
**AN EMPIRICAL ANALYSIS OF WEALTH
DISPARITIES IN WTO DISPUTES:
DO POORER COUNTRIES SUFFER FROM
STRATEGIC DELAY DURING
DISPUTE LITIGATION?**

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ABSTRACT

A long-standing debate questions whether the World Trade Organization’s (“WTO”) formal dispute settlement procedures level the playing field for lower income countries in international trade disputes, or instead, merely give opportunistic and sophisticated countries complex

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rules that they can use to exploit these lower income countries. Using a database of cases decided under the WTO, this article examines whether there is evidence that developing countries suffer strategic delay when they sue developed countries. Strategic delay is a crucial consideration in WTO proceedings because, unlike in typical litigation, the WTO dispute settlement process does not offer backward-looking remedies. As a result, a complainant will almost always want to bring a dispute to completion as soon as possible, and a respondent will almost always want to delay resolution.

We find no evidence that lower income countries are disadvantaged by delay during the litigation phase of the WTO's dispute settlement process. To the extent that there is any trend, it appears that litigation actually progresses faster when lower income countries initiate it against rich countries, than when rich countries initiate disputes against lower income countries.

After fact-finding litigation is completed, however, lower income complainants suffer significantly more delay before the dispute moves to the WTO's compliance procedures. Crucially, lower income countries do not experience this delay when they use a more formal, but optional, WTO procedure for determining the total time for compliance. This phenomenon strongly suggests that lower income nations *may* face strategic delay in open negotiations with their more powerful counterparts, but that the disadvantage is mitigated, or even eliminated, in the context of formal WTO procedures.

I. INTRODUCTION

The World Trade Organization (WTO) dispute settlement process was adopted in the hope that a more formal process for settling trade disputes might benefit developing countries by offering them better access to impartial judgments, unswayed by power politics. A long-standing debate questions whether the formal procedures instead simply give sophisticated litigants one more mechanism that can be used to exploit less developed countries.

This article uses a database of WTO cases to address this question. We study the participation of developing countries at the WTO during both the litigation and compliance stages of dispute settlement to determine whether there is evidence that developing countries suffer strategic delay when they sue developed countries. Unlike typical litigation, the WTO dispute settlement process does not offer backward-looking remedies, so a complainant will almost always want to bring a dispute to completion as soon as possible, and a respondent will almost always want to delay resolution. If the WTO procedures are prone to exploitation by richer countries, then we would expect rich countries to use strategic delay to press their advantage.

We find no evidence that poorer countries are disadvantaged by delay during the litigation phase of dispute settlement. To the extent there is any trend, it appears that litigation actually progresses more quickly when lower income countries initiate litigation against rich countries than it does when rich countries initiate disputes against lower income countries.

After fact-finding litigation is completed, however, lower income countries do appear to suffer more delay. When a poorer nation sues a richer nation, it tends to spend longer time between the end of litigation and the beginning of compliance proceedings, which is the period when the reasonable period of time for compliance is determined and exhausted. Notably, developing countries did not experience this delay when they used the WTO's formal Article 21.3 process for determining the reasonable period of time. Only developing countries that did not use this process experienced delay. These findings suggest that the WTO's formal processes may protect developing countries from disadvantages they face in open negotiation.

II. THE DEBATE: DO WTO PROCEDURES CAUSE MORE HARM THAN GOOD?

One reason that the signatories of the WTO included a formal and legalized dispute settlement process in the WTO Agreements was to make dispute settlement less dependent on power politics and easier to enforce than it had been under the General Agreement on Tariffs and Trade (GATT).¹ Because of the formal litigation process, signatories hoped that developing countries would have better access to judicial determinations of their rights and an easier time obtaining judgments against powerful developed countries.²

A. *The Conventional Wisdom*

From the beginning, there was concern that increasing legalization would make it difficult for developing countries to fully use the dispute settlement system. As Professor Robert Hudec observed, "according to conventional wisdom, it is a waste of time and money for developing countries to invoke the WTO's dispute settlement procedure against industrial countries."³

The conventional wisdom posits two explanations for the assumed developing country disadvantage: capacity constraints and power con-

¹ See, e.g., Marc L. Busch & Eric Reinhardt, *Developing Countries and General Agreement on Tariffs and Trade/World Trade Organization Dispute Settlement*, 37 J. WORLD TRADE 719, 719 (2003).

² *Id.* at 719-20 (emphasizing formal procedures such as the automatic adoption of panel reports).

³ Robert Hudec, *The Adequacy of WTO Dispute Settlement Remedies*, in DEVELOPMENT, TRADE AND THE WTO: A HANDBOOK 84 (Bernard Hoekman, Aadity Mattoo & Philip English eds., 2002).

straints. The capacity constraint explanation posits that the “resources available to identify, analyze, pursue and litigate a dispute” are more limited for developing countries.⁴ The power constraint explanation posits that developing countries will refrain from bringing claims for fear of retaliation because they are politically weaker and have less market power.⁵

These two constraints could affect the dispute resolution process in a variety of ways. As the survey of the empirical literature below shows, most studies have focused on the pre-litigation stage—either on the selection of defendants or on the early settlement of disputes. We are testing whether these constraints have an effect on developing countries’ ability to pursue and litigate a claim once it has moved past the early settlement stage.

There is no question that WTO disputes are complex. The WTO itself has noted “disputes in the WTO are usually very complex in both factual and legal terms. Parties generally submit a considerable amount of data and documentation relating to a challenged measure . . . [and] need time to prepare these factual and legal arguments and to respond.”⁶ Thus, most WTO and private party efforts to assist developing countries in using the dispute settlement process have focused on providing greater resources in the litigation process.⁷ The WTO explains further that “[i]n practice, developing country Members tend to prefer to have more time to prepare their submissions. However, they often insist that the panel respect the overall time-frames for the completion of the procedure.”⁸ For this reason, the WTO includes a “special and differential treatment” clause (S&D) for developing countries, which mandates that, if asked,

⁴ Andrew T. Guzman & Beth A. Simmons, *Power Plays and Capacity Constraints: The Selection of Defendants in World Trade Organization Disputes*, 34 J. LEGAL STUD. 557, 559 (2005).

⁵ *Id.* at 559.

⁶ LEGAL AFF. DIV. & APP. BODY, WORLD TRADE ORGANIZATION, A HANDBOOK ON THE WTO DISPUTE SETTLEMENT SYSTEM 7 (2004) [hereinafter WTO HANDBOOK].

⁷ *See, e.g., id.* at 114 (stating that the WTO Secretariat “assists all Members in respect of dispute settlement at their request, but it provides additional legal advice and assistance to developing country Members” and noting divisions and activities of the Secretariat—including the Institute for Training and Technical Cooperation and special training courses available to developing countries—that provide additional resources to assist developing countries in the litigation process at the WTO); *Dispute Settlement*, ADVISORY CENTRE ON WTO LAW, <http://www.acwl.ch/e/disputes/dispute.html> (last visited Jan. 10, 2011); GREGORY C. SHAFFER, *DEFENDING INTERESTS: PUBLIC-PRIVATE PARTNERSHIPS IN WTO LITIGATION* 7 (2003) (suggesting that developing countries would benefit from “the creation of legal support centers to provide litigation resources for financially strapped countries to offset resource imbalances”).

⁸ WTO HANDBOOK, *supra* note 6, at 115.

“the panel must accord [the developing country] sufficient time to prepare and present its defence.”⁹ In at least one case, a panel has provided additional time even against the explicit objections of the other party.¹⁰

B. *The Empirical Literature on Settlement*

The few empirical studies on the experience of developing countries have aimed to address the conventional wisdom that the WTO dispute settlement process disadvantages developing countries.

In 1999 Horn, Mavroidis, and Nordström wrote the first significant empirical paper on developing country participation in the dispute settlement process.¹¹ They found that although developed countries bring the majority of cases, a simple model considering the diversity and value of exports explains the discrepancy fairly well.¹² They also examined the effect of power and capacity constraints on the decision to bring a complaint and found that the capacity constraint has some effect but power has almost none.¹³

Another group of authors, Guzman and Simmons, tested two pieces of conventional wisdom about the selection of respondents at the WTO.¹⁴ First, they considered whether low income states refrained from suing high income states for fear of retaliation.¹⁵ Second, they tested whether low income states are more likely to complain against high income states because of higher expected returns.¹⁶ They found little support for the first hypothesis and significant support for the second.¹⁷

A third group of authors, Busch and Reinhardt made the interesting discovery that early settlement garners the fullest possible concessions.¹⁸ Porges supported this view and drew upon classic litigation models to explain why.¹⁹ Busch and Reinhardt looked at when disputes are terminated but did not look at how long it takes for a country to proceed through each step of the litigation process.²⁰ They argued that countries

⁹ *Id.* at 111.

¹⁰ *Id.* at 111–12.

¹¹ Henrik Horn, Petros C. Mavroidis and Håkan Nordström, *Is the Use of the WTO Dispute Settlement System Biased?* (Centre for Economic Policy Research Discussion Paper No. 2340, 1999).

¹² *Id.*

¹³ *Id.*

¹⁴ Guzman & Simmons, *supra* note 4.

¹⁵ *Id.* at 559.

¹⁶ *Id.* at 561.

¹⁷ *Id.* at 557.

¹⁸ See Busch & Reinhardt, *supra* note 2; Marc L. Busch & Eric Reinhardt, *Bargaining in the Shadow of the Law: Early Settlement in GATT/WTO Disputes*, 24 *FORDHAM INT'L L.J.* 158, 162 (2000).

¹⁹ Amelia Porges, *Settling WTO Disputes: What Do Litigation Models Tell Us?*, 19 *OHIO ST. J. ON DISP. RESOL.* 141 (2003).

²⁰ Busch & Reinhardt, *supra* note 2.

receive the best settlement of their dispute when the parties reach agreement at an early stage, rather than after litigation.²¹

In a separate paper, Guzman and Simmons found that country income has no effect on settlement but that settlement was largely driven by the subject matter of the dispute.²² Flexible policies (like tariff rates) are more easily settled than inflexible subjects (like health or safety regulations) that require all-or-nothing changes to the law.²³

The issue missing from the empirical literature—and the one we attempt to address—is how developing countries fare once they are embroiled in the litigation phase of a WTO dispute. In a typical lawsuit that challenges an ongoing harm, damages accrue during the period of the lawsuit. This means that a defendant who delays resolution of a dispute risks paying more after an eventual decision. But the WTO dispute settlement process does not provide for any backward looking remedies—in this instance, justice delayed is truly justice denied. Thus, to understand whether WTO procedures are helping developing countries compete with developed countries on even terms, it is crucial to know whether poorer countries are able to move through WTO disputes in a timely fashion. Thus, we have collected a dataset consisting of the dates on which each of the disputes before the WTO reached certain milestones. We examine this data to determine whether developing countries face strategic delay.

III. DEFINING “DELAY” AND “DEVELOPING COUNTRY”

To build our data set, which is current through summer 2010, we relied on the dates of filings from the Worldtradelaw.net database, which practitioners in and out of government rely on and is partnered with the Georgetown University Institute of International Economic law, the leading academic center dealing with WTO dispute settlement issues. We then calculated the time it took each dispute to move from milestone to milestone in the WTO process.²⁴

²¹ *Id.* at 720.

²² Andrew Guzman & Beth A. Simmons, *To Settle or Empanel? An Empirical Analysis of Litigation and Settlement at the World Trade Organization*, 31 J. LEGAL STUD. S205 (2002).

²³ *Id.*

²⁴ A WTO dispute, like litigation in any forum, presents challenges to those seeking to reduce it to a data point. Here is how we address some of these challenges:

- Where a complainant has filed a new request to replace an earlier request for the same dispute, we count only one panel request.
- In the six cases where multiple complainants filed a panel request jointly, we disaggregate each complainant-respondent pair and treat each as a separate complaint. We do this because there were multiple instances where low, middle, and high income countries were complainants in the same dispute. Additionally, there are disputes where the complainants could have filed as one and instead filed with separate dispute settlement (DS) numbers, which

A. “Developing Country”

The WTO itself has no formal definition of a developing country.²⁵ Consequently, defining “developing” is one of the principal challenges presented when studying the experience of developing countries. We do not divide all countries into two categories labeled “developed” and “developing.” Given the variation in wealth that would remain in each category, we believe such a division would not be helpful in addressing our question. A definition limited to two categories would ignore the significant disparities that may exist in litigation among two nations in the same category. Consequently, we define a country’s status along a developing-to-developed axis in three ways.

First, we use a modified version of the descriptors from the Worldtradelaw.net database, where countries are labeled as low income, lower middle income, upper middle income, or high income.²⁶ Low income countries include countries such as India, Indonesia, and Nicaragua. Lower middle income countries include Thailand and Guatemala. Upper middle income countries include Chile, Mexico, and Poland before its 2004 entry to the European Union. High income countries include Japan, the United States, and the European Community, which usually complains and responds as a unit. We group low income and lower middle income countries as one “low income” category in our analysis, because otherwise there are simply too few disputes in those two categories.²⁷ We re-label the upper middle income category as “middle income” to create simple low, middle, and high categories. This means that the relative

seems to represent a functionally identical case. This is a change from the Worldtradelaw.net methodology.

- Where disputes have multiple complainants and a single panel report, the earliest panel establishment date is used.
- In certain cases an appeal was withdrawn or a panel report was circulated with no findings (e.g. DS7). These reports are not included in our results.

²⁵ See *Who are the Developing Countries in the WTO?*, WORLD TRADE ORGANIZATION, http://www.wto.org/english/tratop_e/devel_e/d1who_e.htm (last visited Jan. 10, 2010) (stating “[t]here are no WTO definitions of ‘developed’ and ‘developing’ countries. Members announce for themselves whether they are ‘developed’ or ‘developing’ countries.”).

²⁶ These determinations rely on World Bank categorizations based on GNP per capita. *WTO Complaints Sorted by Type of Economy*, WORLDTRADELAW.NET, available at <http://www.worldtradelaw.net> (last visited Nov. 29, 2010).

²⁷ These categories are not premised on any established or natural dividing lines, but are, instead groupings of convenience. Ultimately, as noted, we believe that because there is a continuous spectrum from high income to low income countries, a country’s wealth is best presented as a continuous variable.

absence of disputes involving low income countries would be even more pronounced if we used the original Worldtradelaw.net categories.²⁸

Our second way of defining a country's development status is by coding its Gross Domestic Product (GDP) per capita, the usual tool for defining a country as developed or developing. All GDP data are taken from the International Monetary Fund's September 2006 World Economic Outlook database.²⁹ We take the average of each country's GDP for the years 1995-2006.³⁰ This approach is largely consistent with both the World Bank and Worldtradelaw.net approaches—as well as the approaches of other international organizations such as the UN Conference on Trade and Development. This measure of development status may capture the idea of capacity constraints on developing countries—the idea that wealthy countries may have a greater capacity for litigation.³¹

Our third method of defining a country's development status is raw GDP, which may better address the power constraints theory, positing that developing countries will be at a disadvantage in WTO disputes because they have less market power.³² Raw GDP is probably a better measure of market power than GDP per capita. For instance, China is a developing country, which is reflected in its low GDP per capita measure, but it also has substantial market power, which is reflected by its large GDP.

Thus, we use three different methods of ranking countries on a developing-to-developed axis. The first corresponds with traditional descriptors of countries as high, middle, or low income. The second and third methods are more powerful because they rely on a continuous variable, GDP, to define a country's wealth. The second method, GDP per capita, is the usual method of defining a country's wealth. We include the third method, raw GDP, because it addresses one of the reasons that wealthier countries are thought to have an advantage in WTO disputes—their greater market power.

²⁸ Specifically, only 153 of 438 disputes involve a “low” or “lower middle” income country using the Worldtradelaw.net nomenclature. Only 59 disputes involve a “low” income country as Worldtradelaw.net defines it.

²⁹ See World Economic Outlook Database for September 2006, <http://www.imf.org/external/pubs/ft/weo/2006/02/data/index.aspx> (last visited Jan. 15, 2011).

³⁰ This means that for the European Community, we took the aggregate of the population and GDP of all the countries within it each year, found the GDP per capita for each year, and then used the yearly aggregates to find the average GDP and GDP per capita for the 1995-2006 time period.

³¹ Guzman & Simmons, *supra* note 4.

³² *Id.*; see also *supra* Section II.A.

B. “Delay”

Our principal method of assessing whether developing countries face disadvantages in the WTO dispute resolution process relies on probing the dataset for evidence of strategic delay benefiting wealthier countries at the expense of poorer countries. The dispute resolution process does not offer any remedies for past unfair trade practices and allows retaliatory measures only when all appeals are complete. Thus, a cynical respondent would always string out the process as long as possible. Similarly, a cynical complainant would try to bring the dispute to a conclusion swiftly. If developed countries have an advantage or superior influence in the dispute resolution process, one would expect that they would be able to accomplish these goals when involved in a dispute with a less developed country. Thus, if one accepted the conventional criticism of the dispute resolution process, one would predict that disputes would be resolved relatively quickly when a rich country sues a lower income country and more slowly when a lower income country sues a rich country. Most of our tests examine this hypothesis.

WTO disputes begin with a complaint and the litigation stage finishes when a panel report is adopted. If the initial panel’s decision is appealed, the panel report is not finally adopted until the Appellate Body Report is also adopted by the Dispute Settlement Body (DSB). Thus, when the panel report is adopted, the fact-finding litigation stage is finished and all further proceedings focus on enforcement.

We examine three separate stages of the dispute settlement process. The first stage is litigation, which we define as beginning with filing the complaint and ending when a panel report is adopted. Our findings are most robust at this stage because 156 of our total 438 cases reached the end of litigation. The next stage is between litigation and compliance, which we define as the period after the panel report is adopted and before the complainant files a 21.5 request for a non-compliance finding. Only 31 cases resulted in a 21.5 request. With a smaller N, our data are less robust here. Finally, we define the compliance stage as the period of time from a 21.5 request to a final decision on compliance. Only 16 cases reached this stage. We do not address Article 22 retaliation requests because only six unique disputes finished the Article 22 phase.

Table 1: Stages of the Dispute Settlement Process

Stage	Data Points	Avg.	Std. Dev.
“Litigation” Complaint to Panel Report Adopted	156	731 days	232 days
“Between Litigation and Compliance” Panel Report Adopted to 21.5 Request	32	373 days	175 days
“Compliance” 21.5 Request to Completion	16	451 days	439 days

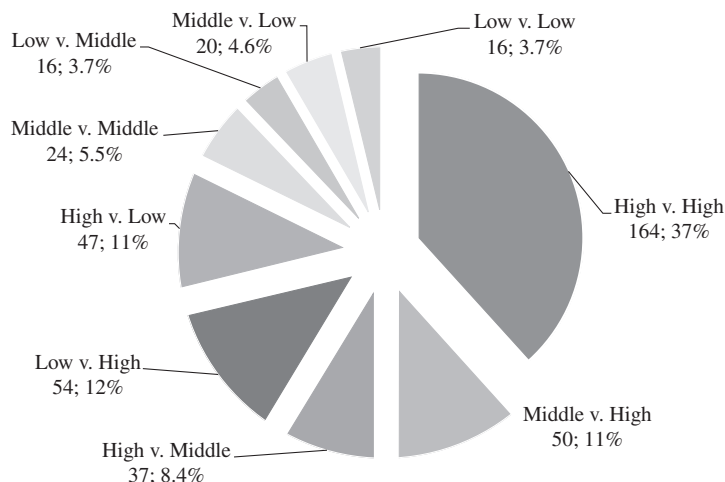
IV. DEVELOPING COUNTRY PARTICIPATION

As of July 2010, 438 disputes have been notified to the WTO dispute settlement body. As predicted by the literature,³³ the vast majority of cases—41%—are exclusively among high income countries. Only 19% of disputes involve only middle income and low income countries as named parties, and developed countries participate as third parties in many of these cases.

Of the 438 total cases, only 16—or 4% of the total cases—involved disputes between two low income countries. Sixteen involved low income countries suing middle income countries and, somewhat surprisingly, 54 disputes involved low income countries suing high income countries.

Middle income countries had a similar distribution. Twenty disputes involved middle income countries suing low income countries; 24 involved a middle income country suing another middle income country; and 50 involved a middle income country suing a high income country.

**Figure 1: Distribution of Complaints
Among High, Middle, and Low Income Countries**
(Complainant v. Respondent; # of Disputes; Percentage of Total)



While the overall level of participation is lower for developing countries, as Horn et al. predicted,³⁴ it is interesting to note that a substantial number of cases involve low and middle income countries suing high income countries. Both the power and capacity constraint theories would suggest that such cases should be rare, since those theories suggest that

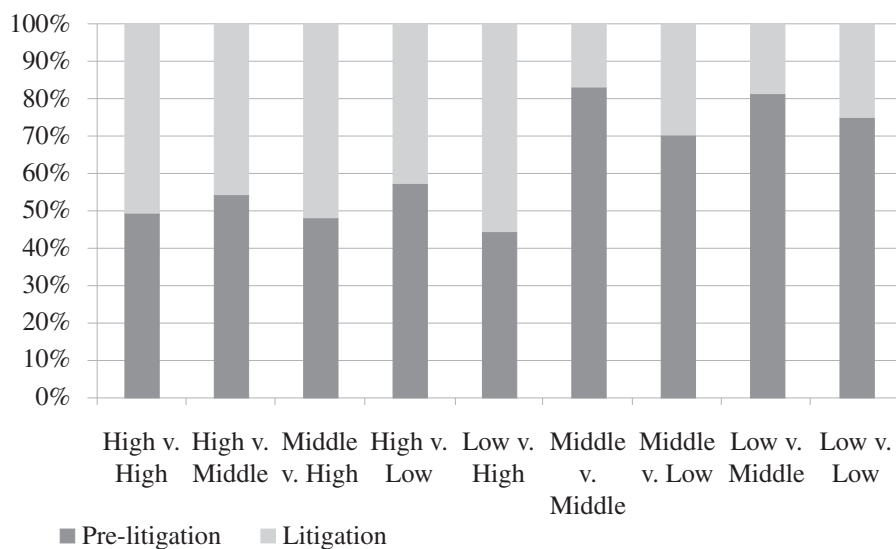
³³ See, e.g., Horn at 4-5, *supra* note 11.

³⁴ See Horn at 4-5, *supra* note 11 (predicting a lower level of participation for developing countries, based on the diversity and value of exports).

low and middle income countries lack the desire and resources to bring claims against high income countries.

There also seems to be a correlation between the income of the disputing countries and the stage at which litigation is resolved. As Figure 2 below demonstrates, the wealth of the two countries combined seems to affect how far litigation progresses.³⁵ When both countries are relatively wealthy, as on the far left, the case is more likely to proceed to litigation. When both countries are of relatively lower income, as on the far right, the case is more likely to settle without litigation. Thus the graph has a moderate, positive slope. If the categories are arranged by wealth disparity, instead of by aggregate wealth, there is no clear pattern to when cases are resolved. Thus, the combined wealth of the two countries involved in a dispute seems to be more important than the disparity in wealth between the two countries in determining whether a dispute will be resolved before litigation.

Figure 2: Early Settlement Patterns



V. RESULTS

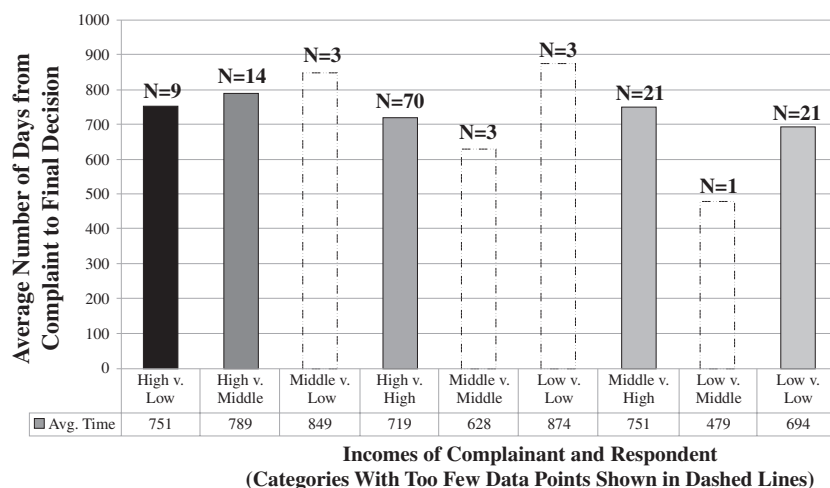
A. *Developing Countries Do Not Appear to Suffer Strategic Delay During the Fact-Finding Stage of WTO Disputes*

To examine the experience of developing countries vis-à-vis developed countries, we first separated the disputes into nine categories based on

³⁵ Note that this is measuring the *stage* at which proceedings are resolved, and *not* the *time elapsed*, which is the focus of the bulk of this study and more central to concerns about strategic delay.

whether the complainant and respondent were high, middle, or low income countries. Then we found how many days it took for disputes in each category to progress from complaint to panel report adoption. The results are in Figure 3, below.

Figure 3: Do Developing Countries Face Strategic Delay?



If the conventional criticism of the settlement process is correct, we would predict that when high income countries sued low income countries, litigation would conclude faster than average. (The average time for litigation for all disputes is 731 days.) We would expect to see a similar, but weaker, effect when high income countries sued middle income countries and when middle income countries sued low income countries.

On the other hand, we would expect that when a low income country sued a high income country, litigation would take much longer than usual, as the rich country would likely use its influence to string out the process. And again we would expect some similar effect with middle income versus high income and low income versus middle income disputes.

Figure 3 displays the average time for litigation in each of these nine categories. The far left of Figure 3 displays the situation where the complainant is theoretically most advantaged—a high income country bringing a dispute against a low income country. On the far right, Figure 3 displays the opposite situation—a low income country complaining against a high income country—the situation in which the complainant is theoretically at the greatest disadvantage. Thus, in Figure 3 we should expect a positive slope; as we move to the right, increasingly privileged respondents would drag the process out longer and longer.

Figure 3 shows that our data do not support this hypothesis. Instead, the average time remains very close to the 731 day average for all disputes. The average in each category only differs substantially in catego-

ries with so few disputes that the data cannot be considered representative. For instance, only one dispute fit in the low income v. middle income category; it lasted 479 days. To the extent that there is a trend, it actually seems that lower income complainants completed the process more quickly, which is an important benefit because of the lack of remedies for past unfair practices.

To investigate further, we moved on to our other two measures of a country's wealth: (raw) GDP and GDP per capita. These variables are continuous, so we plot each dispute as a separate data point. Thus, in Figure 4 below, each data point shows one of the 145 disputes that progressed from a complaint to an adopted panel report. Position on the y axis represents the number of days it took to complete this progression. Position on the x axis shows the disparity in wealth between the two countries, measured in GDP per capita.

Figure 4: Do Developing Countries Face Strategic Delay?

Line of Best Fit: (Days) = 34.5(Ratio_{log}) + 741

N = 156 | R² = 0.0158 | P = 0.118

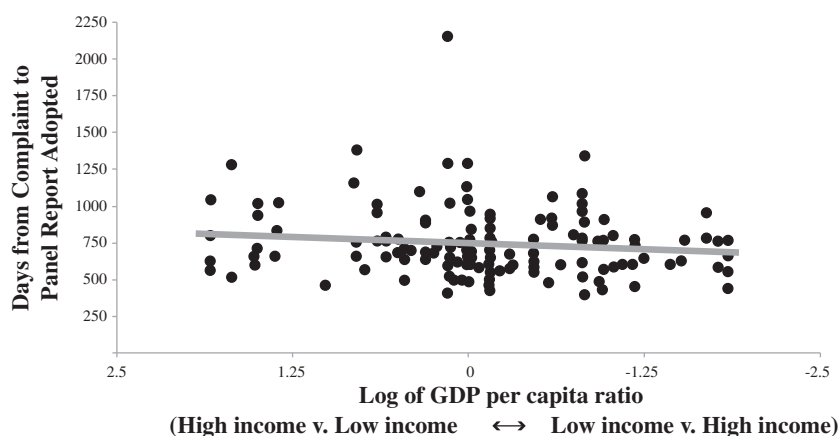


Figure 4 represents the disparity in wealth between the two litigants by taking the log of the ratio of complaining country GDP per capita to responding country GDP per capita.³⁶ When a rich country sues a lower income country this ratio will be above one, so the log will be positive. When a lower income country sues a rich country, the ratio will be a fraction below one, and so the log will be negative. The x axis is presented with positive numbers to the left, representing situations where the complainant has a dramatic advantage in wealth vis-à-vis the respondent; at the extreme right side the complainant is at a serious disadvan-

³⁶ These ratios are usefully represented on a logarithmic scale because the ratios of GDP per capita in WTO disputes vary by several orders of magnitude.

tage in wealth. Specifically, at the position of zero on the x axis, the complainant and respondent have the same GDP per capita. At the position of one on the x axis, the complainant has a GDP per capita ten times higher than the respondent; at the position of two, the complainant has a GDP per capita of one hundred times higher than the respondent. Similarly, at the position of *negative* one, the complainant has only *one-tenth* the GDP per capita of the respondent, and at *negative* two, the complainant has only *one-hundredth* the GDP per capita of the respondent.

Based on the conventional criticism,³⁷ one would expect a graph with a strong upward slope when moving from left to right; when the respondent is much wealthier, it should drag out the proceedings. The data do not support this hypothesis. The slight downward slope of a best-fit line actually seems to show that developing countries have a slight advantage. The best-fit line shows that (Days from Complaint to Adoption of Panel Report) = 34.5 (Log of GDP Per Capita Ratio) + 741.

This correlation is not strong or significant— $R^2=0.0158$, $p=0.118$ —but for purposes of explanation it is worth exploring what this best-fit line would mean. If the line represents a true correlation to the data, then, all other things equal, an evenly matched complainant and respondent would progress from the complaint to adoption of the panel report in 741 days.³⁸ And the slope of the line (34.5) indicates that if the complainant was ten times as wealthy as the respondent, that progression would actually be delayed by about 35 days, for a total of 776 days.³⁹ Similarly, if the complainant was ten times poorer than the respondent the case would move 35 days more quickly, progressing through litigation in 706 days.⁴⁰

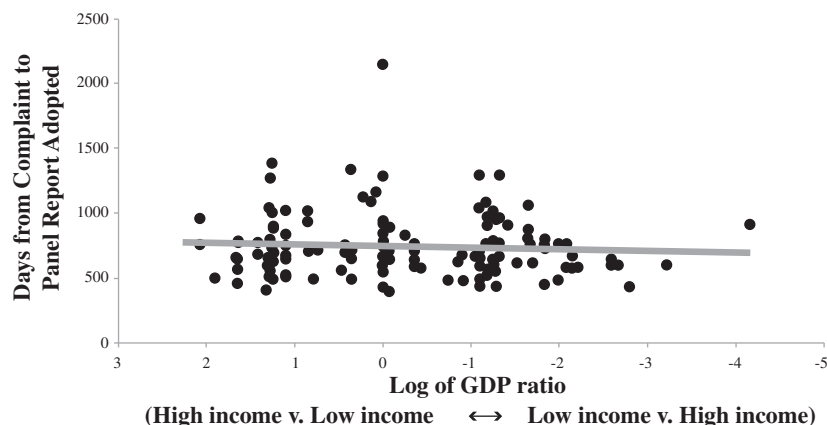
We also compared the same interval to GDP disparity, instead of GDP per capita, to test the hypothesis that countries with greater market power could more easily manipulate the system. There was no significant difference in the results, as can be seen in Figure 5, below. Again, the data do not support the prediction that lower GDP countries will face strategic delay in their WTO disputes. Countries with lower GDP actually seemed to have a slightly easier time in litigation; when they sued high GDP countries it took slightly less time than normal to bring the suit to a conclusion. The slope of the line of best fit was smaller here—just 12.6 days fewer for a ten-fold decrease in wealth. And just as before, this result was not significant: $R^2=0.0049$, $p=0.385$.

³⁷ See *infra* Part II.A.

³⁸ The log of the ratio of GDP per capita would be 0 for this pair of respondents because the ratio would be 1/1, and $\log 1=0$. Thus, days = $(34.5 \times 0) + 741 = 741$ days.

³⁹ The log of the ratio of GDP per capita would be 1 for this pair of respondents because the ratio would be 10/1, and $\log 10=1$. Thus, days = $(34.5 \times 1) + 741 = 775.5$ days.

⁴⁰ The log of the ratio of GDP per capita would be -1 for this pair of respondents because the ratio would be 1/10, and $\log .1 = -1$. Thus, days = $(34.5 \times -1) + 741 = 706.5$ days.

Figure 5: Does Using Raw GDP Affect the Result?Line of Best Fit: $(\text{Days}) = 12.6(\text{Ratio}_{\log}) + 742$ N = 156 | $R^2 = 0.0049$ | P = 0.385

Thus, developing countries do not appear to suffer strategic delay during the fact-finding stage of WTO disputes.

B. *Developing Countries Appear to Suffer Strategic Delay Between Litigation and Compliance, But Not If They Take Advantage of All WTO Procedures*

After the panel report is adopted, parties have the option of initiating litigation under Article 21.3 to determine a reasonable period of time (RPT) for compliance.⁴¹ Litigation to determine the reasonable period of time for compliance is not required, but a defendant country must either be given a formal 21.3 RPT, notify mutual agreement on an RPT, or notify the Dispute Settlement Body that it has complied before compliance proceedings can begin under Article 21.5.⁴² We look at how long it takes between when a final panel report is adopted and when Article 21.5 proceedings are initiated and whether that differs depending on if a dispute went through the formal Article 21.3 process.

⁴¹ See Understanding on Rules and Procedures Governing the Settlement of Disputes, art. 21(3), Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 2, 1869 U.N.T.S. 401 [hereinafter DSU].

⁴² *Id.*, art. 21(5).

Figure 6: End of Litigation to Beginning of Compliance

Line of Best Fit: $(\text{Days}) = -93.5(\text{Ratio}_{\log}) + 361$

N = 31 | $R^2 = 0.143$ | P = 0.036

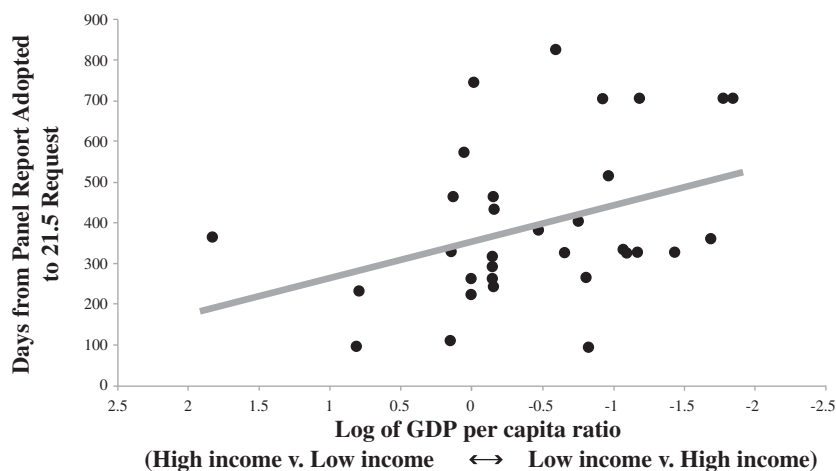


Figure 6, above, shows the time it took for each dispute that completed litigation to enter compliance proceedings. Again the y axis displays time spent, while the x axis shows the disparity in wealth between the two disputing countries. Unlike at the litigation phase, there seems to be an advantage for high income countries at this stage. When a high income country sues a low income country, the high income country progresses much more quickly from the end of litigation to a 21.5 request for a non-compliance finding, as compared to a low income country suing a high income country. The slope of the line of best fit is -93.5; this means that on average a country will move to compliance 93.5 days more slowly if it faces a country ten times richer instead of a country its own size. This correlation is not particularly strong, with $R^2=0.143$, but it is significant with a p value of 0.036.

Standing alone, this result might suggest that there is a potentially serious problem with the post-litigation, pre-compliance WTO dispute resolution process. This interim period is designed to allow the respondent party to come into compliance—but our data suggest that richer countries may be using it to delay resolution of poorer countries' complaints.

Yet our data suggest that, while this delay may be a shortcoming of actual WTO dispute settlement practice, it does not necessarily indict the WTO's formal procedures. Countries may turn to a 21.3 arbitrator to determine a reasonable period of time for the respondent country to come into compliance.⁴³ And Figure 7 below shows that when countries

⁴³ Article 21.3 provides, "If it is impracticable to comply immediately with the recommendations and rulings, the Member concerned shall have a reasonable period

go through the 21.3 process, using an arbitrator, developing countries do not face any unusual delay. In fact, as in the litigation stages, Figure 7 shows an insignificant trend for developing countries to move more quickly to compliance when they are facing a richer country. This trend, while insignificant, is almost as strong as the overall trend in the opposite direction; the slope of the line of best fit is 85.2, which suggests that a country that uses the arbitrator under the 21.3 process will move to compliance 85.2 days more quickly if it faces a country ten times richer than itself than if it faces a country of similar size.

Figure 7: End of Litigation to Beginning of Compliance - Disputes That Use 21.3

Line of Best Fit: $(\text{Days}) = 85.2(\text{Ratio}_{\log}) + 434$
 N = 11 | $R^2 = 0.1057$ | $P = 0.329$

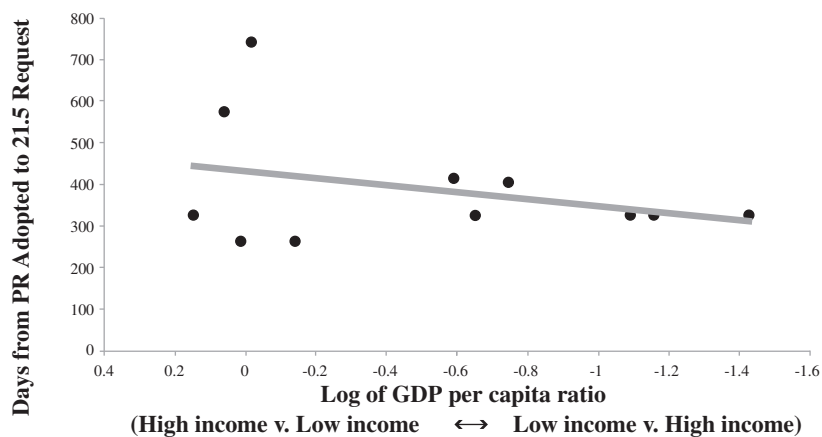


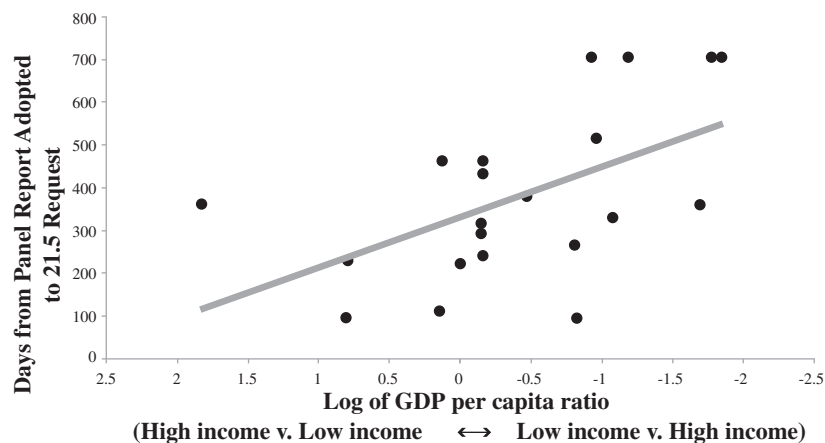
Figure 8 below demonstrates that the correlation between income disparity and time spent between litigation and compliance is driven solely by countries that do not use the 21.3 process. Because countries that use the process are removed from the chart, the correlation is steeper and stronger than that seen in Figure 6. R^2 is now 0.294 instead of 0.143, and the slope of the line of best fit has moved from -93.5 to -118. This slope suggests that, on average, a country will move to compliance 118 days sooner if it faces a country its own size instead of facing a country ten times richer than itself.

of time in which to do so.” Article 21.3(c) provides that if the Parties are unable to agree to a reasonable period of time, the RPT shall be “determined through binding arbitration within 90 days after the date of adoption of the recommendations and rulings.” See also WTO Handbook, *supra* note 6, at 76-78.

Figure 8: End of Litigation to Beginning of Compliance - Disputes That Do Not Use 21.3

$$\text{Line of Best Fit: (Days)} = -118(\text{Ratio}_{\log}) + 334$$

$$N = 21 \mid R^2 = 0.294 \mid P = 0.0111$$



Though Figures 6, 7, and 8 are based only on the 31 disputes that reached 21.5 compliance proceedings, taken together they suggest that developing countries may face significant disadvantages negotiating with developed countries following the litigation phase. But they also suggest that the formal 21.3 process could eliminate that disadvantage. If developing countries are at a disadvantage at this stage when they negotiate outside the WTO process, it may be reasonable to assume that they would be at a disadvantage in negotiating with rich countries in general. If this is so, the fact that developing countries do not face strategic delay in the litigation phase of WTO disputes may suggest that the WTO dispute resolution process is removing disadvantages that developing countries would otherwise face. Thus, the very fact that there is no correlation between country wealth and time to resolution may suggest that the WTO process is working well, taking nations that would be disadvantaged in open negotiations and putting them on an even playing field.

C. Article 21.5 Compliance

An Article 21.5 panel determines whether the respondent country has come into compliance.⁴⁴ Article 21.5 panels are supposed to render decisions quickly, typically within 90 days.⁴⁵ Either party may appeal an Article 21.5 finding to the appellate body.⁴⁶ In addition, certain cases have

⁴⁴ See DSU, *supra* note 41, art. 21(5).

⁴⁵ *Id.*

⁴⁶ *Id.*, art. 17.

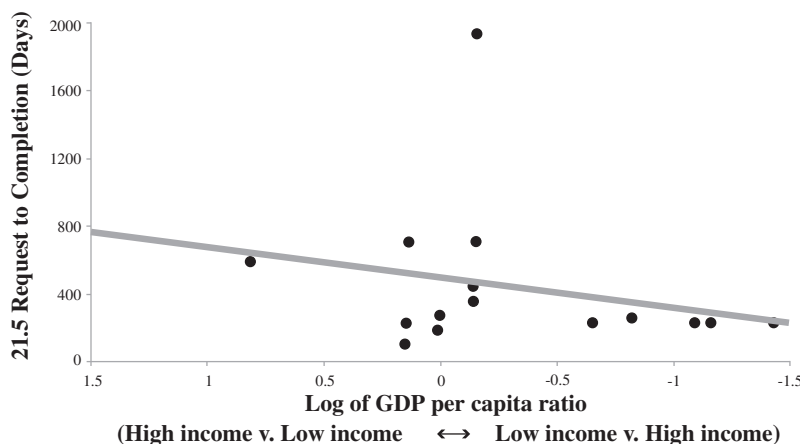
required multiple rounds of Article 21.5 litigation, prolonging the compliance process.⁴⁷

Figure 9 shows the time between the initial 21.5 request and the final 21.5 decision. The trend line is not significantly different from zero, but as in the litigation stage, shows a slight advantage for lower income countries. When a low income country is suing a high income country, it tends to move a little more quickly through 21.5 compliance proceedings, although this result is insignificant.

Figure 9: 21.5 Compliance

$$\text{Line of Best Fit: (Days) = 177(\text{Ratio}_{\log}) + 501$$

$$N = 16 \mid R^2 = 0.0563 \mid P = 0.377$$



D. Post-21.5 Enforcement

Although the potential enforcement litigation can continue beyond the Article 21.5 process, we cease our inquiry at this stage because of the lack of a sufficiently large sample size of cases. In addition, the resolution of disputes at this stage tends to be very case-specific and ill-suited to statistical treatment. For example, in the long-running Bananas dispute, after multiple Article 21.5 arbitrations, the Parties settled the dispute through mutual agreement.⁴⁸

⁴⁷ See, e.g., Panel Report, *European Communities – Regime for the Importation, Sale and Distribution of Bananas – Recourse to Article 21.5 of the DSU by Ecuador*, WT/DS27/RW/ECU (Apr. 12, 1999); Panel Report, *European Communities – Regime for the Importation, Sale and Distribution of Bananas – Second Recourse to Article 21.5 of the DSU by Ecuador*, WT/DS27/RW2/ECU (Apr. 7, 2008), as modified by Appellate Body Report WT/DS27/AB/RW2/ECU (Nov. 26, 2008).

⁴⁸ See Agreement on Trade in Bananas, U.S.-E.U., May 31, 2010, available at http://www.ustr.gov/webfm_send/1958.

Article 22 dictates the procedure by which the panel determines injury.⁴⁹ Instead of awarding cash amounts, Article 22 panels determine the amount by which a member state may suspend its WTO concessions toward the offending member.⁵⁰ In essence, the Article 22 panel thus authorizes retaliatory tariffs.

It is rare for a case to reach this stage and even rarer for an actual retaliatory amount to be assigned. In 15 years of disputes, only six unique disputes reached the Article 22 phase. Even where an amount has been assigned, only once has a country actually suspended concessions in order to induce compliance.

VI. CONCLUSION

We make two important findings about the developing country experience at the WTO and raise an important issue for future study. First, our findings do not support the conventional wisdom that developing countries face a disadvantage in the litigation and compliance stages of WTO dispute settlement. In fact, our analysis suggests that, if anything, developing countries may have a small advantage in these stages.

Second, we find that developing countries that do not use the Article 21.3 process are significantly more likely to face delays in the initiation of an Article 21.5 compliance action when they face a richer respondent. Notably, countries that use the Article 21.3 process experience no such delays—if anything, they seem to move more quickly to compliance than richer respondents. This, of course, suggests that developing complainants should be wary of foregoing the 21.3 process.

The striking difference between the experience of, on the one hand, developing countries who use the formal Article 21.3 process to determine a reasonable period of time (RPT) for compliance, and, on the other hand, those who do not, suggests that the formal procedures of the WTO may be subtly doing much to level the playing field of international trade disputes. If the experience of countries that do not use the Article 21.3 process is representative of the experience of countries in open negotiations, it suggests that developing countries may be at a serious disadvantage in such a setting. If that is the case, then the evidence that developing countries are not disadvantaged by strategic delay in WTO dispute litigation may suggest that WTO procedures are very effective in removing constraints that developing countries face outside of those procedures. This hypothesis, in turn, suggests that looking at further areas where developing country litigants have a choice of formal procedures or open negotiations, and determining whether any conclusions can be drawn about the comparative outcome of either choice, may serve as a useful way to evaluate the value of WTO procedures.

⁴⁹ See DSU, *supra* note 41, art. 22.

⁵⁰ *Id.*