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# How Will the May 2008 “Modalities” Text Affect Access to the Special Safeguard Mechanism, and the Effectiveness of Additional Safeguard Duties?

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## EXECUTIVE SUMMARY

The revised draft modalities text circulated in May 2008 by the chair of the WTO negotiations on agriculture represents a major advance in the effort to secure a consensus agreement in the Doha Development Round negotiations. The draft includes the latest version of the special safeguard mechanism (SSM), which was originally proposed by the G-33 to provide developing countries with a simplified and more effective tool to address import volume surges and price depressions. Understandably, the proposal has been criticized by countries with export interests, who fear it could be abused by importers and could distort normal trade flows among countries. As a result, the SSM draft text contains many provisions on which no agreement has yet been reached, even though it has narrowed down differences on some of the less controversial aspects of the measure.

This study attempts to assess the extent to which the proposals contained in the latest draft text would affect countries' ability to access the SSM, and the extent to which it would be effective in bridging the gap between domestic and international prices. For this purpose, a simulation model was developed utilizing monthly data on imports of 27 agricultural commodities in six developing countries from 2000 to 2005. These monthly data were used as proxies for individual shipments.

In order to determine the extent to which countries would have access to the SSM, the study calculated the percentage of months during which the volume or price-based SSM would allow additional safeguard duties to be applied, based on varying levels of thresholds and other conditions. To measure the effectiveness of the SSM, the study first calculated the number of "problematic months" - those during which import prices plus bound tariffs fell below domestic prices by more than ten percent. The effectiveness rate was considered to be the percentage of problematic months in which additional safeguard duties could be applied and could prop up import prices beyond this ten percent threshold.

The study first analysed a 'baseline scenario', which adopted a number of the provisions of the SSM draft text, such as the lower settings for 'thresholds' and higher ones for the additional safeguard duties (or 'remedies') that countries would be allowed to impose. In this scenario, the SSM was accessible in an average of about 4½ out of every twelve months, but was effective in only one out of every four "problematic" months. Adjusting thresholds and remedies to mid-range levels did not have major effects on access and effectiveness rates, indicating some room for compromise on these aspects. Changes in thresholds however tended to have more discernible effects on the quality of the SSM than alterations in remedy levels. Notably, effectiveness rates did not exceed 46 percent of "problematic" months in any scenario, pointing to the limited utility of the measure even under the most ideal parameter settings.

Imposing caps based on Doha Round starting bound tariffs, current Uruguay Round bindings or applied tariffs clearly had a more debilitating effect, with access rates effectively cut in half, and the effectiveness rate plunging from the baseline level of 27 percent to only 2 percent of "problematic" months. Countries with relatively low tariffs were particularly vulnerable to such caps, which effectively limited remedial duties to the extent of tariff cuts per year in absolute percentage terms. Further simulations indicate that caps in the form of percentages of bound tariffs or absolute percentage points may yield less controversial results, although the actual effect will depend on the tariff profile of a country.

The proposed option allowing for foreign currency exchange adjustments in case of abnormal depreciation of the local currency did not significantly influence access or effectiveness rates. The

12-month maximum imposition period for the volume-based safeguard, coupled with the chair's proposal for applying the price-based safeguard on a shipment-by-shipment basis, appeared to be superior to a 6-month or end-of-year alternative imposition period, although not by an overly significant degree. The 'cross-check' requirement, which disallows the use of the price-based safeguard if imports are declining, had a perceptible impact on access rates but affected the effectiveness of the SSM less significantly.

Given the fact that safeguard duties cannot be imposed on imports falling within tariff rate quota (TRQ) commitments, access and effectiveness rates may be enhanced if TRQs created in the Uruguay Round are not carried over to the Doha Round. This will however require, at the very least, a lowering of bound tariffs to in-quota levels and verification as to whether such a unilateral move is compliant with WTO rules. Finally, reclassifying special or regular products as 'sensitive' had detectable effects on the performance of the SSM, mainly due to the creation of new TRQ commitments, but access and effectiveness rates did not vary much with changes in the degree of deviation from the normal tiered tariff reduction formula.

## 1. BACKGROUND

After protracted negotiations and a series of reference papers and working documents, Ambassador Falconer (New Zealand), the chair of the WTO agriculture negotiations committee, released a revised version of his draft ‘modalities’ text in May 2008 following the issuance of a first version in February 2008. The document included the chair’s proposed options for the special safeguard mechanism (SSM) - an issue on which consensus among negotiating parties at the WTO remains particularly elusive.

The original proponents of the SSM, the G-33, had pushed aggressively for a simplified mechanism that would overcome perceived flaws in the existing special agricultural safeguard (SSG), established during the previous Uruguay Round. This, developing countries argued, was limited to an insufficient number of products, was difficult to invoke, and was generally ineffective in addressing import volume surges and price depressions. The G-33 proposed that the new SSM would

have universal product coverage, simple ‘triggers’ based on average historical import volumes and prices, less restrictive ‘thresholds’, longer periods for imposing SSM duties, and higher additional safeguard duties or ‘remedies’.

WTO Members with export interests criticized the G-33’s SSM proposal as prone to abuse and potentially distortive of normal trade flows among countries. Counterproposals were presented to limit the scope and period of imposition of the measure, raise the ‘thresholds’ below which the safeguard could not be invoked, and cap allowable tariffs.

Although the May 2008 text represents a major advance in the effort to secure a consensus agreement in the Doha Development Round negotiations, major issues still need to be resolved - including in the SSM text itself. Nevertheless, the draft text, along with its February 2008 precursor, has significantly reduced the number of possible options for the SSM, and could prove to be a workable basis for concluding the negotiations on the mechanism.

## 2. OBJECTIVES

The basic objective of this paper is to enable trade negotiators, policy-makers and other stakeholders to understand the implications of the chair’s revised text, by assessing the various options for the SSM indicated or implied

in the May 2008 draft text. The analysis is intended to help guide negotiators in assessing the draft and further tweaking and fine-tuning the proposed measure into a commonly acceptable and workable modality.

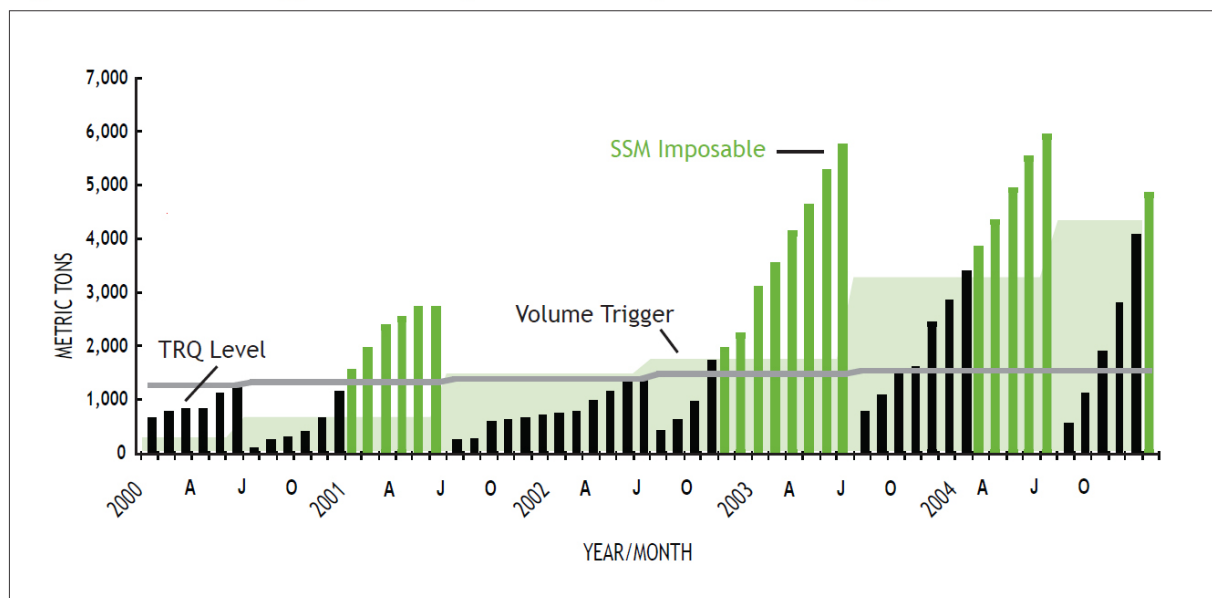
### 3. METHODOLOGY

The analysis focuses on two critical features of the SSM; namely, the extent to which countries will be able to access it, and the extent to which it will be effective.

Accessibility is defined as the frequency with which the SSM can be invoked to address import surges and price depressions. For this purpose, monthly data on import volumes, prices, and foreign exchange rates were compiled by country and by product. (The data sets are available on request from ICTSD, or under the agriculture section of ICTSD’s website, [www.ictsd.org](http://www.ictsd.org)). Each set of monthly data was assumed to correspond to a single “shipment” or importation. A simulation model was

Figure 3.1 above illustrates the approach used to measure how often the safeguard would be triggered by import volume increases. The horizontal bars correspond to cumulative import volumes in a given implementation year (July to June in this case). The bars coloured red indicate the months during which volume-based SSM duties could be imposed. In this example, safeguard duties can be imposed whenever import volumes exceed both the volume trigger (indicated by the blue line) and TRQ commitment levels (indicated by the green line). The access rate is therefore the proportion of total months in which safeguard duties can be imposed (indicated by the red bars on the graph). For example, if additional safeguard duties could be imposed for a particular commodity in 12 months out of a data series involving 60 months, the access rate is deemed to be 20 percent.

**Figure 3.1. Methodology for Assessing How Often Import Volumes Trigger the SSM**

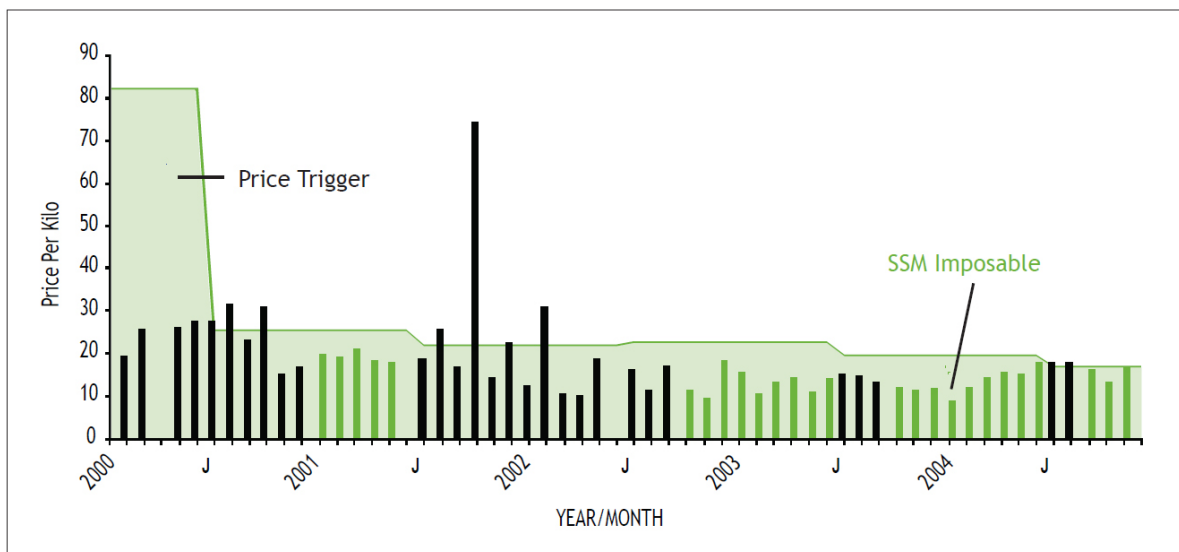


then developed to analyse various options for the SSM using different ‘thresholds’, additional duty or ‘remedy’ levels, and other conditions. Where relevant, data sets on annual consumption, bound tariffs, and tariff quotas established during the Uruguay Round were taken into consideration, as were tariff reductions and new market access conditions set out in the draft modalities text.

The SSM was deemed ‘accessible’ if a volume or price trigger was breached and concurrent provisions allowed for the imposition of remedial safeguard duties. The number of months during which such access was allowed was then compared to the total number of months in the relevant data series to come up with an access rate in terms of a percentage of total months.

The access rate for the price-based SSM was calculated in a similar way. In Figure 3.2, the green horizontal bars indicate the “shipments” or months during which a price-based safeguard could be used. Normally, the price-based safeguard could be invoked once the import price falls below the price trigger (blue line) by a certain percentage or threshold. However, in the example illustrated in the figure, additional safeguard duties cannot be applied if cumulative import volumes have not yet exceeded the volume trigger for the year. This explains why some of the horizontal bars remain black despite the fact that they fall significantly below the price trigger line.

The effectiveness of the SSM, in turn, was measured through a three-step procedure. First, the study counted the number of months or “shipments” during which average import

**Figure 3.2. Methodology for Assessing How Often Price Depressions Trigger the SSM**

prices in local currency, inclusive of bound tariffs, fell below corresponding domestic wholesale prices by more than 10 percent. These months were deemed “problematic” and considered as months during which additional safeguard duties were needed. Secondly, the study assessed whether additional safeguard duties could in fact be invoked during these “problematic” months when various rules and restrictions were applied. Thirdly, if additional safeguard duties could be imposed during a “problematic” month, the study assessed whether the resulting price of imports, inclusive of bound tariffs and SSM duties, would be increased to within 90 percent of domestic prices or higher and thereby remove the “problem”. In such instances, the SSM was deemed to be “effective”.

Figure 3.3 gives an illustration of how the effectiveness of an SSM measure is determined. The horizontal bars correspond to average import prices in each month (shipment), with the gray bottom portion equivalent to the import price converted to domestic currency and the green portion being the monetary equivalent of the applicable bound *ad valorem* tariff. A month during which the import price plus tariff (the grey plus green portion) falls below the wholesale domestic price line (the blue line) by more than 10 percent is deemed to be a “problematic” month. If additional safeguard duties can be invoked in these “problematic” months, a red bar equivalent to the monetary value of the additional safeguard duty is appended. The safeguard is deemed to be “effective” if this additional duty is able to bring total import prices (shown as the grey plus green plus red bars) to at least within 10 percent of domestic prices.

If for example 40 out of 100 months were deemed “problematic”, and the SSM could be invoked in 20 but could

address the price gaps effectively in only 10 out of the 40 problematic months, the remedy would have an effectiveness rate of 25 percent<sup>f</sup>.

In total, the simulations and analysis covered 27 agricultural products from six developing countries, namely the Philippines, Indonesia, China (a recently acceded member or RAM), Ecuador and Fiji (classified as small and vulnerable economies or SVEs) and Senegal (a least developed country or LDC). The model utilized data mostly from 2000 to 2005.

The simulations utilized in this study were based exclusively on available historical data; no attempt was made to forecast prices, demand, consumption and other variables, nor to use these to project SSM behaviour in future years. The model also did not consider how import volumes and prices would have reacted to the imposition of SSM duties. Accordingly, any findings should be treated with caution and should be considered as primarily indicative instead of conclusive.

## 4. FINDINGS AND RESULTS OF THE SIMULATIONS

This section provides a summary and evaluation of the results of the simulations using various parameter settings under scenarios described in Sections 8 to 18 of Annex A. Annexes B and C contain tables of the simulation results broken down by country and by commodity, respectively.

### a) Simulations using baseline scenario parameter settings

The baseline scenario for the simulations assumed that the products were designated as ‘special’, and that

relevant tariff reduction rates were therefore applied for these countries, taking into consideration the appropriate classification of the country<sup>8</sup>. Both the annual volume and price triggers were derived by averaging corresponding import volumes and prices during the three years preceding the year of importation. However, if SSM was invoked in the preceding year and the resultant 3-year import volume average was lower than that in the previous year, the trigger in the previous year was retained for the current year in accordance with paragraph 131 of the draft text.

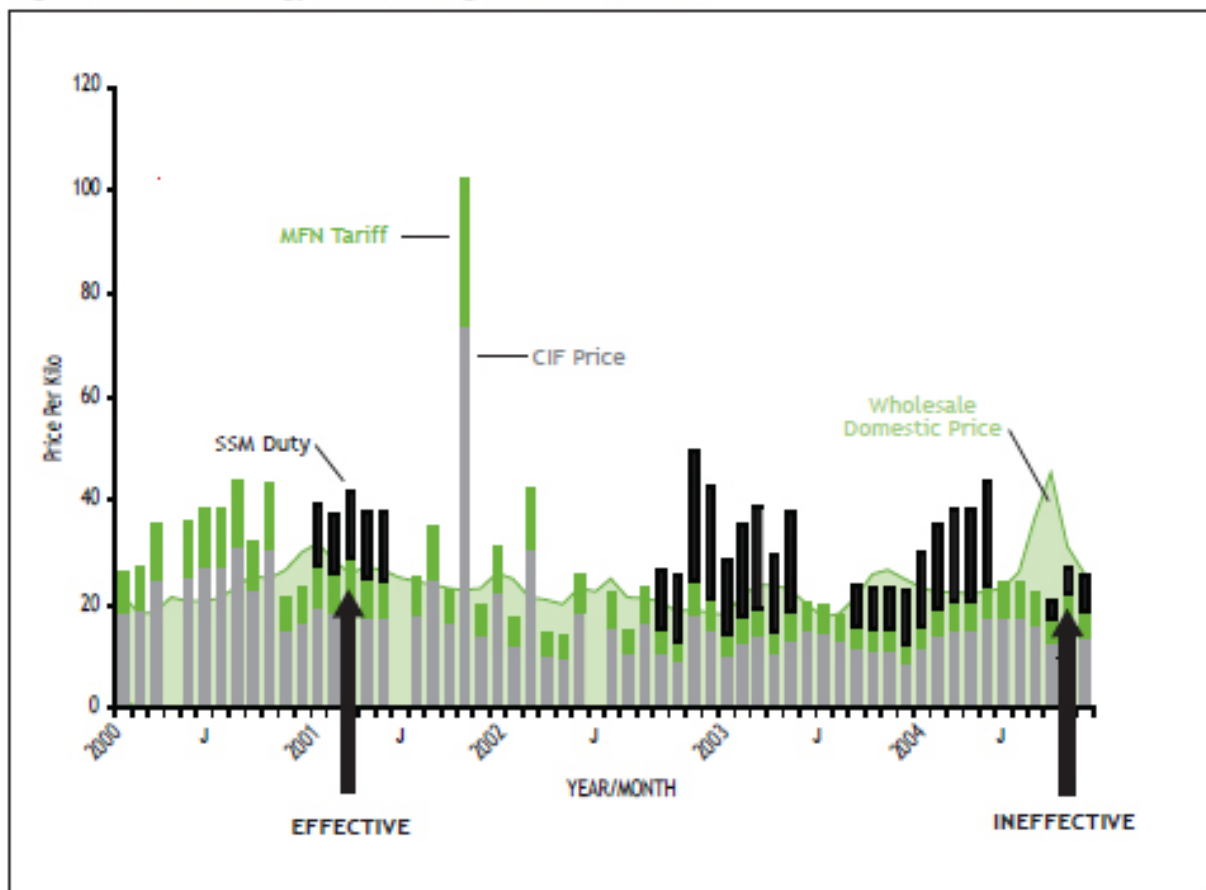
The baseline scenario also adopted the low threshold and high ‘remedy’ settings for the volume-based SSM that are stated in paragraphs 124a to c of the draft modalities text, together with a zero threshold for the price trigger. The currency adjustment modality was applied in case of an abnormal depreciation of the local currency. No limits or caps were imposed on the maximum level of additional safeguard duties allowed. In the case of an import volume surge, these additional duties could be imposed for a maximum of 12 months, whereas duties were applied on a shipment-by-shipment basis in the case of a price depression.

Additional safeguard duties could not be imposed on imports falling within TRQ commitments, whether they were carried over from the Uruguay Round or established for sensitive products as compensation for deviation from the regular tiered tariff reduction formula in the Doha Round. Finally, a ‘cross-check’ requirement was included: in the case of a price depression, additional safeguard duties could only be imposed if the volume of imports from the start of the year up to the month preceding the importation was also higher than the import volume during the same period in the previous year.

Under these baseline parameter settings, the volume-based SSM was available in 29 percent of total months, while the access rate for the price-based SSM averaged a much lower 17 percent. Overall, either a volume or price-based duty could be invoked in about four out of every ten months.

49 percent of the months covered by the simulations were “problematic” - i.e., import prices inclusive of current bound tariffs were over ten percent lower than corresponding domestic prices. Either a volume or price-based SSM could

Figure 3.3. Methodology for Assessing SSM Effectiveness



be imposed in 45 percent of these “problematic” months, but the additional duties imposed plus the bound tariff were effective in bringing import prices to within at least 10 percent of domestic prices for only 27 percent of the time.

These results indicate that, for every 12 months: about 6 months were “problematic”; additional safeguard duties could be imposed in a little over 2½ of these 6 months; and these were effective in only about 1½ out of these 6 “problematic” months.

Individually, the volume-based SSM was accessible in one-third of the “problematic” months, while the price SSM could be used in only one-fourth of these months. Interestingly, the volume-based SSM appeared to be much more effective than the price-based remedy and was able to address 22 percent of the “problematic” months - or almost triple the percentage by which the price-based SSM was effective. This was primarily due to additional conditions imposed on the price-based SSM, such as the ‘cross-check’. By requiring a simultaneous decline in import volumes as well as a shipment-by-shipment approach, the new text would preclude the application of price-based SSM duties over extended periods, something that would nonetheless still be allowed for the volume-based SSM.

Senegal and Indonesia experienced the highest access rates, while China was able to make use of an SSM remedy in only 12 percent of total months. The Philippines, Ecuador and China were also constrained by TRQ commitments carried over from the Uruguay Round which limited their access to SSM remedies.

Fiji and Senegal had the highest incidences of “problematic” months, while Indonesia registered the best effectiveness rate of 59 percent. The volume-based SSM was generally superior to the price-based safeguard, except in the case of the Philippines. China had the lowest effectiveness rate of 14 percent, as a result of its limited access to the remedy and its generally lower bound tariff rates.

## b) Simulations with varying threshold levels

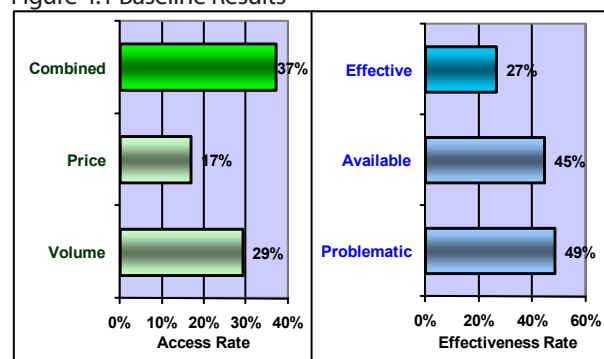
On average, cumulative import volumes exceeded the levels required to trigger the mechanism in about 19 percent of total months. In a little over 17 percent of total months, imports exceeded the triggers by more than 5 percent. If access to the volume SSM was based exclusively on the magnitude of the import surge, only 11.3 percent of total months would enjoy nominal access to the remedy if the threshold was set to 30 percent over the volume trigger.

The incidence of price depressions appeared to be higher,

with import prices falling below price triggers in about 35 percent of total months. If countries were allowed to impose additional safeguard duties automatically once import prices fell below triggers by more than 10 percent, a little over one-fourth of total months would be nominally covered by the measure. In turn, adopting a 30 percent threshold would reduce the nominal access rate for the price safeguard to 13 percent of total months.

It should be noted however that actual access rates depend not only on the incidence and magnitude of deviation from triggers but also on other restrictions on the usage of the safeguard, such as rules disallowing the application of safeguard duties on TRQ imports. This explains why the nominal access rate for the price safeguard of 35.2 percent when using a zero threshold is more than double the actual access rate of 17 percent in the baseline setting. In turn, the baseline access rate for the volume safeguard of 29 percent was higher than the nominal rate of 17.3 percent when using

Figure 4.1 Baseline Results



a common 5 percent threshold because the application of volume-based safeguards was allowed for twelve consecutive months even if import surges actually were not present in some of these months.

Nevertheless, threshold levels by themselves logically have a significant impact on access, and indirectly, effectiveness rates. Using the high threshold values in paragraphs 124d to f of the draft text significantly reduced the access rate for the volume-based SSM from the baseline level of 29 percent to only 18 percent of total months. If mid-level thresholds were applied, the access rate settled at 24 percent - pointing to a close correlation between volume threshold levels and access to the volume-based safeguard.

Similarly, there was a progressive decline in access to the price-based safeguard when thresholds were raised beyond the baseline 100 percent level. If countries were only allowed to impose additional safeguard duties when import prices fell below 70 percent of the average import price ‘trigger’, the access rate went down to only 7 percent, from a baseline

level of 17 percent. If countries were allowed to impose the safeguard when prices fell below 80 percent of this trigger, access rates improved to 9 percent; and when the threshold was set at 90 percent, these rates improved still further to 13 percent. However, these results still remained significantly below the baseline results.

A scenario involving extreme volume and price thresholds brought combined access rates down from the baseline level of 37 percent to 22 percent. Access to the safeguard during “problematic” months also declined appreciably in this scenario, while the effectiveness of the additional duties imposed deteriorated from 27 percent to only 15 percent of “problematic” months. In turn, a mid-range combined threshold setting resulted in an overall 29 percent access rate for either a volume or price-based safeguard. The percentage availability of the remedy during “problematic” months also declined significantly to 34 percent while effectiveness rates averaged 20 percent, indicating an almost linear correlation between access and effectiveness rates and threshold settings. In terms of combined access rates, all countries except the Philippines, and to a lesser extent, Ecuador were particularly vulnerable to high thresholds. At mid-level thresholds, China and Senegal also showed some resiliency. Notably however, China’s access to price-based remedies dropped to zero if the price trigger threshold was 90 percent or lower. The Philippines registered the smallest percentage drop in effectiveness rates under a high threshold scenario, while those for Indonesia and China went down by more than 50 percent when this parameter setting was applied.

### c) Simulations with varying remedy levels

If countries were only allowed to impose the lowest level of additional volume-based safeguard duties (or ‘remedies’) mentioned in paragraphs 124d to f, the overall effectiveness of the SSM declined from the baseline level of 27 percent to 21 percent of problematic months. In turn, the SSM effectiveness rate averaged 25 percent if remedies were set to approximately the mid-point between the settings in paragraphs 124a to c and paragraphs 124d to f. These results imply that there is room for adjusting at least the volume-based remedies without unduly compromising the effectiveness of the SSM. However, it should also be considered that a remedy would not be effective if it cannot

be accessed in the first place; hence, the effectiveness of the measure is also directly affected by threshold and other related settings. This may explain why changes in effectiveness rates are not proportional to the degree of changes in remedy levels.

Ecuador, the Philippines and China were able to keep their effectiveness rates within close range of the baseline results when volume-based remedies were set to low levels. Indonesia registered the largest percentage decline in effectiveness rates under this parameter setting.

### d) Simulations using various volume and remedy levels

A further simulation tested the comparative performance of the SSM using various volume threshold and remedy combinations. The baseline setting described in Paragraphs 124a to c resulted in a combined access rate of 37 percent, with the volume SSM by itself being available in 29 percent of total months. The effectiveness of the SSM averaged 27 percent of “problematic months”. If the threshold and remedy settings outlined in Paragraphs 124d to h were simultaneously applied instead, the drop in the accessibility of volume SSM from 29 to 18 percent brought overall access rates down from 37 to 29 percent of total months. In turn, the effectiveness rate was almost halved to 14 percent of “problematic” months. These results appear to validate indications that thresholds influence the effectiveness of the SSM more than remedies to the extent that they affect access to the remedy and create an opportunity to address “problematic” situations. In comparison, very high remedies would be useless if the SSM was not accessible in the first place.

### e) Simulations involving the currency adjustment option

There were practically no changes in both access and effectiveness rates when the study took into account the option allowing for adjustments in exchange rates in cases of abnormal depreciation of the local currency. If the adjustment was not applied, the overall access to price-based SSM declined by a solitary percentage point, while combined overall access and effectiveness rates remained unchanged. Only Ecuador and Indonesia registered slight

Table 4.A Average Frequency of Import Surges and Price Depression by Magnitude

| ITEM             | % of Total Mos. |       | % of Months Where Cumulative Imports Exceed the Trigger by: |       |       |       |       |       |        |        |
|------------------|-----------------|-------|-------------------------------------------------------------|-------|-------|-------|-------|-------|--------|--------|
|                  | <= 0%           | > 0%  | > 5%                                                        | > 10% | > 15% | > 30% | > 50% | > 70% | > 100% | > 200% |
| Volume Surge     | 81.2%           | 18.8% | 17.3%                                                       | 15.7% | 14.4% | 11.3% | 8.3%  | 6.0%  | 4.5%   | 2.2%   |
| Price Depression | 64.8%           | 35.2% | 30.2%                                                       | 25.6% | 21.5% | 13.2% | 5.1%  | 1.4%  | 0.0%   | 0.0%   |

declines in their access and effectiveness rates when this option was disallowed.

## f) Simulations involving caps on allowable SSM remedies

Capping the permitted level of additional safeguard duties, as described in paragraphs 124d to h of the chair's text, had the most perceptible effects on both the accessibility and effectiveness of the SSM. Access to additional safeguard duties was practically halved from 37 percent to 19 percent if these remedial duties were limited to the difference between pre-Doha and current bound rates, or current bound and applied rates<sup>h</sup>. The halving of access rates was primarily due to the relatively high incidence of months during which there was no variance between the applicable tariff rates - thus obviating the option for countries to make use of any remedial duty.

Even more dramatically, the effectiveness of the remedy dropped from 27 percent to a measly 2 percent of "problematic" months if the caps were applied. This result arose not only because of reduced access to the measure (from 45 percent to 25 percent of "problematic" months), but more because the difference, if any, between applicable tariff rates was often too small to allow for the imposition of any appreciable level of safeguard duty. For example, a 15 percent tariff cut for a special product with an 80 percent starting tariff would reduce bound tariffs by only 1.5 percentage points per year during an 8-year implementation period. Based on the capping modalities mentioned in the draft text, the maximum allowable remedy would be limited to 1.5 percent in the first year of tariff reduction, and would increase by increments of 1.5 percentage points per year, until the maximum of 12 percent was reached in the 8<sup>th</sup> year, at the end of the implementation period.

Senegal was able to salvage a residual 7 percent effectiveness rate only because paragraph 124h would allow LDCs, given that they would be exempt from any tariff cuts, to exceed pre-Doha bound tariffs by a maximum of 25 percent. Even then, this result was a huge descent from its baseline

effectiveness rate of 36 percent.

The effectiveness rates of the Philippines and China, whose remedies were essentially limited to Doha tariff differentials, dropped to zero. China was particularly vulnerable to the capping mechanism, given its relatively low bound tariffs: these seriously restricted the level of additional safeguard duties it could apply. China also lost SSM privileges for products with starting tariffs of 10 percent or lower since paragraph 66 exempted such products of RAM countries from further cuts. This ironically erased any tariff differential between current and pre-Doha bound rates, and as a result, reduced any possible SSM remedy to zero. In fact, only palm oil was left with a residual access rate of 15 percent of "problematic" months; even then, the effectiveness rate for palm oil dropped to zero together with all the other Chinese commodities covered by the study.

The situation was largely unchanged when products were treated as "regular", i.e. subject to the normal tariff reduction and therefore allowing for larger SSM remedial duties, rather than "special", as under the baseline special product classification. Access to additional safeguard duties did not improve, while the overall effectiveness increased marginally to 3 percent, with only Indonesia and Ecuador registering slight improvements in their effectiveness rates. These results indicate that classifying a product as "regular" instead of sensitive or special in order to avail of higher SSM remedies is not a worthwhile trade-off.

Given that capping permissible safeguard duties at Doha Round levels led to extremely poor results, which may be deemed unacceptable by many developing country proponents of the SSM, additional tests were conducted to determine whether alternatives types of caps on safeguard duties might lead to less controversial results. Interestingly, if safeguard duties were not allowed to exceed 50 percent or 25 percent of the bound rate, or 50 or 25 absolute percentage points, overall access rates remained uniformly steady at around 36 percent of total months - a result that is almost equal to the baseline outcome of 37 percent of total months. The availability of the safeguard during "problematic" months was also not

Figure 4.2 Different Threshold Settings

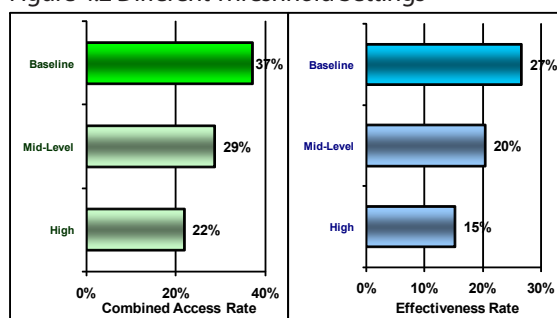
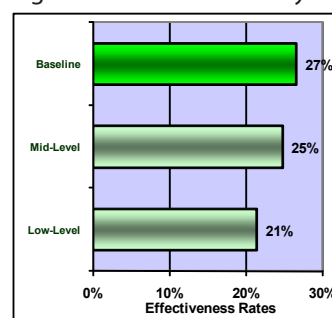


Figure 4.3 Different Remedy Settings

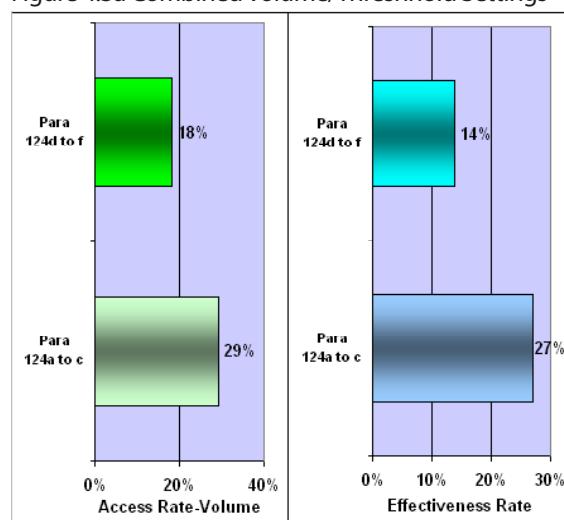


significantly affected by these adjustments in caps.

However, given the relatively low bound tariffs in the countries covered by the study, caps quoted as a percentage of bound rates resulted in major declines in effectiveness rates. For example, the safeguard was effective in bridging price gaps in only 6 percent of “problematic” months if additional duties were limited to 25 percent of current bound rates. The safeguard fared better when caps were applied in the form of absolute percentage points, although overall results were still lower than those from the baseline setting, where no limits on duties were imposed. Only when SSM duties were allowed to go up to 50 percent of bound rates did the effectiveness rate of 23 percent approximate baseline results. Effectiveness rates also declined significantly when lower percentage point caps were applied, indicating that gaps between import and domestic prices were quite substantial during the period covered by the study.

In all countries, the safeguard was considerably less effective when caps were quoted as a percentage of bound tariffs. The safeguard’s weaker performance was less pronounced if caps were instead imposed in terms of absolute percentage points. China, with its very low bound tariffs, saw its effectiveness rates going down from its baseline level of 14 percent to 1 percent when caps on safeguard duties were limited to 50 percent of the level of bound duties. These effectiveness rates dropped to zero when remedial duties were capped at 25 percent of current bound tariffs. However, China was able to maintain its baseline effectiveness rates if it was allowed to apply safeguard duties of up to 50 percentage points over its bound tariffs.

Figure 4.3a Combined Volume/Threshold Settings



### g) Simulations involving ‘cross-checks’

The baseline simulations showed that the price-based safeguard could be accessed in 17 percent of total months, if the use of additional safeguard duties was disallowed during months when the cumulative volume of imports from the start of the current year up to the month prior to importation was lower than the import volume in the same period in the preceding year. If this condition was removed, access to the price-based safeguard improved significantly, to 30 percent of total months.

If the cross-check modality was retained, but current import volumes were required to be at least 10 percent lower than

Table 4.B Distribution of SSM Duties Needed to Effectively Address “Problem” Months

| Required SSM Duty | % of Problem Months | Percent Effective |
|-------------------|---------------------|-------------------|
| > 0               | 100%                | 20.5%             |
| > 5%              | 91.6%               | 17.8%             |
| > 10%             | 83.1%               | 15.0%             |
| > 15%             | 74.2%               | 12.3%             |
| > 30%             | 55.4%               | 6.4%              |
| > 50%             | 39.6%               | 2.5%              |
| > 70%             | 30.5%               | 1.1%              |
| > 100%            | 22.4%               | 0.4%              |
| > 150%            | 17.4%               | 0.2%              |
| > 200%            | 15.9%               | 0.1%              |
| > 400%            | 11.5%               | 0.0%              |
| > 600%            | 7.2%                | 0.0%              |

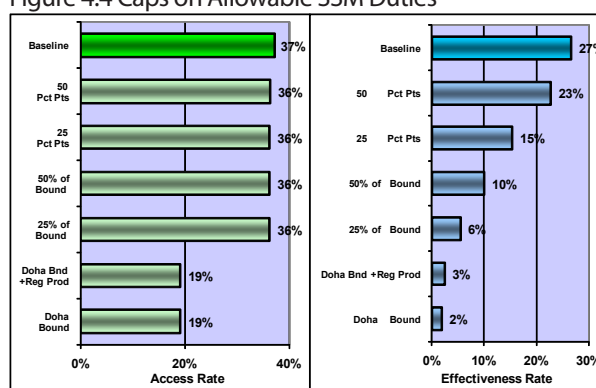
imports during the corresponding period in the preceding year, access to a price-based measure improved by only one percentage point (to 18 percent). If the price-based safeguard could only be imposed if a price depression coincided with an import volume surge (i.e., imports exceeded the levels required to ‘trigger’ the safeguard), access rates dropped to 8 percent – a more debilitating outcome. This is understandable given that, in such a scenario, cumulative import volumes are compared to average annual import volumes, which would generally be higher than cumulative import volumes in the corresponding period in the preceding year.

Combined access rates similarly increased from 37 percent to 46 percent of total months if the cross-check was not applied. The availability of the measure also improved slightly from the baseline level if a 10 percent threshold for the cross-check was imposed, while access rates went down significantly to 32 percent if the volume trigger was used as the reference for validating a declining trend in import volumes.

Access to the SSM improved perceptibly, from 45 percent to 55 percent of “problematic” months, if the cross-check was not applied. However, the effectiveness of the remedy in addressing “problematic” price gaps improved only slightly from the baseline level of 27 percent to 29 percent of “problematic” months. If the volume trigger was used as the basis for determining an import decline, access to the SSM declined correspondingly, as did the effectiveness rates of the remedy.

Almost all countries exhibited marked improvements in their access to the safeguard when the cross-check was not applied. In terms of the effectiveness of the SSM, Ecuador registered the highest increase with its average rate increasing from 26 percent to 36 percent in this scenario.<sup>i</sup> Both access and effectiveness rates for most countries uniformly declined

Figure 4.4 Caps on Allowable SSM Duties



when the volume trigger was used to determine a decline in imports instead of import levels in the previous year. Only China appeared to be unaffected by the application or non-application of the cross-check or its variations, with its effectiveness rates remaining at 14 percent in all scenarios.

## h) Simulations involving maximum imposition periods

If the maximum period for imposing the volume-based safeguard was reduced to six months from the baseline level of 12 months, access to the remedy deteriorated from 29 percent to 21 percent if only volume-based measures were considered, and from 37 percent to 30 percent of total months overall. Practically the same result arose when duties were allowed to be imposed only up to the end of each year (as for the Uruguay Round SSG).

If a 6-month maximum imposition period was applied, the effectiveness of the remedy declined – to 20 percent of “problematic” months, from the baseline level of 27 percent. This was mainly due to a corresponding decrease in access rates. If countries were only allowed to impose safeguard duties up until the end of the year, the effectiveness rate similarly went down to 19 percent of “problematic” months.

All countries except the Philippines saw sizeable reductions in their volume-based and combined access rates when a 6-month imposition period was applied or when an end-of-year modality was adopted. The Philippines was also the only country whose effectiveness rates did not change if safeguard duties were allowed to be imposed up to a maximum of six months.

## i) Simulations involving TRQs

Access rates improved if countries were allowed not to impose the safeguard on products imported under TRQs

Figure 4.5 Cross Check Modalities

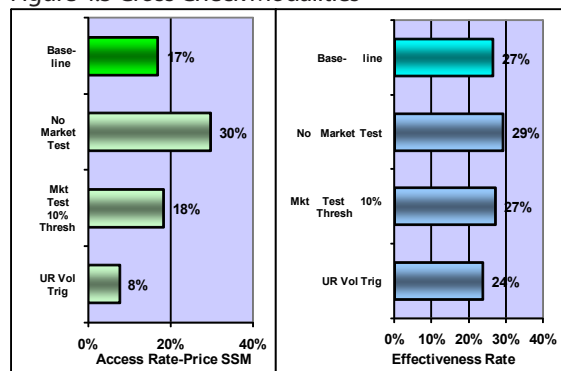
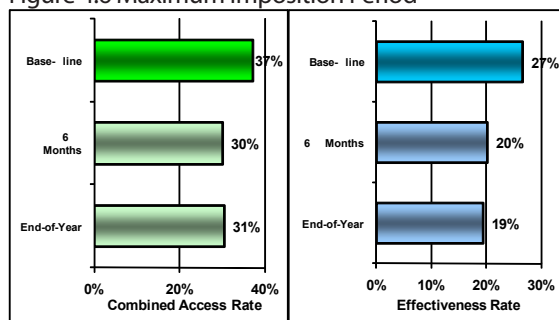


Figure 4.6 Maximum Imposition Period



that were initially established during the Uruguay Round. Conceptually, this could be done by unilaterally lowering the bound tariffs of products with these TRQs to their in-quota levels and, in the process, dismantling TRQ commitments on the grounds that all imports would henceforth be assessed at in-quota tariff levels.<sup>j</sup> (New TRQ commitments arising from the classification of products as sensitive were not affected by this adjustment.)

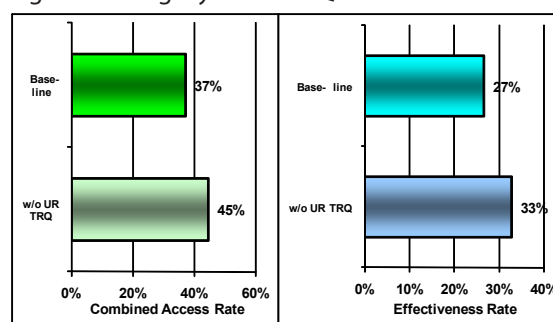
Overall, access rates increased from 37 percent to 45 percent of total months if the restrictions on imports falling within Uruguay Round TRQs were removed. Understandably, countries like the Philippines, Ecuador and China - which have sizeable pre-Doha TRQ commitments - saw significant improvements in their access rates. However, only the Philippines and China saw their effectiveness rates improving as a result of this parameter adjustment. Nevertheless, overall effectiveness rates went up from 27 percent to 33 percent of “problematic” months.

#### j) Simulations involving product classifications

If products were reclassified from the special to the sensitive product category, the new TRQ commitments that countries would have to establish as compensation for deviating from the normal tiered tariff reduction formula would significantly reduce access to the volume-based safeguard and, to a lesser extent, the price-based safeguard as well. Interestingly however, access rates did not vary perceptibly if adjustments were made to the degree of deviation from the tariff reduction formula for sensitive products, and consequent changes were made to new TRQ commitments. Access rates were also essentially the same as in the baseline scenario if products were classified as “regular”. In this scenario, countries would be required to cut tariffs according to the normal formula reduction, and would not be required to create new TRQs.

Similarly, the effectiveness of the safeguard declined from 27 percent to 22 percent of “problematic” months if new TRQ commitments were created as a result of reclassifying products as sensitive, thereby preventing safeguard

Figure 4.7 Uruguay Round TRQs



duties from being imposed on imports falling within the compensatory TRQs. As in the case with overall access rates, the effectiveness of the measure did not vary much from baseline results if products were instead subjected to the normal tiered tariff reduction formula.

All countries followed the general trends in access and effectiveness rates, although Fiji, and to a lesser extent, China exhibited comparatively smaller reductions in their effectiveness rates when products were placed in the sensitive category.

#### k) Simulations using cumulative parameter settings to maximize access and effectiveness

Additional simulations were conducted to determine the combined and cumulative effect of parameters which tended to enhance safeguard accessibility and effectiveness. If the cross-check modality was not imposed, the overall access rate improved from 37 percent to 46 percent while the effectiveness rate rose slightly to 29 percent of “problematic months”. Applying very low volume thresholds<sup>k</sup> improved the access rate further to 52 percent of total months, while the effectiveness rate climbed to 32 percent. Utilizing higher volume-based remedies<sup>l</sup> understandably did not affect access rates but significantly raised the effectiveness of the remedy to 39 percent of “problematic” months. Finally, the access rate reached its peak of 64 percent, or almost two-thirds of total months, if TRQ constraints on the use of safeguard remedies were also set aside. In turn, the effectiveness rate improved further to 46 percent or almost one-half of total “problematic” months.

#### l) Simulations using cumulative parameter settings to minimize access and effectiveness

A final set of simulations was undertaken to test the combined and cumulative effects of parameter settings that tended to inhibit access to the safeguard and limit its effectiveness. Access rates declined significantly from the baseline level of 37 percent to 22 percent if a high threshold combined with

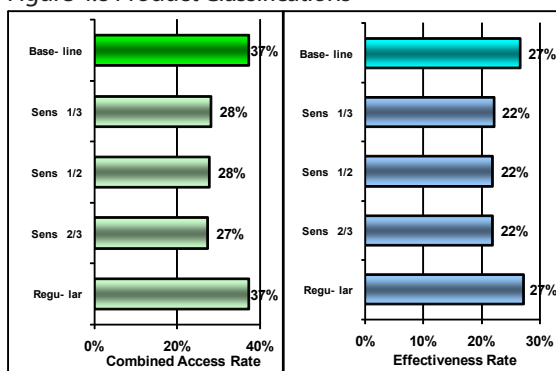
a low remedy setting<sup>m</sup> was adopted. Imposing in addition the Doha caps led to an even steeper decline in the accessibility of the safeguard, to 10 percent of total months. Further limiting the imposition of the safeguard to six months, simultaneously increasing the threshold for invoking the foreign currency adjustment modality from 10 percent to 30 percent, and reclassifying the products as regular instead of special did not have any more incremental effects on overall access rates.

Similarly, effectiveness rates dropped from 27 percent to 15 percent of “problematic” months if very high thresholds were applied, and went down further to 12 percent if volume-based remedies were further reduced. Additionally imposing caps on safeguard duties based on Doha starting, current or applied rates effectively rendered the SSM useless, with a residual effectiveness rate of only 1 percent. This minimum level of effectiveness was retained even if additional parameter changes were introduced, such as reducing the maximum imposition period, raising the threshold for invoking the currency adjustment modality, and shifting products to the regular category.

## 5. IMPLICATIONS OF THE SIMULATION RESULTS

The foregoing results from the simulations indicate that thresholds, imposition periods and cross-checks will have a more significant effect than the level of remedies *per se* on both access to, and effectiveness of, the SSM. At the same time, there were indications that an adjustment to slightly higher volume and price thresholds, such as those in the mid-level columns in Table A2.1 of Annex A, would not seriously compromise access rates. In turn, reductions in volume-based safeguard duties did not seem to result in major changes in overall effectiveness rates: these went down by only 2 percentage points as safeguard duty levels were adjusted from the high (baseline) to mid-level values, and by another 4 percentage points if they were further brought down to low levels.

Figure 4.8 Product Classifications



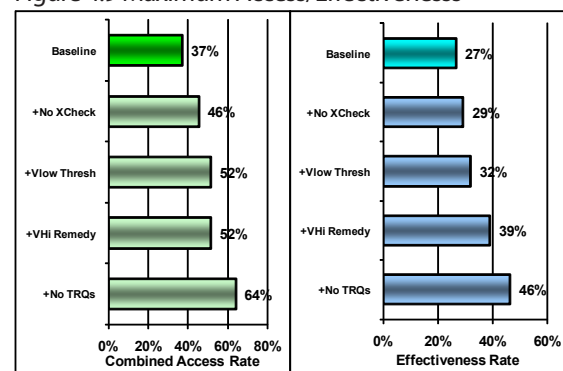
Given these findings, there appears to be significant negotiating leeway with respect to both thresholds and remedies, although thresholds and related parameters generally appear to be more crucial than the level of remedies. At the same time, political instead of only statistical considerations would appear to be equally relevant if negotiators are asked to choose between lower thresholds or high safeguard remedies. Lower thresholds may preserve easy access to the safeguard and provide politically convenient tools to temporarily “address” abnormal market situations even if the safeguard duties themselves ultimately prove to be ineffective. On the other hand, the effectiveness of the trade remedy may be more important to others who want to focus their attention on truly emergency market situations that will require drastic interventions - such as the application of relatively large safeguard duties on imports.

It should be noted however that the SSM was effective in addressing price gaps in only about one-half of “problematic months” even under a “best case” scenario in which thresholds were set at very low levels, remedial duties were maximized, ‘cross-checks’ were not required, and countries were not prevented from imposing safeguard duties on products imported under Uruguay Round TRQs. This could imply that, in the other one-half of “problematic” months, the differences between import and domestic prices in the data sets used were simply so large that any reasonable level of safeguard duties was unable to address them effectively.

In comparison, if countries were prevented from exceeding pre-Doha, current or applied tariffs, both access and effectiveness rates were clearly affected in a more debilitating way. When such caps were imposed, access rates were effectively halved, while the effectiveness rate plunged from the baseline level of 27 percent to only 1 percent of “problematic” months. In general, only LDCs were able to salvage some semblance of effectiveness to the extent that they were allowed to exceed Doha bound rates.

It is doubtful whether the G-33 and its allies would accept an SSM that is marginally accessible and essentially useless. The imposition of caps based on pre-Doha tariffs also appears

Figure 4.9 Maximum Access/Effectiveness



to penalize unfairly those developing countries that have pursued market reform more aggressively: because these countries have brought their tariffs down to relatively low levels, they will only be able to impose smaller incremental safeguard duties in the event of import volume surges and price depressions. Similarly, countries will only be able to impose small to non-existent safeguard duties on sensitive and special products, because the slower tariff cuts which these products will undertake correspondingly reduces the annual variation between their pre-Doha and current tariffs. In both instances, it could be argued that an effective SSM is particularly important: developing countries with low tariffs are more vulnerable to import surges and price depressions, and products that are crucial for poverty alleviation, food security and livelihood security deserve extra protection from market abnormalities - from conditions which may not be sufficiently addressed by a slower pace of tariff reduction. Such extra protection may be further justified by the fact that developing countries will still be allowed to continue subsidizing some of their exports at least until 2013, and the possibility that generous allowances for domestic support to their producers will not only distort global supply and price conditions but also find their way into export markets as indirect or disguised subsidies.

On the other hand, Members need to take into consideration exporting countries' concern that safeguard duties could unduly restrict normal trade flows if total duties are allowed to exceed bound levels. To address this concern, thresholds could be adjusted upwards so that countries resort to the SSM only in truly problematic situations. Higher threshold levels could be combined with the cross-check, as this did not appear to have an unreasonable impact on overall effectiveness rates. Developing countries could then argue that exporting countries' market opportunities would be preserved (at least at historical levels) if Members were allowed to impose safeguard duties that exceed Doha bound rates only when a price depression is accompanied by declining imports, and only if import volumes and prices exceed certain thresholds. Further, effectiveness rates under the 'best case' scenario did not exceed 46 percent of "problematic" months, equivalent to about 3 out of every 12 months, indicating that even under the most liberal conditions, imports would not be severely impeded since they would still be cheaper than domestic products even if safeguard duties were applied.

In exchange, an effective SSM can be negotiated which, while potentially less accessible because of higher thresholds and cross-check requirements, would nevertheless allow countries to apply reasonable but more effective safeguard duties to address major import volume surges and truly problematic price depressions. In this regard, developing countries could offer to agree to alternative caps in the form of percentages

of bound tariffs or percentage points, although the resulting effectiveness of the safeguard will depend on the level of bound tariffs of any given country and the pace of its tariff reduction in the Doha Round. In any case, the resulting safeguard must be reasonably effective in order to live up to its objectives as a trade remedy: otherwise, it does not make sense to include provisions in the Agreement for a useless SSM.

Higher safeguard duty levels can be complemented by longer imposition periods for volume-based safeguard duties, which the simulations indicate have significant impacts on effectiveness rates. To the extent that it is WTO-legal, countries could also consider unilaterally dismantling some of their Uruguay Round TRQs by lowering their tariffs to in-quota levels: this would improve their access to SSM remedies during the Doha Round implementation period and beyond. Countries must also take into consideration the fact that designating products as sensitive will require them to create new TRQs and could also reduce their access to the SSM, even though it will allow them to cut tariffs by less than the standard formula reduction.

Finally, it should be emphasised that the SSG provisions in the Agreement on Agriculture and in the current draft text make no reference whatsoever to the utility or effectiveness of the mechanism, nor do they make use of domestic prices as a reference for invoking the measure or determining remedy levels. Nevertheless, the SSM was conceived to address market aberrations that adversely affect poor sectors in developing countries and, because it was intended to help developing countries address poverty alleviation, food security and livelihood security objectives, was conceived to be an integral part of the developmental dimension of the Doha Round. In this context, testing the effectiveness of the measure, even if such an evaluation is not contemplated in the market access disciplines, is still a useful and relevant exercise. Keeping the original purpose and rationale of the SSM in mind, while addressing the trade concerns of other countries, may also help negotiators come to a final agreement on the SSM text.

## END NOTES

- a TN/AG/W/4/Rev.2
- b Philippines and Indonesia, China (a RAM), Ecuador and Fiji (SVEs), and Senegal (an LDC)
- c The degree of variation from average import volumes which must be surpassed before additional safeguard duties can be imposed.
- d Developing countries will be able to designate a number of products as 'special', on the basis of food security, livelihood security and rural development concerns: these will then be granted more flexible tariff treatment.
- e Developed and developing countries will be able to designate a number of products as 'sensitive': these will be allowed to undertake lesser tariff cuts in exchange for expanded import quotas.
- f A detailed description of the methodology, assumptions, and parameter settings used is provided in Annex A.
- g LDC, SVE, RAM or "regular" developing country
- h As described in Sections 2, 3 and 12 of Annex A
- i Interestingly, Indonesia's effectiveness rate actually declined from 59 percent to 57 percent of "problematic" months when the application of the cross-check was suspended. This intriguing result was traced to the fact that, under paragraph 131 of the draft text, the volume trigger in the preceding year would be retained if SSM was invoked in the previous year and the resultant volume trigger in the current year was smaller than that of the previous year. In some years, and for some Indonesian products, the more frequent use of price SSM as a result of the suspension of the cross-check modality resulted in the carryover of relatively higher volume triggers. This, in turn, made it more difficult to invoke volume-based measures that could have provided higher remedies. This causal effect may also explain why overall effectiveness rates did not improve considerably when the cross-check was not applied even though access rates for price SSM almost doubled.
- j Some legal experts have however opined that such a unilateral move will be tantamount to a disputable withdrawal of concessions and commitments made during the Uruguay Round, particularly with respect to the non-imposition of safeguards on TRQ imports irrespective of the level of in-quota tariffs.
- k Volume thresholds set to 100 percent / 105 percent / 110 percent as against 105 percent / 110 percent / 130 percent in the baseline scenario.
- l Under the very low threshold settings, volume-based remedies were set to 100 percent or 80 percentage points / 150 percent or 100 points / 200 percent or 120 points. This was double the baseline levels.
- m Volume thresholds were set to 130 percent / 135 percent / 155 percent and corresponding remedies were reduced to 20 percent or 20 percentage points / 25 percent or 25 points / 30 percent or 30 points. The price threshold was set to 70 percent.

ANNEX 1: METHODOLOGY, ASSUMPTIONS AND PARAMETER SETTINGS USED FOR SSM SIMULATIONS BASED ON MAY 2008 DRAFT TEXT

This annex describes in detail the basic methodology and assumptions used in the SSM simulations based on the draft modalities text issued by Ambassador Falconer in May 2008. The parameter settings for various scenarios considered in the simulations are also explained in this document.

1. Data sets

A total of 27 agricultural products from the Philippines, Fiji, Ecuador, Senegal, Indonesia, and China were covered by the simulations. For each country and product, the following data sets, mostly from 2000 to 2005, were generated and used for the simulations:

- a) Annual production; if data was not complete, available data was used for extrapolation
- b) Annual utilization and domestic consumption; in some cases where data was not complete, available data was used for extrapolations and estimates; together with annual production data, these figures were used in computing new tariff rate quota commitments
- c) Annual tariff rate quota or TRQ volume commitments, if any, during the Uruguay Round; these were assumed to be carried over to the new Round

- d) Monthly volume of imports; if only annual figures were available, the average share of each month to annual imports during the period when monthly data was available was used to break up the annual figure into monthly volumes
- e) Monthly CIF value of imports; if only annual average prices were available, monthly prices were assumed to be equal to the annual average
- f) Monthly foreign exchange rates, used to convert the CIF value of imports into domestic currency
- g) Monthly average wholesale domestic prices in area nearest entry point of imports

Each monthly figure for import volume and price was deemed to correspond to a single “shipment”. The SSM modality was tested against each “shipment” to determine whether a volume or price-based measure could be invoked and what kind of remedial duty could be imposed. A total of 4,044 monthly data points or “shipments” were used in this type of analysis.

A further test was conducted to determine whether an SSM remedy would be effective in addressing problematic gaps between domestic wholesale and import prices. For this analysis, a relatively smaller set of 3,504 monthly data points or “shipments” involving import and domestic wholesale prices were available.

Table A1.1 shows the breakdown of the data by country and product.

Table A1.1 Number of Monthly Data Points Used in Simulations, by Product and Country

| Product       | INCIDENCE/ACCESS RATES |       |      |      |      |      |       | EFFECTIVENESS RATES |      |      |      |      |      |       |
|---------------|------------------------|-------|------|------|------|------|-------|---------------------|------|------|------|------|------|-------|
|               | Phil                   | Fiji  | Ecua | Sene | Indo | Chin | Total | Phil                | Fiji | Ecua | Sene | Indo | Chin | Total |
| Banana        |                        |       |      |      |      | 48   | 48    |                     |      |      |      |      | 48   | 48    |
| Barley        |                        |       |      |      |      | 48   | 48    |                     |      |      |      |      | 48   | 48    |
| Beans         |                        |       | 48   |      |      |      | 48    |                     |      | 48   |      |      |      | 48    |
| Beef          |                        | 72    |      |      |      | 48   | 120   |                     | 72   |      |      |      | 48   | 120   |
| Carrots       | 60                     | 72    |      |      |      |      | 132   | 60                  | 72   |      |      |      |      | 132   |
| Chicken       | 60                     | 72    | 72   | 72   |      | 48   | 324   | 60                  | 0    | 60   | 72   |      | 0    | 192   |
| Coconut       | 60                     |       |      |      |      |      | 60    | 60                  |      |      |      |      |      | 60    |
| Coffee        | 60                     |       |      |      |      |      | 60    | 60                  |      |      |      |      |      | 60    |
| Corn          | 60                     | 72    | 72   | 72   | 72   | 48   | 396   | 60                  | 0    | 72   | 72   | 72   | 48   | 324   |
| Cotton        |                        |       |      |      |      | 48   | 48    |                     |      |      |      |      | 12   | 12    |
| Garlic        | 60                     |       |      |      |      |      | 60    | 60                  |      |      |      |      |      | 60    |
| Milk          |                        | 72    | 72   | 72   |      | 48   | 264   |                     | 0    | 60   | 72   |      | 0    | 132   |
| Mutton        |                        | 72    |      |      |      | 48   | 120   |                     | 72   |      |      |      | 48   | 120   |
| Onions        | 60                     | 72    | 72   | 72   |      |      | 276   | 60                  | 72   | 72   | 72   |      |      | 276   |
| Palm Oil      |                        |       |      |      |      | 48   | 48    |                     |      |      |      |      | 48   | 48    |
| Pork          | 60                     |       | 72   |      |      | 48   | 180   | 60                  |      | 60   |      |      | 48   | 168   |
| Potato        | 60                     | 72    | 72   | 72   |      |      | 276   | 60                  | 72   | 72   | 72   |      |      | 276   |
| Powdered Milk |                        | 72    |      |      |      |      | 72    |                     | 72   |      |      |      |      | 72    |
| Rapeseed      |                        |       |      |      |      | 48   | 48    |                     |      |      |      |      | 0    | 0     |
| Rice          | 60                     | 72    | 72   | 72   | 72   | 48   | 396   | 60                  | 72   | 72   | 72   | 72   | 48   | 396   |
| Soya Oil      |                        | 72    |      |      |      | 48   | 120   |                     | 72   |      |      |      | 48   | 120   |
| Soybean       |                        |       |      |      | 72   | 48   | 120   |                     |      |      |      | 72   | 48   | 120   |
| Sugar         | 60                     |       |      |      | 72   | 48   | 180   | 60                  |      |      |      | 72   | 12   | 144   |
| Tomato        |                        | 72    |      | 72   |      |      | 144   |                     | 72   |      | 72   |      |      | 144   |
| Vegetable Oil |                        |       | 72   | 72   |      | 48   | 192   |                     |      | 72   | 72   |      | 48   | 192   |
| Wheat Flour   |                        | 72    |      |      |      |      | 72    |                     | 72   |      |      |      |      | 72    |
| Wheat Grain   |                        | 72    | 72   |      |      | 48   | 192   |                     | 0    | 72   |      |      | 48   | 120   |
| Total         | 660                    | 1,008 | 696  | 576  | 288  | 816  | 4,044 | 660                 | 720  | 660  | 576  | 288  | 600  | 3,504 |

## 2. Volume triggers and volume-based SSM remedies

Paragraph 123 of the draft text provides that the volume trigger will be a "rolling" average of the annual volume of imports in the three (3) years preceding the year of importation. For any given month in the current year for example, the volume trigger will be the average of the annual volumes of imports in the previous three years. If not all of the three base years have data on imports, only the years when import data are available are averaged. (This is notwithstanding the fact that the clause "for which data is available" was not included in the May 2008 draft text.)

Paragraph 131 is interpreted to mean that if a volume-based SSM was invoked for a product in a certain year, and the volume trigger in the succeeding year comes out to be lower than in the previous year presumably due to the application of the SSM, then the trigger in the previous year will be retained and applied as the trigger for the subsequent year.

For each month, the cumulative volume of imports from the beginning of the year was compared to the corresponding volume trigger. The percentage by which the cumulative import volume exceeded the volume trigger was the basis for determining the magnitude of remedies. Table A2.1 below illustrates the minimum and maximum values for thresholds and remedies as outlined in paragraph 124. (Mid-range threshold and remedy settings were included in the table for simulation purposes, but are not explicitly mentioned in the draft text.)

For example, in the Low Threshold/High Remedy setting described in paragraphs 124a to c, SSM duties equivalent to 50 percent of current bound tariffs, or 40 percentage points, whichever came out to be higher, could be applied if the cumulative import volume exceeded 105 percent, but was less than or equal to 110 percent of the annual volume trigger. In turn, remedial duties of either 30 percent of the bound tariff or 30 percentage points could be imposed if the cumulative import volume exceeded the volume trigger by more than 55 percent under the High Threshold/Low Remedy setting described in paragraphs 124d to f. No SSM duty could be imposed if the cumulative import volume fell within the first tier setting.

Various combinations of threshold and remedy settings were used to gauge the behaviour of SSM, particularly with respect to its accessibility. Additional simulations were

carried out to test the effect of the following parameters and modalities mentioned in the draft text:

1. Applying or not applying caps on allowable volume-based SSM duties based on current or Doha bound rates, based on the following supplemental provisions:
  - a). If the volume of imports falls within the first tier in Table A2.1 above, no remedial volume-based SSM duty can be applied.
  - b). Paragraphs 124d to f provide that the remedies in the succeeding tiers are to be imposed on "applied" tariff rates. The simulation however ignores this distinction and assumes that countries could freely raise their applied tariffs to bound levels, and would opt to do so, before considering additional SSM duties. Effectively therefore, SSM duties would be applied on bound, not applied, tariffs.
  - c). Paragraph 124d states that if the ratio of the cumulative import volume to the volume trigger falls within the second tier, the remedy cannot exceed the "current bound tariff" or the tariff prevailing during the year based on the applicable tariff reduction schedule. Due to the aforesaid presumption that countries would first raise their applied tariffs to "current bound" levels before invoking SSM, this provision implies that there is no remedy available in this tier, whether as a percent of tariff or in percentage points. This provision therefore effectively raises the minimum threshold for invoking volume-based SSM to the upper range of the second tier.
  - d). Paragraph 124e provides that if the ratio of the cumulative import volume to the volume trigger falls in the third tier, the remedy must not exceed  $\frac{1}{2}$  of the difference between the starting Doha Round bound rate and the current tariff rate. Note again that the current tariff rate will depend on the tariff reduction modality applied.
  - e). Paragraph 124f finally states that if the ratio of the cumulative import volume to the volume trigger falls in the fourth and last tier, the remedy must not exceed the full difference between the starting Doha Round bound rate and the current tariff rate.

- f). Paragraph 124h additionally provides an option for LDCs to exceed their Doha bound tariffs by a maximum of 25 ad valorem percentage points. (In the February 2008 draft text, SVEs were also allowed to avail of this option for volume-based SSM but only in cases where the ratio of cumulative import volumes to the volume trigger falls in the highest range. This allowance for SVEs was removed in the May 2008 draft text.)
- g). The provisions of paragraph 124g disallowing the use of volume-based remedies if the absolute level of imports is “manifestly negligible” in relation to domestic production and consumption was not considered in the simulations because of its vague language.
2. Applying alternative caps on SSM duties, such as 50 percent or 25 percent of the current bound tariff, or
- trends allowed for the imposition of a higher SSM duty, the previous SSM was deemed terminated, and a new imposition would start using the higher SSM duty. In such a case, the number of months of imposition would be reset to 1. The additional rule for the imposition period for “seasonal products” in paragraph 131 was not considered in the simulations due to the vague language of the provision.
4. Applying or suspending the application of paragraph 125 which prohibits the imposition of SSM duties on imports falling within TRQ commitments. In the former case where the prohibition is applied, it is assumed that a country would pool all its TRQ commitments, whether carried over from the Uruguay Round or established in the Doha Round, and avail of the SSM in all instances even when it has the option to invoke the SSG. In the

Table A2.1. Matrix of Ranges, Thresholds and Remedies for Volume-based SSM

| IMPORT SURGE LEVEL     |                        |                        | REMEDIES        |          |           |          |          |          |
|------------------------|------------------------|------------------------|-----------------|----------|-----------|----------|----------|----------|
| THRESHOLDS/RANGES      |                        |                        | HIGH (BASELINE) |          | MID-LEVEL |          | LOW      |          |
| Low (Baseline)         | Mid-Level              | High                   | % Tariff        | % Points | % Tariff  | % Points | % Tariff | % Points |
| $\leq 105\%$           | $\leq 115\%$           | $\leq 130\%$           | 0%              | 0        | 0%        | 0        | 0%       | 0        |
| $105\% < X \leq 110\%$ | $115\% < X \leq 125\%$ | $130\% < X \leq 135\%$ | 50%             | 40       | 35%       | 30       | 20%      | 20       |
| $110\% < X \leq 130\%$ | $125\% < X \leq 140\%$ | $135\% < X \leq 155\%$ | 75%             | 50       | 50%       | 35       | 25%      | 25       |
| $> 130\%$              | $> 140\%$              | $> 155\%$              | 100%            | 60       | 65%       | 45       | 30%      | 30       |

50 or 20 percentage points. Although these modalities were not mentioned in the draft text, these were nevertheless tested to see their effect on volume-based SSM remedies in comparison to the Doha bound tariff caps.

3. Varying the maximum period for imposing volume-based SSM duties from 12 months, as prescribed in paragraph 131, to 6 months, or only up to the end of the current year. The prescription in paragraph 131 that volume-based SSM duties can be applied only for a maximum of 2 consecutive imposition periods was not considered in the simulations since such an eventuality appears to be very rare. Also, it was assumed that a country could easily evade this limitation by suspending its imposition for a single month and then resume applying it in the succeeding month, with minimal effect on overall access rates. It was further assumed in the simulations that if a volume-based SSM duty was being imposed, and subsequent import

latter case where the prohibition is not imposed, it is assumed that a country with TRQ commitments for a commodity during the Uruguay Round could opt to bring its out-quota tariffs to in-quota or TRQ tariff levels and legally use this as a basis for erasing its Uruguay Round TRQ commitments on the grounds that all imports would subsequently be assessed in-quota tariffs.<sup>1</sup> However, new TRQ commitments which will be required as compensation for deviations from the regular tiered tariff reduction formula for sensitive products will not be affected by this suspension.

<sup>1</sup> Recent consultations with legal experts seem to indicate that such a unilateral dismantling of TRQ commitments on the grounds that in- and out-quota tariffs have converged would not be legally tenable and would be tantamount to a country reneging on its commitment not to impose special safeguards on imports falling within TRQ commitments irrespective of the level of tariffs. Nevertheless, the simulations which assume that TRQ commitments can be suspended are carried out to gauge the impact of the prohibition on both the accessibility and effectiveness of the SSM.

5. Changing the designation of products as either special or sensitive, or subject to the regular tariff reduction formula, as explained in Section 4 and 5 of this Annex. These designations will affect annual bound tariff rates and the level of TRQ commitments.
6. Applying exemptions and other flexibilities for LDCs, RAMs or SVEs, depending on the classification of the country, as explained in Section 4 and 5 of this Annex.

### 3. Price triggers and price-based SSM remedies

The price-based SSM remedy can be invoked in cases where the import price of a shipment, converted into local currency, falls below the price trigger by a specific percentage. Paragraph 126 of the draft text sets the price trigger as the average monthly import price during the 3-year period preceding the year of importation. (The additional stipulation that only import prices for MFN-sourced imports be used in computing the price trigger was not considered in the simulations due to the lack of import data disaggregated by source.)

In computing the price trigger, the monthly average import prices during the 36-month period prior to the year of importation are averaged. Only the months with positive import volumes and values during this 36-month period are included in the average. Paragraph 126 sets the threshold for invoking the price-based SSM to between 100 percent and 70 percent of the price trigger. This means that the SSM remedy can be invoked only if import prices fall below the price (zero threshold) or by a high 30 percent.

As with the volume-based SSM, simulations were carried out to test the effect of various modalities and parameter settings, as follows:

1. Varying threshold levels from 0, 70, 80 and 90 percent of the price trigger. The latter two settings were not specifically stated in the draft text but were included in the simulations to determine the vulnerability of the price-based remedy to threshold settings.
2. Applying or suspending the application of the currency adjustment modality mentioned in paragraph 126. This modality has been interpreted to mean that if the domestic currency has depreciated by at least 10 percent at the time of importation compared to the average exchange rate in the preceding 12 month period, then the average exchange rate during the preceding 3-year period, and not the current exchange rate, will be used in converting CIF import values to domestic currency. This modality arose from concerns of some developing countries that the abnormal depreciation of their currencies tended to make import prices higher when converted to domestic currencies, thereby making it more difficult to breach the price trigger and invoke the price-based SSM.
3. Applying or not applying caps on allowable price-based SSM duties such as those suggested by paragraph 127. Normally, the price-based remedy corresponds to the difference between the import price converted to local currency (with adjustments in case of depreciation) and the price trigger. Paragraph 127 however presents an option to cap the price-based remedy to not more than 50 percent of the difference between the import and trigger price. An additional provision says that the result should not also exceed the difference between the Doha starting and current bound rate. (Notably, the latter provision effectively bars any price-based SSM duty in the first year because it is assumed in the simulations that the first tariff adjustment will be applied at the end, instead of the start, of the first year of implementation. Hence, in the first year, the starting and current tariffs will be the same, and there will be no differential that can be applied as an SSM duty.) Paragraph 124h however gives LDCs the option to exceed their pre-Doha bound tariffs by a maximum of 25 percentage points.
4. The behaviour of the price-based SSM was also tested using other types of caps not mentioned explicitly in the draft text, such as 50 percent or 25 percent of the current bound tariff, or 50 or 25 percentage points.
5. Applying or not applying the cross-check modality suggested in paragraph 128, which provides that a price-based SSM duty cannot be imposed if the volume of imports in the current year is declining. For the simulations, this modality was assumed to mean that the price-based SSM cannot be invoked if the cumulative volume of imports from the start of the current year up to the month prior to the importation is lower than the import volume in the same period in the preceding year. Additional simulations were conducted using a threshold level of 10 percent; i.e., the decline in imports must be more than 10 percent in order to bar the application of SSM remedies. A further simulation used current volume triggers, instead of volumes during the same reference period in the previous year, as the

basis for determining whether imports were declining. The additional provision in paragraph 128 that price-based SSM will not also be applied if the volume of imports is so small that it does not undermine domestic price levels was not considered in the simulations due to its vague language.

6. Applying or suspending the provisions of paragraph 125 which prohibits the imposition of any type of SSM duty on imports falling within TRQ commitments. As in the case of volume-based remedies, it is assumed that a country would pool all its TRQ commitments, if any, under both the Uruguay and Doha Rounds and opt to avail of the SSM instead of the SSG in all instances. In the latter case where the prohibition is suspended, it is assumed that a country with TRQ commitments for a commodity during the Uruguay Round could opt to bring its out-quota tariffs to in-quota or TRQ tariff levels and legally use this as a basis for erasing its Uruguay Round TRQ commitments on the grounds that all imports would subsequently be assessed in-quota tariffs. However, new TRQ commitments which will be required as compensation for deviations from the regular tiered tariff reduction formula for sensitive products will not be affected by this suspension.
7. As with volume-based SSM, the quality of price-based SSM remedies will depend on whether the product is classified as regular, sensitive or special, and whether a country is an SVE, RAM or LDC. The implications of such classifications are explained in Sections 4 and 5 of this Annex.

Notably, the draft text removed any allusions to a maximum imposition period for price-based SSM remedies in terms of number of months. Instead, paragraph 127 states that the SSM should be applied on a shipment-by-shipment basis, which is interpreted to mean that remedial duties can be imposed only on individual shipments that specifically meet the criteria for imposition. SSM remedies can continue to be applied only if the subsequent shipment satisfies the conditions for invoking the remedy.

#### 4. Tariff reduction rates

The tariff reduction rates and modalities can affect access to, and the effectiveness of, the SSM. For example, the caps on allowable SSM duties mentioned above could be based on current or starting bound rates. Remedies could also be configured as a percentage of current tariffs or the difference between starting Doha bound and current

tariffs.

The sub-variables that could affect tariff reduction rates are:

1. tiered reduction tariff reduction matrix, including ranges and thresholds, and prescribed cuts under each range
2. prescribed deviations from the normal cut for sensitive products
3. prescribed tariff cuts for special products
4. how a product is designated by the country (normal, sensitive, or special)
5. the status of the country (regular, RAM, SVE or LDC)

Table A4.1 shows the “normal” tariff reduction rates for regular developing countries (non-SVEs, RAMs and LDCs) if 2/3 of the prescribed tariff cuts under the tiered reduction formula for developed countries was computed based on paragraphs 61 and 63. For tariffs in the uppermost tier, it is assumed that the tariff cut for developed countries will be somewhere near the midpoint of the range prescribed in paragraph 61d, or 69 percent, and the corresponding 2/3 equivalent is computed for developing countries. No provision is made in the simulations for the eventuality described in paragraph 64 wherein a country can be allowed to apply proportionally lower cuts if its overall average cut exceeds 36 percent. For sensitive products, the corresponding tariff reduction rate was based on the degree of deviation from the normal cut allowed for developing countries under paragraph 73; i.e., 22.2 percent is a 1/3 deviation from 33.3 percent in the first tier while 15.3 percent is the tariff cut arising from a 2/3 deviation from the regular cut of 46 percent in the fourth tier. For special products, a uniform 15 percent tariff cut in all tiers was assumed based on the overall average cut prescribed in paragraph 118. The resultant tariff reduction rate was then spread equally over 8 years. Of the countries covered by the simulation, the Philippines and Indonesia fell in this category of “regular” developing countries.

Paragraph 119 provides SVEs such as Fiji and Ecuador the option to waive the tiered tariff reduction modality and simply meet a 24 percent overall average cut. They could also designate an unlimited number of special products which would not be subject to any minimum tariff cut or guidance by indicators. For purposes of the simulation however, it is assumed that such SVEs will instead avail of

Table A4.1 Tariff Reduction Rates for Regular Developing Countries

| MODALITY          | REGULAR COUNTRIES |           |            |       |
|-------------------|-------------------|-----------|------------|-------|
|                   | ≤30%              | 30%<X≤80% | 90%<X≤130% | >130% |
| Normal Cut        | 32,0%             | 36,7%     | 41,3%      | 44,0% |
| Sensitive Product |                   |           |            |       |
| 1/3 Deviation     | 21,3%             | 24,4%     | 27,6%      | 29,3% |
| 1/2 Deviation     | 16,0%             | 18,3%     | 20,7%      | 22,0% |
| 2/3 Deviation     | 10,7%             | 12,2%     | 13,8%      | 14,7% |
| Special Product   | 8,0%              | 8,0%      | 8,0%       | 8,0%  |

the moderated formula outlined in paragraph 65 and cut their tariffs by rates 10 percentage points lower than the regular cuts indicated in Table A4.1 above. It is further assumed that SVEs will have the option to designate sensitive products for which 1/3, ½ or 2/3 of the adjusted normal cuts for SVEs can be applied, as shown in Table

tier.) Tariffs of 10 percent and below will be exempted from tariff cuts; it is assumed that such a privilege will also cover sensitive and special products. Reductions for sensitive products were then computed accordingly based on the degree of deviation, as shown in Table A4.3 below. Paragraph 120 states that RAMs will be eligible for an extra

Table A4.2 Tariff Reduction Rates for SVEs

| MODALITY          | SVE COUNTRIES |           |            |       |
|-------------------|---------------|-----------|------------|-------|
|                   | ≤30%          | 30%<X≤80% | 90%<X≤130% | >130% |
| Normal Cut        | 22,0%         | 26,7%     | 31,3%      | 34,0% |
| Sensitive Product |               |           |            |       |
| 1/3 Deviation     | 14,7%         | 17,8%     | 20,9%      | 22,7% |
| 1/2 Deviation     | 11,0%         | 13,3%     | 15,7%      | 17,0% |
| 2/3 Deviation     | 7,3%          | 8,9%      | 10,4%      | 11,3% |
| Special Product   | 0,0%          | 0,0%      | 0,0%       | 0,0%  |

A4.2 below. Finally, it is assumed that SVEs will apply the same 15 percent average cut on products they designate as special products. The tariff phase-down period for SVEs was also assumed to occur within 8 years.

For RAMs such as China, paragraph 66 provides that their normal cuts will be 10 percentage points less than those for regular developing countries in the top two bands, and 5 ad valorem points lower in the bottom two bands. (Note that this modality results in tariff cuts in the 80-130 percent tier that are slightly less than those in the 30-80 percent

2 percentage point moderation in cuts for their special products compared to regular countries. Hence, a uniform 13 percent cut for special products of RAMs is applied in the simulations. Paragraph 69 further allows RAMs to extend their implementation period for tariff reductions from 8 to 10 years.

Least-developed countries (LDCs) like Senegal are exempted from any cut in their bound tariffs as provided in paragraph 14 of the NAMA text, which in turn is alluded to in paragraph 138 of the draft text for agriculture.

Table A4.3 Tariff Reduction Rates for RAMs

| MODALITY          | RAM COUNTRIES |           |            |       |
|-------------------|---------------|-----------|------------|-------|
|                   | ≤30%          | 30%<X≤80% | 90%<X≤130% | >130% |
| Normal Cut        | 24,5%         | 29,2%     | 33,8%      | 36,5% |
| Sensitive Product |               |           |            |       |
| 1/3 Deviation     | 16,3%         | 19,4%     | 22,6%      | 24,3% |
| 1/2 Deviation     | 12,3%         | 14,6%     | 16,9%      | 18,3% |
| 2/3 Deviation     | 8,2%          | 9,7%      | 11,3%      | 12,2% |
| Special Product   | 6,0%          | 6,0%      | 6,0%       | 6,0%  |

For each product covered in the simulation, the end-Uruguay Round bound rate was used as the starting Doha tariff and applied in the first year of implementation, and the applicable tariff reduction rate was applied in the succeeding years depending on the type of country and product classification. The total tariff reduction for each product was spread equally over the number of years of the corresponding implementation period.

## 5. Tariff rate quotas

Uruguay Round SSG rules and paragraph 125 of the draft text provide that special safeguard duties (SSG or SSM) cannot be applied on imports falling within TRQ commitments. The carryover of Uruguay Round TRQ commitments, and the creation of new TRQ commitments for sensitive products, will conceivably affect access to the remedy.

The simulations assume that TRQ commitments in the Uruguay Round will be carried over to the Doha Round and will be added to any new market access compensation required for products designated as sensitive. Another assumption is that countries will apply the SSM instead of the SSG in the event of any breach of triggers given that the SSM is comparatively easier to invoke and potentially more effective.

Paragraph 75 prescribes the new market opportunities or TRQ commitments, computed as a percentage of average annual domestic consumption during 2003-2005 (based on paragraph 8c of Annex C), which developed countries will be required to create in exchange for a 1/3, 1/2 or 2/3 deviation from the regular tiered tariff reduction formula for products designated as sensitive. The simulations use the lower range values for TRQ compensation indicated in paragraph 75; 2/3 of each corresponding value is then computed, as per paragraph 77, to determine the corresponding TRQ expansion rate for developing countries. The results are reflected under the "MIN" column for developing countries

in Table A5.1 above. (The additional options for developing countries stipulated in paragraph 77 are not considered in the simulations.)

Paragraph 77 additionally provides that gross domestic consumption of a sensitive commodity of developing countries excludes an assumed portion that goes to "self-consumption of subsistence production", or production that is consumed directly and not sold in the market. For purposes of the simulations, this percentage going to self-consumption is assumed to be a uniform 35 percent, and the net consumption figure is then used in computing new TRQ commitments. This conversion however was limited only to countries covered by the simulations which had available data on domestic consumption. These were practically no data available for Fiji in particular, while the Philippines and Indonesia had complete figures. China, Ecuador and Senegal had relevant data for almost all their products.

Paragraph 78 requires that a minimum of 1/3 of new TRQ commitments per commodity will have to be installed at the start of the implementation period, another 1/3 at the start of the second year, and a final 1/3 at the start of the third year. Notably, there is no differentiation between developed and developing countries with respect to the rate of establishment of new TRQs.

Paragraph 76 was not considered in the simulations on the presumption that existing TRQs of developing countries will not, or only rarely, exceed 10 percent of net domestic consumption.

There do not appear to be any special exemptions for SVEs and RAMs with respect to TRQ expansion. TRQ (in-quota) tariffs were also not considered in the simulations; it was assumed that all imports would be assessed out-quota bound rates. Similarly, it was presumed that if the applied tariffs of a country were lower than their bound rates, the country would be free to increase its applied tariffs to bound levels

Table A5.1 TRQ Expansion Rates Based on Degree of Deviation from Tiered Formula

| PARAMETER                      | DEVELOPED |      | DEVELOPING |      |
|--------------------------------|-----------|------|------------|------|
|                                | MIN       | MAX  | MIN        | MAX  |
| % of Tariff Lines              | 4,0%      | 6,0% | 5,3%       | 8,0% |
| TRQ Increase for 1/3 Deviation | 3,0%      | 5,0% | 2,0%       | 3,3% |
| TRQ Increase for 1/2 Deviation | 3,5%      | 5,5% | 2,3%       | 3,7% |
| TRQ Increase for 2/3 Deviation | 4,0%      | 6,0% | 2,7%       | 4,0% |

and will do so before considering invoking SSM.

## 6. Other considerations

The simulation did not deal with the issue of product scope (paragraph 121). It was assumed that all products covered by the simulation would have access to SSM. In reality, some of the products may be precluded from availing of the remedy if the limit of [3 to 8] products mentioned in paragraph 121 for products availing of SSM in any given 12-month period has already been exceeded. This situation was not however covered or considered in the simulations. (Note that paragraph 116 does nevertheless provide a possibility for governments to invoke the SSG in such an instance, at least for products which had SSG privileges during the Uruguay Round.)

In accordance with paragraph 122, the simulation model chooses and applies only the higher of the volume and price-based remedies in ad valorem terms in cases when both remedies are available.

The provision in paragraph 129 limiting the calculation of volume and price triggers and the application of remedies to MFN trade was not considered in the simulations due to the lack of import data disaggregated by source.

## 7. Determining access and effectiveness rates for SSM

The simulation measured two critical features of the SSM - its accessibility and its effectiveness in addressing problematic price gaps between domestic and import prices.

Accessibility was determined by counting the number of “shipment” months during which an SSM remedy could be invoked based on a set of conditions and rules. This number was divided by the total number of months to come up with an access rate in percentage terms. For example, if an SSM remedy could be imposed for a particular commodity in 20 months out of a data series involving 100 months, the access rate was computed as 20 percent. Separate access rates were computed for the volume and price-based SSM; a “combined” access rate was also computed to determine the frequency in which either a volume or price-based SSM could be invoked.

The effectiveness of the SSM was measured through a 3-step procedure. First, the number of months during which average import prices in local currency, inclusive of bound tariffs, fell below corresponding domestic wholesale prices by more than 10 percent were counted. These months

were deemed “problematic” and considered as months during which SSM remedies would be needed. Secondly, a determination was made as to whether SSM remedies could in fact be invoked during the said “problematic” months based on a varying set of rules and modalities. Thirdly, if an SSM remedy could be imposed during a “problematic” month, a determination was made to see if the resultant price of imports, inclusive of bound tariffs and SSM duties, would be able to come to within 90 percent of domestic prices or higher and thereby remove the “problem”. In such instances, the SSM was deemed to be “effective”. For example, if 40 out of 100 months, or 40 percent of total months were deemed “problematic”, and SSM could be invoked in 20 months, or 50 percent of the “problematic months”, the remedy would have an effectiveness rate of 25 percent if it was able to effectively address the price gaps in 10 out of the 40 “problematic” months.

## 8. Baseline scenario parameter settings

The baseline scenario for the simulations used the following major parameter settings:

1. Products were classified as special products; hence, no additional TRQ commitments had to be created, and tariff reduction rates were based on the relevant tables in Section 4 above, depending on the classification of the country.
2. Restrictions on the imposition of SSM duties on imports falling within TRQ commitments (whether new or carried over from the Uruguay Round) were applied.
3. The Low Threshold/High Remedy settings for volume-based SSM duties in Table A2.1 were applied. In general, the volume trigger was set to the average volume of imports in the preceding three years. However, if SSM was invoked in the preceding year and the resultant 3-year average was lower than that in the previous year, the trigger in the previous year was retained for the current year.
4. The price trigger was set to 100 percent of the three-year average; i.e., a zero price threshold was applied such that the price SSM could be invoked once the import price fell below the price trigger. The price-based SSM remedy was equivalent to the difference between the import price in local currency (adjusted for depreciation if necessary) and the price trigger.
5. The currency adjustment modality for price-based SSM

in the event of significant currency depreciation was applied.

6. No limits or caps were applied on applicable SSM duties.
7. A 12-month maximum imposition period for volume-based SSM duties was applied while a shipment-by-shipment application modality for price-based SSM was used.
8. A cross-check modality was applied with a threshold of 0 percent; i.e., a price-based SSM remedy could not be imposed if the volume of imports from the start of the year up to the month preceding the year of importation was lower than the import volume during the same period in the previous year.

## 9. Parameter settings for simulations with varying threshold levels

These simulations were undertaken to test the accessibility of the SSM under varying thresholds for invoking volume and/or price-based remedies.

As a first step, the frequency of import surges and price depressions was determined by comparing monthly cumulative import volumes and import prices with volume and price triggers, respectively. These frequencies were broken down by the magnitude of their deviation from trigger levels. Actual access rates were then computed using various parameter settings.

For access rates, the baseline parameters were adjusted by alternately adopting the High and Mid-Level threshold levels for the volume-based SSM as shown in Table A2.1 above while maintaining baseline remedy levels. For the price-SSM, thresholds were adjusted from the baseline 100 percent to 70, 80 and 90 percent of the price trigger.

For the combined access rate, a High Threshold setting was used by simultaneously adopting the High Threshold level for volume-based SSM and a 70 percent threshold for price-based SSM. A mid-level setting, in turn, used the Mid-Level and 80 percent thresholds for the volume and price-based SSM, respectively.

## 10. Parameter settings for simulations with varying remedy levels

Using the baseline (low) threshold levels, high (baseline), mid-level and low remedies as indicated in Table A2.1 above

were applied on the simulation model to detect changes in access to the SSM and its effectiveness in addressing “problematic” price gaps with varying remedy levels.

An analysis was also made of the magnitude of additional safeguard duties which would be needed to address price gaps effectively during “problematic” months. The percentage of “problematic” months for which a given range of safeguard duties would be effective was computed.

## 11. Parameter settings for simulations involving currency adjustment modality

These simulations test the behaviour of the SSM if the currency adjustment modality is not adopted. As explained earlier, this modality was interpreted to mean that if the domestic currency had depreciated by at least 10 percent at the time of importation compared to the average exchange rate in the preceding 12 month period, then the average exchange rate during the preceding 3-year period, and not the current exchange rate, could be used in converting CIF import values to domestic currency.

## 12. Parameter settings for simulations involving caps on allowable SSM remedies

The effect of caps and other types of limitations on allowable SSM remedies were simulated. One simulation adopted the caps on volume and price-based remedies explained in Section 2(a) and 3(c) above and applied them individually and simultaneously. Another simulation applied the same caps but assumed that the product would be reclassified from the special to the regular category in order to maximize gaps between starting and current bound rates and avail of higher SSM remedies.

Another set of simulations reverted to the baseline scenario but limited both volume and price-based remedies to a maximum of either 50 percent or 25 percent of the current bound rate, or 50 or 25 percentage points.

## 13. Parameter settings for simulations involving caps on allowable SSM remedies

Additional simulations were conducted using the baseline scenario but without applying the cross-check as an additional condition for invoking the price-based SSM. As explained earlier, this modality was assumed to mean that the price-based SSM could not be invoked if the cumulative volume of imports from the start of the current year up to

the month prior to importation was lower than the import volume in the same period in the preceding year.

A variant of the this simulation applied the cross-check but with a 10 percent threshold, meaning that the price-based SSM could not be imposed only if current import volumes were less than 90 percent of import volumes during the same period in the previous year.

The simulations also tested the accessibility and effectiveness of the SSM if the volume trigger, instead of import volumes in the prior year, was used as the reference such that the price-based SSM could not be imposed if current import volumes were lower than the volume trigger. This had the effect of requiring a simultaneous breach of volume and price triggers.

#### **14. Parameter settings for simulations involving maximum imposition periods**

The maximum period for imposing a volume-based SSM remedy was adjusted from the baseline setting of 12 months to 6 months and, alternatively, up to the end of the current year. The shipment-by-shipment modality for price-based SSM was not changed.

#### **15. Parameter settings for simulations involving TRQs**

Simulations were conducted to gauge the effect of dismantling Uruguay Round TRQ commitments by unilaterally lowering bound tariffs to in-quota levels for the purpose of improving access to the SSM. It will be recalled that current rules prohibit the application of SSM remedies on imports falling within TRQ commitments. New TRQ commitments arising from the designation of products as sensitive were not affected by this parameter setting.

#### **16. Parameter settings for simulations involving product classifications**

Another set of simulations tested the effect of reclassifying products from the baseline special product category to the sensitive category with varying levels of deviation from the normal tariff reduction formula and the concomitant creation of new TRQ commitments. Simulations were also conducted with the products classified as “regular”; i.e., subjected to the normal tariff reduction formula.

It was noted in the simulations that the number of “problematic” months tended to change when new tariff reduction formulas were applied as products were

reclassified from special to sensitive or regular. For example, when a product was transferred from the special to sensitive category, higher annual tariff cuts were applied leading to comparatively lower bound tariff levels. Correspondingly, the number of months in a given year when import prices plus bound duties were lower than domestic prices by more than 10 percent tended to increase. However, these increases in “problematic” months were not significant. Hence, all access and effectiveness rates were based on the baseline number of “problematic” months with products categorized as special in order to simplify the analysis.

#### **17. Cumulative parameter settings for simulations to maximise access and effectiveness**

Additional simulations were conducted to determine the combined and cumulative effect of several parameters which tended to enhance SSM accessibility and effectiveness. Starting from the baseline set of parameters, the application of the cross-check modality was suspended. Volume thresholds were then set to very low levels (100 percent / 105 percent / 110 percent as against 105 percent / 110 percent / 130 percent in the baseline) while remedies were doubled (100 percent or 80 percentage points / 150 percent or 100 points / 200 percent or 120 points). Finally, constraints on the application of safeguard remedies on TRQ imports were lifted.

#### **18. Cumulative parameter settings for simulations to minimise access and effectiveness**

A final set of simulations was undertaken to test the combined and cumulative effects of parameter settings that tended to inhibit access to the safeguard and limit its effectiveness. Starting from the baseline set of parameters, a high threshold / low remedy setting was applied, with volume thresholds set to 130 percent / 135 percent / 155 percent and corresponding remedies reduced to 20 percent or 20 percentage points / 25 percent or 25 points / 30 percent or 30 points. The price threshold was in turn raised to 70 percent. The Doha caps on applicable remedial tariffs were then applied. Then the imposition of safeguard measures was limited to 6 months. Subsequently, the threshold for invoking the foreign currency adjustment modality was increased from 10 percent to 30 percent. Finally, products were reclassified as “regular” instead of “special”.