RIS
DISCUSSION PAPERS

Market Access for Industrial Sector in WTO Negotiations An Agenda for Developing Countries

Rajesh Mehta

RIS-DP # 09/2001

Research and Information System for the Non-Aligned and Other Developing Countries

MARKET ACCESS FOR INDUSTRIAL SECTOR IN WTO NEGOTIATIONS
An Agenda for Developing Countries

Rajesh Mehta

RIS-DP # 09/2001

RESEARCH AND INFORMATION SYSTEM FOR THE NON-ALIGNED AND OTHER DEVELOPING COUNTRIES (RIS)
Zone IV-B, Fourth Floor, India Habitat Centre
Lodi Road, New Delhi-110 003 (India)
Tel: +91-11-4682177-80; Fax: 4682174
Email: mehtarajesh@mantramail.com (R. Mehta)

MARKET ACCESS FOR INDUSTRIAL SECTOR IN WTO NEGOTIATIONS
An Agenda for Developing Countries

by

Rajesh Mehta

Abstract

The earlier rounds of multilateral negotiations of GATT/WTO have led to significantly increase in market access of industrial sector. It is generally carried out through reductions in the levels of tariffs and commitments of "upper bound of tariff rates" of commodities. Its extent is generally measured through average tariff rates.

In the forthcoming negotiations, India and developing countries should not concentrate on reduction in average tariff rates, but their concerns should be reduction in dispersion of tariffs (or reduction in peak tariffs), and tariff escalation. Tariff escalation has been a major concern for developing countries, which fear that it may inhibit their efforts to industrialisation. It was expected that the commitments in the Uruguay Round (UR) will provide for gradual reduction of escalation by applying relatively higher cuts to finished goods. However, the tariff escalation has continued after the UR in large number of sectors. In the UR although the average tariffs of different countries have declined, it has been noticed that problem of high tariffs is prevalent in certain sectors. These high tariffs are also noticed in developed countries. Even if average tariffs are discussed in the forthcoming rounds, it should be based on simple average (and not import-weighted average) of all commodities including those items whose custom duties are defined in the form of specific rates. In fact, the developing countries should demand that all the countries should define their custom duties (and committed bound rates) in the form of ad valorem rates.

Since the formation of WTO, numbers of the disputes, relating to NTBs, have very significantly increased as compared to the numbers referred during the pre-UR period. These measures continue to effect the growth of world trade. The developing countries should demand a coherent approach for dealing with such issues, and active participation in setting up new (and clear) rules and provisions.

The forthcoming negotiations should not be based on sector-by-sector approach. In fact, it should be more comprehensive, where reduction commitments of tariffs should not be dealt separately for agriculture, industry and textile.

MARKET ACCESS FOR INDUSTRIAL SECTOR IN WTO NEGOTIATIONS
An Agenda for Developing Countries

Rajesh Mehta*

One of the main objectives of different rounds of General Agreement on Tariff and Trade (GATT)/ World Trade Organisation (WTO) system has been to increase the market access of industrial goods. This has been carried out by providing tariff (custom) cuts on large number of commodities and spread of tariff bindings. At present, almost all the commodities of developed countries are bound, and level of average tariff rate is very low (around 5 per cent).

In pre-Seattle era[1] India, Egypt and some other countries were opposed to the inclusion of 'market access of industrial sector' in forthcoming (if any) new round of WTO negotiations. India had probably taken this stand because the present level of developed countries' tariff rate is low.[2] It was presumed by these countries that the inclusion of industrial tariff in new round (of WTO) will not increase market access for developing countries (like India), because the reduction in tariff rates of developed countries can not be substantial.

The Seattle meeting has collapsed. This was nothing unusual in the GATT/WTO system. In the past, 1988 Montreal mid-term meeting and the 1990 Brussels ministerial meeting of Uruguay Round had failed. It is very likely that the new round of multilateral trade negotiations will start soon. Although the final draft, in the Seattle meeting, could not adopted, a significant progress had been made on number of issues. There was almost consensus, among members of WTO on draft declaration of the working group: *Market access negotiations on non-agriculture products,* in Seattle. The draft was almost ready to be adopted without any controversy. The draft declaration mentions that a number of issues like peak tariff, tariff escalation, tariff bindings, tariff reduction and elimination of non-tariff measures should be the part of new round. It adds "…modalities for the conduct of the negotiations may encompass one or a combination of methods such as requests/offer, formula and approaches which do not exclude the possibility of deeper

---

* Senior Fellow, Research and Information System, New Delhi, Email: rmmehta@hotmail.com. An earlier version of this paper was presented at a Conference to Honour Prof. K.L. Krishna:

reduction or elimination of tariffs of specific products or product groups to be undertaken by interested participants". The wording of draft ministerial text on "market access negotiation on non-agriculture products" is given in Annexure 1. The main objective of this paper is to analyse some of aforesaid issues such as tariff peaks, tariff escalation and NTBs for developing countries with special reference to India. It also summarises a review of commitments made in the Uruguay Round, and the problem of customs duties which are defined in the form of specific rates. It also suggests policy options and strategies for India and other developing countries, if new round of multilateral negotiations is started in future.

The paper is divided in six sections. Section I give a review of the commitments made in the Uruguay Round by its member-countries, particularly India. It also gives a summary of the present state of the position of India's commitments. The next four sections outline the major issues of market access for industrial sector. Section II deals with the issue of specific tariff vis-a-vis *ad valorem* tariff. Section III proves that a significant number of commodities of the developed countries are subject to peak tariffs. Section IV try to explore the extent of tariff escalation after the UR, because the higher rate of effective protection may still be a hurdle in the export of developing countries. A brief review of present state of Non-Tariff Barriers (NTBs) of developed countries is given in Section V. Finally, the last section summarizes policy options and strategies for India and developing countries, in multilateral trading system.

I. Uruguay Round Commitments: A Review

In the Uruguay Round of the GATT, member countries agreed to enhance market access in large number of industrial sector. This was carried out by providing tariff liberalization on large number of commodities/items. In this context, it should be remembered that member countries have to remove all types of prohibitions and quantitative restrictions, as per commitments made in earlier rounds. The multilateral trading arrangements do not

---

"Industrialisation in a Reforming Economy: A Quantitative Assessment", Centre for Development Economics, Delhi School of Economics, Delhi, December 2000.

only provide the platform for increase in market access, but also give the security through different provisions, like tariff binding, comprehensive rules and provisions for dispute settlement mechanism, etc.

In the Uruguay Round the spread and frequency of tariff bindings and tariff cuts were large, as compared to the commitments made in the earlier rounds. In earlier rounds tariff commitments were generally made by developed countries. It was for the first time that the developing countries like India had taken part in tariff negotiations in a comprehensive way.

Due to the tariff commitments in the UR, average tariff rate of industrial products imported by **developed countries** from all sources will reduce by 40 per cent, i.e. from the average level of 6.3 per cent in pre-UR period to 3.8 per cent, in post-UR period. The reduction in average tariff rate of developed countries imports from developing countries and least developed countries was relatively on lower side - the respective decline being 37 per cent and 25 per cent (Table I). This was mostly due to lower rates of tariff cuts in some sectors like textile and clothing (22 per cent), fish and fish products (26 per cent). The developed countries import a large share of these sectors from developing countries.

Table I: Tariff Reductions on Industrial Products by Developed Countries from Different Groups of Countries

(percentages)

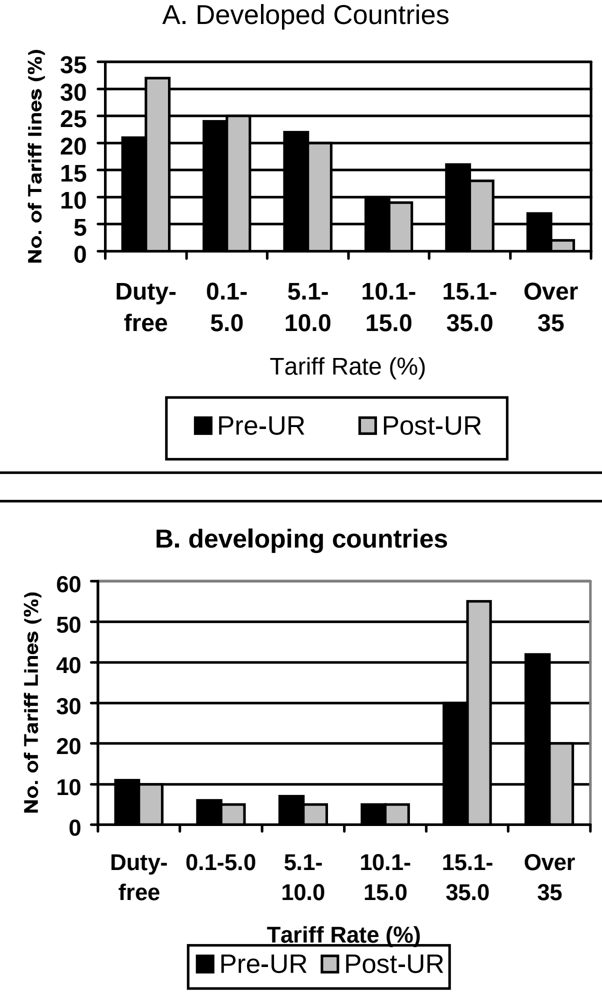
Import from:	Trade-weighted tariff average		Percentage reduction
	Pre-UR	Post-UR	
All countries	6.3	3.8	40
Developing economies (other than least developed economies)	6.8	4.3	37
Least developed economies	6.8	5.1	25

Source: WTO.

Apart from reduction in average rates, it was expected that the dispersion of tariff rates would decline in the post-UR era. Once the Uruguay Round is fully implemented, the number of the tariff lines subject to zero MFN duty will increase from 21 per cent in the pre-UR period to 32 per cent in the post-UR period, for developed economies. It will lead to significant increase in duty-free imports by more than two times by developed countries from all sources. The frequency distribution of national lines by different ranges of tariff rates, in the pre-UR and post-UR period, is given in Figure I.

The procedure for changes in tariff rates adopted at the UR, varies significantly among **developing countries.** Most of the countries have opted for mixture of tariff reductions and ceiling bindings, while some countries like India, Korea and Singapore have offered tariff reductions and no ceiling bindings. India agreed to reduce its average tariff rate from 74.2 per cent to 32.4 per cent, Korea from 18 per cent to 8 per cent, Brazil from 40 per cent to 27 per cent. The trade-weighted average tariff rates of some selected countries in the pre-UR and the post-UR (due to tariff binding in the UR) are given in Table II. It also gives the present level of the average tariff rate for 1998. One can notice from this table that the present level of the average tariff rate is significantly lower than the committed average tariff rate for large number of developing countries. It is mostly due to the liberalization process adopted by these developing countries. In this process they have unilaterally reduced the tariff rates to a level which is lower than the corresponding committed rates.

Figure I
Frequency Distribution of Tariff Lines
(Pre- and post-UR)



The UR has led to increase in security of market access by increase in frequency of tariff bindings. The developed countries have increased the number of bound tariff lines from

78 per cent in the pre-UR period, to 99 per cent in the post-UR period. The developing countries have significantly increased the number of committed lines from the level of 21 per cent to 73 per cent. As a result, the number of tariff bindings for industrial products of developing countries has increased from 13 per cent to 61 per cent. In the pre-UR period, India had bound tariff rates of around 6 per cent of its tariff lines. India has agreed to increase the bound rates for 67 per cent of tariff lines, in the UR. As a result of this binding, 62 per cent lines of India's industrial sector are bound.

Table II: Tariff Reduction on Industrial Products[1] by Select Developing Countries

Country	Trade-weighted tariff averages		
	Pre-Uruguay*	Post-Uruguay*	1998**
Argentina	38.2	30.9	15.6
Brazil	40.6	27.0	16.3
Chile	34.9	24.9	11.0
Colombia	44.3	35.1	11.6
India	71.4	32.4	27.8
Indonesia	20.4	36.9	11.6[1]
Korea Rep.	18.0	8.3	7.5[1]
Malaysia	10.2	9.1	8.6[2]
Philippines	23.9	22.2	9.3
Sri Lanka	28.6	28.1	17.9[2]
Thailand	37.3	28.0	18.0[3]
Venezuela	50.0	30.9	11.8

* Pre-and post-Uruguay Round tariff averages are computed as the trade weighted average of tariff rates on bound lines and applied tariff rates on unbound rates. Due to the significance of ceiling bindings in post Uruguay Round tariff averages, no reductions are reported. It excludes petroleum sector.

** HS Chapters: 25-97

1. for the year 1996
2. for the year 1997
3. for the year 1995

Sources: (i) WTO
(ii) UNCTAD, *TRade Analysis and INformation System*, Winter 1998/99.
(iii) Mehta, R. *Tariff and Non-Tariff Barrier of Indian Economy*, RIS, 1999.

In the UR, **India** agreed to reduce tariff rate for 2701 commodity groups at 6-digit HS-level for industrial sector. Out of 2701 commodity groups, 59 number were defined for sub-groups of HS 6-digit level, while the commitment for one commodity group was offered for a subgroup of HS 4-digit level. The tariff commitments for all the commodities were made in terms of *ad valorem* rates except for two commodities of agriculture sector, whose bound rates are committed in the form of specific amount (Rs/kg). The detailed list of the bound rates of committed lines is given in WTO, *India Schedule-II, 1994*.[3] India has to maintain its applied rate at or below the bound rates by March 2000, except for the commodities of textile sector. The commitments for the textile sector has to carried out by March 2005.

A large number of the commodities whose tariff binding has been committed in the UR belong to the sectors like machinery, chemicals, iron and steel, etc. A comparison of present level of the applied tariff rate (2000/1) and corresponding UR final bound rates (to be committed by March 2000) shows that India has not only maintained the level of UR final bound rates, but has also substantially reduced the level of applied rates for a large number of products that are committed in UR[4]

Unlike most countries of the world, imports of India, Bangladesh and very few more countries have been subject to different types of **Quantitative Restrictions** (QRs). In the WTO/GATT system, it had been decided to remove all types of QRs, and India had also agreed to phase out its QRs on all commodities, except for around 600 commodity/lines for reasons related to security, etc. under Articles XX and XXI of the UR agreement. However, India maintains QRs on import of some more items under provisions of Article XVIII: B of the Uruguay Round Agreement. This article recognizes that member countries whose economies can only support lower standard of living, and are in the earlier stage of development may "apply quantitative restrictions for Balance of Payments Position….(and).…shall be free to deviate temporarily from the provisions of the other Articles of this Agreement." The article, relating to BoP, mentions that a member country has to publicly announce the time-schedule for elimination of QRs. India presented a case of time-schedule of nine years, which was acceptable to most of the member-countries. A number of developed countries had objection to this time-schedule, and the US filed a dispute against India. A panel was constituted in November 1997 to examine the US allegation that the continued maintenance of QRs on India's imports was inconsistent with the India's obligations under the WTO agreement. In a recent report of the Appellate body of WTO[5], it is recommended that " India maintains quantitative restrictions on the importation of agricultural, textile and industrial products falling in 2,714 tariff lines....India bring its balance-of-payments restrictions, which the panel found to be inconsistent with articles.… of the GATT…., into confirmatory with its obligations under these agreements". Keeping this factor in view, India and the US have signed a mutual agreement[6], on December 28, 1999, which has ended the dispute between the two countries on earlier phase out of QRs. In this agreement, India has agreed to advance the date by two years to March 31, 2001 on lifting the QRs for all the items, i.e. 1429 lines (at 6-digit HS level).

Out of these 1429 items, the QR of 714 items have been removed on April 1, 2000, while the QRs of rest of items will be removed by April 1, 2001. A recent study[7] has attempted to estimate the likely increase in India's import demand due to the removal of QRs. It is expected that India's import demand will increase by 8.7 per cent of the present level of India's import, if no appropriate steps (like increase in tariff rate) are taken. The study also shows that that India's imports are likely to shoot up in commodity groups like vehicles other than railway, chemical fertilisers, plastic & plastic products, cereals product, electric plant & machinery, natural & cultured pearls, etc., other vegetable textile fibres etc., coffee, tea & spices, paper & paperboard, man-made filaments and rubber & rubber products.

The items, whose QR will be removed for BoP reasons, can be categorised in two groups: (i) whose tariff rates have been bound in the Uruguay Round, and (ii) whose tariff rates are unbound. It has been noticed that a large number of these items are not bound in the multilateral negotiations. Further, the present level of tariff rate of the items, whose QRs will be removed, is significantly lower than the corresponding Uruguay Round final bound rates for a significant number of committed items.

In case the commodities fall in the category of bound tariff, the appropriate tariff rate (within limit of bound rates) can be imposed to restrict the import of sensitive items. On the other hand, it seems that it is easy to impose any level of the tariff for unbound items, if the QRs are removed. The story is not so simple. Since most of these items were subject to one or another type of QRs, the appropriate level of tariff rates have not imposed keeping in view trade policy. In case bound rates have been committed in the UR, one can say that India can impose any level of tariff rate (because they are unbound) to restrict the import of some sensitive products (like textiles). This is strictly not true. India should act very fast before the initiation of the negotiation on tariff reductions. It is possible that the negotiations for reduction in tariff will start from the present level of applied rates (whether bound or unbound), which is also clear from the draft text of Seattle round. In the text the members have agreed "…the bound rates, and where there are no bound rates, base rates to be agreed shall be used as the basis of negotiations…". India has many commodities whose applied rate is relatively low and India would not like to make further reduction (from the present level of applied rate) for these sensitive products. To quote an example, the tariff rate of urea's import is 5 per cent[8]. In case, the QRs are removed, would India like to keep the tariff rate at 5 per cent for urea, to protect the domestic production? At the present level of tariff rates, the import price of Urea will be substantially less than the cost of domestic production of Urea. In case, the draft text of Seattle meeting was adopted, it would have become impossible for India to raise the tariff rates of its imported commodities. In that situation, the removal of QRs would have led to the closer of more than 90 per cent of Urea's production in India[9].

II. Specific Tariffs *vis-a-vis Ad Valorem* Tariff Rates

Some member countries of WTO are used to the practice of imposing specific duties rather than *ad valorem* rates. These specific duties[10] are generally imposed to avoid custom valuation of imported quantity. It has been noticed that the developed countries have imposed specific duties on a large number of commodities as compared to the number of commodities by developing countries. Although most of the countries believe that the specific duties should be replaced by *ad valorem* rates, no decision was made in the UR. In fact, a significant number of UR bound rates have also been committed in the form of specific duties. There was no mention about this in the draft declaration of the Seattle meeting. It has been noticed that these specific duties conceal the fact that the countries are indirectly imposing high tariff without explicitly mentioning them in different forums.

The list of the commodities whose custom duty is given in the form of specific duties is very large for countries like the EU (1780 lines), the US (1455 lines), as shown in Table III. The table clearly shows that 12 per cent of the EU's national lines (or commodities) were subject to specific duties in 1998. Similarly, 14 per cent of US's national lines were subject to specific duties in the same year. The number of such tariff lines are relatively low for other countries (Table III), except for Japan. In India, the total number of the lines with specific duties is very small. In the union budget of 1999/2000, only 11 lines (out of total 5113lines) were subject to specific duties.

Table III: Number of Tariff Lines Subject to Specific Custom Duty by Select Countries, 1998

Country	Number of Tariff Lines		Subject to Specific Tariff		% of lines subject to specific tariff	
	Total	HS 25-97	Total	HS 25-97	Total	HS 25-97 (%)
Australia	5817	5083	49	18	0.84	0.35
Brazil	9272	8354	0	0	0.00	0.00
Canada	8022	6639	229	8	2.85	0.12
EU	14251	10208	1780	77	12.49	0.75
India	5114	4410	11	9	0.22	0.20
Japan	9102	7158	469	92	5.15	1.28
Korea	10851	9207	20	20	0.18	0.21
Malaysia	8593	7341	55	41	0.64	0.55
New Zealand	7244	6207	257	246	3.55	3.96
US	10191	8340	1455	697	14.28	8.35

Sources: (i) UNCTAD, *ibid*, Winter 1998/99.
(ii) G. O. I., Union Budget 1999-2000.

Although the standard case of specific custom duties consist of one single specific tariff, many are mixed and complex consisting of several specific and *ad valorem* tariffs associated with a condition of relationships between them. There are many variants of specific duties in country schedules of different countries. Different forms of specific duties are (i) addition or subtraction of specific and/or *ad valorem* tariffs, (ii) choice between specific and/or *ad valorem* tariffs, (iii) choice between specific and/or *ad valorem* tariffs subject to upper and/or lower limits, (iv) unspecified variable tariffs, (v) two or more tariffs specified but without indication of what condition to apply, and (vi) tariff element applicable to input content and (vii) blank tariff line or incomplete description. Some of these variants are very complex. For example, Japan defines the specific rate for 'groundnut not roasted' (HS 120910010) as '70 yens per kilogram + 7 yen for every 1 per cent exceeding 10 per cent by weight of lactose content'. It is very difficult to calculate the effective rate of duties of such cases[11].

Since the specific duties are not suitable for analytical and comparative purposes, it requires more common *ad valorem* tariff. Hence these specific duties are converted to *ad valorem* equivalence[12]. A study by UNCTAD has computed *ad valorem* equivalence of specific tariffs for 18000 commodities for the year 1996. It shows that the *ad valorem* equivalence of a large number of products, whose customs duties are defined in the form of specific tariffs in national custom tariff schedules, is very high. It also shows that a large number of these products belong to agriculture sector. However, the study also identifies a significant numbers of industrial commodities (of HS 25-97) whose *ad valorem* equivalence is more than 25 per cent. There were 76 national lines (of HS 25-97) whose *ad valorem* equivalent is more than 25 per cent but their custom duty is defined in terms of specific tariffs in the Japan's schedule. The corresponding numbers for Australia, Malaysia, New Zealand, the EU and the US are 14, 47, 162, 14 and 136, respectively.

The above-mentioned observation is also proved by the recent custom schedule of the US in August 1999[13]. In this schedule, the US defines specific duties for around 600 industrial commodities (national lines) and provides the corresponding *ad valorem* equivalence rate of most of the specific duties. It has been noticed that a large number of these items, whose custom duty is defined in the form of specific rate, have relatively higher tariff rate (as compared to other commodities), and belong to sectors like textile & textile products, footwear, etc. For example, *ad valorem* equivalent of custom duties of 'footwear with outer soles of rubber/plastic and upper of textile' is 58.8 per cent. Based on this detailed information, we calculated the average tariff rate of industrial products (HS 25-97) for two different categories of national lines: (i) whose tariff is defined in the form *ad valorem* rates, and (ii) whose tariff has been defined in the form of specific duties. The estimated average (simple) rate of commodities, whose custom duty is defined in the form of *ad valorem* rates, comes to 3.9 per cent; while the average *ad valorem* tariff equivalence of commodities, whose custom duty is defined in the form of specific duties, comes to 11.4 per cent. It shows that the average tariff rate of commodities with specific duties is almost three times higher than the average tariff rate of the commodities whose custom duties is defined in form of *ad valorem* rates.

III. Tariff Peaks

In the Uruguay Round although the average tariff rates of different countries have declined, it has been noticed that the problem of high tariffs is still prevalent in certain sectors. These high tariffs are generally noticed in developed countries. The unusually high tariffs in the frequency distributions of tariff rates are called 'peak tariffs' in literature. Even if all the tariff commitments of the UR are implemented, the tariff peaks seem to be a major hurdle in the market access of certain sectors. In this section, we analyze tariff peaks of certain developed countries, and identify the sectors where the tariff peaks are prevalent for significant number of commodities. It is generally said that the market access will increase with reduction in average tariff rate, but also with reduction in the dispersion (e.g. peak) of tariff rates. It can also be noticed that the tariff commitments in UR may lead to (i) increase in the number national lines with zero duty, and (ii) decrease in the lines with tariff rates exceeding an upper limit (say 15 per cent). All the commodities with tariff rates exceeding 15 per cent are sometimes called the commodities with peak tariffs. The identification of the commodities with peak tariff is generally carried out through two alternate methods: (i) **Method I:** cut-off point, and (ii) **Method II:** confidence interval.

In Method I, a cut-off point has generally carried out the identification of commodities with peak tariffs. In most of the existing literature, 12 per cent (and sometimes 10 per cent or 15 per cent) is considered as cut-off point. All those commodities, whose tariff rate is more than 12 per cent *ad valorem* rate, are called commodities with peak tariffs. This method is very simple but has number of disadvantages: (i) no distinction is made between different levels of peak tariffs, and (ii) no distinction is made between different groups of countries (developed, developing, and least developed countries).

Method II is based on the upper limit of confidence interval of statistical distribution of tariff rates. In this method, the levels of peak tariffs are identified on the basis of a statistical formula[14]. This method is not simple and the levels of cut-off point, for identification of commodities with peak tariff vary from country to country. It has number of advantages. It takes into consideration (i) average rate of tariffs, (ii) a proper measure of dispersion, (iii) all the national lines of a country or commodity group, and (iv) difference between the average tariff rate and the level of tariff rate of each line.

In this context, it should be remembered that tariff negotiation in the multilateral rounds takes into consideration the level of average tariff rate, present level of applied rates and depth of tariff cuts. Little emphasis is given on tariff peaks.

A number of attempts have been made in the literature to identify the commodities with peak tariffs. A study by UNCTAD/WTO[15] has identified the commodities of different sectors (of 8 countries) which are subject to peak tariffs. The identification has been carried out by taking into consideration the MFN tariff/GSP[16] tariff (whichever is applicable). Based on the findings of 8 countries, the study concludes, "both frequency and levels of tariff peak rates remain a matter of concern. Over 10 per cent of the tariff universe of the Quad countries, corresponding to an aggregate 4,000-tariff line, will continue to exceed 12 per cent *ad valorem*. All four countries maintain high variance in tariff rates. One fifth of the peak tariffs of the United States, one quarter of those EU and Japan, and about one tenth of those of Canada exceed 30 per cent. In the four developing countries selected, tariff peaks are more frequent but reach less extreme rates than in the major developed countries". This study also identifies a number of sectors with peak tariffs. Tariff peaks are largely prevalent in textile, clothing, footwear, leather & leather goods, automobile, other transport equipment and electronics. A summary results of frequency of peak tariffs on exports from developing countries for industrial sector (HS 25-97) is given in Annexure 2.

A recent study by Mehta and Mohanty[17] have identified peak tariffs, on the basis of above mentioned two methods. The authors show that the problem of peak tariffs is still prevailing in all the major trading partners of India i.e. the US, the EU, Japan, etc. It is observed that a large number of developed countries have imposed peak tariffs in sectors like textile & textile products, articles of plastics/rubber, chemical and chemical product, plant & machinery and transport equipments. In Japan, the tariff peaks have been observed in leather & leather products and footwear products.

A summary results of Mehta and Mohanty study are presented in Table IV. Based on the statistical formulae, the country-wise analysis shows that the US has imposed peak tariffs for around 11 per cent of national lines, Australia on 5 per cent of national lines and so on. The number of the national lines which have peak tariffs in the Japanese market is small (106 out of 7158), but the level of tariff peaks is very high. Comparing the two alternate methods for identification of peak tariffs, it suggests that India and developing countries should opt for statistical formulae in the forthcoming negotiations.

Table IV: Number of Lines[1] subject to Peak Tariff[2], 1998

Country	TR ≥ 12%	With statistical formula[3] TR ≥ M + SD
Australia	881	253
EU	861	1456
Japan	751	106
US	986	884
India[4]	4064	2
Korea[5]	21	15
Malaysia[6]	74	10

Source: Mehta, R. & Mohanty, S. K., *ibid*, 1999.

1. Of HS 25-97
2. National Lines, it also includes some national lines with specific duties. The specific duties have been converted to *ad valorem* equivalent.
3. TR = Applied Tariff Rate, M = Average Tariff Rate, and SD = Standard Deviation of Tariff Rates
4. For year 1999
5. For year 1996
6. For year 1997

IV. Tariff Escalation

Tariff escalation occurs when tariff levels increase with the level of processing providing high tariffs of effective protection to the importing countries' processing sectors. Tariff escalation had been a major concern for developing countries, which fear that it may inhibit their efforts to industrialization.

Tariff structures of different countries have traditionally displayed significant escalation favoring domestic processors in large number of commodities. It was expected that tariff commitments in the UR would provide for gradual reduction of escalation by applying relatively higher cuts to finished goods. However, rapidly rising tariffs has been noticed from low rates for raw material to higher rates for intermediate goods and sometime peak tariffs for finished products. It continues to damage vertical harmonization and industrialization. A number of studies have confirmed that tariff escalation has continued after the UR in a large number of sectors, particularly, metals, textile & textile products, leather & rubber products and to some extent wood & wood products. This analysis is based on the estimation of two alternative measures commonly known as (i) effective rate of protection (ERP), and (ii) levels of average tariff rates at different stages of processing, i.e. raw material, semi-processed items and finished goods.

A study by UNCTAD[18] has estimated ERP for large number of commodities/countries. The study confirm the persistent and high tariff escalation for large number of specific commodities of clothing and footwear sectors. In case of the US, the ERP doubles for leather & leather products, and rises steeply for textile products to the level of 35 per cent. The ERP rises more steeply in Japan; it increases from 66 per cent for leather to 260 per cent for leather shoes. A significant increase has also been noticed for a large number of sectors in Malaysia and Korea. These results confirmed that the tariff escalation is still a major constraint for major export industries of developing countries.

The results based on average tariff rates at different stages of processing confirm these findings. In Japan, tariff escalation is evident in number of sectors, most notably between semi-processed and fully processed items, particularly, in sectors like textile, petroleum refinery, rubber products, metals and footwear[19]. In the case of the EU, the significant tariff escalation has been noticed in sectors such as textile, leather products, wood products, industrial chemicals and rubber products. The implementation of UR may lead to disappearance of tariff escalation in iron & steel of the EU[20], however, it will continue in textile, leather & rubber products, etc., during the post-UR period, as shown in Figure II.

An estimate of the ERPs[21] of 55 sectors of Indian economy for 1998/99 are given in Table V. Our results show that there has not been any significant increase in estimated values of ERPs for almost all sectors of industrial products, except for 'other food and beverages industries'. There has been some minor increase in the ERP of some products like wood & wood products, rubber products, rail equipment, etc.

In short, the tariff commitments in the UR may not lead to decline in the tariff escalation (or effective rate protection) for a large number of sectors in which India and other developing countries have huge export potential.

Table V: Estimate of Effective Rates of Protection for Indian Industries, 1998/99

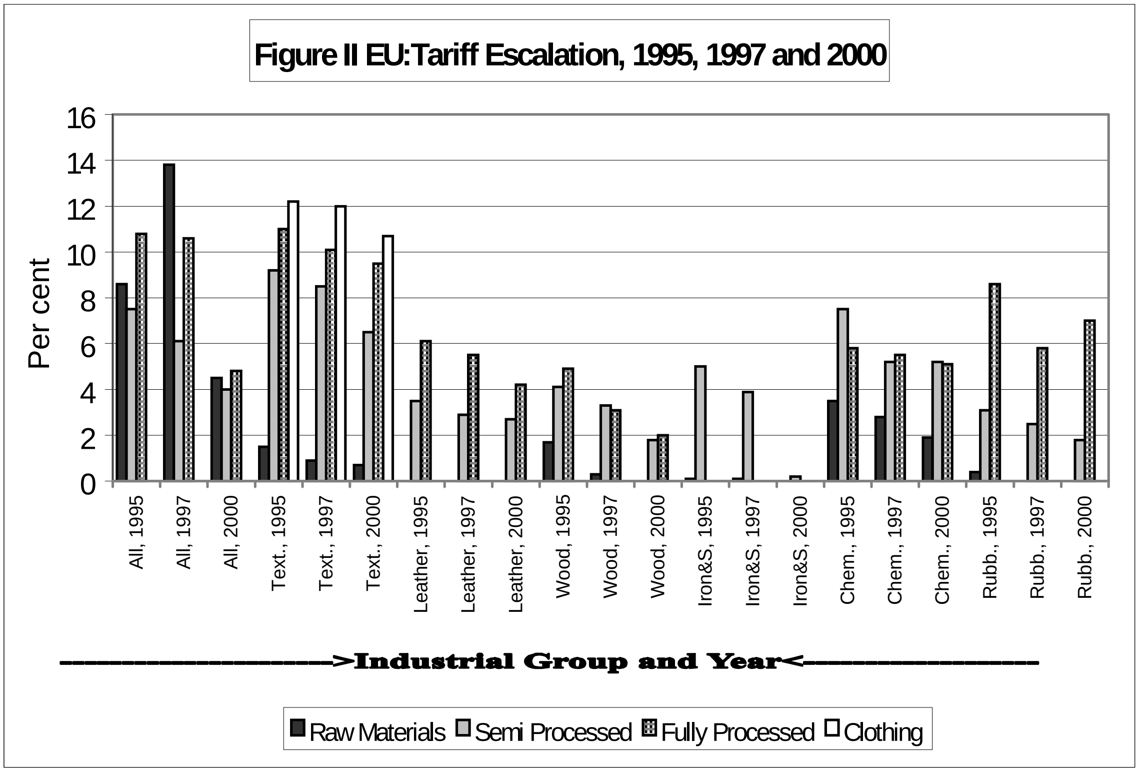
I/O Sector No.	Description	1998/99 NRP*	1998/99 ERP**
1.	Paddy	0.0	-6.31
2.	Wheat	0.0	-5.70
3.	Other Cereals	5.0	1.57
4.	Pulses	5.0	1.69
5.	Sugarcane	40.0	42.13
6.	Jute	30.0	31.04
7.	Cotton	40.0	43.54
8.	Tea and Coffee	10.0	8.83
9.	Rubber	20.05	18.70
10.	Other Crops	29.31	30.55
11.	Animal Husbandry	16.50	12.14
12.	Forestry and Logging	3.86	3.14
13.	Fishing	31.24	31.4

14.	Coal and Lignite	10.0	4.53
15.	Crude Pet.& Natural Gas	19.45	18.84
16.	Iron Ore	5.02	2.49
17.	Other Metallic Minerals	6.90	5.65
18.	Non Metallic Minor Minerals	37.54	38.82
19.	Sugar	5.0	1.31
20.	Khandsari	10.0	13.87
21.	Edible Oils	30.04	35.15
22.	Other Food & Beverage Industries	56.23	102.61
23.	Cotton Textiles	38.96	40.62
24.	Woollen textiles	31.83	33.70
25.	Silk Textiles	30.00	36.63
26.	Art. Silk and Synthetic Fibres	33.85	33.37
27.	Jute Hemp Mesta Textiles	39.95	45.91
28.	Readymade Garments	40.0	43.68
29.	Other Textiles	36.38	37.26
30.	Wood and Wood Products	30.79	40.37
31.	Paper and Paper Products	17.56	15.63
32.	Leather & Leather Prods.	27.08	28.53
33.	Rubber Products	39.21	49.68
34.	Plastic Products	30.19	30.18
35.	Petroleum Products	25.19	29.77
36.	Fertilizers	24.91	22.53
37.	Pesticides	30.00	32.40
38.	Synthetic Fibre & Resin	31.56	34.73
39.	Paints, Drugs, Cosmetics	31.90	35.91
40.	Other Chemicals	27.57	29.25
41.	Cement	40.00	45.36
42.	Other Non Metallic Mineral Products	34.14	36.69
43.	Iron and Steel	29.26	32.27
44.	Non Ferrous Metals	32.35	35.78
45.	Tractors & Oth Agri. Mach.	20.00	16.51
46.	Other Non Electrical Machinery	20.70	15.29
47.	Electrical Machinery	25.25	24.46
48.	Comn. & Electronic Equip.	21.88	19.32
49.	Rail Equipment	39.84	45.60
50.	Motor Vehicles	40.00	43.44
51.	Motorcycle, Scooter & Bicycles	40.00	45.80
52.	Other Transport Equipment	35.52	39.73
53.	Other Manufacturing	18.61	10.74

* NRP for a sector is calculated on the basis of Import-Weighted MFN tariff rates. The weights are computed using the value of imports during the year 1996-97. The tariff rates are MFN tariff rates at 6-digit HS level, without taking into consideration the exemption notifications. The correspondence, between an I-O sector classification and trade classification, has been carried out using trade statistics at 8-digit HS-ITC classification.

** Based on the co-efficient of Input-Output Table for the year 1996-97, for 65 sectors. Sectors numbered 54- 65 are mostly service sectors.

Sources: (i) G.O.I., *Input-Output Transaction Table 1996-97*, Planning Commission, 1998.
(ii) G.O.I., *Custom Tariff of India*, 1996-97.
(iii) G.O.I., D.G.C.I.&S., *Monthly Statistics of Foreign Trade of India*, March 1997.
(iv) G.O.I., *Input-Output Transaction Table 1989-90*, C.S.O., Nov. 1997.



V. Non-Tariff Barriers

The developed countries have been the forceful advocates of open and liberal trade and their message to developing countries have been to follow the similar process. In a truly amazing act of self-denial, they have impressive array of new measures of protection and government interventions. These have been imposed through different instruments including non-tariff barriers. One of these devices known as voluntary export restraints (VER) had become one of the most lethal instruments during 70s and 80s. Its use was spread from textile & apparel to steel automobiles, leather products, machinery, consumer electronics and many more. The example of VER is only a part of the story. Numerous other examples were value added taxes, informal purchasing arrangement, 'buy national' policies, to name a few.

The agreements of the UR have changed the intensity of many of these NTBs. Some measures of NTBs have lost their importance. The agreements on agriculture and safeguards have virtually made it impossible to impose any type of QRs and VER. On the other hand, many quotas on textile and apparel will not be eliminated before 2005, under the existing phasing out programs in the Agreement on Textile and Clothing (ATC). In addition, a significant increase has been noticed in some other measures of NTBs. Most of these measures have been designed and imposed to protect domestic production. These measures are sometime called 'contingent protection measures' in the literature.

The strengthening of dispute settlement mechanism is considered as one of the major achievements of the Uruguay Round. Since the formation of the WTO, the numbers of disputes referred to dispute settlement body have significantly increased as compared to the numbers referred during the pre-UR period[22]. These disputes refer to elimination of QRs, anti-dumping duties, countervailing duties, sanitary and phytosanitary measures, technical barriers to trade, government procurement, transparency, TRIMs, national treatment, etc. These measures have affected market access for a large number of industrial sectors particularly textile, electrical and mechanical equipments, and agriculture products. The developing countries like India have huge trade potential in these sectors.

In the following paragraphs we provide a brief outline present state of the position of the NTBs in select trading partners of India. UNCTAD has identified around 36 categories of NTBs, which Japan is imposing on its imported goods. Out of these 36 categories, 16 had been imposed on industrial imports of Japan (Table VI). Atleast one types of these NTBs have been imposed on 2742 commodities- (or lines) of the Japan's industrial sector. A significant number Japan imports were subject to multiple types of NTBs and most of these items belong to commodity groups like mineral fuel (HS chapter 27), organic chemical (chapter 29), pharmaceutical product (chapter 30), furskin and artificial fur (chapter 43) and wood & wood products (chapter 44). Apart from these types of tariff barriers, the import of a large number of some commodities require licenses, particular specifications, import through specific agencies, etc. Some examples of these specific restrictions for Japanese import are given in part II of Table VI.

Table VI: Types of NTBs imposed by Japan on Industrial Sector

I. Broad categories of NTBs imposed

1. Tariff quota
2. Variable Charges
3. Antidumping duties
4. Automatic license
5. Non-automatic license
6. Authorization for wildlife protection
7. Authorization ensure national security
8. Authorization for political reasons
9. Global quota
10. Quota for sensitive products
11. State monopoly of imports
12. Sole importing agency
13. Product characteristics requirements to protect human health
14. Product characteristics requirements to protect environment
15. Product characteristics to protect wildlife

II. Some Select examples of NTBs.

(i) Tariff Quotas on certain food products, alcohol, leather and footwear products

(ii) Prior to importation motor vehicles generally need to meet a type-approval test

(iii) Only some select branded vehicles approved for cars imports: (a) BMW (46 types), (b) Volks wagen/audi (84 types), (c) Mercedes Beuz (62 types), (d) Opel (20 types), (e) GH (12 types), and (f) Ghrysler (6 types). Examination period 2 months.

(iv) Auto components regarded as essential to vehicle safety, called "critical parts", must be replaced either by a certified garage approved as capable of repairing all critical parts, or the replacement needs to be checked by Ministry of Transport (MOT).

(v) According to the provisions a Law, importing pharmaceuticals require a license from the Minister of Healther and Welfare (MHW).

(vi) For granting a license to import cosmetics, the MHW uses a positive list, such that only ingredients with prior approval can be used. Each product to be imported must have a separate license, and in principle meet labelling requirements.

(vii) Iron and steel production can apply for government assistance, such as low interest loans, loan guarantees and tax breaks.

The impact of the alternate measures of NTBs on imports depends upon the intensity of NTB. Some of these NTBs are called hard-core while other are sometime termed as soft NTBs. UNCTAD[23] presents a measure of hard-core[24] NTBs for different countries. The results based on the UNCTAD information show that 8.7 per cent of EU's national lines are subject to one or another type of NTBs, during 1998. Similarly, the corresponding estimated values for Japan is 5.9 per cent, for Australia is 6.4 per cent, and for Brazil is 36.6 per cent. The total number of India's items subject to hard-core NTBs (restricted/canalized) comes 10.7. It also includes those items whose QR will be phased out under INDO-US Agreement on QR removal.

All the above mentioned non-tariff barriers contribute to restrict the export of number of developing countries, and the UR could not tackle these issues successfully. On the one hand the importing countries generally term them as NTBs, the imposing countries insist that ‘these instruments are policy objective’. This was one of the main reasons of the collapse of the Seattle meeting.

In short, NTBs continue to affect the growth of world trade. The incidence of hard-core NTBs for different commodity groups varies significantly from one country to another. The hard-core NTBs have been frequently noticed in sectors like pharmaceutical products, essential oils, soap & organic surface, chemicals products, leather and leather products, wood and wood products, textiles (particularly in the markets of Canada, Japan and the European Union), iron & steel, plant & machinery and miscellaneous manufactured products (in European Union and Australia), in large number of major trading partners of India.

VI. Strategies and Options

The earlier rounds of multilateral negotiations have led to significantly increase in market access of industrial sector. It is generally carried out through reductions in levels of tariffs and commitments of bound rates of large number of commodities. Its extent is generally measured through average tariff rates.

In the pre-Seattle era, India and some other developing countries were opposing the inclusion of “Market Access Negotiations for Non-Agriculture Products” in the new round of multilateral trade negotiation. In the process of Seattle meeting, India along with other member countries of WTO, had agreed to a draft text (though not adopted) which includes many issues relating to market access for industrial sector. A detailed analysis of these issues is essential to understand the nature of the benefits and the cost acquiring to India and other developing countries.

In the forthcoming negotiations (if started), India and developing countries should not concentrate on reduction in average tariff but their concerns should be the reduction in peak tariffs, and tariff escalation. In the negotiations, India should give emphasis on higher reduction in the tariff rate of finished product as compared to the tariff rates of unfinished or semi-processed products. Further, the conduct of negotiations, for possibility of deeper reduction, should be based on formula or approaches. Even if average tariffs are discussed, it should be based on simple average (and not import-weighted average) of all commodities including those items whose custom duties are defined in the form of specific rates. In fact, developing countries should demand that all the countries should define their custom duties (even commitment rates) in the form of *ad valorem* rates.

Since the formation of the WTO, numbers of the disputes, relating to NTBs, have very significantly increased as compared to the numbers referred during the pre-UR period. These measures continue to effect the growth of world trade. The developing countries should demand a coherent approach for dealing with such issues, and active participation in setting up new (and clear) rules and provisions.

The forthcoming negotiations should not be based on sector-by-sector approach. In fact, it should be more comprehensive, where reduction/commitments should not be dealt separately for agriculture, industry and textile.

Annexure 1: WTO, DRAFT MINISTERIAL TEXT of Seattle Meeting, 3/12/1999, 05.45 a.m.

Section: Market Access Negotiations on Non-Agricultural Products

Market access negotiations shall cover all non-agricultural products without a prior exclusion and aim at the broadest possible liberalisation through the substantial reduction of tariffs, as well as the reduction and where possible elimination of peak tariffs and tariff escalation to improve access to markets for all Members. The negotiations shall aim at increasing transparency and predictability through a significant expansion of the scope of tariff bindings, and through simplifying Members' tariffs. Other issues, as agreed, may be taken up during the course of the negotiations.

Negotiations shall aim at the reduction or elimination of non-tariff measures that restrict or distort trade and undermine the effectiveness and benefits of negotiated market access liberalisation.

The modalities for the conduct of the negotiations may encompass one or a combination of methods such as request/offer, formula and approaches which do not exclude the possibility of deeper reduction or elimination of tariffs for specific products or product groups to be undertaken by interested participants. The bound rates, and where there are no bound rates, base rates to be agreed shall be used as the basis of negotiations. The negotiations shall take account of any autonomous liberalisation undertaken by Members since the conclusion of the Uruguay Round and credit shall be given for it according to modalities to be developed.

Negotiations shall be guided by the special and differential treatment as provided for in Part IV of GATT 1994 and the Enabling Clause with a view to securing additional benefits for the trade of developing country Members, and allowing for flexibility in the concessions requested from them and in the implementation of the results. In this context, as concerns the treatment of least-developed country Members, reference is also made to paragraphs 54(a) of the Declaration.

Annexure 2: Tariff Peak Products; Post-UR Tariffs on Exports from Developing Countries (Industrial Products) (percentage)						
Products description	**EU**	**Japan**[a]	**US**	**Canada**	**China**	**Malaysia**
Bovine skin leather, tanned	5	30	0	0	9	0
Sheep and lambskin leather, prepared	2	30	2	0	14	0
Suitcases, briefcases of leather	1	10	8	7	25	25
Suitcases of plastics or textiles	4	8	20	7	35	25
Small pocket leather goods	1	10	20	5	25	25
Leather gloves	7	10	14	10	25	25
Woven fabrics of>80 per cent combed wool	12	8	25	14	30	0
Cotton, raw	0	0	79[1]	0	3	0
Carpets, knotted, of wool or fine animal hair	6	8	0	10	32	30
Babies' garments, knitt.or crocheted, of syn. Fibr	11	22	16	18	33	20
Women's blouses, knitt. or crocheted, of man-made fibres	11	11	32	18	35	20
T-shirts, knitted or crocheted, of cotton	11	11	17	18	30	20
T-shirts, knitt.or crocheted, of syn. fibres	11	11	32	18	35	20
Pullovers, knitted or crocheted, of man-made fibr	11	11	32	18	32	20
Men's coasts, woven, of wool or fine animal hair	11	9	17	18	35	20
Men's trousers, woven, of wool or fine animal hair	11	9	17	18	35	20
Men's trousers, woven, of cotton	11	9	17	17	31	20
Men's trousers, woven synthetic fibres	11	9	28	18	35	20
Women's dresses, woven of wool or fine animal hair	11	9	14	18	35	20
Women's trousers, woven, of synthetic fibres	11	9	29	18	35	20
Men's shirts, woven, of cotton	11	7	20	17	31	20
Men's shirts, woven, of man-made fibres	11	7	28	18	35	20
Women's blouses, woven of man-made fibres	11	9	27	18	35	20
Babies' garments, woven of synthetic fibres	9	9	29	18	33	20
Ties, bow ties and cravats, woven, of man-made fibres	11	0	14	18	33	25
Bed linen, printed, of man-made fibres	11	5	15	18	33	30
Waterproof footwear	13	27	38	20	25	30
Footwear with outer soles and uppers of rubber/plastic	13	7	56	18	25	30
Footwear with leather uppers	6	140	10	18	25	30
Sports footwear (with textile uppers)	13	8	58	16	25	25
Parts of footwear, uppers and parts thereof	3	25	42	8	25	25
Ceramic tableware, kitchenware, and so on (excluding china)	9	0	28	0	30	30
Drinking glasses of glass	8	0	29	0	30	25
Glassware for kitchen, toilets etc.	8	0	38	0	30	25
Television picture tubes, colour	10	0	15	5	18	0
Cars, capacity<2500 cubic centimetres	7	0	3	6	80	140
Diesel trucks	15	0	25	6	40	30
Bicycles	11	0	11	9	25	25
Watch movements	2	0	33	5	20	0

[a] GSP rates exist at half the MFN rate for most of these products, but are limited by tariff quotas.
[1] Progressive additional safeguard duties are levied if import prices are below the level indicated in the tariff.
Source: UNCTAD/WTO, *The Post-Uruguay Round Tariff Environment for Developing Country Exports: Tariff Peaks and Tariff Escalation* (TD/B/COM.1/14/Rev.1), 14 September 1999.

Notes

[1] In December 1999, a ministerial meeting of WTO was organised to decide the agenda of next round of multilateral trade negotiations.

[2] It is possible that this stand may have been taken due to 'strategic' reasons.

[3] See, also, Academic of Business Studies (ABS), *Easy Reference Customs Tariff, 1999-2000*, March 1999.

[4] For India's (i) UR bound rates and (ii) present level of MFN Tariff rates (2000/1), see Mehta, 1999, *Tariff and Non-tariff Barriers of Indian Economy*, RIS, 1999, and ABS, ibid.

[5] WTO, *India-Quantitative Restrictions on Imports of Agricultural, Textile, and Industrial Products: Report of the Appellate Body,* WT/DS90/AB/R, and August 23, 1999.

[6] See, WTO, *India-Quantitative Restrictions on Imports of Agricultural, Textile and Industrial Products: Agreement under Article 21.3 (b) of the DSU*, WT/DS90/15, Jan. 17, 2000.

[7] See, Mehta, *R., Removal of QRs and its Impact on India's Imports*, EPW, May 2000; See also Mehta; R, *QR Removal and India's Import: The Case of India's Unilateral Offer for SAARC Countries*, RIS, 2000.

[8] As per Government of India, Custom Notification No. 16, dated 1.3.2000.

[9] See, *Price Policy for Urea Manufacture: A Study of Pricing System, Make-buy options, and field back and locational choices*, Report of the Group of Economists (Goldar, B.N. et al.), April 2000.

[10] Amount of value per unit of imported commodity.

[11] See Mehta, R. and S.K.Mohanty, *WTO and Industrial Tariff: An Empirical Analysis for India*, RIS, 1999.

[12] See, for example, UNCTAD, *TRade Analysis and INformation System*, Winter 1998/99, for different formulas for conversion of specific duties to *ad valorem* equivalence.

[13] USITC, *Interactive Tariff Database*, August 1999.

[14] The statistical formula is defined as

$$\text{Peak Tariff} \geq \text{Mean} + \text{Standard Deviation},$$

$$\geq M + SD,$$

where

$$M = \frac{\text{Sum of Tariff Rates } (TR_i) \text{ of all Lines of a country}}{\text{Total No. of Lines (N)}}$$

$$= \frac{\sum_{i=1}^{N} TR_i}{N},$$

$$V = \frac{\sum_{i=1}^{N} (TR_i - M)^2}{N},$$

and the standard deviation (SD) is defined as

$$SD = \sqrt{\text{Variance}}$$

[15] UNCTAD/WTO, "The post-Uruguay Round Tariff Environment for developing country exports" (TD/B/COM. 1/14), Geneva, 1999/2000.

[16] Generalised System of Preference.

[17] Mehta, R. and Mohanty, 1999, ibid.

[18] See WTO/UNCTAD, "Market Access: Developments since the UR, implications, opportunities and challenges" (E/1998/55), May 1998.

[19] WTO, *Trade Policy Review: Japan 1998*, Geneva, June 1998.

[20] WTO, *Trade Policy Review: EU 1998*, Geneva, March 1998.

[21] The Effective Rate of Protection (ERP) for commodity j is defined as

$$ERP_j = \frac{t_j - \sum_{i=1}^{n} a_{ij}\, TR_i}{1 - \sum_{i=1}^{n} a_{ij}}$$

where a_{ij} = input-output coefficient, TR_i = import tariff rate of ith good. The values of a_{ij} are taken from the input-output tables for the year 1998-99 prepared by Planning Commission, while the values of tariff rate(TR_i) are based on 'scheduled tariff rates' as announced by government. See also Mehta, R., "Trade Policy Reform 1991-92 to 1995-96: Their Impact on External Trade," EPW, 1997, for estimation procedure of ERPs of different Industries.

[22] See for example, UNCTAD/WTO, *ibid*, 1998.

[23] UNCTAD, *ibid*, Winter 1998/99.

[24] The hard-core NTBs, defined by UNCTAD include the three major categories: (i) Quantity control measures (referred to as QRs): such as non-automatic licensing, quotas, prohibitions, export restraint arrangements but excluding tariff-quotas and enterprise-specific restrictions., (ii) Financial measures: they include advance payment requirement, multiple exchange rates and restrictive official foreign exchange allocation, but exclude regulations concerning terms of payment and transfer delays/queuing, and (iii) Price control measures which effect the cost of import in a variable amount on the basis of difference between domestic prices and its corresponding foreign prices. They include administrative price fixing, voluntary export price restraint, variable charges, anti-dumping measures, and countervailing measures.