA³¹)). Sometimes governments want to regulate environmental standards (e.g., Kyoto Protocol³²). Sometimes governments are trying to promote human rights (e.g., The European Court of Human Rights). And sometimes governments are doing all that and more (e.g., the European Union).

But the policy goals do not, in themselves, provide a full motivation for creating a common regulatory regime to realize those goals. If governments have a straightforward preference for these policies, then investing the time and effort to create a common regime is a waste. They should all just unilaterally lower barriers to trade, improve the environment, increase human rights protections, etc. Thus, there must be something more driving their desire to create/join these regimes. Here we focus on one powerful, and widely applicable, motivation: the need for *collective action* over some set of policies among a set of states.

Policy challenges that require collective action can be relatively straightforward. For example, consider the rules of the road. If cars do not coordinate on these rules, there will be many accidents. Governments specify traffic rules to resolve these kinds of challenges. Everyone drives on the right side of the road, red means stop, etc. As long as everyone follows a common convention, all is well. These types of challenges are generally referred to as *coordination problems*. However, international regulatory regimes frequently present collective action challenges that go well beyond simple coordination.

To see how, consider the example of trade, one of the most common international policy domains.³³ According to traditional trade theory, economies benefit from unilaterally lowering domestic barriers to imports. However,

29 Carrubba, *supra* note 24.

30 Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 1867 U.N.T.S. 154 (1994); GATT, *supra* note 1.

31 North American Free Trade Agreement, U.S.-Can.-Mex., Dec. 17, 1992, 32 I.L.M. 289, 605 (1993).

32 Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 2303 U.N.T.S. 162.

33 This logic also applies to some international environmental and social policies.

despite that, the world has been replete with barriers to trade. The reason is generally thought to be political. When governments lower barriers to trade, two things occur: the previously protected domestic industries must adjust to the new levels of competition, and consumers pay less for the newly liberalized commodities. Stated in standard terminology, lowering trade barriers delivers concentrated costs to the import-competing firms and diffuse benefits to consumers.³⁴ Thus, while consumers have a modest incentive to reward politicians for the lower prices, import-competing firms have a very strong incentive to punish those same. And, as a result, governments almost never unilaterally lower trade barriers.

While lowering one's own trade barriers is generally politically costly, a trading partner lowering its barrier to trade is an unalloyed good for one's economy. By lowering its trading barriers, the partner country makes exporting into its market easier. As a result, domestic exporters increase sales and the economy grows, all with no discernible political costs.

The desire to have trading partners lower their trade barriers, in conjunction with the reticence to lower one's own barriers, creates fertile ground for a political bargain between the potential partners over trade liberalization. If the agreement is properly sculpted, a set of governments can realize mutual benefits from liberalizing trade as long as the benefits one derives from the partner lowering its barriers to trade exceed the domestic costs of lowering one's own barriers. But realizing these benefits is not simple, as each individual government faces a temptation to maintain/reconstruct trade barriers. Thus, governments face a form of a prisoners' dilemma. Every state wants a mutually beneficial lowering of barriers to trade; however, each state is better off if the others all lower their barriers while it maintains its own barriers.

This tension is modeled in Figure 1 below. If both states lower their trade barriers, they each gain the benefit (*b*) of the other state lowering its trade barriers, while paying the cost (*c*) of lowering its own. If only one state lowers its trade barriers, that state pays a cost and the other state gains the benefit. And if neither lowers their barriers, neither gains a benefit or pays a cost.³⁵

34 Importing firms would have a concentrated interest in unilateral reduction in trade barriers by their government. A national setting where such firms have the upper hand politically over import-competing firms would not generate the collective action problem we describe regarding an international regulatory regime. But such a national political economy would also be unlikely to pursue or be invited to join an international regulatory agreement, since the government would unilaterally eliminate barriers to imports.

35 For an explicit derivation of the prisoner's dilemma tension from a simple model of a state economy, see Rosendorff, *supra* note 26; Rosendorff & Milner, *supra* note 26.

Figure 1: The Trade Game

		State 2	
		Lower Trade Barrier	Not Lower Barrier
State 1	Lower Trade Barrier	b-c, b-c	-c, b
	Not Lower Barrier	b, -c	0, 0

Raising environmental standards frequently has the same political dynamic as trying to lower trade barriers. Consider two of the biggest environmental concerns, air and water quality. Imposing more stringent domestic requirements unilaterally is problematic for at least two reasons. First, the targeted industry is going to lose profitability, and thereby international competitiveness. This is true whether governments raise standards by imposing more stringent production requirements on domestic firms, require the goods they produce to meet higher environmental standards, impose targeted taxes (e.g., a gas tax to increase the cost of driving and thereby decrease car use), or any other equivalent policy instrument. Thus, while the population enjoys diffuse benefits from higher environmental quality, affected industries once again experience concentrated costs.

The second problem is that other states can free-ride. For example, suppose France imposes laws requiring cleaner energy in order to reduce air pollution. This change is necessarily going to affect air quality in neighboring European states as well. Thus, raising environmental standards can be a challenge, both because doing so unilaterally can decrease domestic firm competitiveness in the international market, and because pollution policies in one state affect pollution in neighboring states. A set of states may benefit from a mutual increase in environmental standards, but each has an individual incentive to defect and free-ride off of the others. Simply re-label the moves in Figure 1 as “increase environmental standards” or “not” and the same payoffs apply.

Finally, a variety of social policies also fit this characterization. For example, in the European Union, member states grant workers from other member states a variety of rights and access to social provisions as if they are domestic workers. This policy decreases transaction costs for cross-border workers, which in turn leads to a more efficient mapping of potential employees to jobs within the European Union. As a result, all states benefit from the stronger economy. This is the equivalent of free trade benefits, just in labor. However, as with trade, the benefits of participating in this regime are diffuse, while the costs are concentrated; everyone benefits somewhat from a faster growing economy, but providers of the social provisions have

to cover the costs (be they governments or firms) and domestic workers and unions do not like competing with foreign labor. Thus, governments might like to agree to mutual provision of these social policies, but they have little incentive to do so unilaterally. Further, each state benefits the most if all other states provide social provisions to out-of-state workers, while limiting their own provision. As a result, these policies also follow the logic of a prisoner's dilemma outlined in Figure 1.

So, why create a common regulatory regime in these sorts of policy areas? The short answer is to help resolve the underlying strategic dilemma presented in Figure 1. All of the participant states perceive a benefit from mutual adherence with the proposed regulatory regime's rules. However, they have no incentive to unilaterally follow the rules. They would rather everyone else follow the rules while going their own way. Forming a common regulatory regime is one way to try to overcome this challenge. Each state is tying its commitment to the regime's rules to the other participating states' commitments. This move helps states to build and cue off of *reputations*. Specifically, if a government has a history of complying with the regime's rules (i.e., a good reputation), the other governments can trust the state and continue to reward it by continuing to comply as well. If a government has a history of flouting the rules (i.e., a bad reputation), the other governments can retaliate by not complying themselves. The ability to tie the threat of future retaliation, or *punishment*, to bad behavior today, is what allows these regimes to help sustain cooperation. The long-run cost of being punished tomorrow can dissuade governments from pursuing the short-run benefit of defecting today. The idea that in an infinitely-repeated setting — i.e., states must continue complying with the regime's rules over time for them to be effective — these strategies can sustain cooperation, is well established in the literature.³⁶

B. Why Create a Court?

The difficulty of monitoring compliance in these regulatory regimes can vary greatly. For some regimes, the task is comparatively simple. The regime has relatively few rules and compliance with those rules is easy to observe. For example, suppose Germany agreed to place no higher than a ten percent tariff on wine imports and France agreed to do the same with regard to beer. Each government has a relatively simple task. The German government only has to

36 See, e.g., JOHNS, *supra* note 25; Carrubba, *supra* note 24; Carrubba, *supra* note 18; Maggi, *supra* note 25; Rosendorff, *supra* note 26; Rosendorff & Milner, *supra* note 26. *But see* Downs, Rocke & Barsoom, *supra* note 4.

watch that France does not overtax beer imports and the French government only has to watch that Germany does not overtax wine imports.

However, regimes often have more general and more complicated policy goals. For example, suppose the goal of France and Germany in the example above is not just to constrain each other's tariff rates, *per se*. Rather, it is to ensure access for French wine in the German market and German beer in the French market. Monitoring compliance with this sort of goal is far from simple. For example, Germany could meet the ten percent tariff rule but introduce a health standard or other non-tariff barrier to wine imports, which provides an equivalent effect to the tariff.

Similarly, expanding membership in a regime complicates monitoring compliance. Returning to the example, suppose Germany and France are part of a fifteen-member organization in which the agreement is to regulate any barriers to trade (non-tariff as well as tariff) across the entire economy. This scenario presents the participating governments with an extremely challenging task. The agreement includes many more goods, violations over non-tariff barriers are harder to monitor, and retaliatory sanctions for violations have to be coordinated among a variety of governments.

Monitoring is not the only challenge for these agreements. Once an agreement is signed, changes in domestic political, social and economic contexts faced by a government will cause the incentive to defect from the regime's rules to vary over time. Foreign supply could suddenly spike, thereby flooding the domestic market, driving down the price of the good and increasing pressure from import competitors to raise barriers. The political leadership could change, providing the previously protected industry with greater clout than under the leadership that signed the agreement. Or, a government could be nearing a hotly contested election where voters in a vulnerable industry are pivotal, thereby increasing the government's incentive to deviate from the rules and protect the industry.

Whatever the cause, this variability in the costs of compliance can undermine the regulatory regime. First, recall that cooperation is sustainable as long as the long-run benefits from cooperation exceed the short-run costs of complying oneself. However, the more variable the costs, the more likely a government will face a situation where the short-run cost of compliance is simply too severe and it will defect, even knowing that doing so is going to lead to punishment at a minimum and the end of cooperation entirely in the worst-case scenario. So, some states will have at least temporary incentives to renege on the agreement, and standard punishment strategies involving future interactions will not be sufficient to deter such defections. If so, governments may prefer rules that allow exceptions for defections due to temporary domestic crises.

Second, whether a government faces a domestic crisis that warrants such a defection is not common knowledge. Only the government itself knows the true costs it faces. Put differently, its payoff from defection is private information. This asymmetry of information is important, since it complicates efforts by the other governments in attempting to provide flexibility in forgoing punishment for a government under temporary duress. In particular, if the other governments were to simply assume all defections were due to difficult domestic conditions, all governments would have an incentive to defect always, and cooperation would soon break down.

A court is an institution that can help manage these two challenges by acting as a *fire-alarm* mechanism and an *information clearinghouse*. To understand these roles, start by considering a very simple agreement. Two states have signed a treaty, and they have agreed that only national governments have the right to challenge each other over possible violations of the regime's rules. In this case, a court would serve little purpose. Anything the governments could do in front of a court, they could do just as efficiently through state-to-state meetings.

Now consider the same regime, but with multiple members. In this scenario, enforcement of the regime's rules relies upon not only the actions and reactions of the states directly involved in the conflict, but also the other regime participants. Each time there is a conflict these states have to decide whom to back, if anyone. A court acts as a *fire alarm* by being an institutionalized venue in which a state brings a challenge, making both the challenged state and the third-party states aware of the conflict. A court acts as an *information clearinghouse* by being a venue in which these states then argue over the challenge. The challenger makes its case, the defendant responds, and the third-party states support (e.g., file briefs in favor of) whichever positions they wish. Furthermore, the states are free to engage in focused, back-channel negotiations in which information perhaps not material to the trial, but material to the participating states, gets conveyed. While all of this could be done without a court in theory, the denser the regulatory regime and the more states participating in the regime, the more having an institutionalized venue for dealing with conflicts over application of the regulatory regime's rules makes sense.

Finally, modify this regime by allowing other actors — perhaps private individuals, firms, special interests, or subnational governments — to have standing in front of the court. Now the court provides a service as a fire-alarm mechanism well beyond simply being an institutionalized venue for inter-state disputes. Governments no longer have to invest time and resources identifying possible violations and bringing challenges. Rather, they can now rely upon affected parties to bring their own challenges.

In sum, we start with the first principles that a set of governments is joining a common regulatory regime in order to overcome a collective action problem that suffers from severe enforcement challenges. The governments would like to sustain cooperation with the regime's rules, but every government has an individual incentive to defect. What is more, the incentive to defect from the regime will vary over time. Sometimes it will be small enough that cooperation is sustainable, sometimes it is going to be large enough that a government would rather avoid the short-run cost, even at the cost of undermining future cooperation. The governments have created a court that can help them overcome these challenges by acting as a fire alarm and information clearinghouse; the court provides a venue both for aggrieved parties to raise challenges over possible instances of noncompliance and for interested parties to learn more about the possible violation. Next we present a model based upon these first principles and derive what they would imply about international judicial influence in this context.

C. The Formal Model

The following model of a dispute generation and resolution process captures all of the necessary dynamics for this study. Assume $N \geq 2$ governments are participating in a common regulatory regime. By joining the common regulatory regime, the governments have agreed to abide by a set of policies for the foreseeable future. As such, the agreement is modeled as an infinite (indefinite) horizon game consisting of an infinite (indefinite) number of rounds, or periods, of play. Each period starts with each government drawing its own cost of compliance c_p , from some continuous distribution of costs bounded between zero and some maximum \bar{c} . Assume $0 < b < \bar{c}$ (recall b is the benefit from another state complying). As explained above, a government's cost is not common knowledge; that is, only the government drawing the cost knows for sure the political and economic costs of compliance it faces. This informational asymmetry captures the fact that political pressures are going to be better understood by those experiencing them than those trying to draw inferences from afar.

1. *The Dispute Generation Process*

Once costs are drawn, each government decides whether to comply, formally notated as a decision X , in which $X = \{\text{comply}, \text{defect}\}$. Complying ensures that at least one other government receives a benefit b ,³⁷ and the complying

37 This assumption ensures that at least one member of the regime benefits from compliance.

government pays its cost c_i . Each of the other $N-2$ states may also be impacted by the government's decision to comply or not. Compliance can yield a benefit (b), a cost ($-c < 0$), or have no effect at all (0). Formally, a third-party government's payoff is noted as β_j , where $\beta_j = \{b, -c, 0\}$, with probability $Pr[\beta = b]$, $Pr[\beta = -c]$, or $Pr[\beta = 0]$. If a government does not comply all other governments get a payoff of zero.

These payoffs allow for the possibility that compliance at times may be undesirably costly to the participant states. To see how, first consider a simple two-state version of the model in which each government receives a benefit with certainty if the other government complies. Figure 2, a reproduction of the trade game in Figure 1 with variable costs, captures this scenario. If both governments have low costs (i.e., $c_i \in [0, b)$), the game in Figure 2 is the standard prisoner's dilemma. Compliance with the regime's rules is mutually beneficial; each side is better off with both sides complying than with neither side complying. However, if both governments have high costs (i.e., $c_i \in [0, \bar{c}]$), the game in Figure 2 is no longer a prisoners' dilemma. Now compliance is mutually costly, because each side is worse off with both sides complying than with neither side complying ($b - c_i < 0$). Thus, in this game governments would like to ensure compliance with the regulatory regime's rules when the costs of compliance are sufficiently low, but not when they are too high.³⁸ While maintaining compliance even over high costs may be possible, it is *undesirable*, at least from the perspective of the governments.

Of course, the costs of compliance can vary independently for the two governments. Sometimes cooperation will be net beneficial to each government, sometimes cooperation will be net costly to each government, and sometimes they will split. As such, we will refer to cooperation by a government in any given round of play as being mutually beneficial whenever that government draws a cost such that cooperation, given that the other government cooperates, is net beneficial to that government (i.e., $c_i \in [0, b)$). We will refer to cooperation by a government in any given round of play as being mutually costly whenever that government draws a cost such that cooperation, given the other government cooperates, is net costly for that state (i.e., $c_i \in [b, \bar{c}]$). We describe these strategies as mutually beneficial or mutually costly because, if followed, in expectation these strategies leave each government better off if everyone cooperates whenever governments find cooperation net beneficial, whereas in expectation each government is worse off if everyone cooperates whenever governments find cooperation net costly. Note that the asymmetry in preferences

38 Technically, low costs have to arise frequently enough, relative to the extent to which governments discount the future, for mutual compliance over low costs to be beneficial. This condition is accounted for in the technical appendix.

is a subtle, but important distinction. We are defining a state's cooperation as mutually beneficial in a period even if cooperation for the other state is net costly (e.g., $b-c_1 > 0$, while $b-c_2 < 0$).

Figure 2: The Trade Game with Variable Costs

		State 2	
		Lower Trade Barrier	Not Lower Barrier
State 1	Lower Trade Barrier	$b-c_i, b-c_i$	$-c_i, b$
	Not Lower Barrier	$b, -c_i$	$0, 0$

Now generalize the game to the N government version. The only change is that compliance is mutually beneficial if and only if the total cost of compliance for a government is less than the total benefits, or when $nb - mc - c_i > 0$ where n governments gain a benefit from compliance and m other governments pay a cost if the government complies. In other words, when the total costs of compliance for all governments participating in the agreement are less than the total benefits cooperation is mutually beneficial, otherwise it is mutually costly.

If a government defects from the regime's rules, any party with standing can file a challenge. Standing can be as narrow as with the WTO in which only participant governments are allowed to bring actions, or as broad as with the European Union in which even private individuals can file challenges. To leave the model as general as possible, we simply assume that for each violation there exists some actor who is hurt by that violation and who can bring a challenge if she wishes. Formally, litigants are modeled as one-shot players.³⁹ The litigant's choice set is to bring a case or not, $L = \{litigate, -litigate\}$. Bringing a challenge incurs a cost, k_p , because doing so involves a nontrivial amount of time and resources, even for a government. The litigant receives j_i if the court rules in its favor and the government accepts the ruling. The litigant receives zero otherwise.

2. *The Dispute Resolution Process*

If a challenge is filed the case occurs in three phases. First, third-party governments are free to file briefs on behalf of the petitioner or defendant.

³⁹ Nothing substantively important would change if we modeled them as repeat players. Because governments, individual bureaucrats, and private litigants (where relevant) change over time, we felt it was more natural to model them as one-shot players.

Formally, we notate a third-party government's decision to file a brief as $O \in \{\text{support, oppose, not file}\}$. Filing briefs costs some modest amount of effort, $\varepsilon > 0$. All parties to the case, including the justices, observe the filing of these briefs. Second, the defendant government decides how much effort to exert in its defense, $e_{n,m} \geq 0$, where a defendant government's effort can depend upon the number of states who file briefs in support of each of the litigants. Unlike the briefs, the defendant's effort is not common knowledge (i.e., all actors observe the briefs, but not the defendant's effort). While some of the effort of defending oneself occurs in the courtroom, a nontrivial amount can entail behind-the-scenes negotiations among governments. To capture this asymmetry, the governments, but not the court, observe the amount of effort exerted during the trial.

Finally, the court issues a ruling. The ruling consists of a disposition and a judgment. The disposition is denoted as $R = \{\text{for gov, } \neg\text{gov}\}$, where $R = \text{for gov}$ if the court supports the government and $R = \neg\text{gov}$ if the court supports the petitioner. If the court rules for the defendant, there is no judgment, no further action is taken, and the next period begins. If the court rules for the petitioner, the court issues a judgment, $j_i = j + c_i$, where $j \geq 0$. This judgment is the price the court declares the government must pay to come back into compliance. For simplicity, the judgment is treated as a direct transfer of utility from the defendant to the plaintiff.

We define the court's preferences such that they at least occasionally diverge from those of the member governments. We do this because one of the central questions we want to explore is to what degree the court can influence outcomes in this generic regulatory regime by producing outcomes that reflect the court's, but not the governments', preference. This approach is standard to principal-agent models in which the principal(s) (the governments) create or hire an agent (the court), to help the principal(s) achieve some goal. However, the principal(s) cannot ensure that the preferences of the agent perfectly match its preferences. Sometimes the agent is going to want outcomes that differ.

The court's goals could differ from the governments' in one of two ways. The court could prefer wider or narrower application of the regulatory regime's rules than the governments want. If the court wants narrower application, it sometimes does not want compliance when the governments do. If the court wants wider application, the opposite is true. While it is straightforward to allow for either or both differences in tastes, here we focus on the scenario in which the court wants wider application. This is done for two reasons. First, scholars generally believe these courts have an institutionally based incentive to want wider application of the law.⁴⁰ This wider application may

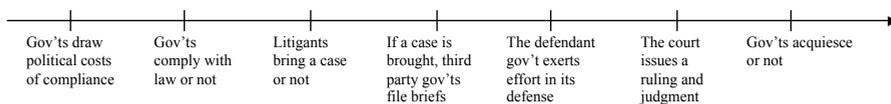
40 Geoffrey Garrett, R. Daniel Kelemen & Heiner Schulz, *The European Court of*

help enhance their prestige, legitimacy, and/or, most concretely, jurisdictional domain. Second, all of the interesting dynamics in the game relate to how the court handles cases in which governments do not want the regime's rules followed. Allowing the court to prefer at least occasional under-application of the law makes the model more complex, but provides no useful additional empirical leverage.

To capture this divergence in preferences, we assume the court wants to maximize compliance with its rulings. More specifically, each time the court rules against a defendant government and that government acquiesces, the court gains a payoff of I . This payoff reflects the court's preference for broad application of the rules. Furthermore, consistent with existing research, also assume that the court suffers some cost, k_c , for having a decision ignored by a defendant government. Most commonly this cost is thought of as a "legitimacy cost."⁴¹ If a decision is ignored it undermines the court's credibility with the public in a way that undermines its potential future influence.⁴² This payoff structure incentivizes the court to rule against a government any time it is sufficiently confident that the government will acquiesce, not just when governments find cooperation mutually beneficial. Finally, each time the court rules for a defendant government the court's payoff is zero.⁴³

Finally, the defendant must choose whether to comply with the ruling or not ($A = \{acquiesce, defy\}$). Once the defendant has made this decision, the next period begins. As is standard in repeated games, we assume a government gains more from another government complying with the regime's rules today than it does if the other government complies with the regime's rules tomorrow. As such, payoffs are discounted by $\delta \in (0, 1)$ in each period.

Figure 3: Sequence of Moves



Justice, National Governments, and Legal Integration in the European Union, 52 INT'L ORG. 149, 155 (1998) ("The ECJ has a clear institutional interest in extending the scope of Community law and its authority to interpret it").

41 See, e.g., Carrubba, *supra* note 18; see also Garrett, Kelemen & Schulz, *supra* note 40 (conducting an empirical analysis of the strategic interactions between the CJEU and E.U. member governments).

42 For a formal model that derives such a cost, see Carrubba, *supra* note 18.

43 As long as the payoff for not ruling against the government is lower than the payoff from ruling against the government, the model captures the dynamic we wish to capture. Zero is chosen for analytic convenience.

III. ANALYSIS

So what should we expect to see happen? When should governments defect, when should they be taken to court, when will the court rule against them, and how will they respond? As discussed previously, the answers to these questions critically depend upon how governments react to transgressions of the regime's rules (either its laws or its court's rulings). Only if a government anticipates getting sanctioned for noncompliance can cooperation be sustained. Thus, to answer these questions we present the equilibrium in two parts. The first part consists of the enforcement, or punishment path, strategies, i.e., what actions by one government will cause the other government to retaliate and what form that retaliation will take. The second part analyzes actors' behavior in equilibrium.⁴⁴

A. Enforcement Strategies

A government's enforcement strategy consists of two components: what triggers punishment and how punishment is meted out. First consider what should trigger punishment. Unlike the standard prisoners' dilemma, compliance in this model is not always mutually beneficial; it is only mutually beneficial when governments consider the total costs of compliance less than the total benefits (i.e., when $nb - mc - c_i > 0$). As a result, governments ideally would like to employ a punishment strategy that ensures compliance whenever it is mutually beneficial and not when it is mutually costly. However, the governments do not know the net impact of compliance *ex ante*. As a result, when noncompliance is observed, the other governments cannot discern whether the noncompliance is due to high domestic costs or just exploitative behavior. Ideally, they want to punish the latter but not the former. But they lack sufficient information to distinguish between the two settings. This informational constraint leaves the governments with a couple of second-best alternatives.

One option is to simply punish any observed defection from the regime's rules. The advantage of this strategy is its coverage; there is no risk that a government is going to get away with noncompliance when compliance would be mutually beneficial. The downside is that the governments are going to also end up either enforcing mutually costly cooperation or engaging in Pareto-inferior punishments.

44 As with any infinite horizon game, an infinite set of solutions exists. We are interested in identifying plausible solutions to the game, *see* DAVID M. KREPS, *A COURSE IN MICROECONOMIC THEORY* 507 (1990). We therefore focus on a set of strategies the governments, who designed the regime in the first place, would choose to play.

The second option is to condition punishment on the litigation process. That is, the governments can wait to see if a challenge is brought by a plaintiff and, if it is, observe any third-party briefs and the amount of effort the defecting government spends trying to justify its digression before deciding whether to punish. The advantage of this strategy is that the non-defecting governments can target threats of retaliation more effectively. At a minimum, the governments will know how third-party governments feel about the case. In the best case (which will be true in equilibrium), the governments will also learn whether the defendant's costs make compliance mutually costly for the states. The disadvantage is if a defecting government is not taken to court, it can get away with defections when compliance would have been mutually beneficial.

Because each of these strategies has tradeoffs, which one is preferable *ex ante* depends upon a variety of factors.⁴⁵ Here, the key point is that a government only has an incentive to invest in creating a court if it intends to condition its punishment strategy upon the activation of the judicial system. Thus, we focus on the second option. In particular, punishment is triggered if and only if a government is brought to court, the government does not invest enough effort in defending itself to convince the other governments that compliance is mutually costly, the government is ruled against, and it does not comply with the ruling.⁴⁶

Punishment itself is standard to the typical prisoners' dilemma. For some number of periods, call it t , other governments do not comply while the government being punished does. If for some reason the government being punished does not comply during this phase, punishment continues until the punishee does comply for t periods in a row. Once the punishment is completed, the governments return to cooperative behavior.⁴⁷

In sum, governments are free to behave as they wish unless they are caught defecting when compliance is perceived to be mutually beneficial. Then they are expected to obey an adverse court ruling. If they do, the transgression is forgiven and the governments continue with their normal behavior. If they do not, the government must cooperate in its punishment for t periods before returning to cooperation.

45 These tradeoffs are discussed in more detail in Carrubba, *supra* note 24.

46 Note that a punishment strategy conditioned upon activation of the adjudicatory process only works if litigants have an incentive to bring cases. Since litigants only want to bring cases if they are going to win at least some of the time, governments have to lose and pay the judgment at least some of the time. In equilibrium this behavior only arises if punishment is triggered by refusal to obey an adverse ruling.

47 Formally, this strategy is a t -period, renegotiation-proof punishment.

B. Predicting the Generation and Resolution of Disputes Before the Court

Having addressed the punishment strategies, we can now describe how the governments, litigants, and a court behave in equilibrium. If a case is brought, third-party governments file briefs on behalf of the litigants they support. The defendant government then decides how much effort to exert in its defense. If compliance is mutually beneficial the government does not exert measurable effort. If compliance is mutually costly it does. The court, upon observing the briefs, rules against the government only if the likelihood of being obeyed is high enough, and issues a judgment that is paid if the other governments are willing to sanction noncompliance (i.e., if the other governments believe compliance is mutually beneficial). Finally, the defendant government obeys the decision only if it did not exert enough effort to persuade the other governments to not sanction it for ignoring the ruling.

A formal statement of this equilibrium is reserved for the Appendix. Below we provide the logic behind this equilibrium in a series of intuitively presented propositions. The propositions are presented in chronological order for ease of exposition.

Proposition 1: Governments defect from the regulatory regime's rules if and only if the cost of compliance is sufficiently large ($c_i > c_i^*$).

In deciding whether to defect, each government makes a strategic calculation. If they comply, they are paying their cost of compliance with certainty. If they defect, they are taking a gamble that has three possible outcomes. If it is not brought to court, the government successfully shirks its obligations. From that government's perspective, this is the best possible outcome. If the government is brought to court, but gets sufficient support (or lack of opposition) from the third-party briefs, it can be better off as well. While it will have to exert some effort in defending itself, the cost of exerting that effort is never more than the initial cost of compliance. Thus, while the government would prefer to have not been brought to court, it is still at least weakly better off than if it had initially complied. Finally, if the government is brought to court and third-party governments are not supportive enough of the defendant government in their briefs, it is going to obey an adverse judgment. If ruled against, the defecting government is strictly worse off than if it had simply complied in the first place. Thus, a government only defects if the risk is worth it — i.e., the initial cost of compliance is sufficiently large.

Proposition 2: A litigant brings a case if the cost of bringing the case is not too high ($k_l > k_l^*$).

Bringing a case is a risky gamble. The litigant only wins the case and thereby gains some benefit if the defendant government does not get enough third-party support. Since bringing a case is costly, the litigant only does so if its cost is not too large.

Proposition 3: A third-party government files an amicus brief against (for) a defendant government if it would benefit (pay a cost) from the defendant government obeying an adverse court ruling.

Filing a brief is costly, even if only minimally. Thus, third-party governments are only going to file briefs if there is some potential benefit from doing so. A government that files a brief on behalf of one of the litigants strictly increases the chances the court will rule in favor of that litigant. Thus, governments who benefit from (are hurt by) the government obeying an adverse ruling file against (for) the defendant government, and governments that do not care who wins do not file.

Proposition 4: A defendant government exerts enough effort to persuade other governments not to punish it for ignoring a court decision if the cost of compliance with the regulatory regime's rules is sufficiently large ($e_{n,m}^* = Pr[k_c \leq k_c^* | n, m](j^* + n^*b - m^*c)$).

Once briefs are filed, the government knows how much effort it must exert to convince the other governments not to sanction it for ignoring an adverse decision. Specifically, it must convince them that, net of the briefs filed, its cost of compliance is large enough such that compliance is mutually costly. Exerting this amount of effort is only worthwhile if, net of the briefs, compliance is mutually costly. Governments with a lower cost prefer to risk having to comply with an adverse ruling, and governments with higher costs of compliance are strictly better off ensuring that they will not have to comply.

Proposition 5: The court rules against a government if and only if the cost of having its ruling ignored is not too severe ($k_c \leq k_c^*$). The court issues judgments that maximize the probability of the government obeying the ruling ($j^* \in (0, CV - CV_p - Nb)$).

Each time a case arises, the court must decide whether to rule against the government or not. If the court does not rule against the government there is no risk of paying a cost for being ignored (k_c), but there is also no chance of bringing the government back into compliance with the regime's rules. Thus, the court rules against a government if the probability of being obeyed

is large enough relative to the cost of being ignored. The more briefs filed against the defendant government and the fewer in support, the more likely the government will obey an adverse ruling, and therefore the more likely the court is to rule against the government.

Proposition 6: Governments obey adverse rulings if and only if they have not exerted enough effort to persuade the other governments to permit them to ignore the court ruling, and the judgment the court imposes is not “too large.”

If a defendant government exerts enough effort to convince the other governments to let it off the hook, there is no incentive to obey an adverse ruling. Thus, a government is only going to obey an adverse ruling if it has not exerted such effort. As long as the court does not impose a judgment so costly that being punished is actually better for the government, the government then will obey that ruling. Thus, a government is only going to obey an adverse ruling if it anticipates being sanctioned for ignoring the decision and the judgment is not costlier than the threatened sanction.

In sum, our model involves the following sequence of moves: governments defect when the cost of compliance is sufficiently large and litigants bring cases when the cost of doing so is not too large. If a case is brought, third-party governments file briefs for the litigant they support, and the defendant government exerts enough effort in its defense to forestall possible sanctions when compliance is mutually costly. The court then rules. It rules against the government when the probability that the defendant will comply is sufficiently large and the court’s cost of being ignored is not too large. The court is careful to ensure that judgments have a chance of being paid and governments obey adverse court rulings if they will be sanctioned for ignoring them.

C. Implications

Most obviously, the model demonstrates the limits of judicial influence. By construction, the court would like to enforce the regime’s rules. Governments, on the other hand, only want to comply selectively. Unfortunately for the court, its hands are tied. While it can rule against governments independently of the cost of compliance, a government is only going to obey the ruling if it anticipates being sanctioned by the other governments for ignoring the ruling and if the sanction associated with the ruling is not too severe. Since sanctioning only happens when compliance is mutually beneficial, the court can help governments achieve their policy goals, but cannot push its own agenda beyond that point.

Relatedly, this model demonstrates the limits of what we can learn about international cooperation from observing compliance with court decisions. As discussed previously, scholars have pointed to evidence of governments being brought to court, ruled against, and obeying the ruling as *prima facie* evidence that courts are constraining government behavior *independently of the wishes of those governments*.⁴⁸ Above, we highlighted the potential for selection bias in using this data. Our model points to an additional problem: *observational equivalence*. We should observe governments obeying court decisions if court rulings are binding in some sense (i.e., if enforcement of those decisions is not problematic). We should also observe exactly the same behavior when the court has to rely upon governments to enforce its decisions. This problem of observational equivalence holds no matter how frequently we observe governments obeying adverse rulings. Thus, we cannot easily distinguish between a court that is independently influential (perhaps due to deference to law) and one whose influence is dependent on enforcement by others.

That said, the news is not all bleak. The court is actively facilitating cooperation with the regulatory regime that might not otherwise be sustainable. Without the court (or some equivalent mechanism), governments would not be able to target their sanctions for noncompliance. Consequently, when the costs of compliance are sufficiently high, governments still would defect and the regime would break down. While the whole agreement might or might not collapse, at a minimum, participating governments would enter a costly “trade war” in which governments would be punishing each other with ongoing noncompliance.

A simpler version of this model has been used to demonstrate that under a wide range of conditions this untargeted punishment is inferior to a regime with a court.⁴⁹ In particular, a court generally, but not always, facilitates cooperation. A court is most efficacious when cooperation would otherwise be unsustainable, but it is also generally beneficial even when cooperation could be sustained without a court. The only time a court actually reduces the benefit of participating in the regulatory regime occurs when enforcement problems (i.e., the incentive to defect from the regime) are particularly small.

Finally, these results have interesting implications for our understanding of judicial legitimacy and its importance for an effective court. Our results illustrate how a court can be effective even without widespread institutional support based on its legitimacy. By the standard account, courts depend critically on legitimacy for their authority; without it, they cannot ensure

48 Downs, Rocke & Barsoom, *supra* note 4.

49 Carrubba, *supra* note 24.

voluntary compliance with their rulings.⁵⁰ Our model speaks to this issue in two ways. First, the results of our model indicate that legitimacy is not necessary for the court to enjoy compliance with its rulings. In our model, we observe government compliance with adverse rulings without any assumptions regarding the legitimacy of the court.

Second, our model illustrates how a court can develop legitimacy through its rulings. Scholars have shown that rulings that are viewed positively by the subjects of the court enhance the court's legitimacy.⁵¹ In our model, a ruling that gains voluntary compliance by a defendant government is beneficial to the members of the regulatory regime. We show that this legitimacy-enhancing compliance does arise in equilibrium. Governments violate the regime's rules, at least some of the time, when they would be willing to obey an adverse court decision regarding that violation. In the model, such violations are brought to court, and the court rules against the government at least some of the time. This results in rulings that enjoy voluntary compliance by the defendant government. Thus, a phenomenon that we think helps enhance judicial legitimacy should regularly occur in what our model would describe as a well-functioning international court.

Flipping this observation on its head, we also learn that the court is perceived to be, and operates like, a "legitimate" venue for legal disputes. Specifically, plaintiffs consider the court legitimate in the sense that it is a venue worth using to pursue legal claims. And defendants treat it as legitimate in the sense that they accept being challenged in court. Thus, the court is both legitimate within a certain definition, and engages within that capacity in legitimacy-enhancing behavior.

What is most telling about these results is that all of these implications for legitimacy hold in an environment in which we make no assumption about judicial influence, norms conferring legitimacy, or other exogenous sources of judicial power. It is an environment in which the court is a pawn of the governments that created it. It simply acts as a fire alarm for possible violations and a clearinghouse for intergovernmental information transmission. And, in this extremely circumscribed role, the court both has and can enhance legitimacy.

D. Predictions

As discussed above, if correct, this model has important implications for how and why international courts influence national government behavior. However,

50 Gibson & Caldiera, *supra* note 17.

51 *Id.*

much of the behavior predicted by the theory is observationally equivalent to behavior predicted by very different theories of international courts. Thus, a critical question is how to identify discriminating predictions that can allow us to evaluate the veracity of our argument. That said, discriminating, testable predictions do arise from the model. We describe two of them next.

Prediction 1: The court is more likely to rule against a defendant government the more amicus briefs filed against the government and the fewer amicus briefs filed in support of it.

First, our theory predicts that a court is more likely to rule against governments when it has more support from government briefs. Briefs act as a credible signal of government preferences. Thus, the more briefs filed against a government and the fewer filed in support, the less likely compliance is mutually costly, and the more likely the defendant government is to acquiesce to an adverse ruling. The more likely the court will have its ruling obeyed, the more likely the court is going to be willing to take a chance and rule against the government (i.e., for a larger range of costs of being ignored).

Prediction 2: Court rulings against governments are less likely to change government behavior, the more amicus briefs filed in support of the government and the fewer filed against it.

Second, our theory predicts that court decisions against governments are more likely to change government behavior the more support from government briefs the ruling has. Ignoring a court ruling can take many forms. Governments might disobey the ruling outright, delay implementation of the ruling long enough for it ultimately to be irrelevant, engage in behavior that appears to conform to the ruling, but effectively violates its spirit, or they might conform to the decision in the short run and then pass new laws or engage in other behavior subsequently that undermines the impact of obeying that specific ruling in the first place, for example. Whatever the mechanism, ignoring a ruling should mean that we observe no actual policy impact from the decision. The more support from government briefs the court has, the more likely the defendant is to obey an adverse ruling, and therefore the more likely real policy change will occur if the government is ruled against.

This Article is a part of a large project, in which we extensively test these predictions using approximately forty years of data on all cases decided by the CJEU between 1959 and 2000, and find both that the Court is more likely to defer to member state government preferences the stronger the third-party

government support for a particular position, and those rulings are more likely to have impact the greater the third-party government support for that decision.⁵² Thus, at least with one very important international court, we find evidence supporting this Article's nuanced understanding of the capacity of — and limitations on — international courts to institute a strong rule of law over sovereign governments in the face of severe enforcement constraints.

CONCLUSION

Most international courts face a daunting challenge. They are tasked with helping ensure that independent-minded sovereign states comply with international law. However, the court has no ability to enforce its rulings. There may be consequences to ignoring or otherwise evading an international court's edict, but ultimately national governments are free to react in whatever way they wish. What can such a court accomplish?

In this Article we examine judicial influence when an international regime is tasked with helping resolve collective action problems among the constituent states. The model is designed to be “institutionally thin,” with the goal of providing some conclusions that are generalizable across a variety of policy areas and international organizations. We derive a number of relatively nuanced inferences about international court influence. Our theory implies that these courts can and do promote higher levels of compliance with international law than would exist without them in two ways. First, they prevent otherwise unavoidable periods of systematic noncompliance with the regulatory regime's rules. Second, they help make the regime more stable overall (i.e., cooperation is more easily sustainable when the adjudication of cases serves as a “release valve” in which governments are occasionally allowed to avoid compliance). Both of these observations arise from the fact that if governments do not condition punishment on the costs and benefits of compliance, they must punish all violations for any hope of sustaining cooperation. Because the costs of compliance can be quite large, sometimes governments are going to defect even knowing they will be punished. As a result, an unconditional response will lead to periods in which that government will be punished through systematic noncompliance by the enforcing states. In our model, such periods are avoided because the judicial process helps governments condition their punishment on the costs of compliance faced by the violating government.

52 CLIFFORD J. CARRUBBA & MATTHEW GABEL, *COURTS AND COMPLIANCE IN INTERNATIONAL LAW* (forthcoming 2013).

This court influence is derived without “privileging” the court in any way. We make no assumption that governments are credibly committing to follow international law because, for example, domestic publics will mobilize and alter the government’s incentives once the agreement is signed.⁵³ Furthermore, we do not assume the court has an informational, or other strategic advantage over the member states that allows it to wield exogenous influence.⁵⁴ In fact, our argument maximally disadvantages the court relative to the governments. The court knows less than the governments do about the background political negotiations around a case. The court has no independent enforcement power. And the governments are allowed to pre-negotiate how they will respond to various court rulings before the cases even arise (i.e., the governments coordinate on a commonly agreed upon punishment strategy designed solely to serve their purposes). Yet, we still find that courts can be important, effectual players in a regulatory regime. The judicial process allows governments to inform each other about the costs of compliance faced by violators. In our model, this happens both through the efforts of the defendant and through the submissions of third-party governments.

While our theory suggests that these courts are influential, this influence is not unlimited. The courts can facilitate compliance that the governments ultimately want to see sustained over the long run. However, they cannot successfully push interpretations of international law that are inconsistent with underlying government preferences. Or, put differently, the court can only help facilitate compliance that the member state governments are ultimately willing to enforce.

These limits also have limits. In the model, government preferences cannot be affected by the actions the court takes. For example, court rulings that governments comply with ultimately could affect the social, economic, and political make-up of the domestic state. This effect, in turn, can induce governments to come to support different policies than they had previously supported. This new support, then, potentially creates opportunities for the court to apply international laws. Thus, through the operation of the international court, governmental incentives and thereby international law can organically change. Similarly, it is always possible that international actors like a court can identify new opportunities for mutually beneficial cooperation that the governments did not anticipate when they created the regime. Considering our theory in light of this dynamic process would imply that, within limits, it is perfectly possible for international courts to innovate and change the

53 BETH A. SIMMONS, *MOBILIZING FOR HUMAN RIGHTS: INTERNATIONAL LAW IN DOMESTIC POLITICS* 4 (2009).

54 *See, e.g.*, ALTER, *supra* note 22.

functioning of an international organization. Some have argued that the CJEU did exactly this with the development of the concept of mutual recognition.⁵⁵

In sum, arguing that international institutions only work at the behest of the governments that constitute them is not to imply that these institutions are powerless. Conversely, to recognize that these institutions are really doing something — that they are making rulings and changing government behavior — is not to imply that governments are somehow “constrained” to obey adverse court rulings and that these institutions are pushing forward agendas independently of what governments want from them. Rather, our model implies that international courts can be constrained and can have influence, at the same time.

Finally, our model sheds light upon sources of legitimacy. We show how governments can sow the seeds of judicial legitimacy in their choice of institutional design. Notably, the design features that are critical in our model do not provide the court with any authority, symbolic power, or institutional status. The key design features are those that allow the court to serve as a fire alarm and information clearinghouse. Those features, in conjunction with the underlying collective action problem, ensure that potential plaintiffs will want to bring cases and that defendant governments will obey (at least some) adverse decisions. Thus, the court, in its construction, is viewed as a legitimate venue in which to have legal disputes resolved. Furthermore, once a court is created, legitimacy-enhancing compliance arises. Thus, our model suggests that governments, in creating a subservient court, unavoidably lay the seeds for a possible accretion of judicial power.⁵⁶

55 Geoffrey Garrett & Barry R. Weingast, *Ideas, Interests, and Institutions: Constructing the European Community's Internal Market*, in *IDEAS AND FOREIGN POLICY: BELIEFS, INSTITUTIONS, AND POLITICAL CHANGE* 173 (Judith Goldstein & Robert O. Keohane eds., 1993).

56 For more on this point, see Carrubba *supra* note 18.

APPENDIX: THE FORMAL MODEL

A. The Equilibrium

1. On-Equilibrium Path Strategies

The Government

$$x^* = \begin{cases} \text{comply} & \text{if } c_t \leq c_t^* \\ \text{defect} & \text{otherwise} \end{cases}$$

$$a_{n,m}^* = \begin{cases} \Pr[k_v \leq k_v^*](j^* + n^*b - m^*c) & \text{if } c_t > n^*b - m^*c \\ 0 & \text{otherwise} \end{cases}$$

$$A^* = \begin{cases} \text{acquiesce} & \text{if } c_t \leq n^*b - m^*c \text{ and } j \geq CV - CV_p - c_t \\ \text{defy} & \text{otherwise} \end{cases}$$

$$O^* = \begin{cases} \text{support} & \text{if } \beta = b \\ \text{oppose} & \text{if } \beta = -c \\ \text{-file} & \text{otherwise} \end{cases}$$

The Litigant

$$L^* = \begin{cases} \text{litigate} & \text{if } k_l \leq k_l^* = E[\Pr\{c_l \leq nb - mc | c_l > c_t^*\}]j^* \\ \neg \text{litigate} & \text{otherwise} \end{cases}$$

The Court

$$R^* = \begin{cases} \text{for gov} & \text{if } k_v \leq k_v^* = \Pr\{c_l < c_t \leq n^*b - m^*c | c_l > c_t^*\} \\ \neg \text{gov} & \text{otherwise} \end{cases}$$

$$j^* \in (0, CV - CV_p - (N-1)b)$$

2. Off-Equilibrium Path Strategies

Foreigner

$$\begin{aligned} & X_{n,t+1}^* \\ & = \text{comply} \text{ if } A_{p,t} = \text{defy}, R_t = \neg \text{gov}, j_t \in (0, CV - CV_p - (N-1)b), \text{ and } a_{p,t} \leq a_{n,m}^* \end{aligned}$$

Punisher

$$X_{-j}^{*}(p_{jt})$$

$$= \text{comply if } A_{jt} = \text{defy, } R_{jt} = -gov_{jt} \in (0, CV - CV_j - (N-1)b), \text{ and } a_{jt} \leq a_{jt}^*$$

for $j = 1$ to t .

All other strategies as above.

B. Proof

Assume e_j is drawn from a distribution between zero and some upper bound, \bar{e} .⁵⁷ Assume k_j and k_e are random draws from unbounded distributions. Define $s \geq 0$. Define the number of states to be N . Define $(n-1)$ to be the number of briefs filed on behalf of the plaintiff and m to be the number of briefs filed on behalf of the defendant.

The proof is by construction. We define the continuation values assuming equilibrium play and then derive play in the stage game, demonstrating that best replies in the stage game match the assumed equilibrium play in the continuation values.

The continuation value from on-path play is:

$$(1) \quad CV = \frac{b}{1-\delta} [\Pr[e_j \leq e_j^*] (b - E[e_j | e_j \leq e_j^*]) + \Pr[k_j \leq k_j^*] (E[\Pr[k_e \leq k_e^* | n, m] \Pr[e_j^* < e_j < e_j^*] - mc) \\ E[b - \beta] < CV < mb - mc + \Pr[nb - mc] < CV < E[e_j] - \delta mb - mc < CV < N - 2\Pr[e_j < e_j^*] + \Pr[k_j < k_j^*] E[\Pr[k_e \leq k_e^*] \\ mb + \delta] < CV < mb - mc + \Pr[\beta - \delta] + \Pr[\beta] - c - c.$$

In each period each government is paired with a "partner" government with whom it must decide whether to cooperate or defect. The governments each draw a cost of compliance. The first half of the continuation value characterizes the costs and benefits to parties in a potential dispute. If $e_j \leq e_j^*$, a government complies. A complying government pays $E[e_j | e_j \leq e_j^*]$. A government partnered with a complying government receives b .

⁵⁷ This upper bound is assumed for convenience, as a government being punished cannot draw a cost that would cause them to deviate from punishment path. Relaxing this assumption would simply require defining punishment path to be a fixed number of periods of punishment rather than a fixed duration of punishment. See Carrubba, *supra* note 18, for this alternative specification.

With the expected probability $\Pr[k_t \leq k_t^*] E[\Pr[k_v \leq k_v^* | n, m] \Pr[c_t^* < c_t \leq nb - mc]]$ a government defects, is brought to court, is ruled against (conditional on the realized briefs), and complies with the judgment. A complying government pays the expected judgment $E[-j_t | c_t^* < c_t \leq nb - mc]$. A government partnered with a complying government receives b .

With the expected probability $\Pr[k_t \leq k_t^*] E[\Pr[nb - mc < c_t]]$ a government defects, is brought to court and exerts enough effort not to be punished for ignoring an adverse ruling conditional on realized briefs. The government pays the expected effort cost $E[-e_t^* | nb - mc < c_t]$. Note that the continuation value has double expectations. The inner expectations are over the realization of c_t . The outer expectation is over the realizations of n and m .

The second half of the continuation value characterizes the costs and benefits associated with being a third party to a potential dispute. Each time a government complies in expectation ($\Pr[c_t \leq c_t^*] + \Pr[k_t \leq k_t^*] E[\Pr[k_v \leq k_v^* | n, m] \Pr[c_t^* < c_t \leq nb - mc]]$) a third-party government receives a benefit b with probability $\Pr[\beta = b]b$ and pays a cost $-c$ with probability $\Pr[\beta = -c]$. Assume $\Pr[\beta = b]b + \Pr[\beta = -c](-c)$ to help ensure that cooperation is net beneficial in expectation.

Note that $CV > 0$ for $E[\Pr[nb - mc < c_t]]$ sufficiently small since under all other conditions the continuation value is positive for j sufficiently small by definition ($nb - mc \geq c_t$).

The continuation value from punishment path play is:

$$(2) \quad CV_p = \frac{\delta - \delta^2}{1 - \delta} \left(E[-c_t] + (N - 2) [\Pr[c_t \leq c_t^*] + \Pr[k_t \leq k_t^*] E[\Pr[k_v \leq k_v^* | n, m] \Pr[c_t^* < c_t \leq nb - mc]] D(\Pr[\beta = b]b + \Pr[\beta = -c](-c)) \right) + \delta^2 CV.$$

For t periods $\left(\frac{\delta - \delta^2}{1 - \delta}\right)$, the government being punished cooperates every period of her punishment ($E[-c_t]$), other governments do not cooperate with her, and she participates as a third party filing briefs in the same way as on equilibrium path ($(N - 2) [\Pr[c_t \leq c_t^*] + \Pr[k_t \leq k_t^*] E[\Pr[k_v \leq k_v^* | n, m] \Pr[c_t^* < c_t \leq nb - mc]] D(\Pr[\beta = b]b + \Pr[\beta = -c](-c))$).

1. Complying with Judgments

When $c_t < c_t \leq nb - mc$ a government obeys an adverse judgment if

$$(3) \quad -j_t + CV \geq CV_p.$$

Since $j_t = j + c_t$, equation (3) simplifies to:

$$(4) j \leq CV - CV_p - c_1.$$

To show that condition (4) can be met, we must establish that $j > 0$ can hold. We know:

$$(5) \quad CV - CV_p = \frac{\delta - \delta^2}{1 - \delta} \left(\Pr[c_1 \leq c_1^*] (b) + \Pr[k_1 \leq k_1^*] \left(E[\Pr[k_c \leq k_c^* | n, m] \Pr[c_1^* < c_1 \leq nb - mc] E[b - j_1 | c_1^* < c_1 \leq nb - mc] + \Pr[nb - mc < c_1] E[-c_1^* | nb - mc < c_1]] \right) + E[c_1 | c_1 > c_1^*] \right)$$

Equation 5 always is positive. To see why, first note that $E[c_1 | c_1 > c_1^*] = E[b - k_1^* | c_1 > c_1 \leq nb - mc] + E[b - |nb - mc \leq c_1]$. Using this fact, and reorganizing terms in (5) we get equation (6):

$$(6) \quad CV - CV_p = \frac{\delta - \delta^2}{1 - \delta} \left(\Pr[c_1 \leq c_1^*] (b) + \Pr[k_1 \leq k_1^*] \left(E[\Pr[k_c \leq k_c^* | n, m] \Pr[c_1^* < c_1 \leq nb - mc] E[b + c_1 - j_1 | c_1^* < c_1 \leq nb - mc] + \Pr[nb - mc < c_1] E[c_1 - c_1^* | nb - mc < c_1]] \right) + (1 - \Pr[k_1 \leq k_1^*]) E[\Pr[k_c \leq k_c^* | n, m] \Pr[c_1^* < c_1 \leq nb - mc]] E[c_1 | c_1 > c_1^*] \right)$$

Because j^* can be arbitrarily small and $b > 0$, $E[b + c_1 - j_1 | c_1^* < c_1 \leq nb - mc]$ can always be positive, and because $c_1^* \leq c_1$ when $nb - mc < c_1$, $E[c_1 - c_1^* | nb - mc < c_1]$ is never negative. Since all other terms are always positive, $CV - CV_p > 0$.

To complete the proof, note that the largest value of c_1 for which j must be paid in equilibrium is $c_1 = nb - mc = (N - 1)b$. Thus, for $CV - CV_p > (N - 1)b$ condition (4) can be met, which holds for δ and ϵ sufficiently large.

Also note that punishment path is sub-game perfect as long as the punisher accepts her punishment, $-c_1 + CV_p(1-\delta) \geq CV_p$. We know CV approaches infinity as δ approaches 1 (given $E[\Pr[nb - mc < c_1]]$ sufficiently small from above), while the punishment phase approaches a constant (given the endogenous cut points are independent of δ , which is shown below). Thus, for δ sufficiently large punishment path is sub-game perfect for any $c_1 \leq \bar{c}$. The punisher's play is trivially a best reply.

2. Knowing Judgments

The court wants to maximize the probability of compliance whenever it rules against a government. Thus, j must meet condition (4) for any $c_1 \leq nb - mc$. Since $\max(nb - mc) = (N - 1)b$, $j^* \in (0, CV - CV_p - (N - 1)b)^2$

3. Court Ratings

The court rules against a government if $EU_g(-gov) = \Pr\{c_1^* < c_1 \leq nb - mc | c_1 > c_1\}(1 - (1 - \Pr\{c_1^* < c_1 \leq nb - mc | c_1 > c_1\})k_0) \geq EU_g(for\ gov) = 0$ which implies $k_c \leq k_0^* = \frac{\Pr\{c_1^* < c_1 \leq nb - mc | c_1 > c_1\}}{1 - \Pr\{c_1^* < c_1 \leq nb - mc | c_1 > c_1\}}$

4. Government Effort in Defense

Effort separates government types when $\Pr\{k_c \leq k_0^* | n, m\}(-j^*) + CV \geq -a_{n,m}^* + CV \Rightarrow a_{n,m}^* \geq \Pr\{k_c \leq k_0^* | n, m\}(j^*)$. Governments with cost $c_1 \leq \frac{a_{n,m}^*}{\Pr\{k_c \leq k_0^* | n, m\}} - j^* = \frac{\Pr\{k_c \leq k_0^* | n, m\}(j^* + n^*b - m^*c)}{\Pr\{k_c \leq k_0^* | n, m\}} - j^* = n^*b - m^*c$ are worse off mimicking the separating signal and offer $a_{n,m}^* = 0$. All other governments are best off offering the minimal separating signal $a_{n,m}^* = \Pr\{k_c \leq k_0^* | n, m\}(j^* + n^*b - m^*c)$.

5. Third-Party Government Briefs

A government files a brief against a government if $EU_g(oppose | \beta = b) = \Pr\{nb - mc < c_1 \leq (n - 1)b - mc | c_1 > c_1^*\}(b) - \varepsilon \geq EU_g(-file | \beta = b) = 0 \forall n > 0, m \geq 0$. This condition holds for ε sufficiently small, $\varepsilon \leq \Pr\{nb - mc < c_1 \leq (n - 1)b - mc | c_1 > c_1^*\}b \forall n > 0, m \geq 0$. A government files a brief for a government if $EU_g(support | \beta = -c) = \Pr\{nb - mc < c_1 \leq nb - (n - 1)c | c_1 > c_1^*\}(0) - \varepsilon \geq EU_g(-file | \beta = b) = \Pr\{nb - mc < c_1 \leq nb - (n - 1)c | c_1 > c_1^*\}(-c) \forall n > 0, m \geq 0$. This condition holds for ε sufficiently small, $\varepsilon \leq \Pr\{nb - mc < c_1 \leq nb - (n - 1)c | c_1 > c_1^*\}c \forall n > 0, m \geq 0$. For $\beta = 0$, the government is strictly worse off filing for $\varepsilon > 0$.²

²⁸ Note that j could be indexed by n and m , but nothing in the solution other than the upper boundaries on j would change. Thus for parsimony j is left as an unconditional value.

²⁹ Note that there is no collective action problem for this condition, since each government has a unilateral incentive to file a brief. For larger ε collective action problems could arise, but these are substantively uninteresting and broadly empirically unlikely given the low cost of filing briefs for governments.

6. Litigants Bringing Cases

A litigant brings a case if $EU_l(\text{litigate}) = E[\Pr[k_c \leq k_c^* | n, m] \Pr[c_1^* < c_1 \leq nb - mc | c_1 > c_1^*] - k_1] \geq EU_l(\text{not litigate}) = 0$ which implies $k_1 \leq k_1^* = E[\Pr[k_c \leq k_c^* | n, m] \Pr[c_1^* < c_1 \leq nb - mc | c_1 > c_1^*]$.

7. Government Compliance with Regulations

A government complies if

$EU_g(\text{comply}) = -c_2 \geq EU_g(\text{defect}) = \Pr[k_1 \leq k_1^*] (E[\Pr[k_c \leq k_c^* | n, m] \Pr[c_1^* < c_1 \leq nb - mc | c_1 > c_1^*] - c_1] + \Pr[nb - mc < c_1 \leq nb - mc] - c_2) - c_1 + nb - mc < c_1$ and defects otherwise.

Define

$c_1^* = \Pr[k_1 \leq k_1^*] (E[\Pr[k_c \leq k_c^* | n, m] \Pr[c_1^* < c_1 \leq nb - mc | c_1 > c_1^*] - c_1] + \Pr[nb - mc < c_1 \leq nb - mc] - c_2) + c_1$

Each condition matches the assumed behavior in the on-path continuation value. Next we demonstrate that this system of equations yields a unique equilibrium.

By the Kakutani fixed point theorem we know a solution to this system of equations exists.⁴ The solution is also unique. There are three cost terms (one of which is a vector) for which we must demonstrate a unique cut-point, $k_1, k_c(n, m)$ and c_1 . To prove this claim, we establish that the difference in expected utilities between choices meets the single crossing property requirements (the difference can change signs as a function of the cost term, and it is monotonic in the cost term).

First, consider $EU_l(\text{litigate}) - EU_l(\text{not litigate})$. This difference is positive for $k_1 = 0$ and negative for k_1 sufficiently large. It is also strictly monotonically decreasing in k_1 (all endogenous probability terms are independent of the realized value of k_1).

Second, consider $EU_g(\text{comply}) - EU_g(\text{defect})$. This difference is positive for $k_c(n, m) = 0$ and negative for $k_c(n, m)$ sufficiently large. It is also strictly monotonically decreasing in $k_c(n, m)$ (all endogenous probability terms are independent of the realized value of $k_c(n, m)$).

⁴ Shizuo Kakutani, *A Generalization of Brouwer's Fixed Point Theorem*, 8 DUKE MATHEMATICAL J. 457 (1941).

Finally, consider $EU_g(\text{comply}) - EU_g(\text{defect})$. This difference is positive for $c_1 = 0$ and negative for c_1 sufficiently large (recall for δ arbitrarily approaching 1, \bar{c} can be arbitrarily large). It is also strictly monotonically decreasing in c_1 . To see why, note that the government pays c_1 with certainty if it complies and only probabilistically if it does not. Furthermore, the probability it pays c_1 is decreasing in c_1 ($\Pr[c_1^* < c_1 \leq nb - mc]$), and all other endogenous probability terms are independent of the realized value of c_1 . Thus, the difference must be strictly monotonically decreasing in c_1 .

C. Predictions

Prediction 1: A court is more likely to rule against a defendant government the more amicus briefs filed against the government and the fewer filed in support of it.

Proof: The probability with which the court rules against a defendant government is $\Pr[k_c \leq k_c^*]$ where $k_c^* = \frac{\Pr[c_1^* < c_1 \leq nb - mc | q > c_1]}{1 - \Pr[c_1^* < c_1 \leq nb - mc | q > c_1]}$. Since k_c^* is increasing in n and decreasing in m , the prediction follows.

Prediction 2: Court rulings against governments are less likely to change government behavior, the more amicus briefs filed in support of the government and the fewer filed against it.

Proof: Conditional on a ruling against the defendant government, the probability the ruling is obeyed is a function of how likely the defendant government was to draw a cost for which it would obey an adverse ruling. The probability the government acquiesces is $\Pr[c_1 \leq nb - mc | c_1 > c_1^*]$. Since this probability is increasing in n and decreasing in m , the prediction follows.

