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China's WTO Entry
Antidumping, Safeguards, and Dispute Settlement

Chad P. Bown

8.1 Introduction

Policymakers choose to enter into trade agreements like the World Trade Organization (WTO) for many political and economic reasons. However, economic theorists have posited two reasons central to this decision: first, that "large" countries seek reciprocal market access commitments to neutralize the terms-of-trade effects of trade liberalization; and second, that many countries seek an externally enforced contract in order to credibly commit domestic sectors to policy reform.[1] From the broad perspective of economic theory, China's 2001 WTO accession might be motivated along the following lines: China agreed to undertake substantial import liberalization in exchange for greater certainty with respect to market access for its exports, and China's program of reform would gain domestic credibility from trading partners' threat and actual use of WTO dispute settlement procedures to ensure that China was living up to its liberalization commitments.

This chapter examines China's political-economic experience in the face

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1. For economic theory formalizing the first argument, see Bagwell and Staiger (1999); for the second, see Maggi and Rodriguez-Clare (1998, 2007). For recent empirical evidence supporting the first theory, including estimates using data from China, see Broda, Limão, and Weinstein (2008) and Bagwell and Staiger (2006).

of "frictions" in the international trading system as it transitions to full WTO membership. We use a number of newly compiled data sources that track areas of international political-economic tensions associated with China's increased trade. We focus on both its own exports and the potential changes in policy treatment they face across foreign markets as well as China's imports and its own changes in trade policy associated with the market access commitments it undertook as part of its 2001 accession. While certainly only a part of the landscape, the data characterizing the changing nature of trade policies by China and its trading partners helps us characterize China's actual WTO accession experience thus far.

With respect to policies facing China's exports, we examine data on WTO members' use of antidumping import restrictions against Chinese firms prior to and following its 2001 accession. While most economists view antidumping as economically baseless and little more than an easy-to-access tool of protectionism, there are many insights to be gained from examining its use, especially when it comes to China's exporters' experience. An additional benefit to studying antidumping is that it is a measurable and relatively transparent policy whose use has spread to many developed and developing countries. While it is certainly not the only tool of protectionism, antidumping is increasingly one of the few WTO-consistent instruments of protection that remains available to policymakers as more and more countries bind their import tariffs under the WTO and take on other liberalization commitments.[2]

Therefore, in section 8.2 of this chapter, we present data revealing the historic foreign use of antidumping against China's exporters. These measures reveal one contributing explanation for China's desire to seek WTO entry. By using a number of measures across virtually all of the major antidumping users in the WTO system, we find that China's exporters faced substantial discriminatory treatment relative to other exporting country targets during the 1995 to 2001 period. We also introduce a regression approach that exploits variation across China's exported products to examine a previously unexplored potential explanation for this feature of the data—that is, that foreign users were more likely to target China's products that were benefiting from high Chinese import tariffs. The theory is that high-tariff products may have been targeted to assist negotiators extract market access commitments from China. Nevertheless, we find no robust evidence of this relationship in the data.

2. As further motivation on welfare-economic grounds, Gallaway, Blonigen, and Flynn (1999) present evidence from a study of the cumulative effects of U.S.-imposed antidumping that it was the second most costly trade policy program in terms of lost U.S. economic welfare in 1993 at $3 billion, trailing only the Multi-Fiber Arrangement. Thus, despite any given antidumping measure only covering a handful of imported products, the fact that antidumping-using countries do not stop using the policy once they have started and that imposed measures are infrequently revoked once implemented, the cumulative impact of the policy can be substantial for lost economic welfare.

We also examine WTO member use of antidumping against China since its WTO accession to assess whether there is any associated *change* to the pattern of discrimination it has faced. As we also explore in section 8.3, any change in the use of antidumping against China by WTO members must be viewed in light of the potential for members to substitute alternative policy instruments—such as transitional "China safeguards," other safeguards, countervailing and antisubsidy measures, as well as other import restrictions. Nevertheless, as a preview to our results, while there are certainly new pressures put on foreign policymakers since 2002 that we are unable to formally control for—generated by the combination of China's expanding exports and the fact that policymakers can no longer funnel discrimination against China into their "normal" application of tariffs—there is evidence from antidumping and other new China-specific forms of contingent protection that policymakers are *increasing* discrimination against China's exporters under these particular provisions.

The next set of questions we explore concerns China's own import market access liberalization commitments associated with its WTO accession. An important question facing all countries that have undertaken substantive, new market access commitments is whether they are subsequently able to live up to them, despite the political-economic pressure imposed by domestic, import-competing firms that call for the imposition of new trade restrictions. To examine this issue, we examine data on China's own new and growing use of antidumping as well as other import-restricting measures. In the period since its accession, China has become one of the five most frequent users of antidumping in the WTO system. We describe the composition of sectors and foreign countries that are the targets of China's increasingly important antidumping use, as well as potential explanations for these targets. Finally, in a formal regression analysis, we focus on a subsample of China's antidumping activity and search for evidence of a relationship between the size and timing of China's own import-market liberalization and its subsequent use of antidumping to reimpose trade restrictions. For products within the chemicals sector—the dominant industrial user of antidumping within China—we find economically significant evidence that the larger was the accession year (2001–2002) tariff reduction, the greater is the probability that the product subsequently sought new protection from imports via antidumping during the immediate post-accession period.

Finally, in section 8.5 of this chapter, we examine data on how China has been learning to manage trade frictions through the formal, multilateral auspices of WTO dispute settlement proceedings. The data indicates that, despite predictions based on its share of global trade and diversity of trading partners that might have led to expectations that China would be a frequent litigant in WTO disputes, such activity did not materialize in the first five years after its accession. Instead, China has stood on the sideline of other countries' disputes learning about the process in anticipation. Nevertheless,

a flurry of disputes initiated between 2006 and 2008 as well as other related policy changes and external shocks indicates that China's role in future WTO dispute settlement may be substantially altered going forward.

8.2 Foreign Use of Antidumping against China's Exports

Prior to China's accession to the WTO in 2001, existing members were unconstrained by WTO rules for how to treat imports from China. That is, while WTO members are expected to afford one another most-favored-nation (MFN) treatment for the application of tariffs, members were nevertheless not required to offer such treatment to nonmembers like China. Nevertheless, some countries did offer Chinese exports reasonable access to their markets—either through voluntary MFN treatment or sometimes even preferential treatment through programs such as the Generalized System of Preferences.[3]

Despite not being bound by WTO rules with how to treat imports from China—meaning that a country could simply unilaterally raise tariff rates applied against imports from China prior to its 2001 accession without being in violation of any multilateral rules—a number of countries nevertheless chose to limit China's exports by resorting to policies of administered protection. In this section, we examine how a number of WTO members treated imports from China under the most common form of administered import protection—antidumping.

We begin this section by documenting the growing use of antidumping across the WTO membership over time. We then examine antidumping use from the perspective of China's exporters—focusing on which trading partners have been using it and against which Chinese export industries it has been used. We then compare the use of antidumping against China to the use of antidumping against other frequently targeted exporting countries to illustrate the discriminatory nature of the policy, and we examine whether there is evidence that how Chinese exporters were treated under the policy prior to its WTO accession has subsequently changed. Finally, we provide a more formal regression analysis into the question of whether antidumping use against China's exports prior to its 2001 accession might be understood as the WTO membership strategically targeting Chinese industries with high import tariffs, perhaps to increase the depth of China's own import market access liberalization commitments.

8.2.1 Antidumping Proliferation across the WTO Membership

Antidumping use has proliferated across the WTO membership over the last twenty years. According to WTO (2007a,c), forty-two different WTO

3. For example, the United States Congress voted on a year-to-year basis during the 1990s, after floor debates over a number of issues including its humanitarian record, on whether to continue to grant China MFN status.

Table 8.1 **Use of antidumping by World Trade Organization (WTO) members, 1995–2001 and 2002–2006**

	New antidumping investigations		New antidumping measures imposed	
Country	1995–2001	2002–2006	1995–2001	2002–2006
	"Historical" developed economy users			
Australia	139	34	41	30
Canada	102	35	67	17
European Union	246	96	161	70
United States	256	82	165	74
Share of total	0.39	0.29	0.40	0.22
	"New" developing country users			
Argentina	165	40	95	57
Brazil	96	30	51	15
India	252	124	152	179
Mexico	49	33	51	31
South Africa	156	40	93	27
Turkey	35	56	22	85
Share of total	0.40	0.39	0.43	0.46
China	20	83	0	92
Share of total	0.01	0.10	0.00	0.11
Other WTO members	377	186	187	179
Share of total	0.20	0.22	0.17	0.21
Total	1,893	839	1,085	856

Source: Data for the initiations and measures used in this table compiled by the author from WTO (2007a,c).

Note: "New antidumping measures imposed" implies measures imposed that year (i.e., not necessarily measures from investigations that started in that year). This explains why there were more measures imposed over the 2002–2006 period (856) than there were new investigations initiated during that period (839).

members initiated antidumping investigations during the 1995 to 2006 period, while thirty-eight of those countries imposed at least one import restriction under their domestic antidumping laws. The import-restricting policy has gone from one used primarily by four "historical users" (United States, European Union [EU], Canada, and Australia) in the 1980s, to a trade policy instrument used by an increasing share of the WTO membership, including a number of developing countries (Prusa 2001; Zanardi 2004).

Table 8.1 breaks down country-level antidumping using two rough measures (new investigations and new measures imposed) during two subperiods of the WTO era (1995–2001 and 2002–2006) around the date of China's WTO accession. As the table reveals, roughly 80 percent of all new anti-

dumping investigations and measures imposed during the 1995 to 2001 period was the work of only ten countries—the previously mentioned four "historical" developed-economy users, and six "new" developing-country users (Argentina, Brazil, India, Mexico, South Africa, and Turkey).[4] It is worth noting the continued importance of these particular ten countries because they serve as the focus of our empirical analysis of antidumping use vis-à-vis China described below. We focus on these countries' use of the import-restricting policy because we have detailed data on it from an independent source that allows us to pursue questions that could not be addressed by assessing what countries report to the WTO alone.[5]

While table 8.1 suggests that the *developed* economies have reduced their relative use of antidumping over the period since China's accession, the combined efforts of these ten countries continue to dominate global use of the policy. Together, they contributed 83 percent of the new investigations and 68 percent of the new measures imposed even as the total antidumping use by WTO members continues to grow, especially with the emergence of China itself as a major new user (10 percent of investigations, 11 percent of new measures imposed by all WTO members) between 2002 and 2006.

8.2.2 Which Countries Use Antidumping to Restrict Imports from China?

Next we switch perspectives from the users of antidumping to its primary target—exporting firms from China.[6] Figure 8.1 illustrates that the most frequent users of antidumping overall (the ten countries from table 8.1) are also the countries most frequently targeting China with antidumping. By 2001, these ten countries were initiating roughly sixty new investigations of dumping by Chinese exporters per year. Since 1999, the number of new investigations against Chinese exports from the four historical developed-economy users of antidumping (United States, EU, Canada, and Austra-

4. For a survey of the research literature on antidumping, see Blonigen and Prusa (2003). As Zanardi (2004) reports, each of the "new user" countries had implemented antidumping legislation prior to the WTO's inception: South Africa (1914), Argentina (1972), India (1985), Mexico (1986), Brazil (1987), and Turkey (1989). Nevertheless, the "historical" users (United States, EU, Canada, and Australia) were the dominant users of antidumping throughout the 1980s; the new users did not begin intensively using antidumping to restrict imports until they undertook their substantial trade liberalization programs of the late 1980s or early 1990s. As we discuss in substantial detail below, China began its use of antidumping in 1997.

5. While data reported in WTO (2007a,c) are the most up-to-date information available regarding notification of investigations and notification that countries are imposing measures, the data suffer from a number of flaws that prevent them from being useful for detailed analysis. For example, the two columns of data for the 2002 to 2006 period of table 8.1 should not be misinterpreted as yielding information on the share of investigations during that period that resulted in measures being imposed. Countries are also not required to report to the WTO the Harmonized System (HS) product codes of the imports facing antidumping activity as well as a number of other pieces of important information for empirical analysis. The data appendix describes the features of the *Global Antidumping Database* (Bown 2007), which contains the detailed data that we rely on for most of the empirical analysis.

6. For prior studies of China as target on different samples of data, see Messerlin (2004) and Liu and Vandenbussche (2002).

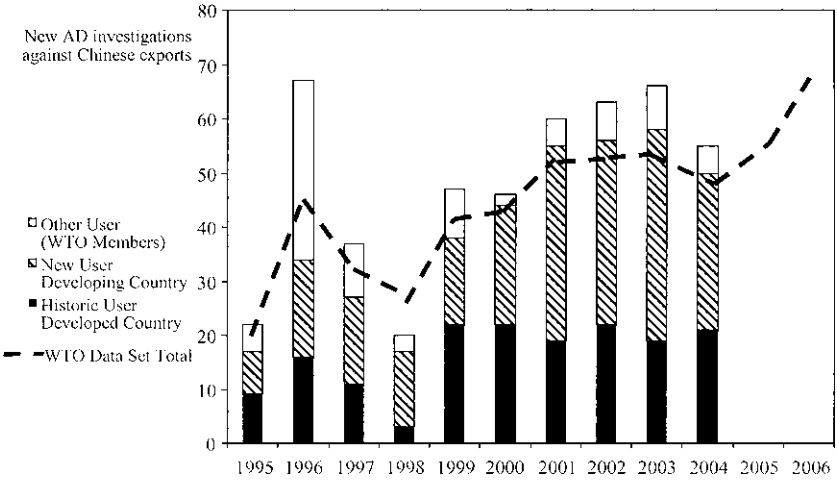

Fig. 8.1 WTO member new antidumping investigations against Chinese exports, 1995–2006

Sources: Data in the bars are compiled from Bown (2007) and are only available through 2004. Aggregate data on total investigations against China's exporters by year from an alternative data source (WTO 2007b) are represented by the dotted line.

Notes: "Historic User" includes the four developed economies of United States, EU, Canada, and Australia; "New User" includes the six developing economies of Argentina, Brazil, India, Mexico, South Africa, and Turkey. "Other User" is all other WTO members, including Taiwan (even prior to its WTO accession). The 1996 "Other User" surge is due to twenty-nine initiations by Peru against China's textile and footwear products.

lia) has leveled off at roughly twenty per year. On the other hand, with the exception of a slight drop in 2004, there has been an upward trend in the number of new investigations per year by the new-user developing-country group—starting from a low of eight new cases in 1995 to thirty or more new cases against China per year in the 2001 to 2004 period.

A comparison of this aggregated data of antidumping use against China during its pre-accession (1995–2001) versus post-accession (2002–2006) period provides our first indicator that there is no prima facie evidence that WTO membership has thus far limited the incidence of China exporter's facing new investigations of dumping behavior. In section 8.2.4, we examine other features of the data underlying country-specific use of antidumping to focus on this question in more depth.

8.2.3 Which Chinese Export Sectors Are Targeted by Antidumping?

Figures 8.2 and 8.3 examine foreign antidumping use against China's exports over the 1995 to 2004 period via examination of the sectors that are most frequently targeted.

Consider first figure 8.2, which examines the combined data for the historical, developed-economy users of antidumping—the United States, EU,

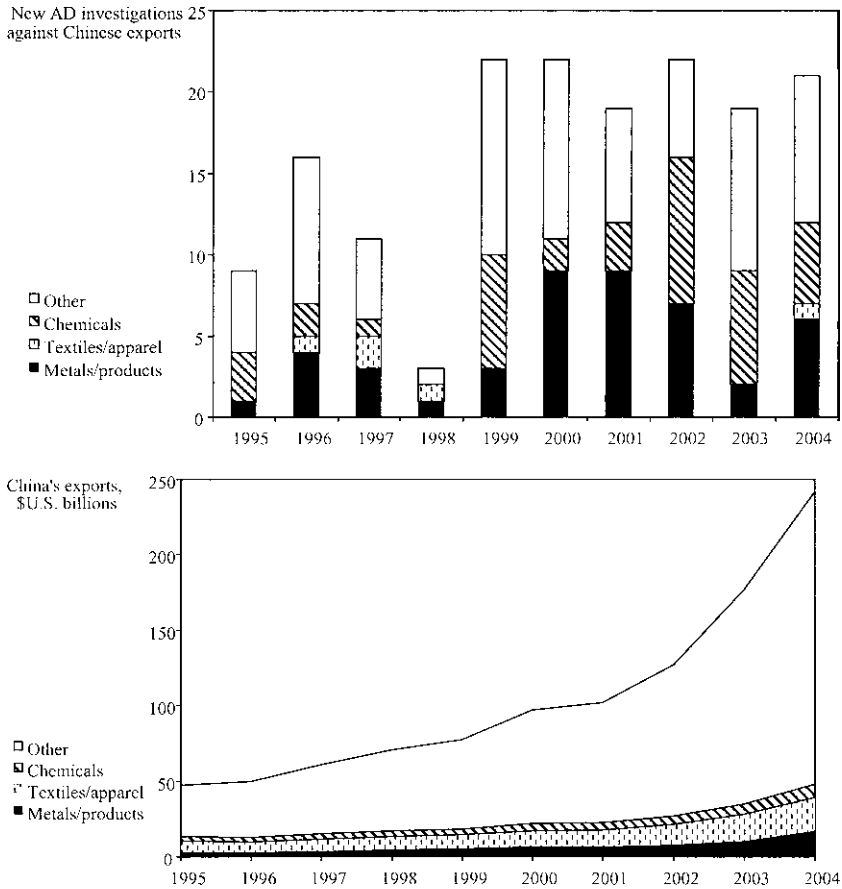

Fig. 8.2 Antidumping by four "Historic User" developed countries by export sector, 1995–2004: *A,* New antidumping investigations against Chinese exports; *B,* Chinese exports to Historical User countries by sector

Sources: Antidumping data compiled from Bown (2007); HS system export data are from Comtrade.

Notes: "Historic User" includes the United States, EU, Canada, and Australia; "New User" is Argentina, Brazil, India, Mexico, South Africa, and Turkey. "Metals/products" are HS chapters 72–83, "Textiles/apparel" are 50–63, "Chemicals" are 28–38.

Canada and Australia. Panel A of figure 8.2 presents the data for the use of antidumping by sector, while panel B of figure 8.2 presents the information on these sectors' shares of Chinese exports to these four markets during the time period. A substantial share of the investigations targeting Chinese products have been in the steel and industrial chemicals categories, which are the traditional sectoral users of antidumping across using countries. Prior to 2004, Chinese textile and apparel exports were not yet a substan-

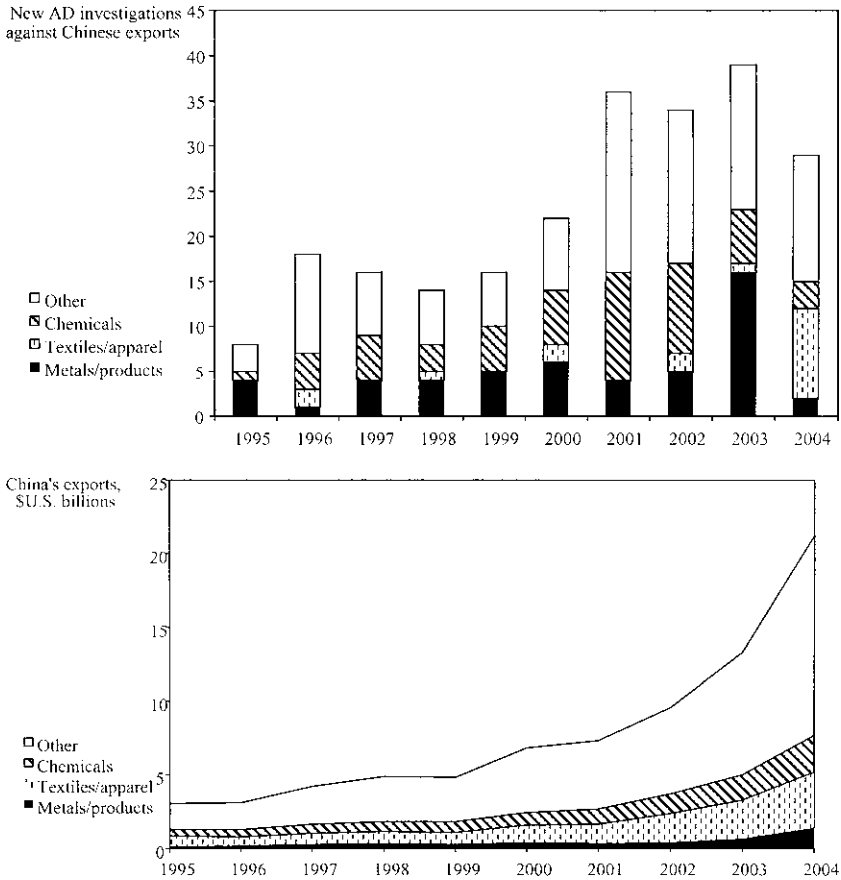

Fig. 8.3 Antidumping by six "New User" developing countries by export sector, 1995–2004: *A,* New antidumping investigations against Chinese exports; *B,* Chinese exports to New User countries by sector

Sources: Antidumping data compiled from Bown (2007); HS system export data are from Comtrade.

Notes: "New User" is Argentina, Brazil, India, Mexico, South Africa, and Turkey. "Metals/products" are HS chapters 72–83, "Textiles/apparel" are 50–63, "Chemicals" are 28–38.

tial target of developed-economy antidumping—for the most part because these user countries were able to limit imports through other trade policy instruments such as the WTO Agreement on Textiles and Clothing, which contained its own transitional safeguard provision during the phase-out of the Multi-Fiber Arrangement. Furthermore, as we discuss in more detail in section 8.3, WTO members need not resort to antidumping to limit imports of Chinese textile and apparel products given that the terms of China's 2001 WTO accession provide a transitional textile and apparel product safeguard

policy instrument that can be used until 2008. Furthermore, while imports of textile and apparel products from China have risen in these countries during this time period, their share of China's total exports to these economies is in decline as China diversifies its export basket.

Figure 8.3 illustrates the developing country "new user" targeting of Chinese products by sector. How developing countries have targeted China with antidumping appears quite similar to the developed economies' use of antidumping during this time period. Antidumping use against China is also dominated by the steel and industrial chemicals industries in these developing countries, and Chinese exports in these industries are relatively stagnant (as a share of total Chinese exports to these markets) over this time period. Nevertheless, there has been a recent increase in the share of antidumping cases in textile and apparel products—as some countries have shifted toward the antidumping policy instrument to protect these sectors—as well as other industries, of which other manufacturing products are also frequently targeted. As panel B of figure 8.3 indicates, antidumping is increasing at the same time that these developing countries' imports from China in these categories have also been increasing dramatically.

8.2.4 How Do Antidumping-User Countries Treat China Relative to *Other* Exporters?

Examining China as an antidumping target in isolation is a limiting exercise for a number of reasons. The first is because as a discretionary trade policy, antidumping has the distinguishing feature that user countries can vary the extent to which their particular application *discriminates* among targeted trading partners. In this section, we examine how China as an antidumping target compares to *other* countries targeted by antidumping. Tables 8.2 and 8.3 provide summary data on how major users of antidumping treat China in terms of various discretionary elements that affect the scope of each user's discrimination.

Consider table 8.2, where we examine first the United States' use of antidumping over the 1995 to 2001 period vis-à-vis its most targeted trading partners. By cutting the data in a variety of ways, the evidence clearly indicates that while the policy could be applied in a relatively nondiscriminatory manner, the United States exhibited considerable discrimination vis-à-vis China during this time period. China is the most frequently investigated foreign target of U.S. antidumping, facing 13 percent of all investigations. It was the largest target despite being only the fifth largest exporter overall to the U.S. market during the 1995 to 2001 period with 8 percent of the U.S. import market (final column), trailing Canada, the EU, Japan, and Mexico. Second, 68 percent of the U.S. investigations that Chinese exporters faced resulted in the imposition of a final antidumping measure—a rate that is much higher than the average of 53 percent across all investigated countries. Third, despite an incentive for antidumping authorities to seek to name

Table 8.2 **Historical user antidumping (AD) against China, 1995–2001 and 2002–2004, by AD-imposing country**

	Exporting country target	Antidumping investigations[a]	Investigations resulting in measures[b]	Only country named in investigation[b]	Mean margin conditional on measures imposed (%)	Share of AD-imposing country import market[c]
			United States			
1995–2001	1 China	31 (0.13)	21 (0.68)	13 (0.42)	131.77	0.08 (5)
	2 Japan	24 (0.10)	16 (0.67)	7 (0.29)	65.23	0.13 (3)
	3 EU	24 (0.10)	12 (0.50)	5 (0.21)	18.07	0.19 (2)
	4 Korea	19 (0.08)	9 (0.47)	2 (0.11)	17.73	0.03 (7)
	5 Taiwan	16 (0.07)	10 (0.63)	2 (0.13)	12.55	0.03 (6)
	All other	124 (0.52)	57 (0.46)	18 (0.15)	68.62	0.54
	Total	238 (1.00)	125 (0.53)	47 (0.20)	66.16	1.00
2002–2004	1 China	25 (0.26)	19 (0.76)	13 (0.52)	148.38	0.13 (3)
	2 India	9 (0.09)	3 (0.33)	2 (0.22)	40.43	0.01 (14)
	3 EU	8 (0.08)	2 (0.25)	0 (0.00)	15.09	0.19 (1)
	4 Japan	6 (0.06)	2 (0.33)	3 (0.50)	91.29	0.09 (5)
	5 South	5 (0.05)	0 (0.00)	3 (0.60)	.	0.00 (27)
	All other	43 (0.45)	16 (0.37)	8 (0.19)	36.10	0.58
	Total	96 (1.00)	42 (0.44)	29 (0.30)	88.83	1.00
			European Union			
1995–2001	1 China	36 (0.14)	19 (0.53)	16 (0.44)	59.52	0.06 (4)
	2 India	24 (0.10)	15 (0.63)	6 (0.25)	52.88	0.01 (20)
	3 Korea	21 (0.08)	9 (0.43)	6 (0.29)	27.51	0.02 (9)
	4 Thailand	14 (0.06)	10 (0.71)	1 (0.07)	33.83	0.01 (21)
	5 Taiwan	13 (0.05)	8 (0.62)	6 (0.46)	26.15	0.03 (7)
	All other	142 (0.57)	91 (0.64)	13 (0.09)	40.80	0.87
	Total	250 (1.00)	152 (0.61)	48 (0.19)	42.40	1.00

(*continued*)

Table 8.2 (contunued)

	Exporting country target	Antidumping investigations[a]	Investigations resulting in measures[b]	Only country named in investigation[b]	Mean margin conditional on measures imposed (%)	Share of AD-imposing country import market[c]
2002–2004	1 China	16 (0.28)	15 (0.94)	10 (0.63)	61.99	0.10 (2)
	2 Russia	6 (0.11)	3 (0.50)	1 (0.17)	30.70	0.05 (5)
	3 Vietnam	4 (0.07)	2 (0.50)	1 (0.25)	7.70	0.00 (40)
	4 U.S.	3 (0.05)	2 (0.67)	2 (0.67)	98.50	0.16 (1)
	5 Norway	3 (0.05)	2 (0.67)	2 (0.67)	31.25	0.04 (6)
	All other	25 (0.44)	11 (0.44)	4 (0.16)	23.59	0.64
	Total	57 (1.00)	35 (0.61)	20 (0.35)	43.18	1.00
			Australia			
1995–2001	1 EU	23 (0.18)	4 (0.17)	11 (0.48)		0.23 (1)
	2 Indonesia	14 (0.11)	2 (0.14)	5 (0.36)		0.03 (10)
	3 China	13 (0.10)	2 (0.15)	7 (0.54)		0.07 (4)
	4 Korea	11 (0.09)	5 (0.45)	2 (0.18)		0.04 (6)
	5 Thailand	9 (0.07)	5 (0.56)	3 (0.33)		0.02 (11)
	All other	55 (0.44)	18 (0.33)	11 (0.20)		0.62
	Total	125 (1.00)	36 (0.29)	39 (0.31)		1.00
2002–2004	1 EU	6 (0.24)	2 (0.33)	3 (0.50)		0.23 (1)
	2 Korea	5 (0.20)	4 (0.80)	2 (0.40)		0.04 (7)
	3 China	4 (0.16)	3 (0.75)	2 (0.50)		0.11 (4)
	4 Canada	2 (0.08)	1 (0.50)	2 (1.00)		0.01 (13)
	5 Thailand	2 (0.08)	1 (0.50)	0 (0.00)		0.03 (10)
	All other	6 (0.24)	4 (0.67)	0 (0.00)		0.57
	Total	25 (1.00)	15 (0.60)	9 (0.36)		1.00

			Canada			
1995–2001	1 EU	11 (0.12)	5 (0.45)	3 (0.27)	45.90	0.10 (2)
	2 U.S.	10 (0.11)	7 (0.70)	8 (0.80)	42.80	0.67 (1)
	3 China	10 (0.11)	6 (0.60)	5 (0.50)	45.17	0.03 (5)
	4 Brazil	5 (0.06)	3 (0.60)	1 (0.20)	28.00	0.00 (11)
	5 Taiwan	5 (0.06)	3 (0.60)	0 (0.00)	49.90	0.01 (6)
	All other	49 (0.54)	31 (0.63)	3 (0.06)	35.76	0.17
	Total	90 (1.00)	55 (0.61)	20 (0.22)	39.12	1.00
2002–2004	1 China	7 (0.26)	5 (0.71)	3 (0.43)	49.96	0.06 (3)
	2 Taiwan	3 (0.11)	1 (0.33)	0 (0.00)	68.94	0.01 (8)
	3 Korea	2 (0.07)	2 (1.00)	0 (0.00)	135.00	0.02 (6)
	4 U.S.	2 (0.07)	1 (0.50)	1 (0.50)	165.00	0.61 (1)
	5 Mexico	1 (0.04)	1 (1.00)	0 (0.00)	98.00	0.04 (5)
	All other	12 (0.44)	6 (0.50)	0 (0.00)	76.18	0.26
	Total	27 (1.00)	16 (0.59)	4 (0.15)	81.80	1.00

Sources: Antidumping data compiled from Bown (2007). Harmonized System import data from Comtrade.

Notes: European Union (EU) import data is extra-EU imports only. For consistency, this table only allows for one "EU" entry for each product-specific investigation, hence total number of investigations and imposed measures may differ from table 8.1 due to aggregation of EU member cases per investigation.

[a]Numbers in parentheses are share of total.

[b]Numbers in parentheses are share of target country's investigations.

[c]Numbers in parentheses are rankings.

Table 8.3 **New user antidumping (AD) against China, 1995–2001 and 2002–2004, by AD-imposing country**

	Exporting country target	Antidumping investigations[a]	Investigations resulting in measures[b]	Only country named in investigation[b]	Share of AD-imposing country import market[c]
			Argentina		
1995–2001	1 China	32 (0.21)	28 (0.88)	22 (0.69)	0.04 (5)
	2 Brazil	30 (0.20)	20 (0.67)	17 (0.57)	0.23 (2)
	3 EU	19 (0.13)	9 (0.47)	10 (0.53)	0.27 (1)
	4 Taiwan	9 (0.06)	9 (1.00)	0 (0.00)	0.01 (11)
	5 South Africa	9 (0.06)	5 (0.56)	1 (0.11)	0.00 (23)
	All other	50 (0.34)	35 (0.70)	18 (0.36)	0.44
	Total	149 (1.00)	106 (0.71)	68 (0.46)	1.00
2002–2004	1 China	6 (0.22)	5 (0.83)	6 (1.00)	0.05 (4)
	2 Brazil	3 (0.11)	2 (0.67)	2 (0.67)	0.33 (1)
	3 U.S.	2 (0.07)	2 (1.00)	0 (0.00)	0.17 (3)
	4 Korea	2 (0.07)	2 (1.00)	0 (0.00)	0.01 (10)
	5 Mexico	2 (0.07)	2 (1.00)	0 (0.00)	0.03 (7)
	All other	12 (0.44)	9 (0.75)	3 (0.25)	0.42
	Total	27 (1.00)	22 (0.81)	11 (0.41)	1.00
			Brazil		
1995–2001	1 China	15 (0.16)	12 (0.80)	14 (0.93)	0.02 (7)
	2 EU	13 (0.14)	8 (0.62)	3 (0.23)	0.27 (1)
	3 U.S.	13 (0.14)	6 (0.46)	5 (0.38)	0.23 (2)
	4 South Africa	4 (0.04)	3 (0.75)	1 (0.25)	0.00 (25)
	5 Mexico	3 (0.03)	3 (1.00)	0 (0.00)	0.02 (12)
	All other	45 (0.48)	22 (0.49)	10 (0.22)	0.45
	Total	93 (1.00)	54 (0.58)	33 (0.35)	1.00

2002–2003	1 China	9 (0.28)	6 (0.67)	8 (0.89)	0.05 (4)
	2 India	5 (0.16)	4 (0.80)	2 (0.40)	0.01 (17)
	3 EU	5 (0.16)	3 (0.60)	2 (0.40)	0.25 (1)
	4 U.S.	5 (0.16)	1 (0.20)	2 (0.40)	0.20 (2)
	5 Romania	1 (0.03)	1 (1.00)	1 (1.00)	0.00 (73)
	All other	7 (0.22)	4 (0.57)	0 (0.00)	0.49
	Total	32 (1.00)	19 (0.59)	15 (0.47)	1.00
			India		
1995–2001	1 China	41 (0.18)	38 (0.93)	24 (0.59)	0.03 (9)
	2 EU	33 (0.15)	26 (0.79)	6 (0.18)	0.23 (1)
	3 Taiwan	17 (0.08)	14 (0.82)	2 (0.12)	0.01 (20)
	4 Korea	16 (0.07)	14 (0.88)	2 (0.13)	0.02 (14)
	5 Japan	16 (0.07)	13 (0.81)	2 (0.13)	0.05 (5)
	All other	102 (0.45)	87 (0.85)	8 (0.08)	0.66
	Total	225 (1.00)	192 (0.85)	44 (0.20)	1.00
2002–2004	1 China	25 (0.20)	22 (0.88)	12 (0.48)	0.05 (4)
	2 EU	13 (0.11)	9 (0.69)	2 (0.15)	0.18 (2)
	3 Taiwan	11 (0.09)	8 (0.73)	1 (0.09)	0.01 (17)
	4 Korea	9 (0.07)	7 (0.78)	1 (0.11)	0.03 (6)
	5 Singapore	8 (0.07)	5 (0.63)	0 (0.00)	0.02 (11)
	All other	56 (0.46)	34 (0.61)	5 (0.09)	0.70
	Total	122 (1.00)	85 (0.70)	21 (0.17)	1.00
			Mexico		
1995–2001	1 U.S.	14 (0.30)	11 (0.79)	13 (0.93)	0.73 (1)
	2 China	6 (0.13)	5 (0.83)	5 (0.83)	0.02 (6)
	3 EU	5 (0.11)	2 (0.40)	4 (0.80)	0.09 (2)
	4 Russia	4 (0.09)	3 (0.75)	0 (0.00)	0.00 (31)
	5 Taiwan	3 (0.07)	3 (1.00)	2 (0.67)	0.01 (7)
	All other	14 (0.30)	10 (0.71)	8 (0.57)	0.15
	Total	46 (1.00)	34 (0.74)	32 (0.70)	1.00

(*continued*)

Table 8.3 (continued)

	Exporting country target	Antidumping investigations[a]	Investigations resulting in measures[b]	Only country named in investigation[b]	Share of AD-imposing country import market[c]
2002–2003	1 China	6 (0.25)	6 (1.00)	6 (1.00)	0.06 (3)
	2 U.S.	6 (0.25)	5 (0.83)	6 (1.00)	0.60 (1)
	3 Russia	2 (0.08)	2 (1.00)	1 (0.50)	0.00 (27)
	4 Ukraine	2 (0.08)	2 (1.00)	1 (0.50)	0.00 (33)
	5 Romania	2 (0.08)	2 (1.00)	0 (0.00)	0.00 (54)
	All other	6 (0.25)	3 (0.50)	3 (0.50)	0.34
	Total	24 (1.00)	20 (0.83)	17 (0.71)	1.00
			South Africa		
1995–2001	1 EU	24 (0.18)	14 (0.58)	12 (0.50)	0.43 (1)
	2 India	18 (0.13)	13 (0.72)	10 (0.56)	0.01 (15)
	3 China	15 (0.11)	13 (0.87)	2 (0.13)	0.04 (5)
	4 Korea	11 (0.08)	11 (1.00)	3 (0.27)	0.02 (10)
	5 Hong Kong	7 (0.05)	6 (0.86)	0 (0.00)	0.01 (12)
	All other	61 (0.45)	36 (0.59)	5 (0.08)	0.50
	Total	136 (1.00)	93 (0.68)	32 (0.24)	1.00
2002–2004	1 China	5 (0.28)	1 (0.20)	1 (0.20)	0.07 (4)
	2 Taiwan	3 (0.17)	0 (0.00)	0 (0.00)	0.02 (10)
	3 Indonesia	2 (0.11)	1 (0.50)	2 (1.00)	0.01 (21)
	4 EU	2 (0.11)	0 (0.00)	2 (1.00)	0.41 (1)
	5 India	2 (0.11)	0 (0.00)	2 (1.00)	0.01 (12)
	All other	4 (0.22)	3 (0.75)	2 (0.50)	0.49
	Total	18 (1.00)	5 (0.28)	9 (0.50)	1.00

			Turkey		
1995–2001	1 China	9 (0.29)	8 (0.89)	6 (0.67)	0.02 (8)
	2 Korea	4 (0.13)	4 (1.00)	1 (0.25)	0.02 (6)
	3 Taiwan	3 (0.10)	3 (1.00)	1 (0.33)	0.01 (15)
	4 EU	2 (0.06)	1 (0.50)	0 (0.00)	0.50 (1)
	5 Thailand	2 (0.06)	1 (0.50)	0 (0.00)	0.00 (29)
	All other	11 (0.35)	8 (0.73)	0 (0.00)	0.44
	Total	31 (1.00)	25 (0.81)	8 (0.26)	1.00
2002–2004	1 China	35 (0.52)	32 (0.91)	27 (0.77)	0.04 (5)
	2 Taiwan	8 (0.12)	7 (0.88)	0 (0.00)	0.01 (15)
	3 Thailand	6 (0.09)	5 (0.83)	0 (0.00)	0.00 (28)
	4 India	5 (0.07)	4 (0.80)	0 (0.00)	0.01 (16)
	5 Vietnam	4 (0.06)	4 (1.00)	0 (0.00)	0.00 (56)
	All other	9 (0.13)	6 (0.67)	2 (0.22)	0.93
	Total	67 (1.00)	58 (0.87)	29 (0.43)	1.00

Sources: Antidumping data compiled from Bown (2007). Harmonized System import data from Comtrade.

Notes: For consistency, this table only allows for one European Union ("EU") entry for each product-specific investigation, hence total number of investigations and imposed measures may differ from table 8.1 due to aggregation of European Union (EU) member cases per investigation. Brazil and Mexico only contain detailed information on antidumping investigations completed through 2003.

[a]Numbers in parentheses are share of total.

[b]Numbers in parentheses are share of target country's investigations.

[c]Numbers in parentheses are rankings.

exporters from additional countries in investigations, China was the *only* country named in 42 percent of the investigations that its exporters faced, while the average across all cases was 20 percent.[7] Finally, in the investigations that resulted in final antidumping measures being imposed, the average antidumping duty facing exporters from China was 131.77 percent—almost twice as high as the average facing all exporters.[8] These combined features of the data for the U.S. use of antidumping indicate that, in practice, antidumping in the United States has resulted in discriminatory treatment of imports from China relative to other source countries during the 1995 to 2001 period.[9]

While these results are neither the only, nor perhaps a fundamental motivating force behind China's seeking WTO accession, the data does suggest a potential expected benefit associated with China's full membership in the organization—less discriminatory treatment in export markets relative to other foreign competitors. One potential benefit of China's accession could be to reign in foreign use of antidumping against China's exporters so that they received tariff treatment that was closer to that provided by a strict application of the WTO's MFN principle.

As we explore with greater rigor in a regression analysis described in section 8.2.5, there are a number of potential contributing factors behind the decision to target China during its pre-accession period. For example, one potential explanation is that WTO members used antidumping as a policy

7. The option to "cumulate" imports from multiple countries in the injury investigation potentially increases the probability of an affirmative injury decision (Hansen and Prusa 1996) as well as heading off a potential increase in imports from exporting countries not named in the investigation.

8. Note that this chapter does not pursue an empirical investigation into the interesting follow-up question of *how*—legally and administratively—countries "get away with" discriminating against China via application of higher antidumping duties than those that face other foreign suppliers. First, WTO members differ in when they have agreed to reclassify China as a market economy as opposed to a non-market economy (NME). For example, under the terms of the 1999 U.S.-China bilateral agreement, the U.S. is authorized to continue using the unfavorable NME designation to evaluate Chinese dumping until 2014. Non-market economy status grants antidumping investigators the discretion to designate surrogate countries to be used to estimate measures of Chinese firms' costs. Second, Chinese firms may be less likely to represent themselves in the U.S. antidumping process, which can result in investigators using the best information available (BIA) practices. Both NME and BIA affect the construction of the normal value measure from which to compare the export price in the U.S. market. For an analysis of administrative procedures in the U.S. antidumping process that influence the differential between China and other antidumping-targeted countries, as well as how these dumping margins may be changing over time, see Blonigen (2006). See also the discussion in Moore (2006) and Moore and Fox (forthcoming)

9. There are additional potentially discriminatory elements of the antidumping policy that we do not capture in the tables. First, because antidumping is also a foreign-*firm*-specific trade policy, the instrument can be used to discriminate across firms within a country. The data reported in tables 8.2 and 8.3 are the average margin imposed against all firms within that country. Second, firms across countries may differ in their likelihood of receiving offers of the preferable outcome of "price undertakings," relative to facing the imposition of duties. Third, foreign targets may also be treated systematically different in sunset or administrative reviews of antidumping, affecting when a measure that has been imposed is *removed.*

to complement their negotiations strategy in order to extract more import market accession concessions from China as part of the accession. Under the assumption that this was a determinant of antidumping use prior to its accession, an important follow-up question is whether there is evidence that the United States has *changed* its treatment of China under antidumping after 2001 and there is nothing more to extract from China in terms of commitments associated with its WTO accession.

The second panel of rows in table 8.2 illustrates characteristics of U.S. antidumping use between 2002 to 2004, which is the most recent time period since China's 2001 accession for which comprehensive data is available across countries. Note that there is no evidence from this table that the United States has lessened its discriminatory treatment of China via the antidumping policy relative to the pre-accession period. Over 26 percent of all U.S. investigations during 2002 to 2004 targeted China, up from 13 percent in 1995 to 2001. The U.S. imposed import restrictions in 76 percent of the cases in which China was investigated, up from 68 percent in 1995 to 2001. Furthermore, China was the only country named in 52 percent of the cases in which it was investigated (up from 42 percent in 1995 to 2001), and it faced a conditional mean duty of 148.38 percent (up from 131.77 percent in 1995 to 2001). There is thus no evidence from this data that China's WTO membership beginning at the end of 2001 has had a disciplining effect on the U.S. use of antidumping vis-à-vis its exports.[10]

The other three sets of panels in table 8.2 extend the analysis of cross-country use of antidumping by breaking down the data in a similar fashion for the three other developed-economy users (EU, Canada, Australia) and examining the discriminatory application of their antidumping vis-à-vis China. While these users do not appear to discriminate between China and other targeted exporters along each of the same indicators and to quite the same degree as the United States did between 1995 and 2001, there is nevertheless substantial evidence of significant differential treatment facing China's exporters and other major targets of antidumping. Next, with respect to whether WTO accession has curtailed these countries from targeting China with antidumping cases, we conclude that there is also no evidence of this effect. There is some evidence of a general downward trend in the collective use of antidumping by the EU, Australia, and Canada during the 2002 to 2004 time period. Nevertheless, while the overall use of antidumping by these countries may have declined, an increasing share of these countries' total caseload continues to target China with new investigations: in the EU, 28 percent of all cases targeted China (up from 14 percent in 1995 to 2001),

10. This is not necessarily surprising for reasons we discuss in section 8.5. Because of the self-enforcing nature of WTO dispute settlement and the fact that until 2008 China did not begin the attempt to formally enforce its market access rights—by challenging U.S. use of antidumping, for example.

in Australia it was 16 percent (up from 10 percent in 1995 to 2001), and in Canada it was 26 percent (up from 11 percent in 1995 to 2001).

Table 8.3 presents a similar breakdown of the data for the six major *developing* country "new users" of antidumping (Argentina, Brazil, India, Mexico, South Africa, Turkey). Evidence from these users also indicates a distinct pattern of a discriminatory application of the policy vis-à-vis China.[11] Furthermore, the discriminatory application appears to be intensifying in the period since China's WTO accession—China is the most targeted foreign country in all six of these new users over the 2002 to 2004 period, despite being no larger than the third largest foreign supplier to any of these markets. One interpretation of this change is that it appears that many of these developing countries are more than simply concerned with the implications of preference erosion associated with China's WTO accession (and receipt of MFN treatment) and having to compete on equal terms with Chinese exporters in foreign markets. Many industries in these developing countries are also concerned for their domestic markets and have increasingly sought new import restrictions to prevent Chinese exports entering their markets as well.

While we have found no evidence that the severity of discrimination facing China's exporters under foreign use of antidumping has improved relative to China's pre-WTO accession period, we cannot make the bolder claim that the WTO accession has not had any impact on its use. As the last column in each country panel in tables 8.2 and 8.3 indicates, China's export share in each of these economies' import markets has also increased during this time period. Ceteris paribus, an export increase means more products to potentially target with antidumping. Furthermore, there are real reasons to expect countries to undertake more discrimination vis-à-vis China within the antidumping trade policy instrument for the post-accession (when compared to the 1995–2001) period. Prior to 2001, if a foreign government felt domestic political pressure to discriminate vis-à-vis imports from China, it may have been able to do so by raising tariffs directly. Now that China is a member of the WTO, in the face of China's booming exports, a WTO member that seeks to legally discriminate against Chinese exports must now funnel that discrimination into a WTO-consistent policy instrument or face risk of a trade dispute. Raising trade barriers against China alone via antidumping protection is one such mechanism—we explore other substitute import-restricting instruments (safeguards, countervailing measures) in the next section. An alternative way to implicitly discriminate against China relative to other foreign producers in a WTO consistent manner is to find a legal way to grant the non-Chinese producers preferential access—examples

11. We do not provide summary data on the average size of the measure imposed by the developing countries as it would be nontrivial to construct. Unlike the developed-economy users, developing countries are less likely to impose antidumping in the form of simple ad valorem duties and are more likely to impose them as specific duties (denominated in import or export currencies), price undertakings, or other combinations thereof.

would include offering unilateral preferences if the exporters are in developing countries under the Generalized System of Preferences (GSP) or by forming a preferential trade agreement on a reciprocal basis.[12]

8.2.5 Did Pre-Accession Antidumping against China Target Its High Tariffs?

Unlike many other exporting countries that were also subject to antidumping trade restrictions imposed during the 1995 to 2001 period, China stands out for one other reason: it was simultaneously negotiating the terms of its own accession into the WTO. Thus, one question to explore is whether a contributing explanation for the discriminatory application of antidumping during the 1995 to 2001 period (illustrated in tables 8.2 and 8.3) is that existing WTO members were using the policy to complement pressure being placed on China to liberalize import markets under accession negotiations. We investigate this question by asking whether Chinese goods that benefited from higher import tariff protection were more likely to be targeted with foreign antidumping investigations, once we control for other product-level differences. Evidence of such a relationship would be consistent with a more charitable interpretation of the discriminatory application of antidumping—that is, that that foreign trading partners were strategically using antidumping to attempt to increase the tariff liberalization commitments that China was willing to undertake under the terms of its 2001 WTO accession.[13]

We formalize this inquiry by estimating a model of the determinants of a foreign antidumping investigation over a Chinese export product i each year during the 1995 to 2001 period.[14] We construct an unbalanced panel for $t = 1995, \ldots, 2001$ of yearly Chinese exports of 4,589 different six-digit Harmonized System (HS) products i to an aggregated, rest-of-the-world trading partner called "Foreign."[15] For our baseline estimates, Foreign will

12. For a discussion of examples of U.S. preferential trade agreements negotiated between 2002 and 2005 with exporting countries that compete with Chinese exporters in important product categories like textiles and apparel, see Bown and McCulloch (2007).

13. The argument is that, in the presence of a foreign antidumping law, China implicitly assists its exporters by liberalizing its imports of the same product. Foreign countries are more likely to use antidumping against China's exports if China's imports are protected by high tariffs because it is easier for foreign competitors to show evidence that Chinese firms "dumped" their exports if those firms are protected by high tariffs at home. A protected home market faces less competition (from imports), resulting in higher domestic prices and, thus, higher dumping margins when less than fair value determinations are constructed from price-to-price comparisons. For a discussion in the case of China, see Messerlin (2004).

14. Using indicators or counts of measures imposed instead of investigations is likely to give similar results, given the results of tables 8.2 and 8.3. Furthermore, evidence dating back to Staiger and Wolak (1994) indicates that even a mere antidumping investigation can have a destructive effect on a country's exports, even if no trade-restricting measures are ultimately imposed, suggesting that investigations are an important indicator with which to begin.

15. The panel is unbalanced because we condition on there being nonzero exports of the product in that year for there to be an observation.

be the combination of fifteen antidumping-using countries—the ten major users listed in table 8.1 in addition to less frequent users such as Colombia, Indonesia, Korea, New Zealand, and Taiwan.[16]

We formally estimate this relationship after controlling for a number of other factors and by using two types of models. The first model is a binomial probit in which the dependent variable is an indicator for whether *any* one of the fifteen countries initiated an antidumping investigation against Chinese exports of the product in year t. The second model is a negative binomial regression model in which the dependent variable is the *count* of the number of antidumping investigations that the fifteen countries cumulatively undertook against Chinese exports of the product in year t.[17] Our explanatory variable of interest is China's pre-accession MFN applied tariff for product i—evidence of a positive relationship between the size of the Chinese import tariff and the event of foreign antidumping investigations against Chinese exports would support the theory that China's high tariffs were a contributing determinant to which of its products were being targeted with antidumping.

There are, of course, a number of other determinants of foreign-country antidumping activity against China's exports that we seek to control for in the estimation. For example, we expect a *positive* relationship between antidumping use in year t and two explanatory variables: the size of China's exports of the product (given by the aggregated value of China's exports of the product to "Foreign" in $t-1$) as well as the level of recent growth of those exports (given by the growth of the aggregated value of China's exports of the product between $t-2$ and $t-1$). We also control for whether there has been recent prior antidumping activity in the same product against China's exports with an indicator that takes on a value of 1 if the same product was subject to an investigation in either $t-2$ or $t-1$. Next, we use year dummies to control for year-to-year macroeconomic shocks in indicators such as exchange rates and exchange rates, which Knetter and Prusa (2003) have shown affect aggregate filings across countries via the business cycle. Finally, as there are certain industries that are simply more frequent users of antidumping across countries, we include industry dummies in the estimation as well.[18] The industry dummies should also help control for the influence of

16. In the aggregate, these fifteen countries received slightly less than 50 percent of China's exports during this time period. This percentage is not larger primarily because the list of fifteen countries omits two of China's top four export destination markets in Hong Kong (24.0 percent of exports in 1997) and Japan (17.4 percent of exports in 1997), neither of which used antidumping against any exporter with any frequency during this time period.

17. A closely related framework is Knetter and Prusa (2003), which examines determinants of antidumping-using countries' aggregate yearly filings over time. In contrast, we examine determinants of filing against different products within a single country over time.

18. The industry definitions that we use can be found in the data appendix. There are a number of potential reasons why certain industries—such as steel and chemicals—are frequent targets of antidumping across all using countries. For example, the nature of evidence required

political-economic elements that we do not control for separately because we are using a "Foreign" aggregate.

Table 8.4 presents our estimates of the binomial probit and negative binomial regression models. The models relate potential determinants of an aggregated "Foreign" that potentially initiates new antidumping investigations against a Chinese exported product i over $t = 1995, \ldots, 2001$. Consider first the estimates of the marginal effects of the binomial probit model reported in column (1). The signs of the estimated effects are broadly consistent with the underlying theory. As for the control variables, China's larger export product categories are more likely to be investigated than export products with lesser value. The greater is the recent export growth of the product, the more likely it is to be targeted as well, though this effect is not statistically significant. Products that were targets in the recent past ($t-2$ or $t-1$) are also more likely to be targeted in t. This relationship holds even after we control for industry-level effects that indicate it is more likely that products in industries such as chemicals, textiles and apparel, footwear, metals, and transportation equipment are all more likely than the omitted industry category (other miscellaneous products) to be investigated.

Nevertheless, the key variable of interest is the effect of China's pre-accession import tariff rate on the probability that that export product is subject to a foreign antidumping investigation. In column (1), the estimate of 0.015 is positive and statistically significant, which provides preliminary evidence in support of the underlying theory that export products with higher import tariffs face a higher probability of being targeted with a foreign antidumping investigation. The economic effect implied by the estimate is also sizable. The model's predicted probability that an average Chinese export product is investigated with an antidumping case in a given year is 0.0084. The mean applied tariff in the underlying data was 0.241 (i.e., 24.1 percent), so a 10 percentage point increase in this variable above the average (to 0.341) increases the predicted probability of an investigation to 0.01.

Despite preliminary evidence of higher tariff products being more likely to be targeted with foreign antidumping, as a simple robustness check, we reestimate the binomial probit model on the same sample of 1995 to 2001 data except we redefine the "Foreign" aggregate of Chinese trading partners to only include the four developed economy historical users of antidumping—the United States, EU, Canada, and Australia. A number of reasons motivate construction of such a sensitivity analysis. First, these four economies are relatively large destination markets for China's exports, thus also provide much of the variation of the key control variables. Second, the four developed economies were among the major *demandeurs* during China's

in antidumping laws may make it biased toward use by cyclical, capital-intensive industries with high fixed costs. On the other hand, the highly concentrated nature of these industries may make it easier for antidumping to be used in a cross-industry retaliatory manner to facilitate internationally collusive outcomes.

Table 8.4 **Determinants of Foreign antidumping (AD) investigations across China's exported products**

Explanatory variables [expected sign]	Binomial probit model[a]		Negative binomial regression model[b]	
	Foreign is aggregate of 15 AD-using countries (1)	*Foreign* is aggregate of U.S., EU, Canada, or Australia only (2)	*Foreign* is aggregate of 15 AD-using countries (3)	*Foreign* is aggregate of U.S., EU, Canada, or Australia only (4)
Size [+]	0.021***	0.008***	5.036***	3.462***
(value of Chinese exports of *i* to *Foreign* in *t* – 1 [$U.S.][c])	(0.004)	(0.002)	(4.92)	(2.85)
China's pre-accession tariff rate [+]	0.015***	–0.001	1.012***	0.991
(1996 MFN applied tariff rate[d] over *i*)	(0.004)	(0.002)	(3.35)	(1.32)
Prior AD target [+]	0.053***	0.089***	6.432***	18.537***
(indicator for Chinese exports of *i* facing prior *Foreign* AD investigation in *t* – 1 or *t* – 2)	(0.007)	(0.016)	(15.06)	(17.07)
Recent export growth [+]	0.001	0.000*	1.063	1.094**
(% difference between *t* – 1 and *t* – 2 value of Chinese exports of *i* to *Foreign*)	(0.000)	(0.000)	(1.49)	(2.29)
Chemicals	0.007*	0.001	1.827**	1.266
	(0.004)	(0.002)	(2.20)	(0.52)
Textiles and apparel	0.007**	0.000	2.089***	1.082
	(0.003)	(0.001)	(3.04)	(0.17)
Footwear	0.010*	0.019*	2.162**	6.339***
	(0.007)	(0.010)	(2.04)	(3.51)
Metals	0.040***	0.015***	6.144*	6.485***
	(0.009)	(0.006)	(1.85)	(4.54)

Transportation equipment	0.010*	0.003	2.074**	1.865
	(0.007)	(0.004)	(1.97)	(0.99)
Other industries[e]	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes
No. of observations	28,265	28,264	28,265	28,264
Pseudo R^2	0.14	0.23	0.13	0.23
Predicted probability (at means)	0.0084	0.0024		

Notes: Sample is an unbalanced panel of 4,589 6-digit Harmonized System products *i* China exported to the aggregated "Foreign" between $t = 1995, \ldots, 2001$. The fifteen AD-using countries of "Foreign" in columns (1) and (3) are Argentina, Australia, Brazil, Canada, Colombia, the European Union (EU), India, Indonesia, Korea, Mexico, New Zealand, South Africa, Taiwan, Turkey, and the United States. Estimates for the probit model are transformed into marginal effects, with robust standard errors in parentheses. Estimates for the negative binomial model are transformed into incidence rate ratios, with *t*-statistics in parentheses. MFN = most-favored nation.

[a]Dependent variable is indicator for whether Foreign initiated any new antidumping investigations over *i* in *t*.

[b]Dependent variable is count of new Foreign antidumping investigations over *i* in *t*.

[c]Rescaled by $1 billion.

[d]Rescaled by 100 (i.e., so 25% = 0.25) in the probit regression.

[e]Other industry category estimates available upon request. The omitted industry category is "Miscellaneous products" (Harmonized System Chapters 90–97).

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

WTO accession negotiations. Finally, these are the countries with historical "experience" in using antidumping. Thus, these four countries were the most likely (of any of the antidumping users) to have the ability to manipulate use of antidumping away from capture of domestic industry and toward its use for strategic purposes during China's pre-accession negotiations. Nevertheless, as the estimates in specification (2) indicate, when we estimate the model on these four countries' use of antidumping against China, the positive and significant impact of the China pre-accession tariff disappears.

Columns (3) and (4) of table 8.4 present additional robustness checks on these two sets of results. These specifications use the same explanatory variables and underlying samples of data as columns (1) and (2); in them, we simply redefine the dependent variable as the *counts* of antidumping investigations (as opposed to a 0/1 indicator) facing product *i* in year *t*, and we estimate this relationship via a negative binomial regression model.[19] The estimates presented are the model coefficients transformed into incidence rate ratios (IRRs), which are more straightforward to interpret. In specification (3), which is estimated on the sample of cumulated exports to and antidumping investigations by 15 antidumping-using countries, the estimated IRR for the pre-accession applied tariff is greater than 1 and statistically significant at 1.012. The IRR estimate implies that a one unit increase in the applied tariff (from 24.1 percent to 25.1 percent, as we have rescaled this variable for the negative binomial specifications) increases the count of yearly investigations in that product by 1.2 percent. Nevertheless, in specification (4), when we redefine the "Foreign" aggregate in the sample to only include cumulated exports to and antidumping use by the United States, EU, Canada, and Australia, the positive impact of the pre-accession tariff disappears. In fact, because the estimated IRR of 0.991 is less than 1, the estimated impact of a higher pre-accession tariff is to *reduce* the number of antidumping investigations in the developed economy users, though this effect is not statistically significant.

Therefore, we conclude that there is no robust evidence that pre-accession use of antidumping against China was driven by strategic considerations. To the extent that there was, on average, a propensity for Chinese exports of products with higher (Chinese) pre-accession import tariffs to be the target of foreign antidumping, the antidumping over such products was initiated by the *developing* country users. It was unlikely that these countries were targeting such products with the strategic purpose of influencing China's

19. For a discussion of the negative binomial regression model, see Greene (2000, 880–91). Of the 28,265 product-year observations in the 1995 to 2001 sample, there were 455 nonzero entries. While the count variable could range between zero and fifteen in principal (the number of antidumping-imposing countries in the sample), the maximum was three, and only twenty-three products faced investigations in two different countries in the same year. Thus, there is little additional variation to be gained in using the negative binomial regression model relative to the binomial probit.

tariff liberalization commitments under its WTO accession negotiations. An alternative explanation is that the positive correlation simply reflects a common political economy pressure facing makers of the same product in China and these other developing countries. It is simply that the political pressure was manifest in different policy instruments—the political pressure from import-competing firms within the other developing countries led them to pursue import protection via new antidumping against China's exports, while the political pressure from import-competing firms within China led them to pursue import protection via higher applied tariffs. This would also make sense because China did not have an active antidumping policy in place during most of this time period.

8.3 Trade Policy Substitution? Other WTO-Consistent Policies to Restrict Imports from China

One expected benefit to China from WTO accession was that access to a rules-based system with potential enforcement through effective dispute-settlement provisions would lead to nondiscriminatory treatment for its exporters as trading partners would be required to abide by the agreement's MFN principle of equal tariff treatment. An additional potential benefit to accession might be to help reign in foreign use of antidumping against China's exports, as well as perhaps reducing the discriminatory nature of its application. The data presented in the last section indicates little evidence through 2004 that this has been the case. Nevertheless, it is important to recognize that *even if* WTO members had applied a less discriminatory antidumping policy against China's exports since 2001, an important question is whether there were simply other potentially substitutable import-restricting policies that members had been using to manage China's export growth instead.

This section examines WTO member use of a number of other trade policy instruments to assess the likelihood of such trade policy substitution: the transitional product-specific China safeguard; the WTO's "regular" safeguard policy; other negotiated safeguard-like trade restrictions such as the reemergence of "grey-area" measures and "voluntary" export restraints (VERs) that were banned by the WTO in prior contexts; and, finally, countervailing measures under "antisubsidy" policies. The resort to such policies in addition to antidumping has arisen as WTO members are now otherwise required to offer Chinese exporters MFN treatment through their tariff schedules.

8.3.1 The Transitional Product-Specific China Safeguard

A unique feature of China's 2001 WTO accession is establishment of a "Transitional Product-Specific Safeguard Mechanism" (section 16, WTO 2001), which any WTO importing country can use against China's exports

until 2014.[20] As described in Bown and Crowley (2007a), many characteristics of this new "China safeguard" are at odds with core WTO principles and established instruments of administered import protection available to members.[21] The most radical change introduced by the new China safeguard is the weakened evidentiary criterion—even relative to antidumping—that members must satisfy in order to meet WTO legal requirements to impose a new barrier to Chinese trade. Not only is the threshold domestic injury requirement lower than that required under the "regular" WTO safeguard, but a clause in this new safeguard allows a second country to justify its own imposition of a new import restriction after a first country has implemented a China-safeguard on the basis of a "trade deflection" threat alone, without having to carry out its own injury investigation.[22]

What countries are using the China safeguard to restrict imports from China, and what sectors are being targeted? Table 8.5 provides information on twenty-one China-safeguard investigations that WTO members have initiated since China's 2001 accession. As of data reported to the WTO by June 2007, seven recent cases had been resolved with the imposition of new trade restrictions, eight of the investigations concluded with no new measures imposed, and a number of others are still either unresolved or have been resolved without notification to the WTO.[23] The products under investigation have some overlap with the sectors that typically dominate antidumping investigations (steel and chemicals), though there is also use to restrict

20. The question of how to accommodate the accession of a substantial new member such as China into the General Agreement on Tariffs and Trade (GATT)/WTO system is not new, as Japan's 1955 entry into the GATT raised similar concerns. A 1987 GATT working party pointed out that, despite the desire at the time for some existing members to introduce a new Japan-specific safeguard:

> Japan became a contracting party in September 1955 without any new general safeguard clause being added to the General Agreement. Some [13 out of 34] contracting parties invoked Article XXXV ["Non-Application of the Agreement between Specific Contracting Parties"] on Japan's accession. In a number of cases, Japan negotiated bilateral trade agreements containing special safeguard clauses which were followed by the countries concerned disinvoking Article XXXV. (GATT 1987, 2).

21. First, the allowance of a China-specific trade restriction on imports of fairly traded goods is otherwise inconsistent with MFN treatment. Second, the use of the new China safeguard also does not require the policy-imposing country to immediately compensate China for withdrawing trade concessions which weakens the commitment to the WTO's reciprocity principle as well.

22. See Bown and Crowley (2007a) and the discussion of Article 16.8 of China's accession terms (WTO 2001). See also the discussion in Messerlin (2004) and Andersen and Lau (2002). Bown and Crowley (2007b) provide evidence of trade deflection in the context of Japanese exports being targeted with discriminatory import restrictions. See also Durling and Prusa (2006) for evidence of trade deflection in the hot-rolled steel market.

23. Interestingly, in at least five of the cases in the table that did not result in new measures (four for the United States, one for Canada) the domestic administering authority in charge of the domestic injury/market disruption investigation found evidence in favor of new measures and recommended that a new China safeguard import restriction be applied. Despite this recommendation, the final policy decision in each case was not to apply measures.

Table 8.5 **World Trade Organization (WTO) members' transitional product China safeguard investigations, 2002–2006**

Investigating country	Product	Year of investigation	Outcome of investigation
1. United States	Pedestal actuators	2002	No measure imposed[a]
2. United States	Steel wire garment hangers	2002	No measure imposed[a]
3. India	Industrial sewing machine needles	2002	Unresolved[b]
4. Peru	Textile products and clothing	2003	Definitive safeguard as specific duty
5. United States	Brake drums and rotors	2003	No measure imposed
6. United States	Ductile iron waterworks fittings	2003	No measure imposed[a]
7. Poland	Footwear	2004	No measure imposed
8. United States	Uncovered innerspring units	2004	No measure imposed
9. Canada	Barbeques	2005	No measure imposed[a]
10. Colombia	Certain textile products	2005	Definitive safeguard as ad valorem duty
11. Colombia	Stockings and hosiery	2005	Definitive safeguard as ad valorem duty
12. Colombia	Made-up textile products	2005	Preliminary safeguard as ad valorem duty (definitive safeguard decision unresolved)
13. United States	Circular welded non-alloy steel pipe	2005	No measure imposed[a]
14. India	Industrial sewing machine needles	2005	Unresolved[b]
15. Colombia	Made-up textile products	2006	Unresolved
16. Ecuador	Textile products	2006	Unresolved
17. Ecuador	Taps, cocks, and valves for domestic use	2006	Unresolved
18. Turkey	Float glass	2006	Definitive safeguard as quantitative restriction
19. Turkey	Polyvinyl chloride (PVC)	2006	Definitive safeguard as specific duty
20. Turkey	Porcelain tiles	2006	Definitive safeguard as specific duty
21. Taiwan	Towelling products	2006	Unresolved

Source: Data compiled by the author from reports to the WTO Committee on Safeguards, available at www.wto.org, as well as national government sources.

Notes: Data not inclusive of all textile and apparel safeguard investigations, as China's 2001 WTO accession terms allowed for a separate transitional safeguard that countries can use for such products until 2008 (e.g., see table 8.6).

[a]Indicate cases in which the domestic investigating agency found evidence of injury/market disruption but the country nevertheless decided against imposing measures.

[b]India renotified the WTO Committee on Safeguards of the request for consultations with China in 2005.

footwear and other manufactures. Since the January 2005 expiration of the Multi-Fiber Arrangement (MFA) and transitional Agreement on Textiles and Clothing (ATC), resort to the China safeguard has not surprisingly been dominated by textiles and apparel cases. While most of the countries resorting to the China safeguard are developing countries, some of these countries (e.g., India, Turkey) are also some of the biggest new users of antidumping. At a basic level, there is thus some evidence of substitutability between a country's use of antidumping to target imports from China and use of a China-specific safeguard since 2002, suggesting the data presented in tables 8.2 and 8.3 is understating the true level of trade policy discrimination that China's exports continue to face despite its accession to the WTO.

8.3.2 The Transitional Textiles and Apparel China Safeguard and Related Voluntary Export Restraints

Table 8.5 does not include all transitional China-safeguard measures; certain WTO members have either imposed or threatened to impose additional safeguard restrictions on Chinese exports of textile and apparel products that are not reported there. Such trade restrictions can be justified under a separate transitional product safeguard mechanism and are available for WTO members to restrict imports of such products from China through 2008.[24] One distinguishing feature between the textiles and apparel China safeguard cases that are treated separately from China-safeguard cases involving other products is that there is much less transparency—regarding information over investigations or outcomes—in the former. Moreover, the initiation of safeguard investigation for textile and apparel products and the imposition of trade-restricting measures are frequently not reported to the WTO Committee on Safeguards.[25]

In particular, noticeably absent from table 8.5 are a number of high-profile textile and apparel China-safeguard cases initiated by the United States and the European Union. In the United States, one important way in which this safeguard is distinct is that its injury investigations take place outside of the

24. According to WTO's Trade Policy Review of China (2006, 60, emphasis added):

> Article 242 of China's Working Party Report permits WTO Members to request consultations with China if the Member believes that imports of textiles and apparel products of Chinese origin covered by the ATC [i.e., the 1995–2005 Agreement on Textiles and Clothing] are causing market disruption; during the consultation, China will hold exports of the products in question at a level no greater than 7.5% (6% for wool) above the amount entered during the first 12 months or the most recent 14 months preceding the month in which consultations were requested. The restraints established as a result of these consultations will be effective for a year from the date on which consultations were requested unless otherwise agreed. Members *can not use simultaneously* measures under this provision, and the *transitional product-specific* safeguard measures under Article 16 of China's Protocol of Accession. Article 242 covers a period up to 2008.

25. It is for this reason that table 8.5 does not include all countries' use of the transitional product-specific China safeguard investigations or impositions.

U.S. International Trade Commission's quasi-judicial investigative process that otherwise handles the injury investigations for antidumping, global safeguards, other China safeguards, as well as countervailing duty cases. Instead, the textile and apparel China-safeguard injury investigations are handled internally by the U.S. Department of Commerce's Office of Textile and Apparel (OTEXA). Table 8.6 reports data from OTEXA's Web site on the textile and apparel products for which U.S. producers initiated safeguard investigations and requested import restrictions for 2003 to 2005.

A common resolution to these U.S. and EU textile and apparel investigations is China frequently agreeing to *voluntarily* restrain exports and undertake other grey-area measures—a practice that has been explicitly *discouraged* in other WTO Agreements.[26] For example, shortly after the expiration of the MFA/ATC in January 2005, a surge in textile and apparel imports from China triggered U.S. and EU investigations and led each trading partner to negotiate a settlement with China. In the face of the threat of discriminatory import restrictions in each case, China instead agreed to establish an explicit mechanism to voluntarily restrain export growth in a number of politically sensitive product categories.[27]

8.3.3 The Use of New Trade Restrictions under the WTO Agreement on Safeguards

A third alternative to antidumping that is another WTO-sanctioned trade policy that a member can use to restrict imports from China is a "global safeguard" applied under the rules set out by the WTO Agreement on Safeguards. Admittedly, a fundamental distinction between a global safeguard measure and antidumping (or either of the new "China safeguards," for

26. The VERs were a trade-restricting policy outcome that was frequently used in the 1970s and 1980s, but one which was banned under the WTO's Agreement on Safeguards' Article 11:1(b).

27. The WTO's Trade Policy Review of China (WTO 2006, 60–61) explicitly describes the VER settlements between the EU and China and the United States and China in these investigations as follows:

> On 10 June 2005, China and the European Communities signed a Memorandum of Understanding (MOU), placing export restraints on ten categories of Chinese textiles and clothing exports to the EC until 31 December 2007. The growth rates of these exports would be limited to between 8% and 12.5% per year. As a quid pro quo, the EC agreed to end its ongoing safeguard investigation on these products and to refrain from adopting measures as permitted under Article 242 of China's WTO Working Party Report, in categories not covered by the MOU. . . . .Under the Interim Measures, MOFCOM compiles a "Catalogue of Textiles Products Subject to Interim Export Administration", including exports of textiles and clothing subject to restrictions imposed by countries or regions unilaterally, and textile exports subject to temporary quantitative control under bilateral agreements. For each product listed in the Catalogue, the quota is partly assigned through a bidding system, and partly allocated based on the exporter's share in China's total export value for the previous year in the respective categories. . . . A similar agreement was signed with the United States on 8 November 2005. The restraints on certain categories of textiles and clothing exports from China are effective from 1 January 2006 to 31 December 2008; exports of these products are expected to increase by 8% to 10% in 2006, by 13% in 2007, and 17% in 2008.

Table 8.6 **U.S. textile and apparel safeguard investigations of Chinese exports, 2003–2005**

OTEXA category	Product
	2003 investigations
222	Knit fabric
349/649	Cotton and man-made fiber brassieres
350/650	Cotton and man-made fiber dressing gowns
	2004 investigations
222	Knit fabric
301	Combed cotton yarn
447	Wool trousers
620	Other synthetic filament fabric
338/339	Cotton knit shirts and blouses
340/640	Men's and boys' cotton and man-made fiber shirts not knit
347/348	Cotton trousers
349/649	Brassieres and other body supporting garments
350/650	Dressing gowns and robes
352/652	Cotton and man-made fiber underwear
638/639	Man-made fiber knit shirts and blouses
647/648	Man-made fiber trousers
	2005 investigations
226	Cheeseclothes, batistes, lawns/voiles
301	Combed cotton yarn
332/432/632	Cotton wool and man-made fiber socks
338/339	Cotton knit shirts and blouses
340/640	Men's and boy's cotton and man-made fiber woven shirts
341/641	Women's and girls' cotton and man-made fiber woven shirts and blouses
342/642	Cotton and man-made fiber skirts
345/645/646	Cotton and man-made fiber sweaters
347/348	Cotton trousers
349/649	Cotton and man-made fiber brassieres and other body supporting garments
350/650	Dressing gowns and robes
351/651	Cotton and man-made fiber nightwear
352/652	Cotton and man-made fiber underwear
359/659	Cotton and man-made fiber swimwear
363	Cotton terry and other pile towels
369/666	Curtains and drapery
443	Men's and boy's wool suits
619	Polyester filament fabric, light weight
620	Other synthetic filament fabric
634/635	Other men's and boy's man-made fiber coats and women's and girls' man-made fiber coats
638/639	Knit man-made fiber shirts and blouses
647/648	Man-made fiber trousers

Sources: Requests for China Textile Safeguard Action, downloaded from the Office of Textile and Apparel's Web site, http://otexa.ita.doc.gov/safeguard_all.htm, last accessed 29 September 2006.

Note: OTEXA = Office of Textile and Apparel.

that matter) is that the basic WTO conditions require a global safeguard be applied on a nondiscriminatory basis. Nevertheless, there are a number of exceptions to this rule. The result is that countries frequently structure the imposition of new safeguard measures to allow for a discriminatory impact against exporters with certain characteristics, many of which have important potential implications for a country like China.

Discretionary elements of the Agreement on Safeguards allow a safeguard-imposing country to potentially discriminate implicitly against exporters with certain characteristics.[28] First, import-restricting measures are frequently imposed as quantitative restrictions or tariff rate quotas, policies that require government officials to make the secondary choice of a decision rule for how to allocate import licences (and, thus, market share) across many potential exporters. When imposing such policies, the WTO rules suggest that imposing countries allocate licences based on historical market share in a recent three-year period, a decision rule that implicitly discriminates against new entrants. Second, countries that impose a global safeguard are encouraged by an explicit provision to exempt developing countries from the measure, provided those exporters are de minimus suppliers (less than 3 percent of the import market individually, less than 9 percent collectively). Such exemptions obviously discriminate against even developing countries that are non-de minimus suppliers, as they will face trade barriers under the measure that other foreign competitors do not. Finally, many safeguard-imposing countries frequently exempt from the safeguard's application the imports coming in from preferential trade agreement (PTA) partners. This also serves to implicitly discriminate against non-PTA partner foreign suppliers who face an import restriction under the global safeguard that key foreign competitors in other trading partners do not.[29]

Since the WTO's 1995 inception, member countries have imposed over seventy-five new global safeguard trade restrictions, after more than 145 safeguard investigations. Not surprisingly, many of the major users of global safeguards are the major users of antidumping and the China safeguard,

28. Bown and McCulloch (2004) provide a discussion and empirical analysis of the following discriminatory elements in global safeguard cases initiated between 1995 and 2000.

29. This does not even consider examples of global safeguards applied in clear violation of WTO MFN rules, such as the steel safeguard imposed by the United States in 2002. This policy not only exempted entire countries from the trade restriction (e.g., North American Free Trade Agreement [NAFTA] partners Canada and Mexico), it also introduced discriminatory "product exclusions" that the United States Trade Representative (USTR) granted to exporters at the level of a foreign firm-specific product. For a discussion and empirical analysis, see Bown (2004). A typical exclusion might be as narrowly defined as a trademarked product that only one foreign firm could produce legally. For example, see product exclusion N454.01 granted to the United Kingdom firm Somers Forge, Ltd. on 11 June 2002, "Forged alloy steel die blocks of round or rectangular cross section. U.S. Trademark No. 1213781, commonly known as 'VMC' or 'HYTUF'," or exclusion N408.10 granted to the Japanese firm Daido Steel on 22 August 2002, "A specialized, high grade tool steel, known as Daido's proprietary grade NAK 55, that is used for the construction of plastic molds." See the USTR's Web site, "President Bush Takes Action on Steel," http://www.ustr.gov/sectors/industry/steel.shtml, last access date of 29 February 2004.

including a number of other developing countries, and among the major sectoral targets are chemicals and steel/metals.[30] According to data on safeguard outcomes compiled in Bown (2007), roughly half of the safeguard measures have been imposed as either a quantitative restriction or tariff rate quota, both of which require that policymakers make the secondary decision of how to allocate import licenses and, thus, market share. As China is a new entrant in many safeguard-imposing country markets in many of these products that are being targeted, it is likely to receive a reduction in its historical market share when quantitative restrictions are imposed that base licences on historical market shares. Furthermore, virtually all of the global safeguard measures that WTO members have imposed have also carved out explicit country exemptions for certain trading partners—PTA members or de minimus developing-country suppliers. Given that China is not a member of many PTAs and it is a relatively large supplier of many products that are subject to the trade restrictions, it is also likely to suffer discriminatory treatment under these discretionary elements as well.[31] Thus, it is likely that the pattern of trade policy discrimination we detected via member application of antidumping (as well as the China-specific safeguards) has carried over to the application of global safeguard measures as well.

8.3.4 Countervailing Measures and Antisubsidy Policies

A final WTO-sanctioned policy with the potential to result in discriminatory import restrictions is the second major *unfair* trade provision of countervailing duties. The WTO Agreement on Subsidies and Countervailing Measures permits WTO members to impose country-specific import restrictions in the face of evidence of (2) injury to a domestic petitioning industry that has requested an investigation, and (b) receipt of WTO-inconsistent subsidies that have caused the injury.

According to the WTO (2007e), many fewer countries have imposed countervailing measures since 1995 than have imposed antidumping or safeguard measures. Of the seventeen countries that cumulatively imposed 191 different countervailing measures between 1995 and April 2007, the major users were the United States (seventy-five), EU (forty-six), Canada (twenty) and South Africa (eleven). Nevertheless, of the 191 country-specific import-restrictions that were imposed, in only two instances (both by Canada in 2004) was the target China.

30. According to WTO (2007d), between 1995 and April 2007, the WTO members with the most global safeguard measures imposed were India (eight), Turkey (seven), Chile (seven), the United States, (six) and Jordan (six). The most targeted sectors were chemicals (seventeen), prepared foodstuffs (eleven), and steel/metals (ten).

31. Indeed, rather than list the developing countries exempted from the safeguard, many safeguard-imposing countries have resorted to a system in which they exempt all developing countries *except* China plus one or two others. See the safeguard data on country exemptions available in the *Global Antidumping Database* at www.brandeis.edu/~cbown/global_ad/data_files/SG-WTO-v2.1xls.

While China has not historically been a major target of countervailing measures, that may nevertheless be changing. The United States, for example, imposed no definitive countervailing measures on imports from China between 1984 and 2007. This stemmed from a 1984 decision by the U.S. Department of Commerce (upheld by the 1986 *Georgetown Steel* case) which implemented a policy not to consider antisubsidy investigations of exports from nonmarket economies like China and the former Soviet Union. However, in March 2007, the Department of Commerce changed its policy stance on this issue in the context of a countervailing duty (CVD) investigation over coated free sheet paper imports from China, Indonesia, and Korea (Department of Commerce 2007). In this particular case, preliminary CVDs were imposed, though they were revoked without imposition of final duties when the International Trade Commission failed to find injury to the domestic industry in its investigation.

Nevertheless, between the March 2007 policy shift and the end of 2008, U.S. industries had already initiated at least fourteen new CVD investigations against Chinese exporting firms, with at least four of these resulting in the imposition of final duties—in products like steel pipes and tubes, tires, and laminated woven sacks.[32] As the United States is by far the largest current user of countervailing measures in the WTO system, this policy shift and the resulting newly imposed CVDs could signal a fundamental shift that might result in the United States complementing its use of antidumping and China safeguards with substantial resort to this additional policy tool.

8.4 China's Imports and Its Own Use of Antidumping and Safeguards

China implemented and began using its own antidumping law to restrict imports in 1997 prior to its WTO accession (Jung 2002). It initiated its first (and as of December 2008, only) safeguard investigation in 2002 shortly after its accession. Before examining the data relating to China's use administered import-protection policies, we review a number of the main political-economic theories reasons why China may have implemented such legislation a priori and, once it has been implemented, which industries are more likely to seek resort to the measures ex post.

Economists have developed a number of theories behind why a country implements legislation allowing for the reapplication of import restrictions

32. Other Chinese export products facing U.S. CVD investigations in 2007 to 2008 include citric acid and certain citrate salts, kitchen appliance shelving and racks, lightweight thermal paper, raw flexible magnets, sodium nitrite, tow-behind lawn groomers, welded stainless steel pressure pipe, and uncovered innersprings units. See the Department of Commerce Import Administration's Web site "Antidumping and Countervailing Duty Investigations: Jan 01, 2000 to Current," available at http://ia.ita.doc.gov/stats/inv-initiations-2000-current.html, last accessed on 5 December 2008.

after it has agreed to upper limits on its import tariffs (i.e., tariff bindings) through a trade agreement, as China did when it acceded to the WTO in 2001. Hoekman and Kostecki (2001) refer to these as the "escape valve" and "insurance" motives. Bagwell and Staiger (1990), for example, use a repeated-game setting to show that allowing such trade restrictions to be imposed at times of increased trade volumes (when there is a strong terms-of-trade gain motive for a country to impose a new tariff) allows trading partners to sustain lower cooperative tariffs. Once a safeguard or antidumping provision is in place, there is then a substantial body of research examining political-economic explanations for which industries seek and receive protection under its provisions.[33] Until recently, for reasons related to both data availability and the frequency with which the policy was used, research into determinants of use of antidumping and safeguards has focused almost exclusively on historical users such as the United States and EU.

In presenting a first empirically oriented examination of China's own use of antidumping, this section proceeds in two steps. First, much like the approach we took for the other major users of antidumping presented in section 8.2, we characterize the data by focusing first on how China has been using antidumping over time, which exporting sectors and trading partners it has targeted, as well as the discriminatory nature of its use. Then we focus on one particular Chinese import-competing sector's use of antidumping and present a more formal regression approach in which to examine whether there is a relationship between China's post-accession use of antidumping and the pattern and timing of tariff liberalization it took on as part of its WTO accession commitments.

8.4.1 China's Adoption and Use of Import-Restricting Antidumping and Safeguards

Figure 8.4 illustrates China's growing use of antidumping between 1997 and 2005 over time and across sectors. As shown in panel A of figure 8.4, Chinese industries initiated only three investigations in 1997, the year China implemented its antidumping law. However, since 2002, the number of new requests for antidumping import restrictions has grown to between twenty and thirty per year.[34] In a more formal regression framework in the next section, we examine whether there is evidence of a relationship between the post-accession use of antidumping and the level and timing of market

33. Blonigen and Prusa (2003) provide a detailed survey of the political-economic literature on antidumping, while Bown and Crowley (2005) survey the literature on safeguards. Examples of important determinants include (a) the standard political-economy explanations (e.g., Grossman and Helpman 1994; Mayer 1984) for differential provision of import protection across industries, (b) use by industries with imperfectly competitive market structures so as to segment markets internationally, and (c) the potential retaliation threat explanation (e.g., Blonigen and Bown 2003).

34. According to Kennedy (2005), China reformed its 1997 antidumping law in November 2001 to bring it into conformity with WTO obligations.

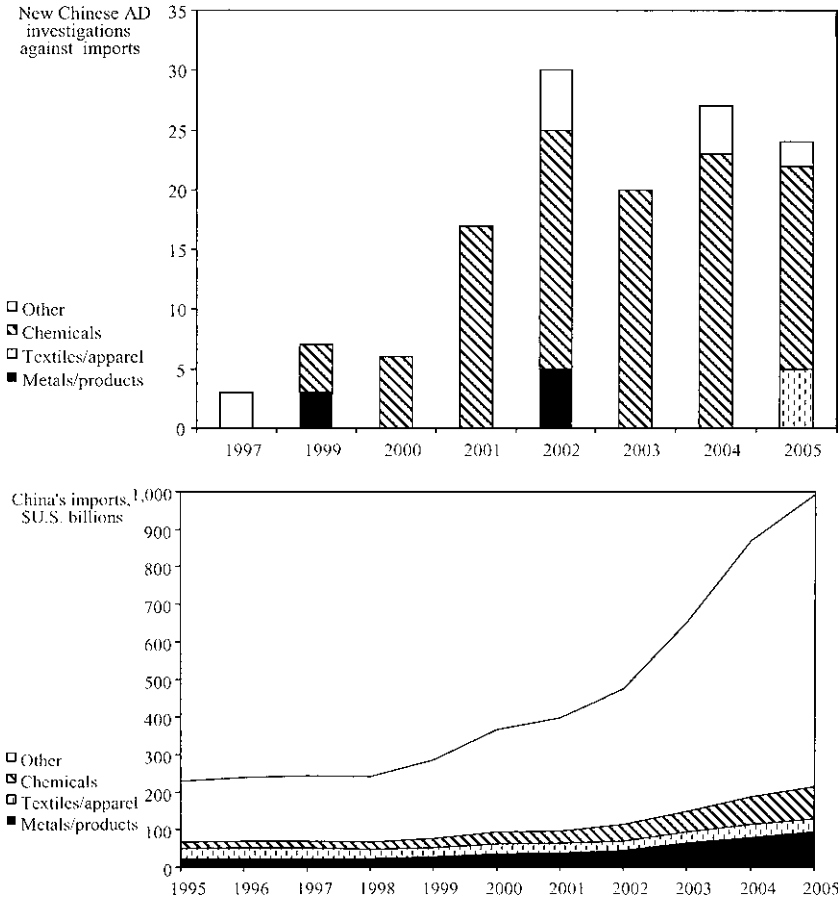

Fig. 8.4 Antidumping by China and imports by sector, 1995–2005: *A,* New Antidumping Investigations against Chinese Imports; *B,* Chinese imports by sector

Sources: Antidumping data compiled from Bown (2007); HS system import data are from Comtrade.

Notes: "Metals/products" are HS chapters 72–83, "Textiles/apparel" are 50–63, "Chemicals" are 28–38.

access commitments that China undertook as part of its 2001 accession to the WTO.

Figure 8.4 also documents the sectoral distribution of China's antidumping investigations, revealing that they have been dominated by the industrial chemicals sector, with only a small fraction of use by the steel, textile and apparel, and other import-competing industries. Panel B of figure 8.4 illustrates the share of these particular industries' imports in China's total imports received over the 1995 to 2005 period. Not surprisingly, there is nothing apparent in the raw trade data that would appear to justify why

these particular Chinese industries have become the predominant users of antidumping within China.

Table 8.7 provides more detail as to the outcomes of the Chinese antidumping investigations across exporting country targets with data broken down by its pre-accession (1997–2001) versus post-accession (2002–2004) use. When we compare this data to similarly broken out data for the other major users of antidumping illustrated in tables 8.2 and 8.3, these data indicate that China may be using antidumping quite differently. Not only are Chinese cases dominated by a particular sector (chemicals, see figure 8.4), but data on the overall caseload of Chinese investigations and outcomes (table 8.7) also indicate that there is much less differentiation or discrimination across targeted exporting countries. Each of the targeted countries is a major source of Chinese imports, and they each lose a similar proportion of investigations so that the result is that their exporters each face new trade restrictions with similar frequency. China also rarely names only one country in an antidumping investigation over an imported product, which is another potential means of discriminating across exporters that other antidumping-using countries have used. Furthermore, unlike many other new users of antidumping, China almost exclusively applies import restrictions as ad valorem duties, and the duties imposed do not appear be radically different across countries either. To summarize the implications of this table—unlike the evidence for other country users in tables 8.2 and 8.3—China applied antidumping in a relatively nondiscriminatory manner during this time period, that is, for China, there is no country that it treats like others treat China.

Next, because so much of the antidumping caseload within China is focused on industrial chemicals, we illustrate in figure 8.5 additional information on the exporting targets involved in these cases. Consistent with the features of its overall nondiscriminatory application of the policy documented in table 8.5, it appears from panels A and B of figure 8.5 that the vast majority of the chemicals industry requests for new antidumping protection target China's major sources for its chemical imports over the 1997 to 2005 period—the United States, EU, Korea, Japan, Russia, and Taiwan.

Finally, we point out that Chinese industries have only pursued one safeguard investigation since the 2001 WTO accession. This occurred during the global steel crisis of 2002 and is associated with a cross-country surge in steel safeguard investigations—led by the United States and followed by at least eight other WTO members. The result of this particular Chinese safeguard investigation was that it followed the U.S. lead and imposed definitive safeguard restrictions on steel imports that lasted between May 2002 and December 2003.[35]

35. According to WTO (2006, 87), China imposed a preliminary safeguard in the form of tariff quotas in May 2002 for 180 days. It then imposed definitive safeguard "on five of the eleven products investigated on 20 November 2002. Although the measures were expected to remain for three years, they were terminated on 26 December 2003."

Table 8.7 China's use of antidumping (AD), 1997–2001 and 2002–2004

Years	Exporting country target	Antidumping investigations[a]	Investigations resulting in measures[b]	Only country named in investigation[b]	Mean margin conditional on measures imposed (%)	Share of China's import market[c]
1997–2001	1 Korea	8 (0.30)	7 (0.88)	3 (0.38)	28.43	0.10 (5)
	2 Japan	4 (0.15)	3 (0.75)	0 (0.00)	31.50	0.20 (1)
	3 U.S.	4 (0.15)	3 (0.75)	0 (0.00)	60.17	0.11 (4)
	4 EU	3 (0.11)	3 (1.00)	0 (0.00)	44.47	0.15 (2)
	5 Russia	2 (0.07)	2 (1.00)	1 (0.50)	22.75	0.03 (7)
	All other	6 (0.22)	4 (0.67)	0 (0.00)	36.38	0.41
	Total	27 (1.00)	22 (0.81)	4 (0.15)	36.29	1.00
2002–2004	1 Japan	16 (0.21)	14 (0.88)	0 (0.00)	70.72	0.19 (1)
	2 Korea	16 (0.21)	13 (0.81)	0 (0.00)	35.92	0.11 (4)
	3 U.S.	14 (0.18)	12 (0.86)	0 (0.00)	67.57	0.09 (5)
	4 EU	8 (0.11)	6 (0.75)	1 (0.13)	75.58	0.13 (2)
	5 Taiwan	7 (0.09)	5 (0.71)	1 (0.14)	28.42	0.13 (3)
	All other	15 (0.20)	13 (0.87)	0 (0.00)	42.94	0.35
	Total	76 (1.00)	63 (0.83)	2 (0.03)	54.34	1.00

Sources: Antidumping data compiled from Bown (2007) and is based on investigations initiated by 2004 for which complete information on the case's resolution is available. Harmonized System import data from Comtrade.

Notes: In some cases, China investigates firms from the European Union (EU), while in other cases it investigates firms from subsets of one or more EU member countries only. For consistency, this table only allows for one "EU" entry for each product-specific investigation. "All other" countries investigated twice include India, Indonesia, Malaysia, Singapore, and Thailand, and "all other" countries investigated once include Canada, Iran, Kazakhstan, Mexico, and Ukraine.

[a]Numbers in parentheses are share of total.

[b]Numbers in parentheses are share of target country's investigations.

[c]Numbers in parentheses are rankings.

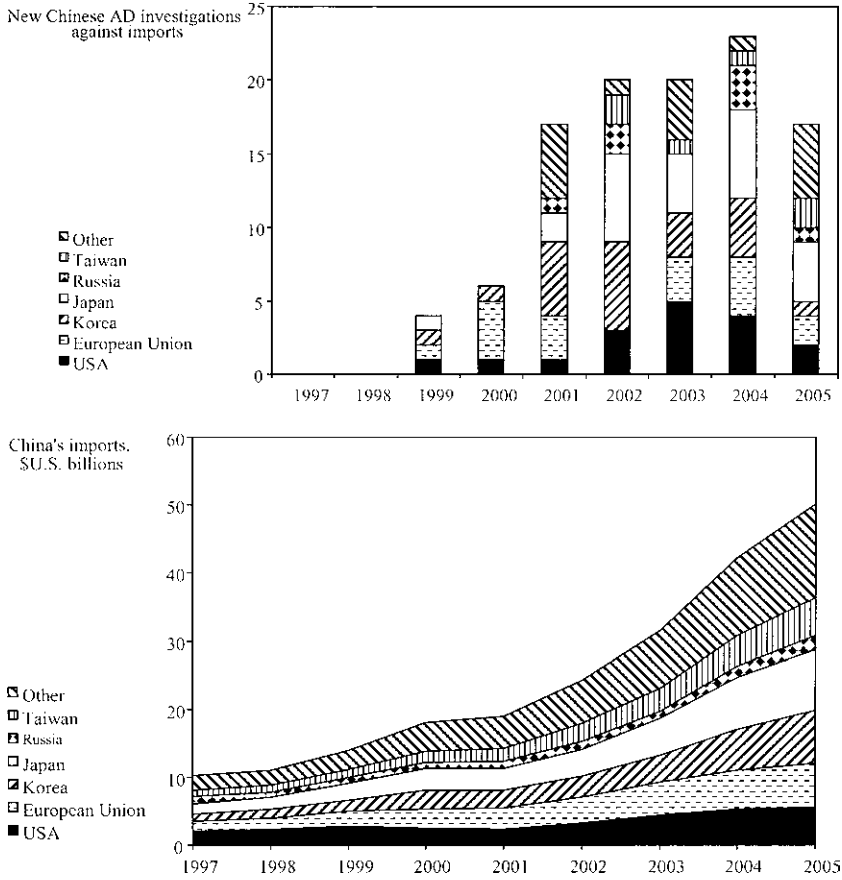

Fig. 8.5 China's chemical industry antidumping use and imports by target country, 1997–2005: *A,* China's chemical industry new antidumping investigations; *B,* China's chemical industry imports

Sources: Antidumping data compiled from Bown (2007); HS system import data are from Comtrade.

Note: "Chemicals" are HS chapters 28–38.

8.4.2 What Explains China's Use of Antidumping?

Given that China's use of antidumping is concentrated almost exclusively in the industrial chemicals sector, there is little to be gained by an attempt to exploit across-industry variation to explain this newly imposed protection. Kennedy (2005, 423) conjectures that chemicals (and steel) are the primary industrial users of antidumping within China for a number of reasons: they are large, concentrated, and state-owned, and they are less involved than

other industries in international production sharing or joint ventures, and they primarily produce for the domestic market. Thus, in this section, we provide a more formal empirical investigation into the potential within-sector determinants of which chemical products sought post-WTO accession protection under China's antidumping law. While such an approach obviously limits our insights to one industry, focusing on the chemicals sector alone does simplify our data collection work in that we will not need to construct measures to control for between-sector differences in political-economic determinants of demands for import protection.

The time series features of figures 8.4 and panel A of figure 8.5 provide anecdotal evidence that there is a surge in industrial-chemical products that sought antidumping protection immediately after China's WTO accession in 2001. In the following, we provide a regression approach in which we examine more formally whether there is a link between the size and timing of the trade liberalization undertaken and the subsequent resort to antidumping protection in this industry.[36] Our approach is to focus on roughly 450 different six-digit industrial chemical products in chapters 28 (Inorganic Chemicals) and 29 (Organic Chemicals) of the Harmonized System (HS) classification system, nineteen of which were produced by Chinese industries that sought protection under antidumping at least once between 2001 and 2005. These chemical products alone formed the basis of nearly 60 percent of all new antidumping investigations initiated by China during the 2001 and 2005 period.[37]

Before turning to the formal regression analysis, consider first figure 8.6, which motivates our approach by plotting over the 1996 to 2005 period the product-level average of two different data series—MFN applied tariff and import values—associated with two different categories of chemical products—those products that sought post-accession antidumping protection versus those that did not. First, both product categories indicate a similar time trend—applied MFN tariff rates are falling over the period, and Chinese imports are increasing dramatically over the period. One apparent difference from the raw data, however, is that products facing antidumping during the 2001 to 2005 period were also those that experienced a sharper

36. Feinberg and Reynolds (2007) present evidence of this relationship on a different sample of data. They examine the 1995 to 2003 period and the link between trade liberalization and the subsequent use of antidumping on a cross-country sample of data at a much higher level of disaggregation—that is, twenty-one different HS section-level heading industries based on WTO-provided antidumping filings data. Our approach exploits more disaggregated data and also focuses only the within-sector, product-level variation within one sector within one country.

37. According to the data collected in Bown (2007), 70 of the 123 Chinese antidumping investigations initiated between 2001 and 2005 (aggregating investigations of firms from different EU-member countries consistently into one EU observation) contained products in chapters 28 or 29 of the HS system.

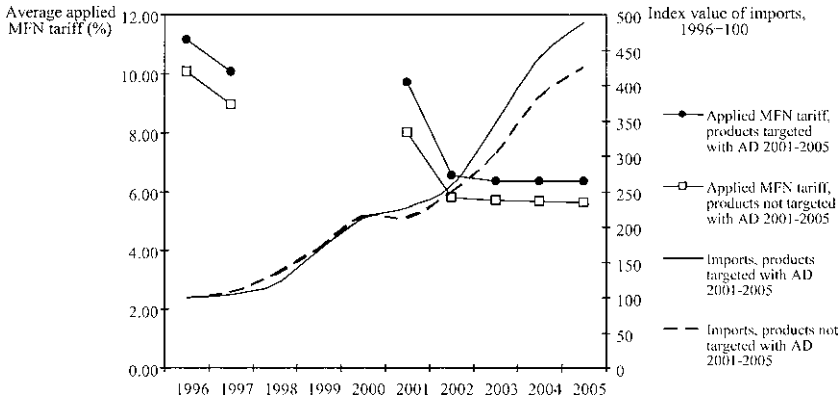

Fig. 8.6 China's tariff liberalization, imports, and antidumping use over chemical products, 1996–2005

Source: Data compiled by the author based on averages from nineteen (432) different six-digit HS products in HS chapters 28 and 29 that China targeted (did not target) with new antidumping investigations over the 2001–2005 period.

reduction in China's applied MFN tariff rate in the accession year of 2001 to 2002. One explanation consistent with this figure is that products that delayed tariff liberalization until 2001 were the products that subsequently felt the pressure to *reimplement* protection in the form of new antidumping import restrictions quickly thereafter.[38]

Table 8.8 provides a more formal econometric analysis of the link between tariff liberalization and subsequent antidumping use. There we report marginal effects estimates of the binomial probit model of determinants of whether each of roughly 450 particular six-digit HS products in the chemical industry sought antidumping protection (= 1) in China during the 2001 to 2005 period.[39] After controlling for the size of imports of the product (0.117), evidence from column (1) indicates that a larger reduction in applied tariffs in 2001 to 2002 is associated with a higher probability of seeking antidumping protection from imports at some point over the subsequent period. The size (–0.017) of the marginal effect is also *economically* significant—

38. A second interesting feature of the data series in figure 8.6 is that imports in products targeted with antidumping appear to be growing more rapidly since 2001. And this is despite the combination of two factors—they face, on average, higher levels of applied MFN tariff rates than products not subsequently targeted with antidumping, *and* many of the products also subsequently faced additional Chinese antidumping import restrictions.

39. By choosing the product as the unit of observation, as opposed to a product-foreign exporter pair, we abstract from potential partner-specific (e.g., retaliatory) considerations that have been shown to affect antidumping use for other countries (e.g., Blonigen and Bown 2003). While this a potential limitation of the current approach, given the evidence from table 8.6 that China appears to apply antidumping is a relatively nondiscriminatory manner, eliminating this potential source of variation may not come at as great a cost as might be the case for other antidumping-user countries.

Table 8.8 **Marginal effects estimates of probit model of China's chemical industry choice to initiate antidumping over an imported product**

Explanatory variables [expected sign]	Dependent variable: Indicator that the 6-digit chemical product faced at least one Chinese antidumping investigation between 2001 and 2005			
	(1)	(2)	(3)	(4)
Size [+]				
(value of Chinese pre-accession imports of the product [$U.S., in 2000][a])	0.117**	0.136**	0.163***	0.162**
	(0.059)	(0.061)	(0.063)	(0.063)
Accession year tariff reduction [–]				
(difference between 2001 MFN applied tariff rate and 2002 MFN applied tariff rate)	–0.017***	–0.023***	–0.022***	–0.023***
	(0.006)	(0.006)	(0.006)	(0.006)
Tariff liberalization commitment [–]				
(difference in 1996 MFN applied tariff rate and 2005 MFN bound tariff rate commitment)		0.008	0.008	0.008
		(0.006)	(0.006)	(0.006)
Post-accession tariff overhang [–]				
(difference between 2005 MFN applied tariff rate and 2005 MFN bound tariff rate commitment)			–0.047*	–0.047*
			(0.027)	(0.027)
Pre-accession import growth [+]				
(% difference between 2000 value of imports and 1996 value of imports)				0.000
				(0.003)
No. of observations	457	457	457	454
Pseudo R^2	0.09	0.11	0.12	0.12
Predicted probability (at means)	0.032	0.030	0.029	0.029

Notes: The unit of observation is 6-digit product in chapter 28 (Inorganic Chemicals) or 29 (Organic Chemicals) of the Harmonized System. *Notes:* Robust standard errors are in parentheses.

[a]Rescaled by $1 billion.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

the implication is that an additional 1 percentage point reduction in the applied MFN tariff leads to an additional 1.7 percentage point increase in the predicted probability of an antidumping investigation when the model is evaluated at the means of the data.[40]

In the remaining columns, we add additional controls as a robustness

40. When evaluated at the means of the data, the model's predicted probability of an investigation is 0.032. Thus, an additional 1 percentage point reduction in the applied MFN tariff (e.g., from the mean reduction of –2.24 percentage points to –3.24 percentage

check on the sensitivity of this result. In column (2), we add a control for the size of the *overall* tariff liberalization commitment the product has to undergo between 1996 (the first year for which we have disaggregated tariff data) and 2005. Perhaps surprisingly, the size of the *overall* tariff reduction commitment undertaken between 1996 and 2005 is negatively related to the decision to seek antidumping protection, though the estimate is not statistically significant.[41] Furthermore, the size of the impact of the accession-year tariff liberalization commitment impact increases to –0.023. Next, in column (3), we also control for the product's post-accession "tariff overhang" defined as the difference between the 2005 applied MFN tariff rate and the 2005 MFN bound tariff rate commitment. The smaller this difference (i.e., the closer is the applied rate to the binding), the higher is the probability that the product seeks additional protection via antidumping, perhaps because it has no other WTO-consistent form to implement additional protection.[42] Finally, in column (5), we control for whether the product experienced a pre-accession surge in imports. While we expect this to be positively related to requests for antidumping protection between 2001 to 2005, there is no evidence of this relationship from this specification. Nevertheless, the sign and estimated size of the coefficients on the other variables of interest remain unchanged.

In summary, there is some evidence from examination of Chinese chemical products—by far the dominant user of antidumping within China during its immediate post-accession period—that there is a relationship between the size of the tariff liberalization undertaken between 2001 and 2002 (the year of its WTO accession) and China's subsequent use of antidumping between 2001 and 2005. In particular, an additional 1 percentage point reduction in the MFN applied tariff rate during 2001 to 2002 is associated with a 1.7 to 2.3 percentage point increase in the probability that a given chemical product seeks an antidumping investigation over the subsequent five year period. This is a large effect given that the predicted probability of the average product seeking antidumping protection during the period is

points) leads to an increase in the predicted probability of an investigation by 1.7 percentage points to 0.049. Note that this tariff reduction is well within 1 standard deviation of the applied tariff reduction in the sample, which is 1.23 percentage points.

41. One explanation for a potential positive estimated effect is that it could instead be picking up the effect of the underlying ability of producers of certain products to organize politically—that is, domestic producers of products unable to maintain (applied MFN) tariff protection over the 1996 to 2005 period (in the face of WTO accession) are also unable to organize politically and convince Chinese government authorities that they should receive special import protection under antidumping. Note finally that, in unreported results, we have ruled out the possibility that this result is driven by collinearity between the 2001 to 2002 tariff change and the broader 1996 to 2005 tariff change.

42. Though statistically significant and consistent with what theory would predict, economically, this effect is quite small as there is actually quite little difference in the underlying data between the applied rates and bound rates (–0.2 percentage points) and that could be a statistical anomaly associated with averaging the actual tariff bindings (made at the eight-digit level) to the six-digit level required for the empirical analysis.

only 2.9 to 3.2 percent. It is also apparent that it may be the timing of the effect that matters, as there is no statistically significant relationship between the probability of a post-accession antidumping investigation and the size of the *overall* trade liberalization commitment made for the 1996 to 2005 time period.

8.5 China in WTO Dispute Settlement

Negotiating a successful accession into the WTO is itself an important achievement. Nevertheless, it does not automatically follow that, upon becoming a member of the organization, an acceding country necessarily receives equal treatment under WTO rules. Furthermore, becoming a member does not by itself imply that the country's own policymakers continue to live up to the trade liberalizing commitments that they or their predecessor agreed for the country to take on. An implication of this for the WTO is that, as a self-enforcing agreement, it is sometimes through resort to formal dispute settlement litigation and threats (and follow through) of retaliation that the bargain of countries exchanging a balance of market accession concessions "works" and the benefits of WTO membership are conferred.

Therefore, an important source from which to track China's transition to full WTO membership is its experience in formal WTO dispute settlement. Upon receiving entry into the organization in 2001, it would not have been surprising to observe an almost immediate onslaught of formal China-centered disputes, simply because the country is involved in a substantial share of global trade in many sensitive product categories with dozens of different trading partners.[43] This includes disputes both in which China would be a respondent (defendant), with its policies being challenged by other WTO members who may have been biding their time until 2002 when China would finally also face the discipline of international rules, and also in which China would be a complainant (plaintiff) going on the offensive to enforce the market access commitments that the existing WTO members had promised.

Instead, as we illustrate in the next two sections, China has been largely and conspicuously absent from major WTO litigation in the initial period

43. Horn, Mavroidis, and Nordström (2005) provide evidence from a 1995 to 1998 sample of data that the pattern of actual disputes compares favorably to that predicted from a simple probabilistic model that links the frequency of disputes simply to the amount of trade a country undertakes as well as the diversity of its trading partners. The implication from such a model for a country like China is that, simply because it is a country that is involved in a substantial amount of international trade with many countries, it would likely see itself involved in many formal WTO trade disputes, even when abstracting from the likelihood that certain traded products may be more likely to face disputes than others. This idea is also supported by the evidence provided in Bown (2005a, b) which examines trade dispute data from the period prior to China's WTO accession and finds that the decision of a WTO member to actively participate in a potential trade dispute is positively related to the country's market access interest at stake.

following its 2001 accession. Nevertheless, there are increasing signs that this grace period may be coming to an end, which may foreshadow a major shift in China's role in formal WTO dispute settlement going forward.

8.5.1 China as Complainant

The top half of table 8.9 presents an up-to-date breakdown of China's formal participation in WTO trade dispute proceedings as a *complainant* (plaintiff). Perhaps surprisingly, China has filed thus far only three formal disputes of its own as a complainant.[44] In its first dispute, it participated as a co-complainant (along with eight other countries) in the formal challenge to the U.S. use of a safeguard to restrict steel imports in 2002. While China ultimately benefited from the successful resolution to this case—the United States complied with WTO legal rulings and removed the steel safeguard measure in December 2003—this outcome was arguably a by-product of the legal efforts undertaken by more active WTO members in the case such as the EU, which successfully identified politically sensitive U.S. export products to target for retaliation threats.[45] The second case over Coated Paper in 2007 turned out to be a nondispute when the U.S. temporary trade restriction that China was intending to challenge was removed. China's third dispute initiation in September 2008 has challenged newly imposed U.S. antidumping and CVD import restrictions on Chinese-produced steel pipes and tubes, tires, and laminated woven sacks.

There are a number of complementary reasons to indicate some surprise that China has not yet played a more active offensive role as a complainant in WTO trade disputes. First, the most common measure to challenge under formal WTO dispute settlement is increasingly another country's antidumping import restrictions.[46] When combining the feature of frequent WTO

44. This is perhaps surprising because some countries immediately take part in formal trade disputes upon entry into the WTO. For example, almost immediately after acceding in 1996 and 1997, respectively, Ecuador and Panama joined (as co-complainants) the ongoing, U.S.-led trade dispute against the EU's import-restricting banana regime, as bananas are an important export sector for both of these economies.

45. Despite its lack of prior experience in such cases, there is, nevertheless, some evidence from the case that China put itself in the position to take appropriate retaliatory action if the EU's efforts were not successful at getting the United States to comply. According to WTO (2006, 87–88, emphasis added):

> In response to a safeguard measure imposed by the United States, China notified the Committee on Safeguards in May 2002, its proposed suspension of concessions and other obligations, in accordance with Article 12.5 of the Agreement on Safeguards. The proposed suspension, which would have taken effect from March 2005 *or from the fifth day following a DSB decision that the measures adopted by the United States were inconsistent with the WTO Agreement,* would have taken the form of an increase in duty of 24% on selected products originating in the United States.

46. Bown and Hoekman (2008) report that over 25 percent of all formal WTO disputes between 1999 and 2006 related to antidumping. This is likely because of a number of factors, including (a) the increasing resort to antidumping globally, (b) its relative transparency, and (c) the fact that an antidumping measure is foreign-country specific, so successful removal (via

Table 8.9 **China as complainant and respondent in formal World Trade Organization (WTO) dispute settlement, 2002–December 5, 2008**

WTO dispute	Respondent	Complainant	Issue under dispute	Year initiated; resolution
			China as complainant	
1. DS252	U.S.	China[a]	Safeguard on imports of certain steel products	2002; U.S. removed safeguard in 2003 after adverse Panel and Appellate Body ruling
2. DS368	U.S.	China	Preliminary antidumping and countervailing duty determinations on coated free sheet paper	2007; terminated when U.S. did not implement trade restriction after negative final injury determination
3. DS379	U.S.	China	Definitive antidumping and countervailing duties on certain products from China	2008; ongoing[b]
			China as respondent	
1. DS309	China	U.S.	Value-added tax on integrated circuits	2004; settled with China agreeing to amend or revoke the measures at issue
2. DS339, DS340, DS342	China	EU, U.S., Canada	Imports of automobile parts	2006; ongoing[b]
3. DS358, DS359	China	U.S., Mexico	Refunds, reductions, or exemptions from taxes and other payments	2007; settled with China agreeing to remove subsidies at issue
4. DS362	China	U.S.	Protection and enforcement of intellectual property rights	2007; ongoing[b]
5. DS363	China	U.S.	Trading rights and distribution services for certain publications and audiovisual entertainment products	2007; ongoing[b]
6. DS372, DS373, DS378	China	EU, U.S., Canada	Measures affecting financial information services and foreign financial information suppliers	2008; settled with China agreeing to eliminate discriminatory restrictions on foreign firms

Source: Data compiled by the author from the WTO Web site, www.wto.org.

[a]Eight other countries (European Union [EU], Japan, New Zealand, Norway, Switzerland, Korea, Taiwan, and Brazil) also filed formal WTO disputes over the 2002 U.S. steel safeguard.

[b]Through December 5, 2008.

filings over antidumping measures with evidence from the data presented in section 8.2 regarding the discriminatory treatment of China under foreign antidumping (even after its 2001 accession), it would not have been surprising to see China begin to start filing earlier as well as more disputes over this issue. This also suggests the potential scope for a substantial number of Chinese disputes over this issue in the future.

There are a number of potential contributing explanations worthy of discussion, even though they are not empirically testable at this stage, given the lack of data on Chinese disputes. One contributing explanation is certainly China's continued NME designation, which allows policymakers in certain trading partners substantial discretion with how they can construct estimates that China's exporters have dumped.[47] Nevertheless, in the case of the United States, the 2007 U.S. decision to now impose countervailing duties against China—that is, implicitly treating China as a market economy under one law—while continuing to treat China as an NME under another trade law (antidumping), does raise the possibility of China pursuing a dispute in this area. While it is too early to tell with any certainty, this may be one of the arguments behind the WTO dispute that China initiated against the United States in 2008.

A second potential explanation for China's failure to challenge other countries' use of antidumping through formal WTO disputes is if it had decided instead to take matters into its own hands by using its own antidumping trade policy to retaliate in order to lessen the likelihood of future discriminatory. However, this appears to be an unlikely explanation for China's failure to challenge other countries' use of antidumping. The data presented in section 8.4 indicate that China's use of antidumping has been fairly limited—that is, dominated by the chemicals industry—and its own application of antidumping has been relatively nondiscriminatory across foreign export targets in rough proportion to the size of their chemical exports to China.

8.5.2 China as Respondent

The lower half of table 8.9 presents information on the formal WTO trade disputes that China has been involved in as a *respondent* (defendant) country. Just as China has been infrequently on the offensive in WTO litigation, it has also infrequently had to defend itself from foreign challenges thus far.[48]

formal WTO litigation) will not necessarily generate positive spillovers to other trading partners, which limits the free-rider problem associated with organizing to pursue a WTO dispute in the first place. See also Bown (2005b).

47. The argument is, even if China filed a WTO dispute and won a case against an antidumping-imposing country, because of China's continued NME status, the using country would still have substantial discretion to identify an alternative means of imposing a WTO-consistent trade restriction that would leave China's exporters no better off than if it had not pursued the case at all.

48. It is somewhat surprising, for example, to not have seen the United States actively pursuing WTO disputes against China sooner than it ended up doing so, given the political pressure

Prior to a flurry of formal disputes filed in 2006 to 2008, China has only been challenged in one dispute (in 2004)—a value added tax on integrated circuits in a case the United States brought that China quickly settled.

Between 2006 and 2008, the United States and other WTO members filed a number of new disputes against China, perhaps signaling an end to the no-litigation standoff in the initial period following China's 2001 accession. In 2006, the United States, EU, and Canada initiated a challenge over China's alleged discriminatory treatment of imports of auto parts. The United States initiated a second dispute in 2007 along with Mexico, accusing China of offering tax refunds and industrial subsidies in violation of its WTO commitments. In 2007, the United States filed two complementary disputes that challenged China's treatment of intellectual property (IP)-intensive industries such as movies, music, and books. The first alleges that China has failed to sufficiently legislate and enforce laws protecting the IP of U.S. firms (thus failing to live up to its commitments under the Trade-Related Aspects of Intellectual Property Rights [TRIPS] Agreement), the second alleges that U.S. firms face discriminatory barriers when attempting to distribute their IP-intensive products and services within China (a violation of the General Agreement on Trade in Services [GATS]). In 2008, the United States, EU, and Canada initiated a challenge to the way in which China regulated foreign firms like Bloomberg, Dow Jones, and Thomson-Reuters that sought to provide financial information services to Chinese consumers.

As the issues at stake under these disputes are fundamental to China's continued efforts at reform, it will be important to watch how both sides choose to proceed in these—as well as other impending WTO challenges to China's policies—going forward.

8.5.3 China as an Interested Third Party

While until recently China has not been a frequent primary litigant—as either a complainant or respondent—in WTO trade disputes, table 8.10 indicates that China has substantial experience following WTO disputes as an *interested third party* in cases involving another complainant and respondent country. In more than forty different disputes, China has been extremely active in observing the WTO dispute settlement process through this manner.

World Trade Organization members have many reasons to observe and weigh in on such disputes in this third party role. One economically motivated reason to closely follow a dispute is the country's own market access interests over a disputed product—for example, China may want to make sure that any settlement or resolution to the case between the two disputing parties does not involve a negotiated outcome in which market access

imposed by many domestic constituencies. That is, protectionist sentiment in the U.S. Congress vis-à-vis China that focused on the growth of China's bilateral trade surplus with the United States and calls for the yuan to be revalued long preceded the eventual flurry of new U.S. disputes against China in 2006 to 2008.

Table 8.10 **China as an interested third party in formal World Trade Organization (WTO) dispute settlement, 2002–December 5, 2008**

WTO dispute	Respondent	Complainant	Issue under dispute
1. DS108	U.S.	EU	Tax treatment for "Foreign sales corporations"
2. DS174, DS290	EU	U.S., Australia	Trademarks and geographical indications
3. DS207	Chile	Argentina	Price band system and safeguard measures for agriculture
4. DS212	U.S.	EU	Countervailing measures concerning certain products
5. DS243	U.S.	India	Rules of origin for textiles and apparel products
6. DS245	Japan	U.S.	Measures affecting the importation of apples
7. DS248, DS249, DS251, DS253, DS254, DS258	U.S.	EU, Japan, Korea, Switzerland, Norway, New Zealand	Safeguard on imports of certain steel products
8. DS257	U.S.	Canada	CVD determination on softwood lumber
9. DS264	U.S.	Canada	Dumping determination on softwood lumber
10. DS265, DS266, DS283	EU	Australia, Brazil, Thailand	Export subsidies on sugar
11. DS267	U.S.	Brazil	Subsidies on upland cotton
12. DS269, DS286	EU	Brazil, Thailand	Customs classification of frozen boneless chicken cuts
13. DS270	Australia	Philippines	Imports of fresh fruit and vegetables
14. DS273	Korea	EU	Measures affecting trade in commercial vessels
15. DS276	Canada	U.S.	Exports of wheat and treatment of imported grain
16. DS277	U.S.	Canada	USITC investigation on softwood lumber
17. DS280	U.S.	Mexico	Countervailing duties on steel plate
18. DS281	U.S.	Mexico	AD measures on cement
19. DS282	U.S.	Mexico	AD measures on oil country tubular goods
20. DS287	Australia	EU	Quarantine regime for imports
21. DS291, DS292, DS293	EU	U.S., Canada, Argentina	Approval and marketing of biotech products
22. DS294	U.S.	EU	Calculating dumping margins (zeroing)
23. DS295	Mexico	U.S.	Definitive AD measures on beef and rice

24. DS296	U.S.	Korea	CVD investigation on DRAMS
25. DS299	EU	Korea	Countervailing measures on DRAMs
26. DS301	EU	Korea	Trade in commercial vessels
27. DS302	Dominican Republic	Honduras	Importation and internal scale of cigarettes
28. DS308	Mexico	U.S.	Tax measures on soft drinks and other beverages
29. DS312	Korea	Indonesia	AD duties on imports of certain paper
30. DS315	EU	U.S.	Selected customs matters
31. DS316	EU	U.S.	Trade in large civil aircraft
32. DS317	U.S.	EU	Trade in large civil aircraft
33. DS320	U.S.	EU	Continued suspension of obligations in the EC—hormones
34. DS321	Canada	EU	Continued suspension of obligations in the EC—hormones
35. DS322	U.S.	Japan	Zeroing and sunset reviews
36. DS323	Japan	Korea	Import quotas on dried laver and seasoned laver
37. DS331	Mexico	Guatemala	AD duties on steel pipes and tubes
38. DS332	Brazil	EU	Imports of retreaded tires
39. DS347	EU	U.S.	Trade in large civil aircraft (second complaint)
40. DS353	U.S.	EU	Trade in large civil aircraft (second complaint)
41. DS366	Colombia	Panama	Indicative prices and restrictions on ports of entry

Source: Data compiled by the author from the WTO Web site, www.wto.org.

Notes: CVD = countervailing duty; USITC = U.S. International Trade Commission; AD = antidumping; DRAMS = dynamic random access memory semiconductors; EC = European Community.

between the two disputants is restructured in a way that discriminates against its exporters. Second, a country without a market access interest at stake in a particular case may still have a systemic interest if it affects an interpretation of a WTO rule or procedure affecting its economic interests somewhere else. Third, countries may also choose to participate via this route as it provides them with a lower (resource and political) cost of learning about the WTO litigation experience in a way that will likely pay off in future disputes that they are involved in as complainants or respondents.

What is clear from the table is that China has chosen to participate in many different types of disputes over a range of traded products—import restrictions and export promotion, contingent protection, intellectual property, and so on. China is likely using this strategy in part to keep abreast of how the rules are slowly adjusting as the WTO case law and judicial interpretations begin to fill out some of the missing areas not explicitly covered by WTO rules.[49] Furthermore, China is also likely using this opportunity to learn about how the interplay between law, political posturing, and economics in WTO litigation plays out. China must certainly recognize the inevitability as a larger trader that it will be a frequent target of formal dispute settlement activity, and likely sooner rather than later.

8.5.4 China in Future WTO Dispute Settlement

Our discussion of China's future in WTO litigation is mere speculation, of course. It is also likely that China may find itself involved in future WTO trade litigation over issues that have not yet arisen. One feature of China's trade is that a new controversy over Chinese export products appears to surface in media headlines almost every day—whether it be recent allegations of melamine in pet food and dairy products, diethylene glycol in toothpaste, lead paint in children's toys, banned antibiotics in farmed seafood, and so on. In each of the instances thus far, importing countries have imposed trade restrictions that appear, if the prima facie evidence in news reports is accurate, to be justifiable under WTO provisions. Thus, it is not likely that any of these product bans would be subject of future trade dispute challenges.[50]

Nevertheless, the increasing frequency of such incidents suggests that sooner or later a policymaker will face domestic political pressure to impose an import restriction over some new concern that ultimately will be determined to not be based on sound scientific evidence, and in such a case, China

49. While no strict stare decisis rule applies in WTO case law, nevertheless, decisions made in panel reports and by the Appellate Body are frequently based on prior decisions, suggesting that precedent matters at least implicitly.

50. While under the GATT, imposing import restrictions to protect human, animal, or plant health was justified under Article XX, much of this has been expanded under the WTO to be covered under the Agreement on Sanitary and Phytosanitary (SPS) measures as well as the Agreement on Technical Barriers to Trade (TBT).

may seek to file a dispute to protect its market access rights.[51] Perhaps more important, the changing nature of trade and many of these controversies over the impact of imported products is likely to affect future institutional arrangements over consumer protection, health, and safety.

8.6 Conclusion

This chapter examines a number of different newly compiled data sets to assess issues surrounding China's 2001 accession to the WTO. I use data from the foreign use of antidumping during the 1995 to 2001 period to document the discrimination that China faced under this one particular trade policy, identifying one of the potential benefits its exporters may have expected to receive with WTO membership. Nevertheless, while a number of other factors were also changing during the time period—including WTO members being required to otherwise offer China MFN treatment and China's own rising exports—since 2001, there is no evidence that foreign discrimination vis-à-vis China via antidumping has improved. Furthermore, there are a number of additional trade policy instruments (e.g., China safeguards) that have also developed since 2001 that countries are also resorting to so as to continue to discriminate against Chinese exports in certain products. Finally, we also are able to find no robust evidence that there is a strategic relationship between China's own high import-tariff products and which export products foreign users were targeting with antidumping.

Regarding its own introduction of new import-restricting measures, we find that while China is now in the top five, in terms of the countries that most frequently implement new antidumping trade restrictions, the post-2001 surge in Chinese use is dominated by its industrial chemicals industry. Unlike the other major users of antidumping that are each increasingly applying their measures in a discriminatory fashion, we also provide evidence that China applies such new trade restrictions in a much less discriminatory (i.e., non-MFN) fashion. Finally, we also provide some evidence from a sample of Chinese chemical industry data that the cross-product variation in demands for new antidumping measures during the post-accession is related to the severity of the accession year tariff liberalization undertaken in 2001–2002.

Last, while it is somewhat surprising that China was not a frequent litigant in formal WTO dispute settlement activity in the early years after its acces-

51. There are a number of examples in WTO cases in which one country imposes an import ban on a product that it claimed was based on health (or environmental protection) purposes but which another trading partner challenged. These include U.S. challenges to EU bans on hormone-treated beef and genetically modified foods, as well as foreign challenges to U.S. measures to restrict tuna and shrimp imports that it alleged were necessary to protect the lives of dolphins and sea turtles, respectively.

sion, since 2006 it has increasingly been confronted by other WTO members in formal dispute settlement. Furthermore, given its share in world trade and the political sensitivity of the sectors involved in many of its traded products, it is likely to be involved in many more disputes going forward.

Appendix

Data Appendix

Antidumping Data

What governments report to the WTO regarding their use of antidumping is limited and frequently inconsistent with what is reported in official national government publications. We rely on data reported to the WTO (e.g., WTO 2007a, b, c) only infrequently in this chapter, and we use it primarily to supplement information from our other sources of data that may not be available in the most recent years (e.g., table 8.1 and figure 8.1).

The source of the data on antidumping use for the empirical analysis is the *Global Antidumping Database,* a cross-country data collection project funded by the World Bank and Brandeis University, which contains more detailed data, including dates associated with the investigation, countries targeted, measures imposed, HS products affected, and so on. The database derives from data hand-collected from official national government publications, and it covers nineteen policy-using countries which account for roughly 90 percent of the antidumping activity undertaken by all WTO members over the 1995 to 2004 period. Bown (2007) provides a users manual describing the source of the underlying country of the major users described in the text.

Data collected on China's use of antidumping, as reported in the *Global Antidumping Database* and Bown (2007), is translated to English from official Chinese government Web sites. China's dumping determination data is taken from the Bureau of Fair Trade for Imports and Exports (MOFCOM, http://dcj.mofcom.gov.cn/), its injury investigations are handled by the Bureau of Industry Injury Investigation (MOFCOM, http://gpj.mofcom.gov.cn/). Additional information was collected from the China Trade Remedy Information Web site (http://www.cacs.gov.cn/DefaultWebApp/index.htm).

Import and Export Data

Product-level import and export data at the six-digit HS level is from Comtrade, taken from World Integrated Trade Solution (WITS) database.

Tariff Data

China's applied MFN tariff rates (available for years 1996, 1997, 2001–2005) and its final WTO tariff binding schedule (submitted in 2001) are

Table 8A.1

Harmonized System chapters	Description
01–05	Animal and animal products
06–15	Vegetable products
16–24	Foodstuffs
25–27	Mineral products
28–38	Chemicals and allied industries
39–40	Plastics/rubber
41–43	Leather
44–49	Wood and wood products
50–63	Textiles and apparel
64–67	Footwear/headgear
68–71	Stone/glass
72–83	Metals
84–85	Machinery/electrical
86–89	Transportation
90–97	Miscellaneous

available at the eight-digit product level from the WTO Integrated Database, taken from WITS. I use simple averaging to aggregate the tariff rates from the eight-digit to the six-digit level to match them with the six-digit Chinese import and export data.

Industry Categories

I allocate products from HS chapters into broad industry categories according to table 8A.1.

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