

# ANTIDUMPING PROVISIONS IN PREFERENTIAL TRADE AGREEMENTS\*

Thomas J. Prusa\*\*

## Summary

This paper examines the economic rationale for and the implications of including antidumping (AD) provisions in preferential trade agreements (PTAs). Using information culled from 217 PTAs we find that nearly three out of four PTAs include either additional AD rules or prohibit the use of AD against PTA members. The provisions have the potential to significantly impact trade both through their direct effect on current protection and also as a possible signal of future developments in WTO AD rules.

AD provisions have a mixed welfare impact. PTA rules might make it easier to restrain intra-PTA imports. Such provisions may benefit global welfare by mitigating trade diversion stemming from preferential tariffs. More often though PTAs rules either prohibit AD protection against members or make AD protection harder to apply. As a result, PTAs may further tilt the playing field toward members by shifting contingent protection toward non-members – protection diversion.

We examine AD usage patterns by NAFTA countries as a case study of PTA rules. We find evidence that NAFTA rules have discouraged the intra-North American use of AD and likely increased the incidence against non-NAFTA countries. We also discuss usage trends across a wider set of PTAs and again find evidence that PTA rules have altered the pattern of AD activity, likely lowering the incidence against members and shifting the restrictions to non-members.. This results confirm the theoretical possibility that PTA provisions shift the burden of trade restraints to non- members.

Overall, the findings highlight the need to be vigilant about the impact of these provisions. Provisions first implemented in PTAs might be a guide to what to expect in future WTO negotiations (i.e., “beta” testing). On the other hand, PTA trade remedy provisions may erode the market access that non-members thought they had secured in prior WTO rounds.

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\*\* Thomas J. Prusa, Department of Economics, Rutgers University, New Brunswick, New Jersey 08901-1248, U.S.A. Email: [prusa@rutgers.edu](mailto:prusa@rutgers.edu)

## I. INTRODUCTION

The question of whether PTAs are good or bad for the global trading system has always been contentious. With more experience our understanding of the consequences of PTAs has evolved. The traditional worries about welfare impacts associated with trade creation and diversion has been augmented with a multitude of new and unanticipated concerns.<sup>1</sup> This is partly due to the fact that over the past half century most countries have reduced tariffs across the board on a non-discriminatory basis. As a result the value of PTA preferences has steadily fallen. How much trade creation/diversion can one expect when preferential rates are essentially the same as the MFN rates?<sup>2</sup> For many PTAs, therefore, the main welfare consequences likely stem from non-tariff provisions. Indeed, as PTAs have evolved they increasingly address many issues beyond tariffs – government procurement, investor protections, labor standards, environmental protection, trade remedies, etc.

This paper examines the potential effects of one particular non-tariff provision – antidumping (AD). Antidumping duties are designed to sanction exporters who engage in “unfair” trading practices that cause or threaten to cause *material* injury to domestic producers. When these unfair trading practices take the form of selling

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<sup>1</sup> World Bank (2005) contains an excellent discussion of the myriad of effects associated with the proliferation of PTAs.

<sup>2</sup> There is growing evidence that a high percentage of PTA tariff preferences are never utilized. Amiti and Romalis (2007), Brenton and Ikezuki (2004), and Dean and Wainio (2009) discuss utilization for different countries, products and time periods. Francois, Hoekman and Manchin (2005) find a threshold preference margin of 4 percent below which preference margins are irrelevant likely due to high compliance costs such as paperwork and red tape.

products below their “normal” price domestic producers can seek antidumping protection.<sup>3</sup>

While countervailing duty and safeguards are also important trade remedies, in this paper we limit our focus to AD for two primary reasons. First, AD is used far more frequently than either countervailing duty or safeguards. According to WTO statistics, between January 1995 and December 2013 WTO members initiated 4,519 AD investigations, 335 countervailing duty (CVD) investigations, and 279 safeguard actions. Second, in earlier work (Prusa and Teh, 2011) we found PTAs are more likely to alter AD provisions than either countervailing duty or global safeguard rules.<sup>4</sup> This is partly due to the fact that few PTAs have created common policies on subsidies and state aid. Without such rules and given the global nature of subsidy distortions, there appears to be little motivation for PTA to limit the application of countervailing duty against members.

An important component of this study was the development of a database of the AD provisions contained in PTAs. Currently the database contains detailed information on AD provisions in 217 PTAs. Some PTAs include no discussion of or language related to AD. Other PTAs prohibit the use of AD against PTA members. Most often, however, we find PTAs allow the use of AD against PTA members but add some extra rules.

The remainder of this paper is organized as follows. Section 2 discusses some of the political and economic justifications for including AD provisions in PTAs. As specific provisions are discussed, it is important to consider the possible conflicting motivations countries have when negotiating agreements. If AD duties serve

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<sup>3</sup> The WTO agreement requires a link between trade volume change and the imposition of AD protection. The determination of the causal link is generally done by an administrative body in the importing country.

<sup>4</sup> Relative to antidumping, we found PTAs were almost twice as likely to have no countervailing duty rules and three times as likely to have no safeguard rules.

primarily as “pressure release valves”, then PTAs should include provisions that make it easier for domestic industries to raise barriers; on the other hand, if PTAs open closed home markets then one of the traditional justifications for AD is eliminated; consequently, PTAs should make it harder to impose AD duties, or possibly even prohibit AD against PTA members.

Section 3 examines the database, and discusses the provisions included in these PTAs. PTAs are divided into three groups: those with AD rules, those that prohibit the use of AD and those without any AD rules. In section 4 we will take a closer look at the pattern of AD use by NAFTA countries and the important issue of protection diversion. In section 5 we discuss of the issue of protection diversion across a broader set of PTAs.

## **II. BACKGROUND ISSUES**

### **A. THE POLITICAL ECONOMY OF WHY TRADE REMEDIES ARE NEEDED IN PTAS**

Why do PTAs include trade remedy provisions? The rationale for PTAs to include preferential tariff schedules and definitions of rules of origin seems clear; however, it is less obvious why most PTAs should devote significant language amending and qualifying the use of trade remedies.

One explanation for the widespread presence of AD rules in PTAs is the political economy of protectionism (Tharakan, 1995). The long-term process of tariff liberalization during the post-World War II era has successfully reduced tariff rates to very low levels worldwide. Import-competing sectors continue to have an incentive to secure protection through whatever means they can find. Because the agreements have eliminated the most direct route to protection (tariffs), industries turn to the next best alternative, contingent protection. Given that the PTAs lower tariffs, industries may desire alternative language for offsetting provisions.

A second related explanation argues that contingent protection acts as a pressure release valve without which liberalization would not be able to proceed (Jackson, 1997). Because trade liberalization often imposes costs of adjustment on uncompetitive industries, something needs to be done to manage the political consequences of these costs. Incorporating AD rules in PTAs may be thought of as anticipating the possibility of and providing a means to deflate this pressure with a temporary reversal of liberalization.

Empirically, we find that the AD rules in PTAs generally make protection more difficult to grant. A third explanation explains why this might be. The inclusion of PTA provisions that restrict their use is consistent with the view that AD protection is necessitated because countries are insufficiently open to trade. For example, Mastel (1998) argues that dumping is driven by closed home markets. The elimination of barriers for intra-PTA trade reduces the ability of firms to dump as they no longer have a protected home market where they can earn supernormal profits.<sup>5,6</sup>

## **B. POSSIBLE ECONOMIC CONSEQUENCES**

Each of the three explanations suggests that PTAs may alter the demand for AD protection. On the one hand, import-competing sectors need to be given assurance that they can protect themselves from the unanticipated consequences of the regional liberalization program. Retaining AD in the PTA helps maintain political

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<sup>5</sup> This third explanation does not explain why PTAs simply do not prohibit the use of AD against PTA members. After all, from Mastel's perspective the elimination of intra-regional tariffs and other border barriers also means the *raison d'être* for AD is eliminated.

<sup>6</sup> We note that this third explanation is also consistent with the lack of CVD rules in PTAs. Specifically, because most PTAs have failed to strengthen anti-subsidy rules, the notion that there will be fewer subsidies, and in turn less need for CVD, is not supported.

support for the agreement. On the other hand, regional liberalization might also eliminate unfair trade.

To the extent that PTA provisions make AD protection easier to obtain, they are similar to long transition periods, complicated rules of origin, and carve-outs for sensitive sectors in PTAs, all of which result in a slower process of liberalization for import-competing sectors. Instead of directly cushioning the effects of the PTA by drawing out the process of tariff elimination, AD duties achieve a different cushioning effect by specifying a set of conditions – injury to the domestic industry – under which the regional liberalization may be temporarily suspended or partially reversed. Such rules may hurt PTA partners and moderate beneficial trade creation; they may be beneficial from a global perspective, however, if they serve to lessen trade diversion.

PTA provisions that make AD protection more difficult to grant have more subtle effects. Abolishing or restricting the use of AD on PTA partners' trade will most likely increase intra-bloc trade. The welfare effects, however, are uncertain. The ambiguity stems from the well-known insight that preferential trade arrangements have both trade creation and trade diversion effects (Viner, 1950). Rules on AD protection can clearly create and divert trade (Bown and Crowley, 2007).

The danger is that as intra-regional trade expands because of preferential tariffs, AD protection will become increasingly directed at the imports of non-members. Bhagwati (1993) and Bhagwati and Panagariya (1996) foresaw this danger, arguing that the elastic and selective nature of contingent protection increases the risk of trade diversion from PTAs. Bhagwati states

My belief that FTAs will lead to considerable trade diversion because of modern methods of protection, which are inherently selective and can be captured readily by protectionist purposes is one that may have been borne out in the European Community. It is well known that the European Community has used antidumping actions and VERs profusely to erect Fortress Europe against the Far

East. Cannot much of this be a trade-diverting policy in response to the intensification of internal competition among member states of the European Community? (Bhagwati, 1993, p. 37)

So apart from discrimination introduced by preferential tariffs, Bhagwati and Panagariya are concerned that the establishment of PTAs can lead to more discrimination against non-members of the PTA through more frequent AD actions. They conjecture that there is a protection analogue to the standard “trade creation-trade diversion” impact of PTAs. PTA members are spared from AD actions but non-PTA members face even greater AD scrutiny.

### C. THE INCIDENCE OF ANTIDUMPING ACTIONS

Before discussing the role of trade remedies in PTAs, it is useful to review the incidence of trade remedy actions over the past decade (Bown, 2011b). Over the 1995-2013 period the WTO was notified of 4,519 AD investigations. There has been a significant change in the use of these remedies. The four major users (Australia, Canada, the EC/EU, and the U.S.) accounted for more than 90% of the AD initiations during the 1980s and were also the target in more than 75% of the investigations (Prusa, 2001). By contrast, countries from all parts of the world are now active users and targets of AD protection (Prusa, 2005). Since 1995 nearly 50 countries have initiated AD cases and more than 100 countries have been the subject of AD investigations.<sup>7</sup> In a sense, the broadened set of uses and targets of AD remedies is just another example of increased globalization.

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<sup>7</sup> The four traditional users now account for only about one-third of AD initiations.

AD duties can reinforce the trade diversion effects of a PTA: on average the imposition of AD duties reduces subject imports from the targeted country by about half (Prusa, 2001). When faced with continent protection measures, non-PTA members will be at an even greater disadvantage than that created by the preferential tariffs. This is exactly the danger Bhagwati (1993) and Bhagwati and Panagariya (1996) predicted.

### III. ANTIDUMPING PROVISIONS IN PTAS

A summary of the 217 PTAs surveyed is given in Table 1. The PTAs in our survey represent 83% of the 263 regional and preferential agreements notified to the WTO. As seen, the coverage is quite thorough, involving PTAs from all corners of the world: Europe, North America, the Caribbean, Latin America, Eastern Europe, Asia and the Pacific, Africa, and the Middle East.

The AD provisions for each PTA were mapped into three distinct groups:

- (1) Those that **disallow** AD among the members,
- (2) Those with **no language** regarding AD, and
- (3) Those with specific **rules** regarding AD.

**Table 1: Antidumping Rules in PTAs**

<b>PTA Name</b>	<b>Year of entry into force</b>	<b>AD Rules</b>
Andean Community (CAN)	1988	Rules
Armenia - Kazakhstan	2001	No Rules
Armenia - Moldova	1995	No Rules
Armenia - Russian Federation	1993	No Rules
Armenia - Turkmenistan	1996	No Rules
Armenia - Ukraine	1996	No Rules
ASEAN - Australia - New Zealand	2010	No Rules
ASEAN - China	2005	Rules
ASEAN - India	2010	Rules
ASEAN - Japan	2008	No Rules
ASEAN - Korea, Republic of	2010	Rules
ASEAN Free Trade Area (AFTA)	1992	No Rules
Asia Pacific Trade Agreement (APTA)	1976	No Rules
Australia - Chile	2009	Rules
Australia - New Zealand (ANZCERTA)	1983	Prohibited
Australia - Papua New Guinea (PATCRA)	1977	Rules
Brunei Darussalam - Japan	2008	No Rules
Canada - Chile	1997	Prohibited
Canada - Colombia	2011	Rules
Canada - Costa Rica	2002	Rules
Canada - Israel	1997	No Rules
Canada - Peru	2009	Rules
Caribbean Community and Common Market (CARICOM)	1973	Rules
Central American Common Market (CACM)	1961	No Rules
Central European Free Trade Agreement (CEFTA) 2006	2007	Rules
Chile - China	2006	Rules
Chile - Colombia	2009	Rules
Chile - Costa Rica (Chile - Central America)	2002	Rules
Chile - El Salvador (Chile - Central America)	2002	Rules
Chile - Honduras (Chile - Central America)	2008	Rules
Chile - India	2007	Rules
Chile - Japan	2007	No Rules
Chile - Mexico	1999	No Rules
China - Costa Rica	2011	Rules
China - Hong Kong, China	2003	Prohibited
China - Macao, China	2003	Prohibited
China - New Zealand	2008	Rules
China - Singapore	2009	Rules
Colombia - Mexico	1995	Rules
Common Economic Zone (CEZ)	2004	Rules
Common Market for Eastern and Southern Africa (COMESA)	1994	Rules
Commonwealth of Independent States (CIS)	1994	Rules
Costa Rica - Mexico	1995	Rules

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<b>PTA Name</b>	<b>Year of entry into force</b>	<b>AD Rules</b>
Dominican Republic - Central America	2001	Rules
Dominican Republic - Central America - United States Free Trade Agreement (CAFTA-DR)	2006	Rules
East African Community (EAC)	2000	Rules
EC Treaty	1958	Prohibited
Economic & Monetary Community of Central Africa (CEMAC)	1999	No Rules
Economic Community of West African States (ECOWAS)	1993	Rules
Economic Cooperation Organization (ECO)	1992	Rules
EFTA - Albania	2010	Rules
EFTA - Canada	2009	Rules
EFTA - Chile	2004	Prohibited
EFTA - Colombia	2011	Rules
EFTA - Egypt	2007	Rules
EFTA - Former Yugoslav Republic of Macedonia	2002	Rules
EFTA - Israel	1993	Rules
EFTA - Jordan	2002	Rules
EFTA - Korea, Republic of	2006	Rules
EFTA - Lebanon	2007	Rules
EFTA - Mexico	2001	Rules
EFTA - Morocco	1999	Rules
EFTA - Palestinian Authority	1999	Rules
EFTA - Peru	2011	Rules
EFTA - SACU	2008	Rules
EFTA - Serbia	2010	Rules
EFTA - Singapore	2003	Prohibited
EFTA - Tunisia	2005	Rules
EFTA - Turkey	1992	Rules
Egypt - Turkey	2007	Rules
EU - Albania	2006	Rules
EU - Algeria	2005	Rules
EU - Andorra	1991	No Rules
EU - Bosnia and Herzegovina	2008	Rules
EU - Cameroon	2009	Rules
EU - CARIFORUM States EPA	2008	Rules
EU - Chile	2003	Rules
EU - Côte d'Ivoire	2009	Rules
EU - Eastern and Southern Africa States EPA	1900	Rules
EU - Egypt	2004	Rules
EU - Faroe Islands	1997	Rules
EU - Former Yugoslav Republic of Macedonia	2001	Rules
EU - Iceland	1973	Rules
EU - Israel	2000	Rules
EU - Jordan	2002	Rules
EU - Korea, Republic of	2011	Rules

**Table 1: Antidumping Rules in PTAs**

<b>PTA Name</b>	<b>Year of entry into force</b>	<b>AD Rules</b>
EU - Lebanon	2003	Rules
EU - Mexico	2000	Rules
EU - Montenegro	2008	Rules
EU - Morocco	2000	Rules
EU - Norway	1973	Rules
EU – Overseas Countries and Territories (OCT)	1971	No Rules
EU - Palestinian Authority	1997	Rules
EU - Papua New Guinea / Fiji	2009	Rules
EU - San Marino	2002	No Rules
EU - Serbia	2010	Rules
EU - South Africa	2000	Rules
EU - Switzerland - Liechtenstein	1973	Rules
EU - Syria	1977	Rules
EU - Tunisia	1998	Rules
EU - Turkey	1996	Rules
Eurasian Economic Community (EAEC)	1997	Rules
European Economic Area (EEA)	1994	Prohibited
European Free Trade Association (EFTA)	1960	Prohibited
Faroe Islands - Norway	1993	Rules
Faroe Islands - Switzerland	1995	No Rules
Georgia - Armenia	1998	No Rules
Georgia - Azerbaijan	1996	No Rules
Georgia - Kazakhstan	1999	No Rules
Georgia - Russian Federation	1994	No Rules
Georgia - Turkmenistan	2000	No Rules
Georgia - Ukraine	1996	No Rules
Guatemala - the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu	2006	Rules
Gulf Cooperation Council (GCC)	2003	No Rules
Honduras - El Salvador and the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu	2008	Rules
Hong Kong, China - New Zealand	2011	Rules
Iceland - Faroe Islands	2006	Rules
India - Afghanistan	2003	Rules
India - Bhutan	2006	No Rules
India - Japan	2011	Rules
India - Malaysia	2011	Rules
India - Nepal	2009	No Rules
India - Singapore	2005	Rules
India - Sri Lanka	2001	Rules
Israel - Mexico	2000	Rules
Japan - Indonesia	2008	Rules
Japan - Malaysia	2006	No Rules
Japan - Mexico	2005	No Rules

**Table 1: Antidumping Rules in PTAs**

<b>PTA Name</b>	<b>Year of entry into force</b>	<b>AD Rules</b>
Japan - Mexico	2005	No Rules
Japan - Peru	2012	Rules
Japan - Philippines	2008	Rules
Japan - Singapore	2002	Rules
Japan - Singapore	2002	No Rules
Japan - Switzerland	2009	No Rules
Japan - Thailand	2007	No Rules
Japan - Viet Nam	2009	No Rules
Jordan - Singapore	2005	Rules
Korea, Republic of - Chile	2004	Rules
Korea, Republic of - Chile	2004	Rules
Korea, Republic of - India	2010	Rules
Korea, Republic of - Singapore	2006	Rules
Kyrgyz Republic - Armenia	1995	No Rules
Kyrgyz Republic - Kazakhstan	1995	No Rules
Kyrgyz Republic - Moldova	1996	No Rules
Kyrgyz Republic - Russian Federation	1993	No Rules
Kyrgyz Republic - Ukraine	1998	No Rules
Kyrgyz Republic - Uzbekistan	1998	No Rules
Lao People's Democratic Republic - Thailand	1991	No Rules
Latin American Integration Association (LAIA)	1981	Rules
Melanesian Spearhead Group (MSG)	1994	Rules
MERCOSUR - India	2009	Rules
Mexico - Central America	2012	Rules
Mexico - Uruguay	2004	Rules
New Zealand - Malaysia	2010	Rules
New Zealand - Singapore	2001	Rules
Nicaragua and the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu	2008	Rules
North American Free Trade Agreement (NAFTA)	1994	Rules
Pacific Island Countries Trade Agreement (PICTA)	2003	Rules
Pakistan - China	2007	Rules
Pakistan - Malaysia	2008	Rules
Pakistan - Sri Lanka	2005	Rules
Panama - Chile	2008	Rules
Panama - Costa Rica (Panama - Central America)	2008	Rules
Panama - El Salvador (Panama - Central America)	2003	Rules
Panama - Honduras (Panama - Central America )	2009	Rules
Panama - Singapore	2006	Rules
Panama and the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu	2004	Rules
Pan-Arab Free Trade Area (PAFTA)	1998	Rules
Peru - Chile	2009	Rules
Peru - China	2010	Rules

**Table 1: Antidumping Rules in PTAs**

<b>PTA Name</b>	<b>Year of entry into force</b>	<b>AD Rules</b>
Peru - Korea, Republic of	2011	Rules
Peru - Mexico	2012	Rules
Peru - Singapore	2009	Rules
Protocol on Trade Negotiations (PTN)	1973	No Rules
Singapore - Australia	2003	Rules
South Asian Free Trade Agreement (SAFTA)	2006	No Rules
South Asian Preferential Trade Arrangement (SAPTA)	1995	Rules
South Pacific Regional Trade and Economic Cooperation Agreement (SPARTECA)	1981	Rules
Southern African Customs Union (SACU)	2004	Rules
Southern African Development Community (SADC)	2000	Rules
Southern Common Market (MERCOSUR)	1991	Rules
Thailand - Australia	2005	Rules
Thailand - New Zealand	2005	Rules
Trans-Pacific Strategic Economic Partnership	2006	Rules
Turkey - Albania	2008	Rules
Turkey - Bosnia and Herzegovina	2003	Rules
Turkey - Chile	2011	Rules
Turkey - Croatia	2003	Rules
Turkey - Former Yugoslav Republic of Macedonia	2000	Rules
Turkey - Georgia	2008	Rules
Turkey - Israel	1997	Rules
Turkey - Jordan	2011	Rules
Turkey - Montenegro	2010	Rules
Turkey - Morocco	2006	Rules
Turkey - Palestinian Authority	2005	Rules
Turkey - Serbia	2010	Rules
Turkey - Syria	2007	Rules
Turkey - Tunisia	2005	Rules
Ukraine - Azerbaijan	1996	No Rules
Ukraine - Belarus	2006	Rules
Ukraine - Former Yugoslav Republic of Macedonia	2001	Rules
Ukraine - Kazakhstan	1998	No Rules
Ukraine - Moldova	2005	Rules
Ukraine - Russian Federation	1994	No Rules
Ukraine - Tajikistan	2002	No Rules
Ukraine - Uzbekistan	1996	No Rules
Ukraine -Turkmenistan	1995	No Rules
US - Australia	2005	No Rules
US - Bahrain	2006	No Rules
US - Chile	2004	No Rules
US - Israel	1985	No Rules
US - Jordan	2001	No Rules
US - Morocco	2006	No Rules

**Table 1: Antidumping Rules in PTAs**

<b>PTA Name</b>	<b>Year of entry into force</b>	<b>AD Rules</b>
US - Oman	2009	No Rules
US - Peru	2009	Rules
US - Singapore	2004	No Rules
West African Economic and Monetary Union (WAEMU)	2000	Rules

In Table 2 we tabulate the PTAs by the agreement type and how they were notified to the WTO. The sample is dominated by free trade agreements – 86% of the PTAs in our sample are free trade areas; 7% are customs unions and the remaining are preferential trade agreements (Table 2). There is not a significant variation in the type of AD provision in the PTA by agreement type – in all cases about two-thirds of the PTAs either prohibit AD or have additional rules governing the imposition of AD.

About 84% of the PTAs in our sample were notified under Article XXIV of GATT and 14% were notified under the Enabling Clause.<sup>8</sup> With only few exceptions all the PTAs were notified to the WTO.<sup>9</sup> Once again, we do not find a significant variation in the type of AD provision in the PTA by notification method.

In previous work (Prusa and Teh, 2011) we discussed the ways that PTAs can alter AD rules. Broadly stated, there are four primary categories of rules. First, there are **rules that affect the likelihood of imposing AD duties**. Some PTAs require parties to make greater efforts to negotiate a solution prior to the formal investigation. Other PTAs altered key requirements such as the *de minimis* dumping margins, *de minimis* dumping volumes. Under WTO rules, an AD investigation is to be terminated immediately if the dumping margin is found to be less than 2 percent of the export price or if the volume of dumped imports from a particular country is less than 3 percent of imports. PTA provisions that specify higher *de minimis* dumping margins or higher *de minimis* volumes than the WTO benchmarks will treat PTA partners more favourably. This is because even though exports from PTA and non-PTA sources may be found to have the same dumping margin, the investigation against the PTA member will terminate while the investigation against non-PTA sources will continue if the margin turns out to be

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<sup>8</sup> These percentages are very comparable to those for all notified PTAs.

<sup>9</sup> ASEAN-Korea, GCC, and Korea-India.

higher than the WTO benchmark but less than or equal to that prescribed in the PTA.

**Table 2: AD Provisions in PTAs**

	<b>Prohibited</b>	<b>Rules</b>	<b>No Rules</b>	<b>Total</b>
<i><b>Agreement Type</b></i>				
Customs Union	1 (6%)	10 (63%)	5 (31%)	<b>16</b>
FTA	7 (4%)	131 (70%)	49 (26%)	<b>187</b>
Partial Scope Agreement	0 (0%)	9 (69%)	4 (31%)	<b>13</b>
Other	1 (100%)	0 (0%)	0 (0%)	<b>1</b>
<b>Total</b>	<b>9</b> (4%)	<b>150</b> (69%)	<b>58</b> (27%)	<b>217</b>
<i><b>How Notified</b></i>				
Enabling Clause	0 (0%)	22 (73%)	8 (27%)	<b>30</b>
GATT Article XXIV	8 (4%)	126 (69%)	49 (27%)	<b>183</b>
Other / Not Notified	1 (25%)	2 (50%)	1 (25%)	<b>4</b>
<b>Total</b>	<b>9</b> (4%)	<b>150</b> (69%)	<b>58</b> (27%)	<b>217</b>

Second, there are **rules that affect the size of the duty**. This is often referred to as a lesser duty rule. Multilateral rules encourage but do not mandate the application of an AD duty that is less than the dumping margin if a lesser duty would be adequate to remove the injury to the domestic industry. A lesser duty rule or mandate in a PTA can provide a significant advantage to members. In the event that an AD action is taken by a country against a group of suppliers, some of which happen to be PTA members and others not, then PTA partners will face a lower AD

duty even though the AD investigation might have found the same dumping margin against all suppliers.

Third, there are **rules that shorten the duration of the duties**. Under multilateral rules, definitive AD duties are to be terminated within five years from its imposition. Thus, PTAs that impose a shorter termination period on regional partners will give an advantage to exporters from those countries. AD duties against exports from PTA partners will already have been phased out while exports from non-PTA partners can continue to be restrained by the duties.

Fourth, there are **rules that create a regional body to conduct investigations or review or remand final determinations**. This is a unique innovation in PTAs. The PTA literature suggests that a regional institution can have a significant role on the frequency of AD initiations and measures against PTA partners. The best known example of such a regional institution occurs in Chapter 19 of NAFTA, which allows a bi-national panel to review of the final AD determination made by the authority of another NAFTA partner.

#### **IV. THE NAFTA EXPERIENCE**

The inclusion of the bi-national panel review of AD determination in the NAFTA agreement was controversial (Mankiw and Swagel, 2005). There are differing views on the impact of this specific provision. Using a time dummy to control for the pre-/post-PTA effect Jones (2000) finds that there was a statistically significant reduction in both U.S. AD filings against Canada and Canadian AD filings against the U.S. after NAFTA took effect. On the other hand, Blonigen (2005) incorporates information on actual panel activity and finds no evidence that bi-national reviews under Chapter 19 of NAFTA affected the frequency of U.S. filings or affirmative

determinations against Canada and Mexico.<sup>10</sup> The fact that the U.S. has refused to include a similar provision in any subsequent PTAs suggests that U.S. policymakers feel that the bi-national panels have altered the pattern of protection. Gagné and Paulin (2013) succinctly summarize the view from Washington:

Past cases of trade disputes with Canada, such as Pork, Swine, and Lumber III, have made Congress more and more suspicious towards the NAFTA panel review system. In Lumber IV, some senators, representing lumber producing constituencies, complained against the ruling of the injury panel. For these senators, this “runaway” or “rogue” panel prevented the US from offsetting the effect of Canadian unfair trade practices and, thus, violated the rights of American industries and workers to be protected against such practices. These concerns were voiced by Senator Chambliss: *“We cannot allow our domestic industries and their workers to become defenseless against unfairly traded imports due to flawed decisions by runaway panels.”* For Senator Craig, *“the rights of US lumber producers to remedy against unfairly traded imports from Canada have been improperly curtailed by a runaway NAFTA Chapter 19 dispute settlement panel.”* Senator Lincoln found it troubling that panelists are empowered to review trade remedy cases as to whether they are consistent with US law, especially when decisions actually overturn US law. Revealingly, Senator Craig commented: *“Simply put, here we go again having an international body full of individuals who disregard US law, dictating the US courts how to interpret our own laws.”* (emphasis added, p. 419)

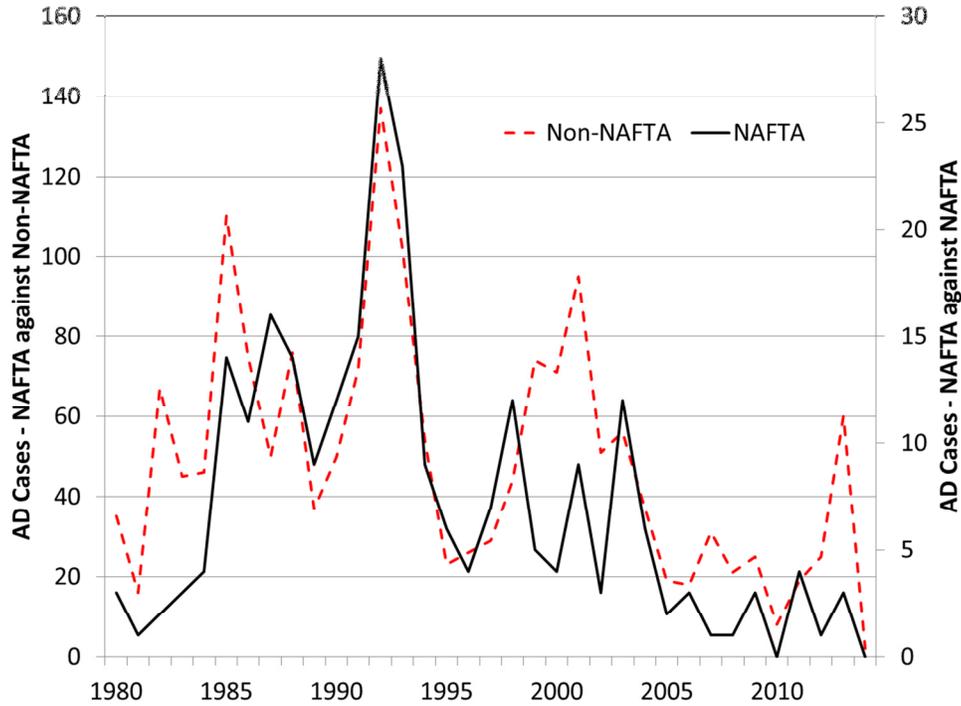
To get a perspective on the impact of AD rules on NAFTA AD activity we collected information on all AD filings by the Canada, Mexico and the U.S. since January 1980. For each year we calculated the number of cases initiated by the NAFTA member against non-NAFTA countries and against fellow NAFTA members.<sup>11</sup> The results are given in in Figure 1 and in Table 3.

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<sup>10</sup> Both the Jones and Blonigen studies were done within a few years following the enactment of NAFTA and thus only had a few observations post-NAFTA.

<sup>11</sup> Bown (2011a, 2011b) argues that a product code basis is a more accurate measure of the extent of AD activity. In this paper we opt for the simpler case metric.

**Figure 1: NAFTA Antidumping Cases**



We begin by plotting NAFTA AD filings pre- and post-NAFTA enactment (Figure 1). The dotted line depicts the number of AD cases filed by Mexico, Canada or the U.S. against non-NAFTA countries and the solid line is the number of AD cases filed by NAFTA members against a fellow NAFTA country. As seen, it is clear that in broad terms the two series are clearly related. This suggests that AD activity is driven first and foremost by industry trade trends and secondarily by country-level considerations. That being said, the relationship clearly is not as tight following NAFTA. During the early period (pre-1994) the correlation is 0.82 as compared with the latter period (post-1994) the correlation is 0.56. Without controlling for other factors the figure is consistent with the view that the incidence of intra-NAFTA disputes fell after 1994: the NAFTA line clearly falls below the non-NAFTA for almost the entire 1994-2013 period.

**Table 3: NAFTA Antidumping Cases, Pre- and Post-1994**

<b>1980-2013</b>						
	<b>Canada</b>	<b>Mexico</b>	<b>USA</b>	<b>NAFTA</b>	<b>Non-NAFTA</b>	<b>Total</b>
Canada	0 (0%)	6 (2%)	67 (17%)	73 (18%)	323 (82%)	396
Mexico	5 (2%)	0 (0%)	74 (28%)	79 (30%)	183 (70%)	262
USA	53 (4%)	45 (3%)	0 (0%)	98 (8%)	1198 (92%)	1296
NAFTA Total	58 (3%)	51 (3%)	141 (7%)	250 (13%)	1704 (87%)	1,954
<b>Pre-NAFTA</b>						
	<b>Canada</b>	<b>Mexico</b>	<b>USA</b>	<b>NAFTA</b>	<b>Non-NAFTA</b>	<b>Total</b>
Canada	0 (0%)	3 (1%)	47 (23%)	50 (24%)	158 (76%)	208
Mexico	4 (3%)	0 (0%)	46 (32%)	50 (35%)	92 (65%)	142
USA	36 (5%)	19 (3%)	0 (0%)	55 (8%)	668 (92%)	723
NAFTA Total	40 (4%)	22 (2%)	93 (9%)	155 (14%)	918 (86%)	1,073
<b>Post-NAFTA</b>						
	<b>Canada</b>	<b>Mexico</b>	<b>USA</b>	<b>NAFTA</b>	<b>Non-NAFTA</b>	<b>Total</b>
Canada	0 (0%)	3 (2%)	20 (11%)	23 (12%)	165 (88%)	188
Mexico	1 (1%)	0 (0%)	28 (23%)	29 (24%)	91 (76%)	120
USA	17 (3%)	26 (5%)	0 (0%)	43 (8%)	530 (92%)	573
NAFTA Total	18 (2%)	29 (3%)	48 (5%)	95 (11%)	786 (89%)	881

Table 3 presents a summary tabulation. The table is split into three parts: the upper panel reports all AD activity between January 1980 and December 2013, the middle panel reports AD activity for the pre-NAFTA period (January 1980 and December 1993) and the bottom panel reports AD activity for the post-NAFTA period. Over the entire period, intra-NAFTA filings have accounted for just 13% of all NAFTA-sourced AD investigations. This is far less than NAFTA partners' share of overall trade. This preference to *not* file AD against fellow NAFTA partners is

seen both in the pre- and post-NAFTA periods and echoes a finding in Blonigen (2005).

The key statistics for the purposes of this discussion is the incidence rate pre-NAFTA as compared with post-NAFTA. Pre-NAFTA intra-filings accounted for 14% of all AD filings. Post-NAFTA intra-filings accounted for 11% of all AD filings. This difference is statistically significant at the 1% level (binomial test). Again, without controlling for many other factors that could be influencing AD activity, the raw data does support the view that NAFTA has reduced intra-filings.

What is particularly fascinating is that the NAFTA review panel has been the source of considerable unhappiness in the United States (as discussed above). The growing US resentment against international trade and international institutions is likely due to the fact the U.S. commentators are reflecting on what they feel is the loss of U.S. autonomy in making its trade policy. The data suggests, however, that the commentators are missing the larger story. Namely, that the NAFTA rules particularly seem to have altered Canadian and Mexican filing patterns targeting the U.S. Consider the following. In both the pre- and post-NAFTA periods intra-NAFTA filings have accounted for 8% of U.S. AD filings. By this metric, Canada and Mexico have gained little as a result of the NAFTA provisions. Now, consider the filing behaviour of Canada and Mexico. The data suggests the U.S. has gained disproportionately with respect to being targeted. Mexico's filing rate against the U.S. fell from 32% to 23% and Canada's filing rate against the U.S. fell from 23% to 11%. By contrast, Mexico's and Canada's filing rate against one another fell but by far less (certainly due in part to the low level of cases against one another throughout the period). Arguably, in terms of being the subject to AD duties U.S. firms have been the big winner as a result of NAFTA.

While the overall data provides compelling evidence that there has been a change in filing incidence post-NAFTA additional evidence can be found when we drill down and look at two large AD steel cases during the post-NAFTA period. In the 2001-02 period the U.S. steel industry was struggling with a number of large steel producers

declaring bankruptcy (e.g., National Steel, Bethlehem Steel, LTV Steel). During that time the U.S. steel industry was aggressively seeking protection, filing dozens of AD cases and also initiating the largest safeguard action in U.S. history.

Curiously, despite the industry's desperate attempts reduce imports, Canadian and Mexican producers were conspicuously absent from most of the investigations. For instance, consider the 2000-01 hot-rolled steel case and the 2001-02 cold-rolled steel case. The hot-rolled case involved 11 major steel exporters: Argentina, China, India, Indonesia, Kazakhstan, Netherlands, Romania, South Africa, Taiwan, Thailand, and Ukraine. Moreover, this hot-rolled case followed on the heels of a just completed hot-rolled case involving three other steel exporters (Brazil, Japan, Russia). Taking the 1997-98 and 2000-01 cases together, 14 of the 17 largest hot-rolled suppliers to the U.S. were named. Noticeably absent were steel producers located in Mexico and Canada.<sup>12</sup> As shown in Figure 2 the Mexican and Canadian steel producers exported large volumes at prices below those charged by other countries named in the investigation. On the *x*-axis we graph the AUV (\$/ton) charged by each country in the year before the case was initiated. On the *y*-axis we graph the quantity of exports sold to the U.S. (in the year prior to the filing). In the figure, the diamond marker represents the (price, volume) combination for non-named suppliers. The solid square markers denote the (price, volume) combination for the named suppliers. The two X markers denote the (price, volume) for two of the countries (Brazil and Japan) named in the previous hot-rolled case and were already subject to an AD order.<sup>13</sup> As seen, while Canada charged high prices, its volume was larger than any other supplier to the U.S. market. Mexico, on the other

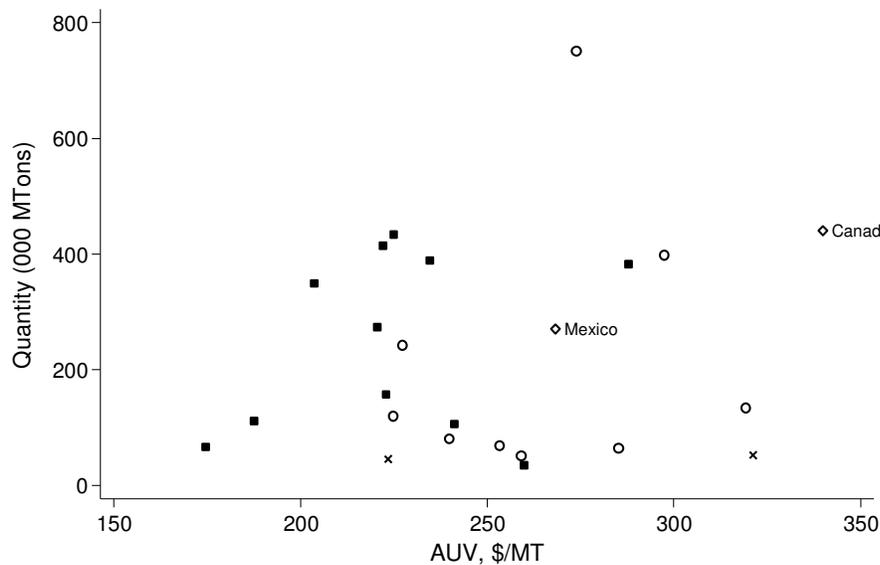
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<sup>12</sup> The other large supplier that was not named was Korea. The explanation for Korea not being named was that the vast majority of Korea's hot-rolled imports were shipped to the U.S. as part of a joint venture with US Steel. This joint venture later became a difficult issue during the U.S. safeguard action. As a way to placate its Korean partner, U.S. Steel cooperated with the USTR to get Korea the largest volume exemption to the safeguard order. Canada and Mexico were excluded from the safeguard protection.

<sup>13</sup> The third country subject to the earlier case (Russia) had sufficiently small volume to not warrant including in the plot.

hand, had a lower price than one named supplier (The Netherlands) and a comparable price to another named supplier (Thailand). At least as damming, Mexico's volume was larger than six of the 10 named suppliers. Given the U.S. Department of Commerce's discretion at computing margins, there is little doubt that Mexico would have been found to have dumped had it been included in the case.

**Figure 2: U.S. Hot-Rolled Steel – Antidumping Case (2000-01)<sup>14</sup>**



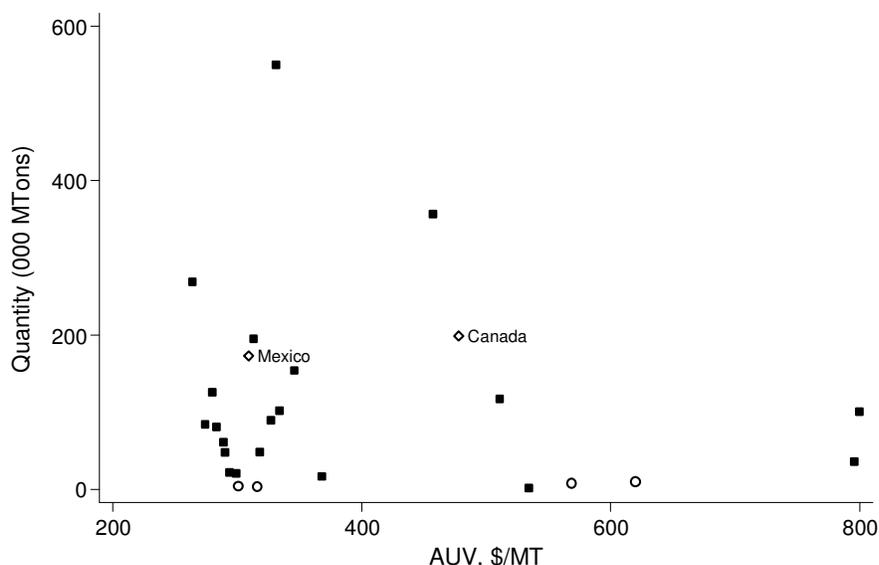
The 2001-02 U.S. cold-rolled steel case offers another clear example of the preferences that NAFTA seems to be providing NAFTA firms. This dispute involved a remarkable 20 countries: Argentina, Australia, Belgium, Brazil, China, France, Germany, India, Japan, Korea, Netherlands, New Zealand, Russia, South Africa, Spain, Sweden, Taiwan, Thailand, Turkey, and Venezuela. The case was the

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<sup>14</sup> *Hot-Rolled Steel Products from China, India, Indonesia, Kazakhstan, The Netherlands, Romania, South Africa, Taiwan, Thailand, and Ukraine* (Investigations Nos. 701-TA-405-408 and 731-TA-899-904 and 731-TA-906-908 (Final), USITC Publication 3468, October 2001).

most expansive AD dispute in a decade. As shown in Figure 3 Mexico and Canada stand out as true outliers – they were the fifth and sixth largest foreign suppliers to the U.S. In terms of pricing, Mexico’s prices were among the lowest third of all suppliers and Canada’s prices were lower than five named countries. As with the hot-rolled case, the fact that both NAFTA partners were not-named suggests that NAFTA rules discourage U.S. producers from seeking to levy duties.

**Figure 3: U.S. Cold-Rolled Steel – Antidumping and CVD Case (2001-02)<sup>15</sup>**



Finally, by way of comparison we note that U.S. filings against partners in non-NAFTA PTAs have also generally decreased post-enactment. In Table 4 we present the average number of AD filings per year for four other PTAs (Australia-US, US-Chile, US-Israel, US-Singapore) none of which has an additional AD rules. While

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<sup>15</sup> *Certain Cold-Rolled Steel Products From Argentina, Australia, Belgium, Brazil, China, France, Germany, India, Japan, Korea, The Netherlands, New Zealand, Russia, South Africa, Spain, Sweden, Taiwan, Thailand, Turkey, and Venezuela* (Investigations Nos. 701-TA-422-425 and 731-TA-964-983) USITC Publication No. 3536, September 2002 and Publication No. 3551, November 2002).

the level of AD activity has always been low, the data nevertheless shows that filings fell post-enactment for three of the four PTAs. This raises the spectre that the effect attributed to AD provisions might indeed be related to PTA membership but not really driven by AD rules. For instance, the PTA might simply engender “good will” or political closeness. In Prusa and Teh (2010) we explore this issue at some length and find that on average, AD filing patterns do not change for PTAs without AD rules – and that the U.S. pattern is the outlier.

**Table 4: U.S. AD Cases against PTA partners (average per year),  
Pre- and Post-PTA Enactment**

	<u>Australia-US</u>	<u>US-Chile</u>	<u>US-Israel</u>	<u>US-Singapore</u>
Pre-PTA	0.28	0.33	0.20	0.38
Post-PTA	0.20	0.00	0.33	0.00
% Change	-29%	-100%	67%	-100%

## V. TRADE AND PROTECTION DIVERSION

A concern with PTAs that prohibit or add additional rules to trade remedies is that the provisions do not guarantee that disputes will not occur. The rules may mean fewer cases will be filed against PTA members, but that tells us little about what may happen to *other* countries. The PTA provisions might simply lead to fewer intra-PTA disputes but not change filings against non-PTA members. Or, it is possible that industries seeking to reduce overall import competition will file more cases against non-PTA countries. Bhagwati (1993) and Bhagwati and Panagariya (1996) argued that the elastic and selective nature of administered protection made “protection diversion” a particularly pernicious and unforeseen consequence of PTAs. Administered protection is elastic because it is arbitrary and the targets can be easily manipulated. So apart from discrimination introduced by preferential

tariffs, PTAs can lead to more discrimination against non-members of the PTA though more frequent trade remedy actions against them: trade diversion begets protection diversion which begets more trade diversion.

AD is an ideal candidate for protection diversion. Given WTO rules, unfair trade is poorly measured; often all exporters to a market will be found guilty of dumping. Over the past decade it is increasingly rare for authorities to *not* determine unfair pricing exists.<sup>16</sup> Unfair trade may be practiced by suppliers within as well as outside the trade bloc. But given that PTA rules on AD make it more difficult (or for some agreements impossible) to apply AD against intra-bloc members. In these cases AD duties may get applied only against countries outside the bloc. AD duties are rarely less than 10 percent *ad valorem*, so it is quite possible the secondary trade diversion (caused by protection diversion) will surpass the primary trade diversion (caused by preferential tariff treatment).<sup>17</sup> Moreover, as Bhagwati has argued, the source of the industry's injury might be truly rooted in the PTA preferences but the PTA rules may result in the AD duties being imposed on non-PTA sources.

To get a sense of the extent of the changing incidence of AD protection we augmented the basic PTA database with information on worldwide AD activity dating back to 1980. The earlier years of data were gathered to allow for a better comparison of pre-PTA versus post-PTA filing patterns. All together, we have information on more than 6,000 AD cases that were initiated by WTO countries that belong to at least one PTA.

For each importing country the annual number of AD disputes initiated by PTA members against PTA members (intra-PTA filings) is calculated. Given that PTAs

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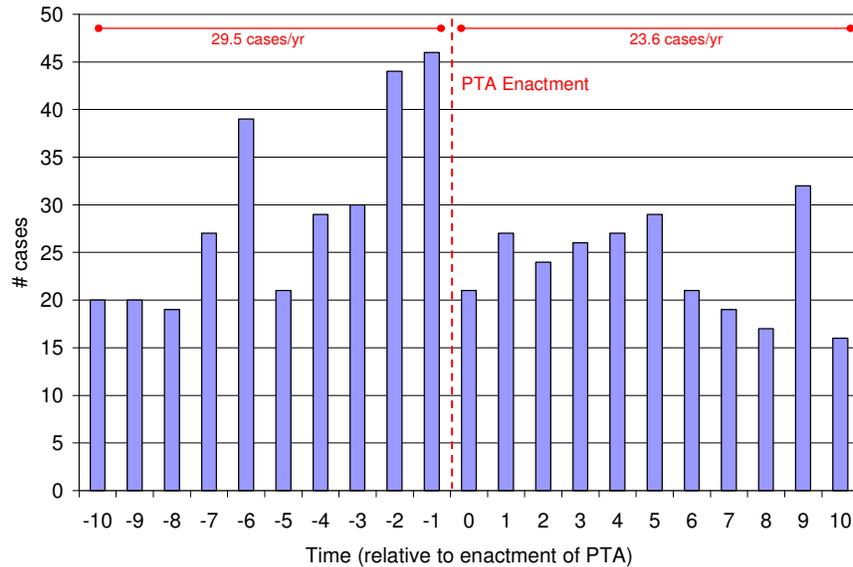
<sup>16</sup> For example, Lindsey and Ikenson (2003) document that the U.S. Department of Commerce finds unfair pricing for more than 95 percent of all firms investigated. They also note that the Department of Commerce can go years between negative determinations.

<sup>17</sup> Blonigen (2006) finds that the average U.S. dumping margin exceeds 60 percent.

are enacted in a variety of years, we abstract from calendar time and instead consider time as measured relative to the year the PTA was enacted. For each PTA, year zero is the year the PTA was enacted, year  $t-1$  is the year before, year  $t-2$  is two years before enactment,  $t+1$  is the year after, etc. This view of time allows us to conveniently aggregate across PTAs.

In Figure 4 the aggregate number of AD disputes relative to each PTA's inception is plotted.<sup>18</sup> This chart only looks at intra-PTA activity. The results are pretty compelling. During the years prior to the PTA enactment, intra-PTA AD activity is growing. The year the PTA is enacted ( $t = 0$ ) the number of AD disputes drops sharply and remains much lower than the pre-PTA level. On average, during the 10 years prior to the PTA there were 29.5 AD cases per year; by contrast, during the 10 years following the PTA there were just 23.6 cases per year – about a 20% reduction.

**Figure 4: Intra-PTA AD Filings**



<sup>18</sup> Additional details are found in Prusa and Teh (2010).

While the results are striking the analysis does not control for the possibility that AD activity in general – AD actions against both PTA and non-PTA members – may have fallen at a time coincidental with the enactment of the PTA. Said differently, the above analysis is not able to distinguish the PTA effect from some other trend. For instance, given that the Uruguay Round was concluded in 1994 and given that a number of PTAs were enacted in the mid-1990s, it is possible that the observed decline in AD activity might be a result of AD provisions in the Uruguay Round rather than the PTA provisions.

To control for this possibility a “difference in difference” analysis is needed. The general idea of the approach is that to identify the effect of some sort of treatment by comparing the treatment group after treatment both to the treatment group before treatment and to some other control group. In our case, the “treatment” group is composed of countries that join a PTA and the “control” group is made up of countries not in a PTA. The comparison will therefore involve AD filings against PTA members and non-PTA members both before and after each PTA is enacted.

The results are shown in Table 5. The changing pattern of is clearly seen. During the “pre-PTA” period 58% of the cases filed against non-PTA countries and 42% were against PTA members. By contrast, during the “post-PTA” period, 90% of the cases were against non-PTA countries and only 10% were against PTA members. Using a binomial test, the difference in filing incidence is significant at the 1% level. So, during the “before” period the difference between PTA members and non-members is 16 percentage points but during the “after” period the difference is 80 percentage points yielding a “difference in difference” of 64 percentage points. The implied change on filing patterns is quite large – if pre-PTA filing rates (58% against non-PTA, 42% against PTA) had continued during the post-PTA period the results imply that almost one-third of the AD cases filed during the post-PTA period were diverted from PTA members to non-PTA countries.

**Table 5: AD Activity by PTA Status**

	Target Country	
	Non-PTA Member	PTA Member
Pre-PTA	58%	42%
Post-PTA	90%	10%

While the above results are compelling they do not control for a variety of other factors that might be influencing the changing patterns. For instance, some PTAs also have additional investment rules that may encourage more intra-PTA FDI which in turn might dampen the incentive to impose AD duties. Or, it could be that the main effect of PTAs is the political closeness not the AD rules – what one might call “kumbaya”. If this were the case, there still would be protection diversion, but our sense of the cause of the diversion would be very different than if it is the rules that are the cause. Also, China has emerged as a major exporting country and this has led to a large number of AD cases against China. China, and not the growing number of PTAs, could be the basis for the changing patterns.

Prusa and Teh (2010) control for all of these factors using formal econometric techniques. In each case we find that the importance and significance of PTA rules remains. The findings clearly raise the spectre of protection diversion and more subtle forms of trade diversion. Tariff preferences are small and might result in only modest amounts of trade diversion. This does not imply, however, that trade diversion is not a concern; rather, it appears that the larger source of discrimination might stem from other provisions in the PTA.

## **VI. CONCLUDING COMMENTS**

Overall, the findings highlight the need to be vigilant about the impact of AD provisions in PTAs. The trade remedy provisions vary greatly across PTAs and increase the overall complexity of the world trading environment. Trade remedy

provisions in PTAs have a mixed welfare impact. This ambiguous finding partly reflects that trade creation and trade diversion are happening within the PTA. In some cases PTA rules appear to mostly promote trade creation and other times the rules seem to be simply trade diversion.

Some PTA rules make it easier to restrain intra-PTA imports. Such provisions may benefit global welfare by mitigating trade diversion stemming from preferential tariffs. More often, however, PTAs rules either prohibit AD protection against PTA members or make AD protection harder to apply against PTA members. This raises the very real possibility that PTAs induce protection diversion which in turn serves to produce more trade diversion.

There are other possible consequences of including AD provisions in PTAs. For instance, PTAs might be might serve as small scale experiments that allow countries to better understand the practical effect of certain provisions. If parties find certain new rules attractive, those rules might be incorporated in future WTO negotiations. In this sense, PTAs might act as “beta” testing for the larger scope WTO rounds. By giving members experience with new provisions, PTA rules could streamline future WTO negotiations.

On the other hand, the trade remedy provisions in PTAs may erode the market access that non-members thought they had secured in prior WTO rounds. The erosion is not limited to trade diversion stemming from preferential tariffs but also emerges from selective use of contingent protection rules. As a result PTAs may make it more difficult for non-PTA members to agree to future WTO liberalization as the requisite quid-pro-quo from PTA members may not be realized. The complicated pattern of inclusion of these provisions threatens the delicate “give and take” balancing of incentives that is at the crux of the GATT/WTO agreements.

## VII. REFERENCES

- Amiti Mary and John Romalis, 2007. "Will the Doha Round Lead to Preference Erosion?" *IMF Staff Papers*, Palgrave Macmillan, vol. 54(2), 338-84.
- Bhagwati, Jagdish 1993. "Regionalism and Multilateralism: An Overview," in de Melo, Jaime and Arvind Panagariya (eds.) *New Dimensions in Regional Integration*. Cambridge: Cambridge University Press.
- Bhagwati, Jagdish and Panagariya, Arvind (eds.) 1996. *The Economics of Preferential Trade Agreements*. Washington, DC: AEI Press.
- Blonigen, Bruce A. 2005. "The Effects of NAFTA on Antidumping and Countervailing Duty Activity," *World Bank Economic Review*, 19(3): 407-23.
- Blonigen, Bruce A. 2006. "Evolving Discretionary Practices of U.S. Antidumping Activity," *Canadian Journal of Economics*, 39: 874–900.
- Bown, Chad P. (ed.). 2011a. *The Great Recession and Import Protection: The Role of Temporary Trade Barriers*. London, UK: CEPR and the World Bank.
- Bown, Chad P. 2011b. "Taking Stock of Antidumping, Safeguards and Countervailing Duties, 1990-2009," *The World Economy* 34(12): 1955-98.
- Bown, Chad P. and Meredith A. Crowley. 2007. "Trade Deflection and Trade Depression." *Journal of International Economics* 72. 1: 176-201.
- Brenton, Paul & Ikezuki, Takako, 2004. "The initial and potential impact of preferential access to the U.S. market under the African Growth and Opportunity Act," Policy Research Working Paper Series 3262, The World Bank.
- Dean, Judith M. and John Wainio. 2009. "Quantifying the Value of US Tariff Preferences," *Trade Preference Erosion: Measurement and Response*. Ed. B. Hoekman, W. Martin and C. Braga. New York: World Bank and Palgrave-MacMillan.
- Francois, Joseph, Bernard Hoekman and Miriam Manchin. 2005. "Preference Erosion and Antitrust in RTAs," *World Bank Economic Review* 29(2): 197-216.
- Gagné, Gilbert & Michel Paulin, 2013, "The Softwood Lumber Dispute and US Allegations of Improper NAFTA Panel Review," *American Review of Canadian Studies*, 43(3): 413-23.
- Lindsey, B., & Ikenson, D. J. (2003). *Antidumping exposed: The devilish details of unfair trade law*. Washington, D.C: Cato Institute.

- Jackson, John H. 1997. *The World Trading System: Law and Policy of International Economic Relations*. Cambridge, MA: MIT Press.
- Jones, Kent 2000. 'Does NAFTA Chapter 19 make a difference? Dispute Settlement and the Incentive Structure of US/Canada Unfair Trade Petitions', *Contemporary Economic Policy* 18: 145-58.
- Mankiw, N. Gregory, and Phillip Swagel. 2005. "Antidumping: The Third Rail of Trade Policy," *Foreign Affairs* 84(4): 107-119
- Mastel, Greg. 1998. *Antidumping Laws and the U.S. Economy*. Armonk, NY: ME Sharpe.
- Prusa, Thomas J. 2001. "On the Spread and Impact of Antidumping," *Canadian Journal of Economics* 34(3), 591-611.
- Prusa, Thomas J. 2005. "Antidumping: A Growing Problem in International Trade," *The World Economy* 28: 683-700.
- Prusa, Thomas J. and Robert Teh. 2010 "Protection Reduction and Diversion: PTAS and the Incidence of Antidumping Disputes," NBER Working Paper 16276.
- Prusa, Thomas J. and Robert Teh, "Contingent Protection Rules in Regional Trade Agreements." in Kyle W. Bagwell and Petros C. Mavroidis (eds.), *Preferential Trade Agreements*. Cambridge: Cambridge University Press, 2011: 60-114.
- Tharakan, P. K. M. 1995. "Political Economy and Contingent Protection," *Economic Journal* 105: 1550-64.
- Viner, Jacob 1950. *The Theory of Customs Union Issue*. New York: Carnegie Endowment for International Peace.
- World Bank. 2005. *Global Economic Prospects 2005: Trade, Regionalism, and Development*. Washington, DC: World Bank.