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The Global Resort to Antidumping, Safeguards, and other Trade Remedies Amidst the Economic Crisis

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1. INTRODUCTION

World Trade Organization member countries turn to import-restricting 'trade remedy' instruments during both good and bad macroeconomic times. Nevertheless, the historical economic evidence finds a strong link between economic downturns associated with recessions and exchange rate shocks, and an *increase* in the use of policies such as antidumping and safeguards. The sudden onset and global nature of the current economic crisis have created concern that countries may dramatically increase their use of such trade remedy instruments beyond the 'normal' underlying current of protectionism associated with the ongoing process of adjustment, that is associated with the forces of globalisation.

Section 2 of this paper examines newly available data tracking the global use of these trade remedy instruments which do indicate a marked increase in WTO members' combined resort to these instruments beginning in 2008, and that continued into the first quarter of 2009 during the spread of the global economic crisis. The product-level use of trade remedies was 34 percent higher in 2008 relative to 2007, and use in the first quarter of 2009 was 22.3 percent higher than in the same period in 2008. The imposition of new definitive measures in 2009 is projected to be 18.5 percent higher than the number imposed in 2008.

A number of countries have resorted to these instruments, including almost all of the Group of Twenty (G20) that are members of the WTO. These countries have few alternatives for invoking new forms of potentially WTO-consistent import protection, as many are constrained both by the rules of the international system and because their pre-crisis applied tariff rates may have been somewhat close to their tariff bindings legally submitted to the WTO. The use of these import-restricting instruments is increasingly affecting 'South-South' trade; that is, developing country importers initiating and imposing new protectionist measures primarily affecting developing country exporters. The majority of the product-level actions to limit import competition intensively target exports from China.

Despite the increasing use of these instruments the quantity of imports targeted by these measures thus far is relatively small. Collectively, the value of imports in 2007 for these major G20 economies that has subsequently come under attack by the use of import-restricting trade remedies during the period of 2008 to early 2009 is likely to be less than $29 billion, or less than 0.45 percent of these economies' total imports. With the exception of the concern raised by India's use in particular (1.8 percent of its total 2007 imports), country-by-country estimates indicate that the new protectionism thus far covers only 0.2 to 0.8 percent of these economies' total pre-crisis (2007) levels of imports.

While the level of trade affected thus far may be small for most of these economies, in section 3 we make a first assessment of some of the case-level data and identify many possible ways in which the crisis use of these import-restricting trade remedies may have economically important welfare-distorting effects. These potential losses go beyond the first-order concern of the size of lost imports associated with targeted products, and the losses to domestic consumers and using industries that suffer due to reduced access to imported varieties and higher prices. An established body of economic research identifies a number of unintended and adverse consequences associated with a nation's resort to these trade remedies. We use this literature to guide our more detailed investigation of individual cases. We provide examples from crisis period cases in which firms may be using such remedies to generate anti-competitive effects, thus imposing an additional burden on consumers. This may especially be the case in concentrated sectors such as chemicals and in steel, in which recent M&A activity and a legacy of foreign direct investment create an environment in which multinational firms and their subsidiaries have access to trade remedies *in multiple jurisdictions* and the possibility of abusing them to segment markets.

The data on the crisis use of trade remedies also suggest that current protectionism, while limited, could quickly lead to escalating protectionism through at least three possible channels. The first of these is simple tit-for-tat retaliation. The second occurs after one country imposes a trade remedy on a product, and a second, third, fourth country (and so on) follows up by using their own import restrictions to target the same products, due to the fear of a 'trade deflection' surge of exports of the product into their own market. Finally, a newly imposed upstream trade barrier on imported inputs raises the cost to downstream users, creating competitiveness concerns that can generate additional downstream industry demands for cascading protectionism. The possibility that the major G20 economies are currently invoking policies that may increase the probability of a spiralling 1930s-style resort to Great Depression protectionism is therefore still a primary concern during the global crisis.

2. MONITORING THE COMBINED USE OF TRADE REMEDIES

Economic evidence from historical data (for example Knetter and Prusa, 2003; Irwin, 2005) finds a strong link between an *increase* in the use of trade remedies

during economic downturns associated with recessions and exchange rate shocks The effort to track, assess, and examine the impact of the spread of protectionism during the current global economic crisis is complicated. First, the use of the 'traditional' trade remedy instruments of antidumping (AD) and global safeguards (SG) has spread to new countries.[1] Second, many countries are also adopting and implementing the use of other 'new' trade remedy instruments such as China-specific transitional safeguards (CSG) and countervailing duties (CVD) under 'anti-subsidy' laws[2] Of the four policy instruments that we include in our analysis, the CSG is the least well known because of its relatively recent arrival on the scene – it is an instrument to which WTO members negotiated access beginning in 2001 (as part of China's agreement to accede to the WTO) and it remains in place as a potential import-restricting policy instrument through to 2014. The other lesser-known and historically lesser-utilised instrument is the CVD policy. There may be some cause for speculation of a global shift towards increased use of this particular anti-subsidy instrument associated both with increased pressure relating to exports from China, as well as to the current spread of the use of subsidies in government stimulus packages in the light of the global economic crisis.[3]

Therefore, while we are interested in tracking the combined use of these relatively substitutable forms of import protection, especially in light of the global economic crisis, doing so requires more than simply additively aggregating their use. Some of these trade remedy instruments apply to specific foreign countries, while others are applied on a more non-discriminatory, most-favoured-nation (MFN) basis across foreign sources.[4] In the presence of multiple trade remedy instruments which can be 'substitutes' providing the same access to import protection, one way to normalise the data to assess the frequency of their *combined* use over time is to examine *non-redundant* requests for new protection under-

[1] For surveys see Blonigen and Prusa (2003) for antidumping, and Bown and Crowley (2005) for safeguards.

[2] India's activity in Q1 2009 provides an illustrative example: India initiated three AD investigations, three CSG investigations, two SG investigations, and its first ever CVD investigation, also one in which it targeted China.

[3] The first reason is the increasingly prominent role of China's exports in the world trading system and the fact that, unrelated to the financial crisis, the United States changed a 23-year-old policy in March 2007, when the Department of Commerce indicated it would now 'consider' industry petitions for import protection under the nation's countervailing duty initiations against China. As one of the pivotal players in the rules-based WTO system, the signal that the United States sent by initiating CVD use against China may spur other WTO member countries to adopt a similar approach. The second reason is due to the massive subsidies that major economies are currently imposing as part of their stimulus packages to deal with the global economic crisis. Some trading partners may seek to use CVDs to address what they perceive as the trade-distorting effects of such subsidies.

[4] In principle these trade remedy instruments do require different forms of evidence before they can be applied. AD requires evidence of less-than-fair-value pricing (dumping) and injury to the domestic industry from the dumped imports; CVD requires evidence of foreign subsidisation and injury; SG requires evidence of injury caused by increasing imports; and CSG requires evidence of injury caused by increasing imports from China. Nevertheless, economic research such as Bown (2004) and Bown and McCulloch (2003) has shown that these instruments can be applied in ways that have similar effects on trade flows.

taken within a policy-implementing economy at the *product* level.[5] For example, such an approach does make a country's use of AD or CVD targeting multiple foreign sources of the same imported product more comparable to global safeguard (SG) protection. This is the approach we adopt in sections 2.1 to 2.5, before examining, in section 2.6, the collective size of the imports likely to be affected by the use of these trade remedy instruments.

In the next sub-section we begin our discussion of the combined use of these trade remedies. For readers interested in tracking the trends in the underlying data on a policy-by-policy basis, appendix figures A7.1 to A7.4 present information on the initiations and measures imposed of each of the four distinctive trade remedy instruments over time.

2.1 The increase in the use of the trade remedy during the crisis

As Figure 7.1a indicates, WTO members initiated 35 new product-level investigations requesting the imposition of new import restrictions under national trade remedy laws during the first quarter (Q1) of 2009, our most recently available data.[6] This is an increase of 22.3 percent compared to the same period in 2008 and it continues an upward trend. The total number of new, product-level, import-restricting investigations launched in 2008 was 34.0 percent higher than the number of new investigations initiated during 2007. It is worth pointing out, however, that 2007 was a relatively low point for new trade remedy initiations under instruments such as AD, SG, and CSG (see again appendix figures A7.1 to A7.4).

The historical data on the use of these trade policies, especially in the case of the dominant AD instrument in use in many countries around the world, indicate that the vast majority of new investigations and requests for import protection ultimately result in the imposition of new 'definitive' import restrictions in the form of tariffs, price undertakings, or quantitative restrictions. While the share of new investigations resulting in the imposition of final measures in developed economies like the United States and the EC countries may have recently fallen to the range of 50–60 percent, the share is much higher in many developing countries. This includes some of the countries that are the major new sources of the current rise in initiated investigations (for example, India and Turkey), where

[5] For example, by an initiation or measure being defined at the *product level*, we mean that the United States' two Q2 2008 antidumping investigations of 'Certain circular welded carbon quality steel line pipe' from Korea and from China are treated as one product-level investigation. Furthermore, to ensure product-level initiations are not *redundant* across policy instruments, a WTO member's simultaneous AD and CVD cases over the same product are treated as one case. For example, the US Q2 2008 simultaneous AD and CVD investigations of 'Certain circular welded carbon quality steel line pipe' from China are also treated as one product-level investigation.

[6] Most of this activity is antidumping; however the use of other instruments has been increasing recently. As described in the *Global Antidumping Database*, these figures are based on origin-source, nationally provided data for AD and CVD. The data reported in the text and figures are based on those collected for 20 AD- (18 CVD-) using countries, and while this does not comprehensively cover the global use of the instrument, historically these countries represented 90 percent of AD (93 percent of CVD) initiations by all WTO members during 1995–2007. The data collected on countries' use of SG and CSG are comprehensive and obtained from the WTO in addition to national government sources.

a. New Import-restricting Trade Remedy Investigations at the Product Level

b. Newly Imposed Import-restricting Trade Remedies at the Product Level, Including Projected Impositions through Q1 2010

Figure 7.1: *Combined Use of Import-Restricting Trade Remedies, Q1 2007–Q1 2009*

Source: Compiled by the author from the Global Antidumping Database. These are non-redundant AD, CVD, SG, CSG at the product level. The Figure 7.1b projections for 12 2009 through Q1 2010 are based on the 2007 year rate of 79 percent of initiations subsequently resulting in definitive measures, the 2007 average of a 4-quarter lag between initiation and imposition of final measure, and the rate of initiations between Q2 2008 and Q1 2009 documented in Figure 7.1a.

it is not uncommon to find 80–95 percent of the initiations resulting in the imposition of new measures. Overall, 79 percent of the investigations initiated in 2007 that reached the stage of a final determination by Q1 2009 resulted in the imposition of a definitive import restriction.

Figure 7.1b tracks the imposition of new measures at the product level across the same sample of WTO members illustrated in Figure 7.1a. WTO members imposed 20 new *product-level* definitive import restrictions in Q1 2009 under national trade remedy laws, an increase of 5.1 percent compared to Q1 2008; the annualised rate translates to the frequency of new import restrictions in 2009 to be 11.9 percent higher than the rate at which definitive new measures were imposed in 2008.

However, this annualised figure will certainly under-predict the *actual* increase in imposed measures in Q2 to Q4 of 2009. The increase in the rate of imposed measures is expected to be *larger* than 11.9 percent, higher than the number imposed in 2008, given the sharp increase in newly initiated investigations in Q2 to Q4 of 2008 (see again Figure 7.1a). To highlight this point, in Figure 7.1b we illustrate the *projected* imposition of definitive new import restrictions at the product-level for these countries between Q2 2009 and Q1 2010. These projections are computed from assumptions and parameter estimates from the 2007 data: 79 percent of new initiations result in definitive measures; it takes four quarters to reach imposition of a measure after initiation of an investigation, and the number of new investigations initiated each quarter between Q2 2008 and Q1 2009 are as in Figure 7.1a. While this approach is admittedly crude, and does not control for the likelihood that the share of investigations that may result in definitive measures may rise during the crisis, as a conservative benchmark it suggests at least an 18.5 percent increase in imposed measures in 2009 when compared to 2008.

2.2 The countries that are using the trade remedies to limit imports

In addition to documenting the time trend of trade remedy use, Figures 7.1a and 7.1b also illustrate the relative frequency with which these actions are being taken by developed versus developing economy users of import protectionist instruments. The figures indicate that increasingly these actions are being undertaken by developing countries.

Table 7.1 provides further information on the country-level use of these trade policy instruments between Q1 2007 and Q1 2009. Most striking is that since the onset of the crisis – or roughly between Q1 2008 and Q1 2009, developing countries initiated 74 percent of all new investigations. This use has been dominated by India (20 percent), Argentina (12 percent), Turkey (8 percent), Brazil (7 percent), and China (5 percent). Developed economies initiated only 26 percent of the new investigations during this time, although most of those derive from initiations by the United States (8 percent) and the European Union (7 percent).

2.3 The targeted sectors

Table 7.2 illustrates the product-level requests by sector for new import restrictions under these trade remedy instruments between Q1 2007 and Q1 2009. For

Table 7.1: *Country Use of Non-redundant AD, CVD, SG, CSG at the Product Level, Q1 2007–Q1 2009*

Countries	Initiations			Measures		
	2007 Total	2008 Total	Q1 2009 Total	2007 Total	2008 Total	Q1 2009 Total
US	14	12	1	3	13	3
EC	6	10	1	8	9	1
Canada	1	3	1	1	3	1
Australia	3	4	1	2	0	3
New Zealand	2	0	0	1	1	0
South Korea	6	3	0	0	6	2
Taiwan	0	0	0	1	0	0
Israel	0	1	3	1	0	0
Argentina	6	11	8	6	4	2
Brazil	8	10	0	11	5	1
India	14	21	9	11	11	4
Turkey	6	12	1	4	10	2
China	1	6	2	6	1	0
South Africa	5	2	1	2	2	0
Pakistan	0	3	1	2	0	0
Colombia	1	6	1	7	0	1
Mexico	3	1	1	0	0	0
Peru	2	0	1	1	0	0
Venezuela	0	0	0	0	0	0
Ukraine	5	4	2	0	5	0
Others	1	9	1	2	1	0
Developed countries total	32	33	7	17	32	10
Developing countries total	52	85	28	52	39	10
Total	84	118	35	69	71	20

Source: Compiled by the author from the *Global Antidumping Database*. These are non-redundant AD, CVD, SG and CSG at the product level.

the developed economy users, the industries most frequently resorting to these instruments are chemicals, iron and steel, and machinery, with 65 percent of the developed economy initiations since Q1 2008 occurring in just one of these three sectors. As these are the historically dominant sectoral users of trade remedies, the predominance of their use during the crisis is not surprising. Nevertheless, the recurrence of use in these sectors, and the possibility of abuse on anti-competitive grounds is a potential cause for concern and additional inquiry and is an issue to which we will return in more detail in section 3 below.

Developing country firms have also initiated a number of new requests for import protection under trade remedy instruments since Q1 2008 in the steel, chemicals, and machinery sectors (44 percent of total developing country initiations). The other two sectors with a high number of new investigations in developing countries are textiles and apparel, and plastics and rubber, which combine to ac-

Table 7.2: *Developed and Developing Economy Trade Remedy Initiations by Sector, Q1 2007–Q1 2009*

Countries	Developed Economies			Developing Economies		
	2007 Total	2008 Total	Q1 2009 Total	2007 Total	2008 Total	Q1 2009 Total
Agriculture	2	1	0	0	1	2
Chemicals	10	8	0	17	18	8
Iron and steel	8	11	1	5	12	2
Machinery	1	5	1	8	7	3
Materials	1	0	2	4	9	1
Misc. manufactures	0	1	1	2	5	0
Other metals	0	3	0	2	5	3
Plastics and rubber	4	0	0	5	10	1
Textiles	1	1	0	6	14	6
Vehicles	0	1	0	1	2	1
Wood	5	2	2	2	2	1
Total	32	33	7	52	85	28

Source: Compiled by the author from the *Global Antidumping Database.* These are non-redundant AD, CVD, SG, and CSG at the product level. Developed countries are the United States, the countries of the European Commission, Canada, Australia, New Zealand, South Korea, Taiwan, and Israel. Developing countries are Argentina, Brazil, India, Turkey, China, South Africa, Pakistan, Colombia, Mexico, Peru, Venezuela, and the Ukraine.

count for another 27 percent of the total developing economy activity under these instruments during the crisis.

2.4 The targeted exporters

Table 7.3 illustrates the frequency with which exporters in various countries have been *targeted* by country-specific trade remedy instruments such as AD, CVD, and CSG. Given the economies that are using these trade policies, and the sectors that are being targeted for new import restrictions, it is not surprising that the exporters targeted by these actions are primarily located in other developing countries. The frequency with which developing countries as a whole have been targeted in country-specific trade remedy investigations is 72 percent during the crisis period of 2008 through Q1 2009, which is a slight increase from 68 percent in 2007.

2.5 China as the export target

The use of country-specific trade remedy instruments such as AD, CVD, and CSG documented in Table 7.3 also illustrates the intensity with which these using countries are targeting exports from China. Of the country-specific trade remedy initiations and measures imposed, China alone constituted roughly 40 percent of the total of countries named in the investigations during this period and slightly more than 40 percent of the definitive measures that have been imposed.

Table 7.3: *Exporters Targeted by Product-level Use of AD, CVD and CSG, Q1 2007–Q1 2009*

Exporting (affected) country	Initiations			Measures		
	2007 Total	2008 Total	Q1 2009 Total	2007 Total	2008 Total	Q1 2009 Total
Total	156	217	46	104	119	36
Developing country exporters	106	159	30	71	81	29
(percent of total)	(0.68)	(0.73)	(0.65)	(0.68)	(0.68)	(0.81)
Developed country exporters	50	58	16	33	38	7
China	63	86	19	46	49	16
(percent of total)	(0.40)	(0.40)	(0.41)	(0.44)	(0.41)	(0.44)
South Korea	12	9	2	5	7	2
European Union	8	15	6	4	8	1
Thailand	7	12	2	5	1	3
US	8	10	2	4	6	1
Taiwan	6	9	0	7	7	2
Malaysia	5	10	0	4	2	3
Indonesia	5	11	2	3	4	2
India	5	9	0	4	3	2
Japan	4	3	0	5	2	0
Russia	6	2	0	0	5	0
UAE	3	0	0	0	1	1
Brazil	2	3	4	2	2	0
Turkey	3	3	0	0	3	0
Others	19	35	9	15	19	3

Source: Compiled by the author from the *Global Antidumping Database.*

A different method of measuring the intensity of use of these trade remedies against China's exports is to examine this from the *product*-level perspective. For example, in Q1 2009, the other WTO members (from whom these data are derived) named China in 19 of the 27 (70 percent of) newly initiated product-level investigations under (AD, CVD, CSG) laws that require the investigating country to specifically name at least one exporting country.[7] In 12 out of these 27 (44 percent of) investigations, China was the *only* country named. Finally, in the remaining 7 instances in which China was named as one of the multiple exporting countries, there was *only one* other exporting country named in the product-level investigation. The evidence suggests that a focus of many of these trade policy initiations is to restrict imports from China.

[7] Of the 35 product-level, newly initiated investigations in Q1 2009, six did not name any exporting countries because they were global safeguards, and China initiated two investigations itself.

The WTO membership's use of trade remedy instruments to target China's exports is not new – it continues a trend dating back to China's WTO accession in 2001, and even earlier (Bown, forthcoming a). Explanations for the increasing intensity of use of these instruments against China's exports since 2001 include: China's export increase during this period: more exports means more potential foreign targets for use of antidumping and other trade remedies. China's receipt of MFN treatment in WTO members' tariff schedules since 2001 constrains WTO members' ability to impose potentially WTO-consistent (but discriminatory) import protection against China to trade remedy instruments; China continues to be treated as a 'non-market economy' (NME) in many countries' antidumping procedures, which gives AD authorities more discretion than is available vis-à-vis other exporters to calculate dumping margins. Many WTO members do not feel as though China's state-owned enterprises (SOEs) and its government's use of other explicit and implicit subsidies have been sufficiently curtailed since its 2001 accession.

One important question is whether the global crisis *increases* the intensity of use of these instruments against China's exporters relative to exporters in other WTO member countries. Will the phenomenon of using trade remedies to target China create additional political pressure within China either to increase its own use of trade remedies (perhaps as a response partially-motivated by retaliation), or to take a more active role in the WTO to attempt to slow down the use of these instruments (perhaps through formal dispute settlement, where it has been thus far slow to engage)?[8]

Finally, Figure 7.2 illustrates the relative frequency with which trade-remedy-using countries are targeting China's various export sectors with newly initiated investigations. There are a number of Chinese exporting industries facing newly initiated investigations during this period – including chemicals, iron and steel, machinery, and textiles. We return to a more detailed discussion of the same Chinese export products being targeted in different foreign markets in our more detailed discussion of some of the underlying cases in section 3 below.

2.6 The size of the imports under attack from the use of such trade remedies

Here we provide a first attempt to assess the size of the potential economic problem these potential trade remedies pose. That is, how much trade is coming under attack from the increasing resort to trade remedies?

Table 7.4 provides a first pass at this question by documenting a number of pieces of data on the size and relative importance of the 2007 (that is, pre-crisis) level of trade at the level of 6-digit Harmonised System (HS) imports associated with the products, and exporting countries, that are the targets of most of the G20's newly initiated investigations since the beginning of 2008 and continuing through Q1 2009.[9] The table reports four columns of data: the 2007 value of im-

[8] For a discussion of recent dispute activity at the WTO between the United States and China, see Bown (2009b).

[9] The 2007 imports are the last year for which the data are systematically available across all of these countries.

Figure 7.2: *Newly Initiated Import-restricting Trade Remedy Investigations Targeting China's Exports, Q1 2007–Q1 2009 by Sector*

Source: Compiled by the author from the Global Antidumping Database. These are non-redundant AD, CVD, CSG at the product level.

ports subsequently being targeted (that is, 'targeted imports') by each economy's new and subsequent investigations since Q1 2008; the targeted imports as a share of the country's total 2007 imports; the targeted imports deriving from China as a share of the total targeted imports, and the targeted imports deriving from China as a share of the country's total imports from China. We construct this table for 12 of the largest WTO economies and users of these trade-remedy instruments – four developed and eight developing countries.

Not surprisingly, Table 7.4 first reveals that the two economies with the largest *levels* of imports potentially affected by the remedies are the EC countries ($8.0 billion) and the United States ($7.5 billion). However, the *relative* importance of the targeted imports is fairly small, as only 0.4 percent of 2007 imports in these economies are in 6-digit HS product categories that have become subject to new investigations initiated since Q1 2008. Table 7.4 also indicates that developed countries such as Canada and Australia not only have a much smaller level of trade potentially affected, but the targeted imports measured as a share of their total imports is much smaller than the United States and the European Community as well.

The data for some of the developing economy users of these trade remedies are bit more worrisome. India, the most frequent user of these trade remedies (Table 7.1), is estimated to is have $3.9 billion in 2007 imports that have been subject to new trade remedy investigations during the crisis thus far – 1.8 percent of its total 2007 im-

Table 7.4: *The Size of Imports under Attack by the Use of Trade Remedy Initiations, Q1 2008–Q1 2009*

Importing Country	Value of 2007 imports for products facing new investigation during 2008-Q1 2009	Investigated products as a share of country's 2007 total imports	Investigated imports from China as a share of all investigated imports	Investigated imports from China as a share of all imports from China
Total	$28,977,070,131	0.0045	0.5889	0.0164
Developed Economies				
EC	$8,032,246,785	0.0041	0.3983	0.0101
US	$7,458,154,471	0.0037	0.9032	0.0198
Canada	$852,235,098	0.0022	0.9160	0.0218
Australia	$95,253,092	0.0006	0.7643	0.0030
Developing Economies				
China	$6,183,277,841	0.0064	na	na
India	$3,943,953,974	0.0180	0.4749	0.0762
Turkey	$1,383,230,509	0.0081	0.1452	0.0152
Brazil	$540,548,035	0.0044	0.5787	0.0248
Argentina	$315,794,401	0.0070	0.5221	0.0324
Pakistan	$108,991,018	0.0033	0.5405	0.0141
Mexico	$55,581,511	0.0002	0.3106	0.0006
South Africa	$7,803,396	0.0001	0.7216	0.0007

Sources: Product level (6-digit HS codes) for AD, CVD, CSG, and SG investigations for these countries obtained from the Global Antidumping Database and matched to the 6-digit HS Comtrade 2007 import data available via WITS. Intra-EC trade is excluded.

ports. China (0.64 percent), Argentina (0.7 percent) and Turkey (0.8 percent) are other examples of countries whose share of their total 2007 imports being subject to new import restrictions during the crisis is greater share than that of the United States and European Community. China is an interesting case, because while its underlying frequency of cases has been limited during the crisis (only 8 new product-level initiations since Q1 2008), the investigations collectively covered a relatively sizable level of 2007 imports ($6.2 billion).

Before moving to relative comparisons of the data, it is worth noting that there are at least three reasons to speculate that the Table 7.4 estimates on the value of imports affected by crisis use of trade remedies thus far are likely to provide an *upper bound* on the total size of imports affected by these trade remedy initiations. The reasons are first that the trade data are matched to the trade remedy data at the 6-digit HS level; in practice many countries impose trade remedies at the 8- or 10- digit HS level, thus not affecting all sub-products within a given 6-digit category. Second, not all of these newly initiated investigations will result in imposed measures;[10] and finally, imports in 2008 and 2009 may fall from

[10] Nevertheless, research such as Staiger and Wolak (1994) has shown that the mere harassment of initiations can have an adverse effect on trade flows, even in cases in which definitive trade restrictions are not imposed.

their pre-crisis (2007) levels for reasons unrelated to trade remedies, but instead because of other (demand side income effects or supply side credit constraints) shocks associated with the crisis.[11]

Next, Table 7.4 also reveals how the potential economic impact of the trade remedy use during the crisis period may affect China's exports differentially depending on the using country. Of the combined imports targeted by these 11 other economies use of trade remedies since the crisis, 58.9 percent of those targeted imports derived from China's exporters alone. On a country-by-country basis, this ranged from more than 90 percent of the imports subject to investigations in the United States and Canada, to only 31 percent in Mexico and less than 15 percent of the imports targeted by Turkey's use of new trade remedies.

According to the top row of data in Table 7.4, 1.6 percent of China's total 2007 exports to these 11 other economies were in 6-digit HS products that would become subject to their newly initiated trade remedy investigations sometime after the beginning of 2008. Not surprisingly, there is substantial variation in this statistic across the 11 economies. The highest is India, which has subsequently initiated investigations under one of its trade-remedy laws (during 2008 through Q1 2009) covering more than 7.6 percent of its 2007 imports from China. Other countries that have investigated a relatively large share of their total 2007 imports from China during this same subsequent economic crisis period include Argentina (3.2 percent), Brazil (2.5 percent), Canada (2.2 percent), and the United States (2.0 percent).

Finally, while these are not broken down in Table 7.4 specifically, it is worth noting that some of major economies do have two or three large trade value cases that may be the ones that largely determine just how much trade will be affected by the use of trade remedies during the crisis. Particular examples for the United States include the China safeguard (CSG) case initiated in April 2009 over 'Tyres', which has the potential to impact on $1.9 billion of imports from China (2007 values). The European Community has more than half of its $8 billion in imports under investigation being tied up in only three different product-level investigations. The European Community has $2.7 billion in imports from the United States associated with two cases initiated in 2008 – the 'Biodiesel' case for $1.7 billion and 'Prepared binders for foundry moulds or cores' for $970 million. (Coincidentally, with respect to this last case, the United States has a simultaneous investigation over the same 6-digit HS product imported from China.) The third major EC case is its investigation involving 'Flat-rolled products of stainless steel' from China, Korea and Taiwan, as it had 6-digit HS imports totalling $1.8 billion in 2007. Finally for China's use of trade remedies, more than half ($3.7 billion) of the $6.2 billion in potentially affected imports stems from a 2009 case covering 6-digit HS imports from Korea and Thailand of 'Terephthalic acid.'[12]

[11] Furthermore, the likelihood of trade diversion (Prusa 1997, 2001; Konings et al. 2001; Bown 2004) with the discriminatory application of these trade remedies indicates that even some of the imports destroyed by the imposition of new trade barriers (from the named sources, what we have used to construct Table 7.4) will result in increased imports of the same product from non-named foreign sources.

[12] Again, the estimate of the size of trade at stake in these cases may be over-estimated, given that our data derive from the 6-digit HS import data and not the sub-products at the 8- or 10-digit HS level that may be applied in these particular investigations.

3. QUESTIONS RAISED BY THE EARLY DATA ON USE DURING THE CRISIS

Even if the overall level of imports affected by the increasing use of these trade remedies during the crisis is not currently large, economists have a long-established line of research identifying many channels through which the use of these policy instruments can generate unintended consequences with costly implications for economic welfare. In this section we use this economic research to guide our investigation of underlying cases that constitute potentially worrisome examples of resort to trade remedies during the crisis.

3.1 Crisis protectionism leading to escalating protectionism?: Tit-for-tat retaliation, trade deflection, and cascading protectionism

In this section we explore three channels through which the current resort to trade-remedy protectionism during the global crisis creates incentives for follow-on use by others of trade remedies, and the possibly worrisome escalation of protectionism. To begin this exercise, we examine the use of trade remedies across countries over 'common products' listed in Table 7.5. The table presents 35 instances in which *more than one* policy-imposing country initiated a trade remedy investigation over the same 6-digit HS product(s) during the period covered by Q1 2007 through to Q1 2009. These 35 product examples cover more than 70 unique 6-digit HS codes. The table presents the name of the product, the 6-digit HS product(s) common to the investigating countries, the names of the countries undertaking the common investigations, as well as the name of the targeted exporters associated with each investigation. The product list is organised numerically by the underlying HS codes.

The first channel is that firms may use a policy like antidumping to discipline foreign rivals in direct tit-for-tat retaliatory actions. While it is relatively rare for two economies to target one another with simultaneous investigations over essentially the varieties of the same product, one possible example of direct AD retaliation within varieties of the same product involves the recent US-EC interaction over sodium products (case 1 on Table 7.5). In October 2007, the US firm EI DuPont de Nemours & Co. was a domestic petitioner requesting initiation of a US AD investigation over 'Sodium metal' from France, accusing the French firm Métaux Spéciaux (MSSA SAS) of dumping into the US market. In May 2008, the United States imposed a preliminary AD duty of 62.62 percent. In July 2008, the Eropean Community initiated AD and CVD investigations over 'Sodium metal' from the United States in the same 6-digit HS product category. In December 2008, in the US investigation, the USITC ruled negative on injury determination, and thus no final measures were imposed. At the spring of 2009, the EC investigation was still ongoing.

Of course it is also not necessary for retaliation (that is, the current trade remedy provoking use of future protectionism) to be limited to only instances in which countries import and export the same product. One country's excessive

Table 7.5: *Examples of Product Overlap of Trade Remedy Investigations across Countries, Q1 2007–Q1 2009*

	Product	Common HS Code (6-digit)	First Initiating Country	Subsequent Initiating Countries	Targeted exporters (initiated case in which named)
1	Sodium	280511	1. US	2. EC	EC (1); US (2)
2	Nitrites	283410	1. US	2. India (CVD)	China (1,2); EC (1)
3	Citric acid	291814	1. South Africa	2. EC	China (1,2,3); Canada (3)
				3. US	
	Citric acid	291815	1. EC	2. US	China (1,2); Canada (2)
4	Matches	360500	1. US	2. Ukraine (SG)	India (1)
5	Prepared binders for foundry moulds or cores	382490	1. US	2. EC	China (1); US (2)
6	Polyethylene terephthalate (PET) film	392062	1. Brazil	2. US	India (1,3); Thailand (1,2); Brazil (2); China (2); UAE (2)
				3. Turkey (CVD)	
7	Polyesters	392069	1. Brazil	2. Turkey (CVD)	India (1,2); Thailand (1)
8	Motor car tires	401110	1. Brazil	2. US (CSG)	China (1,2)
9	Bus and truck tires	401120	1. US	2. Brazil	China (1,2,3); Thailand (3)
				3. India	
10	Laminated flooring	441113, 441114, 441192, 441193	1. Turkey	2. India	China (1,2,3); EC (3); Malaysia (2); New Zealand (2); Sri Lanka (2);
				3. Argentina	Switzerland (3); Thailand (2)
11	Bound stationery	482010	1. New Zealand	2. US	China (2); EC (2); Korea (2); Malaysia (1)
12	Cotton yarn	5205, 5206	1. Turkey (SG)	2. Peru (SG)	All because SG
13	Polyester yarn	540233	1. Turkey	2. Argentina	China (1,2); Indonesia (1,2); India (2); Malaysia (1); Taiwan (2); Thailand (1)
14	Polyester fibre	550320	1. Pakistan	2. Argentina	China (1,2,3); India (2); Indonesia (2); Taiwan (2)
				3. South Africa	
15	Artificial staple fibres of rayon	550410	1. Brazil	2. India	China (1,2); Indonesia (1,2); EC (1); Taiwan (1); Thailand (1)
16	Certain yarn	550931, 550932	1. Turkey	2. Argentina	Indonesia (1,2); Brazil (2); China (1); India (1)
	Certain yarn	551011	1. Turkey	2. Brazil	China (1,2); Indonesia (1,2); India (1,2); EC (2); Taiwan (2); Thailand (2)
17	Blankets and travelling rugs	630140	1. Brazil	2. Egypt (SG)	China (1)
18	Footwear	640219, 640291, 640319, 640340, 640391, 640411, 640419	1. Brazil	2. Canada	
				3. Argentina	China (1,2,3); Vietnam (2)
	Footwear	640212, 640220, 640299, 640312, 640320, 640351, 640359, 640399, 640510, 640520, 640590	1. Brazil	2. Argentina	China (1,2)
	Footwear	640110, 640192, 640199	1. Canada	2. Argentina	China (1,2); Vietnam (1)
19	Ceramic tiles (unglazed)	690790	1. Ecuador (CSG)	2. Jordan (SG)	China (1)
	Ceramic tiles (glazed)	690890	1. Ecuador (CSG)	2. India	
				3. Morocco (SG)	China (1,2)
				4. Jordan (SG)	
20	Tableware and kitchenware	691110, 691200	1. Ecuador (CSG)	2. Argentina	China (1,2)
21	Wire of iron or non-alloy steel	721710	1. EC	2. Indonesia (SG)	China (1)

Table 7.5: *Examples of Product Overlap of Trade Remedy Investigations across Countries, Q1 2007–Q1 2009 continued*

	Product	Common HS Code (6-digit)	First Initiating Country	Subsequent Initiating Countries	Targeted exporters (initiated case in which named)
22	Flat-rolled products of stainless steel	721931, 721932, 721933, 721934, 721935	1. EC	2. India	China (1,2); Korea (1,2); Taiwan (1,2); Japan (2); EC (2); South Africa (2); Thailand (2); US (2)
23	Pipes and tubes	730429	1. Canada	2. Ukraine (SG) 3. EC	China (1,3)
	Pipes and tubes	730630	1. US	2. EC 3. Canada 4. Australia	China (1,2,3,4); Belarus (2); Bosnia Herzegovina (2); Malaysia (4); Russia (2)
	Pipes and tubes	730661	1. US	2. EC 3. Australia	China (1,3); Turkey (1,2); Belarus (2); Korea (1); Malaysia (3); Mexico (1); Ukraine (2)
24	Iron or steel chain	731582	1. South Africa	2. Argentina	China (1,2)
25	Iron or steel nails, tacks, pins, corrugated nails, staples	731700	1. US	2. Indonesia (SG)	China (1); UAE (1)
26	Screws and bolts	731815	1. EC	2. US	China (1,2)
27	Aluminium bars, rods and profiles	760421, 760429, 760820	1. South Africa	2. Canada	China (1,2)
28	Aluminium foil	760711	1. EC	2. India (CSG)	China (1,2); Armenia (1); Brazil (1)
29	Heat pumps	841861	1. Argentina	2. Canada	China (2); Malaysia (1); Thailand (1)
30	Refrigerators	841899	1. Canada	2. US	China (1,2)
31	Food grinders, processors and mixers	850940	1. Turkey (SG)	2. Argentina	China (2); Brazil (2)
32	Recordable DVDs and CDs	852340	1. India	2. Brazil (SG) 3. Argentina	China (1); Hong Kong (1); Paraguay (3); Taiwan (1)
33	Articles of graphite	854511	1. US	2. Brazil	China (1,2)
34	Road wheels and parts and accessories thereof	870870	1. Australia	2. Argentina	China (1,2)
35	Parts and accessories of motor vehicles	870899	1. Argentina	2. India	China (1,2)

Source: Compiled by the author from the Global Antidumping Database.
The table identifies more than 70 distinct 6-digit HS codes with at least two different countries newly initiating trade remedy investigations over the same code between Q1 2007 and Q1 2009.

reliance on the use of trade remedies can lead to its exporters becoming foreign targets in other products in the same industry, or in other industries altogether, thus expanding the potential escalation of protectionism.[13] This is of particular concern given the current economic crisis and the desire to avoid repeating the spiral of protectionism associated with the 1930s and the Great Depression era.

A second concern raised by the 'Sodium metal' cases is that even if no antidumping measures are imposed, the two firms that would otherwise compete vigorously with each other in the US and EC markets (resulting in lower prices for consumers) may be able to use the AD process to reach an implicitly collusive agreement to less vigorously compete in each other's market (thus hurting consumers). We further explore possible anti-competitiveness effects to the use and abuse of trade remedies in section 3.2 below.

A second channel through which current protectionism may create incentives for future, additional protectionism is associated with the phenomenon of 'trade deflection' (Bown and Crowley 2006, 2007; Durling and Prusa, 2006) in which follow-on countries may resort to use of these trade policy instruments to prevent export surges of the same product to the first country's trade remedy imposition. As one potential example, consider the 'Footwear' cases associated with product number 18 in Table 7.5. Brazil began the potential cascade of protectionism in footwear by initiating an antidumping investigation against China in December 2008. Fearing that the trade shut out of the Brazilian market may then 'deflect' from that market and surge into its own market, other importing countries may be prompted to implement their own trade remedies on imports of the product, perhaps against the same exporter. In the case of footwear, Argentina followed Brazil's AD case against China by initiating an AD case of its own against China in March 2009 (Canada had also initiated a footwear AD against China in February 2009). The existence of so many examples of product overlap in Table 7.5, as well as the frequency with which common exporters are being targeted across countries, suggests this may be a part of the explanation for these and future acts of protectionism in the data.[14]

A third channel of current use of trade remedies creating additional incentives for future use is sometimes referred to as 'cascading protectionism' (Hoekman and Leidy, 1992). Another concern raised by the Table 7.5 list of products is the number of measures likely to affect intermediate inputs. Imposing new trade barriers on inputs can adversely affect downstream producers by increasing their costs, thus decreasing their competitiveness in the global marketplace with other foreign suppliers that do not face such additional costs.[15] One important example from Table 7.5 is found in products 12 through 16, which are various forms

[13] Studies of the retaliatory links and incentives created under antidumping include Blonigen and Bown (2003), Prusa and Skeath (2004), and Feinberg and Reynolds (2006).

[14] There are other possible explanations for this aside from trade deflection which merit investigation as well. One example is Brazil identifying Chinese footwear producers of dumping informed domestic firms in Argentina (and Canada) which triggered their initiatives to pursue cases as well.

[15] For a theory and an empirical application to the steel industry of how trade remedies can be used strategically to raise a rival firm's costs, see Durling and Prusa (2003).

of yarns and fibres that are crucial inputs into the production of textiles and apparel, an important source of industrial output and exports for many developing countries. Interestingly, the countries that are *imposing* these new restrictions on yarn and fibres are Turkey, Peru, Argentina, South Africa, Brazil, and India. These developing economies are many of the same countries whose textile and apparel industries are already struggling to compete with China's textile and apparel exports in global markets. Using trade remedies to raise the cost of an integral input is likely to have unintended and yet important downstream competitiveness consequences, including increasing the probability that these developing economies' textile and apparel producers may themselves be the next in line demanding their own protectionism through trade remedies.

3.2 Antidumping, multinational firms, and potential concerns of anti-competitive behaviour

There are a number of additional worries when it comes to the use of policies such as antidumping. Firms may abuse the policy by convincing government policymakers to impose trade barriers that, while in the firms' interest, are not in the overall interest of the country. There are a number of mechanisms through which firms may manipulate such policies – including by using them as a tool to get government policymakers to assist (perhaps unwittingly) firms to segment markets (raising anti-competitiveness concerns), and as a tool to raise domestic rivals' costs. The potential for abuse is increasingly heightened when the key industrial users of the policies are multinational firms with headquarters and subsidiaries situated globally that have the ability to tap into (and to be affected by) trade remedies in many different political jurisdictions.[16]

First, the desire to segment markets identified in the US-EC 'Sodium metal' cases described in section 3.1 is not limited to rival firms, but it may also take place between subsidiaries of the same firm. A careful examination of the repetitiveness of firm names in trade remedy initiations (compiled into the publicly available *Global Antidumping Database*) allows us to identify two potential examples worthy of further investigation.

One example is an instance in November 2008 in which the United States imposed definitive AD duties on 'Polyethylene Terephthalate (PET) film, sheet, and strip' from China, including 3.49 percent on DuPont Teijin Films China Ltd. According to its website, DuPont Teijin Films is a 50–50 global joint venture between the American firm DuPont and the Japanese firm Teijin.[17] According to the public records in the case, the American subsidiary DuPont Teijin Films is one of the domestic petitioners behind the US effort to target the Chinese subsidiary of the same firm with new import restrictions that could have the effect of segmenting markets.

[16] Important contributions to the economic research literature on the ways in which access to antidumping can inadvertently increase the concern for anti-competitive behaviour include Prusa (1992), Messerlin (1992), and Veugelers and Vandenbussche (1999).

[17] See http://www.dupontteijinfilms.com.

A second example took place when India imposed a definitive AD measure on 'Compact fluorescent lamps' from China in February 2009. The measure was an agreement that Chinese firms, would voluntarily agree to raise prices and for a given downward-sloping import demand curve, by extension, reduce export volumes. One of the Chinese firms agreeing to the new price undertaking was Osram China Lighting Co. Ltd., a subsidiary of Osram, which is a German-headquartered firm. This is particularly interesting given that one of the domestic petitioning firms was Osram India Pvt. Ltd., the Indian subsidiary of the same German-headquartered parent Osram.[18] Thus this is an example of one subsidiary targeting another subsidiary with a new trade restriction that could also have the anticompetitive effect of segmenting markets.

As a second channel through which multinational firms and foreign direct investment may have distorting effects on the use of trade remedies, consider a situation in which the imposition of import protection in the past created incentives for firms to expand the reach of their multinational operations and 'tariff jump' to avoid trade barriers by creating local producers that would not be subject to future import restrictions.[19] Once a multinational firm has the local presence, it may become part of the domestic industry petitioning to use trade-remedy instruments to increase the likelihood of import restrictions against other foreign sources (that have not established a local presence), thus affecting the discriminatory application of the trade-remedy use. Blonigen and Ohno (1998), for example, provide a model in which foreign firms that locate production in the home country then use increased exports to increase protectionist pressures within the home country to trigger new and larger barriers against other foreign competitors in future periods.

The recent wave of mergers and acquisitions (M&A) in the global steel industry in particular created a number of potential instances in which this sort of behaviour by firms is now possible. Consider the activities of Indian steel firms such as Mittal, which acquired the European steel producer Arcelor (to become ArcelorMittal) in 2006, and Tata, which merged with the UK steel firm Corus in 2007, and how this may affect the current application of trade-remedy use in both the European Community and in India during the global economic crisis.

In the case of the European Community, consider three examples of recent AD petitions for new trade remedies over steel products that have involved ArcelorMittal and (or) Corus-Tata being part of the domestic EC industry petitioners bringing forward a case. In December 2008, the European Community imposed definitive AD duties on 'Certain welded tubes and pipes of iron or non-alloy steel' from Belarus, China, and Russia. In February 2009, the European Community imposed preliminary AD duties on 'Wire rod' from China, Moldova, and Turkey. In April 2009, the European Community imposed preliminary AD duties on 'Certain seamless pipes and tubes' from China. In *none* of these cases did the trade reme-

[18] See http://www.osram.com/osram_com/About_Us/The_Company/index.html.

[19] Even antidumping itself may create incentives for firms to engage in FDI to avoid future application of such trade restrictions. For evidence, see Belderbos (1997) and Blonigen (2001).

dies target imports from India, despite Indian exporters being a major competitive producer of steel globally.

With respect to India's own use of new import restrictions over steel during the crisis, the global M&A activity by Indian steel firms also has the potential to shape which foreign targets are affected by its potentially discriminatory application of antidumping. As a potential example, in March 2009 India imposed preliminary AD duties on 'Cold-rolled flat products of stainless steel' from the European Community and seven other exporting countries. The Indian domestic petitioner behind this particular case was Jindal Stainless Limited, and not domestic firms like Tata or Ispat from the Mittal Group.[20] On the other hand, when the Indian domestic petitioners including Ispat (Mittal Group) filed a December 2008 AD investigation over 'Hot rolled steel products' from 15 exporting countries, the only EC member state named in the investigation was the most recently added member, Romania.

While these examples are surely not conclusive evidence of anti-competitive behaviour, given the scope for abuse of antidumping and other trade remedy provisions, these and other AD investigations should be closely monitored. One serious concern is that firms will use the cover of the global economic crisis to stoke protectionist sentiment and these trade remedies will inadvertently be applied by government policymakers in a way that *reduces* competitiveness conditions. This has the potential for far-reaching and longer-lasting effects than the costs imposed on consumers and consuming industries associated with the 'mere' imposition of trade restrictions.

4. POLICY IMPLICATIONS AND CONCLUSIONS

The global economic crisis has been accompanied by an increase in the global use of import-restricting trade remedies as a protectionist response. While the data suggest that there has been an increase, the scale of the use of these particular policy instruments has been limited. The most intensive use has been in developing countries, and the biggest and most worrisome user is India. The export targets of the new protectionism are increasingly concentrated in other developing countries, and the intensity of use against China's exporters is also of concern for the longevity and sustainability of the trading system.

While the scale of the problem associated with the use of trade remedies during the crisis thus far is not massive, there are a number of worrisome trends in how it is being use to suggest that future use may also increase, due to retaliation, the response to trade deflection concerns, and cascading protectionism to downstream industries. The use of antidumping during the crisis in sectors with substantial recent M&A activity also stokes concerns of potential abuse and anti-

[20] However, Jindal Stainless Limited does report on its website the subsidiaries in the United Kingdom (Jindal Stainless UK Limited, London) and Italy (Jindal Stainless Italy S.r.l.), see http://www.jindalstainless.com/subsidiary-companies.html , last accessed on 10 June, 2009.

competiveness concerns that firms may be using these policies in their attempts to segment markets.

The first lesson for policymakers stemming from these data and from decades of economic research into the effects of these policies is to hold the line. To the greatest extent possible, policymakers should refuse new requests to implement such acts of import protection through trade remedies.

However, if it is not possible to dismiss all the requests for protection, economists have a duty to advise policymakers on how to impose any new trade barriers in a means that is least distortive and costly (in terms of economic efficiency) and lasting for as short a period as possible. If policymakers must resort to use trade remedies amidst political pressure during the economic crisis, there a number of reasons to encourage strongly that protectionism be fitted into using the global safeguards (SG) instrument and *not* the other country-specific instruments like AD, CVD, or the CSG.

First, the WTO rules require that SG protection must be applied on a non-discriminatory (MFN) basis, which is more likely to prevent potentially costly trade diversion than are trade remedies imposed in the form of AD, CVD or CSG. The imposition of an import restriction on, say, China alone may impose other efficiency costs if it just creates incentives for domestic consumers to switch their sourcing to other, higher-cost foreign suppliers that are not subject to the trade restriction. While a SG does still raise the price facing consumers, and thus imposes a cost on the economy, an efficiency 'benefit' to the policy is that it does not sever the link between any remaining imports and the identity of the most efficient *foreign* source of those imports.

Second, the WTO's SG provisions have a built-in time process for scaling back and ultimately eliminating the protection over time. This is important during the global crisis, as the speed with which countries are able to extricate themselves from their economic downturns is likely to be affected by their impediments to growth, which would include the imposition of new trade barriers taken on during the crisis. Historically, SG-imposing countries have been much more likely to remove the protectionism than has been the case for AD or CVD. And as Table 7.6 indicates, it is unlikely that adversely affected exporters will be able to resort to the WTO's dispute settlement provisions anytime soon to deal with the problem of getting potentially WTO-inconsistent AD or CVD measures removed. The table shows that the developing country exporters that are the main target of the current use of these trade remedies during the crisis have challenged less than 5 percent (38 out of 909) of the imposed measures through formal WTO dispute settlement. Thus it is better that such policies not be imposed in the first place, but that a global safeguard with a built-in phase-out mechanism, be used instead.

The third and fourth reasons to prefer SG are more subtle but nevertheless still important. Because global safeguards are 'fair trade' provisions, they are less adversarial to foreigners. Unlike AD or CVD, using SG does not require an allegation of foreign wrongdoing (dumping or illegal subsidies). Instead, SG entails greater recognition and acceptance that the act of protectionism is a response to

Table 7.6: *WTO Member Antidumping and Countervailing Measures Initiations, Impositions and DSU Challenges, by Targeted WTO Exporter for 1995–2008*

Targeted WTO member	New AD Initiations	New AD Measures	Exporter uses DSU to challenge New AD	New CVM Initiations	New CV Measures	Exporter uses DSU to challenge New CVM
Total developed economy exporters	1175	722	72	72	39	15
EC	283	161	55	33	22	9
Japan	144	106	2	0	0	0
US	189	115	5	7	1	0
Korea	252	150	3	16	9	3
Taiwan*	92	64	2	1	0	0
Other developed	215	126	5	15	7	3
Total developing economy exporters	1416	909	38	125	82	9
Argentina	30	15	3	6	4	0
Brazil	97	74	5	7	8	1
China*	410	295	5	23	14	5
Costa Rica	2	0	1	0	0	0
Guatemala	3	1	1	0	0	0
India	137	84	10	46	27	2
Indonesia	145	82	2	11	8	0
Malaysia	90	50	0	3	3	0
Mexico	40	27	5	0	0	0
Pakistan	10	6	0	1	1	0
Philippines	11	6	0	1	2	0
South Africa	58	38	0	6	4	0
Thailand	142	84	2	9	3	0
Turkey	44	25	2	2	1	0
Other developing	197	122	2	10	7	1
Total WTO member exporters	2591	1631	110	197	121	24

Source: Table 4-3 of Bown (forthcoming, b). *Since WTO accession in 2001.

a crisis. Using SG over AD and (or) CVD may thus decrease the likelihood of foreign retaliation and the ramping-up of protectionist sentiment in trading partners. As a final technical matter, SG is simply less costly for a bureaucracy to administer than policies such as AD and CVD, which are much more data intensive. Taking as given that the end of an investigation is simply going to result in protectionism, it seems wasteful for developing countries, in particular, to use scarce governmental resources on administering the more complex form of what are similarly protectionist policies.

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APPENDIX

AD Historically, by Year: 1995–2008

AD During the Crisis, by quarter: 1Q 2007–1Q 2009

Figure A7.1: *WTO Membership Use of Antidumping (AD), 1995–Q1 2009*

Sources: Data in Panel A7.1a are taken from the WTO member reports to the *Committee on Antidumping* and comprehensively cover the full WTO membership. Data in panel A7.1b were compiled by the author using the Global *Antidumping Database* and cover only 20 using countries. According to data from the WTO, these 20 members initiated 90 percent (89 percent) of all antidumping investigations (new measures imposed) by the WTO membership during 1995–2007. Unlike Figure 7.1, the unit of observation is a WTO member country's AD action over a given product from a single exporting country.

APPENDIX

CVD Historically, by Year: 1995–2008

CVD during the Crisis, by Quarter: Q1 2007–Q1 2009

Figure A7.2: *WTO Membership Use of Countervailing Duties (CVD), 1995–Q1 2009*

Sources: Data in panel A7.2a are taken from the WTO member reports to the *Committee on Subsidies* and Countervailing Measures and comprehensively cover the full WTO membership. Data in panel A7.2b were compiled by the author using the *Global Antidumping Database* and cover only 18 using countries. According to data from the WTO, these 18 Members initiated 93 percent (97 percent) of all countervailing duty investigations (new measures imposed) by the WTO membership during 1995–2007. Unlike Figure 7.1, the unit of observation is a WTO member country's CVD action over a given product from a single exporting country.

APPENDIX

SG Historically, by Year: 1995–2008

SG during the Crisis, by Quarter: Q1 2007–Q1 2009

Figure A7.3: *WTO Membership Use of Global Safeguards (SG), 1995–Q1 2009*

Sources: Data in both panels were taken from the WTO member reports to the *Committee on Safeguards* and comprehensively cover the full WTO membership.

APPENDIX

Figure A7.4: *WTO Membership Use of China-specific Transitional Safeguards (CSG), 2002-Q1 2009*

Sources: Data are taken from WTO member reports to the *Committee on Safeguards* and comprehensively cover the full WTO membership to the extent that members report all initiated investigations; these are also supplemented with some information from national government reports.

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