FAO TRADE POLICY BRIEFS
on issues related to the WTO negotiations on agriculture

No. 2. TARIFF REDUCTION FORMULAE: the importance of tariff profiles

SUMMARY

- *The impacts of reduction formulae depend significantly on the prevailing tariff structures of individual countries.*
- *Depending on the formulae and coefficients used, tariff reductions in a country with a uniform tariff profile could reduce overall border protection more than the same approach to tariff reduction in a country with a skewed tariff profile.*
- *This could be exacerbated if the country with a skewed profile is able to protect high tariffs by designating these products as sensitive.*
- *A banded or tiered formula could provide some middle ground between the Uruguay Round and Swiss formulae. Depending on the formulae in each band or tier, it can achieve proportionality and greater harmonization than the Uruguay Round formula, but less than with the Swiss formula.*
- *Impact analysis of different approaches to tariff reduction is sensitive to specificity in defining tariffs, calculating ad valorem equivalents and treatment of tariff rate quotas.*

This Trade Policy Brief[1] examines the pros and cons of different formulae discussed during the agriculture negotiations. It explains the need to understand analysis of the impact of tariff reduction formulae. It also illustrates the importance of a disaggregated analysis and highlights some of the methodological issues that can affect the results.

Matching objectives and tariff reduction formulae

The ongoing negotiations are still seeking a consensus formula to reduce agricultural tariffs. The August 2004 Framework Agreement proposed a tiered approach to tariff reduction for all countries, with parameters that take account of differing tariff structures still to be determined.

A key difficulty in making further progress on this general proposal is that member countries have very different objectives in market access negotiations. These can be summarized as:

(a) ambition – the extent of reductions in average tariff levels;

(b) harmonization – the desire that tariffs should be more similar across countries after reduction;

(c) flexibility – meeting country-specific concerns about sensitive and special products; and

(d) proportionality – lower proportional cuts for developing countries as a manifestation of special and differential treatment.

Some countries want substantial tariff reductions, especially in peaks. Others want to reduce tariffs on sensitive products moderately or not at all, while many developing countries would prefer to largely exempt special products from reductions. Others say tariff reductions in developed countries will result in preference erosion.

Various formulae and approaches are on the table but to date none meet the needs of all member countries. The main ones are:

- The *Uruguay Round (UR) formula* requires negotiation of an average percentage tariff reduction over a number of years with a minimum reduction for individual tariff lines.
- The *Swiss formula*, which harmonizes tariffs both within and across countries, achieving a much narrower gap between high and low tariffs. This produces a narrow range of final tariffs and a maximum final rate equivalent to the coefficient used in the formula no matter how high the original tariff.
- The *Banded approach* groups tariffs into bands based on their initial levels. The UR formula is used with different average and

[1] An associated Technical Note provides greater detail on the technical issues raised in this Trade Policy Brief: http://www.fao.org/trade/

minimum cuts in each band for developing and developed countries.

- The *Blended approach* places products into three groups, subject to a different cut using a different formula, namely a Uruguay Round formula for one group and a Swiss formula for another. Products falling into the third group are bound at zero rate. Countries choose which tariffs to allocate to each group.
- The *Tiered approach* in the August 2004 framework agreement reverts, in part, to the Banded approach, characterizing products according to their initial tariff. However, it leaves the option open to apply any formula approach to any tier.

Determining the impact of different reduction formulae

Differences in tariff profiles across countries can have major implications on the impact of different formulae. Negotiators need to know how these formulae impact on their own country's tariffs, but also how they affect the tariff profiles of trading partners.

There is no simple way to compare tariff schedules. One approach is to provide summary statistics on tariff averages. Although there is divergence in estimated summary statistics, it is possible to make a number of observations.

- Average bound rates for developed countries tend to be less than for developing countries. But dispersion is greater in developed than in developing countries for bound and applied tariffs.
- Tariff peaks are greater in developed than in developing countries for both bound and applied tariffs.
- For developed countries, bound tariffs are *generally* closer, and in many cases identical, to applied tariffs, while in developing countries there is often a significant gap between the two.

The formulae are applied at the tariff-line level and there is a need to investigate how this affects individual tariff values, not the averages.

Negotiators and policy makers should understand which tariff lines are likely to be affected in their country and in their trading partners. Figures 1 and 2 show the tariff profiles of the EU and Cameroon and illustrate the importance of detail.

The EU profile shows a widely varying set of tariffs with significant peaks. The applied tariff profile exhibits the minimal gaps between applied and bound tariff rates. By contrast, Cameroon has a uniform bound tariff profile, with all tariffs bound at 80 percent, but all applied tariffs much lower at between 5 and 30 percent.

UNIFORMITY OF TARIFF STRUCTURES

The uniformity of the profile may largely determine the impact of tariff reductions. Assume for example, three tiers where tariffs greater than 100 percent are reduced according to a UR formula, tariffs between 20 and 100 percent are subject to a Swiss formula, while those in the third tier have a lower proportional cut. Then consider a country with a skewed tariff profile, a small number of tariff peaks, a moderate number in the second tier, but the majority in the third tier which is subject to the lowest proportional reduction. Such a country could face a much lower overall impact[22] on its protection levels than a country where *all* tariff lines are, for example, bound at 90 percent and are subject to the same Swiss formula reduction. This may be exacerbated if the country with the skewed profile can protect tariffs at high levels by designating such products as sensitive.

BOUND VS. APPLIED TARIFFS

A tariff formula may require developing countries to cut their bound rates further than developed countries. But because there is often a large gap between applied and bound tariffs in developing countries, this is often argued not to be a problem, since it does not affect current levels.

This may be true for all product lines in some countries, it does not, however, generally apply to more protected product lines in other countries. Some developing countries argue that the gap between applied and bound tariffs allows them to raise applied tariffs within the bindings, as a safeguard. This is considered important for countries without recourse to the Special Safeguard (SSG). The proposal on a Special Safeguard Mechanism (SSM) for all developing countries may remove the need for this.

CONSTRUCTING TARIFF PROFILES

Analysis of different formulae clearly requires an accurate definition of tariff profiles but analyzing them is complex. Different tariff profile characteristics can produce wide variations in the estimated reductions from a given formula.

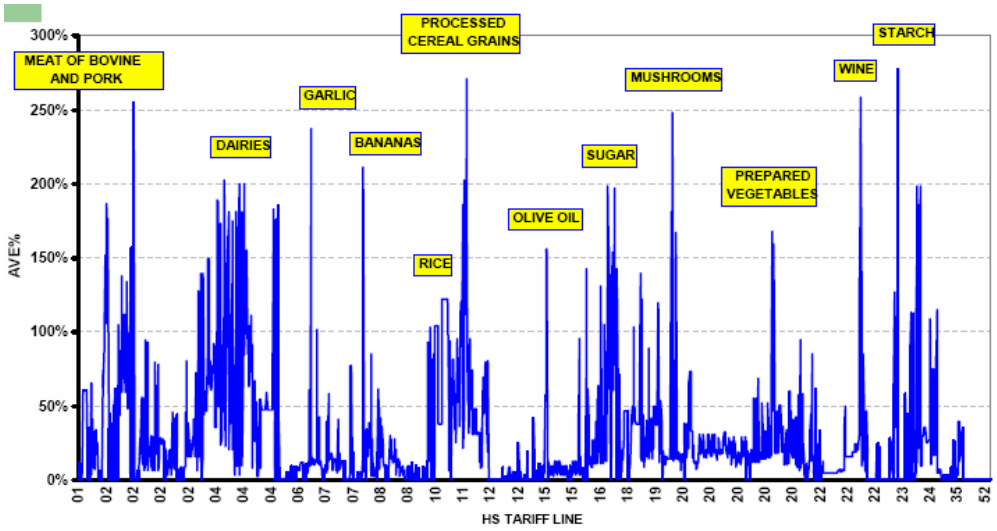
FAO Trade Policy Technical Note No. 2 explains in detail a number of methodological issues. These include:

The level of tariff definition

Data availability often determines tariff structures for analysis. While the WTO (World Trade Organization) agreement will be implemented at the tariff line level, detailed data is rarely available outside the individual countries. Analysis may be at a more aggregate level (Harmonized System 6-digit or 8-digit), masking important impacts for individual tariffs.

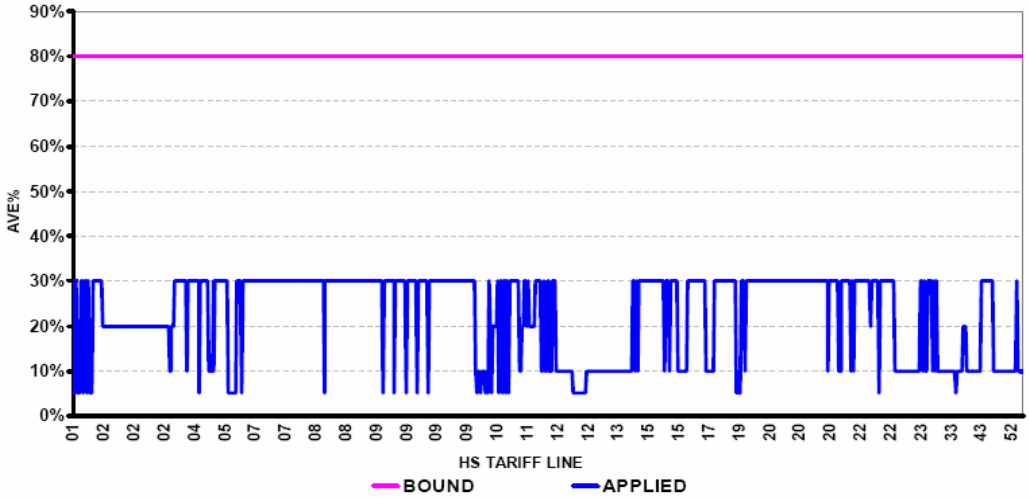
[2] FAO Trade Policy Technical Note No. 2 contains a fuller discussion of tariff cuts.

Figure 1: EU applied tariff structure distribution according to HS Chapters



Source: ICONE (2004) *Possible ways of breaking the present deadlock*. Presentation to the FAO Informal expert consultation on tariff-cutting formulae. Geneva, Switzerland 12-13 July 2004 Note: Non *ad valorem* tariffs have been converted to their *ad valorem* equivalents.

Figure 2: Cameroon's tariff structure distribution according to HS Chapters



Source: ICONE (2004) *ibid.*

Data set used

There are a number of gaps in the available data sets. For example, there are often few *ad valorem equivalents* (see below), making it difficult for analysts to describe current tariff profiles accurately. Also, there is often less than full coverage of preferences, so they do not reflect the impacts on countries providing or benefiting from preferences.

Conversion of specific tariffs

To construct profiles, it is necessary to convert non-*ad valorem* tariffs (e.g. specific tariffs applied on a $/tonne basis) to *ad valorem equivalents* (AVEs, i.e. percentage of value). Given the number of tariffs in some countries not set on an *ad valorem* basis, this can be a major stumbling block for analysts and negotiators. Specific tariff lines should be converted to AVEs by dividing the specific tariff by the price of the good. However, the choice of this price can generate widely differing results which can also depend on the base year selected. For example, if world prices are low one year, the resulting AVE will be greater than if it was high.

How to define and treat TRQs (tariff reduction quotas) in calculating tariff equivalents is also important since equivalent tariffs may differ depending on whether the import quota is filled. Other problems concern defining import reference prices and seasonal tariffs.

What does the evidence suggest?

Given the above qualifications in calculating and analysing tariff profiles, what can be said about how alternative formulae can meet divergent objectives?

Table 1 provides a summary of this relative success. The tiered approach is not included as the outcome depends on the tiers and formulae adopted. These in turn affect which objectives are or are not met.

The *UR formula* scores highest in flexibility, followed by the blended, banded, and Swiss formulae. In harmonization, the Swiss formula ranks highest, followed by the banded and blended formulae.

Although it causes an average cut in tariffs, the UR formula fails to achieve major tariff peak reductions and is often rejected because it is easy to abuse its flexibility.

The *Swiss formula* achieves a cut, particularly in peaks, but this reduction can be highly uneven in how much different countries must reduce their tariffs. In general, it would make greater average cuts in the bound tariffs of developing than developed countries. It therefore violates the objective of proportionality.

The outcome of a *blended formula* is more difficult to judge. The results depend largely on the parameters, both in defining the width of the tariff groups and the coefficients in the reduction formulae. As with the Swiss formula, cuts are achieved but again, the formula is likely to violate proportionality since tariff peaks are only cut if the UR band is very narrow. This uncertainty was a fundamental cause of the failure to agree on its adoption.

The *banded formula* provides some middle ground between the UR and Swiss formulae in proportionality and may provide greater harmonization than the UR formula. It can effectively reduce peaks, although not to the extent of the Swiss formula. It therefore offers a better balance in achieving the objectives than either the UR or Swiss formulae used alone.

Conclusion

Evidence suggests that the different formulae and approaches tabled to date meet divergent objectives to varying extents. By combining characteristics from several of them, it may be possible to achieve consensus on a tiered approach acceptable to all members.

However, a key lesson is the need to assess the implications of different formulae tabled in the ongoing negotiations at the individual country level.

Table 1: Comparing formulae against objectives

	UR	Swiss	Banded	Blended
Ambition	Yes	Yes	Yes	Not guaranteed
Harmonization	No	Yes	Not guaranteed	Not guaranteed
Flexibility	Yes	No	Limited	Yes
Proportionality	Yes	No	Yes	No

Source: Adapted from Konandreas, P.(2004) Incorporating constrained flexibility in tariff reductions: a dynamic formula. Mimeo of 9 July 2004. Presentation to the FAO Informal expert consultation on tariff-cutting formulae. Geneva, Switzerland 12-13 July 2004.

Food and Agriculture Organization of the United Nations (FAO). □ Viale delle Terme di Caracalla □00100 Rome, Italy.
Telephone (+39) 06 57051. Fax (+39) 06 57054495. Email: TradePolicyBriefs@fao.org □www.fao.org