Developing Countries and the Initiation of GATT/WTO Disputes

Todd Allee
Assistant Professor
Department of Political Science
University of Illinois
361 Lincoln Hall
702 South Wright Street
Urbana, Illinois 61801
tallee@uiuc.edu

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Introduction

The ongoing stalemate of the Doha round of trade talks, the so-called "development round," continues to increase awareness of the plight of developing countries within the World Trade Organization (WTO). The antagonism seen during WTO negotiations from Cancun to Potsdam highlights the issue of whether the GATT/WTO regime—despite its overall success during the past half-century—has provided equal benefits to developed and developing countries. Underlying the demands of many developing countries is the belief that the benefits of the global trade regime have fallen disproportionately to a select handful of wealthy countries. This raises broader questions about fairness and equality within the WTO. In particular, might the rules and institutional arrangements of the WTO systematically benefit the wealthiest member states, perhaps at the expense of poorer members?

Debates about equality and bias are manifest most notably in the area of WTO dispute settlement. The WTO mechanism for resolving disputes among member states is the most notable institutional feature of the global trade regime.[1] While the WTO's predecessor, the General Agreement on Tariffs and Trade, or GATT, also contained provisions for dispute settlement, the WTO procedures have attracted considerably more attention.[2] On the surface, the existence of a formal legal mechanism through which one can challenge other governments' protectionist barriers should foster greater equality among members. On the other hand, it could be difficult for developing countries to effectively utilize this legal mechanism due to greater sensitivity to retaliation, a lack of technical expertise, and the overall costs of challenging a foreign trade barrier

[1] The rules governing dispute settlement are laid out in the Uruguay Round agreement in a forty-page section that is known as "Dispute Settlement Understanding," or DSU.

[2] Compared to the GATT mechanism, the WTO dispute settlement mechanism: a) establishes a faster timeline for dispute settlement, b) guarantees states the right to raise complaints before an international judicial panel and to receive panel rulings, c) allows states to appeal panel rulings before a standing Appellate Body, and d) authorizes retaliatory sanctions in the event a defendant fails to comply with a panel ruling.

before the WTO. In sum, while developing countries have clear incentives to utilize the WTO dispute settlement mechanism, it is not clear that they are able to effectively do so.

Therefore, it is important to ascertain whether or not developing countries are less likely than developed countries to initiate trade disputes before the GATT/WTO.[3] A finding that developing countries are equally likely to utilize WTO dispute settlement procedures to challenge objectionable foreign trade barriers would have a number of positive consequences. For one, the lack of bias would counter the increasing criticism that the WTO fails to address the needs of developing countries. More broadly, significant developing-country participation in WTO dispute settlement would demonstrate that international institutions can help to ensure that all countries receive similar treatment in terms of the enforcement of international agreements and compliance with international law.

On the other hand, a finding that developing countries are less likely than developed countries to challenge foreign barriers before the WTO would fuel the mounting criticism of the WTO. It might also contribute to the increasing perception that the WTO is approaching a crisis, largely due to its inability to meet the needs and demands of the regime's developing country membership, which now numbers well over 100.[4] Substantively, the lack of developing country participation as plaintiffs in WTO disputes could have a longer-term impact, since developing countries would be less able to shape the ongoing development of the dispute settlement process.[5]

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[3] Despite the differences between the GATT and WTO dispute settlement procedures, the GATT mechanism did allow states to challenge others' policies before an impartial, third-party dispute resolution body. In this sense, the GATT and WTO dispute settlement mechanisms are analogous. Since I examine government decisions to initiate trade disputes across both eras, I use the conceptual term "GATT/WTO dispute resolution" to refer to the general idea of a multilateral dispute resolution mechanism that exists across both the GATT and WTO eras.

[4] The WTO currently has 151 members. Tonga was the most recent country to join, in July 2007.

[5] As Shaffer (2003: 11) notes, "…those governments that are able to participate most actively in the WTO dispute settlement system are best-positioned to effectively shape the law's interpretation and application over time to their advantage."

At present, most policymakers and scholars seem to believe that developing countries face significant barriers in taking disputes before the WTO. Ultimately, however, the question of whether developing countries are less likely to take disputes before the WTO dispute settlement mechanism can only be answered by careful empirical analysis. The problem, however, is that most of the current assessments about developing country participation in WTO dispute settlement are based on methods of evaluation that are limited. Therefore, more rigorous empirical analyses are needed to provide a more definitive answer to this important question. In addition, existing studies only examine differences in the *number* of WTO disputes taken by developing versus developing countries, without considering differences in the *types* of disputes brought by the two types of countries. A major contribution of this paper, then, is that the framework employed here also identifies the unique properties of the WTO disputes launched by developing countries.

Two related questions are answered in this paper. The first question addresses the existing debate about whether developing countries challenge foreign trade barriers before the GATT/WTO as frequently as wealthier nations. In order to answer this question, I compile an original data set that contains information on more than 1,500 disputable trade policies that both developing and developed countries could have challenged before the GATT/WTO between 1980 and 2001. Using this new data, I conduct a series of bivariate and multivariate analyses and find that developing countries do indeed initiate fewer GATT/WTO disputes than developed countries, even after controlling for a variety of other factors.

I also answer an important second question that has not been addressed previously. Namely, when developing countries initiate GATT/WTO disputes, what types of disputes do they take before the GATT/WTO, and do the types of disputes they initiate differ from those launched by developed countries? I find that given scarce resources, developing countries are more likely to

pursue disputes in which they expect to be successful and those disputes that involve sizeable economic gains. Although wealthy countries at times are motivated by these same concerns, their vast resources allow them to initiate other GATT/WTO disputes for political and other purposes. In this regard, developing countries are better stewards of the WTO dispute settlement process, since they typically challenge only those trade barriers that are most egregious and they pursue WTO dispute settlement only for the most meaningful cases.

Existing Literature on Developing Countries and GATT/WTO Dispute Initiation

Several scholars have investigated the question of whether developing countries initiate fewer WTO disputes than their wealthier counterparts. Most studies find evidence that developing countries do indeed initiate fewer WTO disputes than developed countries (Busch and Reinhardt 2002; Footer 2001; Greisberger 2004; Park and Panizzon 2002; Park and Umbricht 2001; Reinhardt 2000; Shaffer 2003). However, a few studies also find evidence that this "bias" is shrinking and that developing countries have begun to initiate more disputes in recent years under the WTO (Brewer and Young 1999; Greisberger 2004; Holmes, et.al. 2003; Park and Panizzon 2002; Shoyer 1998; Steger and Hainsworth 1998).[6] It is important to note that most of the existing empirical studies arrive at their conclusions by comparing the raw number of WTO disputes initiated by developing countries with the raw number of disputes initiated by developed countries, without accounting for the number of disputable trade measures that afflect each type of country.[7]

Although most scholars and observers accept the general view that there is at least some disparity between developed and developing countries in terms of dispute initiation, a handful of scholars claim that the alleged "bias" against developing countries is minimal or non-existent.

[6] For a dissenting view, see Busch and Reinhardt (2002), Hudec (1999), and Reinhardt (2000).
[7] Holmes, et.al. (2002), Horn, et.al. (1999) and Reinhardt (2000) are among the exceptions to this practice.

Papers by both Horn, et.al. (1999) and Holmes, et.al. (2003) find that upon further reflection, developing countries do not necessarily initiate fewer disputes than developed countries. Both studies go beyond merely counting and comparing the number of disputes initiated by both groups, and instead employ more detailed analyses. Horn, et.al. (1999) argue that one cannot compare the relative propensity of WTO dispute initiation by developing and developed countries simply by counting the number of times each group initiated a dispute before the WTO. Put differently, their study suggests that one cannot merely look at the "numerator," or number of disputes that each group has taken before the WTO. Instead, one must also incorporate some type of denominator; that is, one must also account for the number of opportunities each group had to initiate a trade dispute before the WTO.

There have been a few attempts to incorporate the potential number of trade disputes into the analysis of WTO dispute initiation. In his multivariate study, Reinhardt (2000) creates "directed-dyads" for each pair of GATT/WTO members in each year. This approach assumes that any given GATT/WTO member can challenge the trade policy of any other GATT/WTO member in any year, although it does not capture the volume or diversity of GATT/WTO members' trade with one another. The charts contained in Holmes, et.al. (2003), as well as Shaffer (2003), identify the percentage of WTO disputes initiated by various countries or groups of countries, and compare that percentage with the country or group's percentage of global exports. This provides a simple, yet useful, way to compare whether countries are initiating more or fewer trade disputes than would be expected given their volume of trade.

Horn, et.al. (1999) take this approach further. To determine whether developing countries are over- or under-initiating WTO disputes, they identify not only a state's volume of exports, but also the diversity of that state's exports in terms of the number of trading partners it has as well as

the number of goods it exports to those partners. Their rationale for doing this is logical and compelling: "The basic idea is that the probability of encountering disputable trade measures is proportional to the diversity of a country's exports over products and partners, which means that larger and more diversified exporters would be expected to bring more complaints that smaller and less diversified exporters" (Horn, et.al. 1999: 2). They then investigate whether countries are initiating more or fewer WTO disputes than should be expected given their volume and diversity of trade. Using this framework, they conclude that the sizeable raw number of disputes initiated by developed countries for the most part merely reflects their far greater share of world trade. Therefore, they suggest that the alleged "bias" against developing country initiation of WTO disputes is far less severe than is commonly perceived.

The fact that studies employing more sophisticated analyses find little evidence of an anti-developing country bias in dispute initiation seemingly calls into question the prevailing conventional wisdom that developing countries are less likely to initiate WTO disputes. But even the Horn, et.al. analysis possesses certain limitations, and thus one should not be too quick to conclude that no bias exists.[8] For example, Horn, et.al. (1999) use the diversity of a country's exports as a proxy to capture the actual variable they care about: the number of potentially disputable barriers that are employed against each country. They claim:

> "If we knew the extent to which countries are affected by disputable trade measures in the export markets (DTMs)—that is, trade or trade-related measure that potentially violate a provision of the WTO Agreement—we could immediately determine whether there are any biases in the propensity to bring disputes to the DS system by simply comparing the distribution of complaints with that of DTMs" (Horn, et. al. 1999: 4)

In other words, in order to ascertain the relative frequency with which countries initiate WTO disputes, one would ideally possess data on the population of disputable trade barriers that affect

[8] To their credit, Horn, et.al (1999) discuss the limitations of their study in detail on pages 20-26 of their article.

developed and developing countries. One could then more accurately compare the number of "actual" and "potential" WTO disputes for the two groups.

So why have no existing studies attempted to compare actual and potential disputes in this manner? The short answer is that it is difficult and cumbersome to identify concrete data on specific trade measures that could have been challenged before the WTO. The problem lies with identifying those potential disputes that a state could have, but did not, challenge before the GATT/WTO dispute settlement mechanism. This is a general problem for anyone attempting to study the initiation of legal disputes. As Cooter and Rubinfeld assert in the general legal context, "The decision to assert a legal claim is difficult to investigate empirically because cases that do not come to the attention of legal authorities never enter official records" (1989: 1082).

A major advance of my study, then, is that I systematically identify all of the instances in which the two most popular—and frequently disputed—types of trade protection were imposed against GATT and WTO members. This allows me to more directly compare the "rate" with which developed and developing countries initiate GATT/WTO disputes concerning the misuse of these trade-protecting measures. Put differently, I can compare the actual number of GATT/WTO disputes initiated by developed and developing countries with the number of disputable trade measures that each group could have challenged. Furthermore, I can use this list of potentially disputable trade measures to create a larger and more comprehensive data set, which I can then use to test hypotheses about dispute initiation using multivariate, as opposed to bivariate, techniques.

A New Dataset of Potential GATT/WTO Disputes

What, then, does my data set look like? I compile data on 1,519 instances between 1979 and 2001 in which GATT and WTO members saw a trading partner impose either antidumping

duties (AD) or countervailing duties (CVD) on their exports of a particular good to that partner. For my purposes, these 1,519 cases of trade protection constitute an important set of potentially disputable trade measures, or "potential GATT/WTO disputes."[9] Seventy-nine of these more than 1,500 measures ultimately were challenged before the GATT or WTO by the negatively affected trading partner. All in all, I have data on 1,519 decisions by 64 GATT and WTO member-states (both developed and developing) regarding whether or not to challenge a foreign government's use of AD or CVD protection before the GATT or the WTO.[10]

There are several reasons to believe in the generalizability of a study that focuses on instances of AD and CVD protection—and disputes over the misuse of such protection—as a vehicle to study potential and actual WTO disputes. For one, AD and CVD are both import-restricting, non-tariff barriers (NTBs) to trade, which accurately reflects the general nature of contemporary trade politics. Bown (2002) notes that more than 80% of disputes under the GATT involved a claim that a government was providing illegal protection to an import-competing industry. Similarly, Hudec (1993) finds that disputes concerning NTBs constituted a majority of GATT disputes as far back as the 1970s.[11] In addition, AD and CVD long have served as the most common form of trade protection in most countries (see Hoekman and Kostecki 2001; Miranda, et al. 1998; Trebilock and Howse 1999).

Perhaps not surprisingly, AD and CVD are the trade measures that are most commonly challenged before the WTO. More than 30% of WTO trade disputes over the past three years have involved challenges to the alleged misuse of antidumping or countervailing duties. No other type

[9] These cases in my data set were compiled from numerous semi-annual reports on antidumping and countervailing duty actions, which GATT and WTO members submit to the regime's Secretariat every six months. The reports for the WTO era were downloaded from the WTO website (http://www.wto.org), while the data for the GATT era were compiled in person at the WTO Secretariat in Geneva, Switzerland.

[10] The number of countries shrinks to 54 if one considers the European Union (as opposed to EU member-states) to be the relevant actor that initiates GATT and WTO disputes.

[11] On NTBs, see also Ray 1981a, 1981b; Marvel and Ray 1983.

of protectionist measure comes close to generating the same number of disputes. In fact, during the first six years of the WTO era, disputes over the misuse of antidumping and countervailing duties have occurred two-and-a-half times more frequently than WTO disputes over any other type of protectionist measure (Park and Umbricht 2001: 223).

The generalizability of my findings is further enhanced by the fact that a large and diverse group of 64 countries are represented in my data set. This is due to the fact that AD and CVD measures are both used by—and applied against—a wide range of countries. Countries such as Argentina, Brazil, India, Mexico, and Turkey have been among the top 10 users of AD or CVD during the past decade, in addition to traditional users such as the United States, Canada, Australia, and the European Union (Boltuck and Litan 1991; Eymann and Schuknecht 1996; Finger 1993; Jackson and Vermulst 1989; Miranda et al. 1998).

Moreover, not only are the countries involved in AD/CVD cases quite diverse, but so too are the products—and associated industries—that receive these types of protection. Miranda, et al. (1998) identify chemicals, metals, textiles, wood, footwear, machinery, plastics, and rubber as among the goods most frequently subject to antidumping duties. Furthermore, in the United States, petitions involving steel and other metals are prominent within the CVD landscape, while in other countries agriculture and other raw materials are the goods most frequently subject to CVD actions (Marvel and Ray 1995). In sum, the unique features of this new data set render it particularly useful for testing general hypotheses about both the rate with which developing countries initiate GATT/WTO disputes, as well as the reasons why they initiate GATT/WTO disputes.

The Constraints on Developing Country GATT/WTO Dispute Initiation

A number of arguments have been put forward to explain why developing countries might be less likely to launch GATT/WTO disputes. Scholars typically have identified three possible explanations for the relative lack of developing country dispute initiation: fear of retaliation, lack of expertise, and financial cost. Each explanation warrants additional discussion.

Although WTO dispute settlement panels are intended to resolve a particular trade conflict according to legal principles as opposed to power politics, it remains possible that countries whose policies are challenged before the WTO could retaliate against the plaintiff country in various ways. The defendant country might employ new trade-restricting measures against the plaintiff country, or it might venture outside of trade policy and impose other forms of economic sanctions. It is also possible that the retaliation could occur more broadly, in other spheres of foreign policy. Various scholars have noted that concerns about retaliation should be particularly salient for potential developing country plaintiffs (Hoekman and Kostecki 2001; Hoekman and Mavriodis 2001; Mavriodis 2000; Pauwelyn 2000; Shaffer 2003). Developing countries that initiate WTO disputes are particularly sensitive to possible retaliation on both the economic and non-economic fronts. For instance, they worry about possible cuts in the bilateral economic aid they receive from the defendant country, as well as reduced assistance in areas such as security and defense.

A second worry is that developing countries lack the human resources and technical expertise needed to effectively litigate GATT/WTO disputes (Blackhurst, Lyakurwa, and Oyejide 2000; Brewer and Young 1999; Gabilondo 2001; Greisberger 2004; Shaffer 2003). Put simply, developing countries are considerably less likely than developed countries to have the knowledge and personnel needed to pursue GATT/WTO litigation. Countries such as the United States will have dozens of seasoned trade lawyers working within the Office of the United States Trade

Representative (USTR). Developing countries, on the other hand, will have few trained lawyers working in their trade ministries, and the experts they do have may possess limited experience or expertise. Blackhurst, et.al. note that the nearly half of the 38 Sub-Saharan African WTO members do not even possess a full-time representative to the WTO (2000: 498-499). This disparity in expertise is one of the factors that motivated the formation of the Advisory Centre on WTO Law (ACWL), which is intended to provide technical assistance to developing countries that initiate WTO actions (see Greisberger 2004). Nevertheless, the overall lack of human and technical expertise should make developing countries less likely to initiate GATT/WTO disputes.

The steep financial cost of initiating a GATT/WTO dispute is the third and final factor that makes developing countries relatively less likely to initiate GATT/WTO disputes. A government that initiates a WTO dispute is likely to spend a considerable amount of money on legal fees, research fees, and other miscellaneous expenses. At the end of the day, the ultimate financial cost of pursuing a WTO dispute action can be enormous. For example, Shaffer notes that the legal fees paid by both sides in the US-Japan, Kodak-Fuji dispute topped $10,000,000 per side (2003: 16). Even in more straightforward disputes, the amount of money spent is likely to begin at several hundred thousand dollars. Greisberger (2004: 7) and Davis (2004: 13) both put forward a figure of $300,000, while other estimates are considerably larger.[12] In sum, it is evident that litigating a WTO dispute requires governments to spend considerable amounts of money. This is a luxury that many developing country governments simply do not have.

One way to think about the three arguments above is that all three relate to the myriad "costs" of pursuing a GATT or WTO dispute action. A fundamental premise of the economic analysis of the law literature is that possible plaintiffs in any legal setting weigh the relative costs

[12] Trebilock and Howse (1999: 86) note that senior trade practitioners place the costs of litigating a NAFTA dispute at more than $500,000.

and benefits of legal action in order to determine whether to pursue such an action in the first place (Cooter and Rubinfeld 1989; Gould 1973; Hughes and Snyder 1995; Kessler, Meites and Miller 1996; Posner 1973; Waldfogel 1995). In the GATT/WTO context, developing countries must weigh the various sizeable costs described above before they pursue the initiation of a GATT/WTO dispute. In general, the marginal costs of contesting foreign trade barriers before the GATT/WTO should be higher for developing countries. As noted earlier, developing countries should be particularly susceptible to various forms of retaliation. In addition, while the costs of litigating a dispute effectively are roughly the same for all countries, the capacity to absorb these costs differs considerably across countries. Given their smaller treasuries, developing countries are more significantly affected by these relatively fixed costs of initiating GATT/WTO disputes. Therefore, the first, and most general hypotheses to be tested is that developing countries should be less likely to challenge foreign trade barriers before the GATT/WTO.

> **Hypothesis 1**: *Ceteris paribus*, developing countries should be less likely to initiate GATT/WTO disputes than developed countries.

I devise seven different operational indicators to distinguish between developed and developing countries. The first measure captures whether a country is a member of the Organisation for Economic Co-operation and Development (OECD). OECD members are coded as developed countries, while OECD non-members are coded as developing countries. A second, related indicator merely tightens the pool of OECD members by re-coding recent OECD members Slovakia, Poland, Hungary, the Czech Republic, South Korea, and Mexico as part of the developing country group. The next two measures draw upon World Bank classifications of

countries according to their per capita Gross National Product (GNP).[13] One measure classifies all countries defined as "high-income" by the World Bank (GNP per capita of $9386 according to constant 1995 dollars) as developed countries, while the other measure classifies countries that are at least "upper-middle-income" (GNP per capita of between $3,036 and $9,385 according to 1995 constant dollars) as developed as opposed to developing. A fifth measure denotes the four most prolific traditional users of trade-restricting measures like AD and CVD—the United States, European Union, Canada and Australia—from all other countries. Two final indicators, which capture each GATT/WTO member's GDP and GDP per capita (in constant dollars), at times are substituted as robustness checks in certain multivariate analyses.[14]

I pursue two different methods of testing Hypothesis 1. The first method entails identifying the total number of antidumping duty actions and countervailing duty actions levied against both developed and developing countries, and then comparing the percentage of these protectionist actions that are challenged by both groups before the GATT and WTO. By looking at the relative rates with which both groups challenge these two types of disputable policies, I more directly incorporate the opportunity for both groups to initiate GATT/WTO disputes. I then conduct a multivariate test to see whether developing countries are more likely to challenge foreign AD and CVD protection before the GATT/WTO, even after controlling for six alternate explanations for GATT/WTO dispute initiation.

The Conditions under which Developing Countries Initiate GATT/WTO Disputes

The second primary goal of this paper is to examine the precise conditions under which developing countries are most likely to initiate GATT/WTO disputes, and to consider whether the

[13] See Katherine Sheram and Tatyana P. Soubbotina, *Beyond Economic Growth: Meeting the Challenges of Global Development* (Washington, D.C.: World Bank, 2000).
[14] These data are taken from the World Bank's *World Development Indicators 2002*, CD-ROM.

motivations for dispute initiation vary across developed and developing countries. While the question of whether developing countries are less likely to initiate GATT/WTO has received some attention, to date no one has explored whether there are certain scenarios in which developing countries should be most willing to initiate GATT/WTO disputes. I identify six general factors that compel states to initiate GATT/WTO disputes and put forward six hypotheses about the degree to which these factors should be more or less important to developing countries. I then test these hypotheses using a pair of binary logit models, which provides estimates of the importance of each of the six motivations for both developing, as well as developed, countries.

Legal scholars have noted that governments are likely to have a variety of motivations for taking interstate disputes before international legal bodies (Bilder 1989; Fischer 1982). Elsewhere I have argued that in the GATT/WTO context, states are likely to pursue GATT/WTO disputes for a range of legal, economic, and political reasons (Allee 2003, 2007; see also Hudec 1987 and Reinhardt 2000). Previous empirical evidence suggests that state leaders at times are motivated to initiate a GATT/WTO dispute by one or more of the following five factors: 1) the perceived likelihood of winning the dispute, 2) possible economic benefits, 3) the increased efficacy of the new WTO dispute settlement procedures, 4) possible domestic political benefits, and 5) retaliatory incentives (Allee 2007). I now consider whether these five factors, plus a sixth factor that is applicable here—the power of the potential dispute adversary—are likely to be of greater or lesser importance for developing countries.

General Theoretical Framework

Any given GATT/WTO member is likely to be negatively affected by numerous foreign trade barriers at any given time. Therefore, the set of potentially disputable measures that a government could challenge before the WTO is likely to include many different barriers, imposed

by many different countries, on many different goods. In principle, then, government leaders have considerable choice in deciding which particular foreign trade barriers they want to challenge. However, this choice is constrained significantly due to the costs of initiating GATT/WTO disputes. Therefore, all state leaders must be somewhat selective in deciding which disputes to take before the GATT or WTO. As is the case with all possible litigants in any legal context, they look to initiate legal action in those particular cases where the benefits of legal action are expected to outweigh the costs of legal action (Gould 1973; Hughes and Snyder 1995; Kessler, Meites and Miller 1996; Posner 1973; Waldfogel 1995).

This basic cost-benefit framework suggests that developing countries should be quite discerning about the types of disputes they take before the GATT/WTO. Given their higher relative costs of initiating a GATT/WTO dispute, developing-country governments must be particularly selective when deciding which foreign trade barriers to challenge before the GATT/WTO. The plight of developing countries is similar to that of prosecutors (Landes 1971) and domestic administrative agencies (Posner 1972). Both of these groups must decide which of many possible violations to prosecute before a formal legal body, and given their limited resources they must prioritize only a handful of cases. Therefore, developing country governments are likely to challenge only certain types of foreign trade barriers before the GATT/WTO. In particular, they should initiate those disputes in which the potential economic rewards of a GATT/WTO action are high, and where GATT/WTO dispute initiation is likely to be effective, or at least preferable to other available options. On the other hand, given the costs of dispute initiation, leaders of developing countries are not particularly likely to take disputes before the GATT/WTO solely for political reasons.

The situation is somewhat different for leaders in wealthier countries. Leaders in rich nations have considerably greater flexibility in deciding both how many disputes to take before the GATT/WTO, as well as which types of disputes to take. Like their developing country counterparts, such leaders often will look to take cases in which they expect to be successful and where the economic gains could be substantial. But leaders in developed countries also have the ability to challenge foreign barriers for political and other reasons. These differing motivations for developing and developed countries are now discussed in greater detail.

Possible Economic Benefits

It is sensible for all governments to challenge those foreign trade barriers that affect a substantial amount of their exports. This is because any progress in reducing or dismantling a barrier that affects a sizeable amount of trade will produce substantial economic gains in the future due to the resulting increase in exports. This idea that actors litigate "high stakes" disputes is widely accepted within the economic analysis of the law literature (Eisenberg and Farber 1997; Gould 1973; Kessler, Meites, and Miller 1996; Landes 1971; Posner 1973; Priest and Klein 1984; Waldfogel 1995).[15] In the GATT/WTO context, both developing and developed countries should be inclined to initiate GATT/WTO disputes in cases where the potential economic benefits are sizeable. However, given their need to spend resources wisely, developing-country leaders need their GATT/WTO challenges to produce substantial economic gains in order to offset the costs of GATT/WTO dispute initiation.

> **Hypothesis 2**: Both developed and developing countries are likely to initiate GATT/WTO disputes in those cases that promise the greatest economic benefits, and this motivation should be particularly strong for developing countries.

[15] In Landes' (1971) model of criminal prosecution, prosecutors allocate greater resources to the prosecution of those high stakes cases where the sentence is likely to be longer, and dismiss charges when a negligible sentence is expected (Landes 1971; see also Rhodes 1976).

To test Hypothesis 2, I identify the potential economic benefits associated with each possible GATT/WTO dispute. I do so by identifying the potential plaintiff country's exports to the potential defendant country in the good that is subject to the disputable, protectionist policy. I then divide this value by the potential plaintiff's total exports in order to capture the economic importance of any possible GATT/WTO dispute action compared to other possible GATT/WTO dispute actions. This also standardizes the measure so that it is comparable across countries. Data on the volume of the potential plaintiff's exports of the disputed good to the potential defendant are drawn from the GATT/WTO semi-annual reports on member-state AD and CVD actions, which contain precise data on the volume of bilateral exports in the good subject to the AD or CVD action.[16] Data on the potential plaintiff's total exports are then taken from the 2002 version of the World Bank's World Development Indicators database.[17]

Perceived Likelihood of Winning

Another factor that will influence whether a state initiates a GATT/WTO dispute is the anticipated likelihood that the state will "win" the GATT/WTO dispute.[18] In any legal forum, plaintiffs want to pursue cases in which the probability they will win is high. For instance, Posner (1972) finds that those working in domestic administrative agencies—who also face resource

[16] When using the semi-annual report data to obtain bilateral export trade volumes, I need to standardize the measure across the three different units in which export volumes are expressed in these reports (dollars, tons, and units). To do so, I create three sets of "rankings" of the relative economic stakes of each dispute compared to those disputes in which the bilateral trade volume is expressed in similar units (whether dollars, tons, or units). This provides three separate and parallel rankings of the relative economic stakes in the dispute. These three rankings are converted to a 0 to 1 scale by dividing each dispute case's ranking by the total number of disputes in the applicable category. The economic stakes of each dispute, then, is expressed in percentile terms. This allows all disputes to be comparable across a common percentile scale, which ranges from 0 to 1.

[17] I use the current dollar value of exports for both the bilateral export volume and the total export volume. In some cases the volume of bilateral exports is expressed in local currency units in the GATT/WTO semi-annual report data. I then use historical exchange rates to convert the local currency values to US dollars for purposes of comparability across countries.

[18] A "winning" outcome before the GATT/WTO could be the result of a victorious panel ruling, as well as a favorable "out of court" settlement that is negotiated with the defendant during the early stages of GATT or WTO dispute proceedings.

constraints and must prioritize which cases to litigate—select those cases in which the probability of victory is highest (see also Priest and Klein 1984). In the GATT/WTO context, this motivation should be particularly strong for developing countries. Given resource constraints and the costs of GATT/WTO dispute initiation, developing-country leaders want to obtain some payoff from their actions, and prevailing in a GATT/WTO dispute is the surest way to reap benefits from one's initiation of a dispute.

> **Hypothesis 3**: Both developed and developing countries are likely to initiate GATT/WTO disputes when the perceived likelihood of winning the dispute is high, and this motivation should be particularly strong for developing countries.

In order to capture the perceived likelihood of winning a GATT/WTO challenge against a foreign trade barrier, I examine whether the country that has imposed a given barrier has a reputation for violating the law in previous, similar disputes. If a country's policy has been deemed inconsistent with GATT/WTO law by a panel in a previous dispute, then governments will use this information in the future when deciding which countries and which measures to challenge before the GATT/WTO. Previous panel rulings, then, provide other member-states with information concerning the countries that are most frequent violators of GATT/WTO law—and thus are most ripe as targets in future GATT/WTO dispute actions (Maggi 1999). In fact, a state's past reputation for violating GATT/WTO law also is often stated explicitly by plaintiff countries as a reason for launching a GATT/WTO dispute.[19] Therefore, I identify whether the country that has imposed a given antidumping (AD) or countervailing duty (CVD) has had a previous AD or CVD action declared in violation of its obligations by a GATT or WTO panel in the past two years.

[19] See "India to Request WTO Panel Ruling Against U.S. Dumping Measure on Steel," *International Trade Reporter*, 14 June 2001, p. 941 and "Korea Asks for WTO Ruling on U.S. Line Pipe Safeguard," *Inside U.S. Trade*, 29 September 2000, p. 15.

Dispute Settlement Under the WTO as Opposed to the GATT

A third hypothesis is that governments should be more likely to challenge foreign trade barriers under WTO dispute settlement rules as opposed to GATT dispute settlement rules. This is because the WTO process improves significantly upon dispute settlement under the GATT, which was largely voluntary and could be derailed relatively easily by defendants. Under the WTO, plaintiff countries are now guaranteed the right to a panel, the process proceeds more quickly, panel rulings are legally binding, and there are provisions to sanction defendants who do not comply with panel rulings. These features make dispute settlement under the WTO more efficacious, and thus more attractive to countries that want to receive tangible results when they initiate a dispute. Once again, these greater incentives to use the WTO dispute settlement mechanism should be particularly attractive to developing countries, who must be selective about the types of disputes they initiate. Under the GATT, it was possible that developing countries would achieve very little from the initiation of a dispute, since the country targeted in the dispute could delay or block the formation of a panel, and could effectively refuse to comply with any ruling that was issued. But given the enhancements of the WTO dispute settlement process, developing countries should have greater confidence that a dispute action will be effective.

> **Hypothesis 4**: Both developed and developing countries are more likely to initiate trade disputes under the WTO as opposed to the GATT, and this tendency should be particularly pronounced for developing countries.

To test this hypothesis, I employ an indicator variable that captures whether the decision to seek GATT/WTO dispute settlement is made during the WTO era. While the WTO officially came into effect on January 1, 1995, it is difficult to determine whether some of the mid-1990s cases that were not taken before the GATT or WTO would have been subject to GATT dispute

settlement, or WTO dispute settlement. The coding rule employed, then, is that any protectionist policy implemented before July of 1994 likely would have been challenged under the GATT dispute settlement procedure, while any policy implemented after that time likely would have been subject to WTO dispute settlement.[20]

Power of Potential Dispute Adversary

The power of potential dispute adversaries is also an important factor that should affect patterns of developed and developing country GATT/WTO dispute initiation. Interestingly, both developed and developing countries should be more likely to initiate GATT/WTO disputes against developed countries, albeit for very different reasons.

Poorer countries have strong incentives to call upon a formal legal mechanism when they are in a dispute with a more powerful country. This is because a formal, third party dispute settlement mechanism treats the two sides equally and neutralizes the leverage the more powerful country would have in a less formal and less legal setting. The key here is that developing countries have few other options for effectively challenging a more powerful country's protectionist policy. They would be at a disadvantage if they pursued the issue solely through bilateral channels and they would have few credible threats to compel a more powerful country to remove its trade barrier. In a dispute with another developing country, however, there is a much greater chance of achieving some success through these purely bilateral tactics.

The other side of this argument is that powerful states should be particularly hesitant to turn to GATT/WTO adjudication in their disputes with developing countries. This is because turning a trade dispute over to a legal body effectively negates the inherent power advantage the stronger country would have over the developing country in a purely bilateral context (Bilder 1989).

[20] This coding rule is sensible, given the six-month average time lag for challenging another state's imposition of a protectionist policy before the GATT/WTO.

Furthermore, taking a developing country before the GATT/WTO might give the appearance that a powerful country is bullying or embarrassing the comparatively weaker country. Therefore, on average, developed countries should be more likely to initiate GATT/WTO disputes against other developed countries.

> **Hypothesis 5**: Both developed and developing countries are more likely to initiate GATT/WTO disputes against economically powerful countries.

To test this hypothesis, I identify data on the aggregate GDP (in constant dollars) of the potential GATT/WTO targets; that is, the countries that initiated potentially disputable AD and CVD measures in the first place. This data on the GDP of potential GATT/WTO dispute defendants is taken from the World Bank's 2002 World Development Indicators database.

Possible Domestic Political Benefits

The final two hypotheses identify motivations for GATT/WTO dispute initiation that are most applicable to developed, as opposed to developing, countries. The first hypothesis is that leaders in developed countries at times should initiate GATT/WTO disputes in an attempt to reap domestic political rewards. Government leaders can enhance their domestic political position by initiating a GATT/WTO dispute against a foreign, protectionist policy that harms a politically important group within their own country. Advocating the interests of a domestic group in this manner is likely to increase the executive's standing with the domestic group or industry that is being harmed by the foreign trade barrier in question. Actors within the affected industry are likely to be grateful to the executive for "taking up" their case and litigating it before the GATT/WTO. They may express their gratitude in many ways, such as through electoral support (Caves 1976), financial donations (Peltzman 1976; Stigler 1971), grassroots campaigning on the leader's behalf, and/or statements of support for the executive.

As noted earlier, leaders within developed countries have the resources and flexibility to pursue multiple GATT/WTO disputes at a given time. Against this backdrop of multiple simultaneous dispute actions, their more politically motivated dispute initiations will be less visible and will suffer comparatively little scrutiny. On the other hand, leaders of developing countries, who are likely to be constrained to the pursuit of at most one GATT/WTO dispute at a time, should not be particularly likely to pursue disputes solely for domestic political reasons. Given the costs of dispute initiation, such leaders are more likely to pursue disputes that promise more tangible rewards to those other than merely the executive.

> **Hypothesis 6**: Government leaders in developed countries are more likely to take before the GATT/WTO those disputes that promise substantial domestic political benefits, while leaders in developing countries are not particularly likely to be motivated by such domestic political considerations.

My primary measure of the potential domestic political benefits of a possible GATT/WTO dispute is a variable that captures the size of the domestic industry involved in each possible trade dispute action, as measured by the industry's national employment level (Finger, Hall, and Nelson 1982; Hansen 1990; Lavergne 1983; Pincus 1975; Prusa 1991). The size of the industry is important because larger industries have greater electoral importance and are able to provide sizeable campaign contributions and other rewards to political leaders. Data on industry employment is taken from the UNIDO Industrial Statistics database, which disaggregates national employment at the ISIC 3-digit level. I standardize this variable by dividing the affected industry's employment by the country's total employment.

GATT/WTO Dispute Initiation as Retaliation

The final hypothesis is that retaliatory motivations will be present in certain GATT/WTO disputes initiated by developed countries. More precisely, I expect developed countries to sometimes react to being challenged before the GATT/WTO by turning around and launching a GATT/WTO "countersuit" against the country that launched the initial dispute. They may do this for several reasons. For one, this type of tit-for-tat retaliation is a visible, yet commensurate response to having one's trade policy singled out and challenged before the GATT/WTO. A retaliatory initiation like this might also increase the state's leverage in the pre-existing GATT/WTO dispute. The hope is that the trading partner will drop its original GATT/WTO case altogether, or at a minimum will agree to moderate its demands for reaching a negotiated settlement in the pre-existing dispute. Finally, since developed countries are more likely to be targeted in GATT/WTO disputes, they simply will have more opportunities to respond in this type of retaliatory fashion. They will have more possible disputes that they can pull "off the shelf." Of course, the greater capacity and willingness of developed countries to retaliate in this fashion also is important. In contrast, leaders in developing countries, where there is more limited capacity to initiate GATT/WTO disputes, should have a more difficult time justifying the launching of a GATT/WTO dispute primarily for retaliatory reasons. To test this hypothesis I create a variable that indicates whether the potential target country is currently pursuing an ongoing GATT/WTO dispute action against the potential plaintiff.

> **Hypothesis 7**: Government leaders in developed countries are likely to initiate GATT/WTO disputes against countries that recently have challenged one of their policies before the GATT/WTO dispute settlement mechanism. This retaliatory motivation, however, should not apply to developing countries.

All of the aforementioned interactive hypotheses (Hypotheses 2-7) are summarized in Table 1. Once again, the first four hypotheses—which concern the likelihood of winning, economic rewards, differences between GATT and WTO dispute settlement, and the power of the target country—posit that both developed and developing countries should be affected by the aforementioned factors, but that the factors should be particularly salient for developing countries. The final two hypotheses, concerning domestic political incentives and retaliatory incentives, are thought to make developed countries more likely to initiate GATT/WTO dispute, yet are not predicted to have a discernible impact on potential developing country plaintiffs.

Empirical Tests

This section contains three sets of empirical tests. The first set consists of comparisons of the rates with which developed and developing countries challenged foreign AD and CVD trade barriers before the GATT/WTO between 1980-2001. The second set of findings presents multivariate estimates of the comparative likelihood that developed and developing countries will challenge foreign trade barriers by initiating GATT/WTO disputes. Both the first and second group of results provide robust support for the hypothesis that developing countries are less likely than developed countries to initiate GATT/WTO disputes. Finally, the third set of empirical findings is drawn from a pair of regression models that examines the reasons why developed and developing countries initiate GATT/WTO disputes. Many of the hypothesized differences between developed and developing countries' motivations receive solid support.

Cross-Tabulations for Hypothesis 1

The data in Table 2 demonstrate quite convincingly that developed countries are more likely than developing countries to challenge foreign trade barriers before the

GATT/WTO. The first column in Table 2 identifies the number of instances between 1980 and 2001 in which developed and developing countries challenged foreign AD and CVD measures before the GATT/WTO. In other words, the first column contains data on the number of *actual* GATT/WTO disputes (concerning the use of AD and CVD measures) that were initiated by both developed and developing countries during this period. The second column identifies the total number of protectionist AD and CVD actions that were placed on exports from both developed and developing countries; that is, the total number of *possible* GATT/WTO dispute actions that each group of countries could have initiated. Most importantly, the percentages in the third column indicate the frequency with which both groups of countries initiate GATT/WTO disputes. In all cases, developing countries have a lower rate of initiating disputes than do developed countries.

There are five pairs of developing and developed-country comparisons in Table 2, which reflect five alternative ways in which to classify countries as "developed" and "developing." Yet regardless of how one divides countries into "haves" and "have nots," developing countries challenge fewer foreign trade barriers before the GATT/WTO than do developed countries. The differences between these two groups are statistically significant in four out of the five sets of comparisons. In fact, the consistency of the patterns in Table 2 is striking. Regardless of how one measures the concepts, developed countries challenge between 6%-7% of foreign trade barriers before the GATT/WTO, while developing countries challenge only 3-4% of similar trade barriers. One also can think of these percentages as representing a "baseline" rate or prediction of the likelihood that any given trade measure will be challenged before the GATT/WTO. The rarity with which both types of governments initiate trade disputes is also striking, and attests to the various "costs" of

initiating a formal challenge before international legal institutions. Furthermore, the particularly low rate of developing country dispute initiation supports the general idea that poorer countries must be highly selective in deciding which disputes to initiate before the GATT/WTO.

While the finding that developing countries are less likely to initiate GATT/WTO disputes is not unique, the methods used to arrive at this conclusion are novel, and they provide a firmer empirical basis on which to assert this claim. This is because I control more directly for the potential to initiate GATT/WTO trade disputes by focusing on disputable policies. By doing so, I ascertain a more direct "rate of challenge" for both groups of countries. The next step is to control for other variables that are thought to affect the likelihood of GATT/WTO dispute initiation and to evaluate the robustness of the finding that developing countries are less likely to initiate GATT/WTO disputes.

Multivariate Empirical Findings for Hypothesis 1

Table 3 presents estimates drawn from three analogous binary logit models of GATT/WTO dispute initiation, which are estimated using data on more than 1,200 barriers imposed on GATT and WTO members.[21] Most notably, the relationship previously illuminated in Table 2—that developing countries are less likely to initiate GATT/WTO disputes—is confirmed in the multivariate setting. Even after controlling for several other factors, developed countries are more likely than developing countries to challenge foreign trade barriers before the GATT/WTO dispute settlement mechanism. Once again, this finding is robust across all seven operational indicators of developed versus developing

[21] Approximately 20% of the 1,519 cases in the data set are dropped from the logit regression due to missing data for one of the independent variables. The majority of cases that are dropped are due to missing data on the potential economic benefits of the disputes (i.e., trade volume). This is due to the omission of this information from some of the original AD and CVD country reports, which typically contain this information. However, there is no clear pattern as to which countries or goods are dropped due to the missing data.

country status. Results from models employing three distinct indicators of developed country status are presented in Table 3. Using binary measures drawn from the OECD and World Bank, developed countries are more likely to initiate GATT/WTO disputes, *ceteris paribus*, and this finding is statistically significant at the .01 level. A more continuous measure of developed country status, the potential plaintiffs' GDP, also produces a positive coefficient estimate that is significant at the .05 level. All in all, the findings across Tables 2 and 3 provide strong evidence that developing countries are considerably less likely to initiate GATT/WTO disputes than developed countries.

The logit results in Table 3 are also interesting in that they provide insight into the other factors that affect decisions to initiate GATT/WTO disputes. In fact, it appears that the perceived likelihood of winning the dispute, possible economic and political gains, as well as retaliatory motivations all make states more likely to initiate GATT/WTO disputes. The coefficient estimates for all four variables are generally statistically significant and robust. Furthermore, there is some evidence to suggest that governments are more likely to challenge foreign trade barriers under the WTO as compared to the GATT.

Two patterns are evident thus far. First, the findings in Tables 2 and 3 provide a clear indication that developed and developing countries are not equally likely to initiate GATT/WTO disputes. Second, the coefficient estimates for the other variables in Table 3 suggest that states have many different reasons for initiating GATT/WTO disputes. Now the focus shifts to synthesizing these two findings by looking to see whether the relatively rare situations in which developing countries initiate GATT/WTO proceedings differ systematically from the conditions in which developed countries are likely to pursue such actions.

Results of Parallel Split-Sample Models (Hypotheses 2-7)

Recall the various hypotheses about the different conditions under which developed and developing countries are most likely to initiate GATT/WTO disputes (see Table 1). Table 4 contains the estimated results for a pair of identically specified logit models: one that applies to all developed countries and another that applies to all developing countries.[22] The resulting pairs of coefficient estimates in this table allow for a simple comparison of the manner in which certain explanatory variables affect developed as opposed to developing countries. The results in Table 4 support several of the hypotheses among the group of Hypotheses 2-7, and indicate that the two types of countries do indeed have somewhat different motivations for initiating GATT/WTO disputes. In general, developing countries are most likely to take disputes they expect to win, and they are also more likely to pursue dispute settlement under the WTO as opposed to under the GATT. On the other hand, developed countries are strongly influenced by both domestic political motivations, as well as retaliatory incentives. Both groups of countries, however, tend to take disputes in which the potential economic rewards are greatest.

The first of the two factors that applies primarily to developing countries is the likelihood of winning the GATT/WTO dispute. Table 4 indicates that a high anticipated likelihood that one would win a GATT/WTO dispute exerts a positive and statistically significant impact on developing countries. In contrast, while the developed-country coefficient estimate for this variable is positive, it does not attain standard levels of statistical significance. In fact, the likelihood that one would prevail in the GATT/WTO dispute is perhaps the most important motivating factor for developing countries, yet it has relatively little impact on developed countries.

[22] In this instance, members of the OECD are considered to be developed countries, while OECD non-members are classified as developing countries.

One useful way to examine the impact of variables on both groups of countries is to look at predicted probability estimates. To accomplish this, one holds all variables but the variable of interest constant, and then looks to see how a change in the variable of interest increases the likelihood of GATT/WTO dispute initiation. Table 5 contains predicted estimates of the degree to which the perceived likelihood of winning the dispute affects both developed and developing countries. One can see that developed countries are only marginally more likely to initiate disputes they expect to win, since the predicted probability of a challenge increases by only a third, from 5.4% to 7.9%. It is also worth noting that this increase is somewhat uncertain, since the coefficient estimate for this relationship is not statistically significant, as noted above. On the other hand, developing countries are considerably more likely to initiate disputes when they feel confident of winning. While the predicted likelihood of a challenge is quite low in the absence of anticipated success (2.6%), this probability rises to a notable 9.5% when success seems likely. Furthermore, the effect of anticipated success is 2.8 times greater for developing as opposed to developed countries.

Two real-life cases illustrate the propensity for developing countries to initiate disputes in situations where the past behavior of the defendant makes the developing country believe it is likely to win a GATT/WTO dispute action. For example, India's challenge of US duties on Indian steel was motivated considerably by four US WTO panel losses in antidumping cases in the previous two years.[23] Also, when challenging U.S. safeguards on line pipe, South Korea noted that two similar aspects of U.S. safeguard determinations had been deemed inconsistent by a WTO panel in an earlier wheat gluten case brought by the EU.[24]

[23] See "India to Request WTO Panel Ruling Against U.S. Dumping Measure on Steel," *International Trade Reporter*, 14 June 2001, p. 941. The four losses were against Japan on steel, South Korea on steel, South Korea on DRAMS, and against several countries on the U.S. 1916 Antidumping Act.
[24] "Korea Asks for WTO Ruling on U.S. Line Pipe Safeguard," *Inside U.S. Trade*, 29 September 2000, p. 15.

A second finding that is specific to developing countries is that they are more likely to initiate disputes in the WTO era. Once again, the coefficient estimate for the WTO indicator variable is positive and statistically significant for developing countries, while the parallel estimate for developed countries is positive yet not statistically significant (see Table 4). From Table 5 one can see that the impact of the shift to stronger WTO rules has more than twice the effect for developing countries than it does for developed countries.

After considering each of these first two findings, it is instructive to compare the predicted probability of developing and developed country dispute initiation when there is both a high likelihood of prevailing, and the dispute would be subject to WTO dispute settlement rules. The respective predictions for both groups of countries are presented in Table 6. When developing countries have the opportunity to utilize the new WTO dispute settlement procedures and they are confident of winning, their predicted probability of dispute initiation rises immensely, to more than 20%. This number appears even more striking when one considers both the cost of dispute initiation for developing countries, and the fact that the "baseline" predictions for developing countries average between 2% and 4%. Despite their higher overall propensity to initiate disputes, developed countries under similar conditions are less than half as likely to initiate a WTO dispute.

The third notable finding in Table 4 is that both developed and developing countries are considerably more likely to take before the GATT/WTO those disputes that promise the greatest potential economic benefits. The two parallel economic gains variables in Table 4 are positive and statistically significant. Anticipated economic gains are substantively important for both types of countries, too. For developed countries, the predicted probably of GATT/WTO dispute initiation increases from less than 2% when the economic gains would be low, to more than 9% when the economic benefits would be high. For developing countries, the probability of initiating a dispute

with low economic benefit is incredibly low, at well below 1%. This statistic reveals that developing countries are highly unlikely to initiate a GATT/WTO dispute when they expect very little tangible economic reward. On the other hand, when the economic benefits promise to be higher, the probability of GATT/WTO dispute initiation increases to a point above the standard or "baseline" prediction.

Many examples of developed and developing country GATT/WTO challenges to AD and CVD actions illustrate the importance of anticipated economic benefits. For example, Canada recently challenged (once again) U.S. countervailing duties on Canadian softwood lumber before the WTO. The potential economic gains for Canada in this case are enormous. Canadian lumber exports to the U.S. total over C$11 billion annually, and constitute roughly 5% of all Canadian exports.[25] The Korean WTO challenge to U.S. AD on dynamic random access memory chips (DRAMs) also illustrates the effect that economic incentives have on WTO litigation. Korean DRAM exports to the U.S. accounted for nearly 1.8 billion dollars in 1999, while the other 17 Korean goods subject to U.S. AD duties in 2000—none of which were challenged before the WTO—combined for less than 700 million dollars in exports in 1999 (Choi and Schott 2001).

At this point, two of the hypotheses about developing country GATT/WTO dispute initiation have received strong support (Hypotheses 3 and 4), while a third hypothesis was largely supported (Hypothesis 2). However, Hypotheses 5, which concerns the likelihood of challenges against powerful countries, is not at all supported for the case of developing countries. It was predicted that developing countries would be more likely to challenge powerful countries in the GATT/WTO, but if anything, the opposite relationship is suggested (see Table 4).

[25] Ian Jack, "Tobin Calls for Lifting of Lumber Duties: Says NAFTA Should Cover Exports to U.S.," *Financial Post* (Canada) [newspaper on-line], 1 February 2001.

One possible explanation is that developing countries still have a difficult time challenging more powerful countries, even in a rule-oriented, legal forum. The imbalance in resources and technical knowledge may deter developing countries from challenging wealthier countries before the GATT/WTO, since they may be unable to match the adversary's skill in preparing arguments, navigating the system, and gaining concessions during the consultation stage (see Busch and Reinhardt 2003). Another possible explanation for this finding could be the existence of a relatively high number of cases that involve developing countries deciding whether to challenge the AD or CVD barriers of wealthier trade partners. Put differently, since wealthy countries impose a sizeable number of AD and CVD barriers against developing countries, it is difficult for developing countries to challenge a substantial number of these barriers before the GATT/WTO.

In any event, the estimates in Table 4 provide strong support for the next hypothesis (Hypothesis 6), which posits that the presence of domestic political incentives will make developed countries more likely to initiate GATT/WTO disputes. In fact, it appears that leaders of developed countries are influenced considerably by the prospect of improving their domestic political standing, while these motivations are far less consequential for developing country leaders. The developed country coefficient on the domestic political benefits variable is positive and statistically significant at the .01 level, while the corresponding coefficient for developing countries is not statistically significant.

The substantive differences between the two groups of countries are sizeable. When the domestic political gains associated with a given case are high, leaders in developed countries have a predicted probability of dispute initiation of 13.3%. Conversely, developing country leaders are less than one-third as likely to initiate politically important cases, since their predicted probability of dispute initiation is only 3.8%. In fact, the magnitude of the effect of this variable is nearly

seven times greater for developed countries than it is for developing countries. These figures suggest that leaders in developing countries are not particularly likely to initiate GATT/WTO disputes for domestic political reasons, while leaders in wealthier countries are considerably more receptive to initiating GATT/WTO disputes when there are potential domestic political benefits.

The final hypothesis, which posits that developed countries should be more likely to initiate disputes in response to a foreign government's GATT/WTO action, receives mixed support. The hypothesis is supported in the sense that wealthy countries are particularly likely to initiate GATT/WTO disputes when retaliatory incentives exist. The developed country coefficient estimate for the retaliatory motivations variable is positive and statistically significant at the .01 level. In fact, holding all else constant, the predicted probability of GATT/WTO dispute initiation for developed countries more than doubles (5.4% to 11.7%) when a wealthy government's GATT/WTO action would be in "retaliation" for an ongoing GATT/WTO dispute in which the roles are reversed. An unexpected result, however, is that developing countries also seem to be affected be these same motivations, albeit to a lesser degree. The respective developing country coefficient estimate is positive and statistically significant at the .05 level.

On the whole, it does appear that developed countries are more likely to initiate GATT/WTO disputes for reasons that go beyond the economic benefits of the dispute and the likelihood of winning the dispute. For instance, consider the situation in which there are retaliatory incentives to initiate a particular dispute, and the domestic political incentives to challenge the foreign trade barrier are high. In this scenario, holding all else constant, developed countries are nearly three times as likely as developing countries to initiate a GATT/WTO dispute (see Table 6). In fact, the actual predicted probability of developed country dispute initiation in this scenario is a

very sizeable 26.2%, which is notable given the overall rarity with which states take disputes before the GATT/WTO.

Taken together, the results in Table 4 provide a substantial amount of support for the overarching claim that developed and developing countries should take disputes before the GATT/WTO for somewhat different reasons. Given their overall sensitivity to costs, developing countries are most likely to initiate GATT/WTO disputes when there is a lot of trade at stake, and when they expect their dispute action will prove successful. Wealthier countries, in contrast, are influenced by a far wider range of factors in determining whether to launch a GATT/WTO dispute.

Conclusion

In this paper I investigate two important questions, one of which has been studied in a limited way by other scholars, and one of which has not been investigated previously. The first question concerned the issue of bias in the use of GATT/WTO dispute settlement. I found that developing countries are less likely to initiate GATT/WTO disputes, and thus in general a sense there is an anti-developing country bias in terms of the initiation of GATT/WTO disputes. While this finding is not particularly new or surprising, the methods I used to arrive at this conclusion are quite unique. By looking at actual decisions to challenge actual disputable trade policies—and controlling for alternate explanations—my findings inspire greater confidence than those put forward in other studies. My results also call into question some recent studies that have found no significant differences in the propensity of developing countries to initiate GATT/WTO disputes.

With my second question, I went beyond examining whether developing countries initiate GATT/WTO disputes and instead looked at the conditions under which they are most likely to initiate GATT/WTO disputes. My analyses pinpointed the precise scenarios under which

developing countries should be expected to initiate GATT/WTO disputes, and contrasted the different motivations that developing and developed countries have for pursuing GATT/WTO actions. In general, I found that developing countries are most likely to initiate GATT/WTO disputes when they expect to win the dispute, when the economic stakes of the dispute are high, and when they have access to the new WTO dispute settlement mechanism.

Taken together, the answers to these two questions raise a number of more general concerns and issues. First and most obviously, the fact that developing countries are less likely to initiate disputes is normatively troubling. Keep in mind that governments turn to WTO dispute initiation as a way to challenge foreign trade barriers that they view as illegal. WTO dispute actions are not "disputes" *per se*, but rather are attempts by WTO members to respond to and challenge instances of trade protection that are excessive or unjustified. To the extent the developing countries are only able to challenge a small percentage of other states' uses of illegal protection, a problem exists in that wealthier countries can relatively easily impose illegal protection at the expense of developing country members. One obvious solution to this issue is to encourage greater funding and support for the new Advisory Centre, which is intended to help developing countries more effectively challenge foreign trade barriers before the WTO.

However, a more fundamental problem also exists. Many of the policies that lead to WTO disputes, such as the imposition of AD and CVD protection, are used heavily by developed countries against developing countries. This suggests that the rules governing the use of protection under the WTO need to be tightened considerably. At present, there are simply too many ways in which wealthier WTO members are able to protect domestic industries at the expense of potential exporters in developing countries.

However, the picture that emerges from my study is not entirely bleak once one considers some of the more nuanced findings. For example, many of the "additional" or "extra" disputes that developed countries initiate are not challenges to egregious illegal protection, but rather are attempts by leaders in developed countries to boost their domestic political standing. In this sense, one cannot necessarily assume that the lower rate of developing country dispute initiation is denying developing country governments the chance to challenge additional, excessive cases of illegal protection.

Also consider the fact that developing countries tend to initiate disputes they can (and do) win. That is, they tend to initiate disputes in which their legal case is strong and in which they are confident a WTO panel will rule in their favor. What can be said, then, is that despite their scarce resources, developing countries are doing a good job of making the most of the disputes they initiate. This fact does not excuse or justify the general imbalance within the dispute settlement system, or other potential imbalances or biases within the WTO regime. But what it does indicate is that the record of developing countries in terms of dispute settlement contains both negative and positive elements.

Table 1: Hypothesized Impact of Selected Variables on the Likelihood of Challenging a Foreign Trade Barrier before the GATT/WTO

Comparison of Impact for Developed versus Developing Countries

Variables that Affect the Likelihood of GATT/WTO Dispute Initiation	**Developed** Country Initiation of a GATT/WTO Dispute	**Developing** Country Initiation of a GATT/WTO Dispute
High Likelihood of Winning (adversary has violated law in previous, similar disputes)	+	+ +
Possible Economic Benefits (export volume of good to adversary)	+	+ +
WTO Dispute Settlement (compared to GATT dispute settlement)	+	+ +
Power of Dispute Adversary (adversary's GDP)	+	+ +
Possible Domestic Political Benefits (size of domestic group affected by foreign barrier)	+	none
Retaliatory Motivations (target has current GATT/WTO dispute with you)	+	none

Table 2: Percentage of Foreign Trade Barriers Challenged by Developed and Developing Countries before the GATT/WTO, 1980-2001

	Foreign Trade Barriers Challenged by each Group before the GATT/WTO	Total Barriers Imposed Against each Group	% of Barriers Challenged before the GATT/WTO
Developed Countries (OECD Members)	57	869	6.6%
Developing Countries (Non-OECD Members)	22	650	3.4%
			z=-2.76, p=.006
Developed Countries (OECD, minus transition economies)	51	779	6.4%
Developing Countries (Non-OECD, plus transition economies)	28	725	3.9%
			z=-2.25, p=.025
Developed Countries (World Bank "high income" countries)	56	932	6.0%
Developing Countries (WB "low" to "upper-middle")	23	587	3.9%
			z=-1.79, p=.074
Developed Countries (WB "upper-middle" and "high")	66	1191	5.5%
Developing Countries (WB "low" or "lower-middle")	13	328	4.0%
			z=-1.14, p=.254
US, EU, Canada, Australia	37	535	6.9%
All Others	42	984	4.2%
			z=-2.22, p=.026

Table 3: Logit Model of Decisions to Initiate GATT/WTO Disputes

Comparison of Developed and Developing Country Plaintiffs

Developed versus Developing Countries			
Potential Plaintiff is **OECD** Member	.962 *** (.315)		
Potential Plaintiff is "**High Income**" Country (according to World Bank threshold)		.830 *** (.310)	
GDP of Potential Plaintiff (x 10^{-13})			1.02 ** (.546)
Other Variables			
High Likelihood of Winning	.683 ** (.324)	.672 ** (.325)	.731 *** (.308)
Possible Economic Benefits	2.25 *** (.590)	2.22 *** (.594)	2.03 *** (.577)
WTO Era	.408 * (.279)	.475 ** (.283)	.334 (.283)
Power of Dispute Adversary (x 10^{-13})	.246 (.535)	.192 (.533)	.262 (.517)
Possible Domestic Political Benefits	5.34 ** (2.83)	5.48 ** (.308)	5.62 (3.50)
Retaliatory Motivations	.874 *** (.268)	.924 *** (.265)	1.11 *** (.268)
Constant	-5.49 +++ (.522)	-5.41 +++ (.519)	-5.02 +++ (.444)
Robust Standard Errors in Parentheses	n = 1209	n = 1209	n = 1209

*p<.10, **p<.05, ***p<.01 (one-tailed tests)
+p<.10, ++p<.05, +++p<.01 (two-tailed tests)

Table 4: Split-Sample Logit Models of Developed and Developing Country Decisions to Initiate GATT/WTO Disputes

	Developed Countries	Developing Countries
High Likelihood of Winning	.408 (.377)	1.38 ** (.685)
WTO Era	.267 (.342)	.886 ** (.463)
Possible Economic Benefits	1.95 *** (.679)	2.68 ** (1.36)
Power of Dispute Adversary (x 10^{-13})	.951 * (.604)	-1.41 (1.05)
Possible Domestic Political Benefits	12.72 ** (5.86)	3.29 (3.11)
Retaliatory Motivations	.843 *** (.324)	1.00 + (.499)
Constant	-4.63 *** (.517)	-5.42 *** (.923)
	n = 695	n = 514

Robust Standard Errors in Parentheses
*p<.10, **p<.05, ***p<.01 (one-tailed tests)
+p<.10, ++p<.05, +++p<.01 (two-tailed tests)

Table 5: The Effects of Independent Variables on the Predicted Probability of Developed and Developing Country GATT/WTO Dispute Initiation

	Change from No to Yes		Change in Pred Prob	Relative Magnitude of Change
High Likelihood of Winning				
for **Developed** Country Plaintiffs	5.4%	7.9%	+ 2.5%	
for **Developing** Country Plaintiffs	2.6%	9.5%	+ 6.9%	2.8 times greater
WTO Era				
for **Developed** Country Plaintiffs	5.4%	6.9%	+ 1.5%	
for **Developing** Country Plaintiffs	2.6%	6.1%	+ 3.5%	2.3 times greater
Retaliatory Motivations				
for **Developed** Country Plaintiffs	5.4%	11.7%	+ 6.3%	1.5 times greater
for **Developing** Country Plaintiffs	2.6%	6.8%	+ 4.2%	

	Change from Low (1st ptile) to High (99th ptile)		Change in Pred Prob	Relative Magnitude of Change
Possible Economic Benefits				
for **Developed** Country Plaintiffs	1.6%	9.1%	+ 7.5%	2.2 times greater
for **Developing** Country Plaintiffs	.3%	3.7%	+ 3.4%	
Power of Dispute Adversary				
for **Developed** Country Plaintiffs	4.2%	9.6%	+ 4.4%	1.4 times greater
for **Developing** Country Plaintiffs	4.3%	1.2%	- 3.1%	
Possible Domestic Political Benefits				
for **Developed** Country Plaintiffs	4.5%	13.3%	+ 8.8%	6.8 times greater
for **Developing** Country Plaintiffs	2.5%	3.8%	+ 1.3%	

NOTE: When calculating the predicted probabilities above, the *Power of Dispute Adversary* variable is held at its mean value, the *Possible Domestic Political Gains* and *Possible Economic Gains* variables are held at their 80th percentile values, and all other variables are held at median values.

Table 6: The Likelihood of GATT/WTO Dispute Initiation by Developed and Developing Countries Under Various Scenarios

1) When the possible dispute occurs during the WTO era and there is a high likelihood of prevailing before the GATT/WTO…

a) the probability that a **developed country** will initiate a GATT/WTO dispute is **10.0%**

b) the probability that a **developing country** will initiate a GATT/WTO dispute is **20.3%**

2) When the possible dispute promises "high" domestic political benefits and your adversary is currently challenging one of your trade barriers before the GATT/WTO…

a) the probability that a **developed country** will initiate a GATT/WTO dispute is **26.2%**

b) the probability that a **developing country** will initiate a GATT/WTO dispute is **9.8%**

NOTE: In the first scenario, the *WTO Dispute Settlement* and *High Likelihood of Winning* variables are set to 1. In the second scenario, the *Retaliatory Motivations* variable is set to 1 and the 99th percentile values are used to capture high *Possible Domestic Political Benefits*. Unless specified otherwise, in both scenarios the *Power of Dispute Adversary* variable is held at its mean value, the *Possible Domestic Political Benefits* and *Possible Economic Benefits* variables are held at their 80th percentile values, and all other variables are held at median values.

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