Balancing Law and Politics: *Judicial Incentives in WTO Dispute Settlement*

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Abstract Can international courts ever be independent of state influence? If not, how do courts manage the tension between legal principles and political concerns? We address these questions through an analysis of one of the most independent international adjudication mechanisms – dispute settlement at the World Trade Organization (WTO). We find that the *ad hoc* nature of WTO panels, judicial hierarchy, and panelists' concern for compliance create a set of incentives that encourage panelists to moderate rulings against the most powerful WTO members. Our analysis shows that WTO dispute settlement panels limit the negative effects of judgements against the United States and the European Union by reducing the scope of such verdicts through the use of judicial economy. We argue that WTO panels use this practice to balance the demands of the law with the concerns of powerful members, which results in a level of judicial restraint on the part of panels and increased prospects for compliance by the US and EU.

Keywords International Institutions · WTO · International Law · Judicial Bias · Power · Dispute Settlement

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1 Introduction

Across issue areas as diverse as trade, the environment, and human rights, the international system has become increasingly legalized. With permanent legal bodies to oversee and enforce a broad range of international agreements, understanding how international law is adjudicated and enforced is increasingly important (Terris et al, 2007). Although international courts are rarely immune to state influence, three adjudication bodies – the European Court of Justice (ECJ), the European Court of Human Rights (ECHR), and the World Trade Organization (WTO) – are often upheld as strong examples of the triumph of legalization and independence.[1] However, recent empirical analyses examining judicial incentives have found that judges on the ECHR and the ECJ are influenced by state preferences (Voeten, 2007, 2008; Carrubba et al, 2008). Such studies cast doubt on the independence of international legal bodies, but also point to the importance of understanding the motivations and behavior of third party arbitrators across institutional contexts. Are these individuals neutral agents interpreting the law, servants of powerful countries, or strategic actors with their own preferences and incentives?

Building on work from international law, international relations, and judicial politics, this paper examines the strategic behavior of WTO dispute settlement panelists. Specifically, we explore how individual-level incentives influence panel decision-making, leading to outcomes that are more favorable for powerful countries. We do not contest that WTO panels make decisions based primarily on legal principles. The nature of WTO disputes, however, is such that some areas of the law are ambiguous and allow panelists more autonomy over their decisions. Thus we expect judicial incentives not to affect who wins or loses the dispute, but rather the content of specific decisions.

To evaluate this process, we focus on an area where WTO panels have significant autonomy – the practice of judicial economy. Judicial economy occurs when a panel decides not to rule on certain legal arguments raised by the complainant. It is significant because it limits the scope of a ruling, affecting subsequent decisions about rule implementation and compliance. Judicial economy is also important because it can limit the ability of the Appellate Body (AB) to review and reverse a particular case; indeed, this is why, in *Australia-Salmon*, the AB cautioned panels not to exercise "false judicial economy," which could leave the AB unable to complete the analysis on a particular case.[2]

We argue that panelists use judicial economy strategically, in order to reduce the compliance burden for losing parties in the immediate case and through precedent in future disputes.[3] We find that panelists are most likely to exercise judicial economy when they rule *against* powerful countries, specifically the United States and the European Union (EU).[4] WTO panelists are incentivized to exercise judi-

[1] On the European courts, see Helfer and Slaughter (1997) or Keohane et al (2000). On the WTO, see Charnovitz (2002, chapter 11).

[2] This occurs because the AB has no independent fact-finding capability; if a panel has chosen to exercise judicial economy on a particular claim that the AB determines is necessary for the appeal, the AB may not have sufficient information to render a decision.

[3] Although precedent is not formally recognized in the WTO, it is broadly accepted among WTO scholars and practitioners that the *de facto* importance of precedent is significant (Bhala, 1999; Busch and Pelc, 2010; Pelc, 2012).

[4] Through this strategy, panelists act as strategic agents who rule in a systematic manner that has significant implications for international law and relations, which is consistent with

cial economy in such cases not only because they care about the long-term viability of the WTO, but also because they face career incentives to seek appointment to future WTO panels and perhaps even the AB. As the largest economies, the US and the EU pose the greatest risk to institutional legitimacy if they fail to comply with a ruling. But the US and the EU also participate in the majority of disputes, affecting the formation of future panels and exercising influence over who gets appointed to the AB. For both of these reasons, WTO panels are incentivized to use judicial economy when the US or the EU lose a dispute.

In a broader context, our analysis suggests that the WTO may not create a level playing field for its members, as is sometimes argued by international legal scholars (Horn et al, 1999). Instead, our findings illustrate that the most powerful states receive preferential treatment when they are the *losers* in a dispute. Our results support the theory espoused by Stone (2011), wherein even semi-autonomous, rule-based IOs are still more responsive to the interests of powerful countries. Panelists act strategically to balance legal and political considerations, and in areas of legal ambiguity, face institutional and career incentives to respond to the preferences of powerful countries.[5]

This paper begins with a discussion of the role of judicial economy in the WTO, explaining why this practice provides insight into judicial incentives at the WTO. It then continues with a discussion of why we expect to see panels exercise judicial economy more often when the US or EU are on the losing side of a dispute. Drawing on the judicial incentives literature, we highlight how the structure of the panel selection process, the WTO judicial hierarchy, and concerns about compliance lead WTO panels to exercise judicial economy more frequently when the US and the EU are on the losing side of a case. Section 4 discusses our data and empirical approach, providing additional information on our key independent and dependent variables. Section 5 presents our results, which indicate US and EU losses have the strongest effect on the probability that a panel exercises judicial economy. Finally, we conclude by discussing the implications of our findings for the WTO and international relations literature more broadly.

2 The Role of Judicial Economy at the WTO

Judicial economy occurs when a court opts to minimize the legal resources that it devotes to a particular matter. In its most general form, judicial economy can be found in a variety of domestic and international courts, but the specific meaning of judicial economy depends on the context of the decision-making body. At the WTO, panels exercise judicial economy by opting not to rule on a specific claim

the concept of IOs as strategic agents put forth by Hawkins et al (2006) and Hawkings and Jacoby (2006).

[5] Our argument here is similar to Posner and Yoo (2005), who argue that judicial deference to member states increases compliance with institutional rules and regime stability. Posner and Yoo, however, argue that such deference is a feature of highly dependent institutions, while we argue that WTO panels show such deference despite the relative independence of WTO Dispute Settlement. We follow Posner and Yoo in suggesting the WTO has a comparatively independent tribunal, based on six characteristics: term length of panelists, jurisdiction, initiation, number of states, state consent to jursidiction, and source of panel members. For more on this topic, see Posner and Yoo (2005): 26-27. For an analysis of the interaction of bias and power in other international institutional settings see Johns (2007).

(or claims) raised by the complainant country in its initial filing. So at the most basic level, when a panel exercises judicial economy, it limits the scope of a ruling.

Why might a panel exercise judicial economy? The WTO has a tradition, going back to the GATT, wherein panels need only address the claims necessary to resolve a dispute. In DS33, *United States - Measures Affecting Imports of Woven Wool Shirts and Blouses from India*, the AB reaffirmed this right, arguing specifically that the role of panels and the AB is not, "to 'make law' by clarifying existing provisions of the *WTO Agreement* outside the context of resolving a particular dispute" (WTO Panel Report, 1997). In the AB's understanding, the purpose of WTO panel reports is to achieve a satisfactory settlement for a dispute; if the panel achieves that goal, then addressing additional claims is extraneous.

Despite the AB's cut-and-dry approach to judicial economy, the practice clearly has distributional implications. The background of DS33 is illustrative in making this point. Although the WTO panel ruled in favor of India and against the United States, India appealed the ruling on the basis of three issues, one of which was the panel's use of judicial economy. India pointed out that the panel failed to rule on two of the four issues submitted for examination, and argued that it contested these measures separately "out of a practical concern relating to the implementation of the Panel's recommendations by the United States" (WTO Panel Report, 1997, 6). For India, the panel's decision to exercise judicial economy rendered an incomplete verdict. The United States, on the other hand, strongly supported the panel's use of judicial economy, writing "In order to preserve the integrity of the WTO system in general, and the dispute settlement mechanism in particular, the United States argues that both panels and the Appellate Body should focus only on those claims that must be addressed to resolve a dispute" (WTO Panel Report, 1997, 11). US support for judicial economy in this context is not surprising; Lovric (2009) suggests judicial economy typically favors defendants in disputes.

In his analysis of the use of judicial economy by the WTO AB, Alvarez-Jimenez (2009) argues that there are two substantive reasons why the AB exercises judicial economy. The first reason is the common explanation for judicial economy–ruling on a particular issue is irrelevant for the dispute in question. The second reason, however, is what Alvarez-Jimenez terms "judicial avoidance." This occurs when the AB decides that the particular claim in question is important enough that the AB should not issue a ruling on it in the context of another case that is only tangentially-related. Put another way, if the AB thinks the claim is important but not directly relevant to the matter-at-hand, it may opt to exercise judicial economy. A former WTO panelist also noted that this incentive exists at the panel level, highlighting in an interview that "there can be an issue that is of extreme importance [to a party of the dispute] and they'd rather have it not decided, and then they could urge you not to rule on that and instead rule on something else" (WTO Panelist, 2014).[6] The practice of judicial avoidance highlights why judicial economy matters for states. It is not simply that a more expansive ruling might allow a losing state less flexibility in terms of compliance, but if a panel opts to widen the scope, the ruling might affect rules and regulations in other industries by establishing a potentially undesirable precedent.

[6] Interviewees for this project consisted of former panelists who had served on nine WTO panels and those appointed to the WTO's indicative list of potential panelists. Participants agreed to be interviewed anonymously.

In summary, there are three reasons why a panel might exercise judicial economy. The most neutral, basic explanation is efficiency–the panel can issue a decision on the larger case without addressing a specific claim. As the discussion of DS33 illustrates, however, judicial economy benefits some states and hurts others, thus this explanation is unlikely to be the whole story. The second explanation is that a panel might opt to limit the scope of the ruling so as to allow the losing party greater flexibility in determining how to comply with the ruling. This is precisely the reason that defendants often prefer judicial economy. The final explanation is that panels understand rulings establish precedent, and do not want to overreach by issuing decisions on matters unnecessary to resolving the case at hand.

In this paper, we focus primarily on how panels use judicial economy to limit the scope of a ruling to make it easier for the losing party to comply. Our conceptualization of judicial economy, however, also acknowledges the relationship between judicial economy and precedent–panelists face incentives to avoid setting precedents that key members may view unfavorably. We argue that panels are incentivized to consider compliance calculations and precedent value most often when the losing party to a dispute is either the US or EU. This assertion contrasts with the leading study of judicial economy at WTO by Busch and Pelc. Where they focus on broad membership, we highlight narrower attention to the interests of US and EU.

Busch and Pelc (2010) argue that panels exercise judicial economy to limit precedent when the wider membership is ambivalent about the scope of a particular ruling. The authors assert that panels look to third parties – countries that are not complainants or defendants, but participate in dispute proceedings – for insight into how the broader WTO membership feels about the scope and potential precedent value of a dispute, and respond accordingly. Busch and Pelc's argument implies that panelists care about institutional longevity and viability. We share this view, but argue that panelists see the main threat to institutional longevity as being posed by the two largest economies in the world. If panelists go beyond the scope of a case to establish important precedent, this turn of events is most likely to hurt the US and the EU, both because they have large economies that deal in many different types of products and also because they are the most active participants in the WTO dispute settlement system. Thus, for both reasons of precedent and compliance, we argue judicial economy is most likely when the US or the EU is on the losing side of a dispute. To fulfill their legal duties, panelists may need to rule against these members, but panelists have some autonomy over how far to stretch the ruling. It is in these grey areas where panelists have incentives to exercise judicial economy.

3 Theory: Judicial Incentives at the WTO

Scholarship on judicial decision making has long acknowledged that the institutional structure of courts, the legal specificity of the issue in question, the selection process of justices, and the personal preferences of justices affect how and why justices issue the rulings they do (Glick and Pruet 1986; Hall and Brace 1989). We borrow from strands of the judicial politics literature to examine how the WTO's panel selection procedures, legal hierarchy, and institutional longevity lead to pre-

dictable incentives for WTO panelists. We argue that WTO panelists face career incentives to exercise judicial economy when the US or the EU are on the losing side of a dispute, since these members participate in the most panel selection processes and also affect the likelihood of appointment to the AB. WTO panelists may also act strategically, responding to the perceived incentives of AB members so as to reduce the likelihood of a verdict being overturned. Finally, WTO panelists may opt to use judicial economy to increase the likelihood of US and EU compliance, which may support the long-term viability of the institution.

3.1 WTO Panel Selection Procedures

Institutional factors such as how judges are selected and rewarded for their service have been shown to influence US court verdicts. In an analysis of US federal appeals courts, Posner (2008) compares different types of judicial careers, highlighting how factors like salary, promotion potential, and the possibility of removal change the constraints on judicial behavior. He concludes that even in the absence of significant external constraints, the ambiguous nature of law allows judges significant discretion in many areas. This accords with earlier work by Shapiro (1968), who suggests that the substance of appellate court opinions is political, not legal.

In the WTO, institutional factors are likely to be even more important because panelists are approved by governments and often selected by parties to the dispute. To be appointed a panelist, an individual must first be nominated to an indicative list of panelists who are approved by the Dispute Settlement Body (DSB), or directly proposed as a panelist for a specific dispute. The nature of the nomination process suggests that individuals who have ties to their national government are more likely to be nominated to serve as panelists. Although these individuals have careers outside the WTO, there are no restrictions on serving multiple times as a panelist, and in fact, this is quite common. In our data set, approximately 80 percent of panels include at least one repeat panelist.

The selection process for individuals to serve on panels creates two kinds of incentives.[7] To preserve independence and protect against bias, panels generally do not include panelists of the same nationality as any of the disputing parties.[8] As a result, because the United States and the European Union are parties to most disputes (either as complainant, defendant, or third parties), panelists are rarely from the United States or any EU member (Sullivan, Helena and Rufus Jarman, 2005).[9] In this way, panels are often assumed to be immune to the influence of powerful countries.

Parties to a dispute, however, play an important role in selecting panelists (Cortell and Peterson, 2006), which creates strategic incentives to balance law and politics for those interested in long-term careers in international trade. Although the Secretariat proposes nominations for panels, parties to a dispute can oppose

[7] For a broader discussion of the incentives from appointments and staffing rules in international institutions, see Cortell and Peterson (2006).

[8] Article 8 of the DSU contains an exception to this rule: for disputes between developed and developing countries, developing countries can request a panelist from their own country.

[9] In our data set, 85 percent of panelists are not from the United States or EU countries (calculated based on EU membership prior to 2004 since our data set stops in 2005).

nominations for "compelling reasons." In practice, WTO members frequently oppose nominations and thus exercise significant oversight in the panel selection process. In cases where the parties to the dispute object to panelists and are unable to reach agreement on the panel composition, the Secretariat may choose the panelists, but at this stage participants have already blocked the appointments of proposed panelists, which means that even when the Secretariat appoints panelists the parties to the dispute have already wielded significant influence over the selection process.[10]

Scholarship examining judicial independence in the context of US courts has found that judicial selection procedures exert ongoing influence over legal decisions because judges are concerned about reappointment. In places where judges are selected through elections, the structure of institutional constraints–such as whether an election is nonpartisan–will have a significant impact on how judges decide issues of importance to voters (Canes-Wrone and Clark, 2009). Such insights can be translated to the WTO, where individuals interested in being re-appointed as panelists must be careful not to alienate losing parties too much. As the European Commission noted with concern to the DSB, "it may not be unreasonable to assume that parties may be inclined to refuse panelists who have already served in a panel which had a negative outcome for them" (European Commission, 2003). Indeed, this became a heated issue in a dispute between the United States and Brazil where the parties originally agreed to the composition of the panel, but it was later observed in a submission by the European Commission that the parties wished for a panelist to "resign or to sack him. Perhaps as a result of a preliminary ruling..." (World Trade Organization DS267, 2007).

Panelists are particularly likely to be concerned if the United States or the EU is on the losing side of a case, since these members are involved in the majority of disputes at the WTO. While panelists have primary careers outside of the WTO, serving on WTO panels is a career advantage for those individuals looking to demonstrate that they have a high level of expertise in international trade. Former panelists confirmed these incentives, specifying unique incentives for different types of panelists. For attorneys it was noted that their "clients look and say, 'this person knows what he's talking about' because he's served" and thus panel experience is important for generating business (WTO Panelist, 2014). Another former panelist said that "if you're an academic, serving adds to your luster, which is also true for lawyers as well and may help their business" (WTO Panelist, 2014). Lastly, it was also highlighted that for diplomats, "particularly 'up and comers,' it's viewed as a positive for their career" (WTO Panelist, 2014). Regardless of the outside career of the panelist, experience on WTO panels can be a valuable credential when soliciting business and promoting one's career.

An analysis of a random sample of WTO panelists from our dataset shows that serving as a panelist appears to be an important credential. Over 70 percent of panelists advertise their WTO experience when promoting their business, acting as invited speakers, or having accepted government positions.[11] This may be

[10] If there is no agreement within 20 days, parties may request the Director-General of the WTO appoint panelists; however even at this stage, the appointments are done after consulting with the parties (Article 8.7 of the DSU). For more on this process, see: `http://www.wto.org/english/tratop_e/dispu_e/disp_settlement_cbt_e/c6s3p2_e.htm`

[11] We examined a snapshot of 20 panelists from 20 randomly selected disputes from our dataset, reviewing their professional positions and credentials.

especially important for individuals from countries without significant trade law experience.[12] Given these career incentives, panelists will seek to moderate rulings and increase their chance of being re-appointed to future panels. As Broude (2004, 161) notes, "Panelists whose Reports conflict with the views and interpretations of the Membership may not be re-appointed to future Panels, let alone gain appointment to the Appellate Body if nominated."[13]

3.2 WTO Judicial Hierarchy

Hierarchical models of US courts indicate that lower courts strategically anticipate possible action by the Supreme Court, and decide cases in a corresponding manner. Songer et al (1994) find that courts of appeals are highly responsive to changing policies in the Supreme Court, while Kastellec (2011) shows that Court of Appeals judges are more likely to be influenced by a fellow judge from an opposing party if that judge is aligned with the Supreme Court. Given that domestic judges are influenced by the possibility that their decisions may be reviewed and overturned by higher courts, it seems likely that international judges also share this concern.

Within the WTO, there are two levels of dispute settlement. If disputing parties object to a panel's verdict, they can appeal to the WTO Appellate Body (AB). Requests for appeals are automatically granted, and thus WTO panelists are faced with a constant threat of having their rulings overturned. This encourages panelists to avoid ruling on ambiguous legal claims whenever possible, and also motivates panelists to consider the incentives of the AB. The AB is a standing body of seven members appointed for four year terms, with the possibility of one reappointment. The DSB appoints members, and although they are ostensibly broadly representative of the membership as a whole, there has always been a US and an EU national serving on the AB. While these individuals are not supposed to act as representatives of their own countries, there are strong incentives for them to take such considerations into account.[14]

In their article on the WTO AB's important role in promoting trade liberalization, Goldstein and Steinberg (2009) acknowledge that even the AB's expansive interpretive stance has faced constraints by member states. They write: "Powerful members particularly the EC and the United States, have had a *de facto* veto over the appointment of Appellate Body members: in the WTO's early years, these powerful members engaged in a comparatively cursory review of Appellate Body nominees; in more recent years, as the Appellate Body's capacity to make law

[12] Indeed, Busch and Reinhardt (2003) suggest that developing countries have performed worse in WTO dispute settlement due to a lack of legal capacity. Given this finding, developing countries are likely to value the legal expertise of WTO panelists, which provides strong career incentives for such individuals to serve multiple times on WTO panels.

[13] The promotion from WTO panelist to AB member is not uncommon. As of 2013, 3 of the 7 AB Members had previously served as WTO panelists.

[14] AB decisions will also affect how subsequent panels interpret WTO law and even regulate the practice of judicial economy. Indeed, in one of the earliest WTO disputes, the AB criticized a panel for "false judicial economy," which occurred because the panel narrowed the scope of its decision too much and did not address all claims necessary to resolve the dispute (DS18: Australia-Salmon). Our argument here is not that panels exercise judicial economy without regard to the content of the law, but rather that they consider how the AB balances legal principles and political considerations when employing judicial economy.

became apparent, the United States began engaging in a thorough review and interview of Appellate Body nominees, blocking the appointment of some nominees who were seen as too activist" (Goldstein and Steinberg, 2009, 29). The recent decision by the United States to block the re-appointment of Jennifer Hillman, who "by all indications...had served honorably and well" (Hufbauer, 2011), lends support to this argument. Although the US did not provide a specific justification for blocking Hillman's reappointment, it is generally believed "that the United States [was] displeased with her decisions on the AB and wants to name a judge who is more attentive to US positions in future cases" (Hufbauer, 2011).

In sum, the institutional practice of automatically granting appeal and the AB selection process create incentives for panelists to exercise judicial economy when the US and EU are on the losing side of a case. Panelists know that their decisions are likely to be appealed to the AB. They also know that AB members are chosen through a process where the US and the EU wield significant influence, which is likely to affect the strategic calculations of these members. One former panelist highlighted the importance of the AB, saying "the AB's previous decisions are extremely important to me. They are the senior court. I'm a panel member" (WTO Panelist, 2014). He further highlighted the strength of the AB's oversight, referencing a case where the US was the defendant and the panel chose not to follow the AB's precedent, which resulted in the panel being "well and truly slapped down when they decided something contrary to the AB." Given WTO panelists concern about having their rulings overturned on appeal, they will anticipate possible AB concerns and thus moderate EU and US losses.[15]

3.3 Compliance & Institutional Longevity

In addition to the WTO's procedures, it is important to consider the implications of legal rulings in an international context. Posner and Yoo (2009) remind us that states only comply with international legal bodies when the cost of compliance is less than the future benefit of adjudication. This implies that international judicial bodies will take into consideration the costs of compliance for states and will be most effective at achieving compliance when their rulings balance the costs of compliance with long-term incentives to abide by the legal ruling. We argue that panelists consider the costs of compliance for particularly powerful countries and shape their rulings to encourage these states to comply.

WTO panels can use judicial economy strategically to increase the likelihood of compliance by powerful countries. In such cases, panels will maximize the likelihood of compliance by providing enough detail to clarify the requirements of a specific decision, but also allowing losing parties maximum flexibility on any extraneous issues. One such example can be found in DS136, a case brought by the European Communities against the United States concerning US antidumping duties. With respect to the Anti-Dumping Agreement, the panel explicitly

[15] We focus on the practice of judicial economy by WTO panels rather than the AB because panels have a considerable comparative advantage in this regard. In the early years of the WTO, AB members understood panels as being the exclusive source of judicial economy, since Article 17 of the DSU requires the AB to address every legal issue raised on an appeal. Alvarez-Jimenez (2009) argues that in recent years, the AB has been more willing to exercise judicial economy, however, even if this is true, the AB may still benefit from the strategic use of judicial economy by panels because such decisions limit the scope of appeals.

rejected the use of judicial economy because they believed the additional ruling would "further assist the DSB in making sufficiently precise recommendations and rulings so as to allow for prompt compliance .... [and] ensure effective resolution of disputes to the benefit of all Members" (WTO Panel Report, 2000). However, the panel chose to exercise judicial economy with respect to other aspects of the case, specifically clarifications of the material injury test found in Article 3. The panel's decision to exercise judicial economy in this area left open future interpretations under Article 3, and thus provided the United States with greater flexibility in the future. DS136 highlights the importance the panel places on resolving the legal dispute, while also minimizing the impact of their ruling through the use of judicial economy when they believe that the losing party to a dispute has a particularly high cost of compliance or a reasonably low cost of noncompliance.

Panels are most likely to be concerned with compliance when economically powerful states have an incentive not to follow the ruling of the panel. Economically powerful states are uniquely positioned to choose not to comply with rulings, given that the broader membership has relatively little leverage to compel a powerful state to comply. Additionally, if a powerful state chooses not to comply, the panel may fear that the choice could set a precedent for other countries to follow, threatening the longevity and credibility of the institution. Since the US and the EU account for a majority of the world's economy and are active in 95 percent of the WTO disputes we examined,[16] panelists are most likely to be concerned about compliance by these members. Although panelists are most likely to be concerned with compliance by the US and EU, we explicitly test in section 5.4 whether other economically powerful states who do not participate with the same frequency as the US and EU also benefit from increased judicial economy, and find that the relationship only holds for the US and the EU.

While we believe panelists function as perceptive agents who can infer from the submissions in a dispute whether judicial economy is likely to increase compliance on the part of a losing party, this task is often made easier by the explicit request for judicial economy by losing parties. When the US or EU are on the losing side of a dispute with a particularly high cost of compliance they are more likely to request judicial economy, but there are even examples of the *winning* complainant requesting the use of judicial economy to encourage these powerful states to comply with the ruling. In DS231, a dispute between Peru and the EU over the labeling of sardines, Peru made the "politically savvy" move of requesting that the panel exercise judicial economy to minimize the precedent of the case and reduce the cost of the ruling to the EU (Davis, 2006). The panel did indeed exercise judicial economy, which made the ruling more palatable to the EU while still enforcing the letter of the law by ruling in favor of Peru. In this case it was clear to the litigants and the panelists that the use of judicial economy would make it easier for the EU to comply with the ruling and the panelists thus chose to employ judicial economy.

4 Connecting Theory to Empirics

WTO panels are incentivized by the selection process, institutional hierarchy, and concerns about compliance to act strategically in response to key players. Because

[16] By "active" we mean that the country is participating in the dispute as the complainant, defendant, or third-party.

the US and EU are involved in most disputes – giving them regular veto power over panelists – and because these countries have significant control over the appointment of AB members, panelists have an incentive to balance their concerns for the law and legal arguments of a case with the cost of their rulings to these major players. To test our theory of judicial incentives at the WTO, we focus our analysis on when panels choose to employ judicial economy and limit the scope of their rulings. In this section we discuss the coding of our variables and provide additional theoretical motivations for our statistical tests. We begin by discussing the sample of available data on WTO dispute settlement and how it motivates our model selection, and explaining our dependent variable. We then discuss our key independent variables, as well as several alternative explanations.

4.1 Data and Dependent Variable

Since the founding of the WTO, member states have filed 471 disputes, but only about a third of these cases have reached the full panel process (World Trade Organization DS267, 2007). Because our analysis is focused on panel decisions, our dataset consists of 104 cases where panels issued a ruling, covering the time period of 1995 to 2005. We construct our dataset by combining data from Busch and Pelc (2010) with select variables from the Horn and Mavroidis (2008) dataset and several newly-constructed variables. Because our dependent variable is binary, a logistic regression is appropriate to model the data; however, in studies with small to medium sample sizes, logistic regression has been shown to overestimate effects by shifting regression coefficients away from zero (Nemes et al, 2005). Instead, we use a Bayesian logistic regression, which is less sensitive to small sample size and may produce more reliable estimates (Greenland et al, 2000).[17] Our results are robust to traditional logistic regression and to rare events logistic regression (see Appendix, section 5).

We focus our analysis on when panels are likely to exercise JUDICIAL ECONOMY, which occurs when panels opt not to rule on certain legal arguments presented by the complainant. Under WTO law, panels are only required to address the necessary legal arguments to bring a satisfactory resolution to a dispute.[18] Panels, therefore, have considerable discretion over whether they choose to ignore legal arguments brought by the complainant. As we have outlined, we argue that

[17] We follow the advice of Gelman et al (2008) and adopt a Cauchy distribution for our prior.

[18] Our data are drawn from the Busch and Pelc dataset, except where we specifically note original data coding or other data sources. Judicial economy is dichotomous, coded as 1 if a panel opts to exercise judicial economy on one or more articles cited by the complainant and 0 otherwise. Panels must identify and explain their use of judicial economy in every report; for this reason, "the coding of judicial economy is unambiguous" [268] (Busch and Pelc, 2010). Although the panel must explain its initial use of judicial economy, the subsequent use of judicial economy within the same ruling may be explicit or implicit; it is for this reason that the variable is dichotomous. For example, if a panel opts to exercise judicial economy on a specific claim, other claims may become irrelavant. In such cases, the panel's report may specifically mention judicial economy with regard to only one article, when in fact judicial economy may have been exercised with regard to several additional articles not discussed in the panel report. This point was reinforced in our interviews, with for panelists explaining that the choice to use judicial economy on an article early in the case may automatically mean judicial economy is used later. Thus, the main question is whether judicial economy is used at all (WTO Panelist, 2014), and not "how much" judicial economy is used.

panels are most likely to use judicial economy when they believe that the losing party has a strong incentive not to comply with the ruling, or when the ruling may result in a reduced chance of the panelist being appointed to a future panel. These factors are most likely to occur when the losing state has a high cost of compliance, a low cost of noncompliance, or is an active dispute settlement participant and thus has a regular veto over panelists.

4.2 Independent Variables

Based on our theory, we expect that when the EU or the US is on the losing side of a dispute, WTO panels are most likely to exercise judicial economy. For this reason, our primary variables of interest are indicators of EU LOSS and US LOSS in a particular dispute. Our variables for the US and EU loss are drawn from the Busch and Pelc dataset, but unlike Busch and Pelc, we disaggregate the US and the EU into separate variables.[19] Since the two WTO members have different economic and political motivations for trade disputes, we believe it is more appropriate to evaluate them separately.[20] Additionally, although both members wield significant power within the WTO, they do not necessarily adopt the same approach toward the appointment of panelists and members of the AB body. For this reason, WTO panelists may have different incentives when ruling against the EU or the US.

To consider whether the panels might respond to the interests of powerful countries for other reasons, we include two binary variables indicating whether the US or the EU is a complainant in a particular dispute. If panelists were just concerned with appeasing powerful countries, panels may be less likely to exercise judicial economy when the US or EU were the complainant in a dispute. However, unlike when the US or EU is losing the dispute, panels would not need to be concerned with compliance by these powerful WTO members when they are complainants and thus we do not anticipate a strong effect of the US or EC as the complainant. That said, by including US COMPLAINANT and EU COMPLAINANT, we control for the possibility that panels might alter their use of judicial economy when the US or EC participate in disputes, but are not necessarily on the losing side.

We also control for NUMBER OF ARTICLES CITED, since another possibility is that panelists might be more likely to exercise judicial economy when disputes raise legal issues that are weak or irrelevant to the issue in question. Such cases are relatively common in the WTO where complainants will sometimes employ the "kitchen sink" approach (Busch and Reinhardt, 2006). When complainants claim that a multitude of WTO articles are violated in a single case, it is probable that some of the claims are largely erroneous. In these cases, we expect panels to exercise judicial economy and avoid ruling on frivolous claims. Because we expect the effect of the number of articles cited to be non-linear, and given its distribution is skewed, we use the log of the number of articles cited for our analysis.

[19] The EU is considered as a single entity because trade policy is centrally coordinated (Meunir, 2005).

[20] Differences in the data support this disaggregation. For example, the EU has lost 11 disputes, 7 of which pertain to trade involving agricultural goods, whereas the US has lost 14 disputes, only 2 of which relate to agriculture. Similarly, the EU has lost 2 cases pertaining to health and safety standards, whereas the US has not lost any on this matter.

The context of a case could also lead panels to exercise judicial economy. Specifically, the General Agreement on Tariffs and Trade (GATT) provides a clause that allows states to protect human, animal, and plant life and health, even if it affects trade, and there are two additional WTO agreements that deal with food safety and animal and plant health and safety (World Trade Organization, 2014). So long as the measures are not used discriminatorily, they are allowable. For this reason, we include a control variable for HEALTH AND SAFETY STANDARDS, that identifies when disputes address these issues. If panels are concerned about compliance, then they may be more likely to exercise judicial economy when a case raises health and safety concerns since the potential for a country to disregard or ignore a more comprehensive panel decision is higher.[21]

A primary alternative explanation to our theory is that WTO panels, rather than being responsive to the interests of the most active and powerful countries, exercise judicial economy in response to the concerns of the broader membership. One way to examine this question is to look at the views of third parties to a dispute. Under Article 10 and Appendix 3 of the Dispute Settlement Understanding, third parties with a "substantial interest" in the case may be granted access to the dispute settlement proceedings, and are allowed to issue written and oral statements (Busch and Pelc, 2010). Third party involvement may persuade panelists to limit their rulings in response to the preferences of the broader membership. We test this proposition through a variety of measures of membership preferences. In our baseline model, we use a straightforward measure of the number of PRO-DEFENDANT THIRD PARTIES and PRO-COMPLAINANT THIRD PARTIES. These are parties who have a substantial interest in the case which can clearly be coded as in favor of either the complainant or the defendant, as coded in Busch and Pelc (2010).

We also include a measure of the number of MIXED THIRD-PARTY submissions, which Busch and Pelc (2010) argue are credible and costly signals that the membership is ambivalent. These are third-party submissions that present arguments in favor of both the complainant and the defendant. Busch and Pelc (2010) argue that panelists should respond to these submissions as signals of ambivalence of the broader membership, and thus we include this variable in our models.

After our primary analysis, we subject our findings to additional tests by generating an improved measure of the general preferences of WTO members that are interested in a particular dispute. We create a weighted variable that captures how far the membership's preferences are from a balanced distribution, weighted by the number of interested members. A complete explanation is provided in our discussion and tests of competing hypothesis.

[21] Due to the small sample size and our underlying theory, we only include this indicator for the content of the dispute. Our results are robust, however, to the inclusion of the Busch and Pelc control variables indicating whether a dispute involves agricultural matters and whether the dispute includes a non-violation complaint (i.e. no agreement has been violated but a government argues that it has been deprived of an expected benefit due to another government's actions.)

5 Results

5.1 The Significance of Active & Powerful Countries (US & EU)

Our first model tests whether WTO panels are more likely to exercise judicial economy when the US or EU loses a dispute, while controlling for the number of mixed third party submissions and the number of articles cited.[22] This base model highlights that each of these variables has the expected effect on the use of judicial economy and is statistically significant. In our remaining models, we control for the previously discussed variables that have been argued to affect the likelihood of panelists' use of judicial economy. Our second model tests the effect of when the US loses a dispute. We find that the US losing has a positive and statistically significant impact on the likelihood of judicial economy. Our third model does the same, but looks exclusively at whether panels are more likely to exercise judicial economy when the EU loses a dispute. The results show that the EU losing has a positive and statistically significant impact on judicial economy. In our fourth model, we include both US and EU loses and find that they both have positive and statistically significant coefficients at the 95 percent level. While the results are substantively equivalent across specifications, we use this fourth model as our baseline henceforth because the estimates are made with the most confidence.

Our results suggest that WTO panels are responsive to the interests of active and powerful members, specifically the United States and the European Union. When the US or EU is on the losing side of a dispute, panels are more likely to exercise judicial economy, with the probability of judicial economy increasing by 0.39 and 0.31 respectively.[23] Although the lack of significance for the US and EU Complainant variables may seem surprising, this actually fits with our theoretical expectations. If panels are worried about compliance by the US or EU, then they are only likely to moderate their decisions by exercising judicial economy when the US or the EU is on the losing side, rather than in all cases where the US and the EU are participants.

While US and EU loses play a significant role in the use of judicial economy, a reasonable follow-up question is what happens when the US and EU face one another in a dispute. In the set of cases we analyze, there are 19 disputes in which the US and EU are on opposing sides. In these cases, we find that panelists use judicial economy in 37 percent of their rulings. In contrast, when the US or EU lose a dispute, but are not against one another, judicial economy is used in 60 percent of the rulings. This difference suggests that panelists are less likely to limit the scope of their rulings with judicial economy in response to the US or EU losing a dispute when the other powerful member is on the winning side. One implication of this finding may be that the panelists' incentive to reduce the scope of a ruling when the US or EU is on the losing side is mitigated by their concern for the other parties perceptions, giving the other parties opposing preference in the dispute.

[22] US and EU Loss also have the expected effect and are statistically significant when analyzed individually, while controlling for just the number of articles cited and mixed third-party submission.

[23] To calculate predicted probabilities, we use a quasi-bayesian simulation that samples 1000 times from a distribution based on the coefficients and variances from our regression (Model 4 in Table 1). We compute the difference in predicted probability using this simulation data and changing the variable of interest (US Loss or EU Loss) from 0 to 1.

Table 1: The Effect of Key Members (US and EU) on Judicial Economy

	Model 1	Model 2	Model 3	Model 4
US Loss	1.329**	1.294**		1.407**
	(0.606)	(0.633)		(0.641)
EU Loss	1.611**		1.527*	1.713**
	(0.788)		(0.832)	(0.854)
Number of Articles Cited	0.902***	0.734**	0.844***	0.859***
	(0.296)	(0.296)	(0.304)	(0.309)
Mixed Third-Party Submission	0.913***	0.947***	0.855***	1.000***
	(0.320)	(0.328)	(0.322)	(0.340)
Pro-Defendant Third Party		−0.014	−0.082	−0.089
		(0.078)	(0.089)	(0.091)
Pro-Complainant Third Party		0.055	0.037	0.052
		(0.082)	(0.080)	(0.084)
Health and Safety Standards		1.184	0.928	1.006
		(0.897)	(0.899)	(0.913)
US Complainant		−0.621	−0.843	−0.606
		(0.605)	(0.596)	(0.624)
EU Complainant		−0.727	−0.281	−0.527
		(0.567)	(0.623)	(0.545)
N	104	104	104	104

Statistical significance: *p<0.1; **p<0.05; ***p<0.01

Dependent variable is judicial economy, which is a binary variable coded 1 if the panel exercises judicial economy at any point in its final report, and 0 otherwise. Models calculated using a Bayesian generalized linear model (GLM), using the package created by Gelman and Su (2013). Results are robust to logit and rare events logit models (see Appendix, section 5).

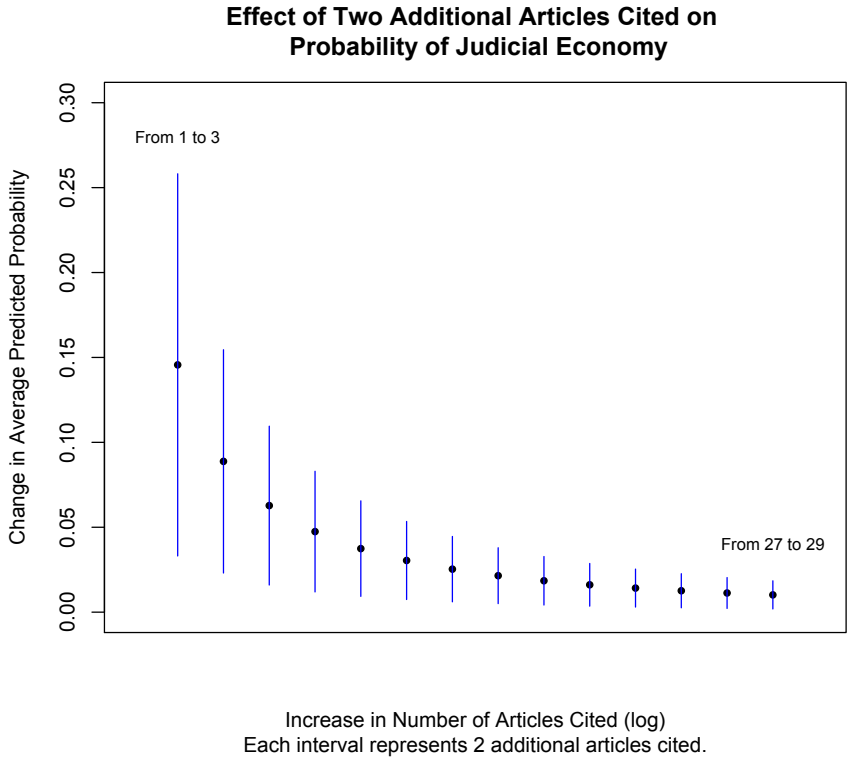
5.2 The Importance of a Strong Legal Claim

Our results indicate that panels are also responsive to the strength of the legal claim, as proxied by the number of articles cited by the complainant. As expected, the effect on judicial economy attenuates as the number of articles cited increases. This is not surprising, given that a panel is likely to use judicial economy once there are numerous articles, which means we are already likely to see judicial economy regardless of whether 20 or 30 articles are cited. Figure 1 shows how citing two additional articles affects the probability that a panel exercises judicial economy. Note that the effect is positive and significant at the 95 percent confidence level and declines as the number of articles increases, as expected.

5.3 Alternative Explanations

To test the weight of our theory against competing hypothesis, we begin by analyzing the relative influence of the broader membership on a panel's use of judicial economy. We confirm Busch and Pelc's finding that mixed third-party submissions have a statistically significant effect on the use of judicial economy, however, we

Fig. 1



find that US and EU loss have a much stronger impact. While mixed submissions may exert some influence, the total effect on the probability of judicial economy is less than a third of the magnitude of the US losing a dispute. We find that moving from zero to one mixed submission increases the probability of judicial economy by 0.12, which is one third of the effect of having the US or EU on the losing side of a dispute.[24] The change in predicted probabilities for our significant variables are charted in figure 2.

To provide a rigorous test of the competing theory that judicial economy is driven by the broader membership's ambivalence, we also developed enhanced measures of overall preferences of the active membership (all parties involved in the dispute as complainant, defendant, or third party). To do this, we created a balance variable that measures the degree of balance between pro-complainant (including the complainants) and pro-defendant (including the defendant) parties.

[24] Busch and Pelc (2010) find a much stronger effect, where moving from zero to one mixed submission increases the odds of judicial economy by 27 percent. This difference in results is partly attributed to our inclusion of several different variables (such as US loss and EU loss) in our model. It is also due to a different approach for calculating predicted probabilities, where we use a quasi-bayesian sampling technique rather than holding all variables at their means. Although these predicted probabilities are based on a bayesian logit regression model, our findings are robust to Busch and Pelc's approach, which uses a rare event logit regression model.

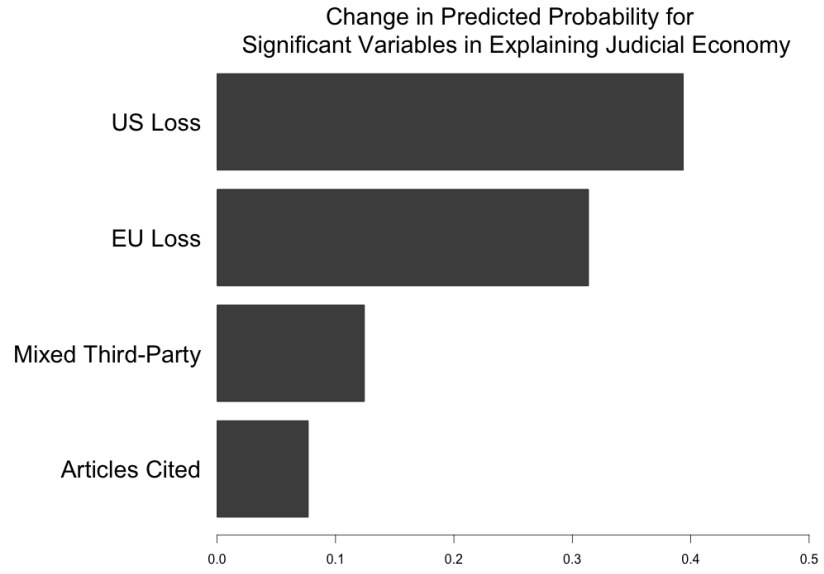


Fig. 2 Each bar shows the change in the predicted probability of judicial economy calculated using a quasi-bayesian analysis. When measuring the effect of US or EU loss the change represents the increased probability of judicial economy when one of the countries is on the losing side, as opposed to when they are not. For Mixed Third-Party, it represents a shift from the median number of mixed submissions (zero) to about one standard deviation higher (one). The Articles Cited change represents an approximate shift from the log of the mean (one) to about one standard deviation higher (two).

We first code the balance measure so that a perfectly balanced case receives a value of one and as the parties become increasingly imbalanced the variable approaches zero. Formally the coding is:

- If Pro-Complainants $\geq$ Pro-Defendants $\rightarrow \frac{2 * Pro-Defendants}{Pro-Complainants + Pro-Defendants}$
- If Pro-Defendants $>$ Pro-Complainants $\rightarrow \frac{2 * Pro-Complainants}{Pro-Complainants + Pro-Defendants}$

We then weight the balance variable by the total number of pro-complainant and pro-defendant parties as a fraction of the maximum observed pro-complaint and pro-defendant parties in the dataset.[25] Weighting the balance variable is essential to ensure the variable captures the opinion of the broader membership. Without weighting, a case that was perfectly balanced with one complainant and one defendant would receive the same score as a case with 15 pro-complainants and 15 pro-defendants.[26]

[25] The weighted measure thus takes into account all parties with a defined preference in the dispute and allows us to generate a more meaingful measure of the broader memberships' preferences than limiting our examination to mixed submissions or or a simple pro-con split.

[26] The weighting of the balance variable also provides a notable distinction from the work of Busch and Pelc (2010), who create a similar "Partisan Split" measure, however, they fail to weight the measure which limits its usefulness as a measure of the opinion of the membership at large.

If panelists are responding to divided preferences from the broader membership as others have argued, then we would expect that the weighted balance measure would have a positive effect on the probability of judicial economy. Our results, however, indicate that the weighted balance variable is negative and insignificant (p-value = 0.55), suggesting that panelists are not using judicial economy as a response to the preferences of the broader membership.

A second competing explanation drawn from the judicial politics literature centers on "issue avoidance" or "effort efficiency" on the part of panels. If the panels did not have preferences related to member compliance and career concerns, then we might expect panels to issue rulings that minimized their effort. Rather than ruling on all the factors of complicated disputes, panels might choose to exercise judicial economy and only rule on the easiest legal arguments of the case, or on select issues in question, not because the other issues were legally irrelevant, but simply to minimize time and effort. Such an explanation would suggest that panel members shirk their responsibilities in much the same way people shirk their responsibility to serve when called for jury duty. Although this proposition seems unlikely given panelists concerns for being re-appointed, a literature on "issue avoidance" in the WTO exists (Davey, 2001). If panels engage in issue avoidance by exercising judicial economy, then we would expect panels to increase their use of judicial economy as cases became increasingly complex.

To test whether panels practice issue avoidance or effort efficiency, we developed additional proxies for the legal complexity of a case.

- ELAPSED TIME between formation of the panel and ruling: More complex cases are likely to involve longer fact-finding periods and lengthier arguments; therefore we'd expect there to be a longer period of time between the formation of the panel and the ruling.
- LENGTH OF PANEL REPORT: More complex cases are likely to generate longer panel reports given that panelists will have to report on lengthier arguments and will require more detail to adjudicate between complex legal claims.

The proxies for legal complexity are admittedly troublesome, as an array of potential confounding factors, such as the number of parties making submissions, could easily bias the measurements. Across the entire dataset, however, we believe the measures provide reasonable proxies for the complexity of the case. The effects of legal complexity are reported in Table 2. None of the variables have a significant effect on the use of judicial economy, so we do not find any evidence of issue avoidance or effort efficiency on the part of panelists. Our initial findings are robust to the inclusion of these variables as additional controls.

5.4 Losses by Other Economic Powers & Legal Capacity

If WTO panels are responsive to the US and the EU losing cases because they are concerned only about compliance, panels might also be more likely to exercise judicial economy when other economically powerful countries are on the losing side of cases. These other powerful countries do not, however, have the same level of influence over the AB, given that there is not an AB member from their country by default. Additionally, the US and EU are involved in 95 percent of the cases

Table 2: The Effect of Legal Strength and Complexity on Judicial Economy

	Model 1	Model 2	Model 3
US Loss	1.439**	1.422**	1.446**
	(0.654)	(0.644)	(0.656)
EU Loss	1.744**	1.706**	1.740**
	(0.868)	(0.854)	(0.868)
Number of Articles Cited	0.932***	0.828***	0.917***
	(0.339)	(0.317)	(0.341)
Mixed Third-Party Submission	1.141***	1.005***	1.147***
	(0.365)	(0.339)	(0.365)
Elapsed Time	0.002		0.002
	(0.004)		(0.004)
Length of Panel Report		0.001	0.000
		(0.001)	(0.001)
N	102	104	102

Statistical significance: *p<0.1; **p<0.05; ***p<0.01

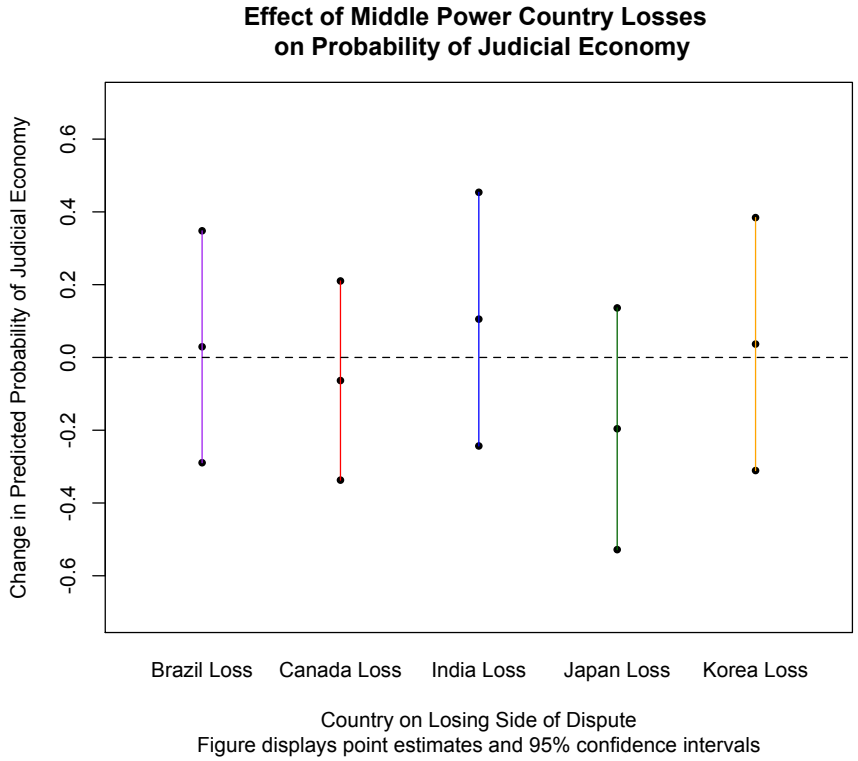
Dependent variable is judicial economy. Models calculated using a Bayesian GLM, using the package created by Gelman and Su (2013). Models include controls SPS, Pro-Complainant / Pro-Defendant Third Parties, US Complainant, and EU Complainant. None of the controls are statistically significant.

we examined, giving them a great deal of influence over the selection of future panelists, whereas other economically powerful countries have not begun to match the level of WTO participation of the US and EU. That said, we seek to test whether other economically important countries have significant influence over panels' use of judicial economy, so we analyzed whether losses by Brazil, Canada, India, Japan, and Korea are significant predictors of judicial economy. Our results show no support for the idea that panels favor these less active countries, as is illustrated in figure 3.

The findings reported in figure 3 demonstrate that the US and EU uniquely influence panels' use of judicial economy. These results suggest that compliance considerations may be necessary, but not sufficient, motivation for panelists to moderate losses. Instead, it may be the alignment of institutional considerations and panelist career incentives that generates increased judicial economy when the US and the EU are on the losing sides of disputes. The US and the EU participate in many more disputes than other large economies, which makes these two power players much more important for panelists interested in being reappointed to panels.

The null findings for other economically powerful countries also suggests that our results are not driven by the legal capacity of WTO member states. Many scholars have shown that the legal capacity of member states influences participation in WTO disputes (Busch et al, 2008, 2009; Busch and Reinhardt, 2003), and the same theory might suggest that states with greater legal capacity are more likely to argue successfully for judicial economy in their disputes. If this were true,

Fig. 3



disputes where the losing parties have significant legal capacity should have higher rates of judicial economy. Countries such as Japan, Canada, and Korea have significant international legal experience and the financial resources to litigate cases,[27] but we do not find that disputes where these countries are on the losing side are any more likely to have judicial economy than the population of disputes where the losing parties have lower legal capacity. This finding suggests that legal capacity is not a driving force behind panels' use of judicial economy.

5.5 Changes in Oversight & Judicial Economy

Another implication of the judicial hierarchy and career incentives mechanisms of our theory is that panelists should be more likely to exercise judicial economy when they and the AB are under greater scrutiny from the US and the EU. In order to test this implication, we examine changes in the use of judicial economy over time. Recalling that Goldstein and Steinberg (2009, 29) found the US and EU became more active over time in screening potential AB members and blocking

[27] The countries reported on in figure 3 have significant legal experience as repeat participants in WTO disputes and many of them even donate resources to the Advisory Centre on WTO Law (Busch et al, 2008).

nominees who were seeing as too activist, panelists should be more likely to use judicial economy in the later period, given the increased oversight from the US and EU.

In our dataset, panels exercised judicial economy in 41 percent of the cases, but as Figure 4 shows the rate at which dispute settlement panels used judicial economy increased over time. One dispute that was a turning point for the WTO dispute settlement mechanism was DS58 (and DS61), known as the *US – Shrimp-Turtle* case. In this dispute the the AB decided to permit the consideration of *amicus curiae* briefs (Goldstein and Steinberg, 2009, 20), which created a new role for non-state actors within the WTO. The AB's activism in *US – Shrimp-Turtle* invited increased scrutiny by member countries, and thus functions as a reasonable cut-point when selecting the "early" versus "late" period for WTO disputes, shown in figure 4 by the hashed-vertical line.[28] To test whether the use of judicial economy was significantly different in the early and late periods, we added a dummy variable for the early period to Model 4. In the early period the rate of judicial economy per panel ruling was 0.30, whereas the rate in the later period was 0.59. The regression results confirm that judicial economy was significantly less likely in the early period ($p = 0.03$), while all other results remained.[29] This finding adds further support to the theory that increased scrutiny by the US and EU led to increased judicial economy and restraint by WTO panels.

5.6 Selection Bias

WTO data is open to the criticism of selection bias. WTO member states often settle disputes before they reach the stage where a panel issues a final decision. Since our analysis is focused on panel decisions, it does not make sense to include these settled disputes in our dataset. As a result, our data includes only about one third of the total number of disputes filed by complainants. If disputes that result in panel rulings are systematically different than those that are settled, we must consider how these differences affect the relationship between panelist incentives and judicial economy, and the broader implications of our argument.

If a selection bias does exist, then we would be most concerned with a bias that artificially inflates the use of judicial economy when the US or EU are likely to be on the losing side of a dispute. While many scholars have examined the selection of WTO disputes and some studies have used selection models to examine the selection of cases that reach WTO panel rulings,[30] we have not identified an instrument that predicts complaint initiation and is not associated with the second stage of panel rulings and thus we choose a different approach. To directly examine whether there are systematic differences between cases that are initiated, but fail to reach panel rulings, and those where panels issue judgements, we focus on a comparison of the population of disputes at each stage. Because we are most concerned with a selection bias that would undermine our analysis of judicial

[28] The cut point is October 22, 2001, which is the date the final AB report was circulated. All disputes initiated after this date are considered part of the "late" period."

[29] All significant variables from Model 4 maintain significance at at least the 10 percent level and the coefficients are stable with the inclusion of the early period dummy.

[30] For more on the selection of WTO disputes, please see Bown (2005); Busch (2000); Chaudoin (Forthcoming); Davis (2012); Davis and Shirato (2007).

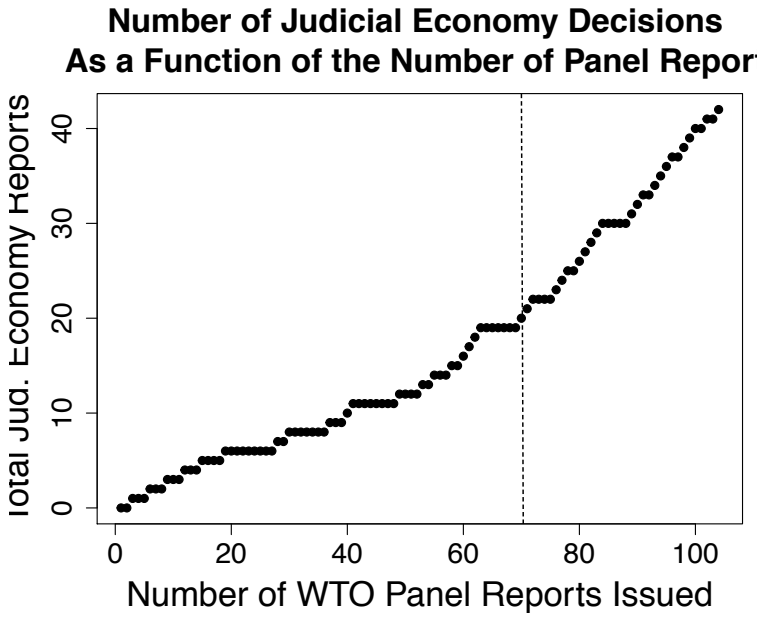


Fig. 4 Figure 1 plots the number of times judicial economy has been used, against the number of total WTO panel reports at that point. The verticle hashed-line indicates the division between early and later periods, defined as the final AB ruling in the *US – Shrimp-Turtle* dispute.

economy, and our findings show that judicial economy is highly dependent on the role of the US and EU in the dispute, we analyze differences in EU and US participation at both stages in the dispute. The results are reported in table 3, and show that no systematic difference exists.

The only notable difference between US and EU participation at each stage, is that cases where the US is named as the respondent (defendant) are more likely to be settled before reaching a ruling. Although the difference does not reach traditional levels of significance, we believe it deserves attention as the most likely source of bias, if such bias does exist. Given that defendants are on the losing side of the dispute nearly 90 percent of the time (Davis, 2012), it is possible that the complainant anticipates the use of judicial economy and thus is slightly more willing to settle, rather than facing a panel ruling where the panelists are more likely to limit the scope of the judgement. If this dynamic occurred, then our results would actually be underreporting the influence of a US loss on the panel's use of judicial economy. Without the settlement of these disputes, more cases would likely exist where the US was on the losing side and the panel used judicial economy, which suggests that our analysis provides a conservative estimate. Of course, countries may be more likely to reach settlements with the US for a variety of other reasons, such as the legal expertise of the US and potential for retaliation, which could also lead to heightened settlements among this set of cases, but should not bias our findings.

Table 3: Selection Effects: Comparing All Complaints to those with Panel Rulings

	All Complaints	Panel Rulings	Difference (*p-value*)
US Requesting Complaint	26.3	25.0	−1.3 (0.795)
EU Requesting Complaint	23.0	25.0	2.0 (0.379)
US Named Respondent	30.0	37.5	7.5 (0.126)
EU Named Respondent	19.1	20.2	1.1 (0.803)
N	335	104	

Table 3 provides the percent of cases where the US or EU was the requesting complainant or named respondent for the 335 cases initiated through 2005 and the subset of those cases that resulted in a panel ruling. The significance of the difference in proportions are calculated using a two-tailed Z-Test.

6 Conclusion

Over the last sixty years, states have dismantled discriminatory economic policies in favor of a multilateral trading system built on legalized reciprocity. Nowhere is this trend more apparent than in the creation of the WTO dispute settlement process, where WTO members forgo unilateral action in favor of negotiations and international adjudication. With autonomous panels deciding disputes between states, some scholars of the WTO have highlighted the institution's role in reducing the effect of power asymmetries among members (Davis, 2006; Goldstein and Steinberg, 2009).

A closer look at panel decision-making, however, calls into question this narrative. Although the WTO mitigates some of the asymmetries between states, panelists still face career and institutional incentives to moderate the impact of losses for the US and the EU. In cases where these most active and powerful WTO members are on the losing side, WTO panels may strategically exercise judicial economy to protect their own career prospects, encourage compliance, and promote stability in the trading system. By limiting the scope of their verdicts when the US or EU is on the losing side of a dispute, WTO panels respond to critical members' preferences in a manner that promotes stability of the trading system.

Although legal scholars may object to the notion that WTO panelists are motivated by non-legal considerations, strategic decision-making by judges has long been recognized in domestic courts and may actually be serving a valuable purpose at the WTO. While the WTO dispute settlement process has been admired by IR scholars as an independent and successful international judicial body, WTO panels may be facilitating the long-term success of this process by limiting precedent and making it more feasible for powerful members to comply with rulings. The fact that panelists face career incentives aligned with this process should bolster,

rather than damage, the institution. Together, career and institutional incentives encourage panelists to balance the demands of the law with the needs of powerful states in a way that promotes the long-term viability of the institution.

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7 Appendix

Table 4: Logistic Regression

	Dependent variable:		
	Exercises Judicial Economy		
	(1)	(2)	(3)
US Loss	1.493**		1.659**
	(0.685)		(0.699)
EU Loss		1.900**	2.173**
		(0.959)	(0.997)
Number of Articles Cited	0.788**	0.938***	0.969***
	(0.316)	(0.330)	(0.339)
Pro-Defendant Third Party	−0.019	−0.112	−0.124
	(0.084)	(0.099)	(0.104)
Pro-Complainant Third Party	0.062	0.036	0.057
	(0.087)	(0.084)	(0.090)
Mixed Third-Party Submission	1.033***	0.943***	1.136***
	(0.352)	(0.346)	(0.376)
Health and Safety Standards	1.517	1.190	1.307
	(1.037)	(1.047)	(1.071)
US Complainant	−0.706	−0.972	−0.674
	(0.673)	(0.664)	(0.709)
EU Complainant	−0.817	−0.219	−0.538
	(0.619)	(0.589)	(0.648)
Constant	−2.758***	−2.851***	−3.361***
	(0.867)	(0.878)	(0.944)
Observations	104	104	104
Log likelihood	−52.899	−53.251	−50.317
Akaike Inf. Crit.	123.797	124.502	120.633
Note:			*p<0.1; **p<0.05; ***p<0.01

Table 5: Rare Events Logistic Regression

	Dependent variable:		
	Exercises Judicial Economy		
	(1)	(2)	(3)
US Loss	1.331**		1.444**
	(0.631)		(0.638)
EU Loss		1.603*	1.804*
		(0.883)	(0.909)
Number of Articles Cited	0.715**	0.845***	0.850***
	(0.291)	(0.304)	(0.310)
Pro-Defendant Third Party	−0.015	−0.094	−0.102
	(0.077)	(0.091)	(0.095)
Pro-Complainant Third Party	0.061	0.038	0.058
	(0.080)	(0.078)	(0.083)
Mixed Third-Party Submission	0.897***	0.816**	0.968***
	(0.324)	(0.319)	(0.343)
Health and Safety Standards	1.296	0.990	1.089
	(0.954)	(0.964)	(0.977)
US Complainant	−0.609	−0.852	−0.600
	(0.620)	(0.611)	(0.647)
EU Complainant	−0.717	−0.207	−0.476
	(0.570)	(0.542)	(0.591)
Constant	−2.510***	−2.578***	−2.959***
	(0.798)	(0.808)	(0.861)
Observations	104	104	104
Log likelihood	−52.899	−53.251	−50.317
Akaike Inf. Crit.	123.797	124.502	120.633
Note:			*p<0.1; **p<0.05; ***p<0.01