# The New SSM: A Price Floor Mechanism for Developing Countries

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International Centre for Trade and Sustainable Development

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#### Published by

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## EXECUTIVE SUMMARY

Paragraph 42 of the July Package states that an agricultural Special Safeguard Mechanism (SSM) "will be established for use by developing country members" but says nothing about what form it should take. A pragmatic solution would be to base the SSM on a modification of the price floor mechanism under the existing agricultural special safeguard (SSG).

The decision to establish the SMM is a response to developing countries' concerns that lowering bound tariffs will reduce their ability to protect themselves against agricultural market instability and make themselves increasingly vulnerability to import surges and cheap imports. A special safeguard (SSG) is already provided under Article 5 of the Agreement on Agriculture. Access to this mechanism enables countries to impose an additional duty above their bound tariff levels for certain products in the case of imports surging beyond a certain volume (volume trigger) or the price of the product falling below a threshold level (price trigger). Recourse to the SSG, however, is limited to those WTO Members that undertook tariffication - converting their non-tariff measures (such as import quotas and other border restrictions) into tariffs using a specified formula - at the end of the Uruguay Round. During these negotiations Members were given the choice of applying either the tariffication formula or binding tariff ceilings. Most developing countries opted for the latter, creating an anomaly where only 22 developing (and 17 developed) countries have access to the SSG. Even among SSG-eligible developing countries, the safeguard has been little used in practice. This is the context that led to the July Package agreement to establish the SSM as a new safeguard available to all poorer countries.

The SSM could be established by adapting the existing SSG to allow developing countries, under certain restrictions, to apply tariffs beyond their ceilings to safeguard otherwise-competitive domestic producers against injury during temporary periods of extremely low prices. To meet this objective, modifications to the SSG would have to adhere to five basic principles:

- Any modification of the SSG should enhance trade by reducing overall protection.
- Safeguards should not be used to isolate producers from long-run changes in world prices but should be applied consistently over time to ensure credibility and restricted to a small number of sensitive products.
- Any modification should address the question of the persistence of price downturns (such downturns can last for more than one year).
- Safeguards should not be an enduring substitute for purely domestic supports that minimise trade distortions.
- Whatever safeguard mechanism is adopted should be transparent, difficult to manipulate and should not isolate producers from long-term price trends.

#### **Volume Triggers**

Volume triggers for safeguard mechanisms have their drawbacks. On a practical level, many developing countries do not have the information resources to determine import flows in real time or the possibilities of import surges. Second, volume triggers can be unrelated to low prices, and therefore inconsistent with the principle of protecting potentially competitive sectors. While the use of volume triggers has the advantage of being based on a verifiable event, the damage to the domestic sector is not due to the volume of imports, but the reduction in net producer income related to the price decline. For example, a sharp rise in imports could be related to harvest shortfalls. Thus, domestic prices could actually increase

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while imports rise, making it difficult to justify the imposition of additional duties on the basis of maintaining a price floor to protect a viable industry. In this case, the volume trigger would not reliably indicate the harm to the industry, which is the ultimate event to be verified. Moreover, import volume surges are often ex post [italics]; they follow price drops. A decline in the border price could lead to a reduction in domestic producer prices, even prior to import surges.

## Price Triggers

As a result of the potential drawbacks of using volume triggers, the SSM should be based on a price trigger and follow a common rule for all WTO Members. This price floor mechanism should be a reference price that incorporates long-term trends in world prices and is not subject to changes due to domestic considerations. The shielding of the trigger price from domestic considerations would protect the credibility of a government commitment to only use the safeguard to avoid very-low prices, and would induce domestic producers to plan in terms of long-run competitiveness. Trends could be adjusted periodically, following adjustment rules agreed upon in WTO negotiations, not requiring continuing negotiations. An important element to give transparency to the policy and to avoid abuse is to require detailed notification to the WTO Secretariat, perhaps every six months, indicating the products for which safeguards have been activated. This would also provide a database in the determination of reference prices. WTO Members should have up-to-date information and be able to make consultations. To increase transparency, for every country that plans to use the safeguard, the WTO Secretariat should assist in establishing a system for computing reference prices and surcharges.

The importance of rapid and easy use of safeguard instruments, especially if a safeguard is to be limited in duration, suggests proof of injury and compensation should not be required. The triggering of variable safeguards would have to be specified in terms of well-defined low-price events, universally applicable to all countries. Access to special safeguards, however, should be made contingent on low levels of domestic support transfers. Countries with the ability to use other safety net mechanisms (income per capita is a good proxy) to protect producers during periods of low prices should be effectively excluded. The end result should be that special safeguards are accessible only to developing countries.

With respect to the specific reference prices that would trigger the safeguard, a regressiontrend reference price would avoid most of problems associated with other price indicators. Of course a regression-based trend retains the problem of all reference prices being an inexact predictor of long-run future trends. Nevertheless, it remains the most practical mechanism available for extrapolation of some sort of price trend based on historical data.

## 1. INTRODUCTION

In this paper, we explore the use of national border measures to deal with food price instability and risk in low-income countries. Our focus is on the use of variable tariffs as safeguards against temporary international price declines below the long-term trend. These variable tariffs would be used to shield politically important, import-competing agricultural sectors that are competitive in the long term. The paper addresses several policy questions related to the dual objective of restraining the transmission of exceptionally low border prices to domestic farm markets in developing countries, while maintaining a commitment to overall low bound tariffs and the continued liberalization of trade.

The basic motivation of the discussion is that governments of many developing countries have reason to distrust their domestic markets and institutions in the management of risks to farmers posed by extended periods of low prices. Moreover, low-income countries typically have fewer fiscal resources to manage price risk and to aid their farmers through domestic supports. A lack of confidence in domestic institutions and markets, combined with related political pressures from the import-competing sector (usually a large component of agriculture, composed of many small farmers) would dampen interest in further trade liberalization, especially with respect to reducing high bound tariff levels. With limited options to compensate farmers during the transition toward liberalization, several developing countries have proposed integrating special and differential treatment (SDT) policies to counteract price declines in the current WTO negotiation round. These proposals aim to permit some countries to apply tariffs beyond their bound ceilings in the event that domestic producers face severe injury during periods of extremely low prices,<sup>1</sup> and have been successfully integrated in the so called July Framework for agriculture modalities, agreed on 1 August 2004.

Existing WTO safeguards are temporary contingency restrictions on imports that address special circumstances such as a sudden decline in prices or surge in imports. The current system of a special agricultural safeguard (SSG) under the Agreement on Agriculture is restricted to products that were included in the Uruguay Round tariffication process, and apply to fewer than 20% of agricultural product tariff lines. In contrast to normal safeguards, higher duties under the special agriculture safeguard can be triggered automatically when import volumes rise above a certain level, or if border prices fall below a certain level (but are inapplicable to imports within tariff quotas). In addition, countries need not demonstrate that serious injury is being caused to the domestic sector. Many developing countries, however, simply are not eligible to use the special safeguard clause because they set bound tariffs outside of the tariffication mechanism. Currently 39 countries have reserved the right to apply the clause in their schedules of commitments on agriculture (see Table 1).<sup>2</sup> In practice, however, the SSG has been used in relatively few cases. Nevertheless, it is possible to draw lessons from the special safeguard clause and use it as a basis for the design of the new SSM to allow effective border measures in the management of risk related to low prices in developing country import-competing sectors. The right to use the existing agricultural SSG will lapse unless there is an agreement to continue the provision in its current form, or to modify it, within the current negotiations.

	Numl	per of									
	produc	ts with d right	Y ear of use of SSG								
	Tariff	HS 4-									
Countries	items	digit <sup>2</sup>	1995	1996	1997	1998	1999	2000	2001	2002	2003
High income countries											
Australia	10	2									
Canada	150	37									
European Union-15	539	72									
Iceland	462	121									
Israel	41	14									
Japan	121	27									
New Zealand	4	2									
Norway	581	141									
Switzerland-											
Liechtenstein	961	134									
United States	189	26									
Total high income	3058	576									
Eastern Europe											
Bulgaria	21	9									
Czech Republic	236	29									
Hungary	117	117									
Poland	144	133									
Romania	175	14									
Slovakia	114	28									
Total Eastern Europe	807	330									

## Table 1. Countries reserving the right to use the Special Safeguard for, and actual use, 1995–2003

Table 1 continued on next page.

*Table 1. (cont.) Countries reserving the right to use Special Safeguards for Agriculture by WTO members, and actual use, 1995–2003* 

	Numl	ber of		ur use,	1555	2005						
	produc	ts with	Year of use of SSG <sup>1</sup>									
	reserve	ed right										
Countries	items	HS 4- digit <sup>2</sup>	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Latin America and the Caribbean												
Barbados	37	24										
Colombia	56	55										
Costa Rica	87	24										
Ecuador	7	1										
El Salvador	84	23										
Guatemala	107	35										
Mexico	293	83										
Nicaragua	21	14										
Panama	6	2										
Uruguay	2	1										
Venezuela	76	63										
Total LAC	776	325										
Africa												
Botswana	161	71										
Morocco	374	46										
Namibia	166	75										
South Africa	166	75										
Swaziland	166	75										
Tunisia	32	13										
Total Africa	1065	355										
Asia												
Indonesia	13	4										
Malaysia	72	12										
Philippines	118	36										
South Korea	111	34										
Taiwan	84	29										
Thailand	52	23									-	
Total Asia	450	138										

#### Total all countries 6,156 1,724

Notes: (1) As of World Trade Organization notifications received by October 31, 2004. (2) The International Harmonized Commodity Coding and Classification System (HS) is an international standard for world trade at a 6-digit level of detail. The product groups here are for the 4-digit level. Sources: Website of ERS, USDA, prepared for Regmi, et al. (2005). Original data from World Trade Organization; Geneva, Switzerland; AIE/S12, October 9, 1998; G/AG/NG/S, May 2000; G/AG/NG/S/9/Rev.1, February 19, 2002; and member notifications to the WTO Committee on Agriculture. For more detail, see the WTO website referenced in endnote 2.

## 1.1 Current status of WTO negotiations on the SSM

On 1 August 2004, WTO Members agreed on a framework in agriculture, which constitutes the basis for the negotiations of full agricultural modalities. Paragraph 42 of the framework states that a Special Safeguard Mechanism (SSM) will be established for use by developing countries, with the details to be developed in negotiations. One of the key challenges now facing WTO Members is to devise the parameters for the use of the SSM, and to work out modalities to operationalize the concept. Members have started this work, and the G-33 countries (a grouping supporting the concepts of special products and a special safeguard mechanism for developing countries) have submitted a paper on the SSM. The paper proposes "building on the flexibilities embedded in the existing safeguard provisions [in the Agreement on Agriculture] rather than extracting from them." It provides the following general parameters for negotiations on SSM modalities: the safeguard measure should be automatically triggered; it should be available to all agricultural products; both price and volumetriggered safeguards should be considered; both additional duties and quantitative restrictions should be considered as response measures; and the mechanism should be simple, effective and easy to implement.

Developing countries have generally been supportive of the G-33 approach. Developed country Members have not supported the extension of the SSM to all agricultural products, preferring to negotiate criteria to for how to limit its coverage. Under such a scenario, countries have suggested SSM might apply only to staple food products or products necessary for food security, and to products that already have low tariffs, in order to facilitate the overall liberalization process.

In a previous iteration of draft modalities, the so called Harbinson 2 text from March 2003, the SSM was mentioned. Although this text was abandoned, negotiators may return to use elements of it is they continue their work on agriculture modalities. According to the Harbinson draft, developing country Members would designate products eligible for the SSM in their schedules with "SSM" to effectively take account of their development needs, including food security, rural development and livelihood security concerns. A separate technical note by Harbinson outlined matters for further work relating to the SSM: In terms of product coverage, least developed countries could designate "N" products, and developing countries "N-n" products eligible for the SSM, under criteria to be developed; and special safeguard measures should not be applied in a way that would lead to a reduction of import opportunities below average annual imports 1999-2001. In terms of price triggered and volume triggered measures, the technical draft suggested that:

(a) Price-triggered: An additional duty not exceeding any positive difference between the c.i.f. import price of a shipment expressed in terms of the domestic currency of the importing developing country concerned, on the one hand, and, on the other hand, a corresponding import reference price representing the monthly average import price of the product concerned over a recent three year period excluding the three highest and three lowest monthly averages. In the absence of relevant average import price data for a particular product, the import reference price may be constructed on the basis of published representative export price quotations, provided that details of the prices and methodology employed are notified in advance to the Committee on Agriculture.

(b) Volume-triggered: An additional duty of not more than 30 per cent ad valorem to be imposable in any year on any quantity of imports in excess of 125 per cent of the average volume of imports in the immediately preceding three year period. This additional duty shall not be applied beyond the end of the year in which it has been imposed.

## 2. WHY HAVE DEVELOPING COUNTRIES NOT USED THE SSG?

Of the 39 countries that have reserved the right to use the SSG for agricultural products, twelve countries have made use of the safeguards between 1995 and 2003 (including the EC-15 as a single unit). As shown in Table 1, only two of the twelve were developing countries: The Philippines used the measure once in 2002 for seven products, and Costa Rica used it twice, in 1999 and 2002, also applying it to seven products. In contrast, the



most frequent users have been the EU-15, the US, Japan and South Korea, with the Eastern European countries of the Poland, Hungary and the Czech Republic being less frequent users. The EU-15, US and Japan represent 65% of the 1,285 SSG actions taken. Including Poland in this list of very frequent users, four countries represent 87% of SSG use.

For what products are agricultural SSGs applied most frequently? As Table 2 shows, in terms of agricultural products for which countries reserved the right to apply SSGs, high-value agricultural products account for the greatest number. Animal products, dairy and fruits and vegetables account for half of potential SSGs, but in practice they have represent almost 70% of all notified SSG use between 1995 and 2003 (Regmi, et al., 2005). In total, there were 1,285 SSG actions initiated by 12 countries as of October 2004. Almost two-thirds were on imports of processed foods and beverages. In the case of the EU-15, SSGs have been applied to fruits and vegetables and confectionaries. The US applied SSGs principally to dairy products, and - perhaps paradoxically - to tropical products in processed forms. Japan applied SSGs to dairy and animal products, and cereals. Poland's SSG use was concentrated on animal products and much less focused on fruits and vegetables and other products. Overall, however, exports of fruits and vegetables have a high risk of being subject to SSGs. The past emphasis by users of the SSG on noncommodities also highlights the difficulties of finding relevant data for reference prices and volumes at the disaggregated level. Richer countries have more resources and information systems that can be brought to bear on problems of the documentation of price and volume changes necessary for activating the SSG.

It is not that developing countries avoid the frequent use of contingency measures for agricultural imports; in fact, they are frequent users of anti-dumping and countervailing duties. One reason that developing countries do not use SSGs is that they were not able to reserve the right because they did not follow the tariffication process. This is due in part to many countries already having removed quantitative restriction (QRs) prior to the completion of the Uruguay Round at the end of 1994, and having converted them to tariffs. However, even among those developing countries that qualified for SSG use only two took advantage of it, and only infrequently and for a few products.

What might explain this lack of use by eligible developing countries, especially in the context of the frequent use by developed countries? One explanation is the existence of other border measures (this is particularly important in the case of price bands in the Andean Group), and high bound tariffs, which mitigate against the transmission to domestic markets of low border prices, and so eliminate the utility of other contingency measures such as the SSG.

Czech Rep.	Costa Rica	Philip pines	Switz erland	Slovak Rep.	Total
14	32	86	7	4	429
1	1	7			292
6	26				305
	4	2			151
1	7	14			114
				1	85
1					32
2	3				24
					11
					6
					4
25	73	109	7	5	1285
	Czech Rep. 14 1 6 1 1 2	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Czech       Costa       Philip         Rep.       Rica       pines         14       32       86         1       1       7         6       26       4       2         1       7       14         1       7       14         2       3       3	Czech         Costa         Philip         Switz           Rep.         Rica         pines         erland           14         32         86         7           1         1         7         6         26           4         2         1         7         14           1         7         14         1         1           2         3         3         3         3	Czech         Costa         Philip         Switz         Slovak           14         32         86         7         4           1         1         7         6         26           4         2         1         7         14           1         7         14         1         1           2         3         14         1         1           2         3         109         7         5

Table 2. Use of SSGs in agriculture: number of tariff lines by products and countries.

Source: Adapted from Regmi, et al. (2005). Original data from WTO, member notifications to the WTO Committee on Agriculture as of October 31, 2004.

For example, Colombia reported 56 tariff items subject to the SSG at the 4-digit and 120 at the 8-digit level (the more aggregated the tariff line, the more diverse the products included within the aggregated product group). But Colombian bound tariffs are very high, which permits the "temporary" increase in actual tariffs, remaining within WTO bound tariff limits.<sup>3</sup> In the case of yellow maize, tariffs could increase up to 180% under Colombia's WTO commitments, and thus the use of a special safeguard is unnecessary. Price bands also act as an automatic special safeguard (triggered by a 60-month moving average). Among the products with price bands, only powdered milk and rice have required complementarily measures to "protect" against low prices. These measure have been adjustment of the bands, import permits, and the Andean Group's own safeguard measure. Moreover, between 1994 and 2003, the general government attitude was to require import permits on more than 80 agricultural products (the number of products needing permits has gradually declined after 2001).<sup>4</sup>

Other reasons for the lack of use of SSGs in Colombia and probably most developing countries can be found in the design of the SSG rules. One such rule, considered important by several countries, are the trigger prices, which are averages of international prices between 1986 and 1988, and expressed in local currency. These reference prices are much lower than present real import prices, in part due to domestic inflation, in part due to international price changes (including US dollar inflation), and in part due to nominal exchange rate changes over the last two decades. This is a problem that should be avoided in the future, and is discussed below in the context of a proposed modified safeguard for agriculture (the new SSM).

Moreover, in some products, the SSGs are unlikely to be triggered (in the Colombia example and more generally



elsewhere) due to historically low levels of imports (owing in part to historically high tariff protection levels) and considering that the activation of the SSG is most sensitive to surges in import levels when import dependence is high (see Appendix A).

Appendix A of this report discusses in detail the application of the current SSG volume and price triggers, noting that the current system favors the use of volume triggered SSGs only when imports represent a fairly high proportion of consumption. At low levels of import dependence, such as below 10%, the volume-triggered SSG requires large import surges in percentage terms for the SSG duties to be activated. With respect to the price trigger, the rule for calculating the

additional SSG duties assures that a high proportion of a border price decline would still be absorbed by a decline in domestic prices. It is no wonder, therefore, that raising the applied tariff within high tariff bounds would be a more attractive protectionist measure than the fairly unresponsive price-trigger SSG rule. It is also revealing that outside of the WTO's SSG, in recent FTA negotiations, such as with Chile, the US has adopted automatic price-triggered safeguards, using more effective price trend rules. The US FTAs have emphasized preventative measures to reduce the impact of foreign price declines, rather than reactive measures based on ex post recognition of import surges that might occur regardless of price changes.

## 3. INTERNATIONAL AGRICULTURAL PRICES AND IMPORT-COMPETING SECTORS

## 3.1 Price risk and import-competing sectors in the context of trade reform

Past protectionist policies - especially quantitative restrictions related to import licenses and quotas, variable levies, and state trading monopolies - reduced the transmission of international price variability relative to the situation under the present trade environment, which emphasizes the use of tariffs. In protectionist trade regimes, high tariffs by themselves would also have tended to reduce the practical importance of world price fluctuations for domestic producers.<sup>5</sup> Today the set of policy instruments available to governments is largely restricted to tariffs and surcharges (including safeguards), and the levels of those tariff instruments are limited.<sup>6</sup> For many developing and transition economies, which have limited fiscal resources and are price takers in world commodity markets with long-term downward trending prices, the present trade and policy environment has amplified internal political pressures to use border protection. Governments are pressured to counteract the transmission to internal markets of the perceived distortions in world prices caused by subsidies and high protection in industrialized countries. Particularly worthy of attention, in our view, are the pressures arising in import-competing sectors.

The distorted price levels generally are a concern. However the pricing of importables is a question that has escaped due attention (especially by economists in developed countries) while it generates the most complex domestic policy debates in many developing countries. We observe in the analyses of countries that have opened their markets significantly to trade that the dilemma today is dealing with the episodes of "excessively low" border prices affecting some importcompeting activities. Moreover, the concerns over low price episodes are reinforced by the undeniable longterm declining trend in world prices. Often in the economic literature price risk is understood, in the simplest terms, as the variance of prices. But in the context of trade liberalization and efforts to encourage governments to move toward a world price regime, that definition is too narrow. Price risk should be considered in terms of price levels, not simply some measure of the variance of prices.

Trade liberalization did two things: first, it reduced border protection on importables, and second, it removed export taxes and restrictions on exportables. This had the combined effect of reducing the bias against export agriculture, improving the domestic terms of trade in favor of exportables. While the same



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characteristics of world prices of importable commodities also apply to exportable commodities, the beneficiaries of trade liberalization tended to be producers in export-oriented sectors (and of course consumers). Furthermore, it appears that, with respect to policy issues, producers of importables usually are better-organized, more vocal and stronger lobbyists than producers of exportables.

This political reality reinforces the prominence of importables in policy debates over that of exportables, and this applies to agriculture more than to other import-competing sectors. Agriculture in developing countries is more of a policy concern than most other sectors, because it typically comprises many small-scale producers, it has less developed factor markets, and, importantly, there is less mobility in the sector and social costs of displacement are high. These conditions and the fact that developing-country farm sectors encompass thousands, sometimes millions, of smallscale producers - create incentives to lobby against low protection, a pressure to which governments have been historically sensitive. Simply put, the political economies of agriculture and non-agriculture, and importables and exportables are different.<sup>7</sup>

The widely held assumption that developed country subsidies artificially and significantly lower world prices increases the political pressures to "do something" about border protection as well as the resistance in developing countries to lowering trade barriers on imports . There is a presumption that international prices are so distorted by external subsidies that they do not represent a sound basis for the determination of the true competitiveness of domestically produced importables. Many industries in developing countries argue that they would be competitive in world markets without distortions, but that they are unprofitable in the current environment of distorted international prices. In terms of political decisions in developing countries, the implication of this argument for the selection of price risk management tools is to mix objectives: defense against temporary low prices and compensation for the chronically low prices that result from distorting subsidies to other countries' producers.

World price instability *per se* is one issue,<sup>8</sup> but more important for the price risk facing agricultural producers in developing economies is the question of the persistence of low prices. In the context of an open economy, a central problem of the design of policy

instruments to deal with instability is understanding the nature and duration of price cycles in world markets. Do shocks to international prices dissipate rapidly, or are they phenomena that persist for several years? There is now a rich literature on the time-series properties of commodity prices. Early statistical research led to the conclusion that prices exhibited a significant degree of shock persistence, although later studies have been more cautious. Nevertheless, the general perception remains that commodity prices exhibit considerable shock persistence.<sup>9</sup>

Especially pertinent - and in our opinion most convincing - is the 1999 IMF study by Cashin, Liang and McDermott on the half-life of shocks to world commodity prices. In the case of wheat, for example, international price shocks have a *median* half-life of 44 months, with a 90% confidence interval that implies a range from an extreme low half-life of 14 months to an extreme high of "infinity." It is significant that there is a probability of 50% that prices prevail below the expected value (declining over time) for more than 44 months. The empirical evidence from Cashin, Liang and McDermott is that the distribution of prices is not symmetric - low prices endure longer than high prices.<sup>10</sup>

The nature of price movements is such that low prices have the tendency to persist for many months, with occasional spikes of shorter duration. These characteristics of world price movements lead to notable difficulties in the design of policies. The use of futures markets would reduce the effect of short-term uncertainty but cannot guard against the effects of consecutive years of low prices. In the past minimum import price schemes were popular, and several developing countries still have in place systems of price bands. Safeguards (Article XIX of GATT and the elaboration in the Uruguay Round Agreement) are always an applicable contingency measure, but under Uruguay Round rules they may not be introduced without a time-consuming process of proper investigations to prove injury, after public notice and hearings. They are also limited in duration, based on volume, involve compensation, are subject to retaliation and restricted in their frequency of application. The attractiveness of special safeguards, by contrast, lies in the speed at which they can be applied, their immunity from compensation and retaliation, and the fact that they can be based on prices, not only volumes.

## 3.2 Price bands, variable levies and a WTO panel ruling

Although variable levies as such are not WTO legal, from an economist's perspective price bands are a restricted form of variable levies, with the important distinction that they are not linked to a domestic support price. They are instead (ostensibly) based on a moving average of some external price, and they impose price floors and ceilings for imports. When the import price falls below the floor, surcharges are applied, and when the price exceeds the ceiling, importers receive a tariff rebate up to the basic tariff. Variants of price bands are used in Colombia, Ecuador, Peru and other countries, but Chile was the initiator of the price band model seen today. When basic tariffs are low, as in the case of Chile, price bands have notably asymmetric effects on producers and consumers, because surcharges are limited by the bound tariff (perhaps high) and rebates are limited by a low basic tariff.

Although not exactly the same as standard variable levies, price bands themselves, however, are suspect. The 2002 WTO ruling in the case of Argentina's complaint against the Chilean price band for wheat products and edible oils held that the band mechanism was similar to a variable levy and a minimum import price, both of which were held in violation of the URA Article 4.2 of the agricultural agreement. Interestingly, the price band led Chile occasionally to exceed its WTO-committed bound rates of 31.5% but this complication was sidestepped when, after initiation of the complaint, Chile modified its price band formula so that any resulting tariff (regular plus price band surcharge) would not exceed the bound tariff level.

The WTO Appellate Body ruled that, although the price band is based on world prices, it "can still have the effect of impeding the transmission of international price developments to the domestic market in a way similar to that of other categories of prohibited measures listed in footnote 1."<sup>11</sup> Although to our reading this transmission-impeding character of variable levies that was the price band scheme's most questioned aspect (and not the resulting level of the tariff), it was the combination of the transmission argument with the lack of transparency of the price band mechanism that was in violation: "[N]o one feature is determinative of whether a specific measure creates intransparent and unpredictable market access conditions. Nor does any particular feature of Chile's price band system, on its own, have the effect of disconnecting Chile's market from international price developments in a way that insulates Chile's market from the transmission of international prices, and prevents enhanced market access for imports of certain agricultural products."<sup>12</sup>

In fact, Chile's price bands were originally designed to be very transparent, without changes in the determination of the external reference price. Under the original scheme, predictability would have been eliminated as a concern. But the question of price transmission is different, being inherent to the variable levy nature of any price floor scheme (whether or not it includes price ceilings). Although the basic WTO agreements have a certain economic logic, the WTO panel ruling was based on legalistic considerations of those agreements. It was not based directly on concerns regarding the consistency of the economic logic, and it leaves the economist unsatisfied with its ambiguity about what types of variable-tariff rules might be acceptable. Furthermore, in the particular case of Chile, the ruling was unrelated to the country's generally low level of protection. The paradox is notable: the WTO would do nothing against a country with high applied and bound tariffs, but would scrutinize price bands for a country with one of the lowest levels of overall tariffs and highest levels of openness. And, with respect to economic efficiency, adding injury to insult, the ruling could result in Chile raising its protection on wheat, tariffying its price band to the bound rate. In fact Chile could apply to raise its bound rate, as it did successfully in the case of sugar (from 31.5% to 98%).

Unilaterally any country that applies a variable-tariff scheme could be vulnerable to challenge, although less so if the reference price is external, as in the case of price bands. We discuss below the possible negotiated incorporation of aspects of a variable levy into WTO rules with the creation of a special safeguard mechanism as part of the Doha Round that could act as a price floor rule. Although such a mechanism would inevitably have elements of a variable levy, it would not be questionable legally, which might have been the case in panel rulings under the present URA.

## 4. POLICY IMPLICATIONS

## 4.1 Tariff-based management of price risk and WTO commitments

What can be said about the policy implications for managing price risk given the environment of enhanced price transmission, policy distortions and asymmetric price fluctuations? As countries seek to move towards more open economies, there are valid political and economic arguments for governments and the farming sectors in developing countries to find effective interventions to deal with enhanced price transmission especially in the context of the persistence of low world prices. The movement towards trade liberalization, towards allowing market price signals to determine the use of resources, could be frustrated by the reluctance of governments to expose further their farming constituents, especially those in import competing sectors. There are political incentives to avoid the risks of price instability and periods of persistent low prices that would result from the enhanced price transmission associated with additional reforms. Obviously, those who believe in the benefits of freer world trade have an interest in facilitating policy adjustments in developing economies. But these adjustments must be designed so as to overcome the potential political resistance likely to result from the exposure of large agricultural sectors, characterized by a concentration of a large share of the poor, to the risks of sustained price decreases.

Perhaps the first question an economist would ask is "how about making use of market-oriented policies?" If problems associated with price risk were merely related to year-to-year resource allocations, then futures and other derivative markets would be the easiest and likely the most efficient solution to overcoming the riskrelated political costs of further trade reform that arise from risk aversion, underdeveloped capital markets and other possible institutional problems. If private hedging were not feasible, then a government policy based on futures would serve the same purpose. An expected low price would simply signal a decrease in resource use devoted to the commodity. If an actual low price in the previous year led to an expectation that low prices would eventually increase, then resources would merely wait to reenter production of the commodity until such a time that price realizations would signal their expected profitable use.

Large importers world-wide can use futures, but their use by small producers, especially in developing

countries, is difficult in practise. More importantly, however, resource decisions are usually matters of multiple year commitments, and because of the stochastic nature of world prices there is a high probability that low price events come grouped together in distinct episodes of series, or clusters, of months, if not years. This implies that futures and options markets would be inadequate to insure completely against the unfavorable effects of exposing import-competing farm sectors to world price declines. Other strategies are called for to smooth income fluctuations across years, such as the use of credit or equity markets. long-term contracts, vertical integration, and other means. Nevertheless the resources for implementing these market-based strategies in developing countries are likely not available, or only slowly becoming available. Therefore, it is worthwhile considering the development of other government price stabilization plans that would help reduce the resistance to reform. This could be done by addressing the effects of what seems to be the most disturbing characteristic of world commodity prices: their periodic tendency to persist at values below trend.

Although there are a variety of possible instruments presently in use, both their effectiveness and legality under the current WTO legal framework raises some questions. In addition, the Doha Round and future negotiations are key to defining new instruments. In a technical note, Konandreas (2000) of the FAO discusses the current framework, classifying permissible policies into two broad categories: border measures through tariffs (within the tariff ceiling bounds) and domestic support measure (price and non-price programs within the limits of WTO commitments).

With respect to the current state of border measures, most countries have bound their tariffs at relatively high rates, that is, 100% and sometimes more. In many countries, the actual rates are lower than the bound tariff (the so-called "dirty tariffication"). The lack of other instruments under the WTO has encouraged some governments cynically to set an overly high bound tariff. This permits considerable discretion in the selection of MFN tariff levels, and leads to more uncertainty with regard to the effective trade regime at any point in time. As noted above, in practical political terms, very few developing countries at present have access to the special safeguard clause. With respect to possible restrictions on the flexibility in tariff setting under bilateral and regional agreements, these are beyond WTO rules. Several US FTAs, for example, prohibit the simultaneous application of WTO and FTA safeguards against the contracting parties. This, however, does not prohibit the use of existing and future WTO-sanctioned measures against non-FTA members.

With respect to domestic support policies, there are both bound supports under non-exempt policies subject to commitments of aggregate expenditure ceilings (the AMS established during the Uruguay Round), and nonbound supports, exempt from limits, operating within the "green box." In addition, developing countries have access to a special category of exempted support under "Special and Differential Treatment" - investment subsidies, input subsidies to low-income farmers, etc. Most developing countries (61 of 71) reported zero AMS levels - for the remaining ten countries these levels were very low. In part this was due to fiscal limitations (Konandreas). The implication is that most developing countries are limited in their support options to action under the *de minimis* clause and the definitions of the "green box," and are thus restricted in their use of nonborder support policies. In contrast, developed countries (and a few developing countries) reported high AMS.

Overall, developing countries have fewer fiscal resources to manage price risk and aid their farmers through domestic supports, and have fewer alternative market instruments to compensate for the higher probability of periods of low domestic prices that might result from further moves toward trade liberalization. This leaves many governments in developing countries with the temptation to seek protection for their importcompeting sectors through border measures. From an economist's perspective of the welfare gains from trade, and from a practitioner's perspective of facilitating the liberalization process, future WTO negotiations might well consider providing greater access to developing economies in terms of well-defined and disciplined tariffs and surcharges. Following agreement on a special safeguard mechanism (SSM) in the 2004 July Framework, negotiations on how best to design it - likely based on the alteration or adaptation of the special safeguard clause for countries with low bound tariffs - are ongoing.

## 5. PRICE FLOORS UNDER A SPECIAL SAFEGUARD MECHANISM

## 5.1 Principles for price floor schemes and some policy recommendations

In the context of the Doha Round negotiations, a new special safeguard mechanism (SSM) is being negotiated to allow effective border measures in the management of risks related to low prices in developing country import-competing sectors. There are five basic principles to which the new SSM, based on the SSG should adhere:

The SSM should be used to enhance trade by allowing the reduction of overall protection.

The SSM should not be used to isolate producers from long-run changes in world prices. Moreover, SSM rules should be credible in their consistent application through time so as to avoid producer expectations that the rules would be adjusted to maintain protection against unfavorable movements in long-run prices. The use should be restricted to a small number of sensitive products to protect against temporary declines in world market conditions. The negotiations on the SSM should address the question of the persistence of price downturns. Such downturns could last for more than one year.

The SSM should not be an enduring substitute for purely domestic supports that minimize trade distortions.

The SSM should be transparent and difficult to manipulate.

These principles lead to some policy recommendations.

Tariff Levels: The SSM should be available only for importable commodities and countries that have bound tariffs at less than some threshold. A threshold should be based on bound tariffs and not applied tariffs, because a country can always raise the applied tariffs up to the bound tariff. The objective of the SSM should be to permanently lower restrictions to trade. After all, the whole point of WTO negotiations is to lower tariffs,



and a lower threshold would be better than a higher one. What should this threshold be? Sharma estimated bound tariff rates (40% to 60%) that would allow countries to apply a varying tariff so as to completely stabilize domestic prices. This provides an estimate of the upper limit to bound tariffs that would be accompanied by a special safeguard mechanism. In principal, a bound tariff threshold for the availability of special safeguard use should be lower than 40-60%, because otherwise countries would have no need for the safeguard. Bound tariffs should be low enough to permit the benefits of trade liberalization, except for those few products with access to the safeguard during episodes of very low prices. Perhaps this bound level should be in the order of 35%. (A discussion of an example showing the frequency and level of interventions is given in Appendix B.) As is the case in the current negotiations, LDCs would not be required to make tariff reductions, although they might choose to in exchange for having the right to use the SSM, which they would not really need if they had high bound tariffs. Those LDCs that have relatively low tariff bounds would be eligible for the SSM in any case.

As a variation on this theme, the upper limit to variable safeguards could be inversely related to the bound tariff. This would induce to governments to set lower bound tariffs, because they would have access to additional border protections triggered in emergencies. Product coverage is discussed in more detail below.

Import Quotas: The safeguard should not be available in the case of import quotas, another trade defense mechanism that reduces transparency and price transmission. In fact, the availability of such WTO safeguards should be an incentive to eliminate quotas. The main reason why quantitative restrictions (QRs) should be discouraged is that they lack criteria for setting quota levels in cases of fluctuating domestic supply and import prices. A tariff surcharge provides a single, objective and predictable measure of the protection effect of the safeguard. With quotas this is not possible and so the protection effect of the quota is difficult to determine ex post, and impossible ex ante. Although in principal there is a quota that could mimic a tariff level (the implicit tariff rate of the quota) in terms of import levels, in most cases there is no single tariff rate that achieves the equivalence of the guota with respect to its effects on volume and import value, on domestic price, and on domestic production. In fact an arbitrary QR could yield an effective tariff much higher than that required to compensate producers for a fall in world prices. There is no practical way of estimating what a QR should be at any point in time that would achieve some targeted tariff equivalent. Adding a volume quota to a special safeguard surcharge would considerably lessen the transparency of the SSM, due to the reduction in the predictability of the true price and import effects of both the SSM and the quota. This is contrary to the spirit of decades of negotiations ending with the Uruguay Round Agreement.

Volume Trigger: With respect to volume triggers, it is worth mentioning that the current system has been designed to favor volume triggered SSGs when imports represent a fairly high proportion of consumption (see Appendix A). Volume triggers have some drawbacks. One is very practical: many developing countries do not have the information resources to determine in real time import flows or the possibilities of import surges. Secondly, while an import surge can be broadly defined as a sharp, sudden, recent and significant increase in imports, the conceptual, operational and negotiating problem is: How does one define what is "sharp," and "sudden," and "recent," and "significant"? This definitional problem is especially complex because volume triggers, which are not necessarily related to low prices, would be contaminated by import surges correlated with domestic production shortfalls. A rise in imports due to domestic production declines would not imply any externally-induced injury to domestic producers, and would not be consistent with the principle of protecting potentially competitive sectors.<sup>13</sup> While the use of volume triggers has the advantage of being based on a verifiable event, the damage to the domestic sector is not volumes of imports, but the net producer income reduction related to the price decline. For example, harvest shortfalls could be related to a sharp rise in imports. Domestic prices could rise while imports are rising, and it would be difficult to justify the imposition of additional duties on the basis of maintaining a price floor to protect a viable industry. In this case the volume trigger would not reliably indicate the harm to the industry, which is the ultimate event to be verified. World prices may remain constant and imports surge to cover domestic demand in the event of a domestic production shortfall (e.g., due to a drought). This would not be a trade-related event, but a domestic supply problem, and it would be hard to justify adding an additional burden to consumers for something unrelated to a country's trade policy or any other country's trade policy. Moreover, when import volumes

are related to world prices, import volume surges are often *ex post*, they follow price drops. A decline in the border (cif) price could lead to a reduction in domestic producer prices, prior to import surges. If volume is used, what should be the minimum increase in imports during a year that qualify invoking the measure? Under the current special safeguard, some countries reported extremely low volumes in absolute terms as triggers, which suggests an abuse of the spirit of the mechanism.

Price Trigger: The new SSM would be more aptly based on prices following a common rule for all members of the WTO, and not subject to domestic lobbying pressure. The price trigger (discussed below) should be a reference price that incorporates long term trends in world prices and is not subject to changes due to domestic considerations. Ideally the safeguard would be activated by the border price actually paid. However, in practice "under- or over-invoicing" might disguise that true price. Using fob prices for the purpose of monitoring would be more reliable in terms of transparency in the case of countries that are unable to provide dependable cif data. The shielding of the trigger price from domestic considerations would protect the credibility of a government commitment to only use the safeguard to avoid very low prices, and would induce domestic producers to plan in terms of long-run competitiveness. Trends could be adjusted periodically, following adjustment rules agreed upon in WTO negotiations, not requiring continuing negotiations. An important element to give transparency to the policy and to avoid abuse is to require detailed notification to the WTO secretariat, perhaps every six months, indicating the products for which safeguards have been activated. This would also provide a data base in the determination of reference prices. WTO members should have up to date information and be able to consult. To increase transparency, for every country that plans to use the safeguard, the WTO secretariat should assist in establishing a system of computing reference prices and surcharges. Of course, distinguishing price trends from price instability is difficult. Moreover, trends may not be simple downward or upward sloping straight-line trajectories. What is perceived as a trend ex post might be in reality a series of structural changes, generally in the same direction but that occur at random intervals and magnitudes.

**Principles of Use:** Rapid and easy use of the SSM instrument would be an essential feature to make the scheme attractive to developing countries, especially if the safeguard is to be limited in duration. Therefore, two important characteristics of the policy would be that proof of injury should not be required and there should be no requirement to compensate trading partners. The safeguard should be accessible, but inflexible in being rule-based and transparent in its implementation.

*Trigger*: How would one define such import surge emergencies? The triggering of variable safeguards would have to be specified in terms of well-defined low world price events, applicable to developing countries, as discussed above. This would necessarily involve a negotiation process within a WTO established framework, which would have to determine coverage of importables that qualify for variable special safeguards and would have to establish a process of registration.

*Reference Price:* If the reference prices were to accurately reflect long-term trends in opportunity costs, an argument could be made that there should be no time limit on the application of the surcharge. However, in practical terms there would be many reasons for international resistance to long-term application of a safeguard. Not the least among these is the fact that there would be little confidence that reference prices are accurate reflections of long-term trends. There would always be doubt about a country's credibility. It is therefore tempting to think in terms of a rule of thumb, such as a three-year maximum, with the possibility of one renewal for two additional years, and then a required lapse for two or three years.<sup>14</sup>

*Access:* Access to the SSM should be made contingent on low levels of domestic support transfers. Countries with the ability to use other safety net mechanisms (income per capita is a good proxy) to protect producers during periods of low prices should be effectively excluded. Without having to relying on a country's self-declaration of being a developing country, the end result of this screening rule for eligibility would be that the SSM is accessible only to developing countries, as agreed in the July Framework.<sup>15</sup> The continuation of the existing SSG is another issue that has to be resolved in negotiations.

#### 5.2 Product Coverage

From the perspective of freeing trade and as a practical matter, the simultaneous application of the SSM should be limited to a small number of products, although the instrument could be available to any product. There have been suggestions to restrict this mechanism to food-security crops. However, other than restricting the use during any period to a small number of importables for which the bound tariff is low, we see no advantage of restricting a country from determining its own priorities. The simultaneous application to a large number of products per country would not be manageable for the WTO to monitor, and a country would find it difficult to manage the data required. Furthermore, a limited number of products for which safeguard could apply at any one time would help prevent the misuse of the instrument and maintain the focus on politically sensitive products where a lack of protection would otherwise be an obstacle to trade liberalization. Why not exportables? As discussed in the third section above, as a result of trade liberalization, the relative price of exportables to importables has improved. There is a weaker argument for protection of exportables.

Rather than discussing which particular products should be eligible, by limiting the product coverage to a manageable number, say not more than 10 (or less)

its own individual set of products that are politically sensitive in the realm of trade liberalization. In order to facilitate the monitoring by the WTO of world prices and trading volumes, countries should notify the Secretariat, specifying their lists of products that might be subject to the safeguard over some period of time, with the possibility of revisions to the list with sufficient advance warning. The number of products for which a country could apply safeguards at any one time would likely become the most politically difficult problem to negotiate. There is an advantage to limiting the list of products for which safeguards could apply in future to a specific set, although the number of products on that list could be large. This would push countries to think in terms of alternatives to border measures to support sectors, and would avoid gaming with respect to claims of product "sensitivity" based on anticipated world prices, although those products were not "sensitive" when prices were high. The priority of the list of eligible products should be determined by the political sensitivity and long-term viability of the product, not on short-run conditions. For products excluded from the list but that might become politically sensitive and perceived as long-term viable in the future, a country could seek domestic support measures.

simultaneously, this would force each country to select

## 5.3 What about "special products"?

Under the Uruguay Round agreement, there was no "special product" (SP) category. Such a category of products - eligible for more flexible treatment, based on food security, livelihood security and rural development, and outside the traditional Special and Differential Treatment - is included in the July

Framework. There is no reason why SP products would be excluded from the SSM as described here; but there could be some products in the SP category, however, that are not long-term competitive and for deeper cultural or social reasons the country demands longterm protection that the SSM could not provide.

### 5.4 The price trigger

Several possibilities for reference prices have been suggested: price trends and moving averages of various lengths, base-period average prices, the preceding year's price, and a minimum average cost of the world's "most efficient" exporter. The unsystematic nature of a base period price, despite its simplicity, does not incorporate long-term trends, and, unless updated periodically by some appropriate rule,<sup>16</sup> a base period price would isolate producers from long-run changes in world prices. Simply put, base period average prices are arbitrary (and therefore corrosive of the government's credibility) and incorporate too little information with respect to trends in long-run costs. By contrast, moving averages and regression-trends would incorporate the long-term tendency of commodity price declines, although there are some practical issues to be considered with both types of reference prices. Longmemory price trends have the advantage of reflecting long-run opportunity costs of domestic production, but do not guarantee that future prices will stay on the historic trend. The shorter the memory, the more sensitive is the trend to sharp but short deviations in prices not representative of long-run opportunity costs.

While attractive as a means of smoothing price fluctuations, a moving average produces some awkward results inconsistent with the objective of protecting against exceptionally low prices. For example, as was shown in the context of a price band for sugar imported in Chile, when real sugar cif prices in US dollars were used as a reference, a moving average would have triggered surcharges in some years when the domestic price was above trend prices (e.g., April 1995 to August 1996); and similarly, there were periods during which a moving average would not have triggered surcharges although prices were below trend (e.g., January 1988 to June 1989).<sup>17</sup> Moreover, a moving average sometimes would lead to both over stated and under stated surcharges relative to regression-determined surcharges. A very short-term moving average, such as using the preceding year's price would occasionally produce the same result.

A regression-trend reference would avoid this particular difficulty associated with moving averages. But of course the true future trend is unknown and historical price observations are imperfect predictors of future opportunity costs. This suggests that a regression-trend reference price should be recomputed periodically, if not annually. One could argue that recomputed regressions are contradictory to the ideal of a long-term trend, given that the sample regression line will change with the incorporation of new data.<sup>18</sup> For example, a prudent firm would probably adopt an implicitly strong prior expectation of long-run cost declines, lowering the weight placed on new observations of large price increases, and increasing the weight placed on price declines.<sup>19</sup> On the other hand, this is a question of negotiations between countries, and it is unlikely that one could obtain agreement on prior expectations of the long-term trend. So one returns to a fairly mechanical, and hopefully transparent, rule for determining the regression trend.

An alternative reference price could be based on an estimate of the minimum average cost of the world's "most efficient" exporter. Price declines below this level would be unmistakably transitory, in the sense that prices in the future would almost certainly rise. For example, when sugar prices reached US\$250 per ton in 1985, sugar production was unprofitable even in Australia, one of the most cost-efficient producers in the world; one could have concluded that world prices were unmistakably low and resources would certainly move from sugar production, and price would rise in the future. In fact, three and a half years later, prices increased to approximately US\$400 (Quiroz, Foster and Valdes). While attractive for a firm making investment decisions, this type of reference is hardly the kind of price that would easily generate consensus in international negotiations. We conclude that the most practical mechanism consistent with the objectives of a modified safeguard would be an extrapolation of some sort of price trend for the current year.

## 5.5 At what prices should the surcharge be applied?

There is no strong technical argument against the surcharge being applicable to 100% of the shortfall of prices below trend. One formula could be to set the tariff surcharge to a given proportion of the difference between the trend and actual price. Another formula

could be to allow the surcharge only if actual prices are below some proportion of the trend. Both alternatives are equivalent to adding a deductible to an insurance policy.

### 5.6 What data should be used to estimate the reference price?

An important data question concerns the length of the interval of historical data used for estimating trends. The appropriate criterion for choosing the length of the time series used in trend estimation should be the best forecast for the next seven to ten years, on the presumption that future negotiations will review the safeguard scheme. Unfortunately, there is no clear cut recipe for achieving this objective. The length of the



price series should both reflect a stable set of attributes of the product (e.g., quality) and should minimize structural changes in cost trends. In practical terms this would limit the length of the historical price series to a few decades at most. Feasible sources of data to determine the trigger price could be actual import cif prices or simulated cif levels based on fob prices at some appropriate location plus freight, insurance, etc. associated with transport. The situation would vary

between countries that are chronic net importers and countries that occasionally are self-sufficient. For the latter, there are years in which there are no observed cif prices, which would hinder reliable price trend estimates. National data would capture better the idiosyncrasies of each product market. But for countries that do not have sufficient price data, international prices would have to be used, such as FAO's data base or that of UNCTAD.

### 5.7 Currency and exchange rate issues

Given that a safeguard should be a direct response to changes in a world market for a particular product, and not to changes in domestic markets and policy, the most appropriate currency for defining the use of the SSM and monitoring its application should be the currency in which the product is traded among nations. The SSM should not be used as a safety valve for changes in other markets, most important in markets for the domestic currency. Any problems arising from an appreciation of the domestic prices should be addressed by exchange

### rate policy. Often pressure for contingency measures for particular domestic sectors arises during period of currency appreciation (e.g., a decline in the peso value of the dollar). But in terms of the goal of consistency and transparency of a safeguard system (and in terms of manageability), we would recommend using a world price in the currency of trade and avoid turning a safeguard into another contingency measure to deal with exchange fluctuations.

#### 6. CONCLUSIONS

Trade liberalization, especially the removal of quantitative restrictions, exposes farmers to enhanced price transmission. One concern in developing countries related to this greater degree of price transmission, and a major political obstacle to further liberalization in the case of importables, is the real possibility of extended periods of "low prices." The stochastic nature of international commodity prices does exhibit both considerable shock persistence and an asymmetry of price movements where high prices tend to have short duration spikes and low prices have extended duration troughs. Absent the fiscal and institutional possibilities to achieve purely domestic support, the problem of occasional but persistent episodes of low prices is unlikely to be addressed without resort to border measures. Special safeguards for agriculture were conceived as an instrument to resolve this problem, but with the present WTO rules most developing countries cannot use them. For this reason, negotiations in the Doha Round have focused on the instituting a new special safeguard mechanism (SSM) for use by developing countries as protection against import

surges. The concept of the SSM was included in the 2004 July Framework.

In this paper we have presented possible modifications of the SSG clause based on the principles that: (1) any modification should enhance trade by reducing overall protection; (2) that the SSM should not isolate producers from long-run world price changes, should be credible in its consistent application through time, and should be restricted to a limited number of sensitive products; (3) the SSM should address the question of the persistence of price downturns; (4) the SSM should not be an enduring substitute for purely domestic supports that minimize trade distortions; and (5) the SSM should be transparent, difficult to manipulate, and not isolate producers from long-term price trends. The proposed SSM should reinforce a contract relationship between policy makers and domestic agricultural sectors: temporary trade protection should come with the obligation to compete in the long run. One implication is that the safeguard should be "automatic," divorced from perceived industry costs. Firms either compete in the longer-term or they do not. The problem of



asymmetric information regarding adjustments to an industry's cost structure should be dealt with in the proposed safeguard's design.

As an inducement to governments to commit themselves to liberalized trade, we recommend that the SSM should be used only for importable commodities, price-based, and for countries for which overall bound tariffs are less than some threshold. For credibility, the rules determining the trigger mechanism for application of the safeguard should be uniform for all countries and should be subject to monitoring by the WTO, and the specific triggering price should be revised periodically by the WTO secretariat to follow long-term changes in world market price conditions. Furthermore, the SSM should not be available in the presence of import quotas or other quantity-based restrictions. To give transparency and credibility to the policy there should be detailed notification to the WTO secretariat indicating the selection of products, including the data base in the determination of reference prices. To further increase transparency, for every country that plans to use the safeguard, the WTO secretariat should assist in establishing a system for computing reference prices and surcharges.

The importance of rapid and easy use of the SSM, especially if limited in duration, suggests that proof of injury and compensation should not be required. The rules triggering variable safeguards would have to be specified in terms of well-defined low price events. While the particular products and prices used in these triggering rules might vary by country, the rules themselves should be universally applicable to all countries. But access to the SSM should be made contingent on low levels of domestic support transfers. Countries with the ability to use other safety net mechanisms (income per capita is a good proxy) to protect producers during periods of low prices should be effectively excluded. As agreed in the July Framework, the SSM is limited to developing countries.

With respect to the specific reference prices that would trigger the safeguard, we conclude that a regressiontrend reference price would avoid most of the difficulties associated with moving averages and a baseperiod price. Of course a regression-based trend retains the problem of all reference prices of being an inexact predictor of long-run future trends. Nevertheless, we consider that the most practical mechanism consistent with the objectives outlined in this paper of a modified safeguard would be an extrapolation of some sort of price trend based on historical data.

#### APPENDIX A. SSG VOLUME AND PRICE TRIGGERS

Eligible countries presently can use volume or price triggers in the implementation of special safeguards for agricultural products. For products that have undergone tariffication, under Article 5 of the Uruguay Round Agreement, if import volume exceeds certain percentages of the preceding three-year average (plus recent domestic consumption changes), an additional surcharge can be imposed (up to one-third of the normal applied duty *during the year* in which the SSG is activated). The SSG is applicable only during the calendar year. If imports are 30% of domestic market, the volume trigger is set at 105%; if they are between 10% and 30%, the trigger is 110%; and if imports are less than 10% of domestic market, the trigger is 125%. Alternatively, if cif prices drop below a trigger price corresponding the average price in the 1986-1988 base period, additional duties can also be applied based on a fixed schedule. Prices fob are more transparent than the more idiosyncratic cif prices., and because some countries use the fob price to assess import duties, this has led to some confusion.<sup>20</sup>

#### Volume triggers

Letting  $I_t$  represent import levels and  $C_t$  represent domestic consumption in year t, the volume trigger,  $V_t$ , is given by a formula based on an adjustment factor,  $F_t$ , to average imports plus the domestic consumption change:

$$\mathbf{V}_{t} = \mathbf{F}_{t} \times \frac{1}{3} \left( \mathbf{I}_{t-1} + \mathbf{I}_{t-2} + \mathbf{I}_{t-3} \right) + \left( \mathbf{C}_{t-1} - \mathbf{C}_{t-2} \right)$$

It is relevant to note that both the import and consumption levels used are the absolute volumes *for which data are available*. This fact itself presents a degree of self-interested discretion in the calculation of the volume trigger. In any event, the adjustment factor,  $F_t$ , can vary and depends on a three-year average of the proportion of imports to domestic consumption, sometimes called market access opportunity,  $M_t$ .

1.25 if 
$$M_t < 0.10$$
  
where  $F_t = 1.10$  if  $0.10 < M_t < 0.30$   
1.05 if  $0.30 < M_t$ 

and 
$$M_t = \frac{1}{3} \left( \frac{I_{t-1}}{C_{t-1}} + \frac{I_{t-2}}{C_{t-2}} + \frac{I_{t-3}}{C_{t-3}} \right)$$

For example, suppose imports have been growing with consumption and have averaged about 15% of domestic consumption, and suppose consumption has been growing by 2% annually. The volume trigger as a percentage of domestic consumption would be

$$\frac{V}{C} = 1.1 \times 0.15 + 0.02 = 0.185$$

And so imports in terms of domestic consumption (I/C) would have to surge from 15% to 18.5% in order for the SSG to be applicable. That is, the *total level of imports* (I) would have to increase by about 23%.

As another example, suppose imports have been growing with consumption and have averaged about 7% of domestic consumption, which grows 2% annually. The volume trigger as a percentage of domestic consumption would be

$$\frac{V}{C} = 1.25 \times 0.07 + 0.02 \approx 0.11$$

And so imports in terms of domestic consumption (I/C) would have to surge from 7% to 11% in order for the SSG to be applicable. That is, total level of imports (I) would have to increase by about 54%. In other words, with historically low levels of imports relative to domestic consumption, the percentage surge in the *levels* of imports must be large. This is, however, not unlikely in the case where the level of imports has been very small, and where a reasonable increase in imports might represent a very large change in percentage terms.

Figure A1 captures the interaction between the three critical variables in determining when the volume trigger activates the SSG: The ratio of the trigger volume of imports to consumption, the growth rate in domestic consumption and the required surge in imports before the trigger activates. The figure presents two cases: where consumption is stable and where consumption grows at a half-percent ( $\frac{1}{2}$ %) per year. Where consumption does not grow, the required percentage surge in imports relative to their past average is given by the three trigger factors in the AoA (1.25, 1.10, 1.05). (The odd backward slopes around the two break points is due to the discrete nature of the formula.) Where consumption grows at  $\frac{1}{2}$ % yearly, historically small levels of imports to consumption implies that large surges in import are required to activate the SSG. This is due to consumption growth pushing up the trigger volume regardless of import dependence (a.k.a, market access opportunities). If imports represent 5% of consumption, import levels would have to surge by 35% in the case of a  $\frac{1}{2}$ % consumption growth. By contrast, if consumption is growing at 2%, imports level would have to surge 65%.

If consumption grows at 1.5% yearly, an surge in import levels of 10% that would activate the SSG would imply that import dependence be around 30% of consumption. As the graph shows, the current system favors the use of volume triggered SSGs when imports represent a fairly high proportion of consumption.

It would be illustrative to see the operation of the volume-triggered SSG in the case of one of many instances of its use by the United States. In June of 2002, the US determined that the trigger level of imports of American-type cheese was 16.5 million kilograms. In November of that year, the Foreign Agricultural Service found that import levels had exceeded this trigger and an additional duty of 35.2 cents per kilo would apply between 21 November 21<sup>st</sup> to December 31<sup>st</sup>, 2002. Imports from Canada and Mexico were exempted, and the additional duty did not apply to previously contracted goods (in route).



*Figure A1. The trigger function: the % change in import levels required to apply SSG as a function of the volume trigger level relative to domestic consumption* 

#### Price triggers

Trigger prices are based on averages of prices between 1986 and 1988. When cif prices, in nominal terms and in local currency, fall sufficiently below the trigger an additional duty may be applied. For some goods the trigger may be "an appropriate price" accounting for the quality and the stage of processing. In general, taking T to represent the trigger price and P to represent the cif import price, the rule for applying an additional ad valorem duty, d, is given by

$$d = \begin{cases} 0 & \text{if } 1 - \frac{T}{P} < 0.10 \\ 0.27 \cdot \frac{T}{P} - 0.30 & \text{if } 0.10 < 1 - \frac{T}{P} < 0.40 \\ 0.39 \cdot \frac{T}{P} - 0.50 & \text{if } 0.40 < 1 - \frac{T}{P} < 0.60 \\ 0.47 \cdot \frac{T}{P} - 0.70 & \text{if } 0.60 < 1 - \frac{T}{P} < 0.75 \\ 0.52 \cdot \frac{T}{P} - 0.90 & \text{if } 0.75 < 1 - \frac{T}{P} \end{cases}$$

How does the additional SSG duty change as a function of the percentage fall of the cif price below the trigger? Figure A2 shows a fall of less than 10% of the cif price relative to the trigger provokes no additional SSG duty, and declines in domestic price would reflect fully the decline in the border price. With larger declines in the cif price, progressively larger SSG additional duties would be applied, reducing the degree of pass-through of the border price decline to the domestic price. For example, a decline in cif price of 40% would result in a 15% additional duty. Although additional SSG duties would absorb to some extent what would otherwise be equiproportional declines in 24

domestic price (with which domestic producers must compete), the degree of absorption is fairly small, as seen in Figure A3.

To illustrate, suppose that there is a normal ad valorem tariff of 20% and initially the cif price is equal to the trigger level. Consumer would pay 1.2 times the cif price. A decline of 10% in the cif price would result in an equal percentage decline in the consumer price, because no additional SSG duty would be applied. A decline of 30% in the cif price would lead to a fall of 25% in the domestic price (from 1.2 to 0.9 of the fixed trigger). This is due to having the domestic price absorb fully the first 10% of the decline in the cif price, and to the fact that, after the first 10% of the fall in cif price, the additional duty does not rise in proportion to the cif decline. Even a drastic fall of 50% in the cif price would lead to a 38% decline in the domestic price. In addition to the 1986-1988 price references in local currency, this imperfect absorption effect of the price trigger mechanism, in the presence of high bound tariffs, is another reason that the special safeguard is not widely used by developing countries.

For some developed countries, particularly in the case of the EU, in reporting the trigger prices for 1986-1988, the average per unit import value was used, simply dividing the average value by the average volume of imports during the three years. The EU reserved the right to "correct the trigger prices if circumstances so justify." It is revealing that, as Josling, Tangerman and Warley note, there was "no ex ante agreement on trigger prices under the SSG." Moreover, the prices for the SSG triggers were higher than the prices used by the EU for the purpose of tariffication.<sup>21</sup>



*Figure A2. SSG price trigger: additional ad valorem duties as a function of the % fall of cif price below the trigger* 

*Figure A3. How the domestic price changes with cif price, with and without the SSG price trigger* 



## APPENDIX B. AN EXAMPLE OF AN SSM SURCHARGE<sup>22</sup>

As an example of the use of a safeguard mechanism to avoid low price events, this section presents some calculations related to the tariff levels applied to cif prices that would be necessary to reach trend levels of two products: sugar and wheat imported into Chile. As in many countries, these two products are politically sensitive in Chile and have historically been protected, most recently by price bands. Figure B1 presents observed Chilean import cif US dollar prices (pre-tariff and deflated by the US CPI) for sugar, wheat and powder milk (26% fat content) for the period, January 1980 to December 2001. The regression trend for each product is also shown and the reader will note both that real dollar prices have been falling over time and that there exist episodes during which the cif price moves above and below the trend. Clearly, the slope of the trend lines are sensitive to the definition of the sample. This is most obvious in the case of sugar, where beginning the regression line in 1982 would have flattened the slope and would affect the magnitude of the differences between trend and observed prices.

Figures B2 and B3 present histograms of the frequency (in months) of total tariff levels (basic tariff plus any surcharge) that would be required to reach trend cif prices for sugar and wheat. Due to the nature of the regression trend, for both products, in close to 50% of the months of the sample (1980-2002), observed prices were not below trend and thus there would be no use for a safeguard. But as a practical matter, the frequency of use of a safeguard would be even lower than 50%, because a tariff without safeguard would already exist to raise the domestic price. From Figure B2 in the case of sugar, a tariff of say 20% would raise the proportion of months where domestic prices are above the trend cif price to near 60%. In Figure B3 in wheat, a tariff of 20% would raise the proportion of months where domestic prices are above trend cif price to over 65%. In these two examples for a 20% basic tariff<sup>23</sup> a surcharge would be applicable between 35% and 40% of the time.

Table B1 complements the histograms, presenting in chronological order the several episodes during which cif prices fall below the trend lines. There are five episodes for sugar and 14 for wheat between 1980 and 2001. Due to high prices very early in the sample for sugar, beginning in mid 1981 the cif price experienced a decline of long duration with almost eight years of prices below the long run cif price trend. During this episode, the average total tariff necessary to raise domestic prices to the cif trend would have been 56%, or approximately a surcharge of 36% over a basic tariff of 20%. Not surprisingly, soon after the start of this period of low prices Chile instituted its price band policy. Later in the sample, corresponding to the 1990s, the duration of episodes where the cif price fell below trend is shorter and associated surcharges would have been lower, and in fact often a surcharge would not have been applied over a basic tariff of 20%.

In wheat, there are two periods of long duration, one lasting approximately four years and other two years. During both episodes, the total tariff necessary to reach the trend cif price average 22%, implying an average surcharge when applicable of 5% or less. There are two brief episodes when the cif price fell below 50% or more of the trend cif price, implying a surcharge (on a base tariff of 20%) of 30% to 40%. These two cases emphasize two contrasting cases: for sugar, there are fewer episodes where a surcharge would be applied, but the duration of an episode is likely longer and the average surcharge higher; for wheat, there are more frequent episodes of shorter duration and lower average surcharges.

These results using a trend cif price can be compared to those of Sharma (2002) who calculates maximum tariff levels that would stabilize domestic prices relative to a moving average of fob prices for a range of basic food products. Sharma concludes that maximum tariffs of 40% to 60% would suffice to offset price declines below their moving average. Using the 20% basic tariff example, the Sharma results imply maximum surcharges in the range of 20% to 40%.

We should add one note of caution: there could be commodities for which prices rarely fall far below there long-term trends, although they could be subject to spikes. The base price would be the normal price, and the spikes simply windfalls for producers. If the long-term trend is declining, there would of course be a structural problem for

producers, but a problem for which a special safeguard would not be a desirable remedy. A special safeguard of the type described here and for the purpose of enhancing freer trade presupposes a transitory nature of "low" prices.





*Figure B2. Histogram of Frequency in Months of Total Tariffs Required to Reach Trend CIF Price for Imported Sugar to Chile, 1980 to 2002* 



Figure B3. Histogram of Frequency in Months of Total Tariff Levels (%) Required to Reach Trend CIF Price for Imported Wheat to Chile, 1980 to 2002



Sug	gar	Whe	eat
Average total	Duration of	Average total	Duration of
tariff during	episode in	tariff during	episode in
episode	months	episode	months
56%	93	5%	2
12%	29	30%	1
10%	6	8%	5
2%	3	7%	8
15%	11	22%	46
		30%	16
		24%	8
		22%	26
		15%	5
		50%	4
		61%	1
		1%	1
		1%	2
		7%	3

## *Table B1. Episodes during which cif price to Chile falls below trend, 1980–2001.*

	Sugar	Wheat
Average total tariff for all months	21%	11%
Average total tariff for months when cif price falls below trend	40%	21%
Average duration of episodes when cif price falss below trend	28.4	9.1
Maximum difference between trend and cif price	153%	66%

Note: Regression results are based on months for which cif prices in Chile are observed (i.e., months with no imports are treated as missing observations). Duration of episodes during which cif prices fall below trend includes months of no imports.

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#### Alberto Valdés and William Foster – The New SSM: A Price Floor Mechanism For Developing Countries

#### NOTES

<sup>1</sup> See for example, "Negotiations in Agriculture - A Special Agricultural Safeguard Mechanism for Developing Countries and Small Developing Economies," negotiating proposal on behalf of the Caribbean Community (Caricom), February 4-6, 2002. There are several other safeguard-related proposals by individual countries (Australia) and country groups, by Argentina, Bolivia, Philippines, Paraguay and Thailand; by Cuba, El Salvador, Honduras, Kenya, Nicaragua, Pakistan, Dominican Republic, Senegal, Sri Lanka, and Zimbabwe. See also the recent WTO "Agriculture Negotiations: Backgrounder - The issues and where we are now," (1 December 2004), available at http://www.wto.org/english/tratop\_e/agric\_e/negs\_bkgrnd00\_contents\_e.htm#download .

<sup>2</sup> For more details, see WTO Secretariat background paper "Special Agricultural Safeguard" G/AG/NG/S/9/Rev.1, downloadable from <a href="http://www.wto.org/english/tratop\_e/agric\_e/negoti\_e.htm#secretariat">http://www.wto.org/english/tratop\_e/agric\_e/negoti\_e.htm#secretariat</a>

<sup>3</sup> These increases in tariffs within the WTO bounds, however, sometimes violate Andean Group commitments.

<sup>4</sup> The authors would like to thank José Leibovich, subdirector del Departamento Nacional de Planeación in Bogotá, for his correspondence regarding the situation in Colombia.

<sup>5</sup> Price transmission *per se* is not the whole story. The practical impacts of world prices on domestic prices are, at a minimum, filtered through fluctuations in exchange rates, which are, as is well known, is much more volatile in developing economies. In addition, historically speaking, changes in border protection have also been of significant importance during the 1990s in many countries, influencing the ultimate effects of changes in world prices on domestic producers. It is relevant to consider the extreme case of countries that have fixed exchange rates and dollar convertibility, such as Argentina until recently. In such a case, and where the rate of inflation would be close to zero, one would expect a price transmission elasticity of one. Moreover, any decomposition of domestic price changes would show a near one-to-one total correlation between domestic prices and world prices (abstracting from marketing margin changes). In contrast, take the case of Chile, which in spite of a stable macroeconomic environment (with an inflation rate of less than 3%, a fiscal deficit less than 1% of GDP, and with ample foreign exchange reserves), the country's nominal and real exchange rate has fluctuated significantly. Another example of real price trends is that of wheat in the transition economies of Bulgaria, Romania, Russia and Ukraine (Valdés, 2000). These countries have experience large yearly real producer price variations. What is notable from the data is the imperfect correlation (sometimes negative) between border price changes and domestic (real) producer prices. For example in the case of wheat in Bulgaria during the period 1994-1997, domestic prices increased 25% while border prices fell 6%, the increase owing primarily to a 34% increase in the real exchange rate.

<sup>6</sup> With policies restricted to tariffs, an important choice is between differentiated and uniform tariffs. While most trade economists favor low, uniform tariffs, one can always find technical economic arguments for applying higher or lower tariffs in some products. But the process is almost always corrupted, a captive of special interests, undermining the credibility of a government's commitment to a freer trade policy. Harberger concludes his 1984 edited volume, World Economic Growth, with several policy lessons, one of which is entitled "Some types and patterns of trade restrictions are far worse than others" (p. 431). The author notes that, "[t]he only sure way to guarantee against catastrophic variations in rates of effective protection - even with moderate-looking rates of nominal protection on final products - is to make the rate of nominal protection uniform across all products.... For only when all nominal rates of protection are equal are all effective rates equal to this same nominal rate. Only a given uniform rate of tariff can automatically avoid capricious and distorting variations in the effective rates of protection actually achieved. Modification of tariff schedules in the direction of greater equality is thus one of the most important reforms advocated by professionals." Furthermore, "...I have not the slightest doubt that, asked to choose between Ramsey tariffs and uniform tariffs,..., my practicing professionals and Williamson's consensus members would vote overwhelmingly in favor of the uniform-rate alternatives. In doing so they would be expressing not the implications of neoclassical theory but rather what they think of as practical wisdom derived from long experience....This is a political economy argument for uniformity, not a neoclassical one" (p.549 in Meier and Stiglitz).

<sup>7</sup> The 1992 study of the political economy of agricultural price policies in 18 developing countries by Schiff and Valdés shows that governments tend to insulate domestic sectors to a greater degree during periods of volatile world prices. If attaining price stability was the purpose for such interventions, then in overall terms governments succeeded in achieving the objective, primarily direct interventions. Relative to world prices, protective policies managed to reduce domestic price variability by an average of 25 percent, and even more so in products where world prices were highly volatile. The historical policy decisions of governments could be interpreted as evidence, in the sense of revealed preference, that government think that reductions in price transmission effectively reduces the vulnerability of producers. This is what one should expect from a welfare and public-choice perspective where commodity prices are politically sensitive. In terms of farmers, governments tend to be sensitive to price instability in developing countries, because farmers tend to be risk averse, there are fewer opportunities to hedge risk, credit markets are less developed, and governments do not have the fiscal resources to provide non-border support to farmers in years of low prices. In terms of consumers and labor markets, without the fiscal wherewithal to provide broad coverage of safety net programs, variation in food prices can have significant effects on real wages and real household income.

<sup>8</sup> The issue of the measurement of price instability in world agricultural markets is a relatively well-researched area. In recent years the work on measurement of Sarris, for example, has been comprehensive in the case of cereals. He arrives at several conclusions: With respect to the question of whether or not there has been an increase in inter-year and intrayear price variability for cereals, the evidence shows no trend toward greater world price instability. Harwood comes to the same conclusion for maize, using data from 1920 to 1996. To our knowledge, no other comparable studies have been applied to other commodities of interest to the developing world. Is instability due to the "system" of protection? With the move toward removal of quantitative restrictions and variable levies, one expects to see reduced world price instability but increased transmission of instability to domestic producers and consumers. Tyers and Anderson conclude from policy simulations of tariffication in industrial countries that "[t]he effect of tariffication is to reduce [world] price volatility substantially" during the 1990s (p. 264). Tariffication in developed countries contributes to less instability in wheat, dairy products, and beef, among others. For some commodities, however, reduced instability would derive primarily from the tariffication policies of developing countries, such as is the case of rice and sugar. <sup>9</sup> The analysis of unit-roots of a time-series of observations on prices centers on the question, Do observed price data tend

<sup>9</sup> The analysis of unit-roots of a time-series of observations on prices centers on the question, Do observed price data tend to converge to some equilibrium value? It is a technical question connected to our ability to make statistical inferences based on the data. When a series of prices is non-stationary, the effects of a shock persist. A unit-root process would produce data showing long-term persistence. The results presented by Gersowitz and Paxon (1990) show that the hypothesis of a unit root could not be rejected for a number of commodity prices of African exports.

<sup>10</sup> The mean half-life is a less relevant as a measure of the likely duration of price shocks than the median due to the extreme asymmetry exhibited by some the commodity prices' half-life probability density functions. This raises the practical question as to how frequently should any rule for determining the trend of prices be recomputed (regardless of any particular rule, such as a regression trend or moving). It is reasonable to expect that reference prices may fall repeatedly for long periods given the possibility of an extremely long half-life of shocks. Updated estimates of a trend that establishes the falling price floor, on which a surcharge would be based, might in fact be "falling too fast," given that the true half-life of a shock is longer than that revealed in the data available. This brings up the question of whether or not a true trend even exists, or might be estimable through historical data. But the reliability of trend estimation rules is really not the point. The point is to cushion against price falls where the duration of protection is reasonable. By reasonable we mean that the opportunity costs to society of protection is less than the social (and political) costs of exposing some producers to extremely low prices. How long is too long to protect?

<sup>11</sup> Prohibited measures in the unassuming Footnote 1 include quantitative import restrictions, variable import levies, minimum import prices, voluntary export restraints and similar border measures other than customs duties.

<sup>12</sup> The ruling was limited to wheat, wheat flour and edible oils. Interestingly Argentina brought action neither against Chile's price band for sugar, nor against the wheat price bands in other countries, such as Colombia. Argentina has a type of price band for sugar. Despite what would appear to be a precedent, perhaps some of the price bands of some countries will escape scrutiny.

will escape scrutiny. <sup>13</sup> Eligible countries presently can use volume or price triggers in the implementation of special safeguards. For products that have undergone tariffication, under Article 5 of the Uruguay Round Agreement, if import volume exceeds certain percentages of the preceding three-year average, additional (up to one-third of normal applicable duty) can be imposed. If imports are 30% of domestic market, the volume trigger is set at 105%; if they are between 10% and 30%, the trigger is 110%; and if imports are less than 10% of domestic market, the trigger is 125%. Alternatively, if prices drop below a trigger price corresponding the average price in the 1986-1988 base period, additional duties can also be applied based on a fixed schedule.

<sup>14</sup> This is different from the recommendations of Ruffer and Vergano, and the recommendation of Cairns Group discussion papers of New Zealand and Australia. The New Zealand proposal is to maintain the surcharge for one year with yearly renewal for a two additional years. Thereafter, the product would not be entitled to application of the SSG for a year.

<sup>15</sup> Konandreas suggests, for example, that special safeguards be limited to countries with domestic support below 15-20% of the value of domestic production.

<sup>16</sup> Periodic updating of a base price, although not an explicit mechanism, is suggested in Ruffer and Vergano.

<sup>17</sup> See the discussion in Valdés and Foster (2004).

<sup>18</sup> A Bayesian would argue that one could incorporate a strong prior.

<sup>19</sup> One could simulate a prior expectation of price declines by limiting the sample to some range (e.g., two standard deviations) of the mean. Alternatively, the regression trend could be aimed at projecting the median rather than the mean. Given the likely asymmetry in the distribution of prices (with short-term price spikes persistent price), these two suggestions would tend to lower the trend line and avoid putting too much weight on short-run price rises that do not reflect long-run tendencies.

<sup>20</sup> Even as of January 2004 Executive Director of the Trade Compliance and Facilitation Office of Field Operations of the US Customs Services was advising entry port directors, importers, brokers and others the not to use the fob prices in calculating surcharges. From his memo: "Appraised value for imports into the United States is normally reported and calculated on a "free on board" (fob) with freight reported separately. The procedures for assessment of price based SSG as set out in Article 5 are based on cif prices, both for the initial determination of trigger prices and for the price of each shipment. CBP Automated Commercial System (ACS) uses for to calculate duty, taxes, and fees. There is no field in ACS for cif prices. ACS uses the fob to calculate the HTS and duty rate. This may result in the incorrect HTS and higher duty rate. Action: If the Automated Broker Interface will not allow the transmission of a safeguard duty entry because ACS computes in a different HTS and higher duty rate, the importer may file the entry non-ABI at the correct HTS and lower rate of duty."

<sup>21</sup> The authors were drawn to this interesting aspect of the application of the SSG by the report "Special safeguard measures in EC and WTO law," by O'Conner and Company (1998).

<sup>22</sup> This Appendix B is taken from Valdés and Foster (2004)

<sup>23</sup> Excepting price band products, Chile has a uniform tariff of 6%, not accounting for trade preferences with MERCOSUR, Canada, Mexico, and others. For practically all products except sugar and wheat the applied tariff is less than 6%. Moreover, a VAT tax on all products, imported and domestic, of 18% is imposed on the cif price plus tariff, raising the effective import price above the cif plus tariff only.