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The pattern of US antidumping: the path from initial filing to WTO dispute settlement

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Abstract: This paper examines recent trends in the US antidumping process. We trace the experience of different groups of countries at each stage of the investigation process and through follow-up activity in disputes initiated at the GATT/WTO. The data reveal that lower income developing countries are more likely to be targeted, less likely to settle cases, more likely to confront high dumping duties, and less likely to bring cases to the WTO. We argue that differences in administrative and institutional 'capacity' may be a contributing factor that explains the observed bias facing developing countries, in addition to the other hypotheses that have been offered in the literature, such as higher protection and limited retaliatory ability.

1. Introduction

Over time, GATT/WTO members have agreed to more comprehensive and tighter rules on the use of trade policy instruments, including a ban on quotas and voluntary export restraints and gradually expanding the coverage of so-called ceiling bindings for tariffs. In conjunction with the substantial liberalization of trade that has occurred in both developed and developing countries since the early 1980s, this has implied that pressures for protection are more frequently channeled toward the trade 'remedies' that are permitted under the WTO: in particular safeguard and antidumping (AD) actions.[1] Such measures are subject to multilateral

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1 These instruments are permitted under Arts. VI and XIX GATT, with additional disciplines enumerated in the WTO Agreements on Anti-Dumping and Safeguards. Other instruments that may be used include measures to countervail the effects of subsidies, protection that is motivated by balance-of-payments considerations (under Art. XVIII GATT), and measures that are motivated by non-economic objectives (such as national security or public health). See e.g., Hoekman and Kostecki (2001) for an overview.

rules and disciplines, both substantive and procedural. In principle, these constrain the discretion of governments to use these instruments and give targeted countries both the right and opportunities to defend their interests. In practice, however, it appears that the effectiveness of multilateral disciplines is limited and may differ across country groups.

During the 1980s, frequent use of AD by the US and the EU in particular gave rise to efforts by targeted countries – especially Japan, Hong Kong, and other East Asian economies – to constrain the ability of WTO members to apply methodologies that are biased toward the imposition of protection. A consequence has been that the legal regime pertaining to the use of AD has become among the most complicated in the WTO.

The impact of these developments on the participation and integration of developing countries into the global trade regime is unclear. On the one hand, the process of liberalization and the move toward a more rules-based trading system should be beneficial by enhancing market access and the security of this access. However, the fact that recourse to contingent trade policy instruments increasingly involves the need for sophisticated professional and administrative skills in both the private and public sector may impede the ability of low income countries to benefit from market access and effectively protect negotiated rights. Developing countries have a more limited 'administrative capacity', and firms in these countries can be expected to have less familiarity with the complexity of existing international legal norms and procedural requirements. Matters are compounded if major players such as the US and the EU frequently modify domestic statutes and the rules governing international trade, which has been the case in the past (Hindley and Messerlin, 1996).

This paper investigates the pattern (incidence) of US antidumping. We examine two sets of related data: all the AD cases initiated in the United States between 1979 and 1998, and disputes relating to US AD policies and actions that have been brought to the GATT/WTO. We investigate data from various stages of the US AD process and resulting GATT/WTO disputes, and we compare the outcomes and experiences at each stage for developed and developing countries. As discussed in greater detail below, an AD petition against a foreign exporter will typically result in one of three outcomes: the application of an AD duty; the rejection of the case; or the termination of the investigation as a result of the withdrawal of the complaint by the petitioner, which may or may not be due to a settlement between the petitioning industry and the foreign exporters. The case can be rejected following a negative decision by US International Trade Commission (ITC) for lack of injury or because of a finding by the Department of Commerce (DOC) that there has been no dumping.

Our analysis of trends in US antidumping suggests that the *ex ante* probability of a positive injury decision is not dependent on the level of economic development once an investigation reaches that stage. However, the final AD duties imposed on developing countries' exports are typically much higher than those imposed on

developed US trading partners. Furthermore, cases involving developing countries are more likely to be resolved at later stages of the investigation and will less frequently result in settlements or withdrawals.[2] There is also preliminary evidence that differential outcomes between industrial and developing countries arise at the multilateral GATT/WTO level. Although they comprise almost two-thirds of the countries against which positive findings occur in US AD cases, developing countries have responded by initiating only one-third of all GATT/WTO disputes brought against US AD measures.

Developing countries are also targeted more frequently in AD investigations in other OECD members and by other developing economies – this is not US-specific (Finger and Zlate, 2003). The literature has explored many potential explanations of this phenomenon. For example, developing countries arguably have a comparative advantage in 'sensitive products': industries that are intensive in unskilled labor, are often well organized and regionally concentrated, and that have been subject to intense import competition and/or technological changes for an extended period of time (apparel is a major example).[3] Developing country exporters may also be more likely to be found to be dumping as a result of relatively high rates of protection of their home market (Hoekman and Mavroidis, 1996). Furthermore, developing countries typically are too small to credibly threaten to retaliate through their own AD investigations or other trade measures (Evenett, 2002; Blonigen and Bown, 2003). Finally, they may find it more difficult to defend their rights in the self-enforcing GATT/WTO trading system as a result of power and informational or knowledge asymmetries (Shaffer, 2003).

The latter factor – a lack of 'capacity' in many developing countries to effectively defend their interests in an increasingly 'legalized' trading system – may play an important role in explaining the 'bias' observed in the data. Given the basic economic determinants of becoming subject to AD threats – being a successful exporter in product categories where import-competing industries are organized and find it profitable to bring suits – institutional factors such as differential capacities to fulfill the manifold administrative requirements associated with engagement in AD investigations and WTO dispute settlement should play a role in determining outcomes.

The paper is organized as follows. Sections 2 and 3 discuss the pattern of AD filings in the United States and the outcomes of cases, focusing in particular on the incidence of cases against developing countries. Section 4 turns to the use of GATT/WTO dispute settlement procedures to address perceived violations of multilateral rules on AD, and the experience of developing countries in these disputes. Section 5 identifies potential explanations for the observed data and

2 One emerging pattern in the 1990s is that newly industrialized countries such as Korea, Singapore, Hong Kong, and Taiwan appear to be acting more like industrial countries than other developing countries.

3 See Bloningen and Prusa (forthcoming) for a survey of the literature on this and other issues.

discusses a number of policy options to recognize capacity constraints, including efforts to reform the WTO rules on contingent protection, and suggests some areas for future research. Section 6 concludes.

2. The initiation of antidumping petitions

2.1 Worldwide trends of AD petitions initiated against developing countries

There have been significant developments in the use of anti-dumping policies over the last two decades. First, there has been an explosion in the total number of anti-dumping investigations filed worldwide. The average annual number of AD initiations was 144 during 1980–1985, while in 2000–2001 the annual average reached 318 (Finger and Zlate, 2003). A major reason for this is that AD policies started to spread to other countries in the 1990s, in part as the result of technical assistance and capacity-building efforts by the WTO Secretariat and major countries such as Canada, the EU, and the US. While AD was used almost exclusively by the US, EU, Canada, and Australia until 1985, during the 1995–2002 period, developing countries accounted for around 60 per cent of all anti-dumping initiations.

The home countries of the firms that are most frequently investigated in AD petitions are predominantly developing economies, regardless of the initiator. Developing countries initiate 70 per cent of their investigations against other developing and transition economies while this number is around 75 per cent for industrial countries. The ratios are even more striking after normalizing the number of filings per dollar of trade affected. Finger and Zlate (2003) find that such a normalization leads to developing countries being six times more likely to have been targeted in developed country filings and three times more likely to be targeted in filings by other developing countries.

2.2 The initiation of AD petitions in the United States

Antidumping investigations in the United States follow a complicated administrative procedure.[4] The first step is the filing of a petition by firms in the domestic industry that claim to have been 'materially injured' by foreign imports that are priced at 'less than fair value'. Given that a domestic industry has decided to file an AD petition over a set of imported products, the first question to consider is which foreign firms should be named in an AD petition. This determination may be based on several factors such as import penetration ratios, market share, the growth rates of both variables, and information on prices. All these are among the statutory factors that would influence both the likelihood of the investigation leading to a positive dumping and injury determination and the potential level of possible AD duties and/or restrictiveness of any settlement agreement.

4 Blonigen and Prusa (forthcoming) provide a survey of the economic research investigating different aspects of the antidumping process.

Table 1. Characteristics of eligible and named countries in US antidumping petitions involving manufactures, 1980–1998

			Developing countries			
		Total	Lower income	Upper income	China	Developed countries
1980–1998	Number of eligible countries (countries above 3% market share in filed cases)	2015	159	759	87	1010
	Number of countries named	638	66	254	57	261
	Probability of being named (given total times eligible)	32%	42%	33%	66%	26%
1989–1998 only	Number of eligible countries (countries above 3% market share in filed cases)	868	87	327	62	392
	Number of countries named	321	39	131	41	110
	Probability of being named (given total times eligible)	37%	45%	40%	66%	28%
	Share of US imports (1989–1998)		10%	27%	6%	57%
	Share of filed anti-dumping cases (1989–1998)		12%	41%	13%	34%

Note: See footnote 6 for the definitions for 'Upper income' and 'Lower income' developing countries.
Source: Data derived from Blonigen and Bown (2003).

We use a dataset compiled by Blonigen and Bown (2003) to examine whether there is evidence of a 'bias' against developing countries at the 'naming' decision stage of the AD process by the US industry. The dataset includes every AD petition filed by industries in the manufacturing sector, which account for 84 per cent of all US cases, over the 1980–1998 period. Every exporting country with a market share above 3 per cent in the products[5] that were listed in a petition is included. As we document in Table 1, this leads to 2,015 potentially eligible countries who could have been the target of a petition. Of these 2,015 eligible countries, 638 were in fact named in a petition.

Of the 2,015 eligible targets identified on the top row of Table 1, the split between developed (1,010 observations) and developing (1,005 observations) countries is equal. Nonetheless, we can already observe a bias against developing countries, based on the *traded products* for which US industries have chosen to

5 Article 5.8 of the WTO Agreement on Antidumping states, '[t]he volume of dumped imports shall normally be regarded as negligible if the volume of dumped imports from a particular country is found to account for less than 3 per cent of imports of the like product in the importing Member, unless countries which individually account for less than 3 per cent of the imports of the like product in the importing Member collectively account for more than 7 per cent of imports of the like product in the importing Member' (WTO, 1995).

name and petition for AD. Put alternatively, if we take as given the set of products that are identified as having been unfairly traded, nearly 50 per cent of the potential targets that would be eligible (under the 3 per cent minimum market share criterion) for a US AD investigation were developing countries. However, the total share of these developing countries in US imports over the 1989–1998 period was 43 per cent (Table 1), suggesting that the goods that are exported by developing countries are over-represented in the sample of goods being targeted by US AD investigations.

Consider next the likelihood that different sets of countries will be named in an AD petition, given the total number of instances in this data set in which they were an eligible target. We divide the developing countries into three groups: China and two income-based categories, following the World Bank (2003) classification.[6] In our sample, the probability of eligible developed countries being named (26 per cent) was much lower than for China (66 per cent), lower income developing countries (42 per cent), and upper income developing countries (33 per cent).[7]

To identify potential new patterns in the data that may be related to recent developments, including the spread in the use of AD to developing countries, the lower half of Table 1 reports similar statistics for the 1989–1998 period. Blonigen and Bown (2003) have noted that in addition to the proliferation of AD use by US trade partners in the 1990s, the first GATT trade dispute against the US involving AD was filed in 1989. This was followed by US AD decision being contested at the GATT/WTO a significant number of times. Finally, the liberalization of many developing countries has generated an increase in trade and likely increased the political pressures for contingent protection in many import markets, including the US. The data in the lower half of Table 1 reveal that the probability of being named in a US petition during 1989–1998 increases for all countries.

Consider again another potential for bias, which is the selection of which products to investigate in the first place. US firms could be choosing to pick or leave out certain products in a petition to further fine-tune the direction of the

6 We take the standard World Bank (2003) categories which is based on Gross Domestic Income (GDI) per capita, and regroup them into two categories. We use the developing countries of 'High Income' (above $9,025) and 'Upper Middle Income' (between $2,975 and $9,025) and combine them into the category 'Upper Income' and we also combine the categories 'Lower Middle Income' (between $745 and $2,975) and 'Low Income' (less than $745) into the category 'Lower Income.' The countries in the 'Upper Income' category are Argentina, Brazil, Chile, Costa Rica, Czech and Slovak Republics, Hong Kong, Hungary, Israel, South Korea, Malaysia, Mexico, Poland, Singapore, Taiwan, Trinidad, and Tobago and Venezuela.

7 While we do not present the explicit breakdown here, there is also evidence that Canada and Mexico have been historically under-represented in US AD activity, including the number of investigations they have each faced relative to the number of times that they have been eligible. It is tempting to link this under-representation to a 'NAFTA effect', but Blonigen (2002) has shown that Canada and Mexico were under-represented in US AD activity, even *before* the formation of the CUSFTA or NAFTA. He uses an econometric study of a panel of US AD activity to show that there has been no effect of these PTAs on US AD activity versus these two countries.

investigation across exporters. To provide a rough estimate of this bias we include the share of each country in US imports and their share in all filed AD cases during 1989–1998 in the last two rows of Table 1. The number of investigations against eligible upper income developing countries as well as China is much higher than is their share in US total imports.[8] On the other hand, the share of cases against developed countries is much lower than their share in US imports. One explanation for this phenomenon is that the increasing exports from China and some of the upper income developing countries to the US is in particularly sensitive sectors.

3. The stages and outcomes of US antidumping investigations

3.1 The US AD process

The US AD statute has been modified frequently in the last two decades, in part as a result of domestic political economy forces – pressure by import-competing industries – and as a result of countervailing efforts by trading partners to impose greater disciplines through the GATT/WTO. Since 1980, there have been two agencies involved in the US AD process: the International Trade Administration at the Department of Commerce (DOC), which determines whether the foreign firms accused in the petition have dumped, and the International Trade Commission (ITC), which is responsible for deciding if the US petitioning industry has been injured. If the decision of both agencies is positive, AD duties can be imposed. The level of duties is generally a function of the dumping margin that has been established by the DOC. The typical steps in an investigation are (Boltuck and Litan, 1991; Lindsey and Ikenson, 2002):

- A petition is filed
- Department of Commerce (DOC) summary investigation to determine if there is adequate information in the petition to support the allegation of dumping
- International Trade Commission (ITC) preliminary investigation to see if there is 'reasonable indication' of injury
- DOC investigation to determine if there is evidence of dumping and calculation of the dumping margin
- ITC final injury determination

A case is dismissed if either the DOC or the ITC reach a negative decision at any point in the process. The DOC investigation of dumping actually has two phases. A preliminary investigation determines if there is 'reasonable likelihood' of dumping. If a positive preliminary finding obtains, subsequent imports are cleared

8 Another comparison would be between the share of filed anti-dumping cases and the share of (pre-AD investigation) imports in the products targeted by US investigations. Even here, however, we would expect that the choice of products to target in an AD investigation may be biased toward exports from developing countries.

through US customs under a so-called 'suspension of liquidation', which entails the importer having to post a bond to cover possible future AD duties before goods are allowed to enter the US market. If the preliminary decision is negative, the investigation continues but no bond is imposed.

The petitioning industry can withdraw a case at any point, and there is a large literature analyzing how the AD process can facilitate settlement outcomes of either collusion or the sharing of quota rents between domestic and foreign firms through government-facilitated voluntary export restraints or price undertakings.[9] In theory, a settlement outcome would be more likely if domestic and foreign firms have been interacting for a long time, the industry is relatively concentrated and/or subject to economies of scale, and both sides are well prepared for litigation. From the exporter's and importer's perspectives, it is usually the case that a settlement would be preferable to an AD duty as each party would capture part of the rents generated by the restriction on trade, as opposed to the tariff case, when revenues accrue to the US Treasury.[10]

For purposes of our analysis we divide the set of AD cases into six categories or types of outcomes, depending on the stage they are resolved:

1 – Terminated before ITC preliminary or negative ITC preliminary decision
2 – Terminated between ITC preliminary decision and DOC final decision
3 – Negative DOC final decision – no dumping
4 – Terminated between DOC final decision and ITC final decision
5 – Negative ITC final decision – no injury
6 – Affirmative ITC final decision – positive injury

A case is generally resolved at Outcome 1 if the petitioner does not provide a strong case or if the US industry withdraws the petition. Some of the withdrawals may also involve settlements, but this is unlikely at this stage. Outcome 2 can be interpreted as an 'early settlement' between the petitioner and the defendant. Outcome 3 is relatively rare. The DOC decision on dumping is almost always positive given the methodologies used to determine 'fair value' and the dumping margin (Lindsey and Ikenson, 2002); nevertheless, its influence on the AD process derives from its determination of the *level* of the dumping margin. The DOC determines the dumping margin through a combination of factors: the data provided by the exporting firms, the methodology used to perform the calculation, and also

9 See, for example, Hoekman and Leidy (1989), Prusa (1992), and Staiger and Wolak (1994). Messerlin (1989, 1990) analyzes these issues in the context of EC antidumping.

10 On the other hand, the settlement outcome for the US petitioning industry is currently less attractive than an outcome that would result in the application of duties given the 'Byrd amendment' which requires that tariff revenue be transferred to the petitioning industry. Nevertheless, this potential complication will not influence any of the data that we consider since the Byrd amendment went into effect in 2000 and our AD data end in 1998. Furthermore, recent panel and Appellate Body decisions have found that the Byrd Amendment is in violation of WTO obligations. See *United States – Continued Dumping and Subsidy Offset Act of 2000* (WT/DS217/R and WT/DS217/AB/R).

by the type of product and the 'profile' of the country (Blonigen, 2003).[11] Outcome 4 involves a 'late settlement' and may be, in part, a function of the level of the dumping margin estimated by the DOC. If the case is not dismissed or settled, it proceeds to the ITC for the injury decision. If ITC makes an affirmative decision, duties are imposed – Outcome 6. Otherwise, no duties are imposed – Outcome 5.

3.2 The data on US AD procedural outcomes

We investigate how developing countries typically fare as a procedural matter in US AD investigations by comparing whether they are more or less likely to settle, and whether this may occur earlier or later in the investigatory process. First we take the six outcomes listed above and classify them into three categories – those that were terminated early, those that terminated in the intermediate stages of the investigation process, and finally those that terminated late or after the DOC and ITC had made their dumping and injury determinations. Based on a theory of a limited administrative and professional capacity, we would expect *a priori* that developing countries may have their cases terminated without final ITC/DOC decisions less frequently than would developed countries. Furthermore, we would expect cases that are terminated before final decisions are made to occur later in the investigatory process for developing countries.

The top half of Table 2 provides data on all US AD investigations initiated between 1979 and 1998.[12] Of the 811 petitions, 585 involved a US industry filing multiple petitions against different foreign countries exporting the same products, which resulted in a common injury determination by the ITC.[13] Note that the data now include non-manufacturing cases, in contrast to Table 1, and thus provide a more complete coverage of the overall AD panorama. Among the 811 cases filed, 22 per cent terminated in an early resolution or dismissal, 18 per cent were settled or terminated during the intermediate phases of the investigation, while 60 per cent were terminated after final determinations on dumping and injury were made by the DOC and ITC.[14] We will consider next whether the probability that an AD investigation will be terminated at different stages of the investigatory process differs systematically across different categories of exporting countries.

11 In particular, the DOC can choose between comparing the price of the good sold by the exporter in the US market with the price of a similar good sold by the exporter in its domestic market or in third markets, or the DOC can compare the US price with a constructed measure of the firm's costs. The calculation is further complicated by cases in which the exporters are from a non-market economy. For more on these points, see Finger (1993), Hindley and Messerlin (1996), Lindsey and Ikenson (2002), and Blonigen (2003).

12 We are grateful to Thomas Prusa for his generosity in providing these data.

13 Hansen and Prusa (1996) show how the US AD process has generated an incentive for the petitioning industry to file investigations against exporters of the same product from multiple foreign countries because of the 'cumulation rule' which allows the ITC to combine the imports from all named countries when making an injury determination for any one named import source.

14 Specifically, the 'early termination' category consists of outcome 1, the 'intermediate termination' category consists of outcomes 2 through 4, and the 'late termination' category consists of outcomes 5 and 6.

Table 2. Early, intermediate and late terminations of US antidumping petitions, 1979–1998

			Developing countries			Developed countries	
		Total	Lower income	Upper income	China	Japan	Other
1979–1998	Total number of investigations	811	90	260	61	92	308
	Early termination	179	9	58	4	14	94
	(probability)	(22%)	(10%)	(22%)	(7%)	(15%)	(31%)
	Intermediate termination	142	20	43	5	10	64
	(probability)	(18%)	(22%)	(17%)	(8%)	(11%)	(21%)
	Late termination	490	61	159	52	68	150
	(probability)	(60%)	(68%)	(61%)	(85%)	(74%)	(49%)
1989–1998 only	Total number of investigations	386	50	135	45	39	117
	Early termination	86	5	41	4	5	31
	(probability)	(22%)	(10%)	(30%)	(9%)	(13%)	(26%)
	Intermediate termination	25	5	6	3	2	9
	(probability)	(6%)	(10%)	(4%)	(7%)	(5%)	(8%)
	Late termination	275	40	88	38	32	77
	(probability)	(71%)	(80%)	(65%)	(84%)	(82%)	(66%)

Note: See footnote 6 for the definitions for 'Upper income' and 'Lower income' developing countries.
Source: Raw data obtained from Thomas Prusa.

In doing this, note that with respect to our developed country benchmark, we separate out Japan from all other developed countries. As the data will reveal, we do this to show that many of the same biases facing developing countries also confront Japan, though we would argue that the underlying forces driving these biases are likely to be very different.

The likelihood of an early termination across different types of foreign exporting countries differs substantially. The probability of this outcome is 31 per cent for the investigations initiated against developed countries aside from Japan, while for 'lower income' developing countries and China, the likelihoods are much lower, at only 10 per cent and 7 per cent respectively. Consider next the cases which were terminated in the intermediate stages of the AD investigation, and thus are cases likely to have concluded in some sort of settlement outcome.[15] Perhaps surprisingly, the intermediate resolution shows much less variation across different classes of exporting countries. The exception is AD investigations against China (and perhaps Japan), which rarely end in the intermediate stage of the investigation. Consider finally the cases which result in a late termination, i.e. those

15 Very few of the cases which make it to the final DOC dumping determination are rejected at that stage. For the 1979–1998 sample, only 28 out of 811 observations (3 per cent) resulted in a final negative DOC dumping determination.

that typically make it all the way through the DOC/ITC investigatory process. Non-Japanese developed country exporters under an AD investigation only face the entire AD process in 49 per cent of the initiated investigations. This fraction is much higher for the developing country exporters in our sample. Upper income developing countries face the entire process in 61 per cent of the investigations. The probabilities are even higher for lower income developing countries (68 per cent) and China (85 per cent).

The evidence presented in the top half of Table 2 suggest two key distinctions between the AD outcomes facing developed versus developing countries. While the investigations that terminate in the intermediate stages of the investigation are fairly consistent across country classifications, developed countries (except for Japan) are much more likely to have their cases terminated early than are developing countries, and developing countries are much more likely to have their cases terminated late than are developed countries.[16] The data in the lower half of Table 2 reveal that a similar pattern holds for the 1989–1998 period. When compared with the top half of Table 2, the primary difference is that the likelihood of the early or late termination for 'upper income' developing countries is moving closer to the developed country average. However, there is still a distinct bias in the early and late termination outcomes facing 'lower income' developing countries and China relative to exporters from developed countries.

A final important point to note when comparing the top and bottom halves of Table 2 is the reduced likelihood that any AD investigation will be terminated before the final DOC and ITC determinations, regardless of the export source.[17] This suggests an increasingly important role for both the ITC and DOC. Given that so few of the cases that make it to the final DOC dumping determination are rejected, especially in recent years,[18] the importance of the DOC derives from the fact that it determines the level of duties that are imposed (as these are based on the size of the dumping margin that it has found). The importance of the ITC and the injury determination is that they are essentially the only hurdle between a domestic industry and its quest to receive some level of import protection.

16 Note that one potential explanation for differences in early settlement rates is the level of protection in the exporters home market – the lower this is, the less likely a high dumping margin will be found (at least for market economies). This would lead to the prediction that the most open countries should see the greatest number of early terminations. This hypothesis does not seem supported, however, as Japan's level of protection is not substantially different from that of other OECD countries, and it does not see many early withdrawals. Conversely, protection rates in upper income developing countries are often still quite high (and often higher then those in many low income developing economies), so this cannot explain why early settlement is higher for these countries.

17 One explanation for the reduction in settlements across all categories of exporting countries is the push by WTO member countries to eliminate 'grey-area' measures including voluntary export restraints, with the passage of the Uruguay Round of reforms taking effect in 1995.

18 For the 1989–1998 sub-sample of US AD investigations, only three out of 386 observations, or less than 1 per cent, resulted in a negative dumping determination by the DOC.

Developing countries and final DOC and ITC determinations

Table 3 presents more detailed information on the determinations made by the ITC and the DOC. We use this table to address the question of whether there is a further bias facing developing countries in the AD investigations which make it through the entire process, i.e., those that do not terminate before final ITC and DOC injury and dumping determinations have been made.

First consider the top half of Table 3a, which presents the conditional probability that the ITC made a positive or negative final injury determination, given that the AD investigation made it that far in the process. Here there is very little evidence of bias against developing countries. For the 1979–1998 period, the ITC was nearly as likely to have found injury in a case against a developed country, other than Japan (61 per cent), as it was to have found in a case against either an 'upper income' (65 per cent) or 'lower income' (67 per cent) developing country. This is also consistent with the evidence presented in the lower half of Table 3a which concentrates on the 1989–1998 cases only.[19]

On the other hand, a major indicator of potential bias against developing countries is the average tariff imposed when the ITC finds injury and the case is not settled. As mentioned, the duty is based on the calculation of the dumping margin by the DOC. The biases and the large degree of discretion that continues to prevail despite efforts by exporters to impose disciplines through the GATT/WTO have been documented repeatedly – see e.g., Finger (1993), Hindley and Messerlin (1996), Lindsey and Ikenson (2002), and Blonigen (2003). Margins are determined by various factors, including the methodology used to establish normal or 'fair' value and whether the exporting firms cooperate in the investigation. If they do not, the DOC uses the 'facts available', which usually are supplied by the petitioners. If foreign firms do not fill in or respond to DOC requests for information or the data are not usable (in the wrong format, etc.), exporters are likely to be penalized. The costs associated with responding to questionnaires are non-trivial, as noted by Murray (1991):

> [A] request for information from the DOC arrives in the form of a questionnaire, some 100 pages long, in English, requesting specific accounting data on individual sales in the home market (and possibly to third countries), data on sales to the United States, data needed to adjust arm's-length market prices to net ex-factory prices … adjustments for taxes and duties on imported inputs, adjustments for exporters' sales prices, international shipping costs, distribution costs in the US, and a host of other details. There must be enough information for the DOC to investigate *nearly every* US sale (that is very transaction) for a period of six months. All this information must be identified, retrieved, recorded, and then transmitted to the DOC in English on hard copy and in computer readable format (compatible with their system) within the short deadline stipulated under the US statutes.

19 There is, however, still an apparent bias in cases facing exporters from Japan or China – these are much more likely to face a positive injury determination.

Table 3. Potential biases in DOC and ITC determinations in US AD cases, 1979–1998

			Developing countries			Developed countries	
		Total	Lower income	Upper income	China	Japan	Other
(a) ITC determinations							
1979–1998	Total number of investigations reaching the final ITC determination	490	61	159	52	68	150
	Positive injury determination by the ITC, resulting in duties	329	41	104	40	53	91
	(probability)	(67%)	(67%)	(65%)	(77%)	(78%)	(61%)
	Negative injury determination by the ITC, no duties imposed	161	20	55	12	15	59
	(probability)	(33%)	(33%)	(35%)	(23%)	(22%)	(39%)
1989–1998 only	Total number of investigations reaching the final ITC determination	275	40	88	38	32	77
	Positive injury determination by the ITC, resulting in duties	178	24	57	29	25	43
	(probability)	(65%)	(60%)	(65%)	(76%)	(78%)	(56%)
	Negative injury determination by the ITC, no duties imposed	97	16	31	9	7	34
	(probability)	(35%)	(40%)	(35%)	(24%)	(22%)	(44%)
(b) DOC duty determinations							
Average tariff rate imposed							
1979–1998 cases		46%	53%	30%	95%	60%	31%
1989–1998 cases only		58%	66%	36%	116%	74%	34%

Note: See footnote 6 for the definitions for 'Upper income' and 'Lower income' developing countries.
Source: Raw data obtained from Thomas Prusa.

Many firms from developing countries have difficulty complying with these requirements, leading to the use of 'best information' or 'facts available', with a resulting upward bias in dumping margins.

While there is not a substantial difference in the likelihood that countries will end up facing duties, given that they face similar rates of injury determinations made by the ITC, the duties that developing countries end up facing are typically much higher (Table 3b). For example, over the 1979–1998 period, the average duty facing a developed country (aside from Japan) was 31 per cent, compared with an average duty for lower income developing countries of 53 per cent.[20] For the 1989–1998 period the difference is even higher (34 per cent versus 66 per cent).

Blonigen (2003) used formal econometric techniques on a data set of firm-specific DOC dumping margins decided in US AD investigations during 1980–1995 to investigate the determinants of such margins. After controlling for a host of other factors that may also affect dumping determinations, Blonigen finds significant evidence that AD investigations in which 'facts available' or 'adverse facts available'[21] are used by the DOC lead to a substantially higher dumping margin – a 63.1 percentage point increase – relative to the average. Given that the DOC is more likely to have to rely on 'facts available' when the exporting firms targeted in the AD petition do not have the ability or capacity to comply with DOC requests for the provision of timely information, his results are consistent with the bias facing developing countries that is under investigation here.[22]

4. Antidumping disputes in the GATT/WTO

In parallel to the growth in the use of AD as the policy choice of governments desiring a means to restrict trade, affected countries have also increased the frequency with which they have sought recourse through GATT/WTO dispute settlement to contest AD measures. As mentioned, during the 1980s a number of exporters also devoted substantial effort in using the negotiation route to strengthen multilateral disciplines in this area. Some reforms to the rules on AD were introduced as a result of the Tokyo (1979) and Uruguay (1994) Rounds. However, there is no evidence that these reforms have had any disciplining effect on the overall use of AD. In fact, the reforms have been characterized by some as

20 This is a simple numerical average that does not take into account affected import volumes.

21 Blonigen (2003: 12) notes that 'adverse facts available' refers to a DOC policy initiated in a 1987–1988 case in which exporters in 'facts available' cases were categorized as either cooperative or uncooperative. The uncooperative exporters would then face an 'adverse facts available' decision which was the higher of either the dumping margin alleged by the US industry in the petition, or the highest calculated margin applied to any firm in the investigation.

22 Blonigen (2003) does include regional fixed effects in his model to control for the possibility that exporters may face different duties because of country of origin. However, because he uses different country categories from those employed here, we are not able to assess from his reported coefficient estimates if there is an additional bias (i.e., in addition to his 'facts available' biases) that is developing country specific.

a relatively futile backward-looking efforts to constrain the use of specific methodologies, as opposed to fundamental reforms that would change the incentives to use AD (Finger and Zlate, 2003). Indeed, Bown (2002), has argued that Uruguay Round reforms establishing the Agreement on Safeguards – which outlawed voluntary export restraint agreements – and the Dispute Settlement Understanding may have changed incentives facing governments so as to make the use of AD (relative to the use of safeguards) measures even more popular under the WTO.[23]

Not unlike the situation facing an exporter targeted by a US AD investigation, active engagement in WTO dispute settlement procedures can be complex, costly and entail uncertainties. Multiple stages and possible outcomes can result: a report by a panel established to consider the case, a decision by the Appellate Body if aspects of the panel report are called into question by a party to the case, withdrawal following a settlement between the disputing parties, or a decision by an Arbiter on the magnitude of permitted retaliation if a respondent fails to implement a panel or Appellate Body decision. Given the self-enforcing nature of the GATT/WTO system, ultimately a plaintiff needs to have a credible capacity to retaliate for there to be any guarantee that a panel or Appellate Body decision will be implemented. A major problem here is that especially small developing countries do not have such a capacity.[24]

Governments have increasingly been using the WTO to contest perceived violations. Busch and Reinhardt (forthcoming) report that since 1979, a total of 560 disputes were filed at the GATT and WTO, of which 105 (19 per cent) involved AD. Under the pre-1994 GATT regime, of the 86 disputes filed against the US, 28 (33 per cent) involved an AD issue. Between 1995 and 2002, 80 disputes were brought under the WTO against the US, of which 37 (46 per cent) concerned AD.

With respect to the initiation of disputes under the WTO, Horn *et al.* (1999) have argued that in the first three years of the WTO there did not appear to be a bias against developing countries in the pattern of disputes initiated. They use a probabilistic model to illustrate that the pattern of disputes can be explained fairly well by the value of trade and the number of trading partners a country has. They conclude that even though the US, EU, Canada, and Japan initiate over 60 per cent of all complaints, their trade volume and diverse set of partners leads them to be involved in more trade disputes and that differences in 'power' do not appear to affect dispute initiation.

We take a slightly different perspective here, given our focus on US AD activity and the prevalence of disputes regarding allegations (and frequent panel confirmations) that the US AD process and its application of AD measures is frequently inconsistent with its GATT/WTO obligations. Between 1989 and 2002, of

23 See Hoekman and Kostecki (2001) for a discussion of these developments and the relevant rules.

24 This continues to be the case under the WTO, which provides scope for so-called cross-retaliation (on intellectual property for example). Ecuador threatened to use this option against the EU in a well-known case (Bananas) – see Hudec (2002). Bagwell *et al.* (2003) analyze a recent Mexican proposal to make WTO retaliation rights tradable so as to make these more valuable (effective) for small countries.

Table 4. GATT/WTO disputes filed against the US regarding antidumping issues, 1979–2002

		Developing countries			Developed countries	
	Total	Lower income	Upper income	China	Japan	Other
Total AD disputes filed against the US	65	7	19	0	5	34
AD Disputes involving specific products	45	2	14	0	2	27
Total resolved with no or small concession	12	1	4	0	1	6
Total resolved with significant concession	13	0	5	0	0	8

Note: See footnote 6 for the definitions for 'Upper income' and 'Lower income' developing countries. China was not a member of the WTO during the sample period.
Source: Busch and Reinhardt (forthcoming).

65 GATT/WTO disputes brought against the US related to its use of AD, 39 were brought by developed countries. Of the 65 cases, 45 involved specific AD investigations, while the rest concerned general US laws and statutes. A high profile dispute in the latter category was filed against the US by 11 countries over the 'Byrd Amendment' which required AD tariff revenue to be refunded to the US petitioning industry.[25]

We will ignore here the disputes that focus on allegations that US AD laws are inconsistent with its GATT/WTO obligations, and instead focus on the 45 disputes of Table 4 where a complainant country alleged that the US misapplied its AD procedures in a specific investigation, adversely affecting export sales. Of these disputes, only 16 (36 per cent) were initiated by a developing country even though developing countries face *66 per cent* of all US cases that resulted in the implementation of AD duties over the 1989–1998 period (bottom row, Table 1). Furthermore, these cases have typically been filed by only a handful of developing countries – Brazil, Chile, India, Korea, and Mexico.[26]

The apparent reluctance of developing countries to defend their rights in the GATT/WTO may be one reason why they are targeted more frequently for AD investigations in the first place.[27] Although one explanation for the limited use of the DSU is a lack of capacity, it will certainly reflect a combination of other factors relating to the low perceived rate of return to bringing cases. For example, smaller developing countries may find it easier to find alternative markets if their exports

25 See WTO disputes DS217 and DS234, *United States: Continued Dumping & Subsidy Offset Act of 2000*.

26 One contributing factor is that many developing countries (e.g., China) may not have been GATT/WTO members until recently, so that they would not have had access to its dispute settlement provisions.

27 We are implicitly assuming that the GATT/WTO rights of developing countries in US AD cases have likely been as infringed upon as the rights of those countries who won formal disputes in the GATT/WTO.

to the US are restricted because of AD measures. Alternatively, if the amount of developing country trade restricted by a US AD measure is small, the costs to initiating a dispute relative to the expected benefits from a successful resolution may make a dispute unattractive. It may also be that countries fear negative spill-over effects from bringing cases with respect to relations with the US on other matters, such as bilateral aid or military assistance. Finally, developing countries may simply have less of an interest in pursuing cases to defend the integrity of the trading system and/or their lack of credibility in retaliation threats may make it less likely that any panel rulings in their favor would result in compliance.

Table 4 also reports information from Busch and Reinhardt (forthcoming) on qualitative measures of the 'resolution status' of 25 of the 45 cases that had been concluded as of the end of 2002. Of these disputes, Busch and Reinhardt conclude that 12 were resolved with 'no or small concessions' being extended from the respondent to the complainant, and 13 were resolved with the complainant receiving 'significant concessions'. The important point to note from this table is that there does not appear to be a substantial bias in terms of these qualitative outcomes across ('upper income') developing and developed country complainants, as each receive concessions in slightly more than 50 per cent of the cases. Of course, this is likely due in part to an under-representation of key segments of the true sample of developing country complainants in the data set, so that, while it appears that the average developing and developed country complainants face the prospects of 'equal success' in such disputes, the actual comparison may be biased by the lack of data or information on disputes that developing countries have not initiated. For example, developed countries may be bringing forward cases that are weaker (on the legal merits) on average, and developing countries may bring forward only their strongest cases and the ones in which they have some capacity to retaliate to make it more likely that the respondent will comply. Furthermore, we can say little about the effectiveness of potential WTO dispute resolution from the perspective of the 'lower income' developing countries that have been the most reluctant to bring forward AD disputes against the US.

In contrast to the case of early termination of AD investigations perhaps being more likely to provide advantageous outcomes for the affected exporters, this may not necessarily carry over to GATT/WTO dispute resolution. International trade theorists have suggested that an economic role of the GATT/WTO is to provide domestic governments with the commitment power necessary to engage their domestic constituencies in reform.[28] Within the spirit of these models, Bown (forthcoming, a) interprets dispute settlement activity as an area where respondent governments appeal to the GATT/WTO for such commitment power. In the AD context, we might consider a respondent country such as the US using a negative panel decision regarding its application of a GATT/WTO-inconsistent

28 This is a long-standing insight. See e.g., Tumlir (1985) and the references cited there. Bagwell and Staiger (2003: 32–34) provide a review of the theoretical literature in economics that highlights this point.

AD measure versus a developing country as necessary to convince its domestic industry that there is a cost to continued provision of the protection. In this setting, developing country respondents may therefore not push for an early settlement to the dispute, perhaps out of recognition that the US government needs a formal GATT/WTO ruling to take back to its protected domestic industry in order to convince it that the government is committed to its removal.[29] Unfortunately, available information on the DSU process and outcomes is not comprehensive, with data on settlements being particularly sparse (Hoekman and Mavroidis, 2000).

Nevertheless, if we view these formal trade disputes as a potential step for the governments to enforce the rights of their exporters after GATT/WTO-inconsistent AD investigations or applications of duties, the evidence thus far is that developing countries have been less than successful at doing so. And naturally, the lower prospects for them at this stage may lead the US to target them more frequently in the first place. This is consistent with the evidence provided in Blonigen and Bown (2003), who found that the capacity of a foreign country to engage in a GATT/WTO trade dispute against the US and potentially retaliate affected the decision of whether to give AD protection.[30]

5. Policy implications

The previous analysis suggests that capacity constraints may result in a bias against lower income developing countries in defending their rights in AD investigations. While not discussed in this paper, arguments that in the enforcement of own AD investigations developing countries frequently do not conform with WTO obligations are also indicative of institutional and capacity weaknesses (Miranda, 2003). The lack of 'capacity' itself may have a number of potential explanations. For example, firms in poorer developing countries may lack access to the required skilled resources to defend their rights in foreign markets. Such access limitations may reflect in part economic incentives and transactions costs – smaller firms in

29 Bown (forthcoming, a) investigates the economic resolution of a set of GATT/WTO trade disputes over the 1973–1998 period involving respondent countries being accused of offering excessive import protection to a domestic industry through many types of GATT/WTO-inconsistent policies. That paper finds that the capacity by the complainant to credibly threaten a retaliation made it more likely that the respondent would increase disputed sector imports from the complainant. There is also some evidence that a GATT/WTO panel finding of 'guilt' made it more likely that the respondent country would liberalize disputed sector trade. With respect to the point made in the text, after controlling for other factors, there was no evidence that cases that terminated without a panel ruling (i.e., that might have been withdrawn or settled) resulted in any more trade liberalization being extended by the respondent to the complainant than did other cases.

30 This is also consistent with the results of Bown (forthcoming, b), who studies the choice of governments giving protection through the GATT safeguards provisions as opposed to through some GATT-illegal policy, such as a dubious AD measure. In this study, the protection-imposing country was less likely to impose a policy such as a GATT-illegal AD measure when the affected trading partner had a substantial capacity to retaliate.

small countries may confront higher hurdles than large firms in larger countries. Although absence of the required expertise and resources in a country by itself is not a compelling explanation given the relatively uninhibited trade in legal and professional services across countries, the perceived rate of return to seeking out and employing foreign expertise may be low, especially for firms located in countries that have only limited commercial representation in the major markets (if any). Thus, it may simply be that the cost of active engagement in the process is too high. For example, if developing countries are typically exporters in industries with very thin profit margins that make hiring additional professional representation unprofitable, they will not participate. Developing countries may also lack the institutional or cultural experience with litigation that is increasingly found in international trade in developed country markets such as the US.

We do not attempt to differentiate between these and other explanations for a lack of 'capacity' to participate in AD processes in our analysis here. This is an area requiring further research. Such research needs to recognize that ultimately participation and outcomes will be affected importantly by the incentives confronting both petitioning, import-competing industries, and the targeted exporting firms: the expected rates of return associated with alternative strategies will determine what choices are made. More research is also needed to investigate why early settlement and withdrawal rates differ so much across countries,[31] and what the relationship is between the probability of positive ITC injury findings, the expected level of dumping margins determined by the DOC, and settlement rates. The data suggest that there may be a negative correlation between margins and settlements: for countries with higher early settlement rates, insofar as cases go forward, dumping margins are relatively low compared with the average duty imposed across all cases. These are also countries where the probability of a positive injury determination is somewhat lower. These factors will affect the incentives to negotiate a settlement, but this in turn will be affected by the capacity to engage import-competing industries. Clearly a critical variable in this process will be to determine the extent to which firms in different country 'types' confront different transaction and organization costs. For example, in addition to the low profit margin possibility just noted, developing country firms may be small and dispersed, making it difficult for them to organize and pay an agent to negotiate on their behalf in the US. Even if they can do so, they may not be able to credibly commit to abiding by a negotiated settlement.[32]

31 Prusa (1991) is an early paper looking at the determinants of whether a case is withdrawn. However, his analysis only considers AD cases between 1980 and 1988 and domestic political and economic determinants of the decision, not the question of foreign exporter characteristics that have been proposed here.

32 Clearly more work is also needed to analyze the case of Japan and China, the two outliers in our dataset. In both cases, the probability of injury and the level of dumping margins are substantially higher than for other countries. In the case of China, non-market economy status probably does much to explain the observed pattern of outcomes.

While the case for 'capacity' constraints is at this point only suggestive, clearly there are large differences in administrative and professional expertise and ability among WTO members. A number of possible policy responses to the observed bias can be identified.

The first-best approach from an economic perspective would be to abolish antidumping. The case against this instrument of contingent protection has been made repeatedly for many years, as has been the case for repeal (see, e.g., Barcelo, 1979; Caine, 1981; Finger, 1993, and the references cited there). While very unlikely to happen any time soon, it is important to recognize that the economic basis for antidumping is virtually non-existent and that efforts should be made to remove it from the arsenal of trade policy instruments.

Another policy response would be to assist developing countries to participate more effectively in the AD process. This could comprise a combination of training and technical assistance to build local capacity in both the private sector and government, and greater efforts to assist countries to obtain access to international professional expertise. Such assistance could also extend to helping countries to bring cases to the WTO. It is striking that lower income countries have not used the WTO process to bring AD-related cases. While it is not clear whether more active engagement in the WTO would improve AD outcomes, the observed correlation between the user of the DSU and countries that 'do better' on AD in the US is suggestive. In the case of China it remains to be seen if China will become an active player now that it has acceded to the WTO. While technical assistance could certainly be beneficial, concerns can be expressed as to whether this is a priority use of scarce aid resources. This brings us back to the question of the (implicit) rate of return to contesting AD more vigorously – a question where further research is urgently needed. At the WTO level, suggestions have been made to increase the transparency of outcomes and increase the effective surveillance of trade policies and their application, perhaps through the appointment of a 'special prosecutor' (Hoekman and Mavroidis, 2000).

In the GATT/WTO context, assistance of the type just discussed is part of the so-called special and differential treatment (S&D). The WTO Agreement on Antidumping embodies a variety of S&D provisions that aim to make the AD process facing developing country exporters less onerous. One of these are the *de minimis* market share thresholds that apply to imports from developing countries found in Article 5.8 of the Antidumping Agreement (WTO, 1995). Furthermore, Article 15 of the Agreement states:

> [I]t is recognized that special regard must be given by developed country Members to the special situation of developing country Members when considering the application of anti-dumping measures under this Agreement. Possibilities of constructive remedies provided for by this Agreement shall be explored before applying anti-dumping duties where they would affect the essential interests of developing country Members.

Indeed, given these provisions it is somewhat surprising to find the AD process nonetheless so biased against lower income developing countries, as beneficiary countries are likely to be 'smaller' than developed country exporters. However, clearly another policy option to address the observed bias would be to expand the thresholds further, both individual and cumulative.

Yet another policy option that could be pursued in the WTO and that would help to address asymmetries in capacity and information would be to require a change in national AD laws to consider not just the interests of import-competing industries, but also the interests of consumers and users of the products that are claimed to be dumped and cause injury to competing domestic firms. Such a 'public interest'-type of rebalancing of the AD law would do much to mitigate asymmetries in administrative and organizational capacity and expertise, and also help overcome foreign policy type constraints that could reduce the willingness of developing country governments to take cases to the WTO (Hoekman and Mavroidis, 1996; Finger, 2002). If users of imports had to be heard, and the effects of possible protection on the profitability and health of their businesses were to be considered and balanced against the interests of import-competing firms, much of the imbalance in capacity would be removed. Importers and distributors would defend the interests of developing countries at the same time they were defending their own narrow interests in fighting AD petitions. Not only would such a change in the law improve efficiency in the countries that adopted it, it would also have a positive externality for developing country firms and governments, who would be confronted with less of a need to invest scarce resources in defending their rights in the context of national AD actions. Moreover, with fewer cases presumably having a protectionist outcome, there would be less need to use the WTO as an enforcement device.

6. Conclusion

A number of stylized facts emerge from the analysis. Developing countries, especially lower income ones, are targeted more frequently in US AD investigations. Developed country targets of US AD investigations are more likely to have a case terminate before the final injury decision than developing country targets and they are more likely to have that termination occur earlier in the investigatory process. Moreover, when comparing the AD investigations which result in positive injury determinations by the ITC, the average duties imposed on exports from developing countries are significantly higher than those imposed on exports from developed countries. Research by Blonigen (2003) has shown that higher duty determinations are largely determined by recourse by the DOC to 'facts available' or information provided by the petitioning industry when the exporting firms fail to properly complete administration and procedural requests for information.

The patterns observed in the AD data are likely to reflect differences in 'capacity' across countries to defend their interests and their WTO rights. Such

capacity constraints may be 'physical' – a lack of expertise – or reflect incentive constraints – it is too costly to engage in the process (expected returns to organization are too low). Whatever the underlying nature of the incentive constraints – something on which more research is clearly required – the observed bias in the AD data underscores the importance and urgency of disciplining the use of antidumping. The policy challenge is how to do so most effectively, given that the first-best solution – abolition of AD – is unlikely to be feasible in the foreseeable future. Here we believe that the best way forward is to increase the ability of stakeholders that are hurt by AD – importers, users of intermediate inputs, consumers – to defend their interests as part of the AD decision-making process (Finger, 2002). Doing this would not only reduce the incidence of AD and thereby increase the welfare of importing countries, it would also reduce the burden on developing country exporters in terms of having to participate actively in the AD process. In effect, such countries would be able to 'free ride' to some extent on the defense of their self-interest by importing stakeholders in the country contemplating taking an AD action.

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