THREE’S A CROWD
Third Parties and WTO Dispute Settlement

By MARC L. BUSCH and ERIC REINHARDT*

INTRODUCTION

SINCE its inception in 1995, the dispute settlement system of the World Trade Organization (WTO) has helped resolve hundreds of the most heated commercial tensions between governments in the global economy. In these disputes, one or more member governments—the complainant(s)—challenge a policy maintained by another member government—the defendant—that allegedly contravenes WTO treaty commitments. Yet the complainant(s) and defendant seldom negotiate alone; rather, they are typically joined by other governments that wish to monitor and influence the proceedings. These so-called third parties1 participate in about three-fifths of all cases and tend to outnumber the main parties by a sizable margin.

The participation of third parties is not trivial. On the contrary, such participation is increasingly viewed as critical to the WTO’s function. For instance, WTO members sustain their reciprocal commitments because of the principle of nondiscrimination: no member need fear that its benefits will be undercut by any subsequent deals its partners make with others on more preferential terms.2 In this view, third-party par-

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1 The WTO, like international law more generally, does not offer an explicit definition of third parties. See Christine Chinkin, Third Parties in International Law (Oxford: Clarendon, 1993), 7. Instead, it contrasts third (or “other”) parties with the complainant(s) and defendant and permits these members to “reserve rights,” a status that means they can directly participate in dispute proceedings, as we detail below. The key is not to confuse third parties with co-complainants (that is, members who join the complaint as fellow plaintiffs) or with amicus curiae participants (that is, “friend of the court” submissions by nongovernmental organizations), whose role and effects on dispute settlement outcomes are qualitatively distinct.


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ticipation is the mechanism by which members prevent disputants from making bilateral settlements that discriminate against other members and undermine the regime’s cooperative multilateral equilibrium. Accordingly, some observers insist that the role of third parties should be amplified, contending that they give WTO judicial bodies a broader perspective that results in verdicts reflecting the wider interests of the membership as a whole. Others argue that third parties complicate dispute settlement and make it more costly by adding more voices—and potentially more issues—to the case. Yet despite all the interest in third-party rights, there is little evidence that they have any influence on how WTO disputes are negotiated, let alone on how they are decided. This article empirically assesses how and why third parties “matter” in WTO dispute settlement.

Almost all studies of judicial decision making, whether focused on domestic or international courts, agree that third parties affect verdicts. For example, submissions by the solicitor general, as counsel for the executive branch, strongly influence United States federal court judgments in suits between other parties. Turning to a supranational court, Carrubba, Gabel, and Hankla likewise find that third parties shape decisions by the European Court of Justice (ECJ). Along these same lines,
both Rosas and Smith argue that WTO judicial bodies carefully weigh third-party testimony in deciding a case. The idea is that third-party participation signals the preferences of the wider membership and thus influences the strategic behavior of a WTO judicial body in rendering a legal verdict. If there is a conventional wisdom about third parties and WTO dispute settlement, this is it.

The conventional wisdom may well be right. We argue, however, that, even if it is not, third parties influence the course of negotiations before a ruling is issued. As Stasavage explains, third parties, as an “audience,” may prompt negotiators to posture, making them “more reluctant to retreat from initially stated positions,” even when a deal might otherwise be struck prior to a ruling. Similarly, as Sebenius observes, “[i]t is almost axiomatic that the more parties (and issues), the higher the costs, the longer the time, and the greater the informational requirements for negotiated settlement.” In keeping with these considerations, we hypothesize that, by increasing the bargaining costs of pretrial negotiations, third parties lower the prospects for early settlement—by which we mean a trade-liberalizing agreement negotiated prior to a WTO ruling. By extension, we further hypothesize that any influence that third parties have on rulings per se—the question taken up by the conventional wisdom—is conditional on the fact that their participation makes it more likely that a dispute will end in a ruling. This overlooked selection effect is crucial to understanding third-party influence at the WTO.

We test these hypotheses using a data set of WTO disputes initiated through 2002. Consistent with our argument, we find that when third parties join a dispute, they lower the prospects for early settlement and increase the likelihood that a case will go to a ruling, as opposed to being withdrawn. However, the effect of third parties on the direction of rulings (that is, which side “wins” a legal verdict) is less obvious than

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12 We emphasize that the term “early settlement” does not count early withdrawal of a complaint if the (protectionist) status quo ante is left in place.
the conventional wisdom suggests. Among those cases in which rulings are issued, there is no *apparent* correlation between the involvement of third parties and the direction of a verdict. Our argument explains why this is so; namely, WTO judicial bodies may condition their rulings on the political pressures that come with third-party involvement, as the conventional wisdom would have it, but we might not observe this *directly* unless we first account for the selection of cases for rulings. In conducting the first analysis that does so, we find support for the conventional wisdom. The last piece of the puzzle entails showing that third parties independently make negotiations more difficult, not merely that more difficult cases attract third parties. The article puts this concern to rest using new data on the specific trade stakes of these complaints, as well as on their legal merits and complexity; in addition, it conducts an instrumental variables-based test of endogeneity bias.

Our results have important implications for the study of international institutions. First, the article conducts one of the only large-N case-level analyses of how political pressures bear on decisions by any international court. 13 Consistent with extensive work in the American courts literature, we find that not only do third parties affect rulings, but they also drive the *selection* of cases for judgments in the first place. 14 Second, the article speaks to the systemic consequences of third-party participation in dispute settlement. Specifically, there is a clear system-wide cost—that is, reduced deterrence of future cheating—if third-party participation makes it harder for complainants to get defendants to concede in meritorious cases. However—and we wish to emphasize this point strongly—the extent to which this cost is countervailed by the systemic benefits of preventing discriminatory bilateral settlements has yet to be determined empirically. Third, our results make clear that third parties wield more influence in disputes before they are formally recognized as such, that is, in consultations. International relations scholars thus need to look beyond formal categories, such as the legal construct of third parties, to fully appreciate how institutions matter. 15

This article is divided into five sections. First, we explain how third parties participate in WTO dispute settlement. Second, we elaborate our hypotheses. Third, we set out the data and methods used to test these hypotheses. Fourth, we discuss our findings. Fifth, we conclude

13 See also Carrubba, Gabel, and Hankla (fn. 8).
by teasing out some of the more salient implications of our findings for the WTO and for theories of international relations more generally.

**THIRD PARTIES AT THE WTO**

WTO disputes begin with a request for consultations, in which the member(s) bringing the case—the complainant(s)—sets out its objections to a trade measure of another government—the defendant. These parties are then required to negotiate with the goal of reaching a mutually satisfactory solution. A large percentage of cases are successfully resolved during consultations: a majority (51 percent) of all cases end at this stage, and two-thirds of these yield full concessions by the defendant, that is, liberalization of the disputed measure.16

If consultations are unsuccessful, the complainant(s) can then request a legal judgment by an ad hoc tribunal, what the WTO calls a “panel.” There are typically two rounds of testimony, during which the complainant(s) and the defendant can still negotiate a settlement prior to a ruling. In fact, an additional 17 percent of all disputes—or one-third of the subset of cases ultimately brought to a panel—end at this stage, almost all with substantial liberalization by the defendant. Only one-third of all WTO disputes, that is, go all the way to a legal verdict.

This report may be appealed by one or both sides, yielding a ruling by the WTO’s Appellate Body (AB). At the conclusion of all litigation the report is “adopted” by the WTO and thereby given binding legal force.17

Where do third parties fit in? At first glance, the WTO’s provisions for third parties appear straightforward. Article 10 of the WTO’s Dispute Settlement Understanding (DSU) allows third-party governments to deliver written and oral testimony before panels during the first round of litigation and thus to receive the first submissions of the main parties, that is, the complainant(s) and defendant. If the case is not resolved or withdrawn, the panel issues its final report. Where do third parties fit in? At first glance, the WTO’s provisions for third parties appear straightforward. Article 10 of the WTO’s Dispute Settlement Understanding (DSU) allows third-party governments to deliver written and oral testimony before panels during the first round of litigation and thus to receive the first submissions of the main parties, that is, the complainant(s) and defendant. If the case is not resolved or withdrawn, the panel issues its final report.

DSU Article 17 gives third parties that reserved rights at the panel stage similar access to proceedings before the AB.

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16 This and all subsequently cited figures on WTO dispute participation, escalation, and outcomes are derived from the data set described and analyzed at length below.

17 In principle, such adoption is not automatic, because a panel report can be rejected if both the complainant and defendant (and the rest of the WTO membership) agree not to approve it, but, needless to say, this is extremely unlikely.

18 Once again, we emphasize that our term “third party” (and our discussion here of third-party rights in WTO disputes) does not include any entity besides WTO member governments. Amicus briefs, for example, from private interest groups, do not receive the same privileges in WTO dispute settlement proceedings. Hence the impact of NGO amici is beyond the scope of this article.
Things are not as straightforward as they seem, however, because, in addition to these rights, which are bestowed upon formal third parties, DSU Article 4.11 allows a member “other” than the disputants to be joined in consultations, thereby giving rise to what we call informal third parties. A member government can therefore intervene in a dispute before it is officially designated as a “third party.” It is essential to take these informal third parties into account for at least three reasons. First, since most WTO disputes are resolved in consultations, ignoring the role of third parties before a panel is requested would vastly understate their influence. Second, third parties reserving rights at the panel stage nearly always intervene first in the consultation stage, which means that almost all formal third parties start off as informal ones.19 Third, the members themselves often do not distinguish between participating as formal, rather than informal, third parties, as is made clear by the fact that many proposals for reforming the DSU call for stronger “third-party rights” in consultations.20 While we are careful not to conflate third parties and co-complainants21 in consultations, the point is that our broader definition is critical for any examination of the influence of third parties across the different stages of WTO dispute settlement.

As DSU Article 4.11 stipulates, other members that wish to be joined in consultations must establish that they have a “substantial trade interest” in the dispute. This entry barrier is meant to preserve some latitude for the main parties to negotiate a resolution by excluding informal third parties that have no significant economic stake in the dispute. However, it is worth noting that, through 2002, few third-party requests to be joined in consultations have been rejected.22 Members can also claim

19 We are aware of only 4 exceptions to this rule, out of 507 instances of third-party involvement in our data set described below. Moreover, each of these exceptions effectively proves the rule. For example, Thailand’s intervention on the side of the complainants in the EC—Bananas dispute (DS158), while initiated only after the panel was established, was also rapidly withdrawn. In the other three instances, the governments in question attempted to join consultations but had their requests to do so denied; however, they later submitted briefs as official third parties at the panel stage (for example, Thailand and the Philippines in Turkey—Textile and Clothing Products, DS34, and the EC in Korea—Government Procurement, DS163).


21 “Complainants” are the plaintiffs of the case. They, not third parties, must file requests for consultations, identifying the disputed policy measure and invoking specific treaty provisions as the basis for challenging it. They also have procedural roles and rights that are distinct from those of third parties. The WTO accordingly distinguishes the two kinds of participants clearly in its documentation of each case.

22 Specifically, only 19 of the 507 requests by nondisputants to join consultations have been rejected. However, many of those rejected—as the examples in fn. 19 make clear—subsequently participate as formal third parties at the panel stage, utilizing the lower bar to such participation granted by the DSU’s Article 10.2, described below. Because a third of all cases going to a panel end before a ruling is issued, such late-stage third-party participation can still significantly affect the prospects for early settlement.
a “systemic interest” in a dispute, which formalizes their concerns for the interpretation of untested or politically charged agreements, or the consistency of domestic legislation with WTO law. In US—Section 306, for example, Canada was quick to explain that the definition of a “trade interest” in DSU Article 4.11 “is not limited to an immediate commercial interest but rather is wide enough to encompass both commercial and systemic interests.” When the United States denied Japan’s bid to be joined in these same consultations, citing a lack of a substantial trade interest, Japan countered by arguing that its commercial stake included “systemic” concerns.

This is not to say that systemic interests substitute for a lack of a substantial trade interest. On the contrary, reference to systemic interests is typically an indication that third parties intend to raise broader—and potentially more axiomatic—concerns, and in this regard systemic interests are the most tangible signal that the third parties are keenly interested in the dispute. In a case concerning oil tubular goods, for example, China, Japan, and Taiwan all cited systemic interests, as well as substantial trade interests. Indeed, while all three countries are sizable producers of the good in dispute (hence their substantial trade interests), they also had fundamental concerns about the case, as suggested by the forty-eight pages dedicated to their submissions in the final panel report. Canada, by contrast, participated as a third party in a dispute over a product the country scarcely imports, desiccated coconut; yet despite this lack of a substantial trade interest, it did not invoke a systemic interest. Our point is that, by citing a systemic interest, members are signaling a deep interest in the case and not simply trying to gain access as a third party in a dispute in which they lack a clear economic interest.

Another potential hurdle to third-party participation centers on the specific article under which the complainant requests consultations with the defendant. In particular, the issue is whether, along with DSU Article 4, the complainant selects Article XXII:1 or Article XXIII:1 of GATT 1994. Because Article XXIII provides more generally for bilateral

24 WTO Document DS200/12.
26 WTO Document DS22.
27 Some validation of this assertion can be found in another statistic, suggested by Håkan Nordström. Specifically, certain disputes target policies not addressed toward any one identifiable good (flagged, as defined later, by our variable, Nonmerchandise Issue). In such cases, where third parties by definition have zero affected exports and thus no “substantial trade interest,” third-party cites of “systemic interests” are still no more likely (chi-squared test p=0.61) than they are in more typical cases bearing on particular products.
dispute settlement, it is often argued that complainants will request consultations under this article if they wish to exclude third parties and that they will invoke Article XXII:1 if, instead, they wish to attract third parties.\textsuperscript{28} Empirically, the relationship is far from deterministic: about half of all WTO complaints start out under Article XXIII:1, and half of these draw third parties. The practical distinction between the two articles has nothing to do with third parties per se but rather with the apparent ex ante intent of the complainant to pursue the case to the finish: research suggests that cases filed for Article XXIII:1 consultations during the GATT years were 40 percent more likely to be brought to a panel.\textsuperscript{29} Nonetheless, to ensure that the article under which consultations are held is not influencing the participation of third parties, we control in our statistical models for whether the complainant filed under Article XXII:1 or XXIII:1.

Finally, if consultations fail and the dispute is brought before a panel, DSU Article 10.2 sets a lower bar for third-party requests to join a dispute—namely, a “substantial interest,” as opposed to a substantial trade interest. At this stage, as we note above, third parties can deliver written and oral testimony during the first round of litigation and therefore will receive the first submissions of the complainant(s) and the defendant. If the panel’s ruling is appealed—and this happens roughly 70 percent of the time—DSU Article 17 says that these same third parties can deliver both written and oral testimony to the AB as well.

**Conventional Wisdom about the Effects of Third-Party Participation**

By reserving rights, third parties clearly wish to influence the outcome of dispute settlement. The belief that their participation does, in fact, matter explains why third parties participated in 64 percent of WTO disputes through 2002. But why would a government participate as a third party rather than as a co-complainant? And do third parties in fact matter in dispute settlement?

First, Bagwell and Staiger imply that a third party’s goal is to prevent a discriminatory settlement between the complainant(s) and the defendant that would undermine its own share of the disputed market.\textsuperscript{30} Consistent


\textsuperscript{30} Bagwell and Staiger (fn. 3).
with this notion, Bown’s empirical work finds that (1) countries with large exports, the volume of which is directly affected by the disputed policy, are more likely to become co-complainants; (2) countries with sizable exports to the disputed market that are affected only indirectly by the defendant’s policy, in market share rather than volume terms, are likely to become third parties; and (3) countries that are poorer, small, or dependent on foreign aid or a preferential trade agreement with the defendant are less likely to intervene at all.31 To this we would add that the lack of transparency concerning any negotiated settlement also motivates governments to intervene as third parties, where their export volumes might not warrant participation as a co-complainant. Regardless, the issue confronting this article is simply whether any association found between third-party participation and the lack of early settlement is an artifact of endogeneity. That is, do the factors that make disputes hard to settle early also predict third-party involvement in the first place? As we show empirically, third parties do not disproportionately get involved in cases that are intrinsically hard to settle, for whatever reason. Most telling in this regard is that cases that have high stakes for the disputants do not necessarily have high stakes for potential third parties, and vice versa.

Second, the conventional wisdom says that third parties help shape panel and AB rulings because these are strategic actors. Just as Geoffrey Garrett, Daniel Keleman, and Heiner Schulz insist that it is no longer controversial to ascribe strategic decision making to the ECJ,32 few WTO observers doubt that political expediency guides panels and the AB in rendering decisions.33 The tension, as Smith explains with respect to the AB, is to balance the need to hand down legally consistent decisions with a desire to increase the likelihood of compliance, the latter being a function not just of whether the defendant will abide by the verdict but also of how the membership as a whole will receive it. Here, Smith sees an opportunity for third parties, in particular, arguing that the AB has encouraged their participation in order “to gain access to valuable information regarding the views of the broader WTO membership.”34

32 Garrett, Kelemen, and Schulz (fn. 6), 152.
34 Smith (fn. 9), 75, 85.
Rosas concurs, suggesting that third parties can play an invaluable role along these lines.\textsuperscript{35}

A glance at WTO panel reports seems to bear out these expectations. In \textit{Chile—Alcoholic Beverages}, for example, the panel explained that it had rejected one of the defendant’s legal arguments because the EC, “\textit{as well as third parties}, objected that such a notion was absurd,” nodding to the import of their intervention in this dispute.\textsuperscript{36} In \textit{Canada—Aircraft}, the third-party testimony by the U.S. was deemed so germane to the dispute that the panel refused to let it be withdrawn, not least because the panel “had asked the parties to submit comments \textit{on specific aspects of the US submissions}.”\textsuperscript{37} More telling still, in \textit{Canada—Patents}, the panel decided not to rule on a key question of law, explaining that it did not want to adjudicate “a normative policy issue that is still obviously a matter of \textit{unresolved political debate},” a conclusion it reached in large measure because of the participation of third parties in this dispute.\textsuperscript{38}

Yet no prior study has examined the impact of third parties on the full set of rulings by the WTO. Geoffrey Garrett and James McCall Smith analyze some case studies of AB decisions, focusing on its sensitivity to the political stakes of U.S.-EC disputes, but they do not focus on third parties in particular.\textsuperscript{39} Daniel Kelemen conducts a similar examination of another small set of WTO decisions.\textsuperscript{40} In the only study to date that focuses specifically on third parties, Carrubba, Gabel, and Hankla explore their impact on the ECJ’s decisions in three session-years.\textsuperscript{41} And this study, by looking at third-party participation across all WTO disputes through 2002, offers a fuller test of its influence across all the stages of dispute settlement.

\textbf{ARGUMENT}

Theories of bargaining have long made clear that the more parties there are to a dispute, the more difficult negotiations become. This suggests that, in sharp contrast to the court-as-strategic-actor hypothesis, the real action with respect to third parties likely unfolds before a panel is requested, let alone before it rules. Specifically, third parties increase the disputants’ bargaining costs in two complementary ways. First, third

\begin{itemize}
\item \textsuperscript{35} Rosas (fn. 9).
\item \textsuperscript{36} WTO Document DS87, 7.136, emphasis added.
\item \textsuperscript{37} WTO Document DS70, 7.47, footnote 4, emphasis added.
\item \textsuperscript{38} WTO Document DS114/R, 7.82, emphasis added.
\item \textsuperscript{39} Garrett and Smith (fn. 8).
\item \textsuperscript{40} Kelemen (fn. 8).
\item \textsuperscript{41} Carrubba, Gabel, and Hankla (fn. 8).
\end{itemize}
parties serve as the main parties’ audience and, in this regard, increase transparency. And while, as Stasavage observes, it is almost universally agreed that greater transparency is “good,” our concern, like his, is that transparency can be detrimental to the fate of negotiations. Second, because third parties constitute a participatory audience,\textsuperscript{42} engaging directly in dispute settlement, they increase the bargaining costs incurred by the main parties in negotiating a solution.

In conjecturing about the challenges of transparency, Stasavage contrasts the effects of open- and closed-door bargaining on negotiators. Under the former rule, the fear is that negotiators will pandering to and posture for their audiences, be they domestic or foreign. Like Stasavage, our main concern is the latter, namely, that audiences motivate negotiators to posture, meaning they “adopt uncompromising positions during negotiations, to demonstrate to their constituents that they are effective or committed bargainers.”\textsuperscript{43} James Fearon, too, argues that higher audience costs lead states to more credibly dig in their heels and that they seldom bluff when signaling resolve in this way.\textsuperscript{44} Tim Groseclose and Nolan McCarty show that a third party’s presence can induce posturing and deadlock negotiations even when the disputants are fully informed about each other’s preferences.\textsuperscript{45} This is why, as one former trade lawyer puts it, “[p]rivacy for the negotiating process can be essential.”\textsuperscript{46}

Second, as a participatory audience, third parties are likely not only to induce posturing by the main parties but also to influence the content of the argument. As Bill Davey points out, third parties can interpret cases in ways that may be at odds with the complainant’s and defendant’s positions and thus inject a distraction into the legal contest.\textsuperscript{47} Jeff Waincymer concurs, observing that while third parties are not supposed to raise claims outside the scope of the dispute as defined by the main parties, they can nonetheless draw attention to arguments that fit within these terms of reference but that the complainant and defendant

\textsuperscript{42} Of course, the main protagonists’ own domestic audiences may also induce posturing. Regardless, the issue is that even when settlement is otherwise feasible, the addition of third parties is likely to make negotiations more complicated.

\textsuperscript{43} Stasavage (fn. 10), 673.


\textsuperscript{46} Porges (fn. 28), 176.

\textsuperscript{47} William Davey warns, in particular, against the recommendation that panels and the A8 be required to address all the points raised by third parties, since this “could potentially lead to abuse where a third party views the case completely differently than the parties.” See Davey, “The WTO Dispute Settlement Mechanism,” Illinois Public Law and Legal Theory Research Papers Series, no. 03-08 (University of Illinois, 2003), 15.
had not introduced or—worse still—do not favor. Along these lines, the Dominican Republic complained that Honduras had been prodded by third parties to expand the terms of reference in a dispute over cigarettes, insisting that “[i]t was not until the first meeting of the Panel that Honduras suddenly included all of the products in the complaint, taking the idea from the written submissions of certain third parties.” Likewise, the U.S. argued in the online gambling dispute that “Antigua and the third parties are expending a great deal of rhetorical energy in an effort to seek to modify the text of the U.S. Schedule through dispute settlement.” The involvement of third parties in consultations poses similar risks, in that they may desire a settlement that the main parties find unacceptable or they may introduce new issues that might put a settlement out of reach.

Finally, third parties may also raise systemic legal questions about the dispute, further circumscribing the grounds on which the disputants might seek a settlement. In particular, third parties may have only a modest stake in changing the specific measure(s) in dispute and may prefer, instead, a broader legal judgment that might bear on their own policies or the policies of those against whom they might wish to bring litigation. If the main parties believe the outcome of the dispute has important implications for the future, they are likely to become further entrenched, thereby reducing the opportunity for settlement.

The argument that third parties add to the bargaining costs of an otherwise bilateral negotiation and as a result put an efficient outcome at risk is widely established in economic models. Keep in mind that dispute settlement, unlike multilateral trade negotiations, does not encourage—and in fact specifically discourages—issue linkage or side payments, which might otherwise sponsor efficient bargaining outcomes among multiple parties.


49 WTO Document DS302/R, 4.351.

50 WTO Document DS285.

51 As Porges astutely observes, “In the absence of a stakeholder with a financial interest in early settlement, the government may have no incentive to have a bargaining position oriented toward settlement”; see Porges (fn. 28), 155.


Accordingly, we hypothesize that third-party participation makes early settlement less likely. By extension, we also expect that third-party participation increases the likelihood of a panel ruling. Furthermore, both of these consequences should be especially likely when a third party raises systemic issues. By implication, any test of the conventional wisdom that third parties affect the direction of a ruling must be conditional on the fact that they undermine early settlement, thus making rulings more likely in the first place.

**DATA AND METHODS**

To test our hypotheses, we compile a data set of WTO disputes. Following Robert Hudec, we count only complaints in which formal proceedings were invoked by naming a defendant, alleging the infringement of specific legal rights, and requesting consultations. Since our interest lies in the role of third parties, we combine all pairs of complainant-defendant complaints into a single observational unit, a “dispute,” if they participate in the same panel proceeding. So, for example, we would take the dispute over genetically modified foods, which involves Argentina, Canada, and the U.S. filing against the EC, and collapse this into a single observation, since all three co-complainants are participating in the same panel proceeding. Of the 202 disputes in our data set, a panel was established in 99 (49 percent). If no panel was established, then we similarly combine complainant-defendant pairs on the basis of their requests for consultations.

Our data set includes all 202 such disputes filed from 1995 through 2002, inclusive, for which litigation had been concluded as of January 2004. We were not able to observe the defendant’s final policy response in 82 of these cases, mostly late in our sample period. Keep in mind that identifying whether a case was settled (requiring liberalization) rather than merely withdrawn (leaving the status quo in place) requires information about changes the defendant may have made to the disputed policy. Hence our analyses of ruling issuance and direction use all 202 disputes, but the analyses of early settlement use only the 120 cases with known policy outcomes.\(^{55}\)


\(^{55}\) Whether we have data on the policy outcome (that is, these 120 cases versus the 82 with unknown policy outcomes) is not collectively a function of the variables in our analyses to follow, as verified...
We seek to explain three dependent variables in our analyses. The first is *Early Settlement*, which is 1 if fully liberalizing concessions were offered by the defendant before a ruling was issued (either in consultations or during panel deliberations), as happened in 48 (40 percent) of the 120 cases with known policy outcomes. It is 0 if the case went to a ruling or if the complaint was dropped prior to a ruling without fully liberalizing concessions. The second variable is *Ruling Issued*, which is 1 if a verdict was issued and 0 otherwise. Of the 99 panel proceedings in our 202 disputes, a ruling was handed down in 65 cases. The third variable is *Pro-complainant Ruling*, which we code in line with the initial panel report or, if appealed, the initial AB report, according to whether it substantially favored the complainant (coded 1) or, in contrast, was mixed (that is, both the complainant and the defendant won parts) or favored the defendant (coded 0). Of the 65 rulings in our data set, 39 favored the complainant, net of any appeal. Summary statistics for all variables are displayed in Table 1.

Our main explanatory variables concern the participation of third parties in a dispute, as well as the direction of their support. For the sake of robustness, we code the resulting variable *Third Party* as a simple dummy (1 for one or more, 0 for none) and, alternatively, as a full count. Third parties participated in 129 (64 percent) of the 202 disputes in our data set; when they did so, an average of 3.9 third parties intervened.

Of course, not all third parties are alike. Thus we also construct a third version of *Third Party*, in order to correct for varying levels of economic significance. This is done by weighting the third parties by their gross domestic product (*GDP*), relative to the defendant, all in comparable prices. The precise measure is

\[
\log\left(1 + \frac{\text{Summed GDPs of All Third Parties}}{\text{Defendant GDP}}\right).
\]

Note that, because \( \log(1 + 0) = 0 \), the resulting index takes on a value of 0 if no third parties participate in a given dispute. A one-unit change in this GDP-index version of *Third Party* approximates the dif-

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56 The data on policy outcomes in these cases are taken from Marc L. Busch and Eric Reinhardt, “Developing Countries and GATT/WTO Dispute Settlement,” *Journal of World Trade* 37, no. 4 (2003).
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<td>0</td>
</tr>
<tr>
<td>Mixed Third Parties (dummy)</td>
<td>0.11</td>
<td>0.32</td>
<td>0</td>
</tr>
<tr>
<td>U.S./EC Dispute</td>
<td>0.17</td>
<td>0.38</td>
<td>0</td>
</tr>
<tr>
<td>Number of Complainants</td>
<td>1.32</td>
<td>1.18</td>
<td>1</td>
</tr>
<tr>
<td>Log Complainant GDP</td>
<td>28.15</td>
<td>1.93</td>
<td>23.18</td>
</tr>
<tr>
<td>Log Defendant GDP</td>
<td>27.59</td>
<td>2.09</td>
<td>21.48</td>
</tr>
<tr>
<td>Article XXII</td>
<td>0.52</td>
<td>0.50</td>
<td>0</td>
</tr>
<tr>
<td>Nonviolation Complaint</td>
<td>0.10</td>
<td>0.31</td>
<td>0</td>
</tr>
<tr>
<td>Number of Articles Cited</td>
<td>7.20</td>
<td>6.34</td>
<td>1</td>
</tr>
<tr>
<td>Discrimination</td>
<td>0.25</td>
<td>0.44</td>
<td>0</td>
</tr>
<tr>
<td>Politically Sensitive Case</td>
<td>0.14</td>
<td>0.35</td>
<td>0</td>
</tr>
<tr>
<td>Agriculture</td>
<td>0.34</td>
<td>0.47</td>
<td>0</td>
</tr>
<tr>
<td>Nonmerchandise Issue</td>
<td>0.25</td>
<td>0.43</td>
<td>0</td>
</tr>
<tr>
<td>Nondisputant Market Share</td>
<td>75.12</td>
<td>30.40</td>
<td>0.13</td>
</tr>
</tbody>
</table>
ference between a dispute without third parties and a typical dispute with third parties.

Third-party participation is, like involvement in WTO dispute settlement more generally, skewed toward the largest trading states. In our set of 202 disputes, 61 different nondisputant third parties intervened a total of 507 times. The U.S. reserved third-party rights in 43 cases (of the 86 in which it was not a disputant); the EC, in 52 (of 120); and Japan, also in 52 (of 183). Some of the most frequent third parties, aside from those three economic superpowers, have been Canada, India, Australia, Mexico, Brazil, Korea, Norway, Chile, and Switzerland. That said, developing countries account for 52 percent of all third parties but only 36 percent of complainants. If a member has experience with dispute settlement, chances are it is predominantly as a third party.

The third-party measures we have sketched so far are appropriate for a model of early settlement and ruling issuance but do not capture the directional thrust of third-party intervention. To get at this issue, albeit only for the purpose of modeling ruling direction itself, we categorize each third party by its orientation, either pro-complainant, pro-defendant, or mixed, based on close readings of their submissions to the WTO in the dispute. This is a relatively easy task for nearly all cases, especially those ending in panel reports, because each report neatly itemizes the arguments of the third parties.57 In our data set, 66 percent of all third parties intervene in support of the complainants, 27 percent for the defendants, and 7 percent with a mixed position.

We construct the variable Systemic Issues to test whether early settlement is especially more difficult when third parties cite systemic legal considerations. This variable is coded 1 if third parties explained in their submissions that the dispute raised broader questions of relevance beyond the complainant and defendant per se, typically because the measure(s) had been broadly applied (that is, US—Section 301) or was thought to have precedential value (that is, Canada—Patents); it is 0 otherwise (and thus 0 in all cases lacking third parties). In making such arguments, third parties literally use the word “systemic,” making our coding judgment quite transparent. This variable is 1 in 51 of the 202 cases, which is 40 percent of those with third parties participating.

We include a number of additional variables that may potentially influence either the prospects for settlement or the issuance and/or direc-

57 We were unable to code the direction of support for a number of third parties, but only in cases not reaching the ruling stage. Accordingly, missing data for this variable have no effect on the ruling direction model estimated below.
tion of a ruling. Specifically, the variable *US/EC Dispute* is coded 1 for the thirty-five disputes between the U.S. and the EC (0 otherwise). We include this variable because of the widespread belief that transatlantic disputes are different for a variety of reasons, ranging from the volume of trade at issue to the resources these members can expend litigating a larger variety of disputes, including those over more fundamental questions of law. Likewise, we add two variables, *Log Complainant GDP* and *Log Defendant GDP* to control for the market power of each side in a more generalizable way. These variables include all formal disputants on the relevant side (though not third parties, of course).

Another variable, *Number of Complainants*, counts the number of states acting as complainants in the dispute. It averages 1.3. If this is correlated with the number of third parties, controlling for it should ensure that any finding regarding third parties per se is not an artifact of the multiplicity of complainants in a given case. As discussed earlier, we also control for whether consultations were requested under Article XXII:1 or XXIII:1, a legal choice that could theoretically influence third-party access. This variable, Article XXII, is a dummy and is coded 1 in about half of the WTO cases.

We include two final sets of variables to address vital determinants of dispute outcomes: the *legal merits* and economic/political *stakes* of the complaint. We get at the (lack of) legal foundation for the complainant’s position with three variables. The first is *Nonviolation Complaint*, which is 1 if the complaint alleges that the measure in dispute violates the “spirit” or intent, if not the “letter” or actual text, of the law (0 otherwise). Compared with allegations that focus strictly on violations of the letter of the law, nonviolation complaints require a detailed justification and must meet a far higher standard of proof. The next, *Discrimination*, is 1 if the complaint’s cited legal basis includes those portions of the WTO agreements addressing discrimination across trading partners. The WTO judicial organs may (or may not) be more readily disposed to uphold discrimination claims, since the most-favored-nation (MFN) principle is one of the regime’s most cherished norms.

58 For more information about sources and coding of these variables, see Busch and Reinhardt (fn. 56).

59 See, for example, the contributions to Ernst-Ulrich Petersmann and Mark A. Pollack, eds., *Transatlantic Economic Disputes: The EU, the US, and the WTO* (Oxford: Oxford University Press, 2003).

60 These are calculated for the year the complaint was first filed, using constant (1995) U.S. dollars, from the World Bank’s *World Development Indicators*; [http://devdata.worldbank.org/dataonline](http://devdata.worldbank.org/dataonline).


62 For this and the legal complexity variable below, we draw heavily on the wonderful new World Bank–financed data set, Henrik Horn and Petros C. Mavroidis, *The WTO Dispute Settlement Data Set*,
The third variable in this set speaks to the case’s legal complexity, proxied by the number of distinct treaty articles cited in the complaint. Complex cases are arguably more likely to lose before the WTO judicial bodies. They may be harder for the complainant to argue coherently (without contradictions) and effectively, given fixed resources and legal capacity, even if each claim itself has merit, especially since the burden of proof generally rests with the complainant(s). Certainly, defendants have more opportunities for challenging portions of more complex complaints. Moreover, anecdotal evidence from a series of interviews with member delegations, WTO secretariat staff, and dispute settlement lawyers suggests that complainants sometimes use a “kitchen sink” strategy, tacking on additional claims precisely when they are less confident of the merits of each separate claim. The literature on American judicial politics widely utilizes the number of separate legal provisions cited as a key proxy for a case’s legal complexity, which indeed proves to be a significant predictor of the prospects for losing a United States federal court verdict. Hence we anticipate that complaints alleging a “nonviolation” of an agreement and/or citing a large number of treaty articles—and possibly those not invoking WTO treaty provisions covering discrimination—are more likely to lose if a verdict is issued.

We include five variables to address the economic and political stakes of a dispute, to control for the possibility that settlement may be more likely in lower-stakes cases. Two dummies, Agriculture and Politically Sensitive Case, identify disputes thought to be especially difficult to resolve due to the types of sectors or measures they target. Agricultural protections are often said to be particularly inviolable. Politically Sensitive Case flags disputes over measures justified for noncommercial reasons, that is, those concerned with national security, environmental regulations, biosafety (so-called sanitary and phytosanitary) rules, and “cultural protection,” as well as policies falling within the jurisdiction

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63 Specifically, as cited in the complainant’s request for consultations and, where applicable, request(s) for a panel. Number of Articles Cited ranges from 1 to 39, averaging 7, in our data set.
64 Conducted by the authors in Geneva, Switzerland, May 2003 and May 2006.
66 Davis (fn. 53).
67 Porges (fn. 28), 155.
of subnational authorities in federal states. Fully 34 percent of our cases involve agriculture, but only 14 percent in total address these other politically sensitive measures.

We also add precise measures of the volume of trade connected with each dispute. Our variable *Log Merchandise Trade* is the log of the defendant’s imports (in constant 1995 U.S. dollars) from the complainant(s), of just the specific merchandise product(s) affected by the disputed measure in the year prior to the filing of the complaint. In a quarter of the cases, such as in those dealing with intellectual property laws or services trade, the disputed measure did not affect any particular *merchandise* product, in which case *Log Merchandise Trade* takes on its minimum value. However, to distinguish them properly, we flag such claims using a 1 in the variable *Nonmerchandise Issue*, which is 0 otherwise. The median dispute affected annual bilateral trade worth $17 million (1995 U.S. prices). Finally, we compute the stakes of the case for potential third parties, rather than for the disputants, using the variable *Nondisputant Market Share*. This is the percentage of imports into the disputed market for the affected product in the year prior to the complaint, as supplied by nondisputants. In keeping with Bown, we expect third parties to intervene when they have greater market share. This variable has almost no correlation with the volume of bilateral trade affected in a dispute.

**RESULTS**

The results bear out our two hypotheses. First, third parties sharply reduce the odds of early settlement. Second, the impact of third parties on ruling direction is indeed conditional on this hypothesized selection effect, by which third-party participation pushes disputes to end in rulings. Before elaborating these results, however, we need to address the counterargument that third parties might be attracted to difficult cases in the first place, which reverses our hypothesis. To put this concern to

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68 The product codes affected in each dispute are listed in Horn and Mavroidis (fn. 62). We used the codes to obtain trade volume data at the six-digit level from COMTRADE. Only fifteen disputes involved products at a more detailed level than six digits, so the limits on precision necessitated by reliance on COMTRADE do not skew our trade data. In keeping with standard practice, we replace trade values of zero with $1000 to feasibly compute logarithms. Fifteen of our 202 disputes challenged export promotion (rather than import limitation) measures. For these cases, *Log Merchandise Trade* reflects the defendant’s exports to the world of the specified product.

69 It takes on a value of 100 for disputes not naming a specific merchandise product(s).

70 Bown (fn. 31).

71 The *Stata* data set, command files, and output log for all the main analyses as well as sensitivity tests below are available from the authors at http://userwww.service.emory.edu/~erein/.
rest, we examine the potential endogeneity of third-party participation in several steps.

Could third parties be drawn to disputes that, for other reasons, are hard to settle? The bivariate evidence is negative across the board. Not one of our indicators of legal merits and complexity has a statistically discernible correlation with third-party participation. Similarly, Third Party exhibits virtually zero correlation with our stakes variables, Politically Sensitive, Agriculture, Nonmerchandise Issue, and Log Merchandise Trade. Thus, it does not appear that third parties disproportionately intervene in weaker or more complex cases or in disputes where the defendant has a great deal to lose by conceding.

Next, to speak to this issue more authoritatively, we estimate model 1, a generalized negative binomial regression of the number of third parties as a function of all our covariates, including Nondisputant Market Share (see Table 2). Model 1 shows that disputes invoked using Article XXII, involving a larger number of complainants, and alleging discrimination, attract significantly more third parties. The strongest predictor, however, is Nondisputant Market Share: going from its sample minimum to maximum, and holding everything else at its sample mean, this variable increases the predicted number of third parties from 1.2 [0.7, 1.9] to 2.8 [2.2, 3.6].73 Third parties, that is, get involved when they supply a large percentage of the disputed market’s imports of the affected product. Yet none of these facts necessarily implies that such disputes are intrinsically less amenable to settlement. In fact, no variable bearing on the political stakes or intractability of a dispute, nor any affecting the likelihood of a favorable WTO ruling, turns out to be a statistically significant predictor of third-party participation.74 The evidence is clear: third parties are not particularly drawn to hard-to-settle conflicts. While third parties surely make strategic choices about which cases to get involved in, that need not in practice create a bias in favor of finding an effect of third parties on settlement.

As a last step, using an instrumental variable (IV) approach, we can directly test for endogeneity bias in the estimates of this article’s main

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72 Because we observe dispute outcomes even when no third party participates, and because third-party intervention itself serves as a causal variable affecting dispute outcomes, this counterargument is about endogeneity, not sample selection. For these two reasons, the Heckman selection model is not an appropriate reference point in designing an empirical approach to the problem.

73 Throughout, figures in brackets represent 95 percent confidence interval bounds.

74 The only variable (Article XXII) that is statistically significant in model 1’s third-party equation and in our later settlement models has a positive effect in both. Thus, the kinds of cases that draw third parties also tend to settle more often, thereby raising, not lowering, the bar for tests of our settlement hypothesis.
models. We will discuss this technique and its results after presenting the models of settlement below.

We now address the consequences of third-party involvement. As it turns out, the data vividly support our hypothesis. As a first cut, take the simple bivariate relationships depicted in Figure 1, which maps the prospects for early settlement against the involvement of third parties. Here, 63 percent of disputes with no third parties ended in early settlement, in contrast to 25 percent of disputes with third parties.

The impact of third parties on the direction of rulings is, however, more conflicted in this bivariate analysis. Figure 2 shows the decline in...
the likelihood of pro-complainant rulings as a percentage of all rulings issued and as a function of different categories of third-party involvement. Moving from left to right, the columns indicate the percentages for cases with *no* third parties, with third parties only on the complainant’s side, with third parties intervening for both sides, and with third parties siding only with the defendant, respectively. While the number of observations in the first column is small, it is nonetheless intriguing that complainants seem most likely to prevail when no third party supports them. Otherwise, there is certainly a suggestion here that the direction of third-party support may affect verdicts.

Do these patterns stand up to closer empirical scrutiny in multivariate analyses? Consider models 2, 3, and 4 (in Table 3), which use simple probit estimation to measure the impact of three separate versions of *Third Party* on the prospects for early settlement.\(^7\) Overall, these mod-

\(^7\) Note that the data are essentially cross-sectional and do not call for panel techniques. To be sure, the disputes occur in a sequence (albeit a greatly overlapping one), but the eight-year period in the data set is not long enough to exhibit any notable temporal variation. Specifically, a set of year dummies are not collectively significant when added to any of this article’s models. Furthermore, the findings
els fit the data well. They correctly predict some 78 percent of the sample’s cases, as against a naive success rate of 60 percent. Collinearity among the explanatory variables is not high. Consistent with our hypotheses, Third Party (in all of its three forms) and Systemic Issues are negatively signed and statistically significant. In keeping with prior research, Politically Sensitive Case and Article XXII also affect settlement rates. Perhaps surprisingly, disputes pitting the U.S. against the EC appear more amenable to settlement, but that ignores the fact that such

about the impact of third parties are qualitatively identical even if models 2, 3, and 4 alternatively used Newey-West standard errors robust to first-order autocorrelation across disputes sorted by the WTO’s sequential DS codes.

As revealed by heteroskedastic probit estimates, the error variances in models 2, 3, and 4 are potentially a function of dispute stakes (specifically, Log Merchandise Trade). Hence we report heteroskedastic-consistent robust standard errors.

Auxiliary regressions of each explanatory variable on all the others yield R-squareds around 0.10 to 0.20, with none higher than 0.45 except for the correlated stakes variables, Log Merchandise Trade and Nonmerchandise Issue, at a moderate value of 0.58.

FIGURE 2
RULING DIRECTION BY THIRD-PARTY PARTICIPATION STATUS

*Only five of the twenty-eight disputes in the Both Sides category have more pro-defendant than pro-complainant third parties. In contrast to what the conventional wisdom might lead one to expect, a greater proportion of those five disputes, compared with the other twenty-three, actually end in pro-complainant rulings.
Table 3

<table>
<thead>
<tr>
<th>Model</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tr>
<td>Dependent Variable</td>
<td>Early Settlement</td>
<td>Early Settlement</td>
<td>Early Settlement</td>
<td>Ruling Issued</td>
</tr>
<tr>
<td>Third-Parties Measure</td>
<td>Dummy</td>
<td>Count</td>
<td>GDP Index</td>
<td>Dummy</td>
</tr>
<tr>
<td>Constant</td>
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<td>7.264*</td>
<td>7.825*</td>
<td>−5.434*</td>
</tr>
<tr>
<td></td>
<td>(3.340)</td>
<td>(3.266)</td>
<td>(3.584)</td>
<td>(2.409)</td>
</tr>
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<td>Third Parties</td>
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<td>−0.251**</td>
<td>−0.226*</td>
<td>1.181**</td>
</tr>
<tr>
<td></td>
<td>(0.340)</td>
<td>(0.083)</td>
<td>(0.094)</td>
<td>(0.317)</td>
</tr>
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<td>Systemic Issues</td>
<td>−1.299*</td>
<td>−1.271*</td>
<td>−1.650**</td>
<td>1.263**</td>
</tr>
<tr>
<td></td>
<td>(0.486)</td>
<td>(0.522)</td>
<td>(0.546)</td>
<td>(0.273)</td>
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<tr>
<td>U.S./EC Dispute</td>
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<td>1.479**</td>
<td>1.157*</td>
<td>−0.440</td>
</tr>
<tr>
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<td>(0.504)</td>
<td>(0.487)</td>
<td>(0.520)</td>
<td>(0.362)</td>
</tr>
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<td>−0.081</td>
<td>−0.088</td>
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<tr>
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<td>(0.160)</td>
<td>(0.167)</td>
<td>(0.164)</td>
<td>(0.097)</td>
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<td>Log Complainant GDP</td>
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<td>−0.158*</td>
<td>−0.139</td>
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</tr>
<tr>
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<td>(0.077)</td>
<td>(0.076)</td>
<td>(0.079)</td>
<td>(0.066)</td>
</tr>
<tr>
<td>Log Defendant GDP</td>
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<td>−0.101</td>
<td>−0.142</td>
<td>0.014</td>
</tr>
<tr>
<td></td>
<td>(0.081)</td>
<td>(0.082)</td>
<td>(0.090)</td>
<td>(0.059)</td>
</tr>
<tr>
<td>Article XXII</td>
<td>0.926**</td>
<td>0.872**</td>
<td>0.708*</td>
<td>−0.586*</td>
</tr>
<tr>
<td></td>
<td>(0.313)</td>
<td>(0.306)</td>
<td>(0.283)</td>
<td>(0.256)</td>
</tr>
<tr>
<td>Nonviolation Complaint</td>
<td>0.237</td>
<td>0.176</td>
<td>0.141</td>
<td>0.154</td>
</tr>
<tr>
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<td>(0.408)</td>
<td>(0.415)</td>
<td>(0.397)</td>
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<td>(0.028)</td>
<td>(0.029)</td>
<td>(0.026)</td>
<td>(0.017)</td>
</tr>
<tr>
<td>Discrimination</td>
<td>0.061</td>
<td>0.156</td>
<td>−0.056</td>
<td>−0.449</td>
</tr>
<tr>
<td></td>
<td>(0.431)</td>
<td>(0.439)</td>
<td>(0.413)</td>
<td>(0.279)</td>
</tr>
<tr>
<td>Politically Sensitive Case</td>
<td>−0.725*</td>
<td>−0.769*</td>
<td>−0.805*</td>
<td>−0.206</td>
</tr>
<tr>
<td></td>
<td>(0.366)</td>
<td>(0.389)</td>
<td>(0.384)</td>
<td>(0.327)</td>
</tr>
<tr>
<td>Agriculture</td>
<td>0.243</td>
<td>0.147</td>
<td>0.245</td>
<td>−0.450</td>
</tr>
<tr>
<td></td>
<td>(0.356)</td>
<td>(0.371)</td>
<td>(0.343)</td>
<td>(0.275)</td>
</tr>
<tr>
<td>Log Merchandise Trade</td>
<td>−0.014</td>
<td>−0.015</td>
<td>−0.008</td>
<td>0.058</td>
</tr>
<tr>
<td></td>
<td>(0.037)</td>
<td>(0.036)</td>
<td>(0.037)</td>
<td>(0.030)</td>
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<tr>
<td>Nonmerchandise Issue</td>
<td>−0.642</td>
<td>−0.626</td>
<td>−0.527</td>
<td>−0.097</td>
</tr>
<tr>
<td></td>
<td>(0.451)</td>
<td>(0.433)</td>
<td>(0.452)</td>
<td>(0.369)</td>
</tr>
<tr>
<td>Number of observations</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>202</td>
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<tr>
<td>Model $\chi^2$</td>
<td>29.4** (14)</td>
<td>30.2** (14)</td>
<td>26.5* (14)</td>
<td>63.2** (14)</td>
</tr>
<tr>
<td>Pseudo-$R^2$</td>
<td>0.275</td>
<td>0.287</td>
<td>0.248</td>
<td>0.326</td>
</tr>
<tr>
<td>% Correctly Predicted</td>
<td>79.2</td>
<td>77.5</td>
<td>77.5</td>
<td>80.2</td>
</tr>
</tbody>
</table>

*2-tailed p < 0.05; **p < 0.01 robust standard errors in parentheses
disputes also involve especially high values of the GDP variables, whose coefficients are negative. Correcting for the GDP differential as well, the average U.S.-EC dispute turns out to be statistically indistinguishable (for example, for model 2, \( p = 0.122 \)) from the average dispute that does not pit the two economic superpowers against one another.

The substantive effect of third-party participation is also significant. Drawing on our model 1 estimates, for the average case (that is, holding all other variables at their sample means) with no third-party involvement, and thus no systemic issues raised by third parties, the predicted probability of early settlement is a reasonably high 0.69 [0.52, 0.82]. If we take the same case and bring in third parties, still with no systemic issues raised, the predicted probability of early settlement drops precipitously to 0.31 [0.18, 0.47]. If we then add the complication of systemic issues being raised by those third parties, the predicted probability of early settlement plummets again, to 0.04 [0.00, 0.19]—a remote prospect, at best. These figures are echoed in equivalent proportions for the alternative codings of Third Party in models 2 and 3. By comparison, again holding all other variables at their sample means, for model 2 the predicted probability of settlement is 0.16 [0.05, 0.37] when Politically Sensitive is 1 and 0.40 [0.29, 0.52] when it is 0. In short, third-party participation is the single most important influence on early settlement in the model.

These findings are extremely robust. They hold for all three coding variants of our Third Party variable. They are not merely an artifact of frequent third-party participation by the U.S. and the EC, a dummy for which is not statistically significant when included in models 2, 3, or 4. In addition, the results are preserved if we recode the outcome variable to distinguish partial from full concessions in defining early settlement, which requires ordered rather than binary probit.\(^7^9\) Furthermore, the best predictor of whether a case was likely to attract third-party attention—that is, the variable Nondisputant Market Share, according to model 1—has absolutely zero effect on settlement, if added to models 2, 3, or 4.

Next, we conduct a final test to determine whether these findings could be biased by the endogeneity of third-party participation.\(^8^0\) To

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\(^{79}\) What is more, Third Party and Systemic Interests retain their negative coefficients and statistical significance in models 2, 3, and 4 if we (1) use trade data from the year of the complaint, instead of from the prior year, for Log Merchandise Trade; or (2) add a dummy variable for antidumping cases, which some say are less amenable to settlement (which, it turns out, is statistically incorrect).

\(^{80}\) It is commonly assumed that a regressor’s endogeneity automatically biases ordinary estimates. That assumption is wrong. Estimates are biased only if the unexplained portions of the endogenous variables (third parties and early settlement) are correlated; whether this is so is a matter for appropriate testing.
do so, we use an IV technique adapted to our (dual) limited dependent variables context. Nondisputant Market Share, which uniquely enters into model 1 but not the settlement equations, serves as the instrumental variable for Third Party.\textsuperscript{81} We take the fitted values from the generalized negative binomial equation, model 1, precisely as reported in Table 2, and then use them in place of the observed count of third parties to reestimate model 3,\textsuperscript{82} with an IV-corrected variance-covariance matrix.\textsuperscript{83} Finally, a Durbin-Wu-Hausman test of exogeneity on the estimates yielded by this procedure produces a vital piece of evidence: specifically, we cannot reject the null hypothesis that the errors in the two equations (models 1 and 3) are correlated.\textsuperscript{84} That is, the process causing third-party intervention is independent of that driving early settlement. The estimates reported for models 2, 3, and 4 are thus “consistent” in the statistical sense. Thus this article’s primary finding—that third parties indeed reduce the prospects for early settlement—cannot be attributed to endogeneity bias.

We now move to the results of model 4, also in Table 3, which concerns ruling issuance but not direction. Remember that not all cases ending prior to a ruling exhibit settlement, since a minority are simply withdrawn without a liberalizing agreement. Hence model 4 serves just as a reference, to validate the first equation in the joint model of ruling issuance and direction that follows. The result to emphasize here is simply that Third Party is positively signed and statistically significant, with a substantive impact that is about as large as that revealed in the early settlement models reported earlier. That is, by making early settlement less likely, third parties also consequently make a ruling more likely.

What about ruling direction? Recall that our argument is agnostic on this question; rather, this is the concern of the conventional wisdom. To start, consider how the conventional wisdom fares empirically if we

\textsuperscript{81} The explanatory power for our instrumental variable is validated by model 1’s results. Its exogeneity is likewise supported by its zero coefficient if added to model 3 (noted above) or by its bivariate correlation with Early Settlement of just -0.04.

\textsuperscript{82} We choose model 3 in particular, out of the three settlement models, because its version of Third Party matches that predicted by model 1. To keep matters simple, we drop Systemic Issues from the equation because it is a derivative of third-party involvement.

\textsuperscript{83} Specifically, because both the first- and second-stage equations (of the number of third parties and early settlement, respectively) are estimated by maximum likelihood, we use Murphy-Topel IV standard errors. William H. Greene, Econometric Analysis, 4th ed. (Upper Saddle River, N.J.: Prentice Hall, 2000), 133–37; James W. Hardin, “The Robust Variance Estimator for Two-Stage Models,” \textit{Stata Journal} 2, no. 3 (2002), 254–55.

\textsuperscript{84} The \textit{Stata} program and output used for this IV procedure and test are bundled with the data set available from the authors at http://userwww.service.emory.edu/~erein/. It is also worth noting that, using this IV technique, Third Party’s coefficient becomes even more negative than it is in Table 3, model 3.
ignore this article’s posited selection effect. To that end, we estimate a simple probit model of Pro-complainant Ruling as a function of the directional third-party dummies and controls (model 6 in Table 4), using the sixty-five cases in which rulings were issued. This model is such a poor fit that the test statistic fails to reject the null hypothesis that its variables’ coefficients are collectively zero. This model as a whole would thus not be worth reporting, were it not for the fact that the null result, which occurs because model 6 fails to correct for selection bias, is consistent with this article’s argument. Of course, whether third parties impede early settlement is not being tested in model 6. Rather, we show model 6 just to demonstrate that the conventional wisdom does not hold up if we ignore the fact that third-party participation dramatically skews the set of cases that reach rulings in the first place.

If model 6 is the wrong way to study ruling direction, a better way is reflected in Table 4’s other columns, which report estimates from a Heckman probit selection model, with ruling issuance as the first stage outcome and Pro-complainant Ruling as the second. Model 7 allows us to make inferences about the conventional wisdom, corrected for the selection bias predicted by this article’s argument. A selection model is the correct technique here because, naturally enough, we do not observe ruling direction when no ruling is issued.

Model 7’s results are compelling. For starters, the model’s collective fit passes the test of adequacy, as noted in the table. The correlation, ρ, of population errors in its two equations is statistically discernible from zero, meaning that model 6’s simple ruling direction estimates do, indeed, suffer from selection bias. Consistent with model 5, the first equation here shows that Third Party and Systemic Issues in fact increase the probability that a case will end in a ruling. Controlling for this in the second equation, Pro-complainant Third Parties has a statistically significant and positive coefficient, boosting the odds of a pro-complainant ruling. We can also confidently reject the null that the coefficients of these three directional third-party variables are equal to each other, with p < 0.001, while also rejecting the null that they collectively equal zero, likewise at p < 0.001. Thus, third parties affect the content of WTO decisions: litigants are more likely to secure favorable verdicts when they have third-party supporters. In addition, when third parties raise systemic issues, the WTO bodies are particularly likely to rule in favor of the complainant.

85 Model 7’s estimates were produced using Stata 9.2’s heckprob command with the difficult technique(bfgs) maximization option.
### Table 4
**Models of Ruling Direction in WTO Disputes, with and without Selection**

<table>
<thead>
<tr>
<th>Model Estimation</th>
<th>Probit</th>
<th>Heckman Probit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable</td>
<td>Pro-Complainant</td>
<td>Ruling Issued</td>
</tr>
<tr>
<td>Constant</td>
<td>1.509</td>
<td>−5.561**</td>
</tr>
<tr>
<td>Third Parties (dummy)</td>
<td>—</td>
<td>1.173**</td>
</tr>
<tr>
<td>Pro-Complainant Third Parties (dummy)</td>
<td>0.119</td>
<td>0.948**</td>
</tr>
<tr>
<td>Pro-Defendant Third Parties (dummy)</td>
<td>−0.965*</td>
<td>—</td>
</tr>
<tr>
<td>Mixed Third Parties (dummy)</td>
<td>0.110</td>
<td>—</td>
</tr>
<tr>
<td>Systemic Issues</td>
<td>−0.522</td>
<td>1.169**</td>
</tr>
<tr>
<td>U.S./EC Dispute</td>
<td>0.405</td>
<td>−0.330</td>
</tr>
<tr>
<td>Number of Complainants</td>
<td>−0.014</td>
<td>0.021</td>
</tr>
<tr>
<td>Log Complainant GDP</td>
<td>0.043</td>
<td>0.117**</td>
</tr>
<tr>
<td>Log Defendant GDP</td>
<td>−0.065</td>
<td>−0.524**</td>
</tr>
<tr>
<td>Article XXII</td>
<td>−0.515</td>
<td>−0.129</td>
</tr>
<tr>
<td>Nonviolation Complaint</td>
<td>−1.995**</td>
<td>0.102</td>
</tr>
<tr>
<td>Number of Articles Cited</td>
<td>−0.029</td>
<td>−0.037**</td>
</tr>
<tr>
<td>Discrimination</td>
<td>0.423</td>
<td>−0.368*</td>
</tr>
<tr>
<td>Politically Sensitive Case</td>
<td>1.076</td>
<td>−0.129</td>
</tr>
<tr>
<td>Agriculture</td>
<td>0.203</td>
<td>−0.351</td>
</tr>
<tr>
<td>Log Merchandise Trade</td>
<td>0.027</td>
<td>0.051*</td>
</tr>
<tr>
<td>Nonmerchandise Issue</td>
<td>−0.209</td>
<td>−0.151</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>6 ⁹</th>
<th>7 ⁹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of observations</td>
<td>65</td>
<td>202 (65)</td>
</tr>
<tr>
<td>Model $\chi^2$</td>
<td>23.2 (14)</td>
<td>41.3** (16)</td>
</tr>
<tr>
<td>$H_0: \rho=0$</td>
<td>—</td>
<td>$\chi^2(1)=40.7^{**}$</td>
</tr>
<tr>
<td>Pseudo-$R^2$</td>
<td>0.269</td>
<td>—</td>
</tr>
</tbody>
</table>

*2-tailed $p < 0.05$; **$p < 0.01$; robust standard errors in parentheses

⁹Note that model 6 fails its collective fit test.
The substantive impact of third-party participation on ruling outcomes can be considerable. For an otherwise average case, the marginal probability of a pro-complainant ruling is just 0.06 [0.02, 0.19] if there are no third parties involved. It rises to 0.29 [0.18, 0.41] if only pro-complainant third parties intervene, and to 0.55 [0.35, 0.75] if those parties raise systemic issues in addition. However, it drops back to 0.33 [0.17, 0.53] if we add pro-defendant third parties to this mix.

Model 7 also validates our key indicators of legal merits and complexity: Nonviolation Complaint and Number of Articles Cited. These two variables have a statistically and substantively significant effect, reducing the chances that the complainant’s claims will be upheld. The results validate our use of the two variables: they do indeed tap into features of a complaint that affect its prospects for a favorable verdict. This, in turn, reinforces the conclusion of our article’s earlier findings, because it suggests that the early settlement models and endogeneity tests do, in fact, properly control for legal merits and complexity.

Model 7’s evidence is broadly consistent with the conventional wisdom. The outcomes of rulings issued by WTO panels and the AB appear to be influenced by third-party participation. Moreover, the fact that pro-complainant rulings are more likely when the case raises systemic considerations also meshes with the conventional wisdom’s perception of the court as a political actor. But the key is that none of this is apparent unless we first consider the selection effect at work, which in turn begs closer attention to the role third parties play in undermining early settlement.

**Implications**

In the current negotiations over reforming the DSU, many submissions argue in favor of strengthening third-party rights. These submissions assume, as an article of faith, that third parties matter. But there has been little systematic evidence to date that they influence the course of dispute negotiations, let alone rulings. Our article redresses that gap by innovating in several critical ways, each of which itself constitutes an important advance. To begin, this is one of the first empirical studies of the influence of third parties on WTO dispute settlement or, for that matter, on any international adjudicative body. The article also brings

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86 With all other variables at their sample means, the marginal probability of a pro-complainant ruling is 0.45 [0.32, 0.60] if the complaint cites just one article and does not make a nonviolation claim. By citing ten articles (not an extreme value) and including a nonviolation claim, however, the complaint’s chances of victory drop to just 0.03 [0.00, 0.26].
new case-specific data to bear on the problem, including the details of third-party participation and product-level trade stakes for disputants and third parties, as well as measures informed by current research on American judicial politics of the merits and complexity of the legal complaints involved. Further, the article is one of the first applications to any judicial domain that analyzes ruling direction jointly with ruling issuance using a selection model. Finally, the article explicitly tests for (and finds no evidence of) endogeneity bias, an issue that goes unexamined in most prior studies on dispute settlement of any type. The conclusions drawn from this article’s analyses are thus particularly robust.

Our findings support the concerns that some members express about extending stronger third-party rights. We find that third-party participation undermines the prospects for early settlement and makes it more likely that disputes will go the legal distance to a ruling. We further find that while third parties have an impact on WTO rulings, this effect is conditional on the fact that they push cases to a ruling in the first place. Put another way, the conventional wisdom that third parties influence rulings in line with their sympathies is correct, but only because their participation dramatically lowers the odds of a negotiated solution. Unless this selection effect is explicitly modeled, the conventional wisdom falls apart. Similar patterns are likely in the context of other international dispute settlement forums.

A related implication concerns the role that third parties may play in preventing discriminatory settlement. According to Bagwell and Staiger, the main objective of multilateral dispute settlement is to prevent negotiated solutions that grant concessions to some trade partners but leave others out. After all, if a country’s trade partner could cut a better deal with others, this would erode the value of the concessions achieved by those with whom it had negotiated previously. That would reduce the incentives for a liberalizing multilateral deal in the first place. The implication from Bagwell and Staiger’s theory is thus that third-party participation is vital to the health of the multilateral regime.

Yet there is no evidence at present that early settlements tend to be discriminatory. And even if they were discriminatory, which is a subject for future empirical research, the fact remains that impediments to early settlements present their own countervailing risks. First, 61 percent of all full concessions negotiated under the WTO through 2002 have been offered in advance of a panel ruling, the point being that

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87 Bagwell and Staiger (fn. 3).
early settlement produces most of the preferred outcomes sponsored by dispute settlement. In this regard, we concur with Stasavage that greater exposure to a broad audience (that is, transparency) is not necessarily good for negotiations.

Second, lesser prospects for early settlement may deter members from filing disputes at the WTO. It is often taken for granted that institutions help lower the bargaining costs of negotiating, yet third parties are an important wrinkle in this story. This is not to say that countries would be better served negotiating outside of the WTO; it suggests, rather, that complainants looking to settle early may have an incentive to file those cases that are likely to attract third parties in other forums. This “forum shopping” could undermine confidence in multilateralism if, for example, disputes brought against discriminatory trade measures or disputes in which potential third parties possess a larger share of the market were more likely to be filed under the rules and provisions of preferential trade agreements, to prevent third-party participation. In this way, stronger third-party rights at the WTO could undermine multilateral dispute settlement.

Another implication of our results is that informal status can be just as important as formal status in the global trade regime. Third parties are influential long before they are designated as such and at that earlier stage have seldom elicited much notice. The implication is that institutions often matter in ways not anticipated by their design. Tomz, Goldstein, and Rivers also find that focusing too narrowly on formal members blinds us to the true impact of the WTO on the growth of trade. Our results suggest a prior unintended consequence: these informal third parties are undermining the prospects for early settlement, such that, by the time these members are formally recognized as third parties, the verdicts they are supposed to influence are almost a foregone conclusion.

Finally, this article’s findings lend some plausibility to the conventional wisdom that judicial decisions may be strategic or political and not purely a function of legal merits. Evidence to this effect, however, is impossible to find in the WTO context without adjusting for how the docket gets shaped in the first place. In this sense, our results mesh closely with the literature on American judicial politics. That literature, however, continues to debate exactly why third parties influence

80 Tomz, Goldstein, and Rivers (fn. 15).
81 For example, Caldeira and Wright (fn. 14).
judicial decisions. Some studies contend that the influence derives from the third party’s litigation resources and experience before the court.\textsuperscript{92} Other studies argue that it traces to the signal third-party participation sends to the court about the political reception a given ruling is likely to meet.\textsuperscript{93} Future research should examine which mechanism applies most in the context of WTO dispute settlement. Regardless, this article’s key contribution is to demonstrate that third-party participation affects settlement negotiations, not just rulings.

\textsuperscript{92} McGuire (fn. 7); Kevin T. McGuire, “Explaining Executive Success in the U.S. Supreme Court,” \textit{Political Research Quarterly} 51, no. 2 (1998).

\textsuperscript{93} Bailey, Kamoie, and Maltzman (fn. 7); James F. Spriggs II and Paul J. Wahlbeck, “Amicus Curiae and the Role of Information at the Supreme Court,” \textit{Political Research Quarterly} 50, no. 2 (1997). Carrubba, Gabel, and Hankla (fn. 8) also make this argument.