

**UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT**

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**III. THE DEVELOPING COUNTRIES IN THE GATT/WTO SYSTEM**



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Participation in the WTO has been a mixed experience for the developing countries, providing a number of important benefits as well as challenges. On the one hand, it provides for improved and more secure access to third country markets, and through the dispute settlement mechanism, the means to enforce acquired rights. On the other hand, it entails taking on an increasing level of obligations, including market opening and the application of WTO rules. To some extent, therefore, participation in the WTO may be seen as promoting liberalization and governance, but it also limits the policy options of which developing countries have been able to avail themselves in the past. This trend may be expected to accelerate under the WTO work programme, as extended at Doha.

The question of the relationship of the developing countries with the WTO system has been at the centre of a serious debate since the failed WTO Third Ministerial Meeting in Seattle in 1999. While there were many points of disagreement in Seattle, development-related issues were central, and have dominated the debate in the WTO in the last two years, culminating in attempts to make development central to the WTO agenda in the post-Doha period.

To some extent, this emphasis on development is long overdue – it is in effect a hangover from the post-war failure to establish the International Trade Organization (ITO), which had chapters on employment and economic activity, economic development and reconstruction, restrictive business practices and intergovernmental commodity agreements.

Thus, the Uruguay Round, while recognizing the importance of development in its preamble, represents – most markedly through the Single Undertaking – a step towards a single tier system of rights and obligations. Under this view, special and differential (S&D) treatment is not a permanent recognition of the needs of the developing countries, but a set of transitional measures to bring developing countries progressively to the same level of obligations as the developed countries. As such, S&D provisions have in effect triggered a debate on the special problems and barriers that developing countries face as they seek their fuller integration into the world economy.

Since the end of the Uruguay Round, developing countries have expressed considerable concern about the implementation of the Uruguay Round Agreements. For example, towards the end of the Uruguay Round, there were estimates by several international organizations, including GATT, that the Round would yield global welfare gains of between \$212 billion and \$510 billion, while the estimated gains for developing countries ranged between \$86 billion and \$122 billion.<sup>1</sup> Mostly, these gains were largely proportional to each country's own liberalization efforts, and, although many developing countries had extended tariff bindings and lowered bound MFN tariffs, their applied rates were mostly lower than the new, bound levels, so that little tariff liberalization took place in practice. On the other hand, this question assumed great importance in relation to the backloading of liberalization in the textiles and clothing sector, where the main gains have yet to be realized. While the integration of textiles and clothing into the GATT 1994 was proceeding as scheduled and other commitments were being implemented in agriculture and manufactures, some of the expected gains were offset by the use of anti-dumping, special safeguards, the use of specific tariffs, tariff peaks, tariff escalation and tariffs quotas, and so on. Developing countries began to appreciate that the “best endeavour” clauses had no legal value and could not be enforced.

#### **A. Market access: the post-Uruguay Round environment**

Although Doha brought a number of “new” issues onto the WTO agenda (investment, competition, etc.), market access remains one of the most important trading issues between the developing and developed countries. While negotiations on reducing trade barriers and support measures in agriculture were part of the “built-in agenda” established during the Uruguay Round and have been progressing towards a more GATT 1994 compliant environment, market access in industrial products was added to the negotiating agenda in Doha. WTO members acknowledged the importance of enhanced market access for industrial products of interest to developing countries and agreed to start negotiations on the reduction or elimination of tariff peaks, high tariffs and tariff escalation, as well as non-tariff barriers on all industrial products. “Tariff peaks” and “high tariffs” are not defined in the WTO. Following OECD (1997), a practice has developed of referring to tariff peaks as rates that are more than three times the national average. In order to ensure that developing countries and least developed countries benefit the most from these negotiations, it was agreed that appropriate studies and capacity-building measures should be undertaken to help least developed countries to participate effectively in the negotiations.

It is widely agreed among trade economists that a relatively uniform tariff structure is preferable to one exhibiting considerable dispersion. At least two reasons are advanced to justify a flat tariff structure. Firstly, the costs in terms of welfare and economic inefficiency of a tariff regime increase as the degree of dispersion increases. Tariff peaks increase the economic inefficiency stemming from protection, as it hampers the exploitation of increasing returns to scale across different markets, while reducing competition and specialization according to comparative advantage.

Secondly, the case for a uniform tariff structure receives strong support from political economy arguments since uniform tariff rates are more transparent and easier to administer than non-uniform tariffs, and are less likely to be determined by the relative political power of domestic industries. Under these circumstances it goes almost without saying that finding a formula to reduce tariff peaks is highly desirable.<sup>2</sup>

After the conclusion of the Uruguay Round, the developing countries' strongest demands in terms of market access in developed countries were less targeted against overall applied most-favoured-nation (MFN) tariffs on industrial products (which in developed countries have declined below an average of 3 per cent (Francois (2000a)), but, more importantly, for the reduction of distortions affecting trade in agriculture and other specific products of interest for developing countries that are still subject to tariff peaks and tariff escalation in many developed countries.<sup>3</sup> However, given the increasing share of trade between developing countries, gaining access to each other's market represents another factor of interest for developing countries.

The following sections try to identify the issues that are relevant for developing countries in the next round of negotiations on market access in both agricultural and industrial goods. After a brief description of the protection pattern facing developing countries, sectors and products affected by tariff peaks and tariff escalation are identified.

### **1. Tariff peaks in agriculture**

As a result of Uruguay Round commitments, all non-tariff measures in agriculture were to be transformed into tariff equivalents (tariffication) and all existing and newly established tariffs had to be reduced according to specific schedules.<sup>4</sup> Starting in 1995, ordinary tariffs and those resulting from tariffication had to be reduced during a six-year period (10 years for developing countries) by 36 per cent (24 per cent by developing countries), calculated as a simple average across all agricultural tariff lines. Furthermore, the minimum tariff reduction for each tariff line (with some exceptions) was 15 per cent for developed and 10 per cent for developing countries.

Besides market access concessions in the strict sense, the Uruguay Round also resulted in commitments in other key areas concerning agricultural trade: domestic support and export subsidies.<sup>5</sup> Apart from the relatively high applied tariffs, what characterizes protection in agricultural products is the greater importance of technical barriers to trade aris-

ing from the prevalence of different sanitary and phytosanitary standards. In addition, processed food is also affected by labelling and packaging requirements, etc. While tariffs are on a downward trend, even though slowly, the potential of technical barriers to trade to negatively affect developing country exports is increasing.<sup>6</sup>

A way of analysing simultaneously the variations in agricultural protection across different markets and the differential effect on exports is provided in tables 4 and 5. Overall, developed countries apply rates that are lower than those applied by most developing countries. However, in processed agriculture, several developing regions (Latin America, China, Asian newly industrializing countries (NICs), sub-Saharan Africa) are less protected than Western Europe or Japan.

The degree to which applied tariff peaks affect various agricultural products can be assessed by examining the data presented in table 6. The highest tariff dispersion was found in tobacco products, milk concentrates and butter. The highest standard deviation products are also the ones where the highest maximum tariffs are found (between 300 and 350 per cent).<sup>7</sup> In terms of frequency of tariff peaks across agricultural products (expressed as the percentage of lines affected by tariff peaks in the total number of lines) the sectors most affected by domestic tariff peaks are beef (more than 52 per cent) and chocolate (more than 32 per cent). The highest frequency of international tariff peaks is also found in beef, followed by dairy products (milk and butter).

Very high weighted MFN tariffs are applied to butter and tobacco products, two products that also have record maximum MFN tariffs. Other products with high tariffs have a lower weighted average, probably as a result of the large value of trade in items that have zero or very low *ad valorem* rates. In addition, there are many items covered by specific rates for which information is not available on the *ad valorem* or percentage incidence; this would also tend to give a downward bias to the results. Many of these are agricultural raw materials or agricultural products with a low level of processing, while average tariffs on processed agricultural products are systematically higher. Tariff escalation by processing stage in agriculture and manufactures is discussed in section III.

## **2. Tariff peaks in manufactures**

As mentioned in section II, most economists have considered trade to be a powerful engine for development, especially when developing countries are able to shift from resource-based products into more technology-intensive exports. Moreover, as we have seen, economies that have been able to diversify have been able to hold on to or even increase their share in world trade, while commodity-dependent exporters have suffered a decline in their share in trade. For these reasons, market access to high-tech products, as well as more processed goods, becomes an important aspect for developing countries.

**Table 4. Average protection applied by different importing regions (percentage)**

Sectors	Asian NICs	China	South Asia	Western Europe	North America	Transition economies	Sub-Saharan Africa	Oceania	North Africa and Middle East	Latin America	Japan	Rest of the world
Natural resources	2.3	1.9	14.1	0.0	0.2	1.3	4.9	0.0	4.0	4.9	0.0	4.5
Primary agriculture	37.7	15.5	20.6	12.1	8.5	12.6	16.3	1.7	48.7	12.4	30.0	6.3
Processed agriculture	20.2	15.4	29.4	20.9	10.0	19.7	26.9	4.6	57.8	16.5	46.0	12.5
Textiles and apparel	8.0	12.9	27.5	5.1	10.3	13.5	20.5	15.5	13.4	14.7	6.0	14.2
Manufactures	4.8	6.1	23.8	1.9	1.3	8.8	10.9	3.2	8.0	10.7	0.3	9.2
Services	0.0	0.0	0.0	0.0	0.0	1.0	1.8	0.0	0.2	0.7	0.0	0.0

*Source:* UNCTAD elaborations on GTAP 5 and UNCTAD TRAINS databases.

*Note:* Rates include MFN and preferential tariffs, as well as estimates of non-tariff protection (GTAP source). GTAP5 data are referred to 1997. Aggregations from GTAP categories are described in tables 22 and 23.

**Table 5. Average protection faced by exporters of different regions (percentage)**

Sectors	Asian NICs	China	South Asia	Western Europe	North America	Transition economies	Sub-Saharan Africa	Oceania	North Africa and Middle East	Latin America	Japan	Rest of the world
Natural resources	3.9	3.1	3.7	4.0	2.6	2.4	4.0	2.9	3.1	2.3	2.5	3.2
Primary agriculture	14.8	23.8	18.0	15.1	23.4	12.2	16.9	24.1	19.5	21.0	16.0	17.6
Processed agriculture	20.6	24.5	14.0	27.4	25.0	21.1	14.8	35.0	19.4	20.6	27.8	28.6
Textiles and apparel	15.7	17.7	12.7	14.0	14.1	13.7	10.6	9.0	13.8	9.3	14.3	16.8
Manufactures	8.1	8.9	6.7	7.8	6.2	6.9	6.5	7.1	7.8	6.2	10.2	6.8
Services	0.4	0.3	0.3	0.3	0.3	0.4	0.2	0.3	0.3	0.3	0.3	0.3

*Source:* UNCTAD elaborations on GTAP 5 and UNCTAD TRAINS databases.

*Note:* Rates include MFN and preferential tariffs, as well as estimates of non-tariff protection (GTAP source). GTAP5 data are referred to 1997. Aggregations from GTAP categories are described in tables 22 and 23.

**Table 6. MFN tariff peaks in developed markets on agricultural imports from developing countries (1998-1999)**

Product	Standard deviation	MFN weighted average tariff	Maximum MFN tariff	Domestic peaks (percentage)	International peaks (percentage)
Beef	16.16	12.89	41.35	52.11	29.58
Sheep meat	9.02	0.84	21.25	3.45	3.45
Poultry	33.33	8.16	134.30	2.52	2.52
Milk	56.33	22.70	140.00	17.78	17.78
Milk concentrates	105.02	19.59	308.50	22.15	22.15
Butter	100.54	249.97	336.25	32.47	19.48
Barley	41.73	22.12	101.50	11.43	11.43
Maize	13.19	3.99	50.00	4.00	4.00
Wheat	28.93	39.51	81.50	13.11	9.84
Banana	9.07	4.27	27.95	22.73	13.64
Citrus fruits	7.10	4.62	25.65	6.10	8.54
Other tropical fruits	8.57	10.68	33.25	14.86	8.11
Non-tropical fruits	5.60	0.77	17.75	1.45	2.90
Chocolate	40.55	22.72	276.50	34.21	14.33
Tobacco	97.97	44.86	350.00	6.25	6.25
Cigarettes	10.78	2.67	30.00	4.17	4.17
Cigars	6.95	10.14	17.00	0.00	10.00
Other tobacco product	115.49	168.57	350.00	16.46	17.72
Tea	5.96	3.82	17.75	11.11	11.11
Oil seeds	24.84	9.56	171.00	1.02	1.02
Vegetable oils	4.99	1.40	19.95	3.74	1.15

*Source:* UNCTAD elaborations on UNCTAD TRAINS data.

*Note:* Table 6 is based on applied MFN rates.

Industrial products have been on the multilateral agenda from the very beginning of the GATT and therefore the successive rounds of negotiations reduced the overall tariffs much more than in other sectors. After the successive tariff cuts during the various GATT rounds, average MFN tariffs on manufactures are quite low, while applied rates have fallen even lower under unilateral reforms. Despite these advances in market access in industrial products, there remain a number of issues that are still worth investigating. As shown in table 7, beyond these averages, tariff rates remain dispersed as measures by standard deviation and the spread of minimum and maximum rates.

Apart from this dispersion of rates, there are a number of very high rates – “tariff peaks”.<sup>8</sup> When looking at the percentage of domestic peaks, among developed markets North America counts more than Western Europe or Japan, while Latin America has the highest value among developing country groups.<sup>9</sup> Gauging the impact of tariff peaks only by looking at domestic tariff peaks would be misleading since the indicator is biased against countries that have a higher number of duty-free lines, for instance. To obtain a better understanding one should also look at the number of international peaks that compares each tariff line with a 15 per cent benchmark. This indicator, which is better suited for

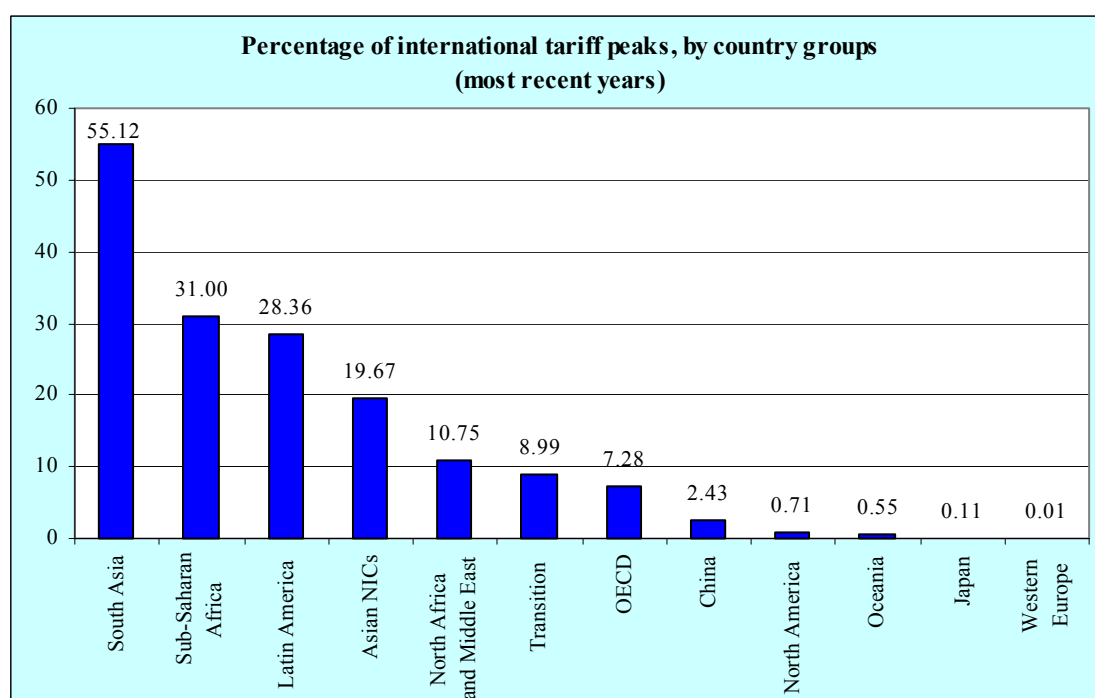
**Table 7. MFN tariff peaks on manufactured exports from developing countries (Most recent years available in WITS/TRAINS)**

Reporter	Standard deviation	Weighted average	Maximum rate	Domestic peaks (percentage)	International peaks (percentage)
Developing	8.42	8.61	225.00	3.05	22.51
Asian NICs	10.20	6.75	200.00	0.95	19.67
China	5.06	3.27	50.00	0.63	2.43
South Asia	12.57	19.44	200.00	0.81	55.12
Western Europe	1.10	0.16	21.20	1.02	0.01
North America	3.35	1.54	110.00	30.15	0.71
Transition	5.54	7.15	90.00	0.08	8.99
Sub-Saharan Africa	11.21	8.62	225.00	3.21	31.00
Oceania	3.45	3.53	28.00	4.28	0.55
North Africa and Middle East	5.26	8.06	55.00	0.46	10.75
Latin America	7.17	11.60	100.00	4.70	28.36
Japan	1.75	0.83	21.90	0.09	0.11
OECD	6.05	2.16	110.00	9.35	7.28

Source: UNCTAD elaborations on UNCTAD TRAINS data.

Notes: See Table 4 for a definition of manufactures. Table 7 is based on applied MFN rates.

cross-country comparisons, shows that international tariff peaks are more frequent in developing than in developed countries (figure 7).<sup>10</sup>

**Figure 7. The incidence of international tariff peaks**

Source: UNCTAD computations on the UNCTAD TRAINS database.

International tariff peaks include applied tariffs that are above 15 per cent.



**Table 8. Quad markets: MFN tariff peaks in manufactures, by technology-based product groups, 2000**

Product group		Canada	EU	Japan	United States
Low technology, textile/fashion cluster	Standard deviation	7.67	3.60	6.61	7.44
	Domestic peaks (as a share of total number of lines)	0.75	0.00	0.08	0.87
	International peaks (as a share of total number of lines)	0.40	0.02	0.09	0.15
	Maximum rate	22.50	17.00	37.50	48.00
Low technology manufactures, n.e.s.	Standard deviation	3.60	2.14	1.85	4.03
	Domestic peaks (as a share of total number of lines)	0.66	0.00	0.00	0.67
	International peaks (as a share of total number of lines)	0.01	0.00	0.00	0.02
	Maximum rate	18.00	12.00	17.00	38.00
Medium technology, automotive products	Standard deviation	3.12	5.85	0.00	5.25
	Domestic peaks (as a share of total number of lines)	n.a	0.00	0.00	0.56
	International peaks (as a share of total number of lines)	n.a	0.16	0.00	0.04
	Maximum rate	13.00	22.00	0.00	25.00
Medium technology, process industries	Standard deviation	5.27	3.41	3.70	4.58
	Domestic peaks (as a share of total number of lines)	0.59	0.00	0.00	0.74
	International peaks (as a share of total number of lines)	0.12	0.00	0.00	0.07
	Maximum rate	20.50	12.00	27.20	23.10
Medium technology, Engineering industries	Standard deviation	3.77	2.03	1.17	2.14
	Domestic peaks (as a share of total number of lines)	0.37	0.00	0.00	0.38
	International peaks (as a share of total number of lines)	0.01	0.00	0.00	0.00
	Maximum rate	25.00	14.00	8.40	14.00
High technology, electronic/electrical products	Standard deviation	2.87	3.37	0.42	2.22
	Domestic peaks (as a share of total number of lines)	0.36	0.00	0.00	0.48
	International peaks (as a share of total number of lines)	0.00	0.00	0.00	0.00
	Maximum rate	9.50	14.00	3.30	15.00
High technology, n.e.s	Standard deviation	2.35	1.75	0.28	2.20
	Domestic peaks (as a share of total number of lines)	0.27	0.00	0.00	0.38
	International peaks (as a share of total number of lines)	0.00	0.00	0.00	0.00
	Maximum rate	11.00	7.70	3.90	16.00

Source: UNCTAD elaborations on UNCTAD TRAINS data.

Table 8 shows the incidence of tariff peaks in Quad markets on developing country exports, by technology-based product categories. An examination of particular manufactured commodities reveals the same pattern and sheds more light on the actual industrial sectors that are most affected by tariff peaks. Thus, the highest tariff dispersion is found, in order, in textiles (Canada, Japan, United States), automotive (European Union), and process industries. In terms of domestic peaks, the most affected industrial sectors were textiles, other manufactures, and process industries in the United States and Canada.

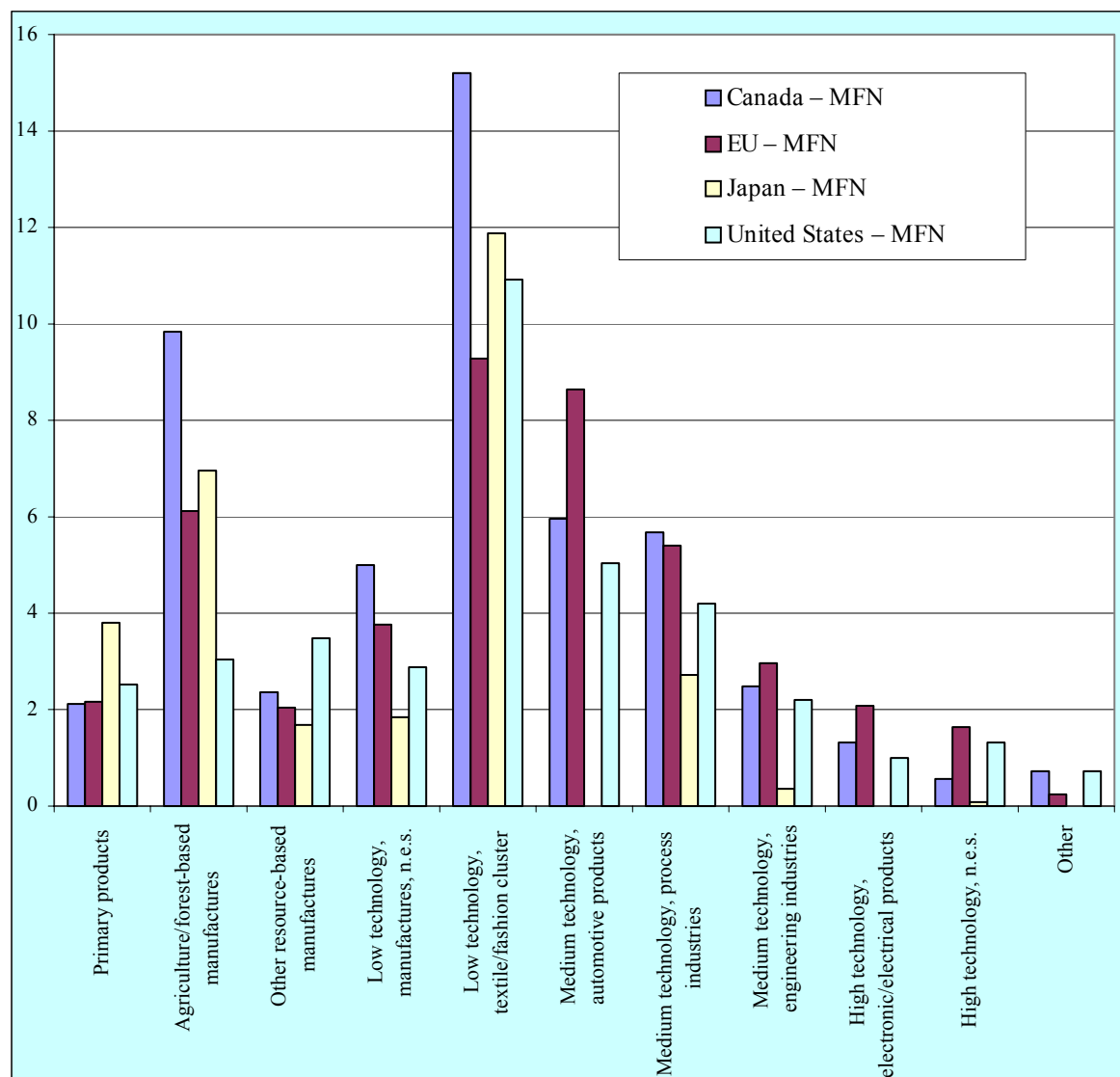
To understand the extent to which the structure of world protection may hamper the possibility for developing countries to follow an export-driven shift from traditional commodities to high-value added products one may look at market access opportunities offered by developed countries to developing countries in different technology-differentiated products. Figure 8 shows that, overall, protection in Quad markets is quite clearly concentrated in typical export categories of interest to low- and middle-income developing countries, such as textiles and agriculture. Therefore, developing countries that are mainly specialized in raw materials and primary agricultural products are faced with higher trade barriers when trying to move into the subsequent production stages (low technology sectors such as processed agriculture and textiles, or medium technologies such as automotive). In contrast, more advanced developing countries seem to find fewer obstacles to developing an export capacity in medium- and high-technology sectors such as electronic products. Moreover, considerable obstacles to an export-led sectoral transition from raw commodities to high-value-added products might come from the high protection levels applied by developing countries themselves. Generally, protection in developing countries (measured either as average and maximum rates) is higher than in developed markets, especially in medium-/high-technology manufactures.

In summary, the data show that although average tariff rates in developed countries have been reduced to low levels, the importance of tariff peaks on products of interest to developing countries remains a matter of some concern. From this perspective, a precondition for the success of multilateral negotiations to increase market access is to reduce trade barriers in a mutually advantageous manner. For most developing countries, this means reducing tariff peaks on products that are of major export interest to them.

### **3. Tariff escalation**

Another area that did not follow the low post-UR average tariffs is related to the structure of tariffs that still exhibits some degree of tariff escalation. The practice of tariff escalation biases exports towards unprocessed resource-based commodities, characterized by low value-added. This may cause difficulties to commodity-dependent developing countries in their attempt to diversify their export base. Although these claims have been well evidenced and long voiced, the extent of tariff escalation remains significant.

**Figure 8. Weighted MFN tariffs applied by Quad countries on technology-differentiated exports from developing countries, 2000**



Source: UNCTAD computations on UN COMTRADE data.

For a definition of the technology-differentiated product groups, see Lall (2000). Tariffs in agriculture include only applied *ad valorem* tariffs. For lines affected by TRQs, both in- and out-quota tariffs have been weighted by the actual trade flows.

An issue to be resolved in order to identify the extent to which tariff escalation is present concerns the identification of different production chains and how different products can be classified as raw, semi-finished or finished. In the subsequent analysis, products have been classified in the above-mentioned categories using the Standard International Trade Classification. Although there are inherent difficulties in assigning products according to their SITC descriptions, a number of important commodities have been categorized according to primary, intermediate and processed stages in production chains.

**Table 9. Tariff escalation in Quad countries, by major product group  
(weighted average MFN applied tariffs in percentage, most recent years  
available in TRAINS)**

MFN tariff escalation Product group	Canada			Japan			United States			European Union		
	R	S	F	R	S	F	R	S	F	R	S	F
Meat products	0.11	10.25	18.83	0.08	12.92	10.66	0.60	6.15	3.38	1.53	5.16	12.95
Dairy and egg products	1.94	..	9.00	18.77	..	17.39	2.82	..	11.56	6.27	..	7.70
Fish products	0.01	1.53	0.01	3.91	5.10	11.58	0.15	1.88	1.96	9.34	14.64	13.31
Sugar products	0.00	6.25	5.76	25.50	1.00	15.40	..	5.82	7.48	17.30	..	13.07
Cereal products	2.75	3.85	4.43	6.37	12.86	20.79	0.87	4.32	3.12	1.35	11.65	11.65
Vegetable oils	0.00	3.00	..	0.14	4.20	..	35.42	1.83	..	0.00	1.10	..
Coffee, tea and spices	0.08	0.00	5.14	1.63	10.60	20.02	0.37	0.07	5.35	0.11	8.63	8.00
Fruits and vegetables	0.89	4.56	3.16	7.07	8.44	17.92	2.94	6.07	3.95	8.12	8.02	19.15
Tobacco	7.79	..	8.17	0.00	..	0.07	68.26	..	350.00	..	..	24.81
Other food	..	5.70	7.90	..	13.43	16.51	..	13.00	6.98	..	8.58	10.47
Animal food	0.01	3.17	0.26	0.00	0.20	0.00	0.61	2.27	0.00	0.71	4.55	0.00
Hides and skins	0.00	0.00	13.05	0.00	0.64	19.47	0.00	0.25	12.49	0.00	0.00	8.54
Chemicals	2.28	..	3.46	2.55	..	1.67	3.84	..	2.10	2.92	..	3.09
Fertilizers and minerals	0.18	..	1.63	0.00	0.00	0.50	0.05	0.00	2.69	0.04	0.00	1.64
Petroleum products	0.00	..	3.17	..	..	1.08	..	..	0.39	0.00	..	0.91
Rubber products	0.00	0.00	5.53	0.00	0.00	0.09	0.00	0.00	2.98	0.00	0.13	3.61
Textiles	0.00	2.79	14.25	0.00	2.54	10.45	0.01	3.84	11.47	0.00	2.81	10.58
Metal products	0.00	..	2.81	0.00	..	0.87	0.00	..	2.19	0.00	..	2.88
Wood and cork	0.49	0.17	3.21	0.00	1.02	2.38	0.36	0.09	0.83	0.00	0.27	2.26
Coal	0.01	0.82	..	0.04	0.00	..	0.00	0.00	..	0.00	1.29	..
Gas	1.73	6.50	..	0.00	..	..	0.00	0.00	..	0.22	0.00	..

*Source:* UNCTAD elaborations on UNCTAD TRAINS data.

*Note:* R = raw materials; S = semi-finished products; F = finished products.

Table 9 provides a snapshot of the post-Uruguay Round tariff levels by product and by processing stage in the Quad markets. Several points emerge. First, with few exceptions, post-Uruguay Round tariffs escalate not only between raw and semi-finished but also, where appropriate, between semi-finished and finished. On average, the escalation in Canada and Japan and the EU is higher between raw and finished, while in the United States the highest average escalation is found between semi-finished and finished goods. From table 9 it is also evident that tariffs tend to escalate not only in agriculture but also in manufacturing. The average post-Uruguay Round tariff for all industrial products ranges from 0.8 per cent on raw materials to 4.8 per cent on the finished product.

A more detailed analysis of tariff escalation, distinguishing between markets of developing and developed countries, is provided in table 10. It shows that tariff escalation is not just a feature of developed markets but is present in fact (sometimes even more prominently) in developing countries as well.

Table 10. Tariff escalation in selected regional groupings (weighted average MFN tariffs, most recent years)

Product group	Asian NICs			South Asia			North America			Sub-Saharan Africa			Oceania			North Africa and Middle East			Latin America		
	R	S	F	R	S	F	R	S	F	R	S	F	R	S	F	R	S	F	R	S	F
Beverages	10.7	129.7	199.6	40.0	230.0	100.0	13.0	0.0	..	25.8	25.0	30.7	2.5	..	4.4	26.0	..	1350.0	24.2	25.2	25.9
Cereals	1.9	7.9	9.1	0.0	34.0	40.0	0.8	8.4	9.3	11.8	20.2	24.8	0.0	2.1	4.6	6.2	20.1	20.3	13.3	15.7	17.1
Chemicals	4.7	..	7.3	34.2	..	34.7	4.4	..	3.0	4.0	..	10.1	1.2	..	3.0	11.0	..	15.5	9.6	..	12.3
Dairy	10.7	11.6	12.6	35.0	0.0	35.0	16.4	13.4	11.8	16.1	24.5	24.8	0.0	0.0	0.0	12.0	13.8	14.8	15.7	29.8	37.9
Animal feed	4.7	3.6	1.7	40.0	40.0	35.0	0.8	2.3	0.0	5.0	5.5	4.4	0.0	0.0	0.0	14.9	5.0	5.0	11.0	11.0	10.1
Fertilizers	2.9	4.0	9.8	25.9	35.0	38.9	0.3	0.0	4.9	4.6	12.5	14.1	0.9	..	4.1	13.7	..	22.0	8.3	0.0	15.4
Fish products	6.4	12.6	12.0	15.0	15.0	15.0	0.7	3.3	1.7	21.6	21.2	22.9	0.0	0.1	0.0	7.7	26.0	30.0	18.2	19.5	15.9
Fruits and vegetable products	14.1	10.1	11.7	22.5	38.2	40.0	4.0	8.4	6.3	10.6	12.7	30.2	0.5	2.8	4.8	17.5	17.5	20.3	11.0	14.7	19.3
Leather products	0.5	4.5	11.3	0.0	14.0	32.9	0.0	0.6	9.7	2.8	5.0	21.1	0.0	0.0	7.6	5.0	5.0	27.1	5.4	13.0	22.8
Metal products	1.5	..	8.8	18.7	..	33.1	0.0	..	2.6	2.5	..	12.2	0.0	..	4.1	5.4	..	18.8	6.4	..	16.0
Oil seeds	6.8	2.0	..	40.0	..	..	29.6	1.7	..	15.6	25.0	..	0.8	0.0	..	8.9	10.0	..	4.5	14.2	..
Petroleum products	4.2	..	5.1	20.0	..	37.5	..	..	1.7	2.5	..	6.7	0.0	..	0.4	5.0	..	13.1	1.5	..	11.1
Rubber products	2.7	10.4	14.9	30.0	40.0	40.0	0.0	0.0	2.7	4.0	4.9	17.3	0.0	5.0	7.4	8.9	9.6	18.7	7.4	12.2	17.0
Sugar products	12.2	12.1	5.4	40.0	23.3	36.7	..	5.8	6.4	22.7	16.7	24.8	0.0	2.5	4.8	12.0	7.3	19.4	20.0	19.8	19.5
Textiles and clothing	3.0	4.2	14.6	24.0	32.6	39.3	0.0	2.2	9.7	2.2	8.4	23.0	0.5	0.8	13.1	5.0	13.7	31.1	10.4	13.4	22.5
Tobacco	154.1	..	204.9	40.0	..	40.0	58.3	..	350.0	5.6	..	33.6	0.0	..	0.0	..	..	63.3	24.3	..	32.0
Wood products	4.8	0.3	11.4	20.0	16.8	37.1	0.1	0.3	1.5	3.6	6.1	16.7	0.0	3.3	4.3	6.4	11.8	21.3	9.4	11.4	16.1

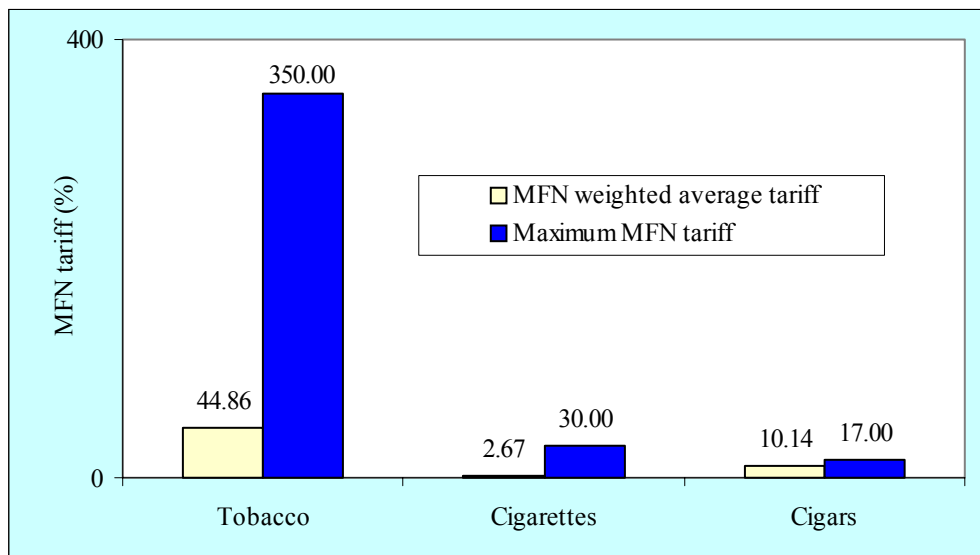
Source: UNCTAD elaborations on UNCTAD TRAINS data.

Note: R = raw materials; S = semi-finished products; F = finished products.

As noted earlier in the case of Quad countries, in most cases escalation in developing countries is greatest between raw and finished products. However, as in the case of the United States, in Asian NICs, there is de-escalation between raw and semi-finished products, and the highest escalation is found between semi-finished and finished products. Moreover, if one goes beyond these rather aggregate numbers, a product-by-product examination of the absolute difference between tariffs at different stages of processing reveals that not only is escalation present but that in some cases de-escalation also has occurred both in terms of weighted averages and maximum tariffs applied (figures 9 and 10).<sup>11</sup>

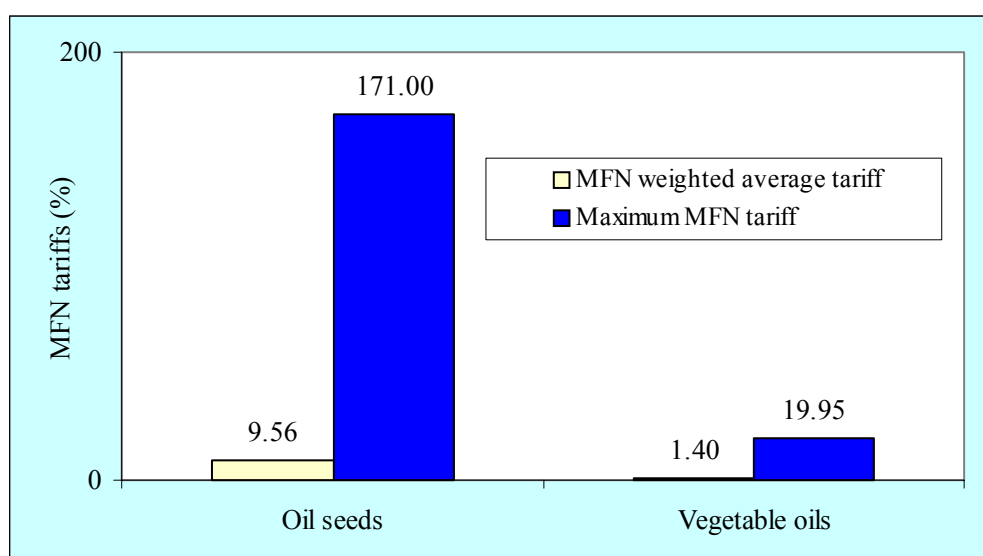
In summary, the evidence shows that tariff escalation is a quite widespread phenomenon that affects both agricultural and industrial products, and is present in markets of both developed and developing countries.

**Figure 9. Tariff de-escalation in tobacco products  
(applied MFN rates)**



Source: UNCTAD computations on the UNCTAD TRAINS database.

**Figure 10. Tariff de-escalation in oil seeds and vegetable oils  
(applied MFN rates)**



Source: UNCTAD computations on the UNCTAD TRAINS database.

**Notes:**

- <sup>1</sup> For a review of these estimates, see Safadi and Laird (1996).
- <sup>2</sup> Hatta and Fukushima (1979) and Lloyd (1974), for instance, independently show that either a reduction in tariff peaks to the next lower level (“concertina” method) or an equi-proportionate reduction for all tariffs raises global welfare. However, once tariff peaks are in place their removal may be problematic. For a small country case, however, Lopez and Panagariya (1992) found that the Hatta-Lloyd theorem does not necessarily hold since piecemeal trade liberalization such as the one adopted in the concertina method may lower welfare in the presence of imported intermediate goods. This finding is particularly important for developing countries the bulk of whose imports are intermediate and capital goods. Therefore, developing countries are particularly interested in finding optimal ways of reducing or eliminating tariff peaks and tariff escalation.
- <sup>3</sup> Note, however, that even in terms of average bound tariffs on industrial products, there are relatively large differences among developed countries, ranging from 1.8 per cent for Switzerland to Australia with 14.2 per cent.
- <sup>4</sup> Exceptions from tariffication were certain “designated products” that were deemed to be very sensitive for non-trade concerns. For these products non-tariff barriers were allowed until the end of the implementation period. Examples of such products are rice in Japan, rice, oranges and beef in the Republic of Korea, etc.
- <sup>5</sup> These are not analysed in detail here, but account is taken of them in the simulations carried out in section V, and in drawing some tentative consequential policy conclusions.
- <sup>6</sup> For an analysis of the potential protectionist use of food standards, see, for instance, Henson et al. (1999).
- <sup>7</sup> In certain cases, very high tariffs on tobacco products are justified – quite apart from the fact that they raise tariff revenues – by national health reasons.
- <sup>8</sup> In tables 8-10, the average number of domestic peaks measures the number of rates at tariff line level that are three times higher than the national average as a percentage of the total number of tariff lines. International tariff peaks shows the number of tariff lines with tariffs higher than 15 per cent.
- <sup>9</sup> In the case of Latin America, for instance, many countries in the region maintain a flat bound tariff rate on industrial products (WTO, 2001) but applied rates vary significantly. Therefore, for these individual countries the average number of domestic peaks is equal to zero.
- <sup>10</sup> Again, this indicator may also be subject to misinterpretation. For example, a country that applies a flat rate of 16 per cent, for instance, will show up as having a 100 per cent incidence of international tariff peaks, while in reality its tariff structure is perfectly uniform.
- <sup>11</sup> It should be noted that even though tariffs on cigarettes are on average much lower than tariffs on raw tobacco (figure 9), the market share of developing countries in cigarettes remains marginal, compared with the share of raw tobacco.



