

Developing Countries and General Agreement on Tariffs and Trade/World Trade Organization Dispute Settlement

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I. INTRODUCTION

It has long been observed that developing countries made scant use of dispute settlement under the General Agreement on Tariffs and Trade (GATT). Less clear are the reasons for this. Most observers insist that the various GATT reforms that were intended to help developing countries failed to insulate them from the “power politics” of the system (Kuruvila, 1997). Not surprisingly, many of these same observers predict that the greater “legalism” of the World Trade Organization (WTO), and the Dispute Settlement Understanding (DSU), in particular, will encourage more participation by developing countries. Indeed, some go so far as to suggest that, enticed by a system in which, unlike in the GATT years, “right perseveres over might” (Lacarte-Muro and Gappah, 2000, 401), developing countries will have greater recourse to multilateral dispute settlement. The underlying presumption, of course, is that developing countries were especially ill-served by GATT’s diplomacy, and are better poised to benefit from the WTO’s more legalistic architecture. We argue that this conventional wisdom is wrong on both counts.

In assessing how developing countries have fared in dispute settlement, two questions beg empirical attention. First, have developing countries secured more concessions, by which we mean favourable trade policy outcomes, in WTO versus GATT dispute settlement? And second, what explains any differences in the outcomes realized by developing, as opposed to developed countries? Most observers note that developing countries have, in fact, been more active in WTO dispute settlement. This greater participation is typically traced to the legal reforms ushered in by the DSU—notably the “right” to a Panel and automatic adoption of Panel reports. The argument is that these reforms have done much to temper the power politics that permeated the

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GATT and, together with the WTO's greater clarity of law, should prompt developing countries to take more meritorious cases to Geneva.

We dissent from this view. As we argue elsewhere (Busch, 2000; Reinhardt, 2001; Busch and Reinhardt, 2000; forthcoming), "early settlement" offers the greatest likelihood of securing full concessions from a defendant at the GATT/WTO, a pattern that has been less evident in cases involving developing countries. In general, defendants tend to offer the greatest concessions in the consultation stage, or at the Panel stage but before a ruling. These negotiations in the "shadow of the law", as opposed to even pro-plaintiff rulings at the Panel or Appellate Body (AB) stage, account for most of the concessions that resolve cases, and most of the fullest concessions, in particular. It is thus the threat of legal condemnation, rather than a ruling *per se*, that induces settlement. If defendants do not settle early, they tend to dig in their heels, and thus lower the prospects for the successful resolution of disputes. As Hudec (1993, p. 360) put it, "No functioning legal system can wait until [the verdict stage] to exert its primary impact." It is interesting to note that most of the GATT-era reforms that favoured developing countries focused on helping them to litigate at the Panel stage, notably the *1966 Decision* (Hudec, 1980). Perhaps not surprisingly, developing countries have been more likely to have Panel disputes against developed countries (Busch, 2000). Yet, as a result, they have fared less well in exacting concessions from defendants. We argue that the DSU system only serves to reinforce this tendency, given both the incentives to litigate as well as developing countries' lack of capacity to push for early settlement.

The data clearly bear out our argument. First, poorer countries have not secured significantly greater concessions under the WTO than under GATT. This is true despite the fact that the DSU has facilitated more favourable outcomes for wealthier complainants (except in the special climate of US-EC disputes). The result is a new and growing gap between rich and poor member states in the performance of the dispute settlement component of the global trade regime. More telling still, our results indicate that the central problem for developing countries is that they are missing out on early settlement, not that they boast a worse record in winning pro-plaintiff rulings from Panels or the AB. Second, and related, we find that this gap is due to a lack of legal capacity, not a lack of market power with which to threaten retaliation. The main implication of this, as we argue elsewhere (Busch and Reinhardt, 2000), is that developing countries need more assistance before litigation commences.

This article proceeds in three sections. Section II elaborates our argument. Section III sets out our empirical tests. Section IV concludes with several of the most salient implications of our findings.

II. ARGUMENT

One could be forgiven for wondering why any country ever used GATT dispute settlement, let alone that developing countries seldom used it. Indeed, the system

seemed riddled with exceptions, and yet somehow worked quite well (Hudec, 1993). First codified in a small annex attached to the 1979 *Understanding on Dispute Settlement*, the system lacked a consistent set of rules, never mind the “teeth” to enforce rulings. By way of contrast, the DSU offers a single set of procedures for disputes raised under any of the covered agreements, marking an important improvement over the GATT (see Petersmann, 1997; Steger and Hainsworth, 1998; Horn and Mavroidis, 2001). Among the DSU’s more notable reforms are stricter timelines on proceedings, the right to a Panel (carried over from the 1989 *Dispute Settlement Procedures Improvements*), automatic adoption of reports (except by “negative consensus”), and review by the standing AB. For developing country complainants, in particular, this means a more timely “trial”, free from the threat that a defendant could block, or significantly delay, a case from being heard. In addition, standard terms of reference, and the automatic adoption of rulings, lend greater legal coherence to the system as a whole, and remove the potential for a recalcitrant defendant to block a ruling (Palmeeter and Mavroidis, 1998). Last, the option of appellate review promises more consistency across rulings, resulting in a better-informed body of case law with which to think through the merits of a case *ex ante* (Howse, 2000). Taken together, these reforms are expected to promote errant defendants to liberalize in a timely manner, and to encourage developing countries to bring more cases to the WTO than they did to GATT.

The problem is that these reforms have also raised the transaction costs of settling disputes (see Busch and Reinhardt, forthcoming). This is a regrettable side-effect of the much-vaunted move toward a more rule-oriented system. At the outset of a case, for example, the tight enforcement of newly standardized terms of reference, legal disincentives for disclosure, and the rules on standing all serve to place the onus on disputants and third parties to legally mobilize as soon as possible to avoid losses on technicalities later on (i.e., having the Panel or AB deem a certain argument outside its terms of reference). Indeed, in a way that few have recognized, the mere fact that powerful defendants can no longer significantly delay or block the Panel establishment itself means that legal preparation carries more weight in pre-Panel bargaining. Moreover, after a ruling, the prospect of an Article 21.5 “compliance” Panel review (and possibly appeal) and Article 22 “arbitration” of the suspension of concessions greatly increases the incentives for foot-dragging, motivating errant defendants to delay making concessions (Shoyer, 1998; Reinhardt, 2002).

The new premium on legal capacity under the DSU is likely less burdensome for most of the advanced industrial states, which generally maintain large, dedicated, permanent legal and economic staffs tasked with WTO and trade law matters.¹ For these countries, the move from a “power-oriented” to a more “rule-oriented” system contains little additional ambiguity. But for poorer countries, such a move simply

¹ However, even for them, the costs of legal work related to trade disputes have mushroomed in recent years. For instance, expenditures by the Canadian Department of Foreign Affairs and International Trade on just the private component of legal representation for trade disputes tripled from 2000 to 2002 alone, *Ottawa Citizen*, 21 May 2002, A3.

substitutes (or compounds) the traditional source of weakness—namely, the lack of market size and thus retaliatory power—with a new one: legal capacity. For developing countries, in particular, this bodes especially poorly for early settlement of a dispute. Under the GATT, developing countries were fully 25 percent more likely to have Panel cases against wealthier economies than developed country complainants (Busch, 2000), reducing their odds of early settlement, which tends to yield the most favourable concessions (see Busch and Reinhardt, 2000; forthcoming). Under the WTO, developing countries may potentially find it even more difficult to negotiate in the shadow of the law, given the incentive to litigate fully (Hudec, 2002), the greater likelihood that multiple complainants and third parties will join their case, and the limited legal resources at their disposal to capitalize on early settlement.

Our argument draws on the intuitive logic of well-established formal models of pre-trial bargaining. Consider an environment in which both the plaintiff and defendant have private information, whether about the level of violation or, perhaps, the intensity of political pressures on each side to induce or resist concessions, respectively. The problem for the plaintiff at the consultation stage is to make credible its threat to push the case to completion, whatever the cost. The question, then, is how the prospects for early settlement change as the cost (in terms of expense and complexity) of litigation increases, relative to the political rewards of inducing liberalization by the defendant? The basic idea is that the defendant with a weak case becomes more entrenched, gambling that the extra burdens of pursuing the case will deter further action by the complainant (Nalebuff, 1987, 204; Fournier and Zuelhke, 1989, 193; Baker and Mezzetti, 2001, 163). In addition, the added complexity of litigation may decrease the complainant's likelihood of victory in any resulting ruling, holding the objective facts of the case constant (Meurer, 1989, 87). Both prospects make the defendant more reluctant to settle early, whereas a plaintiff facing lower litigation costs will be more successful in inducing defendants (at least those with weaker cases) to concede before a ruling.²

Interestingly, this argument does not yield a determinate prediction regarding the probability of victory in the subset of cases that reach a verdict. A poor plaintiff—i.e., a plaintiff possessing less legal capacity or facing higher transaction costs, relative to the potential winnings of the case—might file weaker cases on average in the first place, or might lose “winnable” cases more often if it went to trial. Yet, by virtue of its relative failure to peel off “guilty” defendants before a ruling, a poorer plaintiff will tend to face systematically “guiltier” defendants on average in cases that do reach a verdict. These countervailing tendencies may cancel out each other. Hence, while complainants for

² Reinhardt's (2001) model of GATT dispute bargaining with two-sided incomplete information has a similar implication. Specifically, while that model has zero transaction costs, we can interpret its parameter for the probability of a pro-plaintiff ruling as partly a function of the plaintiff's legal capacity or litigation costs. In that model, given that there is a window of agreement for settlement in the first place, the greater resolve the plaintiff acquires from the expectation of better litigation results induces deeper concessions from the defendant in pre-ruling bargaining.

whom litigation is costly or difficult should be less likely to induce early settlement by defendants, they may not be any less likely to win the verdicts ultimately issued.

Extending this logic to WTO dispute settlement, we conjecture that, compared to the GATT, the DSU regime has not increased the level of concessions that poorer complainants are able to elicit from defendants, even if it has improved matters for developed country complainants. We also conjecture that, under the WTO, poorer complainants are likely to have become significantly less able to induce early settlement by defendants than wealthy complainants (which is not to say that they are less likely to win cases in which a verdict is ultimately issued). Finally, we conjecture that developing countries are disadvantaged in achieving early settlement because of their limited legal capacity and not their inability to threaten retaliation (i.e., given their market share).

A possible objection to this last hypothesis merits attention. In particular, it might be argued that developing countries gain more early settlement as a result of the DSU's potential to better "enforce" rulings, which in turn might encourage greater participation (Gabilondo, 2001, 484). Like Hudec (1993, pp. 360–361; 1999, 9–10; 2002, p. 90) and other observers (Mavroidis, 2000; Valles and McGivern, 2000; Reinhardt, 2001; forthcoming), we find little merit in this logic, the reason being that the main obstacle to retaliation is the mustering of the political will to follow through on authorization, rather than securing authorization. The DSU has, of course, only improved on the latter.

III. EMPIRICAL TESTS

To find out how developing complainants have fared under the evolving dispute settlement provisions of the global trade regime, we compiled a dataset of 380 concluded GATT/WTO disputes filed from 1 January 1980 to 31 December 2000. Of these, 154 occurred under WTO rules.³ The list of participants includes a wide variety of countries, with 46 separate complainants (and 43 defendants), of which 31 (21) could be classified as "developing".⁴ Our study period begins in 1980, to ensure the comparison across regimes uses only the mature GATT era as a reference point.⁵ The

³ This list of 154 WTO cases includes five disputes initially filed under GATT but continuing under WTO procedures. It does not include 19 GATT cases ending after 1994 without invoking WTO rules.

⁴ We must emphasize that "developing" countries are not all equally disadvantaged in terms of legal capacity, market power, and general experience in the trade regime. Accordingly, the tests below use a more refined measure of level of development, i.e., per capita income. However, for the simple purpose of enumeration, we group the United States, Canada, Japan, Norway, Switzerland, Australia, New Zealand, and the EU15 as "developed", with the remaining GATT/WTO Members (all of which were, for instance, beneficiaries of a non-reciprocal Enabling Clause preferences scheme such as the Generalized System of Preferences at some point) as "developing".

⁵ The late 1970s began a long period (still under way) of increases in the frequency of disputes (Hudec, 1993, pp. 13–14), and the first codification of GATT dispute settlement practices in the 1979 *Understanding* offers a useful breakpoint for analysis.

dataset does not include WTO cases beginning after 2000 because those 59 subsequent cases have not had sufficient opportunity to conclude.⁶

Following Hudec (1993), we only count complaints in which formal GATT/WTO proceedings were explicitly invoked, i.e., naming defendants and alleging the infringement of specific legal rights, most often in the form of an initial “request for consultations”. Since we are interested in characterizing patterns of settlement, and since settlement may occur bilaterally in disputes involving multiple complainants or defendants, for counting purposes we break multi-state complaints into each constituent pair of complainant and defendant (Horn, Nordström and Mavroidis, 1999, p. 9; Busch and Reinhardt, 2002, p. 460; Reinhardt, forthcoming). We also eliminate redundancy in the list of cases to avoid double-counting, following the approach of Horn, Nordström and Mavroidis (1999).⁷

To compare the ability of developing country complainants to induce concessions by defendants under the GATT and the WTO, we need to control the differing legal dispositions of each case. We thus identify the stage reached and the direction of rulings for all disputes. Of the 380 disputes in our dataset, a Panel was established in 191 cases (107 of 226 GATT complaints and 84 of 154 WTO complaints). Of those 191 Panels, 152 issued substantive reports, which were appealed in 47 of the 64 WTO cases. Notably, a large majority—58 percent—of WTO-era disputes have been resolved or dropped in consultations, or during Panel deliberations in advance of a ruling. This percentage emphasizes to the importance of early settlement under the WTO, and is entirely in keeping with figures drawn from empirical work looking at the broader set of all GATT-era disputes, and US–EU disputes under the WTO (Busch and Reinhardt 2000; forthcoming).

In terms of the direction of any decisions rendered, we code the initial Panel report, or the initial AB report, if appealed, according to whether it substantially favoured the complainant, was mixed, or favoured the defendant. Of the 152 rulings, 109 favoured the complainant, 26 were mixed, and 17 found for the defendant. This pro-plaintiff leaning also accords with previous studies of GATT (Reinhardt, 2001). Interestingly, however, the tendency of WTO rulings to lean for the complainant is somewhat less (64 percent of rulings) than was true of GATT-era Panels (77 percent of rulings).

We also follow Hudec (1993) in defining outcomes as the policy result of a dispute, rather than the nature of a ruling *per se* (see Busch and Reinhardt, 2002, p. 470). In other words, the question of interest is whether the defendant liberalized the disputed

⁶ Furthermore, our list of 380 cases does not include 43 GATT and 73 WTO complaints begun in our sample period for which outcome data were unavailable. Many in the WTO subset remain under way as we write. Nonetheless, our dataset covers 77 percent of the total number of complaints from 1980 to 2000, for 84 percent of those under GATT, and 68 percent of those under the WTO. In future studies we will be able to improve upon at least the latter statistic.

⁷ For example, we do not count DS16 (the first WTO *Bananas* complaint) separate from DS27 (the second, filed just four months later). Likewise, we merge complaints by a given complainant against a given defendant's provisional and final antidumping determinations, at least when separate Panels and legal arguments were not made.

trade policy practice(s), conceding to some or all of the complainant's demands, and not simply whether a ruling—if in fact there was one—favoured one side or the other. Using a measure that has meaning at each stage of dispute settlement, from consultations to a decision by the AB, we code outcomes according to whether substantial, partial, or no concessions were made with regard to the contested trade measure(s). While such an approach has been used to study GATT-era disputes (Hudec, 1993; Busch, 2000; Reinhardt, 2001; 2002; forthcoming), this article is one of the first to systematically characterize WTO outcomes in this way (but see Busch and Reinhardt, forthcoming). By way of illustration, *Hormones* (DS26) scores as no concessions, and *Duties on Imports of Grains* (DS13) ended with full concessions. *Bananas* (DS27) is perhaps the most difficult case to score; we give it a partial concessions outcome owing to the long delay before settlement, the multi-year time frame allowed for implementation afterwards, and the incomplete relaxation of the discriminatory barriers in any case. Of the 380 GATT/WTO disputes, 50 percent ended with substantial concessions, 20 ended with partial concessions, and 31 with no concessions.

Consider a simple breakdown of these dispute outcomes by regime (the GATT versus the WTO) and by the complainant's level of development. In Table 1, developing country complainants saw defendants fully liberalize disputed measures 36 percent of the time under the GATT, increasing to 50 percent under the WTO. As we show below, however, this association is partly spurious. It is also far outstripped by the gain experienced by developed country complainants, who shifted from an initially comparable success rate of 40 percent under the GATT to a remarkable 74 percent under the WTO.

TABLE 1: GATT/WTO DISPUTE OUTCOMES BY COMPLAINANT'S DEVELOPMENT STATUS

	GATT		WTO		Level of concessions				
	GATT	WTO	GATT	WTO	None	Partial	Full	Total	
Complainant's development status	GATT+WTO								
	Developing		32 (44%)	13 (27%)	14 (19%)	11 (23%)	26 (36%)	24 (50%)	72 48
			45 (38%)		25 (21%)		50 (42%)		120
	Developed		53 (34%)	19 (18%)	40 (26%)	9 (8%)	61 (40%)	78 (74%)	154 106
		72 (28%)		49 (19%)		139 (53%)		260	
Total		85	32	54	20	87	102	226	154
		117		74		189		380	

Note: The table includes all GATT or WTO complaints initiated during 1980–2000, inclusive, for which we have outcome data at present (i.e., 380 of 496, or 77 percent of the total number of complaints begun in this period). “Developing” countries for these purposes are all those besides the Quad (United States, Canada, Japan, the EU15), Norway, Switzerland, Australia, and New Zealand.

This point becomes even more profound when we recognize the great diversity within the category of “developing” in the table. Seventeen of the 24 WTO-era developing country complaints (71 percent) yielding full concessions—the basis for whatever gains such plaintiffs have made under the DSU—came from the wealthiest and most dominant developing countries in the system, notably the four major Latin American states (Brazil, Argentina, Mexico, Chile), plus Korea, Singapore, India, and Thailand. This phenomenon is actually more characteristic of the WTO era than of the GATT era. Specifically, developing country complainants winning full concessions under the GATT were no richer than those failing to win full concessions (with per capita incomes of \$3,450 against \$3,750, in 1995 US prices), whereas those winning full concessions under the WTO were notably wealthier than their losing counterparts (\$5,150 against \$3,350). The small gains for developing country complainants, moving from the GATT to the WTO, thus overstate the likely effects of the reforms for more typical developing countries (see Table 1).

What we need to ask, then, is how much of the success poor complainants have realized in inducing concessions from defendants (as opposed to winning Panel proceedings) is attributable to the WTO’s more legalistic DSU, controlling for other factors. Put more simply, has the WTO levelled the playing field in dispute settlement?

Our method for answering these questions is to estimate an ordered probit model of the defendant’s level of concessions, with the regime (a variable coded 1 for the WTO period, and 0 otherwise) and the complainant’s level of development (per capita income in constant 1995 US dollars, logged) as the central explanatory variables. We determine the complainant’s absolute market size (overall GDP in constant 1995 US dollars, logged), plus the income and GDP of the defendant. Thus our analysis explicitly recognizes the great heterogeneity within the “developing country” category, representing that diversity using continuous indicators of income as well as market power. For instance, the reflected difference in income between Honduras (with a 2000 per capita figure of \$711, the log of which is 6.57) and Brazil (with \$4,624, logged at 8.44) is about the same, once logged, as that between Brazil and the United States (\$31,072, logged at 10.34). This is even more true when comparing the logs of the three countries’ GDPs for 2000 (22.2, 27.4, 29.8, respectively).

The regression also includes dummy variables for Panel establishment and ruling direction, if any, as defined earlier. Finally, the regression adds dummy variables denoting cases with more than two disputants or with third parties (“multilateral” cases), cases disputing measures protecting the agricultural sector, cases involving just policies discriminating among trade partners, and politically “sensitive” cases attacking measures justified on grounds of biosafety, environmental protection, cultural preservation, or national security. Table 2 gives descriptive statistics on these variables for the entire sample of 380 disputes, along with the GATT and WTO subsets.

Table 3 reports the estimates from two such regressions. Model 1 includes all 380 disputes. To identify the effect of the complainant’s level of development as

TABLE 2: DESCRIPTIVE STATISTICS FOR 380 GATT/WTO DISPUTES FILED, 1980–2000

Variable	Total						GATT						WTO					
	Mean	SD	Min.	Max.	Mean	SD	Min.	Max.	Mean	SD	Min.	Max.	Mean	SD	Min.	Max.		
Concessions	2.19	0.88	1	3	2.01	0.87	1	3	2.45	0.82	1	3	2.45	0.82	1	3		
WTO	0.41	0.49	0	1	0	–	0	0	1	–	–	0	1	–	–	1		
Complainant's per capita income	9.35	1.20	5.42	10.72	9.28	1.16	5.42	10.63	9.45	1.25	5.83	10.72	9.45	1.25	5.83	10.72		
Defendant's per capita income	9.65	1.04	5.63	10.71	9.90	0.64	5.63	10.71	9.29	1.36	5.99	10.70	9.29	1.36	5.99	10.70		
Complainant's GDP	27.62	2.17	21.26	29.91	27.33	2.16	21.26	29.69	28.05	2.11	22.14	29.91	28.05	2.11	22.14	29.91		
Defendant's GDP	28.29	1.76	21.58	29.91	28.68	1.38	23.34	29.69	27.71	2.08	21.58	29.91	27.71	2.08	21.58	29.91		
Panel established	0.50	0.50	0	1	0.47	0.50	0	1	0.55	0.50	0	1	0.55	0.50	0	1		
Ruling for complainant	0.29	0.45	0	1	0.30	0.46	0	1	0.27	0.44	0	1	0.27	0.44	0	1		
Mixed ruling	0.07	0.25	0	1	0.05	0.22	0	1	0.09	0.29	0	1	0.09	0.29	0	1		
Ruling for defendant	0.04	0.21	0	1	0.04	0.19	0	1	0.06	0.24	0	1	0.06	0.24	0	1		
Agricultural case	0.47	0.50	0	1	0.54	0.50	0	1	0.38	0.49	0	1	0.38	0.49	0	1		
Multilateral case	0.62	0.49	0	1	0.52	0.50	0	1	0.77	0.42	0	1	0.77	0.42	0	1		
Discriminatory measure	0.55	0.50	0	1	0.52	0.50	0	1	0.59	0.49	0	1	0.59	0.49	0	1		
“Sensitive” case	0.16	0.37	0	1	0.16	0.37	0	1	0.16	0.36	0	1	0.16	0.36	0	1		
Start year	1991.32	5.69	1980	2000	1987.49	4.06	1980	1994	1996.96	1.53	1993	2000	1996.96	1.53	1993	2000		
End year	1993.12	5.95	1980	2002	1989.20	4.36	1980	1997	1998.86	2.01	1995	2002	1998.86	2.01	1995	2002		
Duration	2.80	1.54	1	8	2.73	1.54	1	8	2.90	1.55	1	7	2.90	1.55	1	7		

Note: N = 380 – 226 (GATT), and 154 (WTO), respectively. Per capita income and GDP figures in logged constant 1995 US dollars.

TABLE 3: ORDERED PROBIT MODELS OF GATT/WTO DISPUTE OUTCOMES, 1980–2000

Dependent variable	Model 1		Model 2	
	GATT and WTO 1980–2000		WTO only 1995–2000	
Level of concessions	Coefficient	Robust SE	Coefficient	Robust SE
Intercept 1	1.382	1.589	1.411	1.903
Intercept 2	1.982	1.599	1.880	1.908
Panel established	0.973**	0.240	0.959**	0.343
Ruling for complainant	–0.363	0.256	–0.584	0.417
Mixed ruling	–0.924**	0.267	–0.563	0.459
Ruling for defendant	–2.069**	0.334	–1.791**	0.464
WTO	–0.839	0.838	—	—
WTO* complainant's per capita income	0.159*	0.088	—	—
Complainant's per capita income	0.028	0.095	0.219*	0.103
Defendant's per capita income	–0.144*	0.087	–0.050	0.108
Complainant's GDP	0.050	0.047	0.008	0.067
Defendant's GDP	0.045	0.056	0.009	0.058
Agricultural case	0.119	0.124	–0.089	0.207
Multilateral case	–0.044	0.133	0.463	0.307
Discriminatory measure	–0.023	0.146	–0.163	0.222
“Sensitive” case	–0.448**	0.179	–0.908**	0.245
Number of observations	380 (226 GATT, 154 WTO)		154	
Model χ^2	129.15**, 14 d.o.f.		42.26**, 12 d.o.f.	
Pseudo- R^2	0.12		0.12	
Percent correctly predicted	58.2		66.2	

Note: * denotes one-tailed $p < 0.05$; ** $p < 0.01$. Per capita income and GDP figures in logs. Robust standard errors clustered across dyads.

conditioned by the regime, we add an interaction term, the WTO dummy times the complainant's income. Model 2 focuses solely on the WTO subsample, thereby excluding the interaction term.

The results are telling. Both models adequately fit the data, correctly predicting three-fifths to two-thirds of the observations. In Model 1, the interaction term is positive and statistically significant, with a one-tailed $p = 0.036$. This is remarkable, given that a relatively high correlation among the term's constituent variables, plus the complainant's GDP, is undermining the efficiency of the estimates (and thus making our test more conservative). Together with the negative coefficient on the WTO variable and the positive coefficient on the complainant's income by themselves, this means that the WTO has exaggerated the gap between developed and developing complainants with respect to their ability to get defendants to liberalize disputed

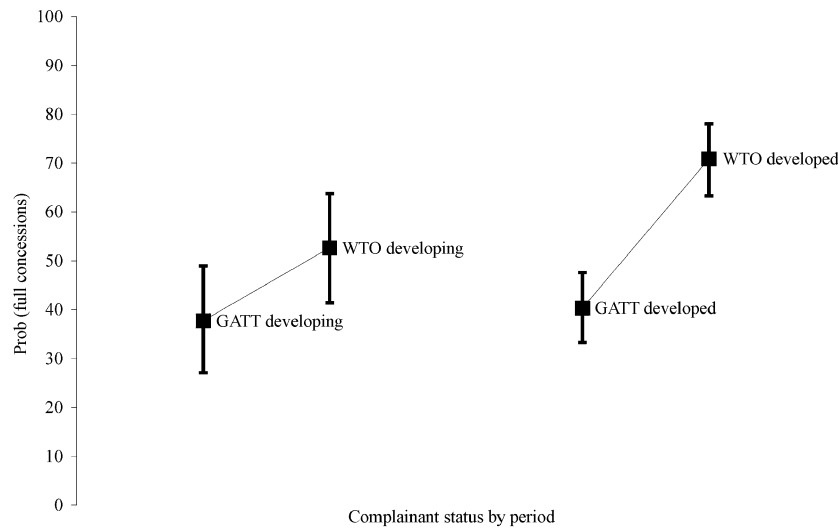


FIGURE 1: PROBABILITY OF FULL CONCESSIONS BY COMPLAINANT STATUS AND PERIOD

Note: Displays predicted probabilities from Model 1, holding all other variables at their sample means, moving WTO from 0 to 1 and complainant's per capita income from its 10th percentile value (\$2,152) to its 90th percentile value (\$29,251), with 90 percent confidence intervals.

policies. In short, wealthy complainants have become significantly more likely to secure their desired outcomes under the WTO, but poorer complainants have not.

Substantively, this shift is quite large, as displayed in Figure 1. Holding all other variables at their sample means, the predicted probability of a poor complainant (with a 10th percentile GDP per capita value of about \$2,150) winning full concessions was between 0.27 and 0.49 under the GATT, and between 0.41 and 0.64 under the WTO. These ranges are 90 percent confidence intervals, so the fact that there is still wide overlap between them (from 0.41 to 0.49) is revealing. In other words, the hint in the data that developing countries have improved their performance as complainants by no means rises to the level of statistical significance. At the same time, the situation for a rich-country complainant (e.g., one with the 90th percentile GDP per capita value, of \$29,250) has improved unambiguously under the WTO. The predicted probability of full concessions in this scenario lay between 0.33 and 0.48 in the GATT era—essentially indistinguishable from that faced by an equally sized poorer complainant, but this figure rose to between 0.63 and 0.78 under the WTO. Interestingly, this finding for wealthier economies is not true of US–EC disputes, which in fact have been no more likely to end favourably under the WTO (Busch and Reinhardt, forthcoming). In reconciling these apparent discrepancies, it is important to note that wealthier complainants have dramatically increased the proportion of their

complaints filed against developing country targets, with developing countries going from 8 percent to 37 percent of the defendant pool in the GATT versus the WTO eras (Busch and Reinhardt, 2002, p. 466). The fact that poor defendants are significantly more likely to concede, in Model 1, thus suggests that many of the gains richer complainants have made in inducing concessions under the WTO have come from a shift in the target mix. In any case, however, note that none of the findings reported here are being driven by the sizable number of disputes filed by the United States or the EC, as our results are robust to the inclusion of a dummy for cases brought by either as the complainant.

Model 2 clarifies the current gap between developed and developing complainants, looking just at WTO disputes. The statistically significant ($p = 0.016$) and positive coefficient for the complainant's income reinforces Model 1's results, showing that, under the WTO, poorer complainants indeed fare worse than equally sized, wealthier complainants. Once again, holding all other variables at their sample means, as we vary the complainant's per capita GDP from its 10th to 90th percentile values, the predicted probability of full concessions by the defendant more than doubles, shifting from 0.22 to 0.47. Consider the case of India and Australia, two countries with nearly identical GDPs in 2000 (1995 US\$ 460 billion) but very different income levels of \$459 and \$23,837, respectively. Model 2 predicts that India would have a 41 percent chance of getting the average defendant to concede, while Australia's comparable figure is a striking 73 percent.⁸

To see how the model reflects heterogeneity within the developing world, contrast the Philippines and Chile. In the late 1990s, these two countries had virtually the same GDP level (about \$75 billion), but Chile's per capita income (around \$5,000) was more than four times as large as that of the Philippines. Holding other variables at their sample means, Model 2 predicts that a hypothetical complaint by Chile would have a 60.5 percent chance of ending in full concessions from the typical defendant, while an otherwise identical case by the Philippines would have only a 47.5 percent chance.⁹ We emphasize that these contrasts hold true even when determined for the complainant's GDP, characteristics of the defendant, GATT/WTO Panel formation and rulings, and observable aspects of the disputed policy likely to make the dispute easier or harder to resolve.

Of course, this is a preliminary analysis. We have more WTO dispute outcomes to code, and more years to wait before the regime's full effects may be manifested. Judging from these estimates, however, the answers to our earlier questions are clear. The WTO dispute settlement reforms have *not* made developing country complainants significantly more likely to get defendants to liberalize disputed policies. Poor countries

⁸ Indeed, our sample has Australia getting defendants to concede in three of three WTO complaints, while India has secured only partial liberalization in three of its six complaints, with no concessions whatsoever in a fourth.

⁹ In the WTO part of our sample, Chile indeed won full concessions in its two complaints, while the Philippines got no concessions in its two cases.

TABLE 4: MODELS OF WTO DISPUTE ESCALATION AND OUTCOMES, 1995–2000

WTO sample Dependent variable Model	Model 3		Model 4	
	All cases		Cases with rulings for complainant Compliance	
	Early settlement Probit		Ordered probit	
	Coefficient	Robust SE	Coefficient	Robust SE
Intercept 1	2.611	1.819	1.237	8.119
Intercept 2	—	—	1.862	8.111
Complainant's per capita income	0.274*	0.140	0.182	0.237
Defendant's per capita income	0.090	0.119	0.121	0.229
Complainant's GDP	-0.095	0.067	0.063	0.184
Defendant's GDP	-0.126	0.078	-0.061	0.226
Agricultural case	0.390	0.268	-0.714*	0.336
Multilateral case	-0.279	0.259	— ¹⁰	—
Discriminatory measure	-0.016	0.256	0.056	0.537
"Sensitive" case	-0.824	0.530	-0.534	0.523
Number of observations	154		41	
Model χ^2	16.03*, 8 d.o.f.		21.50**, 7 d.o.f.	
Pseudo-R ²	0.09		0.12	
Percent correctly predicted	69.5		73.2	

Note: * denotes one-tailed $p < 0.05$; ** $p < 0.01$. Per capita income and GDP figures in logs. Robust standard errors clustered across dyads.

are still less likely to get what they want when filing disputes, irrespective of their market size. Furthermore, because the WTO improvements have simultaneously increased the success rates of richer complainants, this inequity, patterned according to the complainants' income levels, has sharply inflated since 1995.

The key question is thus, what accounts for this phenomenon? Put differently, at what point in the escalation of a case does the complainant's level of development impair its chances for securing desired policy changes by the defendant? To find out, we ran a series of regressions on nested subsamples of the set of all WTO disputes, looking at the effect of the complainant's income, controlling for the complainant's overall market size and other dispute characteristics. Table 4 reports these analyses. The first, Model 3, asks which cases get settled early. The dependent variable, early settlement, is 1 if the case ends with no ruling and full concessions by the defendant; 0 otherwise, with the full sample of 154 WTO disputes. The complainant's income is once again statistically significant and positive. In other words, rich complainants are much more likely to get defendants to concede before a ruling is issued than poor complainants, holding GDP constant. Developing country complainants thus disproportionately fail to win disputes during consultations or Panel deliberations prior to a ruling.

Is this gap also attributable to patterns of rulings? In other words, could developing countries be litigating poorly, and thus losing cases disproportionately, once rulings are foreseen? The answer is no. If we take only those WTO cases in which rulings are issued, and estimate an ordered probit model of the direction of ruling with the same covariates as in Model 3, the model as a whole fails to pass muster, with not a single significant variable. Hence Table 4 does not even report it. But, for our purposes, this is quite informative: the complainant's income (and, likewise, market size) has no effect on its prospects of winning a judgment, given that one is going to be issued. Model 2's gap between developed and developing country complainants is not a function of poor legal performance once litigation is under way. Rather, a poor complainant's disadvantage in terms of legal capacity manifests itself entirely in pre-litigation negotiations, just as we hypothesized.

Could the gap, instead, be a result of developing countries' failure to secure compliance by defendants against whom adverse rulings have been issued, perhaps because these complainants' retaliatory threat is not sufficiently credible? Model 4 takes up this question, looking at the level of concessions in the 41 coded WTO cases in which the WTO ruled fully against the defendant. Here, too, the complainant's per capita income has no effect. A rich complainant has no special advantage over a poor but equal-sized complainant in securing compliance from a defendant found in violation of WTO obligations.

Hence the primary difficulty, from the poor complainant's standpoint, lies early in a dispute's origins, not in litigation once embarked upon, nor in the retaliatory endgame, despite the oft-noted (and valid) point that weak market power severely curtails a complainant's leverage, even if it wins a ruling. This point, after all, is just as applicable to Switzerland as it is to Ecuador. Our point is quite different. The complainant's level of development speaks directly to its capacity for recognizing, and aggressively pursuing, legal opportunities as a complainant. Having this capacity, a complainant is in a much better position to hit the right legal buttons in the request for consultations, to pressure the defendant on its weakest legal points during consultations, and to give the impression that the issue might well be pushed to a successful conclusion. Especially with the recent trend in legal aid and bilateral technical assistance, even a poor developing country may hire litigators once a dispute is before a Panel. Our findings suggest that legal capacity, as evidenced by level of development, ironically matters less once the parties resolve to litigate, rather than settle. This is no doubt because its effects on litigation performance are largely anticipated during consultations.

IV. IMPLICATIONS

Several implications follow from our results. First, and most importantly, developing countries require more assistance in the lead up to a case, not just in litigating before a Panel or the AB. Indeed, we find that the gap between developed

and developing countries in winning concessions from a defendant owes to their differential rates of securing early settlement. Interestingly, nearly all of the GATT/WTO legal reforms focus on helping developing countries get more quickly to a Panel, and then to litigate through to a ruling. We submit that more attention needs to be directed at helping developing countries make more of consultations, as well as more of negotiations at the Panel stage prior to a ruling. The Director-General has recently made much of the fact that DSU 5 (“good offices and mediation”) is seldom used (WT/DSB/25), while others urge a closer look at DSU 25 (“arbitration”) as a way to encourage negotiated settlement. In line with these pleas, we argue that more negotiations in the shadow of the law, rather than litigation *per se*, will help level the playing field for developing countries at the WTO.

Second, and related, negotiations are still the driving force behind WTO dispute settlement, notwithstanding the more legal architecture of the DSU. As we argue elsewhere (Busch and Reinhardt, 2000; forthcoming), most cases settle early, and most of the fullest concessions are had in early settlement. Here, our results make clear that wealthier countries have realized more favourable outcomes since 1995 (except in US–EC disputes), in all likelihood because of the WTO’s greater clarity of law. But it is important to recognize that these gains are largely being had in advance of a ruling. While developing countries are relatively disadvantaged in this regard, and thus require assistance prior to litigation, the more general implication is that the system as a whole works best when its Members are able and willing to resolve matters shy of a verdict (Hudec, 1993; 2002). This is not a plea for a return to the more diplomatic orientation of GATT, for it is obvious that Members can now bargain in the shadow of stronger law. Rather, our plea is for Members to avoid litigating simply because the DSU makes it easier to litigate.

Third, and following from the first two implications, we endorse further reforms that would limit post-ruling foot-dragging. Two recommendations stand out in this regard. First, while the “sequencing” question may well have been informally answered, we concur with the recommendation that a formal answer be found, as per Article 21*bis* (Valles and McGivern, 2000; WT/MIN(99)/8; TN/DS/W/1). This would help streamline litigation in the post-ruling phase of a dispute by requiring a compliance Panel in advance of an arbitration Panel, and clarifying the appeals process with respect to Article 21.5 Panels, in particular. Second, while it is well known that the DSU is about compliance with obligations, not retaliation, we concur with a growing number of scholars who favour retroactive damages (Mavroidis, 2000; Pauwelyn, 2000) as a way to curb the temptation for governments to act on domestic demands for protection, reaping electoral returns while awaiting a negative ruling at the WTO.

We wish to emphasize a final point in the strongest possible terms: the findings here do not in any way suggest that the DSU regime has harmed developing country interests, on balance. The evolving record of WTO dispute settlement, especially given the new forms of legal aid and the growth of the private legal services market in

the area of WTO trade law, could one day negate the emerging inequities we have established here, although this is less likely if pre-Panel bargaining remains under-appreciated. Regardless, however, the move to the WTO has not actually reduced a poor complainant's prospects of inducing concessions from a defendant; it has merely left behind the poorest complainants. Yet we should not stray from the ultimate objective. The promise of a rule of law system is to level the playing field between the mighty and the weak (Hudec, 1978, p. 3; 1999, 10). To abandon that objective would be to accept permanent inequity, which stifles the incentives for wealth-creating trade policies on all sides, both rich and poor (Hudec, 1987; 2002). Our point here is rather that the rule of law system does not by itself guarantee efficient outcomes. For that, one also needs an adequate level of legal capacity and expertise to realize the full promise of such a system.

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