Participation in WTO Dispute Settlement: Complainants, Interested Parties and Free Riders

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Abstract

What affects a country's decision of whether to formally engage in a trade dispute directly related to its exporting interests? This paper empirically examines determinants of affected country participation decisions in formal trade litigation arising under the World Trade Organization (WTO) between 1995 and 2000. We investigate determinants of nonparticipation and examine whether the incentives generated by the system's rules and procedures discourage active engagement in dispute settlement by developing country members in particular. While we find the size of exports at stake to be an important economic determinant affecting the decision to participate in challenges to a WTO-inconsistent policy, we also provide evidence that measures of a country's retaliatory and legal capacity, as well as its international political-economic relationships matter. These results are consistent with the hypothesis of an implicit "institutional bias" generated by the system's rules and incentives that particularly affects developing country participation in dispute settlement.

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1 Introduction

The basic rules and procedures of dispute settlement under the World Trade Organization (WTO) are the same for all member countries. Nevertheless, there is substantial concern that the trading interests of certain types of members, such as small or developing countries, may be underrepresented in dispute settlement activity. A bias in participation activity may stem from the current system of *self-representation* requiring that countries have sufficient resources to both monitor and recognize relevant WTO violations and to fund legal proceedings in cases in which their rights have been violated. Furthermore, the *self-enforcing* nature of the system requires complainant countries have the retaliatory capacity to threaten to impose economic costs on respondents that fail to comply with WTO panel rulings. Third, dispute settlement activity may be skewed against the confrontation of trading partners with whom a country has a special *political relationship* - either through reliance on a foreign government for development assistance or through membership in a common preferential trade agreement. If these and other incentives affect litigation behavior, poor and/or powerless countries may not participate even in the dispute settlement activity critically important to their trading interests.[1] Thus, while all WTO members have equal access to the system in principle, use of the dispute settlement provisions may reflect an "institutional bias"; i.e., that poor and/or powerless members do not participate because of the incentives generated by the rules and procedures of the institution. This paper empirically investigates whether such determinants affect participation in the formal WTO dispute settlement process in practice.

Economic research by Horn et al. (1999) has begun to empirically investigate this question by assessing the biases associated with the *initiation* of disputes under the WTO. Their analysis compares the actual number and composition of complaints initiated over the 1995-1998 period with a probabilistic model's predictions as to the expected number and composition of complaints and finds the pattern of actual dispute initiation to be explained fairly well by economic measures such as the value of trade and the diversity of a country's trading partners. For example, they find that even though the US, EU, Canada and Japan initiated over 60% of all complaints over the period, these two factors naturally lead them to initiate more formal trade disputes. Their preliminary conclusion is thus that 'power' measures do not seem to matter, and they do not find evidence of institutional bias associated with dispute initiation. While it is important to note that countries that engage in more trade with a wider array of partners are expected to be more involved in formal dispute settlement activity; nevertheless, their approach also assumes that WTO-inconsistent activity is randomly

[1] Hoekman and Mavroidis (2000) provide a thorough discussion of these and other informational issues that are likely to increase the likelihood of nonparticipation by developing countries in particular.

and uniformly distributed across markets, products and trading partners. This last assumption in particular may be called into question given the subsequent results of Blonigen and Bown (2003) and Bown (2004a), which suggest certain types of GATT/WTO-inconsistent activity may be more likely to target bilaterally powerless countries that do not have the capacity to retaliate.[2]

Any attempt to estimate the bias associated with the *initiation* of disputes is challenged primarily by data constraints - there is no obvious source for comprehensive information on government policies that are WTO-inconsistent and yet which have *not* been formally confronted through the initiation of a trade dispute.[3] In recognition of the data problem, we pursue a different approach: instead of attempting to examine whether there is a bias in the *initiation* of disputes, we focus on the pattern of *participation* in disputes that have already been initiated. We use previously unexploited information on the participation and nonparticipation of *potential* litigants that are adversely affected by member-implemented, WTO-inconsistent policies. The data thus derives from initiated disputes and the observation that in many disputes, the respondent's WTO-inconsistent policy may have been imposed on a 'quasi'-MFN (most-favored nation) basis that negatively affected the exports of *multiple* member countries, any number of whom could have formally participated in the dispute. In addition to the complainant initiating the dispute, many negatively affected exporting countries do choose to participate in disputes, either as a co-complainant or as an "interested third party," which is permitted by the Dispute Settlement Understanding's Article 10. Nevertheless, dozens of affected exporting countries do not formally participate, even though they have a right to do so and an economic interest in the dispute's outcome.

More formally, we investigate a set of WTO trade disputes from the 1995-2000 period that involve respondents' WTO-inconsistent policies being implemented on a quasi-MFN basis. Such policies negatively affect the exports of multiple WTO members, thus establishing a set of *potential* litigants. We

[2]Blonigen and Bown (2003) empirically investigate US antidumping (AD) petitions between 1980 and 1998 and find that petitions are more likely to result in duties against countries that lack retaliatory capacity. This evidence is consistent with the hypothesis that bilaterally powerless countries are more likely to be targeted by GATT/WTO-*inconsistent* AD measures unless there is the unlikely scenario in which powerless exporters were, on average, *more* likely to face GATT/WTO-consistent than GATT/WTO-inconsistent AD measures. Second, Bown (2004a) examines a sample of GATT trade dispute data over the 1973-1994 period and finds that countries tend to implement GATT-inconsistent import protection leading to a trade dispute, as opposed to GATT-consistent safeguards protection, if the trading partner affected by the protection is bilaterally powerless.

[3]The WTO does not provide exhaustive data on the extent to which member countries violate their obligations, although periodic peer-country reviews of trade policies are published under the WTO's "Trade Policy Review Mechanism." While a potential future source of data, the peer reviews are also non-random and undertaken only sporadically: the US, EU, Canada and Japan are reviewed once every two years, the next 16 largest traders are reviewed once every four years, and the remaining members are reviewed only once every six years (WTO, 2003a).

then develop an expected cost-benefit framework to guide an empirical examination of determinants of potential litigants' decision of whether to formally participate in the disputes. Presuming that formal participation occurs if the expected benefits are greater than the expected costs, we investigate whether the expected benefits include increased market access in the disputed sector, as well as the increased probability of an economically successful dispute outcome that may be tied to credible retaliatory threats. We also examine whether the expected costs to formal participation include either the capacity for a country to afford the substantial legal costs associated with WTO dispute settlement litigation, or the political costs associated with a potential deterioration of international relations when confronting important trading partners. Finally, we do acknowledge that an economically successful resolution to the disputes under investigation involve a respondent country removing a WTO-inconsistent policy on an MFN basis, so that any formal litigants' efforts generate positive externalities. Such externalities generate an incentive to *free ride* on the litigation of others, providing a potential explanation for nonparticipation if our investigation were to find that exporters do *not* engage in the dispute settlement process for reasons related to our expected cost-benefit determinants.

To clarify our approach, it is useful to consider a 'typical' dispute under examination in the sample, such as *US - Safeguard on Circular Welded Pipe from Korea* (DS202), which concerns a respondent having implemented a relatively nondiscriminatory (what we term a 'quasi'-MFN) but WTO-inconsistent safeguard policy.[4] Because the US safeguard was applied on a quasi-MFN basis adversely affecting the exports from multiple WTO member countries, a completely successful economic resolution to this dispute would involve the US eliminating the trade barrier, liberalizing imports of pipe from the Korean complainant, and extending that liberalization to exporters of pipe from other source countries on an MFN basis. In this particular instance, some exporting countries that were also adversely affected by the US safeguard did formally participate in the dispute. Japan and the EU, for example, exercised their rights to intervene by making legal submissions as interested third parties in the dispute.[5] But other exporting countries adversely affected by the US safeguard, such as South Africa, Turkey, and Venezuela, did *not* formally participate in the dispute. Undoubtedly they hoped to free ride and enjoy market access benefits generated by the formal litigants' efforts at liberalizing the safeguard-protected market and having that liberalization multilateralized on an MFN

[4]One critical element for the WTO-inconsistency of this particular safeguard was the US government's failure to attribute injury to imports (Irwin, 2003). Nevertheless, the US did exempt NAFTA-members (Mexico and Canada) from the safeguard, so Korea included discrimination allegations on its list of WTO-violations. As we discuss in the data section below, we eliminate such 'exempted countries' from the set of negatively affected exporters identified in safeguard disputes.

[5]The EU did initiate its own dispute over the US pipe safeguard as part of another dispute contesting a US safeguard on steel wire rod (DS214), but it did not follow through as a complainant.

basis, as WTO rules require. But it is possible that other elements of the dispute resolution process generate incentives that also affected the nonparticipation decision (e.g., lack of sufficient retaliatory or legal capacity, political relationships). The purpose of this paper is to investigate econometrically whether such political-economic determinants can be used to explain why some countries (e.g., Korea, Japan and the EU) formally participate in such disputes, whereas other adversely affected, potential litigants (e.g., South Africa, Turkey and Venezuela) do not.

Why is understanding determinants of dispute settlement nonparticipation important? While lessons from the *US - Safeguard on Pipe* dispute are certainly only anecdotal and dispute outcomes are not under investigation here, nevertheless, the dispute's resolution raises a number of relevant concerns about the implications of the current process. In this particular instance, any nonparticipant hopes of free riding on the complainant's litigation efforts went unmet. Despite almost exhausting the WTO's formal dispute resolution process, the dispute was *not* resolved by the US lifting the safeguard, but instead the negotiated settlement yielded a discriminatory increase in market access benefits to Korea alone.[6] A policy concern raised by this particular experience is that the lack of active participation by the other, non-Korean exporting interests at least implicitly contributed to a negotiated settlement that failed to generate positive trade liberalization benefits to other exporters (spillovers), and instead led to a simple restructuring of the WTO-inconsistent policy into something that was likely even more discriminatory than the initial safeguard.[7]

As a preview of our empirical results, we present evidence that countries with a substantial economic stake in the litigation (i.e., lost market access) are more likely to participate in WTO dispute settlement. However, we also find that, even after controlling for market access interests, a number of other political-economic factors affect the decision not to litigate, and these other factors are of potential concern from the perspective of an open and accessible dispute settlement system. We

[6]Specifically, the quantitative restriction element of the tariff rate quota facing Korea under the safeguard was expanded, so that the safeguard tariff applied only to Korean imports of line pipe exceeding 17,500 tons per quarter. (USTR, 2002) The US did not increase market access under the tariff rate quota to any of the other adversely affected exporters.

[7]It should also be noted, however, that the formal third party participants (the EU and Japan) in this dispute also did not enjoy additional benefits from the US-Korea negotiated settlement. This is consistent with the empirical results of Bown (2004c) which examined the outcomes of an earlier sample of GATT/WTO disputes and did not find any evidence that participating as an interested third party significantly increased the multilateralization of trade liberalization gains extended by a respondent. While Bown (2004c) did not narrow its focus so as to examine third party participation in nondiscrimination violation cases alone; nevertheless, an alternative interpretation to the free riding hypothesis is simply that non-participants make a rational choice. Perhaps because they do not have the capacity to threaten retaliation and prevent the discriminatory settlement, the nonparticipants rationally choose not to pay the litigation and political economy costs of participation, under the expectation that they would not have additional benefits extended to them through MFN anyway.

present evidence that, ceteris paribus, adversely affected exporters are less likely to participate if they are involved in a preferential trade agreement with the respondent, if they lack the capacity to retaliate against the respondent through withdrawing trade concessions, if they are poor or small, or if they are particularly reliant on the respondent for bilateral assistance. As these last characteristics in particular are typically associated with *developing* countries in the WTO membership, our results suggest evidence of an "institutional bias" affecting active engagement by such countries in the current system.

In addition to complementing the work of Horn et al. (1999), this paper is part of a growing empirical literature on dispute settlement activity under the WTO and its predecessor, the GATT. Bown (2004b) empirically assesses determinants of successful economic outcomes in GATT/WTO trade disputes, finding substantial evidence that retaliation threats affect the likelihood and size of trade liberalization undertaken by the respondent, and weak evidence that guilty panel rulings also induce economic compliance.[8] In the political science literature, a series of papers by Busch and Reinhardt have examined determinants of GATT/WTO litigation decisions related to those under investigation here; i.e., complementary, follow-up legal decisions such as why some disputes settle early as opposed to being resolved through the third party adjudication available through the panel process.[9] None of these papers focuses on the question of dispute participation and the determinants of such participation and/or any potential institutional bias. Furthermore, with the exception of Bown (2004b, 2004c) none of these earlier WTO studies takes advantage of the disaggregated trade data on the actual products under dispute.

The rest of this paper proceeds as follows. In section 2 we discuss the WTO dispute settlement process and our data collection efforts that establish the set of adversely affected exporters whose dispute settlement participation decisions (as potential litigants) we then investigate econometrically. Section 3 provides our empirical investigation and a discussion of our results. Section 4 concludes with a discussion of policy implications and areas of potential future research.

[8] Bown (2002; 2004a) presents a theoretical and empirical approach, respectively, to address the related question of why a respondent country may have implemented a trade policy that was inconsistent with its international obligations, and thus which put it in the position of being a respondent in a trade dispute.

[9] See, for example, Busch (2000) and Busch and Reinhardt (2000) and Reinhardt (2001). See also Guzman and Simmons (2002).

2 WTO Dispute Settlement and the Trade Dispute Data

2.1 The Evolution of Dispute Settlement under the GATT and WTO

The increased 'legalization' of the GATT's dispute settlement procedure, culminating in the 1995 establishment of the WTO's Dispute Settlement Understanding (DSU), was one of the major achievements of the negotiations under the Uruguay Round (Jackson, 1997; Petersmann, 1997). Under the prior GATT regime, there were a number of problems with the dispute settlement process. For example, any Contracting Party, including potential respondents, could veto the initiation of a dispute, the establishment of a panel, or the adoption of a panel report. Furthermore, the dispute settlement process often failed to induce respondents to bring GATT-inconsistent policies into compliance with actual rulings. The reforms embodied in the DSU addressed many of these shortcomings: the DSU eliminated the ability of countries to unilaterally veto the establishment of a dispute settlement panel (DSU, Article 6.1), it delineated an explicit time frame for the panel decisions (DSU, Article 20), and it established more transparent rules, limits and access to permissible retaliation (DSU, Article 22). At the time of its inception, many scholars argued that the more 'rules-based' dispute settlement system would benefit *developing* country members in particular, as these were precisely the countries that lacked the leverage to operate effectively under the old 'power-based' system of the GATT.

Even with the increased legalization of the process, however, there are still important elements of 'power' present in the enforcement of the rules of the WTO system. For a member country that fails to live up to its obligations, the punishment is that affected trading partners may be authorized to retaliate by withdrawing concessions "equivalent to the level of the nullification or impairment" (DSU, Article 22.4) suffered by the complainant. However, many small countries find such authorization to be useless because their inability to affect world prices implies that any trade retaliation imposes substantial welfare costs on themselves through the standard inefficiencies associated with the imposition of tariff protection.[10] Furthermore, while the WTO does provide legal assistance to developing countries through its Advisory Centre on WTO Law (ACWL),[11] the assistance is limited. Finally, there are no independent prosecutors under the WTO, so that firms in developing countries must be able to recognize that their rights have been violated before they can turn to their governments to pursue their case and even request access to subsidized legal assistance.

[10] Bown (2002) presents a theoretical model showing how a complainant's ability to affect the terms of trade influences the outcome it receives in dispute settlement negotiations even in disputes that do not end in retaliation.

[11] The mission of the ACWL is that "[t]he Centre will provide legal counseling on WTO law matters to developing-country and economy-in-transition members of the Centre and all least developed countries free of charge up to a maximum of hours to be determined by the Management Board." (ACWL, 2003)

2.2 The Dispute Resolution Process under the WTO

How does the WTO dispute settlement process currently operate in practice? If a WTO member discovers its market-access rights have been violated by another WTO member, it can initiate a dispute by requesting bilateral consultations under the DSU's Article 4. If those preliminary discussions fail to resolve the matter, the member can request the establishment of a formal dispute settlement panel under the DSU's Article 6. Furthermore, any WTO member that has also been negatively affected by the respondent's policy or that has a substantial trading interest in the matter can formally participate in the dispute settlement proceedings as either a co-complainant or as an interested third party. With respect to multiple complainants, Article 9.1 states that "where more than one Member requests the establishment of a panel related to the same matter, a single panel may be established to examine these complaints...." Furthermore, with respect to third party interests, Article 10.2 states, "Any [WTO] member having a substantial interest in a matter before a panel and having notified its interest to the DSB (referred to in this Understanding as a "third party") shall have an opportunity to be heard by the panel and to make written submissions to the panel. These submissions shall also be given to the parties to the dispute and shall be reflected in the panel report."

A final question for the dispute settlement process that could affect our data collection approach (to be discussed below) is, are there restrictions on who is eligible to initiate a dispute as a potential complainant? For example, are complainants limited to large suppliers of the products over which trade restrictions have been imposed? The DSU's Article 3.7 suggests that a member should only initiate a dispute after exercising "its judgment as to whether action under these procedures would be fruitful," which could be interpreted as limiting eligibility to large exporters where the economic gains of increased market access would be "fruitful." On the other hand, Petersmann (1997, pp. 202-209) details many explicit provisions in the DSU that appear designed to *encourage* developing countries to become more involved in the initiation of disputes in order to protect their market-access rights. Given these provisions mandating special treatment for developing country interests in the dispute settlement process, we treat any WTO member that exports the disputed product to the respondent as eligible to participate in formal disputes in which its exports have been adversely affected.

2.3 Building the Data Set of Potential Litigants

As this is both a new approach and data set under investigation, we use this section to briefly describe our effort to construct a database of *potential* litigants - i.e., the exporters that are negatively affected by member-implemented, WTO-inconsistent, import-restricting policies. Our approach essentially requires three steps: 1) determining the sample of WTO disputes to analyze, 2) determining the set

of exporters that are adversely affected by the disputed policy and that which share the common goal of the WTO-inconsistent policy's removal, and 3) matching the resulting set of *potential* litigants with data on the *actual* formal dispute settlement participants.

First, we focus on the set of formal WTO trade disputes initiated between 1995 and 2000 involving legitimate allegations that the respondent provided excessive protection to a domestic, import-competing industry, which affected a well-defined set of imported products.[12] This leaves us with 85 formal disputes, only 54 of which are 'unique,' under the definition of a unique dispute relating to a singular WTO-inconsistent policy, respondent, and set of disputed products. We take the Harmonized System (HS) imported products subject to the 54 unique disputed policies and match the HS code with the most disaggregated, multilateral trade data systematically available from an independent source, i.e., the TRAINS 6-digit HS import data provided in UNCTAD.[13] If t is the year of dispute initiation, we define an exporter as being affected by the disputed policy if it was a WTO member country revealed by the data as having nonzero exports of the disputed 6-digit HS product to the respondent in any of the years $t-2$, $t-1$, t or $t+1$.

We wish to take from the set of exporters (revealed by the data), only those *potential* litigants that were adversely affected by the WTO-inconsistent policy and who thus seek its removal.[14] To identify

[12]This eliminates from our sample of data a number of disputes involving excessive export promotion (typically WTO-inconsistent subsidies), as well as disputes that failed to relate to a well-defined set of products. For example, we drop from the data set the dispute over the US's 'Byrd Amendment,' i.e. *US - Continued Dumping and Subsidy Offset Act of 2000* (DS217 and DS234) because no specific products were identified in the dispute. Our focus on 'legitimate' allegations allows us to minimize the effect of omitted variable bias we might introduce by failing to formally control variation in the level of difficulty of the legal issues across cases.

[13]In most disputes, the HS codes of the affected products are listed in the formal WTO dispute correspondence that is published at the WTO's website. In a handful of cases, the HS codes were obtained from other sources, such as national government websites, e.g. the *Federal Register* in some cases involving US antidumping measures. Furthermore, the products frequently at issue in the dispute may be at the more disaggregated 8 or 10 digit level. To the extent that there is substantial variation in other 8 or 10 digit exports not under dispute in a 6-digit HS category, our results may be imprecisely estimated.

[14]This is *not* to say that exporters that implicitly benefit from a WTO-inconsistent policy - say through preferential access generated through an MFN violation - are not interested in the dispute's outcome and thus do not have an incentive to participate as an interested third party. However, since they are not adversely affected by the WTO-inconsistent policy, they have no economic incentive to act as a complainant in the dispute (in fact, they have a disincentive to complain), and therefore it would be inappropriate to include them in the *three choice* model that we estimate below. Nevertheless, there are a number of questions regarding third country participation alone that are quite interesting, but that we are unable to address given our approach here. For example, we leave for future research the more general question of why countries participate as third parties in trade disputes at all. I.e., are countries more likely to participate as third parties so as to a) defend economic benefits implicitly received through a discriminatory policy, b) fight for economic benefits promised but not given because of a WTO-inconsistent policy, c) fight for legal interests that are more systemic in nature and which might not relate to any particular economic benefit at all?

this set of countries, we require more detail on the discriminatory nature of the respondent violation in the WTO dispute. Recall that we can only utilize disputes that involve WTO-inconsistent policies applied on a quasi-MFN basis, i.e., that negatively affected the exports from *multiple* countries. Table 1 illustrates that 35 of the 54 WTO-inconsistent policies fit the definition of being applied on virtually an MFN-basis, so as to negatively affect the trade of all exporters of the disputed product.[15] The other 19 WTO-inconsistent policies in the sample were applied on at least a 'quasi'-MFN basis, in that even though an MFN-violation is a key element of the dispute, we were still able to identify from other, non-WTO sources the other exporting countries *in addition to* the complainant facing the discrimination of the WTO-inconsistent policy. A good example of this second type of dispute would be *EU - Banana Regime*, where there were many negatively affected exporters that could have participated in the dispute (that were injured from the discrimination), while there were also many positively affected exporters (e.g., the Lomé Agreement countries receiving preferential access) who would not be potential litigants under our definition, as they would not seek to have the EU's WTO-inconsistent policy removed.

The final step is to take the adversely affected exporters in these 54 disputes and to match this with information on the exporters that formally participated in each dispute. First, there may be multiple complainant countries involved in a dispute against the same respondent and disputed policy. As shown in table 1, there were 89 complainants involved in these 54 'unique' disputes. There were also 65 adversely affected exporters who formally notified the WTO of their interest as a third party.[16] Table 1 then documents the remainder as 711 adversely affected exporters that were nonparticipants.

Table 2 lists the exporting country frequency as nonparticipants, interested third parties and complainants found in the data set of trade disputes under investigation. As the table indicates, developing countries are a substantial fraction of the sample, despite the fact that these are exporters revealed by the 6-digit HS data as having a trading interest in the dispute's resolution.

[15] As noted in the introduction, we exclude from the negatively affected exporting countries in safeguard disputes any "exempted countries" that the respondent announced as being excluded from the safeguard. In many cases these are countries in a common preferential trading agreement, or small, developing country suppliers that do not meet a *de minimus* criteria of at least 3% of the import market. For a discussion of the use of country exemptions in WTO safeguards protection, see Bown and McCulloch (2004).

[16] To identify these countries, we utilize two sources. First, for all disputes that resulted in a panel report, we use the information in the report as to which countries made 'third party submissions' or 'reserved their third party rights' to make legal arguments during the panel process. Second, in disputes that did not reach the panel stage, countries could signal their interest by making a formal appeal to the respondent and complainant to request to join the consultations (under DSU, Article 4.11), based on a substantial trading interest in the products under dispute. Such notifications are published along with other information pertaining to the dispute at the WTO's website.

3 Participation Decision of Adversely Affected Exporters

3.1 Theory

What factors determine whether an adversely affected exporting country formally participates in a trade dispute? Our hypothesis is that such exporters participate if the expected benefits to participation are greater than the expected costs. We assume that expected benefits depend on the size of the gains the exporter would receive from a successfully resolved case, as well as the probability that the case is resolved successfully. We allow for the expected costs of formal participation in a dispute to be made up of two distinct components - the expected litigation costs and the expected political-economic costs to confronting another nation in a formal dispute. As we describe in more detail below, our hypothesis allows for economic interests to affect decisions, but we also include proxies for some of the institutional biases that WTO scholars have been concerned might also influence participation decisions, given the rules and procedures of dispute settlement described in section 2.1. The failure to find evidence of a relationship between the political-economic determinants and participation decisions in particular would be consistent with an alternative hypothesis that *only* the exporter's interest in its trade to the disputed sector matters. In the next two sections we describe the variables and data we use to represent these expected benefits and costs.

3.1.1 Expected Benefits to Formal Participation

Exporter Benefits from a Successful Dispute

What are the expected benefits to participating in a dispute, and when would they be large? For the purpose of this investigation, we focus on the direct, short-term economic benefits to participating in the dispute, i.e., the improved terms of market access or trade liberalization offered by the respondent country.[17] We hypothesize that the decision of an exporter to participate formally in the dispute increases the marginal benefit to all exporters of the disputed product to the respondent by either increasing the likelihood that the respondent will comply with its obligations and undertake a given level of trade liberalization, and/or increasing the depth of any such liberalization.

First, an exporter would be more likely to participate in the proceedings when the respondent's disputed market is "important." One way of measuring importance is the size of the *market access* commitment in question (i.e., the value of trade lost to the disputed policy), which we proxy for by

[17] Countries might alternatively have an incentive to participate to ensure the long-term viability of the institutional arrangement or to make arguments that might apply to their rights and/or obligations being litigated in other concurrent (or future) cases - perspectives that we will not consider here.

using the log of the real dollar value of exports to the respondent's disputed market in $t-1$, the year before the initiation of the dispute. The disputed sector data for the respondent country is again the 6-digit HS data derived from TRAINS.[18] As a second measure, we use the exporter's share of the respondent's disputed import market in year $t-1$. This variable addresses the idea that an exporter with a sizable market share may be expected to take on a *leadership* role in challenging a WTO-inconsistent measure. This might occur even in cases in which imports in $t-1$ were small because it is a dispute in which the respondent refused to implement negotiated WTO-obligations, as opposed to a dispute in which the respondent has applied a new, WTO-inconsistent policy in t after a market had been liberalized.

Next, even if the value of trade at stake isn't large or if the exporter isn't necessarily a leader in that particular market, exporters may be more likely to participate in disputes in which their sales are disproportionately concentrated in a particular destination market. Thus, we also include as an explanatory variable a measure of the exporter's *diversification*, defined as the disputed 6-digit HS exports to the respondent as a share the exporter's same 6-digit exports to the world in $t-1$.[19] We expect a positive relationship between this variable and the participation decision - exporters that are more reliant on the respondent's market (i.e., that are less diversified), are more likely to participate in a formal WTO-challenge, because they are concerned with the ability to "deflect" lost trade to alternative third markets due to a market-specific, fixed cost of exporting.[20]

The Likelihood of Success in a Dispute

The *expected* benefits to a dispute are also affected by the probability of its successful economic resolution. Due to the self-enforcing nature of the WTO's dispute settlement system, exporting countries can only enforce their rights through actual or implicit threats of retaliation against offending trading partners.[21] Therefore, we hypothesize that an exporter is more likely to participate in a dispute in which it is bilaterally powerful (with respect to the respondent) because this positively affects the probability of a successful economic outcome. A respondent country is more likely to bring

[18] We use the log of the level of $t-1$ imports so as not to give too much weight to particularly large values of this variable in certain observations in the data set.

[19] Since the 6-digit HS data is available only for importing countries reporting data in the TRAINS data set, we have a consistent time series for 23 of the 30 largest importing countries here.

[20] For evidence on exporting countries' ability to "deflect" trade to third markets when confronted with newly imposed trade restrictions, see Bown and Crowley (2004).

[21] Using a sample of GATT/WTO disputes initiated and completed over the 1973-1998 period, Bown (2004b) has shown that the more powerful is the complainant exporter with respect to its capacity to engage in tariff retaliation against the respondent, the greater are the trade liberalization gains that the respondent yields to the complainant at the conclusion of the dispute.

a WTO-inconsistent policy into conformity with its obligations if there is a credible retaliatory cost for failing to do so. We therefore measure the capacity for an exporter to credibly threaten a tariff retaliation as the share of the respondent's total exports sent to the exporting country, using the bilateral export data provided in Feenstra (2000).

An alternative retaliation threat variable is the respondent's reliance on the exporter for bilateral aid. Specifically, the more reliant is the respondent on the exporting country for development assistance, the more aid the exporting country could threaten to withdraw, and thus the more likely that the respondent would implement market-access commitments. We thus hypothesize that the more reliant is the respondent on the exporter for bilateral aid, the more likely is the exporter to formally join the dispute. On the other hand, the respondent's reliance on the exporter for bilateral assistance could also signal a special political relationship between the two countries that might decrease the likelihood that the exporter would confront the country with a formal international dispute. We investigate these potential relationships by using bilateral aid data derived from OECD (2001), and define the variable formally as the aid the respondent receives from the exporter, relative to the size of the respondent's GDP, in order to normalize for level differences across countries.[22]

3.1.2 Expected Costs to Participation

The Capacity to Absorb Litigation Costs

When would the expected costs to an exporting country of formally participating in a dispute be high? The resource costs of merely *initiating* or *participating in* a case as either a complainant or an interested third party (or reserving third party rights) are not large, and that is all that is necessary for a country to be revealed as a formal participant in our data set. Nevertheless, we do proxy for an exporter's capacity to incur significant legal costs by using the exporting country's GDP, with data derived from World Bank (2001). The theory is that, though legal services may be internationally traded, richer countries have access to greater resources necessary to hire counsel to both monitor trading interests and to stand up for those interests through litigation. Nevertheless, we also proxy for a country's legal capacity by using data on the number of delegates the WTO member had sent to the WTO offices in Geneva (Horn et al., 1999).

[22]The aid data is official development assistance and aid and does not include, for example, military aid or aid from non-governmental organizations (NGOs). An alternative measure of interest that we do not consider given the lack of data is data on trade preferences between the exporter and respondent countries, such as participation in the Generalized System of Preferences (GSP). We do address part of this concern through a variable capturing membership in formal preferential trade agreements sanctioned under the GATT's Article XXIV, discussed below.

Political Economy Costs

A second potentially important expected cost to developing country exporters does not relate to the cost of litigation, but to the political economic costs of publicizing a grievance through a formal international confrontation with a particularly "important" respondent country. One type of important country is a trading partner on whom the exporter is particularly reliant for bilateral assistance. Here we expect the larger is the total aid received by the exporter that derives from the respondent (relative to its GDP), the less likely is the exporter to formally participate in a case against the respondent as either a complainant or an interested third party, for *fear of losing* this aid in the future. Again, the bilateral aid data is derived from OECD (2001).

A second example of an important country from the exporter's perspective is a trading partner with whom the exporter is involved in a preferential trade agreement (PTA). The hypothesis is that a country may be less likely to formally participate in a dispute against another PTA member - either because it would worsen relations, or potentially because the PTA contains its own dispute settlement provisions within which disputed policies could be arbitrated. Our dummy variable thus takes on a value of one if the exporter and respondent country are members of a common free trade agreement or customs union that has been notified to the WTO under the GATT's Article XXIV (WTO, 2003b).

The summary statistics for each of these variables used in the estimation are provided in table 3.

3.2 Econometric Model

To address our question regarding the determinants of a negatively affected exporter's decision of whether to participate in a trade dispute, we assume that a WTO member country make one of three choices: $i \in \{0, 1, 2\}$, where 0 = not participate, 1 = interested third party, 2 = complainant. We assume the formal participation decision is thought of as an *ordered* choice, e.g. that complainants are more involved in the case than interested third parties, etc. We econometrically estimate the determinants of this choice by using the standard ordered probit model.[23]

4 Econometric Estimates

Our econometric estimates are found in table 4, which presents maximum likelihood estimates of the *marginal effects* of the ordered probit model. The 865 observations are the negatively affected

[23]For a formal discussion of the ordered probit model, see Greene (2000, pp. 875-879). Alternatively, one could also make the assumption that these choices are unordered, and thus utilize the multinomial logit model, which we discuss in more detail in section 4.3. For a formal discussion of the multinomial logit model, see Greene (2000, pp. 859-865).

countries revealed by the trade data as exporting the 6-digit HS disputed product to the respondent in one of the 54 quasi-MFN disputes described in table 1. The model is also estimated with respondent country fixed effects, whose estimates are suppressed. The left column of the table presents estimates of the marginal effects of the determinants of the exporter's choice of becoming a complainant, the middle column presents estimates for the interested third party choice, while the right column presents estimates for the choice to not participate.[24] With respect to the size of the marginal effects estimates discussed below, first note that, when evaluated at the means of the underlying data, the predicted probability that an exporter chooses to be a complainant is 0.027 (i.e., 2.7%), the predicted probability that an exporter chooses to participate as an interested third party is 0.057 (i.e., 5.7%), while the predicted probability of not participating is 0.916 (i.e., 91.6%).

4.1 Expected Benefits to an Economically Successful Resolution

We begin with the expected benefits to participating, and consider first the variables controlling for the size and importance of the benefits to the exporter should the dispute conclude "successfully," i.e., in disputed sector trade liberalization by the respondent. Consider the *market access* variable defined as the log of the value of the exporter's exports to the respondent's 6-digit HS disputed market in $t-1$, and the estimated marginal effect of 0.009. While the implied size of the estimate for this variable is difficult to interpret (recall the import variable is defined in logs), we note that it is economically significant - a one percentage point increase in the underlying explanatory variable from the mean of 6.4027 ($603,472 of HS 6-digit exports) to 7.4027 ($1,640,408 of HS 6-digit exports) increases the likelihood that an exporter becomes a complainant by roughly 0.9 percentage points (from 2.7% to 3.6%). Next, the 0.098 estimate of the marginal effect for the *leadership* variable indicates that a 10 percentage point increase in the exporter's share of the respondent's disputed market in $t-1$ leads to a 0.98 percentage point increase in the likelihood that the exporter becomes a complainant. The one variable from the *size* of the expected benefits analysis that is not of the theoretically predicted sign is the *diversification* variable, defined as the exporter's 6-digit HS exports to the respondent in $t-1$ relative to its exports to the world of the 6-digit HS disputed product. The estimate indicates that the more reliant (less diversified) is the exporter on the respondent's market, the *more* likely is the exporter to simply not participate (0.073). Nevertheless, the estimate is not statistically different from zero.

The second set of explanatory variables is concerned with the *probability* that the benefits to

[24] We include estimates of the three choices for convenience, though estimates for two of the choices would be sufficient. For example, the estimates for the 'nonparticipant' choice can be derived by simply adding the two values of the marginal effect estimates for the complainant and the interested third party, and multiplying by negative one.

the exporter will be realized through a successful resolution to the dispute. An exporter is more likely to become a complainant, the larger is its capacity to retaliate through the withdrawal of trade concessions, as measured through the respondent's reliance on its market for the respondent's trade (0.266). A ten percentage point increase in the respondent's reliance on the exporter's markets for its own exports thus leads to a 2.66 percentage point increase (roughly double) in the likelihood that the exporter formally participates in the dispute as a complainant. On the other hand, the estimate for the retaliation threat through withdrawing bilateral assistance that was also hypothesized to influence the likelihood of a successful outcome, is *negative*. While inconsistent with the threatened withdrawal of aid hypothesis, a viable explanation is that this aid relationship is instead capturing a special *political relationship* that makes it less likely the exporter would participate in a formal international dispute confronting the respondent.

4.2 Expected Costs to Participating in a Dispute

The next set of variables represent the expected costs to an exporter participating in a dispute. First, the exporter's GDP, which proxies for its capacity to pay for traded legal services, is positively associated with the decision to become a complainant or interested third party. Larger and richer countries are thus more likely to formally participate in WTO litigation. On the other hand, the estimates for variables capturing the exporter's number of delegates at WTO are neither of the correct sign nor are they statistically significant.

Finally, there is also strong evidence that potential *political-economic* costs of international relations make it *less* likely that an exporter will participate in a trade dispute in the instances in which the respondent is a politically important country to the exporter. Exporters are less likely to participate in disputes against trading partners in a common PTA as either complainants (-0.030) or interested third parties (-0.059). The estimated marginal effects of these variables are large: ceteris paribus, an exporter that is in a common PTA with the respondent faces a roughly 3 (6) percentage point decrease in the probability of becoming a complainant (third party), relative to an exporter that is not in a common PTA with the respondent. Furthermore, the larger is the exporter's reliance on the respondent for bilateral aid, the less likely it is to intervene as a complainant (-0.021) or an interested third party (-0.032). The size of the effect is also substantial, as a one standard deviation increase in the variable above its mean cuts in half the likelihood of the exporter participating as a complainant (from 2.7% to 1.3%), and also substantially reduces the likelihood of it participating as an interested third party (from 5.7% to 3.3%).

4.3 Sensitivity Analysis

In addition to our baseline specification of the ordered probit model illustrated in table 4, we have performed a number of robustness checks to assess the sensitivity of our results to basic changes of model specification. While we do not present these results in tabular form here due to space constraints, we do provide a brief discussion of the nature of and conclusions from our sensitivity analysis.

One potential source of concern for our approach relates to the choice of the ordered probit model itself. Alternatively, one might use the multinomial logit model, which does not require an assumption on the ordering of outcomes. On the other hand, a concern with estimating the multinomial logit model is the independence of irrelevant alternatives (IIA) assumption. In our estimation of the multinomial logit model, the qualitative pattern of results was quite similar to those reported here for the ordered probit model, and yet Hausman tests of the IIA assumption suggested that in some specifications of the model it could be invalid.

As other robustness checks, we have also estimated the ordered probit model on various subsets of data. First, we estimated the model on only the exporters from the 35 non-discrimination violation disputes listed in table 1. Second, we estimated the model on the full set of 54 disputes, but we truncated the sample of exporting countries so as to only include those that were above a minimum dollar threshold (e.g., $500,000; $1 million; $2 million; etc.) of disputed sector exports to the respondent, to make sure that our results weren't being driven by simply the smallest exporting countries. In both instances, the qualitative nature of the results was largely unchanged from those reported in table 4.

5 Conclusions and Policy Implications

This paper is the first to use detailed trade data to identify the *potential* litigants in WTO dispute settlement activity in order to then investigate the determinants of those countries' *participation* decisions in formal trade disputes. Even after controlling for the economic importance of disputed sector market access, we find that variables proxying for the "institutional bias" generated by the current rules of the system also affect the nonparticipation choice. Our formal evidence indicates that, despite market access interests in a dispute, an exporting country is less likely to participate in WTO litigation if it has inadequate power for trade retaliation, if it is poor and does not have the capacity to absorb substantial legal costs, if it is particularly reliant on the respondent country for bilateral assistance, or is engaged with the respondent in a preferential trade agreement. These are characteristics typically associated with developing countries in the WTO membership.

Our investigation is also subject to caveats. Foremost is that while we examine why exporters do not participate in disputes that have already been initiated, because of the lack of data and knowledge concerning non-initiated cases, we cannot assess here the more compelling question of whether the determinants of nonparticipation analogously lead to an *under-initiation* of trade disputes relative to a social optimum. At most we can only speculate that our evidence on the importance of limited retaliatory and legal capacity, as well as special political-economy relationships also adversely affect the initiation of disputes more generally. Obviously, the question of dispute initiation is still open and should be the focus of additional research.

While only a first attempt to characterize and analyze the data, our results may nevertheless contribute to the policy debate on proposals of reform to the WTO dispute settlement system. In particular, suppose a policy goal were to promote systemic reforms designed to encourage country participation in the dispute settlement activity that were important to its trading interests, so as to induce a sharing of the litigation burden and a commitment to working within the system. Our results suggest that any such attempts must recognize that it is not only the exporter's trading interest (and level of income) that affects its decision to participate, but also its capacity to retaliate through trade, to be retaliated against through the withdrawal of bilateral aid, and the nature of special political or trading relationships that it has with respondents.

One proposal has been to expand the power of the WTO to impose greater discipline on negotiated settlements, so that the outcomes to disputes were truly transparent. In light of the concerns raised in this paper, such an approach on transparency could be beneficial if it reduced the incidence of discriminatory settlements where market access benefits are not extended on an MFN-basis. For example, increased transparency could lead to private sector interests (e.g., the adversely affected exporting *firms*) to increase the pressure they place on their own *governments* to better monitor and actively participate in the process on their behalf. Active engagement and representation of exporting interests in developing countries especially could help balance the political influence that dominant, import-competing interests typically wield over their governments. Of course, a reform that increases transparency is also likely to affect the incentive for potential litigants to *initiate* disputes, and thus the set of WTO-inconsistent policies that get challenged at all. Therefore, such a proposal should be the subject of additional research and scrutiny.

Second, our result that political concerns affect nonparticipation decisions illustrates the difficulties confronting the desire to facilitate *coordination* of litigation efforts across countries. Another proposal that could minimize the influence of such political concerns would be to authorize a WTO-sponsored independent prosecutor or Ombudsman to represent the joint interests of the group of adversely affected, potential litigants. This would focus attention on the WTO-inconsistent *policy,* as opposed

to any particular complainant country. And while this approach would certainly also introduce additional concerns that should be studied, it could help overcome the unwillingness of dependent countries to challenge trade restrictions due to fear of retribution by the respondent in other areas.

Finally, with respect to the issue of a lack of retaliatory capacity, Bagwell et al. (2004) present an approach which investigates potential schemes to address bilateral power imbalances, and in particular, the possibility that powerless complainant countries might auction off their rights to retaliate against non-compliant respondents. The results presented here, along with those of Bown (2004b), suggest that if the WTO seeks incentives for affected exporters to participate in dispute settlement, it might be most effective at targeting for participation the relatively (bilaterally) powerful country complainants and third parties, even if the powerful potential litigant would normally not participate because of only a small trading interest in the disputed sector. Each of these proposals raise interesting additional questions which should be the focus of additional theoretical and empirical economics research.

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Table 1: Nondiscrimination and Discrimination (MFN) Violations in the 1995-2000 WTO Trade Dispute Data used in the Estimation

	Nondiscrimination violations negatively affecting <u>all</u> exporters*	**Discrimination (MFN) violations, yet adversely affecting some exporters <u>in addition to</u> Complainant**
Disputes in the data set [85 total]	DS1, DS7 (DS12, DS14), DS8 (DS10, DS11), DS9 (DS13, DS17, DS25), DS18 (DS21), DS20, DS26 (DS48), DS31, DS43, DS56 (DS77), DS62, DS74, DS75 (DS84), DS76, DS78*, DS85, DS87 (DS109), DS90 (DS91, DS92, DS93, DS94, DS96), DS98*, DS103 (DS113), DS111, DS121* (DS123, DS164), DS146 (DS175), DS147, DS149, DS151, DS161 (DS169), DS166*, DS177* (DS178), DS183, DS193, DS195, DS202*, DS207 (DS220), DS214*	DS2 (DS4), DS24, DS27 (DS105), DS29, DS32, DS33, DS54 (DS55, DS59, DS64), DS58 (DS61), DS72, DS119, DS122, DS135, DS139 (DS142), DS140, DS141, DS179, DS184, DS190, DS206
Number of unique disputes [54 total]	35	19
Adversely affected exporters [865 total]	805	60
…as Complainants [89 total]	57	32
…as Interested third parties [65 total]	58	7
… as Nonparticipants [711 total]	690	21

Notes: classification determined by the author as described in the text. A dispute in parentheses is combined with the immediately preceding dispute (that is not in parentheses) because it relates to a common respondent and set of disputed products. * The exception is safeguard violations in which the safeguard-imposing country exempted imports from either members of a preferential trading arrangement or small developing countries under Article 9.1 of the Agreement on Safeguards.

Table 2: Affected WTO Member Exporters as Nonparticipants, Interested Third Parties and Complainants in the 1995-2000 Trade Dispute Data used in the Estimation

Adversely Affected Exporter [Total]	**Non-Participant** [711]	**Interested Third Party** [65]	**Complainant** [89]	**Adversely Affected Exporter**	**Non-Participant**	**Interested Third Party**	**Complainant**
Korea	20	2	2	Bolivia	6	0	0
Indonesia	20	0	1	Cote d'Ivoire	6	0	0
New Zealand	19	1	3	Madagascar	6	0	0
South Africa	19	0	0	Nicaragua	6	0	0
Japan	17	8	3	Jamaica	6	0	0
Singapore	17	1	1	El Salvador	5	2	0
Turkey	17	0	0	Iceland	5	1	0
Australia	16	4	3	Bahrain	5	0	0
Canada	15	5	7	Ghana	5	0	0
Brazil	15	3	2	Malta	5	0	0
Hong Kong	15	2	1	Trinidad & Tobago	5	0	0
Mexico	15	2	1	USA	4	5	20
Switzerland	14	3	2	Panama	4	0	1
Argentina	14	0	2	Guyana	4	0	0
Thailand	14	0	2	Mali	4	0	0
Czech Republic	14	0	0	Niger	4	0	0
Romania	14	0	0	Nigeria	4	0	0
Pakistan	13	2	1	Papua New Guinea	4	0	0
Poland	13	0	1	Fiji	4	0	0
Colombia	12	1	1	Zambia	4	0	0
Peru	12	1	0	Dominican Republic	3	1	0
Malaysia	12	0	1	Benin	3	0	0
Uruguay	12	0	1	Cameroon	3	0	0
Morocco	12	0	0	Gabon	3	0	0
Egypt	11	1	0	Guinea	3	0	0
Hungary	11	1	0	Malawi	3	0	0
Israel	11	0	0	Mozambique	3	0	0
Norway	10	1	0	Tanzania	3	0	0
Chile	10	0	1	Togo	3	0	0
Philippines	10	0	1	Uganda	3	0	0
Sri Lanka	10	0	0	Solomon Islands	3	0	0
EU	9	8	18	Angola	2	0	0
Ecuador	9	1	1	Barbados	2	0	0
Venezuela	9	0	1	Belize	2	0	0
Bangladesh	9	0	0	Burkina Faso	2	0	0
Tunisia	9	0	0	Congo	2	0	0
India	8	6	7	Gambia	2	0	0
Costa Rica	8	0	1	Haiti	2	0	0
Kenya	8	0	0	Senegal	2	0	0
UAE	8	0	0	Suriname	2	0	0
Zimbabwe	8	0	0	Burundi	1	0	0
Bulgaria	7	0	0	Chad	1	0	0
Mauritius	7	0	0	Mauritania	1	0	0
St. Lucia	7	0	0	Mongolia	1	0	0
Honduras	6	1	1	Rwanda	1	0	0
Paraguay	6	1	0	Guinea Bissau	1	0	0
Guatemala	6	0	2	Sierra Leone	1	0	0

Table 3: Summary Statistics for the Variables used in the Negatively Affected Exporter's Choice Model

Variables	Predicted Sign	Mean	Standard Deviation	Minimum	Maximum
Dependent Variable:					
2 = Complainant, 1 = Interested Third Party, 0 = Nonparticipant	(for = 1 or 2)	0.2797	0.6387	0	2
Explanatory Variables					
Size of Potential Liberalization Benefits					
MARKET ACCESS: Log of exporter's real value of exports to respondent's disputed market in *t-1*	[+]	6.4027	3.7417	0	17.2798
LEADERSHIP: Exporter's share of respondent's disputed market in *t-1*	[+]	0.0424	0.1320	0	1
MARKET DIVERSIFICATION: Exporter's disputed sector exports to respondent as a share of exporter's total disputed sector exports in *t-1*	[+]	0.2667	0.3639	0	1
Probability of Realizing Benefits					
TRADE RETALIATION CAPACITY: Respondent's exports sent to the exporter as a share of its total exports in *t-1*	[+]	0.0289	0.0688	0.0000	0.8052
AID RETALIATION CAPACITY OR SPECIAL RELATIONSHIP: Respondent's bilateral aid that is received from the exporter relative to respondent GDP in *t-1* †	[??]	0.0042	0.0448	0	1.1028
Capacity to Absorb Expected Litigation Costs					
INCOME: Log of exporter's GDP in *t-1*	[+]	25.2763	2.0824	18.1965	29.3998
LEGAL CAPACITY: Log of exporter delegates at the WTO Secretariat	[+]	2.0524	0.8214	0	4.7185
Political Economic Costs					
PREFERENTIAL TRADE AGREEMENT: Respondent and exporter in a common free trade area or customs union	[-]	0.0624	0.2421	0	1
FEAR OF LOSING AID: Exporter's bilateral aid that is received from the respondent relative to exporter GDP in *t-1* †	[-]	0.2358	0.8897	0	8.6872

Note: † ratio scaled up by 100,000.

Table 4: Marginal Effects Estimates of Ordered Probit Model of Complainant, Interested Third Party and Nonparticipant Choice

Explanatory Variables	**Dependent Variable**: Exporter's choice of becoming a		
	Complainant	Interested Third Party	Nonparticipant
Size of Potential Liberalization Benefits			
MARKET ACCESS: Log of exporter's real value of exports to respondent's disputed market in *t-1*	0.009*** (0.003)	0.013*** (0.003)	-0.021*** (0.006)
LEADERSHIP: Exporter's share of respondent's disputed market in *t-1*	0.098*** (0.037)	0.146*** (0.057)	-0.244*** (0.085)
MARKET DIVERSIFICATION: Exporter's disputed sector exports to respondent as a share of exporter's total disputed sector exports in *t-1*	-0.029 (0.023)	-0.044 (0.031)	0.073 (0.053)
Probability of Realizing Benefits			
TRADE RETALIATION CAPACITY: Respondent's exports sent to the exporter as a share of its total exports in *t-1*	0.266*** (0.103)	0.397*** (0.129)	-0.663*** (0.203)
AID RETALIATION CAPACITY OR SPECIAL RELATIONSHIP: Respondent's bilateral aid that is received from the exporter relative to respondent GDP in *t-1*	-0.113** (0.057)	-0.170** (0.075)	0.283** (0.124)
Capacity to Absorb Expected Litigation Costs			
INCOME: Log of exporter's GDP in *t-1*	0.013** (0.005)	0.019*** (0.006)	-0.031*** (0.009)
LEGAL CAPACITY: Log of exporter delegates at the WTO Secretariat	-0.010 (0.007)	-0.015 (0.011)	0.025 (0.017)
Political Economic Costs			
PREFERENTIAL TRADE AGREEMENT: Respondent and exporter in a common free trade area or customs union	-0.030*** (0.011)	-0.059*** (0.014)	0.089*** (0.020)
FEAR OF LOSING AID: Exporter's bilateral aid that is received from the respondent relative to exporter GDP in *t-1*	-0.021* (0.012)	-0.032* (0.019)	0.053* (0.030)

Notes: Observations = 865 exporters (54 unique disputes), Pseudo R^2 = 0.32, Log-likelihood = -344.47.
In parentheses are White's heteroskedasticity-consistent standard errors corrected for clustering on the underlying dispute, with ***, ** and * denoting variables statistically different from zero at the 1, 5 and 10 percent levels, respectively. Time *t* is the year of the start of the dispute. Specification also estimated with a constant term and with respondent country fixed effects whose estimates are suppressed.