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**SMOKE AND MIRRORS:  
MAKING SENSE OF THE WTO INDUSTRIAL  
TARIFF NEGOTIATIONS**

**POLICY ISSUES IN INTERNATIONAL TRADE  
AND COMMODITIES  
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**6. Changes in tariffs under alternative scenarios**



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## 6. CHANGES IN TARIFFS UNDER ALTERNATIVE SCENARIOS

Tables 6a and 6b show the tariff changes after the scenarios defined above have been applied. These numbers need to be interpreted with care. The average tariff depends on the number of tariff lines that are bound. This varies from one scenario to another, as each implies substantially enlarged binding coverage. Table 6b shows the changes in the tariff rates with respect to the tariff lines covered by the initial bindings. The average final bound weighted tariffs for developing countries under the Soft and

Simple scenarios are barely less than the initial tariffs if the newly bound tariffs are included. This is not the case for the Hard scenario, where the final weighted bound rate becomes much lower than the initial owing to the high level of tariff cuts.

The level of ambition for tariff cuts declines in going from free trade through the WTO variants to “Simple” mix. For developed countries trade-weighted applied tariffs fall from 2.9 per cent to 0 per cent under free trade, 0.4 per cent under Hard WTO, 0.6 per cent under Soft WTO and finally 1.6 per cent under the “Simple” mix scenario. For developing countries tariffs are revised from

**Table 6a. Bound and applied tariffs on non-agricultural products  
after applying the four scenarios**  
(universe of bound tariff lines varies by scenario)

Scenario	Tariffs		Tariffs	
	Simple averages		Weighted averages	
	Bound	Applied	Bound	Applied
	%	%	%	%
<b>Developed countries</b>				
Initial rate	5.7	4.7	2.8	2.9
Free trade	0.0	0.0	0.0	0.0
Hard	0.7	0.6	0.4	0.4
Soft	1.5	0.8	0.9	0.6
Simple	4.1	2.3	2.0	1.6
<b>Developing countries</b>				
Initial rate	29.0	11.1	12.6	8.1
Free trade	0.0	0.0	0.0	0.0
Hard	5.9	4.1	3.0	2.6
Soft	26.4	9.7	17.2	6.0
Simple	28.7	10.1	18.5	6.2
<b>Least developed countries</b>				
Initial rate	46.3	12.6	11.9	13.6
Free trade	0.0	0.0	0.0	0.0
Hard	46.3	12.6	11.9	13.6
Soft	46.3	12.6	11.9	13.6
Simple	46.3	12.6	11.9	13.6

*Source:* derived from UNCTAD TRAINS database.

8.1 per cent to 0 per cent, 2.6 per cent, 6 per cent and 6.2 per cent respectively. These averages exclude changes in the agriculture and services sectors. In all scenarios least-developed country tariffs do not change.

It is also worth noting that the Soft WTO scenario and “Simple” mix give approximately the same final bound and applied tariff for developing countries (17.2 and 6 for the Soft and 18.5 and 6.2 per cent for “Simple”). Even though different formulas (Swiss for Soft and “linear, harmonizing” for “Simple”) are used the results are similar.

None of the partial approaches have much impact on domestic tariff peaks, defined here as the number of tariff lines in excess of three times the national average. In most cases the number of peaks actually rises following partial liberalization because the average rate has fallen and the most sensitive tariffs (often the highest) are exempted from reduction. This is particularly the case for developing countries under the Hard scenario, where the percentage of peaks exceeding the average rises from the initial 3.5 to 4.9 per cent (see table 7).

**Table 6b. Bound and applied tariffs on non-agricultural products after applying the four scenarios**  
(initial universe of bound tariff lines)

Scenario	Tariffs		Tariffs	
	Simple averages		Weighted averages	
	Bound	Applied	Bound	Applied
	%	%	%	%
<b>Developed countries</b>				
Initial rate	5.7	4.7	2.8	2.9
Free trade	0.0	0.0	0.0	0.0
Hard	0.8	0.6	0.4	0.4
Soft	1.2	0.8	0.6	0.6
Simple	3.7	2.3	1.7	1.6
<b>Developing countries</b>				
Initial rate	29.0	11.1	12.6	8.1
Free trade	0.0	0.0	0.0	0.0
Hard	6.1	4.1	2.6	2.6
Soft	19.4	9.7	8.4	6.0
Simple	22.1	10.1	9.6	6.2
<b>Least developed countries</b>				
Initial rate	46.3	12.6	11.9	13.6
Free trade	0.0	0.0	0.0	0.0
Hard	46.3	12.6	11.9	13.6
Soft	46.3	12.6	11.9	13.6
Simple	46.3	12.6	11.9	13.6

*Source:* derived from UNCTAD TRAINS database.

**Table 7. Bound and applied tariff peaks  
as percentage of tariff lines after liberalization**

Scenario	Bound %	Applied %
<b>Developed countries</b>		
Initial rate	8.2	9.9
Free trade	0.0	0.0
Hard	12.2	10.1
Soft	7.0	11.8
Simple	7.0	10.6
<b>Developing countries</b>		
Initial rate	0.4	3.5
Free trade	0.0	0.0
Hard	1.1	4.9
Soft	0.0	3.4
Simple	0.6	3.7
<b>Least developed countries</b>		
Initial rate	0.4	0.7
Free trade	0.0	0.0
Hard	0.4	0.7
Soft	0.0	0.7
Simple	0.4	0.7

*Source:* derived from UNCTAD TRAINS database.

Tariff escalation is reduced in developed and developing countries following partial liberalization (table 8). All methods, except free trade, leave significant escalation between primary and intermediate goods, but under the Hard and Soft scenarios the average trade-weighted applied tariffs on final goods are lower than on intermediate goods. The Simple scenario has less impact in reducing escalation, as the harmonizing mechanism is a cap at three times the average tariff as opposed to the Swiss formula.

Finally, the apparent discrimination in developed countries on goods from developing countries is diminished. It will be recalled from table 5 that imports into developed countries faced average tariffs of

2.1 per cent and 3.9 per cent if from developed and developing countries respectively. Under the Simple scenario the averages are about equal, at 1.5 and 1.7 per cent respectively, but under the Hard and Soft scenarios the developing country exporters have an advantage, with average tariffs of 0.7 and 0.8 per cent under these two scenarios. By contrast, developed country tariffs on goods from other developed countries are reduced only to 1.2 and 1.1 per cent. It seems that the major sectors driving these results are petroleum and coal products, which are reduced under all three partial scenarios, and textiles and apparel, where tariffs facing developing countries are substantially reduced under the Soft and Hard scenarios.

**Table 8. Tariff escalation: Impact of partial liberalization on trade-weighted applied tariffs**

	Primary	Intermediate	Final
	%	%	%
<b>Developed countries</b>			
Initial rate	0.4	3.0	3.4
Free trade	0.0	0.0	0.0
Hard	0.1	0.5	0.4
Soft	0.1	0.8	0.7
Simple	0.3	1.5	1.9
<b>Developing countries</b>			
Initial rate	6.0	9.1	8.0
Free trade	0.0	0.0	0.0
Hard	2.8	3.3	2.4
Soft	4.9	6.7	5.9
Simple	5.1	6.9	6.2
<b>Least developed countries</b>			
Initial rate	6.9	18.0	12.0
Free trade	0.0	0.0	0.0
Hard	6.9	18.0	12.0
Soft	6.9	18.0	12.0
Simple	6.9	18.0	12.0

*Source:* derived from UNCTAD TRAINS database and UN COMTRADE database. Tariffs are trade-weighted applied tariffs.

## 7. SIMULATING ALTERNATIVE SCENARIOS

Simulations are undertaken using the GTAP 5.3b database, modified by the authors to take greater account of preferences and the percentage or *ad valorem* equivalent of specific rates of duty (mainly affecting the agricultural sector, which is treated as a single sector in this paper). The original database has 78 countries and regions and 65 sectors that are aggregated as shown in the Appendix tables for the present study. GTAP is a general equilibrium model that includes linkages between economies and between sectors within economies. Industries are assumed to

be perfectly competitive and are characterized by constant returns to scale. Imports are distinct from domestically produced goods as are imports from alternative sources. Primary factors (capital, labour and land) are available in fixed amounts and are fully utilized; that is, there is no unemployment and the labour market adjusts through changes in wages (although we vary this assumption later). Labour and capital can move between all sectors, whereas land is mobile only within the agricultural sectors. The database includes tariffs, export subsidies and taxes, and subsidies on output and on inputs such as capital, labour and land. Border measures are specified bilaterally, so