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## Multilateral approaches to market access negotiations

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**World Trade Organization**  
Trade Policy Review Division

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<p><b>Multilateral Approaches to Market Access Negotiations</b></p>
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Sam Laird: *WTO*  
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## MULTILATERAL APPROACHES TO MARKET ACCESS NEGOTIATIONS

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### ABSTRACT

Market access negotiations in merchandise trade at the multilateral level cover tariffs and non-tariff measures (NTMs). While tariffs have been substantially reduced in earlier rounds, they remain high in certain areas and further reductions involve a number of complex technical issues. Some formulae approaches, not used in the Uruguay Round, seem more favourable to developing countries. Elimination or phased reductions of NTMs in agriculture is one of the main areas for further market access negotiations in trade in goods. However, most NTMs are now the subject to negotiations on the rules under which they may be applied, e.g. in the areas of contingency protection and technical barriers to trade.

Key words: WTO, market access, trade negotiations, tariffs, non-tariff measures

JEL Category: F13

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# MULTILATERAL APPROACHES TO MARKET ACCESS NEGOTIATIONS

Sam Laird, World Trade Organization

## I. INTRODUCTION

1. This paper is concerned with multilateral negotiating techniques in the areas of most favoured nation (MFN) tariffs and certain non-tariff measures (NTMs). It does not cover market access in services, nor does it contain any detailed discussion of a number of NTMs, such as government procurement, safeguards, trade remedy laws and TRIMs (being covered by other authors at the conference). Export restrictions are not discussed.

2. Inevitably, it is necessary to make some reference to the procedures used in earlier rounds and, in particular, the results of the Uruguay Round, since this provides the base for market access negotiations in a future round. However, the objective is not to review the results of the Uruguay Round; those who wish to re-examine the results of the round are directed to GATT (1993), GATT (1994), Martin and Winters (1995) and articles therein, OECD (1993), Safadi and Laird (1996), among others.

## II. TARIFFS

### A. ISSUES

#### 1. MFN, bound and applied rates, credit, averages, peaks, dispersion, escalation, preferences, concessionary regimes

3. Bindings on MFN rates. The main ideas in GATT tariff negotiations are to reduce and “bind” (or fix) most-favoured nation (MFN) tariff rates, creating enhanced and more secure access to the markets of members. Whatever is negotiated between particular trading partners is a “concession” available to all other WTO members (previously GATT contracting parties) by application of the MFN principle. WTO members agree to bind their MFN tariff rates at negotiated levels, meaning that such rates may not be increased except through the re-negotiation of bindings under Article XXVIII of the GATT. Such re-negotiation takes place with the other member with which the concession was first negotiated as well as any other member with a “principal supplying interest”.<sup>1</sup>

4. Many developing countries have applied MFN rates which are substantially below their bound levels (“ceiling” bindings) as a result of unilateral or autonomous rate reductions in the last 10-20 years under structural adjustment programmes supported by the World Bank and the IMF. In the Uruguay Round, they sought “credit” for these reductions, but there is little evidence that they received tariff cuts on exports of interest to them for such reductions. The higher bound levels persist because individually their markets are often small and their offer to bind their applied rates is a reciprocal concession of little interest to developed members, a weakness of the approach under which bilateral negotiations initially take place on an item-by-item basis to be later applied on an MFN-basis. The absence of such bindings leaves a degree of uncertainty about trade regimes which may be discouraging to foreign investment and, hence, technology transfer and development.

5. Increasing the extent of bindings was one of the main objectives of the Uruguay Round, and the major result was the very substantial increase in bindings by developing countries (Table 1). While there was no specific target for industrial goods, it was agreed that all rates in agriculture would

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<sup>1</sup> The Uruguay Round created such additional rights to the country for which exports of the products to the market represented the highest proportion of its total exports, even though it might not be the largest supplier to the country raising the duty.

be bound. Overall, the percentage of developed countries' imports of industrial goods under bound rates rose from 94 per cent to 99 per cent. However, developing economies increased their share of bound rates from 14 to 59 per cent, while the transition economies increased their binding ratios from 74 to 96 per cent. In Latin America most countries bound close to 100 per cent of their tariff rates at ceiling levels. Asia as a region has the lowest level of bindings: only 67 per cent of industrial tariff rates are now bound.

6. Tariff reductions. Over the eight GATT negotiating rounds since 1949, the industrial countries' import-weighted average tariffs on industrial products were reduced from some 40 per cent to 3.9 per cent, and tariff reductions were also a key objective of the Uruguay Round, where the goal was the reduction of average tariff levels by at least as much as in the Tokyo Round (i.e., one third) for industrial products (covering manufactures, tropical products and natural resource-based products, but not trade in petroleum products). In the end, the average trade-weighted tariff rate on all industrial products from all sources being reduced by 38 per cent, while the average reduction on imports from developing countries was 34 per cent (GATT, 1994). Overall, at the end of the implementation period in 2005, the industrial countries' import-weighted average bound tariff on industrial products against imports from developing countries will be 4.5 per cent, compared with 3.9 per cent on imports from all sources.

7. In a number of industrial sectors of export interest to developing countries, tariff reductions by the industrial countries exceeded the overall target. For example, duties on imports of metal products from developing countries are to be cut by an average of 67 per cent (cf. 59 per cent reduction on imports from all sources), while the rates on wood, pulp, paper and furniture products imported from developing countries are being cut by 63 per cent (cf. 69 per cent on import from all sources). For tropical and resource-based products, tariff reductions by developed countries on imports from all sources also exceed the overall target: on a trade-weighted average, the cuts will be 45 per cent and 34 per cent, respectively, while the corresponding cuts affecting developing countries' exports to developed countries will be higher, amounting to 57 per cent and 35 per cent, respectively. The lowering of tariff rates is taking place in five equal annual reductions which began in 1995.

8. In agriculture, NTMs<sup>2</sup> were to be eliminated or converted into their tariff equivalents, often amounting to hundreds of percent in the first instance. Subsequent to this "tariffication", developed country tariffs were to be reduced by an average of 36 per cent over 6 years from their 1986-88 base, and 24 per cent over ten years in the case of developing countries (subject to the condition that each tariff line will be affected by a 15 per cent minimum reduction). Rice and other staple foods were exempt from the general reduction guidelines, but are subject to the general minimum access guarantee, equivalent to 4 per cent of domestic consumption in the 1986-88 base period, increasing by 0.8 per cent annually to reach 8 per cent at the end of the implementation period. The minimum access amounts are subject to reduced tariffs, while amounts above that level are subject to the higher tariffed rates which are to be progressively reduced during the implementation period. Special safeguards may be triggered by volume increases or price reductions. Average duties affecting trade in agricultural tropical products, of key interest to developing countries, are subject to a reduction of 43 per cent, with duties on spices, flowers and plants being reduced by 52 per cent.

9. Abreu (1995) estimates that developing countries cut their trade-weighted average bound MFN rates against imports from industrial countries from 14.9 to 10.7 per cent. This is made up mainly of cuts by Latin American countries, from 22.1 to 18.2 per cent, Asian countries, from 12.4 to 8.4 per cent, and developing Europe, from 26.4 to 15.5 per cent. African countries made no measurable cuts, retaining average bound rates at 23 per cent. Abreu also shows that developing countries cut their trade-weighted average bound MFN rates on imports from other developing countries from 10.1 to 7.1 per cent.

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<sup>2</sup> NTMs that were specifically covered include quantitative import restrictions, variable import levies, minimum import prices, discretionary licensing, non-tariff measures maintained through state-trading enterprises and VERs.

10. An overview of the sectoral breakdown of applied and bound tariffs in developed and developing countries is shown in Table 2.

11. Base period and implementation of results. In the Uruguay Round, there was some discussion of the base period from which tariff reductions would be implemented as well as the period over which implementation was to take place. The discussion about the base period were most intense in the case of agriculture, since periods in which world prices were relatively high would imply low tariffed rates and allow little scope for increasing protection when world prices fell. There was, therefore, interest in choosing periods when protection (and other forms of support) were relatively high, so that reduction commitments would be lessened, as happened. In the end the base rates chosen were existing bound levels, where they existed, or for unbound products, the applied rates in 1986. Given the success of the Uruguay Round in extending binding coverage, including in agriculture, it would seem that the base period for a new round could be fixed as the final year for implementation of the Uruguay Round results.

12. With certain variations, Uruguay Round rate cuts are being implemented from 1995 in equal annual stages over 5 years for manufactures and six years for agriculture, except that developing countries have 10 years to implement the results in agriculture. (In textiles and clothing the progressive opening of quotas has been back-loaded so that the more profound liberalization will only occur toward the end of the implementation period). However, at the Mid-term Review of the round in Montreal in December 1988, it was decided to advance to mid-1989 at the latest the implementation of agreed tariff cuts on a number of tropical products of particular interest to developing countries.

13. Averaging techniques. In past rounds, targets for the reduction of tariffs on industrial products were set in terms of import-weighted averages. This was to give greater weight to the more important products in trade, although petroleum products, where tariffs are mainly set for revenue or excise purposes, were excluded. However, in the Uruguay Round negotiations on agriculture, simple averages were used to determine the depth of cut, since, for many products, there was no trade, whether for lack of demand or because of the restrictiveness of tariffs and other measures on imports. Since imports are adversely affected by duties and NTMs (acutely so in agriculture, textiles and clothing), there is a downward bias in import-weighted averages. Moreover, in order to achieve an overall reduction of a given amount, there would no need to cut rates in sectors where trade is prohibited by the height of protection since such items would have no weight in the calculation. This was partly overcome in the Uruguay Round by requiring a minimum cut of 15 per cent in each tariff line (10 per cent for developing countries) within the context of the overall target.

14. Another objective of the Uruguay Round was to reduce tariff peaks and tariff escalation. Despite eight rounds of tariff negotiations, there are still substantial tariff peaks in some sectors, and it has been estimated that a 50 per cent reduction in remaining industrial tariffs would yield approximately US\$270 billion in global income (welfare) gains per year (Francois and McDonald, 1996). It has been pointed out that the abandonment of tariff-cutting formulae (see later) has shifted the focus of tariff-cutting to less sensitive areas, and, as a consequence, there is a persistence of tariff peaks on sensitive products (Blackhurst, Enders and Francois, 1995). This is most evident in the cases of textiles and clothing, leather, rubber footwear and travel goods, major exports of the developing countries, where the Uruguay Round rate cuts of 21 and 19 per cent, respectively, were substantially less than the average (GATT, 1994). Lesser commitments were also made for transport equipment where the reductions will average 18 per cent. Together, trade in these three product groups accounts for 31 per cent of total developed countries' imports from developing countries by value in 1993. However, as discussed later, these cuts will be supplemented by the removal of non-tariff barriers (NTBs) resulting from the phase-out of the Multi-fibre Agreement (MFA), and the elimination of VERs, especially on footwear, electronics and travel goods.

15. Another objective of the Uruguay Round was to reduce tariff escalation, by which tariffs increase or escalate at later stages of processing. This structuring of tariffs, which is common in

developing and developed countries, provides greater effective protection or assistance to processing than is evident from nominal rates alone. In developing countries, tariff escalation is associated with the import-substitution industrialization (ISI) strategy, being designed to foster the manufacture or further processing of natural resource-based products previously exported in primary form. Tariff escalation by developed countries works against these efforts to increase domestic processing in developing countries.

16. GATT (1994) provides information on percentage and absolute changes in tariff escalation in the Uruguay Round.<sup>3</sup> The results, set out in Table 3, reveal that the percentage reductions were generally greater on the earlier stages of processing, except that the cuts were greater for finished tropical products and semi-manufactured natural resource-based products than in the preceding stages of processing. The general implication of higher percentage reductions on material or semi-processed inputs is that effective protection is increased on the next stage of processing, a strategy that has been used explicitly by some developed countries to increase effective protection while meeting overall tariff reductions.<sup>4</sup> Thus, escalation remains of importance and is an explicit part of the strategy of a number of countries. Apart from the fact that the externalities associated with this strategy are dubious and associated with negative effects on the rural sector, overall, tariff escalation by both groups of countries, is self-defeating and produces a trade bias against processed goods due to the higher import duties imposed on these items.

17. An overview of the tariff regimes of Canada, the European Communities, Japan and the United States is given in Table 4. This illustrates some of the issues discussed in the preceding paragraphs.

18. In some countries there is a proliferation of different tariff rates (a number of countries have hundreds of distinct rates of duty). This can arise from the adoption of several approaches to tariff policy, including tariff escalation. Other approaches involve setting higher rates on consumer goods and luxury goods, on the same basis as for indirect taxes, as a revenue collecting device or to divert resources to what is perceived as more socially valued production. Under this strategy, lower rates would be set on intermediate goods and the lowest rates on capital goods and raw materials. However, experience at the WTO shows that, in practice, this can lead to an inversion of rates at different stages of processing (e.g., de-escalation between intermediate and final stages). While zero rates are usually used in an escalation strategy, they are may be rejected in favour of minimum rates of, say, five per cent, in a strategy to increase tariff revenues. This also has the advantage of compressing dispersion and reducing the associated misallocation of resources.

19. Another strategy which leads to the proliferation of tariff rates is the notion of made-to-measure protection, providing industries “just the amount of protection they need to compete against imports”. Such an approach takes no account of the social costs of the protection, nor the social benefits, if any, of individual industries. There is no consideration for the efficiency of the industries and the protection afforded in this way becomes reflected into the value of the capital and land involved in production, providing windfall gains for the owners. This approach results from the exercise of political power, e.g., by entrepreneurs in certain regions of a country, as described in a series of studies of the political economy of protection commissioned by the World Bank in the early 1980s.

20. An alternative strategy, where tariffs are required for revenue purposes, is the uniform tariff, such as that of Chile. In many developing countries, the domestic taxation system is poorly developed and trade taxes remain an important source of revenue. While uniform taxes cause less distortion in the allocation of resources than non-uniform rates (still being biased against non-tradeable goods and

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<sup>3</sup> The definition is based on the work of a Technical Group of Experts on the GATT tariff study which divided traded products into three stages of processing (raw materials, semi-manufactures and finished products),

<sup>4</sup> Yeats (1994) argues that the absolute change in tariffs is more relevant for an analysis of tariff escalation. By this measures, tariff escalation has been reduced in all product categories, eliminated in the first stage of processing of natural resource-based products and reversed in the final stage of processing of tropical products

services), they continue to impart an anti-import bias: they reduce the demand for imports and hence foreign currency, causing an appreciation of the domestic currency and increasing the foreign price of national exports. However, in practice, the proliferation of FTAs and tariff preferences mean that uniform applied rates are practically non-existent.

21. Irrespective of tariff policy, there is little sense in having a large range of tariff rates and much to be said for simplification of the tariff regime. Even if escalation is maintained for ISI reasons or varying rates could increase revenues, a few broad bands might meet the objective, while increasing transparency and facilitating an appreciation of the transfers associated with each strategy. It would also seem appropriate to consider reducing the complexity of the tariff itself, perhaps cutting national classifications back to the basic six digits of the HS; most countries use up to ten digits, but others use as many as 14 digits, inviting the proliferation of “tailor-made” rates.<sup>5</sup>

22. Tariff preferences. In any tariff negotiation, there may be opposition by some trading partners to any reduction in MFN rates. Thus, while a reduction of MFN tariff rates should increase imports from trading partners which benefit from such treatment, there may also be some diversion of trade away from suppliers which suffer an erosion of preference margins, whether in an FTA or unilaterally granted preferences such as GSP. By and large, the overall dynamism imparted to the world economy through the implementation of the Uruguay Round results should benefit all countries, estimated to increase global welfare by as much as \$500 billion (Francois, McDonald and Nordstrom, 1994). However, under partial equilibrium, comparative static analysis, FTA members, ACP countries and least-developed countries, in that order, may be computed to suffer small, net negative effects (Safadi and Laird, 1996). On the other hand, developing countries may be expected to gain from the erosion in intra-industrial country preferences, e.g. intra-EU trade, EU-EFTA, Canada-US trade, etc.

23. It is important to note that preferential treatment under unilaterally granted schemes, such as GSP, may be inferior on average to MFN treatment. For example, Laird and Yeats (1987) show that, on the basis of import-weighted averages average GSP rates in some sectors can be higher than MFN rates because MFN sources do not supply products such as textiles and clothing which have very high MFN and GSP rates, while developing countries are minor suppliers of other products for which MFN rates are relatively low.

24. Concessional entry. Apart from tariff preferences for certain trading partners, applied tariff rates may also be reduced for certain products on a unilateral basis by importers. For example, there are provisions in some countries for duty-free entry of imports for which there is no substitute in domestic production, for imports for government ministries, agencies or state-owned enterprises, or for capital goods or materials for use in certain types of activity, in certain regions, or in export-processing zones. The latter may be linked to offshore- or outward-processing operations (international sub-contracting) by enterprises in industrial countries, including the application of tariffs only on value-added abroad.

25. Concessional entry may also be linked to local content or export-balancing requirements and as such may be prohibited under the WTO Agreement on Trade-related Investment Measures (TRIMs).

26. As in the case of trade covered by tariff preferences, trade under various concessional entry regimes can be adversely affected by MFN tariff cuts.

## **2. Tariff types (*Ad valorem*, specific, mixed, combined, tariff quotas, seasonal rates, but excluding safeguards, AD/CV duties, surcharges)**

27. The simplest and most frequently used tariff type is the *ad valorem* tariff, under which the rate is expressed as a percentage of the value of the goods. Tariff surcharges, e.g., for balance of

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<sup>5</sup> In the Uruguay Round, Canada proposed to minimize the number of items at the eight-digit level and to aim for the eventual elimination of dutiable items beyond the eight-digit level.



payments reasons, are usually set in *ad valorem* terms. However, there are a number of other types of tariff, which are more complex and much less transparent.

28. In addition to *ad valorem* tariffs, two other types of tariff have been very common in the past, mainly for agricultural products and chemicals. These are specific duties and variable levies. Specific duties are fixed as a value for a physical unit, e.g., US\$6 per pound or SFR10.50 per dozen. Specific duties are still allowed, and are very common in agriculture in all countries. However, Switzerland uses specific duties for all products. Variable levies are duties typically fixed to bring the price of an imported commodity up to a domestic support price for the commodity. Under the Uruguay Round agreement, variable levies in agriculture are prohibited but a number of countries interpret this as effective only where the application of the variable levy would lead to the charge exceeding the binding commitment. To avoid the use of variable levies but achieve a similar effect, some countries split tariff lines for the same product, charging higher rates of duty for lower-priced imports.

29. Specific duties and variable levies lack transparency since it is difficult to know their percentage or *ad valorem* equivalent. The *ad valorem* equivalent of specific rates can be computed directly from the import price, but this is usually only known to customs officers and the enterprises concerned. Alternatively, the *ad valorem* equivalent may be approximated by the unit value if quantity and values data are published at a sufficiently detailed level, or by taking the ratio of the value of duty collected to the value of imports, not usually published. To compute the *ad valorem* equivalent for variable levies, it is necessary to know the import and domestic support prices. The *ad valorem* equivalent of both specific duties and variable levies varies inversely with international prices, and it may be necessary to compute some average across a representative period.

30. Since their *ad valorem* incidence is inversely related to the price of the imported product, specific rates and variable levies tend to fall more heavily on developing countries and low-cost suppliers.

31. Other, less frequently used types of duty are mixed rates, alternative rates and seasonal rates. Mixed (or “composite”) rates can be a combination of specific and *ad valorem* rates, for example, US\$6.00 a pound plus 15 per cent. An alternative rate might be 15 per cent or, if higher, US\$3.00 a pound. Seasonal rates are rates which are increased or decreased at certain times of the year, usually in accordance to the growing season in the importing country.

32. Anti-dumping duties and countervailing measures are usually, but not always, set in *ad valorem* terms. They are not strictly tariffs, although they are sometimes called para-tariff measures. They are applied at the firm level in the exporting country. Many AD/CV actions terminate in price undertakings by the exporter. Since they are, or should be, WTO-consistent contingency measures taken against the “unfair trade practices” of third countries, they are not subject to market access negotiations, but the terms of their use are covered by negotiations on rules.

33. Some agricultural products are subject to tariff quotas or tariff rate quotas, attracting lower in-quota and higher out-of-quota rates. These are often also set in specific or mixed rates, and may also vary seasonally. An issue is how to compute tariff averages where tariff quotas are applied: governments often average in-quota and out-of-quota rates, but economists would argue that the out-of-quota rate is more appropriate, representing the marginal, binding constraint on additional trade. This procedure has not been settled in past negotiations.

34. An issue for future negotiations might be whether to continue to allow the use of specific rates or other more complex formulations. Given the lack of transparency associated with the use of such rates, this has an inherent appeal. However, if the use of such rates were banned, then there might be even greater resort to the use of other devices such as anti-dumping.

### 3. Valuation base (FOB/CIF, reference prices, rules of origin)

35. The value for duty of the good for customs purposes is typically the f.o.b. value, but in some cases the c.i.f. value is used, increasing the incidence of the tariff on an f.o.b. basis, and providing greater protection against exporters with higher transport costs. Most countries use one system or the other, but Mexico, which normally values imports on a c.i.f. basis, values non-duty-free imports from NAFTA partners on an f.o.b. basis during the phase-in period of the agreement.

36. In many developing countries, the value for duty is not the transaction value but some kind of constructed or reference price (to compensate for under invoicing or simply to provide surer protection for goods with fluctuating world prices or counter dumping). However, under the single undertaking of the Uruguay Round, all countries, subject to a phase-in period, will in the future be subject to the GATT Customs Valuation Code which places greater emphasis on the use of transaction values as the basis for customs valuation.

37. Preferential rules of origin (ROOs) are used to determine the value for duty of imports from a country or countries which benefits from preferential treatment in the importing country, either under unilateral schemes such as the GSP or mutually negotiated arrangements such as FTAs or customs unions. The import from the preferential partner, using materials or components from a third country which does not benefit from preferences or receives preferences at a different level, will usually qualify for the preference if enough processing takes place in the partner to achieve a fixed level of value added or cause a shift in tariff classification (substantial transformation). However, the rules vary between arrangement and even product categories. There is also a variety of treatment for cumulation of value added across several trading partners where processing takes place or material and components are sourced. Apart from the resulting lack of transparency, it is difficult to assess the extent to which current ROOs affect trade diversion and the allocation of resources associated with preferential regimes. The current review of rules of origin in the WTO only concerns non-preferential rules, so that any discussion of preferential rules might usefully be taken up in a future round, but would most likely occur in the context of rules negotiations rather than market access, *per se*.

38. The precise classification of items is not usually perceived as an issue for a multilateral negotiating round, but can make a difference to the rate of duty to be applied. For example, the EU's classification of certain LAN equipment as telecommunications equipment meant it was dutiable at a different rate from informatics equipment covered by the zero-for-zero agreement in that field. Reclassifications usually occur when a shift in classification occurs either at the international level, e.g., as when the Customs Co-operation Council Nomenclature (CCCN) changed to the Harmonized Commodity Coding and Classification System (HS) or from HS92 to HS96. However, it can also occur at the formation of a customs union or the adherence of a new member to a customs union. The issue is that a change in the classification may imply a change of a bound rate and set in motion Article XXVIII renegotiations of schedules.

### 4. Other charges, including discriminatory application of indirect taxes

39. A number of other charges are applied to imports, some being merely fees for services such as stevedoring, warehousing, port or airport handling charges, customs agents fees, etc. There are sometimes additional charges such as customs processing fees, consular charges (for documentation), and statistical taxes. Under WTO rules, these charges should represent the cost of the service, but some countries set these as a percentage of the value of the imports not on the cost of the service, e.g., the paperwork for processing a Barbie doll and a tanker of petroleum may be the same but a percentage charge yields vastly different revenues.

40. Although it is not very common today, some countries have additional charges on imports for a variety of reasons, e.g., to support lighthouses or the merchant marine. In principle, these can be negotiated and bound within the overall WTO tariff binding, but this appears to be not very well

defined. Argentina's statistical tax was specifically covered by such a binding, which has not prevented the charge from being challenged as being unrelated to the cost of the service.

41. Differential indirect taxes. Under GATT Article III:2, indirect taxes (such as VAT, sales taxes or excise duties) applied to imports should be at the same level as on domestically produced items. There are few instances of where differential rates are applied today, but sometimes different rates are applied to imports which are close substitutes ("like products"), e.g., different liquors., and various panels have rules that this amounts to discrimination (WTO, 1995). There are also instances of high indirect taxes against goods which are not produced domestically, effectively taking the form of an excise duty, e.g., on imports of fuels, alcoholic beverages, perfumes and luxury goods.

## B. NEGOTIATING TECHNIQUES

### 1. Request and offer negotiations with MFN application

42. The basic approach to tariff negotiations in five rounds which preceded the Kennedy Round was "request and offer", under which participants would try to balance or more than balance the "concessions" they were offering against those which they sought. Offer of tariff cuts (concessions) were seen as negotiating "coin" with which to pay for the requested concession by other parties. Such negotiations were essentially bilateral, between principal suppliers in each other's markets; the results were then extended to other GATT contracting parties by virtue of the MFN principle.

43. The request and offer approach was also used in the Uruguay Round, subject to the overall target of an average rate reduction of 30 per cent, as agreed at the Mid-term Review in December 1988. Despite widespread support from other participants, including other members of the Quad, for a formula based approach, the request and offer approach was effectively decided by the United States which insisted that it would only negotiate item by item, dealing with tariff and NTMs at the same time. It implemented this approach by putting forward extensive product-specific request lists to each of its main trading partners starting in October 1989. However, other countries were not precluded from the use of formulae, to be followed by specific requests for adjustments in offers.

44. In request and offer negotiations, the computation of equivalence in offers is usually done in terms of the percentage increase in trade to be expected from implementation. In essence, this means multiplying the base year trade flow under a tariff item by the percentage tariff reduction to get the increment in trade. Negotiators would argue that this simple approach avoids the use of complex simulations with estimated elasticities. However, the computation is a simplified partial equilibrium, comparative static approach with an implicit assumption of an infinite elasticity of supply and a (tariff) price elasticity of import demand equal to unity. No account is taken of any possible trade diversion. Apart from the lack of realism under this limited approach, it is open to the criticism that it is purely mercantilist, focusing attention on changes trade flows rather than the welfare effects which derive principally from offer which a country makes rather than the concessions offered by its trading partners.

45. The request and offer approach has the disadvantage for small countries in that they are rarely principal suppliers to foreign markets, nor are their markets of great interest to other countries. This is one of the reasons why developing countries took little part in early rounds and why they made so few binding commitments, prior to the Uruguay Round.

## 2. Formulae approaches<sup>6</sup>

46. In the Kennedy Round, it was agreed to apply an across-the-board cut in rates of 50 per cent for industrial goods, while exceptions to this general formula were specifically negotiated (leaving an overall average reduction of 30 per cent). This can be expressed as  $T_1 = aT_0$ , where  $T$  is the tariff rate in the initial period ( $=0$ ) or after the cut ( $=1$ ) and  $(1-a)$  is the percentage reduction. The effect of the 50 per cent reduction is shown in Chart 1 by a straight line through the origin.

47. A number of alternative tariff cutting formulae were considered in the Tokyo Round. One harmonization formula (intended to achieve the deepest cuts on the highest rates) is given by  $T_1 = T_0 + b$ , where  $b$  is a fixed percentage and the parameters,  $a$  and  $b$ , were to be negotiated. Another harmonization formula designed to achieve even deeper cuts in higher rates is given by  $T_1 = T_0 - ((T_0 * 2)/100)$ , and it was suggested that this formula be re-applied three times. The effects of applying the second of these formulae are also shown in Chart 1 as Harm.2.

48. In the end, the Swiss formula was generally applied in the Tokyo Round. This was designed to achieve deeper cuts in higher tariff rates, thereby specifically addressing the problem of tariff peaks. It is given by the formula  $T_1 = aT_0/(a+T_0)$ , where the value of 14 was proposed and used for the coefficient,  $a$ , although some countries used a value of 16, giving lesser reductions. The Swiss formula with a coefficient of 14 is illustrated in Chart 1, where it clearly does more for reducing tariff peaks than other formula shown. However, exceptions to the general application of the formula carved out a number of products of export interest to the developing countries. Thus, "An examination of initial offers indicated that less than the formula reductions, or no reductions, were offered for a good number of items for which developing countries were major suppliers... The total or partial exceptions covered textile items for which the developing countries were significant suppliers as well as other sectors such as footwear, leather goods, cutlery, porcelain, wood or wood products, certain types of non-ferrous metals, etc" (GATT, 1979).

49. A formula approach was also proposed by the Canadians and the European Communities in the Uruguay Round. The Canadian formula is given by  $T_1 = T_0 - (T_0 * a)$  where  $a = 32 * (T_0/5)$ . The EU proposed that base rates of 40 per cent or more be reduced to a maximum of 20 per cent, while rates between 30 and 40 per cent be reduced by a linear 50 per cent ( $T_1 = 0.5 * T_0$ ), and rates below 30 per cent be reduced using the formula  $T_1 = T_0(1-a)$ , where  $a = (T_0 + 20)$ . The results for both are also shown in Chart 1.

50. The formula approach was rejected by the United States, in particular, in the Uruguay Round, as discussed further below.

## 3. Zero for zero

51. The zero for zero approach describes the situation where a critical mass of countries agree to reduce rates to zero in a sector, however defined.

52. In the Uruguay Round zero for zero reductions were made in the areas of agricultural equipment, beer, certain chemicals, construction equipment, distilled spirits (brown), furniture, medical equipment, paper, pharmaceuticals, steel and toys. It has been estimated that these reductions will increase the share of developed countries' duty-free imports from 20 to 43 per cent (GATT, 1994).

53. The zero for zero approach was also used in the area of informatics products when the WTO Ministerial Declaration on Trade in Information Technology Products (ITA) was agreed at the close of the first WTO Ministerial Conference on 13 December 1996 in Singapore. Customs duties and other duties and charges on these products are to be eliminated by 29 developed and developing

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<sup>6</sup> This section is partly based on Laird and Yeats (1987).

countries by the year 2000 on an MFN basis.<sup>7</sup> It is sometimes argued that many low rates of duty constitute “nuisance” rates and should therefore be reduced to zero. However, zero rates do not by themselves reduce the amount of paperwork required in a normal trade situation: normal customs procedures and ancillary inspections have to be carried out and any additional charges and indirect taxes have to be collected. Moreover, even small rates on large cargoes, e.g., 100,000 tonnes of crude oil, can provide substantial tax revenues. Zero rates are attractive to the users of the product, including consumers of final goods so affected. However, if applied to inputs into other productive processes, they tend to increase effective protection on later stages of processing, increasing the misallocation of resources. As noted earlier, in a number of World Bank lending programmes, low or zero rates were often increased to five per cent or so, while NTBs were eliminated and prohibitively high rates were reduced; this had the effect of increasing revenues while improving the allocation of resources.

#### **4. Mixed**

54. A mixed approach provides for a combination of approaches such as those described above. For example, it might involve a basic formula approach, on which further constraints are imposed. Such constraints might take various forms. For example, it might be permitted to allow individual countries to negotiate exceptions to the formula, permitting them to retain higher rates in certain sensitive sectors. It might be decided that, in addition to the formula, all rates below a certain level would be reduced to zero, or that all rates above a certain level, say 20 per cent, would be reduced to that level.

55. In addition to the formula results, where these have been applied, it has usually been agreed to round off the resulting *ad valorem* rate to some degree, e.g., to the next lowest half percentage point.

56. The Uruguay Round was a mixed approach of request and offer, subject to certain constraints, as well as zero for zero, as noted above.

#### **5. Non-reciprocity by developing countries**

57. In past rounds of negotiations, developing countries were marginalized in part because of negotiating techniques, especially the request and offer approach. However, in a sense they also opted out by sheltering under the provisions of Part IV of the GATT, as elaborated in the Enabling Clause and provisions in the terms of reference for recent negotiating rounds. In particular, they claimed not to be required to make reciprocal offers, but the result was that many products in which they had an export interest were excluded or the cuts were less deep than in areas where the developed countries had a mutual interest in tariff reductions. The more active approach in the Uruguay Round seems to have had some benefits in that the gains achieved by the developing countries in terms of market access fell only a little short of those by the developed countries, while, more importantly, they also achieved welfare gains from their own liberalization.

#### **6. Integrated Data Base**

58. The WTO Integrated Data Base (IDB), and before it the GATT Tariff Study, is the data base for tariff negotiations; it links tariff information and import data for all participants, making it possible to determine principal supplier interests. This is a large and complex database maintained and operated by WTO staff, using raw data supplied by members (not always on a timely basis). The IDB is now available to WTO members (and other international organizations for their internal use) on CD-ROM and will shortly be made available on the Internet (with password-controlled access).

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<sup>7</sup> See WTO *Focus* Newsletter, Number 17 of March 1997.

However, it would be useful to develop a “front-end” which would permit users to pose questions about the effects on their trade and welfare of changes in their own and partners’ trade policies.<sup>8</sup>

### III. NON-TARIFF MEASURES

#### A. ISSUES

59. In the context of market access negotiations, non-tariff measures mainly refer to import restraints as well as production and export subsidies. (Export restraints, also NTMs, are not discussed here). Within these broad categories, there is a large variety of NTMs and they have many different effects.<sup>9</sup> These include price and quantity effects on trade and production, as well as on consumption, revenue, employment, and welfare effects. These occur both in the country applying them as well as in other countries, directly and indirectly affected by them. NTMs may overlap with tariffs and are often used with other reinforcing NTMs, e.g., domestic price support schemes need to be supported with import measures and any resulting surpluses need subsidies to be exported.

60. NTMs are difficult to quantify, costly to administer, costly to consumers, costly to exporters (in terms of lost trade), inefficient ways of creating jobs, lack transparency, are inherently discriminatory, and are most intensively used against developing countries and transition economies. They also drive a wedge between world prices and domestic prices, so that domestic firms are relatively unaffected by price trends on world markets and have little incentive to adopt new technologies or modern business practices. Domestic prices are often determined by the degree competition, or the lack thereof, in the home market.

61. The Uruguay Round made considerable headway in eliminating or reducing the use of NTMs, as well as in setting guidelines for the use of those which are still allowed. An overview of pre- and post Uruguay Round NTMs by broad type and sectoral coverage in Canada, the European Communities, Japan and the United States is given in Tables 5 and 6. The two outstanding features of these tables are the elimination of NTMs in agriculture, principally through tariffication, and the continued application of export restraints in the area of textiles and clothing. However, the tables look at import measures only and do not capture the importance of domestic supports and export subsidies in the area of agriculture.

62. For developing countries, the most important areas where changes took place in relation to market access were in relation to the use of voluntary export restraints (VERs), the start of the phase-out of restraints under the WTO Agreement on Textiles and Clothing, and the breakthroughs reflected in the WTO Agreement on Agriculture. These approaches are indicative of the techniques of negotiation for improved market access for products covered by NTMs.

63. For example, it was decided to prohibit explicitly the use of voluntary export (quantitative) restraints (VERs) in industry (other than textiles and clothing) and agriculture, and the remaining VERs are to be eliminated by the end of 1999. Apart from the fact that they covered more trade than other measure, VERs, used instead of Article XIX safeguards, had become a threat to the credibility of the GATT system, the prohibition under Article XI being ignored by all major GATT contracting parties. This prohibition on VERs was achieved at the expense of some “flexibility” being introduced into the application of safeguards, allowing discrimination among suppliers in exceptional circumstances. However, even when VERs are eliminated there will remain voluntary export price restraints (VEPRs), which often occur as a negotiated outcome of anti-dumping cases. Given the

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<sup>8</sup> This was one of the objectives of the Software for Market Analysis and Restrictions on Trade (SMART) developed by the author and colleagues at the World Bank and UNCTAD in the Uruguay Round. Consideration is being given to introducing the simulation module into UNCTAD’s TRAINS software.

<sup>9</sup> For a detailed discussion, see Laird and Yeats (1990). UNCTAD uses a classification of over 100 such measures - including tariffs with a discretionary or variable component

equivalence between these measures (with exporters capturing the rents in both cases), it is inconsistent economically that one be banned while the other be condoned. This issue could usefully be addressed in future negotiations.

64. For more than 40 years the developing countries' single most important export, textiles and clothing, were restricted on a discriminatory basis under the MFA and the earlier Short- and Long-term Cotton Textiles Agreements. These restraints are now being progressively phased out under the WTO Agreement on Textiles and Clothing. There are mixed feelings among developing countries about the MFA elimination for two reasons. Constrained exporters must be expected to lose some of quota rents afforded by the MFA, but the country-specific quota system also provided a form of protection for less efficient exporters against the more efficient to whom quotas could not be transferred. (There have already been reports of Bangladesh losing out to China in some areas).

65. Subject to special safeguards, the phase-out of the MFA and the gradual integration of the textiles and clothing sector within the normal WTO rules is being effected over a 10 year period under the supervision of a Textiles Monitoring Body (TMB). A minimum of 16 per cent of total 1990 volume of imports covered by the MFA were due to be integrated into the WTO in 1995. At least another 17 per cent of the value of 1990 imports will be integrated following the third year of the phase-out period. An additional minimum of 18 per cent will follow after the seventh year, while the remaining 41 per cent will be brought under WTO rules at the very end of the phase-out period. Each phase-out is intended to include products from four different groups: tops and yarn, fabrics, made-up textiles, and clothing.

66. Quota restrictions are being expanded by the amount of the prevailing quota growth rates plus 16 per cent annually for the first three years. A further expansion of 25 per cent will take place in the subsequent four years, and an additional 27 per cent in the final three years. These annual growth rates may be adjusted if it is found that member countries are not complying with their obligations.

67. In the Major Review of the Implementation of the Agreement on Textiles and Clothing in the First Stage of the Integration Process, held in February 1998, a number of concerns were raised, including the back-loading of the integration process (holding off the more difficult adjustments till last), the exceptionally large number of safeguard measures in use, more restrictive use of rules of origin by the United States, tariff increases, the introduction of specific rates, minimum import pricing regimes, labelling and certification requirements, the maintenance of balance of payments provisions affecting textiles and clothing, export visa requirements, as well as the double jeopardy arising from the application of anti-dumping measures to products covered by the agreement.

68. The WTO Agreement on Agriculture, one of the main achievements of the Uruguay Round, brought the agricultural sector under more transparent rules and sets the stage for a progressive liberalization of trade in the sector. Among the main achievements were (i) tariffication (or elimination) of NTMs based on 1986-88 prices, the full binding of the new tariffs by developed and developing countries and phased tariff reductions, (ii) reductions in the level of domestic support measures (except for "green box" and *de minimis* amounts), and (iii) reductions in outlays on export subsidies and the volume of subsidized exports. The main exceptions to tariffication were rice and, for developing countries, some staple foods, where minimum access commitments apply. Special safeguards (increased duties) can be triggered by increased import volumes or price reductions (by comparison with average 1986-88 prices expressed in domestic currency). There is also a "peace" clause, intended to constrain the use of anti-subsidy actions until 2003.

69. Apart from these specific areas covered by the market access negotiations in the Uruguay Round, a number of important NTMs were covered in rules negotiations. These include contingency protection (safeguards, anti-dumping, countervailing), technical barriers (including sanitary and phytosanitary measures), TRIPS, TRIMs, import licensing, state trading and rules of origin. These are covered by other papers at the conference.

70. One important area of rules relates to the use of subsidies, which are covered by the WTO Agreement on Subsidies and Countervailing Measures (SCM) and the Agreement on Agriculture. These rules distinguish between domestic and export subsidies and provide for differential treatment of agriculture and manufactured products. Some subsidies, notably export subsidies, are prohibited, while others are “actionable” or “non-actionable”, whether in the WTO or through countervailing actions. There are notification requirements for all specific subsidies, i.e., subsidies that are targeted to particular enterprises, industries or regions, as well as for export subsidies and import-substitution subsidies. The WTO Agreement on Agriculture also prohibits the use of export subsidies, except in conjunction with product-specific reduction commitments, and defines the conditions under which certain types of domestic subsidies (“green box”, “blue box” or “S&D box”) are exempt from reduction commitments. In this area, the emphasis on de-linking of supports from production was an important new approach to rural incomes.

71. WTO rules on NTMs were extended in the Uruguay Round to cover trade-related investment measures (TRIMs). In particular, the TRIMs Agreement prohibits measures that (i) require particular levels of local sourcing by an enterprise (i.e., local content requirements); (ii) restrict the volume or value of imports which an enterprise can buy or use to the volume or value of products it exports (i.e., trade balancing requirements); (iii) restrict the volume of imports to the amount of foreign exchange inflows attributable to an enterprise; and (iv) restrict the export by an enterprise of products, whether specified in terms of the particular type, volume or value of products or of a proportion of volume or value of local production.

72. Among the most important TRIMs in practice are the local content and trade-balancing requirements, which are extensively used in developing country automotive industries. Developing countries which notified their TRIMs are allowed to maintain them until the end of 1999, when they are to be dismantled. The abolition of TRIMs will promote a more neutral trading and investment environment in those countries and a more efficient allocation of scarce resources. The automotive industries in a number of countries are pressing their governments to seek an extension of the period in which to adjust to the new trading environment, but since the Uruguay Round WTO members have been much more reluctant to grant waivers to the main rules.

## B. NEGOTIATING TECHNIQUES

73. From the above discussion, it is clearly necessary to distinguish those NTMs which are to be eliminated from those which are to be subject to agreed disciplines or to rules which set out the conditions under which they may be used. Improved market access would require the elimination or relaxation of NTMs such as remaining quantitative restrictions, domestic supports and export subsidies (and taxes). Other will simply be the subject of improved disciplines, e.g., anti-dumping or countervailing investigations, technical barriers, TRIPS, ROOs, standards, etc. In some cases, such as subsidies and perhaps government procurement, there is scope for further work on the rules as well as improved market access commitments

74. It is possible that new negotiations could lead to prohibition of further NTMs, and the option will be for immediate elimination or for the phasing out of the measures.

75. For those NTMs which are to be phased out, there are several possibilities:

- (a) phase out the NTMs by relaxing the provisions, e.g. expanding quotas, reducing subsidies;
- (b) progressively reducing the range of products affected; or
- (c) converting NTMs to tariffs which would then be included in the scheduled tariff reductions.



76. Whether for immediate or phased elimination, there may be a case for differential treatment for developing countries as users of the measures, giving developing countries longer periods to adapt. However, given the negative effects that NTMs tend to have on domestic welfare, such differential treatment is unlikely to confer an advantage. Another issue is the treatment of countries affected by the measure, particularly any quantitative measures. Normally, one would expect the measure to be scaled back in proportion to the market share, but some countries may argue that they should be given differential treatment, e.g., more rapid liberalization for least-developed exporters (as provided in the Agreement on Textiles and Clothing) under a market-opening measure or less rapid phasing out of export subsidies for poor food-importing countries.

77. In the case of phased elimination, decisions would need to be taken on the base period, the period over which the elimination were to take place, whether the percentage changes were to be equally applied or whether there were to be front or back-loading of the elimination. In the case of conversion of tariffs, some technical work might be required on how this should be done (an agreed methodology), and whether such work should be carried out by the members themselves (the approach in the Uruguay Round agricultural negotiations) or by the WTO Secretariat, ensuring more consistent treatment. Decisions might also be taken on minimum cuts in each tariff line. Another issue might be whether to allow backsliding in certain areas provided average reductions are achieved.

78. In the case of products covered by multiple measures it might be useful to examine some technical questions, such as the co-ordinated phasing of changes. For example, one issue to consider is how to co-ordinate import liberalization with phased reductions in domestic supports and export subsidies to achieve a smooth transition to a more open regime. A technical matter is that import liberalization is usually carried out in relation to products under the tariff classification whereas subsidies are effected in terms of a different product or industrial classification. In principle, this could be resolved by means of a concordance, but this would require a change from traditional approaches. De-linking domestic supports from production partly resolves this issue.

#### IV. AGENDA FOR FUTURE NEGOTIATIONS

79. Although average tariffs have fallen considerably over the last 50 years, they will rightly be a major issue in future market access negotiations. As noted, there are a number of complex technical issues to be discussed. However, from the perspective of developing countries, and good economics, it would seem important to press for the use of the Swiss formulae approach used in the Tokyo Round to avoid the exclusion or minimalist treatment on products in which they have strong export interest. There is also a need to increase transparency either by limiting the use of tariff rates which are not expressed in *ad valorem* terms or by requiring detailed, periodic and public notifications on their *ad valorem* incidence.

80. It is important for developing countries to participate actively in a new round by seeking and offering rate cuts and binding commitments, since, in the long run, the improved security of access through increased tariff bindings may offer more advantages to developing countries than unilaterally granted, but unbound, preferential access. The advantage of making their own commitments is to provide stable and credible trade regimes to attract FDI and the associated technology needed for their further development.

81. Provided the integration of textiles and clothing takes place as agreed, negotiations on NTMs in a new round will be focussed rule-making. The main exception to this in the area of goods will be in agriculture, where we can expect a continuation of efforts to cut back on domestic supports and export subsidies (with tariff-cutting on imports). However, the phasing of any new commitments raises a number of technical questions in which some different approaches from those in the Uruguay Round might be usefully considered.

82. In the Uruguay Round, market access was initially covered by separate negotiating groups on Tariffs, Non-tariff measures, Agriculture, Natural Resource Based Products, Textiles and Clothing

and Tropical Products, but a number of these were covered by a single Market Access Group in the final stages of the round. There was a determined effort to consider tariffs and NTMs together in order to avoid a situation in which cuts in tariff rates would be effectively annulled by the existence of NTMs, leading to no increase in market access. One disadvantage was that, since market access was contentious in certain product areas as well as in the rules for the use of certain measures, there was no incentive for many countries to make offers until the general shape of the package became known. The use of a formula approach or development of a critical mass in certain areas (as in the ITA) might allow a more rapid advance which would serve as an encouragement to make breakthroughs in other areas. While there is much to be gained from the synergy of reciprocal concessions, negotiators should not forego welfare gains from advancing their own liberalization while waiting for others to do the same.

83. In any new round, there will be a need to develop technical expertise in developing countries, and this effort should be made ahead of the round. However, the WTO has relatively few resources in this area, and negotiations on the conditions for establishment of an independent secretariat suggest that such constraints will continue for some years. This gap will need to be filled either with Trust Funds from sympathetic member states or by other organizations, perhaps with UNDP funding. Given the wide-ranging agenda on trade and related policy issues and their implications for development, it is disappointing that the World Bank has been reducing resources devoted to trade policy issues. The early OAS initiative in this regard is to be welcomed.

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## TABLES

**TABLE 1. PRE- AND POST-URUGUAY ROUND SCOPE OF BINDINGS FOR INDUSTRIAL PRODUCTS (EXCLUDING PETROLEUM)**  
(Number of lines, billions of US dollars and percentages)

Country group or region	Number of lines	Import value	Percentage of tariff lines bound		Percentage of imports under bound rates	
			Pre-	Post-	Pre-	Post-
By major country group:						
Developed economies	86 968	737.2	78	99	94	99
Developing economies	157 805	306.2	22	72	14	59
Transition economies	18 962	34.7	73	98	74	96
By selected region:						
North America	14 138	325.7	99	100	99	100
Latin America	64 136	40.4	38	100	57	100
Western Europe	57 851	239.9	79	82	98	98
Central Europe	23 565	38.1	63	98	68	97
Asia	82 545	415.4	17	67	36	70

Source: GATT (1994).

**TABLE 2: POST-URUGUAY ROUND APPLIED AND BOUND RATES OF DEVELOPED AND DEVELOPING COUNTRIES BY MAJOR PRODUCT GROUP**  
(Per cent)

Product Group	Developed		Developing	
	Applied	Bound	Applied	Bound
Agriculture exc. Fish	5.2	7.2	18.6	19.9
Fish & fish products	4.2	4.9	8.6	25.9
Petroleum	0.7	0.9	7.9	8.4
Wood, pulp, paper & furniture	0.5	0.9	8.9	10.3
Textiles & clothing	8.4	11.0	21.2	25.5
Leather, rubber, footwear	5.5	6.5	14.9	15.4
Metals	0.9	1.6	10.8	10.4
Chemical & photo. Supplies	2.2	3.6	12.4	16.8
Transport equipment	4.2	5.6	19.9	13.2
Non-electric machinery	1.1	1.9	13.5	14.5
Electric machinery	2.3	3.7	14.6	17.2
Mineral prods., precious stones & metals	0.7	1.0	7.8	8.1
Manufactures, n.e.s.	1.4	2.0	12.1	9.2
Industrial Goods (Rows 4-13)	2.5	3.5	13.3	13.3
<b>All merchandise trade</b>	<b>2.6</b>	<b>3.7</b>	<b>13.3</b>	<b>13.0</b>

Source: Finger, Ingco and Reincke (1996)

Notes: Weighted averages, excluding trade within FTA.

**TABLE 3: CHANGES IN TARIFF ESCALATION ON PRODUCTS IMPORTED BY DEVELOPED ECONOMIES FROM DEVELOPING ECONOMIES**  
(Millions of US dollars and percentages)

Product	Imports	Share of each stage	Tariff			
			Pre-UR	Post-UR	Change	Absolute change in tariff escalation
All industrial products (exc. Petroleum)	169 690	100	6.8	4.3	37	N/A
Raw materials	36 692	22	2.1	0.8	62	N/A
Semi-manufactures	36 464	21	5.3	2.8	47	3.2 to 2.0
Finished products	96 535	57	9.1	6.2	32	3.8 to 3.4
All tropical products	14 354	100	4.2	1.9	55	N/A
Raw materials	5 069	35	0.1	0.0	100	N/A
Semi-manufactures	4 340	30	6.3	3.5	44	6.2 to 3.5
Finished products	4 945	34	6.6	2.6	61	0.3 to -0.9
Natural resource-based products	33 426	100	4.0	2.7	33	N/A
Raw materials	14 558	44	3.1	2.0	35	N/A
Semi-manufactures	13 332	40	3.5	2.0	43	0.4 to 0
Finished products	5 535	17	7.9	5.9	25	4.4 to 3.9

Source: GATT (1994).

**TABLE 4: STRUCTURE OF APPLIED TARIFFS IN THE QUAD, 1989, 1996**  
Per cent

Indicator	Canada		EU		Japan		USA	
	1989	1996	1989	1996	1989	1996	1989	1996
Bound tariff lines	98.4	99.6	91.8	100.0	89.8	98.8	98.1	100.0
Duty-free lines	25.7	31.6	10.5	11.4	21.9	34.8	17.4	17.8
Specific & compound /all rates	8.6	9.1	10.6	12.1	7.4	10.6	17.6	17.7
Tariff quotas/all rates	0.0	1.5	1.0	2.3	1.0	2.2	0.1	2.3
Rates with no ad val. Equivalent	0.5	2.5	8.4	2.0	1.0	4.0	1.3	5.7
Simple average bound rate	9.3	5.1*	7.5	7.2*	8.2	4.7*	6.3	3.9*
Simple average applied rate	9.1	9.2	7.4	9.5	6.9	6.7	6.2	6.2
Import-weighted average rate	6.9	5.7	6.0	6.6	3.8	3.5	4.0	3.7
Production-weighted average rate	8.7	12.1	8.2	7.7	4.2	3.4	4.4	5.2
Tariff peaks/all rates	0.5	1.4	2.2	4.8	5.3	6.8	4.5	3.8
Standard deviation	8.8	27.5	6.1	20.7	8.9	11.8	7.7	14.2

Source: OECD (1997).

Notes: Tariff peaks (called “spikes” by OECD) are rates which are three times the national average. Items marked \* are bound rates after full implementation of the Uruguay Round agreements. *Ad valorem* equivalents (AVEs) are used where possible. See OECD (1997) for further details of methodology.

**TABLE 5: IMPORT COVERAGE OF MAJOR NTBS IN THE QUAD, 1989, 1996**

Indicator	Per cent							
	Canada		EU		Japan		USA	
	1989	1996	1989	1996	1989	1996	1989	1996
All NTBs	11.1	10.4	26.6	19.1	13.1	10.7	25.5	16.8
- Core NTBs	8.9	7.2	25.2	15.1	12.5	10.0	25.5	16.7
Quantitative restrictions (QRs)	6.6	5.9	19.5	13.1	11.7	9.2	20.4	10.9
- Export restraints	4.8	5.9	15.5	11.4	0.3	0.0	19.5	10.8
- Non-auto licensing	2.6	0.0	4.4	1.5	8.9	8.6	0.0	0.0
- Other QRs	0.8	0.0	0.2	0.2	2.8	0.6	6.6	0.6
Price controls (PCMs)	2.4	1.3	12.4	3.2	0.8	0.7	17.8	7.6
- Variable levies	0.0	0.0	6.3	1.4	0.8	0.6	0.1	0.1
- AD/CVs & VEPRs	2.4	1.3	2.6	0.9	0.0	0.0	17.8	7.6
- Other PCMs	0.0	0.0	4.3	1.0	0.0	0.0	0.0	0.1

Source: OECD (1997).

Notes: "Core" NTBs are QRs and PCMs shown in the table, imposed "with the specific intent of modifying or restricting international trade" (OECD, 1997). Non-core NTBs include automatic licensing and monitoring measures. See OECD (1997) for further details of methodology.

**TABLE 6: SECTORAL PRODUCTION COVERAGE OF NTB IN THE QUAD, 1989, 1996**

ISIC	Description	Per cent							
		Canada		EU		Japan		USA	
		1989	1996	1989	1996	1989	1996	1989	1996
1	Agric., forestry & fishing	5.0	2.1	18.8	7.2	11.3	7.0	5.5	2.8
2	Mining & quarrying	0.4	4.3	0.0	6.7	3.5	0.4	0.3	0.4
21	- Coal mining	8.3	0.0	0.0	42.9	N/A	N/A	0.0	0.0
22	- Crude petroleum	0.0	9.1	N/A	0.0	N/A	N/A	0.0	0.0
23	- Metal ores	0.0	0.0	N/A	4.4	N/A	N/A	0.0	4.0
29	- Other	0.0	0.0	0.0	3.6	N/A	N/A	3.4	2.3
3	Manufacturing	8.3	3.9	12.6	5.4	3.9	2.5	16.0	8.1
31	- Food, bevs., tobacco	23.0	1.5	48.5	11.1	24.3	8.6	16.4	1.2
32	- Textiles & apparel	42.4	45.8	74.9	75.4	28.8	28.7	84.1	68.3
33	- Wood & wood prods	2.1	3.7	0.0	0.0	0.0	0.0	3.9	0.8
34	- Paper & paper prods	1.9	0.2	1.2	1.9	0.0	0.0	1.5	1.3
35	- Chemical & petroleum prods	2.4	1.3	3.5	1.6	1.4	1.4	8.6	3.2
36	- Non-metallic mineral prods	0.7	0.0	4.4	0.0	0.0	0.0	10.7	6.1
37	- Basic metal inds	16.5	1.7	37.7	0.6	2.5	2.6	53.2	30.4
38	- Fabricated metals	1.1	1.4	4.6	0.0	0.0	0.0	13.0	6.1
39	- Other	0.5	0.8	1.3	0.0	0.0	0.0	4.2	1.7
	<b>Total</b>	<b>7.1</b>	<b>3.8</b>	<b>12.7</b>	<b>5.6</b>	<b>4.4</b>	<b>2.8</b>	<b>17.2</b>	<b>7.2</b>

Source: OECD (1997).

Notes: See OECD (1997) for details of methodology.

**Chart 1: Implications of various tariff-cutting formulae**

