



422

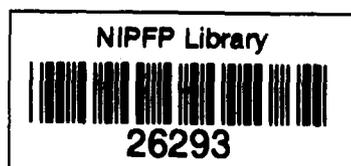


**NON-TARIFF BARRIERS TO TRADE:  
CASE STUDY OF INDIA  
VIS-A-VIS EC, JAPAN AND USA**

**MADANMOHAN GHOSH**

**NO. 3/94**

**APRIL 1994**



## **Acknowledgment**

This is a part of the authors M.Phil. Dissertation submitted to the Jawaharlal Nehru University, New Delhi. The author gratefully acknowledges his supervisor, Manmohan Agarwal, without whose intellectual support this paper may not have got its present form. Comments from Sandwip Das, Bibek Debroy, M.G. Rao, Biswajit Dhar, Arindam Dasgupta, Uma Dutta Roy Choudhury, Tapas Sen, V.B. Tulasidhar and Hiranya Mukhopadhyay were very useful. Satish Kamath provided computational assistance with a smiling face as and when the author approached him. The author deeply expresses his gratitude to all of them. The author also wishes to thank an anonymous referee and conference participants at the ISI IXth Annual Conference on Economic Theory and Policy (17-19th January, 1994) held in ISI, Delhi for their comments on an earlier version of the paper. Any remaining error, of course, lies with the author.

## **NON-TARIFF BARRIERS TO TRADE: CASE STUDY OF INDIA VIS-A-VIS EC, JAPAN AND USA**

### **ABSTRACT**

Non-Tariff Barriers (NTBs) have emerged as important hindrances to world trade since the 1970s. Tariffs have been reduced through several rounds of negotiations at the GATT. The growth of NTBs, however, continues to evade control. The industrial countries, in particular, have substituted NTBs for tariffs to blunt the competitive edge of LDCs' major exports. These NTBs have come as a major setback to LDC liberalisation attempts in the 1980s.

Incidence of NTBs in the US and Japan to Indian exports is higher than their average in the World exports with the highest coverage being in Japan. 35 and 51 per cent of India's exports are subject to NTBs in the US and Japan respectively as against the world average of 33 and 39 per cent. In the European Community (EC) incidence of NTBs against Indian exports is the highest in Greece followed by France, Denmark. Italy, Ireland, the UK, Belgium and Luxembourg. In the EC the incidence of NTBs increased during the period 1980-85 but fell in 1986.

The study finds that Indian exports of vegetables and prepared foodstuffs were the worst affected by NTBs in the EC. The prospect of further increase in textile exports in the EC is limited unless the MFA quota is raised.

Using a very rough and ready measure, "the before and after approach", the study shows that out of ten export items in the US, eight were subject to lower growth in presence of NTBs as compared to the period without NTBs. This 'measure' suggests the importance of a rigorous attempt to analyse the impact of NTBs on India's exports.

## SECTION I

### I. Introduction

A significant change in the global trading regime since the 1970s has been the rise in protectionism, particularly in the industrialised countries. This protectionism implies a structural shift from the use of more transparent protective measures such as tariffs and quota to less transparent non-tariff barriers (NTBs)<sup>1</sup>. These NTBs include voluntary export restraints, antidumping and countervailing duties, and various administrative measures. The effect of tariff reduction by the industrial countries was almost nullified by the new NTBs imposed towards imports from developing countries.

Freer trade formed a major element in post War economic reconstruction as protectionist regimes in the 1930s has had a damaging economic effects. Freer trade was facilitated by lowering of tariff rates from the average rate of 40 per cent to a bare minimum level of 4.8 per cent through the successive rounds of multilateral trade negotiations under the auspices of the GATT<sup>2</sup>. The tariff reductions contributed to the rapid growth of the volume of world trade and of the GDP of the developed market economies during the 1950s and 1960s. Between 1963 and 1973, world output grew at an average annual rate of 6 per cent and world trade at 7 per cent. However since 1974 the rate of growth of world output has been reduced to about 2 % and world trade to about 3 per cent.

This decline in the rate of growth of world output and trade might be traced to the increasing use of various NTBs. NTBs jeopardize creation of liberal environment for global trade sought by the GATT. The threat posed to the GATT system arises out of the following characteristics of NTBs:

- i) information on NTBs is often sparse and fragmentary,
- ii) lack of transparency in their usage and economic effects as they have many diverse forms
- iii) some NTBs, such as nonenforcement of certain intellectual property right laws, are difficult to detect and some, for instance, the health and safety regulations, even when possible to detect have ambiguous status and lastly,
- iv) NTBs generally do not operate through the price mechanism.

The increasing use of NTBs as protective devices has eroded the GATT's principle of non-discrimination. The NTBs have particularly hurt the exports of LDCs with increasing resort to new NTBs such as orderly marketing arrangements, voluntary export restraints (VER)<sup>3</sup> etc., and increasingly restrictive authorized non-tariff measures (NTMs) such as the Multi-Fibre Arrangement (MFA).

Furthermore, due mainly to production increasing effect of high internal price support policy, maintained with the help of NTBs the EC has become the world's second largest exporter of sugar and of beef.

Among the most damaging policies we can include the increasing use of unfair trade measures by industrial countries, the expanded nature of the US 301 provisions and the EC agricultural subsidies<sup>4</sup>.

Efforts to bring NTBs under the GATT discipline were started in the Kennedy Round and intensified in the Tokyo Round. But NTBs have continued to grow as governments respond to powerful interests that skim disproportionate benefits and leave the cost-paying to weaker interests that are disproportionate bewildered, and voiceless<sup>5</sup>.

## **I.2 Objectives**

Therefore, disruptions evident in the GATT negotiations owing to the dynamics of NTBs require a study of India's position in such an environment of global trade. Very little work on NTBs affecting Indian exports has been undertaken. A study by the Indian Institute of Foreign Trade (IIFT, 1978) attempted to identify NTBs facing India's exports to developed market economies in the sixties and early 1970s, since when coverage and nature of NTBs have undergone many changes. More recently, Rajiv Kumar (1988) analysed NTBs facing exports of 17 major commodities. He relied on information gathered from Ministries and firms. This study had a limited coverage of commodities, also did neither make any quantitative assessment regarding the coverage of NTBs nor their impact on India's exports. Our study takes a comprehensive look at NTBs facing India's exports to the US, the EC and Japan. We analyse the importance of these NTBs by examining their extent and their impact

on India's exports to the US, the EC and Japan.

India's share in world exports declined from 1.3 per cent in 1960-61 (in value term) to about 0.4 per cent in 1987-88. The foreign exchange crisis in 1990-91 stimulated the Government of India to undertake major steps aimed at restructuring of the economy. Series of reform measures are being undertaken since June 1991. In the area of trade tariffs have been reduced, trade licensing eliminated and allowed the value of the Rupee to be determined by the market. The industrial and trade policy reforms have been aimed at removing the internal constraints to exporting. However, it is also essential to find out the external constraints to exports. In this endeavour, our study aims to record all the NTBs facing Indian exports: their nature and coverage and thus to judge how they are affecting Indian export performance. Depending on data availability the study is limited to the period 1980-86. It takes into account all the commodities at the 3 digit level of Standard International Trade Classification (SITC) for Indian exports to the US and Japan but at the 2 digit level of harmonised (HS) classification for the EC<sup>6</sup>.

The study is organised in the following way. Section II deals with alternative definitions and measurement of NTBs. Section III analyses India's trade relations with the EC, Japan and the US in the 1980s. Section IV describes the NTBs to Indian exports. Section V analyses the impact of NTBs on India's exports. Section VI sums up the main findings of the study.

## SECTION II

The first part of this section provides a brief discussion on NTBs - definition, nature and types etc. The second part deals with measurement of NTBs, and in the final subsection the strengths and weaknesses of these measures are discussed.

## **II.1 Definition of NTBs**

It is important to define a NTB before any formal analysis can be undertaken. The various definitions advanced by different authors viz., M.S. Massel (1965), W.B. Kelly (1967), Robert Baldwin (1970), Ingo Walter (1972) have limitations (see Laird and Yeats 1990). For example, Baldwin defines NTBs as 'any measure (public or private) that causes internationally traded goods and services, or resources devoted to the production of these goods and services, to be allocated in such a way as to reduce potential real world income'. 'Potential real world income' is defined to be a level attainable if resources were allocated in the most economically efficient manner. However, in practice estimating the potential real income' is not an easy task as it requires at the minimum, a knowledge of directional movements in income under alternative policy measures.<sup>7</sup>

Ingo Walter's (1972) proposition is that NTBs broadly encompass all private and government policies and practices that distort the volume, commodity composition or direction of trade in goods and services. This definition again requires judgement on what constitutes a trade distortion. This difficulty is partially reduced by adopting Walter's suggestion that NTBs be classified on the basis of their intent. But understanding the true intent behind the imposition of a non-tariff measure is very difficult. For example measures like standard requirements, labelling and packaging regulations etc., can be used to affect the level of imports depending on how they are applied. The intent cannot be easily known without a difficult and costly investigation regarding the nature and actual operation of these measures<sup>8</sup>.

In recognition of this point UNCTAD used two terms: Non-Tariff Measures and Non-Tariff Barriers. The term "measures" is wider than barriers since it encompasses all the instruments which may be used as barriers<sup>9</sup>.

The UNCTAD classification scheme for non-tariff trade measures is of a product specific nature (i.e., NTBs are imposed according to tariff line) and are grouped into five broad categories depending on their method of operation.<sup>10</sup> These are (a) fiscal measures, (b) volume restraining measures, (c) import authorization, (d) control of the price level and (e) other measures (see Appendix A for definitions of various NTBs).

## II.2 Measuring NTBs:

Measuring the extent of NTBs is more difficult than defining them, because NTBs are numerous in number, divergent in character and each one has different implications. In spite of obvious limitations attempts have been made to understand the extent of NTBs by constructing the frequency and coverage indices of NTBs as follows:

### (i) **The frequency index of NTBs:**

The frequency index ( $F_j$ ) shows the percentage of tariff lines covered by NTMs, and is calculated as :

$$F_j = (\sum(D_i N_i) / N_j) * 100 \dots\dots\dots(1)$$

Where  $N_i$  tariff line  $i^{11}$ ,  $D_i$  = dummy variable which takes a value of unity if one or more NTMs are applied to the item and zero otherwise.  $N_j$  = total number of tariff lines of the product group.

### (ii) **The coverage index of NTBs:**

This takes account of the percentage of export/import (in value term) subject to NTBs. The coverage index ( $C_{jk}$ ) is calculated as

$$C_{jk} = (\sum(D_{ik,(t-m)} * V_{ik,(t-n)}) / \sum V_{ik,(t-n)} \dots\dots\dots (2)$$

Where  $C_{jk}$  = share of total import (of a particular commodity/or all commodity) of a country j from a particular country k (here India) subject to NTBs.  $V_{ik,(t-n)}$  = value of imports in tariff line item i in year t-n from country k.  $D_{ik,(t-m)}$  = Dummy variable that takes a value of unity if a NTM is applied to the item from k and zero otherwise.

If n and m are zero the index is based on current trade values, otherwise it is

expressed in a base year trade weights. In our case the base year is 1983<sup>12</sup>. Holding  $n$  constant and varying  $m$  will measure the effects of changes in protection with constant trade weights.

### **II.3 Strengths and Weaknesses of the Measures:**

The coverage and frequency index of NTBs give a rough idea of the incidence of NTBs but do not measure the intensity i.e., the restrictiveness of the NTBs. They do not take account of the nature of the NTBs also. Since different NTBs have different implications, changing the combination of non-tariff restrictions even if the coverage index remains the same is likely to have a different effect on trade. The coverage index is not sensitive to the number of NTBs facing a product, so that it is invariant to whether tariff lines are subject to single or multiple NTBs. Thus, studies based on comparisons of coverage/frequency of NTBs across commodities have many limitations, and it is difficult to draw conclusions regarding their impact on trade.

Studies undertaken to estimate the tariff equivalents of NTBs show the enormous theoretical and practical problems and that a single equivalent measure useful for all purposes may not exist. Deardorff and Stern (1985), Laird and Yeats (1990) have also analysed various practical, theoretical and conceptual problems in quantifying NTBs.

## **Section III**

The EC, US and Japan are major trade partners of India absorbing about half of India's exports. In this section we attempt to understand the characteristics of India's export trade with these countries.

### **III.1 India's Trade with the EC**

India's exports to EC(9)<sup>13</sup>, India's largest trading partner, in 1980 were ECU 180 million and more than doubled to ECU 428 million in 1990, with an additional ECU 26 million to the three new members (see Table 1). India's exports fluctuated during the first half of the 1980s. But there has been faster growth since 1987. The average annual export growth

was 18% in the period 1987 to 1990 while it was about 7% during 1980-83 and 6% during 1983-87. Imports from the EC during 1987-90, declined whereas earlier they grew at 18.5% and 10.4 per cent during 1980- 83 and 1983-87 respectively.

A few commodities dominated Indian exports to the EC. The share of the main 23 HS 2-digit categories (each having a share of one or more than one per cent in 1990) increased from 83 per cent in 1980 to 85 per cent in 1987 and further to 88 per cent in 1990 (see appendix B). But within this group of 23 commodities shares have become more equal. In 1990, the share of clothing was the highest (15%), followed by pearls and precious & semi-precious metals (13%)<sup>14</sup>, articles of leather (7%) and cotton (6%). Appendix B and Table 2 shows how the commodity composition of India's exports to the EC, relative export performance of these commodities in terms of ranks, growth rates and Reveal Comparative Advantage (RCA)<sup>15</sup> has changed overtime.

India's balance of trade with the EC was negative except in 1984, 1985 and 1990. The 1990 trade surplus can be explained more by the import compression following the severe foreign exchange crisis<sup>16</sup> than export performance. However, India's balance of trade with Denmark, Greece, Ireland and Portugal has always been positive with the exceptions of 1986 and 1987.

In 1990 Germany and the UK received nearly 50 per cent of the total exports to the EC as against 36 per cent by Belgium - Luxembourg (13.4 per cent), France (11.22 per cent) and Italy (11.54 per cent). India's share in the EC market has increased from 0.33 per cent in 1987 to 0.40 per cent in 1990.<sup>17</sup>

### **III.2 India's Trade with the US**

The US is the second largest trading partner of India absorbing about 20 per cent of her total exports and supplying about 11 per cent of her imports. India's exports to the US have increased by 6.5 times in the eighties from Rs 739 crores in 1980-81 to Rs 4790 crores in 1990-91. Imports from the US increased by 3.2 times from Rs 1520 crores in 1980-81 to Rs 5240 crores in 1990-91 (Table 3). But there has been no significant commodity

diversification in India's exports in the 1980s. The share of 15 major items of exports actually increased from 81 per cent in 1980-81 to 87 per cent in 1983-84, before falling to 86 per cent in 1986-87 (Table 4). The two major categories, precious and semiprecious stones, and outer garments of textile fabrics for women, girls and infants had shares as high as 32 percent and 13 percent respectively.

### **III.3 India's Trade with Japan**

Japan absorbed 8 per cent of India's exports and supplied about 10 per cent of India's total imports. In the eighties in Rupee terms India's exports to Japan grew at an annual rate of 19.9 per cent while imports from Japan grew at a rate of 15.8 per cent. However, India's balance of trade position vis-a-vis Japan has always been negative though the deficit decreased from Rs 352 crores in 1980- 81 to Rs 207 crores in 1990-91 (Table 3).

India's exports to Japan have been concentrated on a few items with fifteen main items contributing on an average more than 90 per cent of the exports during the period 1980-81 to 1986-87 and only three contributing more than 70 per cent (see Table 5). Further two major items, namely iron ore and concentrates (SITC 281) and crustacean and molluscs etc. (SITC 036), accounted for 31 per cent and 26 per cent of exports respectively. The other major categories are pearls and precious stones (SITC 667), Ores and concentrates of base metals (SITC 287) Coffee and coffee substitutes (071) and stone, sand and gravel (SITC 273) contributing 15, 2.6, 2.4 and 2.3 per cent of export earnings respectively.

Summing up, we see that despite exports growing at a faster rate than imports, India's balance of trade with all of the countries except the US has been negative in the 1980s because of the higher initial level of imports. Secondly, textiles and textile articles, pearls and precious stones, crustaceans and molluscs, iron ores and concentrates are the main items of exports of India to these countries. Thirdly, there has been no marked change in commodity diversification. About 80 per cent of export earnings from these countries continue to come from around 15 SITC-3 digit commodities.

## SECTION IV

This section attempts to analyse the NTBs facing India's exports to the EC, the US and Japan. It also gives an overview of tariff barriers to India's exports in these countries.

### **IV.1 Tariff Barriers to Exports**

Before discussing NTBs we look at the extent of tariff barriers faced by Indian exports. Trade weighted tariff rates<sup>18</sup> according to 3 digit SITC level for Japan and US were calculated and presented for India's principal items of exports and for those which have revealed comparative advantage (RCA)(see Table 6 & 7). The results show that tariffs have been reduced in the post-Tokyo Round compared to the levels in the pre-Tokyo Round and now tariff in the US and Japan do not pose a serious barrier to most of India's principal exports. However, tariff rates continue to be high in certain categories like outer garments of textile fabrics (SITC 843), Leather (SITC 611), Tea and Mate (SITC 074) in Japan, and SITC 843 in the US. Tariffs on many of the important commodities exported to the EC have also been reduced in the post Tokyo Round period and are low (see Table 2). For instance, chemicals, mineral products, metals and its products face tariffs of 2 to 7 per cent. Tariffs in raw hides, skins and leather and leather products are low (4 per cent in the post Tokyo Round) and natural or cultured pearls only 0.22 per cent. In contrast the EC MFN tariffs on prepared foodstuffs and beverages are as high as 381 percent (Table 2). But India is less affected as almost two third of its exports to the EC get tariff preferences under Generalised System of Preference(GSP)<sup>19</sup>.

### **IV.2 Non-Tariff Barriers to Exports:**

**IV.2.1 Non-tariff restrictions in the EC:** NTBs cover a wide range of measures. Some, such as quotas, voluntary export restraints, variable levies, import deposit<sup>20</sup>, declaration with visa etc. are applied at the border and others, such as discriminatory public purchasing, technical standards biased in favour of local producers and subsidy payments are applied internally. Estimates reveal that the proportion of trade subject to various NTBs in the EC

appears to be similar to that in the US, although in the former NTBs have been growing at a slower rate (Table 8),- Laird and Yeats (1988).

Non-tariff measures in EC countries: Tables 9 & 9a record the incidence of various NTMs in a particular member country in the EC during the period 1979-86<sup>21</sup>. The table records 24 varieties of NTMs which the EC utilised, though some forms of NTMs may be unrecorded in the UNCTAD Data Base due to lack of information<sup>22</sup>. Denmark (16) and France (8) used wider varieties of NTMs as compared to the rest and Germany (3) and Belgium (6) is a fewer variety. The most commonly applied NTMs in the EC are license for surveillance, quota, prohibition of indirect imports and MFA in textiles. The diverse pattern of use of NTMs and insufficient information about them in itself acts as an important NTB. In recent years the Community appears to have utilised anti-dumping measures to blunt the competitive edge of Japanese and other Asian producers (Hine 1991). Many new voluntary export restraint agreements were reported for the EC in 1987- 88 (GATT), despite the standstill and roll-back commitments in the Uruguay Round negotiations.

Incidence of NTBs during 1980 to 1986 was the highest in Greece, followed by France, Denmark, Italy, Ireland, UK, Belgium and Germany (Table 10). Clearly the incidence of NTMs increased more or less continuously from 1980 to 1985 and fell in 1986 (see figure 1).

#### **IV.2.2 NTBs facing India's exports in the EC countries:**

Exports of textiles and textile articles, vegetable products, prepared foodstuff, beverages, and footwear face the highest incidence of NTBs and in almost all countries of the EC (see Table 9). These items contribute 21, 13, 11 and 2 per cent of India's total exports to the EC respectively (Table 2) and having significant revealed comparative advantage (RCA) in the EC in 1983. Other commodities exported by India to the EC having revealed comparative advantage and subject to various NTBs are: natural or cultured pearls (the highest rank), raw hides and skins, leather and leather goods and live animals and animal products accounting for 2, 9.5 and 2 per cent of Indian exports to the EC respectively. The table also indicates that in Greece almost all the items of India's exports were subject to import deposits.

### **IV.2.3 Incidence of Non-tariff Barriers: A Commodity-wise Analysis**<sup>23</sup>

Exports of Textiles and textile articles account for more than a third of India's exports to the EC and have been growing rapidly. In particular India's exports of garment and cotton textiles have increased enormously in 1990 (see Table 2, 11 and 12). Export of garments subject to quota increased by 38 per cent as against 72 per cent increase in non-quota garments. Export of cotton textiles subject to quota increased by 92 per cent as against 45 per cent increase in non-quota exports.

Textiles and products are subject to both tariffs and NTBs in the EC. The trade weighted average tariff rate has been reduced merely from 38 per cent to 32 per cent in the post Tokyo round. Furthermore, the importance of NTBs has increased over the period (1981-86). All the EC countries except Germany subject textile to several NTBs apart from the MFA quota. Some Indian textile exports are subject to special NTBs such as prohibition of indirect import in the U.K., Italy, Ireland, France and Belgium. The other NTBs are quota, quota by country, tariff with quota, MFA quota, Intra Community surveillance etc.

In spite of numerous NTBs, India's export of textiles and textile articles have increased in terms of its share in the EC market from 1.6 per cent in 1983 to 2.1 in 1990 though there was a declining trend in between 1983 and 1987. The satisfactory growth can partly be explained by the high revealed comparative advantage in this category (4.8, 5.3 and 5.2 in 1983, 1987 and 1990 respectively). Also, it appears that quotas have not, been a binding constraint to India's exports in these years as the quota for almost all textile items were underutilised before 1990 (Table 12). In 1990, however, India could reach her quota level and then exports of textiles would be constrained by the rate at which the quota is increased.

Natural or cultured pearls are the second most important Indian exports. Their share in Indian exports to the EC fell from 14.38 per cent in 1983 to 11.34 in 1987 but subsequently increased to 13.39 per cent in 1990. India's share in the EC market has increased from 1.84 per cent in 1983 to 2.66 per cent in 1990. NTBs are imposed only in Belgium, where they have 76 per cent of the market, and in Greece. In Belgium only five tariff lines out of 24 required a license for surveillance while Greece required import deposit so that the

incidence of NTBs in this category is low.

The share of exports of vegetable Products from India has been continuously falling from 11.6 per cent of India's exports to the EC in 1983 to 9.5 per cent in 1987 and to 5.6 per cent in 1990. The share of India in the EC market has declined from 0.8 per cent to 0.6 per cent during the eighties. This item is the second worst affected by NTMs. Almost all countries in the EC, except UK and Ireland, resort to various NTMs at least on some of the tariff lines. The NTMs have been import deposits, license, variable levy, ad valorem charges, declaration with visa etc. A study by Sampson and Yeats (1977) estimated the effective rate of protection on preserved fruits and vegetables to be as high as 262 per cent taking only the tariffs and levies. While the incidence of NTMs on this category has increased the tariff rate has not been reduced substantially so that the effective protection would now be higher. Therefore, the NTMs in the EC seems to be an important factor in India's declining share of exports of vegetable products.

Prepared foodstuffs and beverages had the fourth rank in Indian exports to the EC in 1983, but their importance deteriorated to 7th in 1987 and 8th in 1990. India's share in the EC market also fell from 0.84 per cent in 1983 to 0.24 per cent in 1987 but has improved to 0.38 per cent in 1990. This category is not only subject to a high tariff of 381 per cent but also various NTMs. The major NTMs are license for surveillance in France, authorisation depending on certification in Germany, import deposit in Greece and license, variable levy and variable component in Denmark. Therefore, in spite of having significant revealed comparative advantage, India's exports of prepared foodstuffs and beverages have been declining.

Growth of exports of raw hides and skins, leather and its products has been very impressive in the 1980s. India's market share in the EC increased from 2.76 per cent in 1983 to 3.33 per cent in 1987 and further to 4.93 per cent in 1990. The impressive export performance of this item by India has been backed by its growing revealed comparative advantage and low tariff rates in the EC. The tariffs were low (4 per cent) and NTMs were not so prevalent - eleven tariff lines in Greece and one tariff line in Italy were under import deposit and quota by country respectively.

The other groups of commodities showing increasing exports to the EC are mineral products, base metals and articles of base metals, footwear and products of the chemical or allied industries. Incidence of NTMs was marginal in all these groups except footwear. In footwear, out of 20 tariff lines India's exports in 18 were subject to import deposit from 1985 onwards in Greece. From 1985 onwards 6, 5 and 4 tariff lines were subject to license for surveillance in Denmark, Italy and Ireland respectively, and 3 tariff lines were subject to prohibition of indirect imports in UK. In spite of these barriers India's share in the total imports of footwear by the EC has increased from 0.79 per cent in 1983 to 1.30 per cent in 1987 and further to 1.77 per cent in 1990.

Some commodity groups in which declining export shares were observed in the 1980s are works of art; collection pieces (HS codes 97 to 99), and wood and articles of wood (HS codes 44-46). The declining share of the former is partly due to high tariff rate (72.01 per cent) even in the post Tokyo Round. The incidence of NTMs was only observed in Greece where almost all tariff lines were subject to import deposit from November 1985. Tariffs and NTMs operating against imports of wood and articles of wood in the EC were marginal.

Commodity groups in which export share remained more or less stable in the 1980s are machinery and machinery appliances, live animal & animal products, optical & photographic goods, pulp of wood or of other fibrous cellulosic and arms & ammunition; parts etc. Average tariff rates in these groups of commodities have been low (in the range of 3.51 to 4.95) except for live animals and animal products (13.17 per cent) (Table 2) but the incidence of NTMs gives a mixed picture.

Thus we see that application of NTBs to regulate the import trade of EC has come as a major obstacle to India's exports to EC. Though it is difficult to link NTBs to deteriorating export performance universally, in certain commodities such a link may be at work, viz., vegetable product and prepared foodstuff whose export performance were bad and the incidence of NTBs was also high. India, in 1990, has been able to utilise the full quota of textile exports to EC. The prospects for further expansion of textile exports is possible if quota is raised.

### **IV.3 NTBs to India's Exports to the US:**

The NTBs facing India's export to the US are seasonal specific tariff, variable levy, global quota, specific taxes, prohibition (wild life), quota, automatic licensing, countervailing duties, countervailing investigation, monitoring, and MFA. Incidence of NTBs measured by coverage index reveals that 35 percent of India's exports to the US was subject to NTBs. Our estimates further reveal that on the whole 33 per cent of America's imports from the rest of the world were subject to NTBs in 1983. This indicates that India's exports to the US face higher NTBs compared to the average.

There were thirty one (SITC 3 digit) categories which were subject to various NTMs in the US of which ten items face more than one NTB. A commodity specific study reveals that non-tariff intervention were the highest in the textile group which were subject to multi-fibre arrangement (MFA), (nearly, all the textile categories are subject to MFA). Among the major textile items, made up articles and garments were mostly subject to MFA, the coverage of which had been as high as 94 per cent and 74 per cent respectively ( Table 13). The other major categories subject to NTBs were fresh fruit and nuts excluding oil nuts (SITC 057), manufactures of leather and works of art, collectors, pieces and antiques. But the coverage and frequency of NTBs in these categories were very low. Category 057 was subject to a seasonal specific tariff while category 612 and 896 were subject to countervailing duties, monitoring and MFA. Other categories which were subject to various NTMs in the US, (some of which are discussed below), cover a negligible proportion of India's export.

There are three categories of export which were entirely subject to NTMs in the US. These items are chocolates and other food preparation containing cocoa (SITC 073), structures and parts of structures of iron and steel or aluminum (SITC 691) and clothing accessories of textile fabrics (SITC 847 and 073). These were subject to country quota and in each category India only exported \$1000 (US dollar) in 1983. The export share of SITC category 691 to India's export during the period (1980-87) was 0.6 per cent having fallen from 0.78 per cent in 1980-81 to 0.47 in 1983-84 and then increasing marginally to 0.52 percent in 1986-87. This item was subject to anti-dumping duty, countervailing duty and anti-dumping investigations.

For India footwear (SITC 851) is an important potential export item. However, this item was subject to countervailing investigation and monitoring from 1981 to 1983. After the termination of these NTMs in 1983, the share of footwear in India's total exports to the United States increased from 0.5 per cent in 1983-84 to 1.2 per cent in 1986-87. Thus, the impact of NTMs as a constraint to export growth is clearly visible in this case. The trade restraining impact of these measures is further evident in case of exports of leather manufactures. Part (11.2 per cent) of the exports of leather manufactures were subject to countervailing investigation and monitoring in the US upto 1983. After complete elimination of these restriction exports of leather manufactures grew from 2.1 per cent of total Indian export to the US in 1983-84 to 2.6 per cent in 1985-86. The impact of countervailing duties on Indian exports of tubes, pipes and fittings of iron or steel is evident when it was imposed in January 1986 and the share of this category fell from 0.77 per cent to .31 per cent in 1986-87.

#### **IV.4 NTBs to India's Exports to Japan**

Japan had been taking resort to various non-tariff trade restrictive measures to regulate its import trade. These includes quantitative restriction in the form of global quota, health and safety regulations, import authorisation, licensing, state regulations, import pricing etc. The nature, types, frequency and coverage of NTBs are presented in Table 14. The table identified 56 commodity groups which are subject to one or multiple number of NTBs. Most of these categories had high incidence of NTBs.

It appears that health and safety regulation is the most widely used form of non-tariff restriction in Japan. Detailed tabulation reveals that out of 467 tariff lines which India exported in 1983, 127 were subject to health and safety regulations. These regulations have been widely applied to imports of food and live animals, beverages, raw hides, skins and furskins, crude fertilizers and crude minerals, crude animal and vegetable materials, organic chemicals, dyeing stuffs etc.

The second most widely applied non-tariff restriction is import authorisation. Forty six tariff lines were subject to this restriction in 1983. These measures were mainly used to

control import of textiles and textile articles. Among the textile categories, textile fabrics (SITC 652, 653 and 654) were entirely under import authorisation.

The third most widely used non-tariff restriction in Japan was the global quota. Out of 467 tariff lines under which India exported in 1983, 31 tariff lines were subject to global quota. Global quota were imposed on products such as fruits and fruit preparations, certain categories of fish items, beverages, non-ferrous base metals, leather, floor coverings etc.

The other barriers applied to a few tariff lines. Japan was controlling import of certain items such as beverages and tobacco and certain categories of crude vegetable materials through state monopoly of imports and provision of sole import agency. Six tariff lines in the product groups crude vegetable materials, skins, feathers and other parts of birds, and products of zoological and metallurgical interest and apparel & clothing accessories of furkins were subject to prohibition (with exception). Importation of cocoa leaves, Jaborandi leaves etc., natural gums and vegetable saps and extracts, certain inorganic compounds were subject to import permit together with other restrictions. A few items, such as sheep and goat skin, leather, footwear of leather etc., were subject to tariff with quota /ad valorem tariff with quota. Import of certain categories of fertilizers were subject to license.

The overall coverage of India's exports to Japan subject to various NTBs in Japan is 51 percent as against 39 percent of world exports to Japan. Most of the items subject to NTBs have coverage of 100 per cent. Among the major 15 items of export to Japan SITC 036, 071, 291, 652 and 034 have 100 per cent coverage implying that the entire export is under non-tariff restrictions. Except for categories 654 and 034, all 15 major items were subject to more than one non-tariff restriction. Coverage and frequency of all other SITC categories subject to NTBs are provided in the Table 14.

Summing up, our study of NTBs has been limited to the period 1980-86. Further we could not construct the overall coverage index of NTBs in EC for India. However, study by Alan Winters (1992) suggests that EC-10 is now leading the way in the imposition of NTBs: the coverage of such restrictions is 54% as compared with 45% in the US and 43% in Japan. The growth of NTBs in the EC by around 21% from 1966 to 1988 reflects the extension of

Common Agricultural Policy (CAP) both in product coverage and to new member States. Our estimates of coverage of NTBs in the US and Japan in the period 1980-86 were 33% and 39% respectively. The gap between our estimate and that of Winters reveals that NTBs are increasing both in the US and in Japan. India's export facing NTBs in the EC would not be less than 54% as estimated by Winters because India's exports to EC consists mainly of agricultural and primary commodities which face more than average NTBs. The coverage of NTBs in the US and Japan to imports from India is 35% and 51%. This implies that India's exports to either of the countries face more than average NTBs. The coverage of NTBs to India's export in the US is marginally higher (2%) while in Japan it is significantly higher (13%) than the average.

There had been some marked differences in country composition of NTBs. While Japan resorted exclusively to traditional NTBs - to health and safety measures, quotas, prohibitions, licensing and so on, the US most frequently used antidumping and countervailing measures. The EC has been the main user of administrative controls, viz., technical requirements, entry control measures, variable components and so on. Another interesting difference is that while the US and Japan exclusively used volume restrictive measure like quotas the EC NTMs mainly consisted of price control in nature like import deposits, basic import price and so on.

## SECTION V

### **The Impact of NTBs on Export Growth**

In this section we attempt to study the impact of NTBs on export growth following the "before-and-after approach". The "before- and-after approach" yields useful descriptive statistics, but implicit assumption that all other factors remain the same may not hold. But the approach gives a rough idea about the impact of NTBs.

Here, we compare the growth of exports of certain commodities in the US market when they were subject to NTBs and when they were not. We constructed the NTB impact

index (NTBI) as a ratio of growth of exports without NTBs and growth with NTBs.

$$\text{NTBI} = \frac{g_{ij}}{g_{ijB}}$$

where  $g_{ij}$  = average annual export growth of commodity  $i$  from India to country  $j$  when commodity  $i$  was not subject to NTB in  $j$  and  $g_{ijB}$  = average annual export growth of commodity  $i$  from India to country  $j$  when it was subject to NTB.

The NTBI has been constructed only for ten commodities (3 digit level) in the US market. For other commodity/country such a periodisation has not been possible because either the exported commodities were subject to NTBs for the entire period in consideration or they face no NTB.

Other thing remaining unchanged  $\text{NTBI} > 1$  implies NTB(s) affected export performance adversely.  $\text{NTBI} < 1$  implies NTBs may not effective in limiting exports.

For eight of these commodities NTBs had a negative impact, namely, the growth of exports had been higher during the period without NTBs than in the period with NTBs (see Table 15). The result suggests that exports of alcoholic beverages which were subject to specific taxes and export of tube pipes and fittings of iron and steel which were subject to anti-dumping duties and countervailing investigations in the US experienced a far lower growth of exports during the period with NTBs compared to the period without NTBs.

## SECTION VI

### Concluding Remarks

In a world of growing economic interdependence, sustained economic development of almost every nation depends on the expansion of trade in goods and services. But the revival of protectionism since mid 1970s, through increasing and diverse use of NTBs, has cast doubt on the realisation of this basic objective.

Studies suggested that incidence of NTBs increased in the 1970s and 1980s. However, the trend of protectionism is ambiguous with falling tariff barriers and increasing NTBs. It has been observed [(viz., Sampson & Yeats, (1977), and UN Food & Agricultural Organization (1979)] that tariff equivalents of some NTBs (e.g. variable levies) are so high that this may nullify the impact of tariff reductions. Since the restrictive effects of NTBs are not directly measurable, an assessment regarding the overall trend of protectionism is difficult. Neither the frequency index nor the coverage index of NTBs can indicate the restrictiveness of the barriers. The coverage index which weights the incidence of NTBs by value or volume is biased. It under-estimates the restrictiveness if the NTBs are effective in limiting imports, while it over-estimates the restrictiveness if the measure is not binding.

There are intractable problems in measuring the degree of restrictiveness of NTBs ex ante. But ex post evaluation is also difficult because it is difficult to separate the impact of NTBs from other factors. A study based on the export performance of the developing countries in manufactured goods during the 1970s indicates that, it is difficult to infer that increasing protection was the dominant factor at work (Anne Krueger and Helen Hughes (1980)). To be sure, "developing countries would have found better (except possibility for the established exporters of textiles and clothing who received the rents under VERs) in the absence of protectionist measures".

Despite reduction of tariffs after Tokyo Round the EC MFN tariff structure is biased against the products of export interest to LDCs. But India is less affected because India gets generalised system of preference in almost two third of its exports to the EC. Tariffs in the US and Japan do not pose serious problems to her principal exports, however, in case of certain categories like outer garments of textile fabrics (SITC 843), Leather (SITC 611), Tea and Mate (SITC 074) in Japan and SITC 843 in the US (SITC 121) the tariff rates are high.

This study examined NTBs in the EC during the period 1980-86 and found that India is subject to various NTBs in the commodities which emerged as important exports to the EC. The study provides detailed tabulation of NTBs in 8 EC member countries and indicates that the incidence of NTBs is relatively higher in Greece, France and Denmark. Overall export performance to the EC gives reasons for optimism with a growing market share in the EC in

the late 1980s. The study finds that India's exports of vegetable products and prepared foodstuffs were the worst affected by NTBs in the EC. Export of textiles and textile products in near future might face quota constraint if quota is not raised.

A detailed study of NTBs was undertaken for all commodity groups at the SITC 3 digit level in Japan and the US. The coverage and frequency indices of NTBs were constructed to indicate the incidence of NTBs. The study identified 56 commodity groups which are subject to various NTBs in Japan. The coverage ratio of NTBs in Japan taking all items of exports from India together was 51 percent which is higher than world average (39%). But among the principal items only two, Ores and concentrates of base metals (Coverage 2.9%) and crustaceans and molluscs (SITC 036, coverage 100%) were subject to NTBs in Japan. In most cases Japan used more than one non-tariff restrictions but health and safety regulation was identified as the most widely used non-tariff restriction.

In the US there were nearly 30 SITC 3 digit commodity groups subject to NTBs. The incidence of NTBs on India's principal items of export to the US was lower than exports to Japan. However, most of the textile items were subject to MFA. On the whole the coverage of NTBs in the US was 35 percent which is higher than the world average by 2 percent.

The growth of non-price factors in trade has been very rapid. India should give greater emphasis on ways to counter these factors by better organisation of trade, improving quality of the product and other tactics needed to meet the NTBs. A more detailed identification of factors on which NTBs are based is necessary so that the exporters can be educated accordingly. This should ensure that manageable barriers do not become a constraint to the growth of Indian exports.

This study used "the before and after approach" with all its limitations to study the impact of NTBs on Indian exports. This suggests that NTBs do affect India's exports negatively. But studying the actual impact of NTBs on India's exports requires analysis at a more disaggregated level than was possible with our data.

## REFERENCES

- Australian Bureau of Agricultural Economics (1985): Agricultural Policies in the European Community (Canberra: Australian Government Publishing Service).
- Balassa, B. and C. Balassa (1984): Industrial Protection in the Developed Countries, *The World Economy* (June) pp.176-96.
- Baldwin, Robert (1970): Non tariff Distortions of International Trade, (Washington: The Brookings Institution).
- Bhagwati, Jagdish (1987): Economic Costs of Trade Restrictions' in J. Micheal Finger and Andrzej Olechowski (eds.), *The Uruguay Round: A Handbook on the Multilateral Trade Negotiations* (Washington: World Bank), pp.29-36.
- Bhagwati, J. (1991): The World Trading System at Risk, Princeton University Press.
- Bhagwati, J. (1988): Protectionism, The MIT Press, London.
- Bhagwati, J. (1992): Regionalism, and Multilateralism: An Overview, Discussion Paper Series No.603, Presented to a World Bank Conference on April 2 & 3 in Washington DC.
- Commission of the European Communities (1985): Completing the Internal Market, White Paper from the Commission to the European Council, 28, 29 June 1985, Milans Com(95). 310 Final, Brussels, 14 June, 1985.
- Common Wealth Secretariat (1982): Protectionism Threat to International Order (London: Commonwealth Secretariat).
- Das, Bhagirath L (1983): The GATT Multi-Fibre Arrangement, *Journal of World Trade Law*, Geneva.
- Deardorff, A.V. (1987): Why do government Prefer Nontariff Barriers? Carnegie Rochester Conference Services on Public Policy, 26.
- Deardorff, Alan and Robert Stern (1983): The Economic Effects of the Complete Elimination of Post-Tokyo Round Tariffs, in W.R. Cline (eds.), *Trade Policy in the 1980's* Washington: Institute for International Economics.
- Deardorff, Alan and Robert Stern (1985): Methods of Measurement of Non-tariff Barriers, (Geneva: UNCTAD)
- Finger, J. Michael (1992): Dumping and Antidumping, *The Rhetoric and the reality of protection in Industrial Countries*", *The World Bank Research Observer*, Vol.7, No.2, (July 1992), pp.121-43.
- Fitchett, Delbert (1987): Agriculture, in J.Micheal Finger and Andrzej Olechowski (eds.),

- The Uruguay Round: A Handbook on the Multilateral Trade Negotiations Washington: World Bank, pp.162-70.
- General Agreement on Tariffs and Trade (1971): Import Measures, Variable Levies and other Special Charges (Com, AG/W/68/Add.3) (Geneva: GATT, April).
- Ghosh, Madanmohan (1993): Structure and Impact of Non-Tariff Barriers to Trade: Case Study of India vis-a-vis EC, Japan and USA. M.Phil. Dissertation Submitted to the Jawaharlal Nehru University. New Delhi.
- Government of India, Economic Survey, Various Issues
- Harrison, Ann (Nov.92): The New Trade Protection: Price Effects of Antidumping and Countervailing Measures in the United States, Policy Research Working Papers, Trade Policy, Country Economics Development, the World Bank WPS 808.
- Hine, Robert C. (1991): Protection in the European Community Before and After 1992, in Global protectionism. (ed.) Greenaway, D. Robert C. Hine, Anthony P.O. et.al.
- Indian Institute of Foreign Trade (1975): Non-tariff Barriers to International Trade
- Indian Institute of Foreign Trade (1978): Non-tariff Measures, in US, Australia, Canada, New Zealand, Denmark and Ireland (Implications for Indian Exports).
- Iyer, Parameswaran (1991): EC 1992: Impact on Indian Textile Exports, Foreign Trade Review, April - Sept 1991, Vol. XXVI, Nos.1&2.
- Kelly, B.Jr.(1967): Non Tariff Barriers in Bela Balassa(ed.), Studies in Trade Liberalisation, Baltimore, p-266.
- Kelly M. et.al. (1988): Issues and Developments in International Trade Policy, International Monetary Fund, pp.92-95.
- Khanna, Sri Ram (1991): International Trade in Textiles, MFA Quota and a Developing Exporting Country, Sage Publication New Delhi.
- Kumar, Rajiv, Agarwala P.N., Khanna S.R. and Verma Vandana (1988): Foreign Trade Barriers to Exports: Country Studies, Asian Development Bank.
- Laird, Sam and Noguees, Julio (1989): Trade Policies and the Highly Indebted Countries, The World Bank Economic Review, Vol.3, No.2, p.241-261.
- Laird, Sam & Alexander Yeats (1990): Quantitative Methods for Trade Barriers Analysis, Macmillan.
- Murray, Tracy and Ingo Walter (1977): Quantitative Restrictions, Developing Countries and GATT, Journal of World Trade Law, Vol.II, September: October, pp.391-421.

Nogues, Julio, Andrzej Olechowski and L. Alan Winters (1985): The Extent of Non-tariff Barriers to Industrial Countries' Imports (Report No.DRD115) (Washington: Development Research Department of the World Bank, January).

Olechowski, Andrzej (1987): Non tariff Barriers to Trade, in J.M. Finger and Andrzej Olechowski (eds.), The Uruguay Round: A Handbook on the Multilateral Trade Negotiations, Washington: World Bank, pp.121-6.

Parthasarthy, N. (1990): EC 1992- Implication for India. Foreign Trade Review, April - June 1990, Vol.XXV, No.1.

Rangarajan, Indira (1990): Textile Exports to Non-Quota Markets: Impact of Real Exchange Rate Movements, Economic and Political Weekly, Vol.XXV, No.13, March,31.

Sharma, O.P. (1984): Quota Restraint and MFA-II Some Empirical Evidence on India's Export to the EEC, Economic and Political Weekly, Vol.XIX, No.39, Sept.

Singer, Hans et.al. (ed.)(1988): New Protectionism and Restructuring (Part I & II)., Ashis Publishing House 8/81, Punjabi Bagh, New Delhi.

UNCTAD (1985): Trade and Development Report 1985, Geneva: UNCTAD.

UNCTAD (1988a): Consideration of the Questions of Definition and Methodology Employed in the UNCTAD Data Base on Trade Measures, TD/B/AC.4215, Geneva: UNCTAD.

United Nations Food and Agricultural Organization (1979): Commodity Review and Outlook, 1979-1980, Rome: FAO.

Vousden, Neil (1990): The Economics of Trade Protection Cambridge University Press

Walter, Ingo (1969): Non-Tariff Barriers and the Free Trade Area Option Banca Nazionale Del Lavoro Quarterly Review (March) pp.16-45.

Walter, Ingo (1971): Non-Tariff Barriers and the Export Performance of Developing Countries American Economic Association. Papers and Proceedings, Vol.61, (May) pp.195-205

Winters, Alan (1992): The European Community: A case of Successful Integration? Paper presented in World Bank and CEPR Conference on New Dimensions in Regional Integration, Session V, paper No. 11, April 2-3, Washington D C.

## ENDNOTES

1. For an analysis of why NTBs are preferred to tariffs, please refer Deardorff (1987). The most compelling reason as he puts in, is the perception on the part of the policy makers and their constituents is that tariffs will not reduce imports.
2. These successive Rounds were the Geneva Round (1947, 1956) Ancey Round (1949), Torquay Round (1951), Dillon Round (1954-62) and the Kennedy Round (1963-67)
3. VER is a quota imposed by an exporting country in response to pressure from the importing country. It is a policy of protecting domestic producers under the exporting country's administration. VER have become quite widespread because it is a convenient means for countries to restrict trade outside the GATT framework, the so-called "grey area measures".
4. Bhagwati, J. (1991)
5. Bhagwati, J. (1987)
6. Two digit HS classification have used for two reasons, firstly, the data was more easily accessible from the EC Commission and secondly, to reduce volume of work involved.
7. For example removal of certain safety regulations may increase imports but its impact on world income is difficult to assess if the resulting trade expansions is accompanied by a decline in health standards and rising medical cost (Laird and Yeats 1990)
8. The investigation is costly both in terms of time and money.
9. The reason is that a "measure" might act as a barrier if it is intended to do but all measures may not necessarily be barriers because all may not be intended to restrict trade but something else. It should be mentioned that the restrictive effects of NTBs may vary between countries and even at different time in the same country. We, however, in this paper used the terms interchangeably
10. For details see UNCTAD, Consideration of the Questions of Definitions and Methodology Employed in the UNCTAD Data Base on Trade Measures - introductory note on methodology employed and the problem of definition, TD/B/AC.42/2,

March, 1988. Also see, Ghosh, Madanmohan (1993).

11. A Tariff line is nothing but a commodity Code at disaggregated level.
12. The UNCTAD Data Base on trade measures shows that almost all the NTBs were applicable for the entire period 1980-86. We constructed the average frequency and coverage index for the period 1980-86.
13. EC(9) are Belgium, Luxembourg, Denmark, Germany, France, Ireland, Italy, Netherlands and UK. Greece joined the Community in 1983, Portugal and Spain became members of the Community in 1986.
14. It should be mentioned that more than two third of exports of this item from India to the EC are to Belgium.
15. The RCA has been computed by the following formula:

$$RCA_{ij} = (X_{ij}/\Sigma X_{ij}) / (W_{ij}/\Sigma W_{ij})$$

where  $X_{ij}$  = export of commodity i from India to country j,  
 $W_{ij}$  = import of commodity i from World to country j.

16. In 1990 the Government of India fell short of foreign exchange even to finance a few weeks imports and hence mortgaged gold to borrow foreign reserves for the first time.
17. It is difficult to judge to what extent the European move towards a single market, discussed, for instance, in the Commission of the European Communities : Completing the Internal Market - White Paper from the Commission to the European Council, Milan, 28-29 June 1985, COM., and liberalisation of Indian trade and industrial policies as discussed in India's Economic Reform, Ministry of Finance, are responsible for this higher trade share of the Euro markets.
18. Trade Weighted Tariff Rates (T) have been calculated in the following way taking the 1983 trade weights.

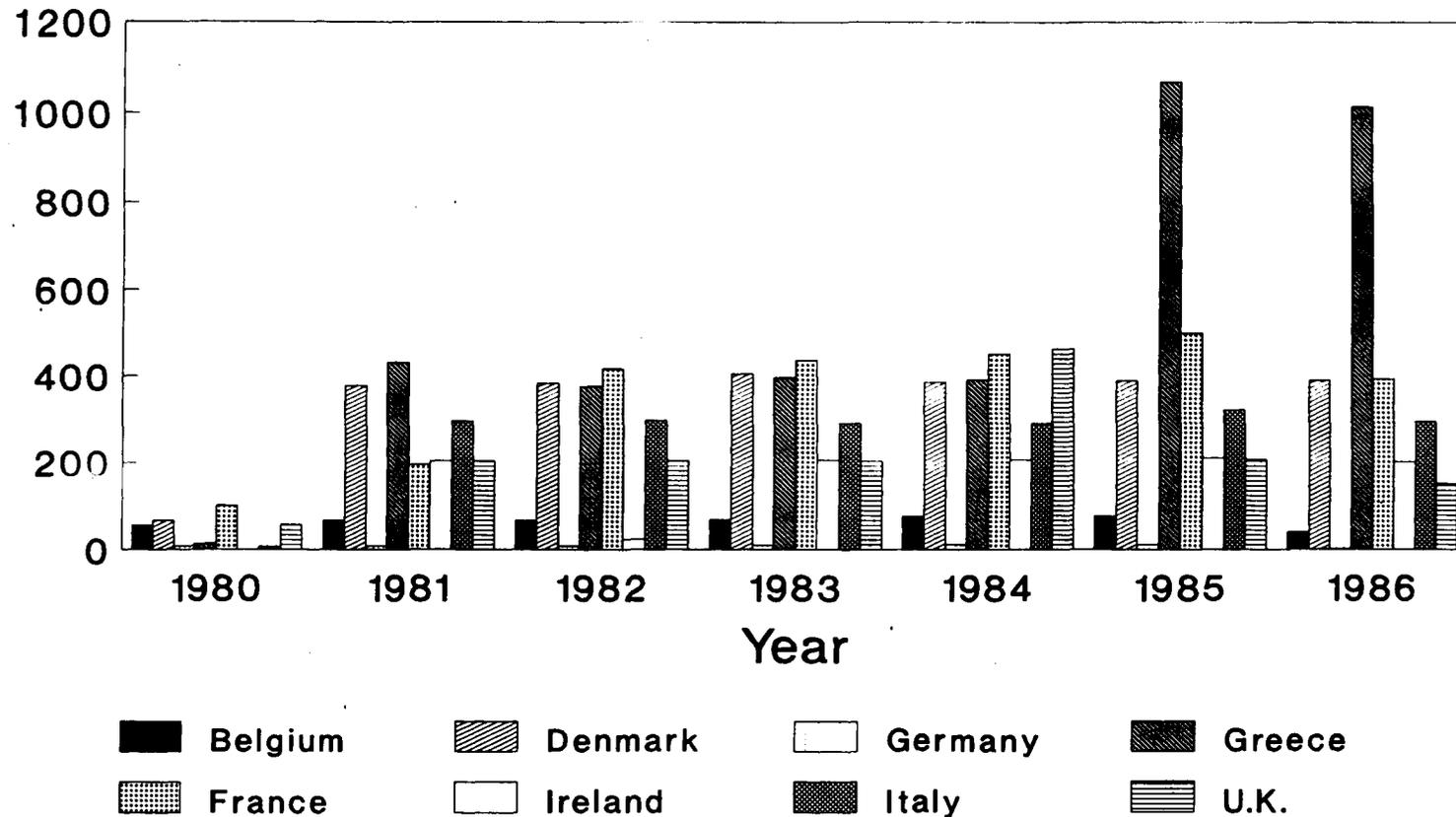
$$T = \frac{\Sigma t_i x_i}{\Sigma x_i}$$

where  $t_i$  = tariff rate in tariff line i  
 $x_i$  = Value of exports in tariff line i in 1983

19. In 1970, the GSP was introduced in the GATT which permitted developed countries to grant unilateral tariff preferences to developing countries.
20. It is a requirement to deposit a specified sum of money (normally defined as a percentage of the value of the transaction) prior to importation.
21. This simply records number of NTB cases that occurred during the period 1979-86.
22. The information on Non-Tariff measures in GATT comes from official sources, Government documents and the complaints on NTBs from various Governments. GATT records all these after proper verification.
23. We could not compute the coverage/frequency index of NTBs for Indias exports in the EC because the UNCTAD Data Base on Trade Measures provided data on value of imports for the EC as a whole but description of NTBs were given separately for each country.

Figure 1

# Incidence of NTBs in EC Countries : Number of Cases of NTBs



**Table 1**  
**India's Balance of Trade with the EEC**  
**1980 To 1990**

| YEAR | Exports       | Imports | Balance  | India's Market Share<br>in the EEC<br>Per cent |
|------|---------------|---------|----------|--|
|      | (In 1000 ECU) |         |          |  |
| 1980 | 1795363       | 2298255 | -502892  | 0.35   |
| 1981 | 1880013       | 3362620 | -1482607 | 0.32   |
| 1982 | 2571749       | 3991093 | -1419344 | 0.41   |
| 1983 | 2195639       | 3822746 | -1627107 | 0.33   |
| 1984 | 2905352       | 1470715 | 1434637  | 0.38   |
| 1985 | 2672323       | 1603105 | 1069218  | 0.32   |
| 1986 | 2395065       | 5706272 | -3311207 | 0.30   |
| 1987 | 2761651       | 5678294 | -2916643 | 0.33   |
| 1988 | 3255703       | 5637067 | -2381364 | 0.35   |
| 1989 | 4180338       | 7083005 | -2902667 | 0.39   |
| 1990 | 4542304       | 3570550 | 971754   | 0.40   |

**Average Annual Growth Rate**

|           |       |        |
|-----------|-------|--------|
| 1980-1990 | 9.73  | 4.50   |
| 1980-1983 | 6.94  | 18.48  |
| 1983-1987 | 5.90  | 10.40  |
| 1987-1990 | 18.04 | -14.33 |

**Compound Growth Rate (per cent per year)**

|         |      |       |
|---------|------|-------|
| 1980-90 | 8.34 | 7.90  |
| 1983-90 | 9.53 | 14.19 |

Source: Eurostat of Exports and Imports, Various Issues.

TABLE 2  
India's Exports To Ec: Shares, Tariff Rates And Revealed Comparative Advantage

1983, 1987 AND 1990

| Harmonised Commodity Description                       | Percentage share to India's Total Export |            |            | Rank in terms of Export earnings |            |            | INDIA'S REVEALED COMPARATIVE ADVANTAGE |            |            | MFN TARIFF RATES (PERCENT) |                  |
|--|--|------------|------------|----------------------------------|------------|------------|--|------------|------------|----------------------------|------------------|
|  | EEC-12(90)                               | EEC-12(87) | EEC-10(83) | EEC-12(90)                       | EEC-12(87) | EEC-10(83) | EEC-12(90)                             | EEC-12(87) | EEC-10(83) | PRE-TOKYO ROUND            | POST-TOKYO ROUND |
|  | 1 Live Animals; Animal Products(1-5)     | 2.58       | 2.47       | 2.33                             | 11         | 10         | 7                                      | 0.77       | 0.66       | 0.64                       | 13.18            |
| 2 Vegetable Products(6-14)                             | 5.58                                     | 9.51       | 11.56      | 4                                | 4          | 3          | 1.54                                   | 2.07       | 2.42       | 37.76                      | 32.32            |
| 3 Animal or Vegetable Fats and oils and Etc.(15)       | 1.24                                     | 0.45       | 1.33       | 12                               | 15         | 12         | 3.00                                   | 0.94       | 2.05       | 8.77                       | 8.77             |
| 4 Prepared Foodstuffs;Beverages(16-24)                 | 3.67                                     | 3.03       | 11.13      | 8                                | 7          | 4          | 0.93                                   | 0.71       | 2.54       | 390.3                      | 381.44           |
| 5 Mineral Products(24-27)                              | 4.55                                     | 2.65       | 6.32       | 5                                | 8          | 6          | 0.46                                   | 0.23       | 0.28       | 2.25                       | 2.24             |
| 6 Products of the Chemical or Allied Industries(28-38) | 3.85                                     | 3.07       | 1.48       | 7                                | 6          | 11         | 0.50                                   | 0.39       | 0.21       | 9.74                       | 7.14             |
| 7 Plastics and Articles thereof;(39-40)                | 0.38                                     | 0.35       | 0.19       | 16                               | 17         | 19         | 0.08                                   | 0.08       | 0.05       | 9.39                       | 6.02             |
| 8 Raw Hides and Skins,Leather and its Products(41-43)  | 12.05                                    | 13.48      | 9.40       | 3                                | 2          | 5          | 12.24                                  | 10.00      | 8.35       | 5.37                       | 4.21             |
| 9 Wood and Articles of Wood(44-46)                     | 0.30                                     | 0.34       | 0.34       | 19                               | 19         | 17         | 0.20                                   | 0.23       | 0.22       | 6.43                       | 5.22             |
| 10 Pulp of Wood or of other Fibrous Cellulosic(47-49)  | 0.10                                     | 0.10       | 0.16       | 20                               | 20         | 20         | 0.03                                   | 0.03       | 0.05       | 4.73                       | 3.51             |
| 11 Textiles and Textiles Articles(50-63)               | 36.98                                    | 39.87      | 31.02      | 1                                | 1          | 1          | 5.22                                   | 5.34       | 4.85       | 17.27                      | 10.37            |
| 12 Footwear Etc.(64-67)                                | 4.16                                     | 4.00       | 2.05       | 6                                | 5          | 9          | 4.40                                   | 3.91       | 2.40       | 8.12                       | 6.87             |
| 13 Articles of Stone(68-70)                            | 0.36                                     | 0.35       | 0.26       | 17                               | 18         | 18         | 0.25                                   | 0.24       | 0.22       | 6.86                       | 4.16             |
| 14 Natural or Cultured Pearls(71)                      | 13.39                                    | 11.34      | 14.38      | 2                                | 3          | 2          | 6.61                                   | 5.51       | 5.58       | 0.37                       | 0.22             |
| 15 Base Metals and Articles of Base Metal(72-83)       | 3.60                                     | 2.61       | 2.31       | 9                                | 9          | 8          | 0.44                                   | 0.35       | 0.32       | 7.5                        | 3.72             |
| 16 Machinery and Mechanical Appliances(84-85)          | 2.92                                     | 2.34       | 1.62       | 10                               | 11         | 10         | 0.14                                   | 0.13       | 0.12       | 7.1                        | 4.95             |
| 17 Vehicles, Aircraft, Vessels Etc.(86-89)             | 0.84                                     | 0.55       | 0.35       | 14                               | 13         | 16         | 0.07                                   | 0.05       | 0.04       | 9.62                       | 6.94             |
| 18 Optical, Photographic, Etc.(90-92)                  | 0.92                                     | 0.47       | 0.64       | 13                               | 14         | 14         | 0.30                                   | 0.11       | 0.19       | 9.56                       | 5.84             |
| 19 Arms and Ammunition; Parts Etc.(93)                 | 0.01                                     | 0.01       | 0.01       | 21                               | 21         | 21         | 0.07                                   | 0.07       | 0.14       | 4.63                       | 3.52             |
| 20 Miscellaneous Manufactured Articles(94-96)          | 0.58                                     | 0.43       | 0.64       | 15                               | 16         | 13         | 0.28                                   | 0.25       | 0.46       | 7.98                       | 5.37             |
| 21 Works of Art, Collectors' Pieces Etc.(97-99)        | 0.31                                     | 0.70       | 0.63       | 18                               | 12         | 15         | 0.20                                   | 0.38       | 0.47       | 79.38                      | 72.91            |

Source: MFN tariff rate were derived from UNCTAD Data Base on Trade Measures

Table 3

India's Balance of Trade with Japan and USA  
(1980-81 to 1990-91)  
(Rs.000)

| Year   | Japan    |          |           | USA      |          |          | ANNUAL GROWTH RATE (%) |        |        |        |
|--|----------|----------|-----------|----------|----------|----------|------------------------|--------|--------|--------|
|  | Export   | Import   | Balance   | Export   | Import   | Balance  | Japan                  |        | USA    |        |
|  |          |          |           |          |          |          | Export                 | Import | Export | Import |
| 1980-81                                      | 3968856  | 7487815  | -3518959  | 7393999  | 15186104 | -7792105 |                        |        |        |        |
| 1981-82                                      | 7037589  | 8864695  | -1827106  | 9345226  | 14197175 | -4851949 | 77.32                  | 18.39  | 26.39  | -6.51  |
| 1982-83                                      | 8330692  | 10878973 | -2548281  | 9272020  | 14265057 | -4993037 | 18.37                  | 22.72  | -0.78  | 0.48   |
| 1983-84                                      | 8283058  | 14469143 | -6186085  | 14627687 | 18418733 | -3791046 | -0.57                  | 33.00  | 57.76  | 29.12  |
| 1984-85                                      | 10245676 | 12400204 | -2154528  | 17608316 | 17005863 | 602453   | 23.69                  | 14.30  | 20.38  | -7.67  |
| 1985-86                                      | 11639255 | 17739947 | -6100692  | 19686584 | 20636787 | -950203  | 13.60                  | 43.06  | 11.80  | 21.35  |
| 1986-87                                      | 13343994 | 25915002 | -12571008 | 23256102 | 18860782 | 4395320  | 14.65                  | 46.08  | 18.13  | -8.61  |
| 1987-88                                      | 16116622 | 21261955 | -5145333  | 29160118 | 20016828 | 9143290  | 20.78                  | -17.96 | 25.39  | 6.13   |
| 1988-89                                      | 20960686 | 26308777 | -5348090  | 36092643 | 32392558 | 3700085  | 30.06                  | 23.74  | 23.77  | 61.83  |
| 1989-90                                      | 27260699 | 31197013 | -936314   | 44673305 | 42634457 | 2038848  | 30.06                  | 7.18   | 23.77  | 31.62  |
| 1990-91                                      | 30372468 | 32445464 | -2072996  | 47896211 | 52447131 | -4550920 | 11.41                  | 15.07  | 7.21   | 23.02  |
| Compound Growth<br>rate (1980-81 To 1986-87) | 19.89    | 15.78    |           | 21.40    | 12.88    |          |                        |        |        |        |

Source : DGCI&S, Calcutta, Various Issues.

Table 4  
India's Export to USA: Share of principal Categories  
1980-81 To 1986-87

| SITC NO.           | Commodity Description  | 1980-81 | 1981-82 | 1982-83 | 1983-84 | 1984-85 | 1985-86 | 1986-87 | Avg. Share<br>over the period |
|--------------------|--|---------|---------|---------|---------|---------|---------|---------|-------------------------------|
| 667                | Pearls and Precious Stones                                       | 21.59   | 25.88   | 34.13   | 37.15   | 31.56   | 37.12   | 37.86   | 32.19                         |
| 843                | Outer garments of text. fab. (women's infants)                   | 11.69   | 10.90   | 10.38   | 14.81   | 13.78   | 12.53   | 13.87   | 12.57                         |
| 292                | Crude vegetable materials, n.e.s.                                | 8.20    | 10.46   | 5.13    | 3.34    | 5.94    | 3.79    | 2.41    | 5.61                          |
| 659                | Floor coverings etc.   | 4.82    | 4.68    | 5.06    | 4.35    | 5.35    | 6.05    | 5.77    | 4.38                          |
| 896                | Works of Art, collectors' pieces and antiques                    | 4.47    | 4.98    | 4.63    | 4.06    | 4.63    | 3.73    | 3.23    | 4.25                          |
| 057                | Fruits and nuts excluding oil nuts                               | 2.39    | 2.29    | 3.06    | 6.30    | 5.20    | 5.50    | 4.76    | 4.21                          |
| 654                | Textile fabrics, woven, excluding cotton or man-made fibres      | 6.18    | 5.53    | 3.26    | 2.36    | 2.68    | 2.37    | 2.03    | 3.49                          |
| 844                | Under garments of textile fabrics (other than knitted)           | 2.48    | 2.95    | 2.58    | 2.56    | 3.97    | 3.60    | 3.32    | 3.07                          |
| 036                | Crustaceans and molluses, etc.                                   | 3.51    | 3.52    | 4.50    | 3.30    | 3.33    | 2.18    | 1.92    | 2.94                          |
| 071                | Coffee and coffee substitutes                                    | 5.84    | 3.35    | 3.15    | 1.85    | 1.25    | 2.31    | 2.04    | 2.83                          |
| 652                | Cotton fabrics   | 3.57    | 2.37    | 1.57    | 1.53    | 3.19    | 2.40    | 2.47    | 2.44                          |
| 611                | Leather  | 2.14    | 2.92    | 2.70    | 1.45    | 1.90    | 1.67    | 1.24    | 2.00                          |
| 075                | Spices   | 1.35    | 0.90    | 0.99    | 1.41    | 1.05    | 3.99    | 4.12    | 1.86                          |
| 612                | Manufactures of leather etc...                                   | 1.42    | 2.20    | 2.51    | 2.07    | 2.56    | 2.64    | 1.46    | 1.79                          |
| 658                | Made-up articles, wholly or chiefly of textile materials, n.e.s. | 1.68    | 1.98    | 1.61    | 1.34    | 1.71    | 1.78    | 1.45    | 1.65                          |
|                    | SUB-TOTAL  | 81.33   | 84.91   | 85.27   | 87.88   | 88.11   | 91.66   | 87.95   | 85.27                         |
| 851                | Footwear   | 0.59    | 0.69    | 0.62    | 0.51    | 1.02    | 0.87    | 1.18    | 0.78                          |
| 699                | Manufactures of base metals, n.e.s.                              | 0.97    | 0.91    | 0.67    | 0.74    | 0.73    | 0.56    | 0.66    | 0.75                          |
| 695                | Tools for use in the hand or in machines                         | 1.16    | 1.08    | 0.82    | 0.48    | 0.50    | 0.35    | 0.31    | 0.67                          |
| 531                | Synthetic organic dyestuffs, etc...                              | 0.95    | 0.64    | 0.62    | 0.61    | 0.62    | 0.29    | 0.70    | 0.63                          |
| 678                | Tube, pipes, and fittings, of iron or steel                      | 1.11    | 0.65    | 0.56    | 0.39    | 0.56    | 0.77    | 0.31    | 0.62                          |
| 691                | Structures and parts of structures, n.e.s., of iron, steel or al | 0.77    | 0.91    | 0.56    | 0.47    | 0.47    | 0.51    | 0.52    | 0.60                          |
| 625                | Rubber tyres etc...  | 0.74    | 0.20    | 0.10    | 0.30    | 0.75    | 0.90    | 0.81    | 0.54                          |
| 278                | Other crude minerals   | 0.93    | 0.52    | 0.56    | 0.17    | 0.65    | 0.74    | 0.09    | 0.52                          |
| 831                | Travel goods, etc...   | 0.37    | 0.60    | 0.26    | 0.29    | 0.47    | 0.55    | 0.59    | 0.45                          |
| 074                | Tea and mate   | 0.91    | 0.57    | 0.51    | 0.26    | 0.31    | 0.23    | 0.29    | 0.44                          |
| All<br>Commodities |  | 100.00  | 100.00  | 100.00  | 100.00  | 100.00  | 100.00  | 100.00  | 100.00                        |

Source: Derived from DGCI&S, Calcutta, Various Issues.

Table 5  
India's Export to Japan :Share of Principal Categories  
1980-81 TO 1986-87

| SITC NO   | 1980-81 | 1981-82 | 1982-83 | 1983-84 | 1984-85 | 1985-86 | 1986-87 | Avg. Share<br>over the Period |
|---|---------|---------|---------|---------|---------|---------|---------|-------------------------------|
| 281 Iron ore and concentrates                             | 31.48   | 31.47   | 31.62   | 31.20   | 29.55   | 34.52   | 27.72   | 31.08                         |
| 036 Crustaceans and molluses, etc.                        | 25.20   | 27.25   | 30.69   | 26.67   | 23.74   | 24.01   | 25.14   | 26.10                         |
| 667 Pearls precious and semi-precious stones              | 11.19   | 13.67   | 14.46   | 16.69   | 15.44   | 15.53   | 21.52   | 15.50                         |
| 287 Ores and concentrates of base metals n.e.s.           | 3.86    | 2.81    | 1.73    | 2.13    | 3.44    | 2.94    | 1.86    | 2.68                          |
| 071 Coffee and coffee substitutes                         | 2.43    | 1.57    | 2.48    | 2.05    | 3.67    | 3.08    | 2.55    | 2.55                          |
| 273 Stone, sand and gravel                                | 2.55    | 1.82    | 1.76    | 2.13    | 2.76    | 2.55    | 2.82    | 2.34                          |
| 263 Cotton  | 1.92    | 1.28    | 1.28    | 1.94    | 1.27    | 1.85    | 3.16    | 1.82                          |
| 843 Outer garments of text. fab. (women's infants)        | 1.60    | 1.79    | 1.15    | 1.30    | 2.33    | 2.06    | 1.78    | 1.71                          |
| 291 Crude animal materials,n.e.s.                         | 1.88    | 1.68    | 1.58    | 1.67    | 1.67    | 1.28    | 1.39    | 1.59                          |
| 652 Cotton fabrics  | 0.81    | 0.79    | 1.13    | 1.50    | 3.02    | 0.83    | 0.57    | 1.23                          |
| 654 Textile fabrics, woven, excluding cotton or man-made  | 1.73    | 2.09    | 1.79    | 1.27    | 1.42    | 0.47    | 0.80    | 1.37                          |
| 057 Fruits and nuts excluding oil nuts                    | 1.34    | 0.88    | 0.93    | 1.30    | 1.33    | 1.26    | 1.74    | 1.26                          |
| 611 Leather   | 1.30    | 1.63    | 1.06    | 1.19    | 1.27    | 1.36    | 0.96    | 1.25                          |
| 424 Other fixed vegetable oils and fats,...               | 0.88    | 1.38    | 0.97    | 0.95    | 0.60    | 0.81    | 0.72    | 0.90                          |
| 034 Fish, fresh(live or dead),chilled or frozen           | 0.88    | 0.74    | 0.40    | 1.17    | 0.97    | 0.76    | 0.70    | 0.80                          |
| SUB-TOTAL   | 89.05   | 90.85   | 93.03   | 93.13   | 92.48   | 93.34   | 93.43   | 92.19                         |
| 292 Crude vegetable materials, n.e.s.                     | 0.90    | 0.75    | 0.68    | 0.82    | 0.98    | 0.64    | 0.63    | 0.77                          |
| 896 Works of Art, collectors'pieces and antiques          | 0.39    | 0.34    | 0.29    | 0.31    | 0.38    | 0.24    | 0.31    | 0.32                          |
| 121 Tobacco, unmanufactured; tobacco refuse               | 0.92    | 1.19    | 0.70    | 0.36    | 0.14    | 0.07    | 0.07    | 0.49                          |
| 075 Spices  | 0.48    | 0.35    | 0.36    | 0.45    | 0.59    | 0.55    | 0.48    | 0.47                          |
| 074 Tea and mate  | 0.45    | 0.40    | 0.35    | 0.49    | 0.54    | 0.44    | 0.48    | 0.45                          |
| 278 Other crude minerals                                  | 0.58    | 0.53    | 0.44    | 0.39    | 0.52    | 0.49    | 0.45    | 0.49                          |
| 844 Under garments of textile fabrics...                  | 0.42    | 0.37    | 0.31    | 0.25    | 0.54    | 0.44    | 0.33    | 0.38                          |
| 523 Other inorganic chemicals, etc...                     | 0.41    | 0.08    | 0.03    | 0.21    | 0.16    | 0.20    | 1.85    | 0.42                          |
| 541 Medicinal and pharmaceutical products                 | 0.23    | 0.31    | 0.33    | 0.29    | 0.34    | 0.50    | 0.46    | 0.35                          |
| 663 Mineral manufactures                                  | 0.44    | 0.44    | 0.37    | 0.34    | 0.32    | 0.22    | 0.26    | 0.34                          |
| 037 Fish, crustaceans and molluscs, prepared or preserved | 0.00    | 0.04    | 0.13    | 0.12    | 0.13    | 0.09    | 0.13    | 0.09                          |
| All<br>Categories   | 100.00  | 100.00  | 100.00  | 100.00  | 100.00  | 100.00  | 100.00  | 100.00                        |

Source :Derived from DGCI&S, Calcutta, Various Issues

Table 6

## Tariff Barriers facing Exports of India: in USA

| SITC<br>NO | Commodity Description  | Average Tariff Revealed |         |                    |
|------------|--|-------------------------|---------|--------------------|
|            |  | Rate                    | PRE-MTN | POST-MTN Advantage |
| 011        | Live animals chiefly for food                                | 2.91                    | 0.59    | 2.57               |
| 042        | Rice   | 8.86                    | 3.57    | 32.01              |
| 054        | Vegetables, fresh, frozen or simply preserved, etc           | 4.90                    | 2.03    | 4.06               |
| 052        | Dried fruit etc  | 0.60                    | 0.60    | 5.86               |
| 058        | Fruit, Preserved and Fruit Preparations                      | 6.47                    | 3.66    | 0.66               |
| 057        | Fruits and Nuts, fresh or dried                              | 0.02                    | 0.02    | 46.54              |
| 061        | Sugar and honey  | 10.00                   | 5.80    | 1.35               |
| 062        | Sugar confectionery etc..                                    | 17.65                   | 17.62   | 0.88               |
| 071        | Coffee and coffee substitutes                                | 0.00                    | 0.00    | 0.93               |
| 074        | Tea and mate   | 0.00                    | 0.00    | 6.63               |
| 075        | Spices   | 1.71                    | 1.43    | 8.63               |
| 121        | Tobacco, unmanufactured; tobacco refuse                      | 0.00                    | 0.00    | 1.59               |
| 243        | Wood, shaped or simply worked                                | 0.00                    | 0.00    | 4.20               |
| 247        | Other wood in the rough or roughly squared                   | 0.00                    | 0.00    | 0.90               |
| 263        | Cotton   | 0.00                    | 0.00    | 0.65               |
| 264        | Jute and other textile bast fibres, n.e.s.                   | 0.01                    | 0.00    | 23.36              |
| 265        | Vegetable fibres, except cotton and jute                     | 0.01                    | 0.00    | 74.32              |
| 278        | Other crude minerals   | 7.06                    | 2.91    | 59.14              |
| 291        | Crude animal materials, n.e.s.                               | 2.29                    | 1.16    | 0.75               |
| 292        | Crude vegetable materials, n.e.s.                            | 0.46                    | 0.46    | 16.11              |
| 332        | Petroleum products   | 0.30                    | 0.30    | 3.17               |
| 411        | Animal oils and fats   | 3.98                    | 3.98    | 6.72               |
| 422        | Other fixed vegetable oils                                   | 5.00                    | 5.00    | 1.47               |
| 512        | Organic chemicals  | 15.24                   | 14.31   | 0.84               |
| 514        | Nitrogen-function compounds                                  | 18.75                   | 16.75   | 0.85               |
| 516        | Other organic chemicals                                      | 13.75                   | 11.01   | 2.81               |
| 522        | Inorganic chemicals elements, oxides etc..                   | 3.81                    | 1.03    | 0.95               |
| 531        | Synthetic organic dyestuffs, etc....                         | 25.15                   | 16.49   | 2.21               |
| 532        | Dyeing and tanning extracts, and synthetic tanning materials | 4.00                    | 3.10    | 0.73               |
| 533        | Pigments, paints etc..                                       | 14.11                   | 12.60   | 1.01               |
| 541        | Medicinal and pharmaceutical products                        | 1.22                    | 0.51    | 2.91               |
| 551        | Essential oils, perfume and flavour materials                | 1.44                    | 0.18    | 1.26               |

contd...

Table 6

## Tariff Barriers facing Exports of India: in USA

| SITC<br>NO | Commodity Description                                      | Average Tariff Revealed |                  |                          |
|------------|--|-------------------------|------------------|--------------------------|
|            |  | PRE-MTN<br>Rate         | POST-MTN<br>Rate | Comparative<br>Advantage |
| 553        | Perfumery, cosmetics, etc..                                | 4.46                    | 4.38             | 2.03                     |
| 611        | Leather  | 5.46                    | 3.98             | 5.55                     |
| 612        | Leather manufactures                                       | 9.23                    | 8.96             | 1.00                     |
| 651        | Textile Yarn and Thread                                    | 10.31                   | 4.12             | 48.52                    |
| 652        | Cotton Fabrics Woven EX Narrow or Spec.Fabrics             | 11.27                   | 7.25             | 3.09                     |
| 654        | Tulle, Lace, Embroidery, Ribbon, Trimmings                 | 2.32                    | 1.08             | 10.83                    |
| 656        | Tulle, lace, embroidery, etc..                             | 22.08                   | 11.72            | 10.97                    |
| 657        | Floor Coverings, Tapestries, etc.                          | 16.06                   | 6.66             | 1.23                     |
| 658        | Made-up articles, of textile materials                     | 15.43                   | 9.26             | 2.37                     |
| 659        | Floor Covering,etc.  | 11.80                   | 5.38             | 14.16                    |
| 662        | Clay construction materials etc..                          | 12.30                   | 12.02            | 3.61                     |
| 667        | Pearls,precious and semi-precious stones, etc              | 3.93                    | 0.02             | 12.77                    |
| 678        | Tubes,pipes and fittings of iron or steel                  | 4.59                    | 3.14             | 0.03                     |
| 679        | Iron and steel castings, etc                               | 9.94                    | 5.77             | 8.11                     |
| 681        | Silver, platinum and other metals fo platinum group        | 15.82                   | 8.26             | 0.89                     |
| 691        | Structures of iron and steel                               | 0.00                    | 0.00             | 29.04                    |
| 695        | Tools for use in the hand or machines                      | 9.96                    | 6.51             | 0.80                     |
| 697        | Household equipments of base metals                        | 5.87                    | 3.91             | 3.70                     |
| 842        | Outer garments of textile fabrics (men and boys)           | 20.29                   | 19.81            | 1.00                     |
| 843        | Outer garments of textile fabrics (women,girls and babies) | 21.50                   | 15.01            | 3.66                     |
| 847        | Clothing accessories, of textile fabrics, n.e.s.           | 24.99                   | 24.93            | 1.10                     |
| 882        | Photographic film, etc..                                   | 999.90                  | 999.90           | 0.84                     |
| 896        | Works of Art, Collectors Pieces and Antiques               | 6.31                    | 5.28             | 1.94                     |
| 899        | Manufactured Articles.n.e.s.                               | 5.66                    | 2.92             | 0.82                     |

Source: Calculated from UNCTAD Data Base on Trade Measures.

Note : Weighted average Tariff Rates have been calculated from UNCTAD

: Data Base on Trade Measures.

: \* Weighted average tariff rates for commodity groups having one or more than one percent export share and commodity groups having RCA are reported here.

Table 7

Tariff Barriers facing Exports of India: in Japan  
1983

| SITC<br>NO | Commodity Description                           | India's Share(X)# in      |                            | MFN Tariff Rate*(%) |            | Share in<br>Japan's<br>total<br>Import | Revealed<br>Comparative<br>Advantage |
|------------|---|---------------------------|----------------------------|---------------------|------------|--|--------------------------------------|
|            |   | own<br>Export<br>to Japan | Japan's<br>total<br>Import | PRE-TOKYO           | POST-TOKYO |  |                                      |
| 281        | Iron ore and concentrates                       | 37.260                    | 15.526                     | 0.00                | 0.00       | 14.007                                 | 2.66                                 |
| 036        | Crustaceans and molluses, etc.                  | 23.011                    | 18.591                     | 5.06                | 3.06       | 7.224                                  | 3.19                                 |
| 667        | Pearls precious and semi-precious stones        | 12.008                    | 17.580                     | 5.01                | 2.50       | 3.987                                  | 3.01                                 |
| 273        | Stone, sand and gravel                          | 2.199                     | 10.753                     | 0.14                | 0.11       | 1.194                                  | 1.84                                 |
| 263        | Cotton  | 1.617                     | 1.599                      | 0.00                | 0.00       | 5.902                                  | 0.27                                 |
| 291        | Crude animal materials, n.e.s.                  | 1.526                     | 3.907                      | 2.52                | 1.28       | 2.280                                  | 0.67                                 |
| 071        | Coffee and coffee substitutes                   | 1.292                     | 2.538                      | 0.00                | 0.00       | 2.972                                  | 0.43                                 |
| 843        | Outer garments of text. fab. (women's infants)  | 1.188                     | 5.800                      | 18.56               | 14.00      | 1.195                                  | 0.99                                 |
| 264        | Jute and textiles bast fibres                   | 1.182                     | 54.761                     | 19.51               | 19.51      | 0.126                                  | 9.38                                 |
| 057        | Fruits and nuts excluding oil nuts              | 0.963                     | 12.676                     | 6.43                | 1.51       | 0.444                                  | 2.17                                 |
| 423        | Fixed vegetable oils                            | 0.872                     | 93.239                     | 4.70                | 4.00       | 0.055                                  | 15.98                                |
| 611        | Leather   | 0.851                     | 23.339                     | 10.87               | 9.06       | 0.213                                  | 4.00                                 |
| 672        | Ingots and other primary forms of iron or steel | 0.828                     | 1.017                      | 9.23                | 6.94       | 4.753                                  | 0.17                                 |
| 292        | Crude vegetable materials, n.e.s.               | 0.818                     | 3.934                      | 0.97                | 0.92       | 1.213                                  | 0.67                                 |
| 652        | Cotton fabrics                                  | 0.741                     | 6.314                      | 7.02                | 5.61       | 0.685                                  | 1.08                                 |
| 298        | Other crude minerals                            | 0.485                     | 1.937                      | 0.40                | 0.21       | 1.460                                  | 0.33                                 |
| 075        | Spices  | 0.423                     | 17.878                     | 0.21                | 0.17       | 0.138                                  | 3.06                                 |
| 074        | Tea and mate                                    | 0.389                     | 11.492                     | 34.51               | 33.24      | 0.197                                  | 1.97                                 |
| 659        | Floor coverings etc.                            | 0.240                     | 6.293                      | 16.40               | 12.64      | 0.223                                  | 1.08                                 |
| 261        | Silk  | 0.211                     | 10.469                     | 0.00                | 0.00       | 0.118                                  | 1.79                                 |
| 248        | Wood, simply whet and railway sleepers of wood  | 0.202                     | 7.047                      | 15.12               | 14.83      | 0.167                                  | 1.21                                 |
| 282        | Waste and scrap metal of iron or steel          | 0.147                     | 16.606                     | 0.00                | 0.00       | 0.052                                  | 2.85                                 |
| 058        | Fruit, preserved and fruit preparations         | 0.104                     | 27.414                     | 0.11                | 0.11       | 0.022                                  | 4.70                                 |
| 516        | Other organic chemicals                         | 0.074                     | 46.449                     | 10.04               | 5.80       | 0.009                                  | 7.96                                 |
| 773        | Equipment for distributing electricity          | 0.072                     | 19.842                     | 7.50                | 4.20       | 0.021                                  | 3.40                                 |
| 277        | Natural abrasives, n.e.s.                       | 0.057                     | 12.693                     | 9.48                | 5.26       | 0.026                                  | 2.17                                 |
| 271        | Fertiliser, crude                               | 0.010                     | 8.028                      | 10.00               | 5.80       | 0.007                                  | 1.38                                 |

Source: Calculated from UNCTAD Data Base on Trade Measures.

Note : Weighted average Tariff Rates have been calculated from UNCTAD

: Data Base on Trade Measures.

: \* Weighted average tariff rates for commodity groups having one or more than one percent export share and commodity groups having RCA are reported here.

# : ... ..

Table 8

## Percentage of Trade Covered by Non-Tariff Measures

| Country        | 1981 | 1983 | 1986 | 1986<br>from<br>developed<br>countries | 1986<br>from<br>developing<br>countries | 1986<br>from<br>socialist<br>countries |
|----------------|------|------|------|--|---|--|
| Denmark        | 6.7  | 8.0  | 7.9  | 6.1                                    | 20.9                                    | 4.7                                    |
| Ireland        | 8.2  | 9.7  | 9.7  | 8.6                                    | 15.8                                    | 14.7                                   |
| United Kingdom | 11.2 | 13.4 | 12.8 | 12.9                                   | 24.7                                    | 1.1                                    |
| Germany        | 12.6 | 15.4 | 14.3 | 14.9                                   | 28.6                                    | 9.2                                    |
| Italy          | 11.8 | 13.6 | 15.4 | 11.5                                   | 21.3                                    | 14.1                                   |
| France         | 17.2 | 18.7 | 18.2 | 17.3                                   | 17.4                                    | 28.1                                   |
| Greece         | 15.7 | 18.8 | 18.6 | 18.0                                   | 12.3                                    | 25.2                                   |
| Netherlands    | 16.2 | 21.0 | 20.1 | 22.6                                   | 27.1                                    | 12.1                                   |
| EC(10)         | 13.4 | 15.6 | 15.8 | 14.4                                   | 23.2                                    | 8.5                                    |
| US             | 11.4 | 13.7 | 17.3 | 16.6                                   | 19.1                                    | 12.1                                   |
| Japan          | 24.4 | 24.5 | 24.3 | 29.4                                   | 17.4                                    | 13.1                                   |

Source: Laird and Yeats, 1988, Tables 4.2 and 4.3

Note: Calculations for 1981, 1983 and 1986 employ constant 1981 trade weight.

Adapted from: C. Mine (1991)

Table 9

## Structure of Non-Tariff Barriers in EC : 1979 TO 1986

| Sl. No. | Harmonised Commodity Classification                  | Number of Tariff Lines | Belgium <sup>B</sup>         | Denmark <sup>D</sup>              | France <sup>F</sup>                         | Germany <sup>G</sup> | Greece <sup>G</sup>                             | Ireland <sup>I</sup> | Italy <sup>I</sup> | U.K <sup>U</sup>                                      |
|---------|--|------------------------|------------------------------|-----------------------------------|---|----------------------|---|----------------------|--------------------|---|
| 1       | Live Animals; Animal Products(1-5)                   | 36                     |                              | OC, TO, VL(3)<br>L                |   |                      | ID(16),<br>LS(4)                                |                      |                    |   |
| 2       | Vegetable Products(6-14)                             | 101                    | 0                            | TO, SAT, L(18)<br>RIP(2), VL(3)   | LS(9), OC<br>DNY(6)                         | TR, ADC(5)           | ID(47), OC<br>0                                 |                      | LS                 |   |
| 3       | Animal or Vegetable Fats and oils and Etc.(15)       | 10                     |                              | OR, RIP, L<br>ATP, VL(10), VC(26) | OC  |                      | ID  |                      |                    |   |
| 4       | Prepared Foodstuffs; Beverages(16-24)                | 78                     |                              |                                   | LS(24), D(2)<br>DNY(3)                      | ADC(4), 0            | ID(61)<br>LS                                    |                      |                    |   |
| 5       | Mineral Products(24-27)                              | 36                     | LS (4)                       |                                   | 0(5), ECH                                   |                      | ID(10)  |                      |                    |   |
| 6       | Products of the Chemical or Allied Industries(28-38) | 122                    |                              |                                   | OC(4), ECH(4)                               |                      | ID(22)  |                      |                    |   |
| 7       | Plastics and Articles thereof;(39-40)                | 29                     |                              |                                   |   |                      | ID(10)  |                      |                    |   |
| 8       | Raw Hides and Skins, Leather and its Products(41-43) | 29                     |                              |                                   |   |                      | ID(11)  |                      | OC                 |   |
| 9       | Wood and Articles of Wood(44-46)                     | 26                     |                              |                                   |   |                      | ID(21)  |                      |                    |   |
| 10      | Pulp of Wood or of other Fibrous Cellulosic(47-49)   | 23                     |                              |                                   | 0   |                      | ID(13), LS<br>0                                 |                      |                    |   |
| 11      | Textiles and Textiles Articles(50-63)                | 313                    | OC, ICS(50)<br>RIM(9), MD(6) | HFA(220)<br>MD(76)                | LB, 0(4), ICS(54)<br>PIM(54), MD(9), ECH(6) |                      | ID(261), LB(137)<br>OC(237), 0, TO(57), ICS(14) | LC(147), P           | LB(104), 0, ICS    | LS(74), OC(70), ICS<br>PIM(3), MD(7)<br>PIM(3), MD(5) |

Source: Tabulated from Unctad Data Base on Trade Measures

Note: Figures within Bracket indicate number of Tariff Lines subject to particular NTB.

Only one Tariff Line is subject NTB in Cases where numbers are not given.

For abbreviation of NTBs please see Table: 9a

Cont...

Table 9

## Structure of Non-Tariff Barriers in EC : 1979 TO 1986

| 81. Harmonized Commodity Classification No.      | Number of Tariff Lines | Belgium <sup>B</sup> | Denmark <sup>B</sup> | France <sup>B</sup>               | Germany <sup>B</sup> | Greece <sup>B</sup> | Ireland <sup>B</sup> | Italy <sup>B</sup> | U.K <sup>B</sup> |
|--|------------------------|----------------------|----------------------|-----------------------------------|----------------------|---------------------|----------------------|--------------------|------------------|
| 12 Footwear Etc.(64-67)                          | 20                     |                      | LS(6)                | OC                                |                      | ID(18)              | LS(4)                | LS(5)              | PIH(3)           |
| 15 Articles of Stone(68-70)                      | 41                     |                      |                      | LS(4), OC(3)<br>0                 |                      | ID(39)              |                      | LS                 | 0                |
| 14 Natural or Cultured Pearls(71)                | 24                     | LS(5)                |                      |                                   |                      | ID(23)              |                      |                    |                  |
| 15 Base Metals and Articles of Base Metal(72-83) | 93                     |                      | LS(3), PS(2)<br>BIP  | LS(5), DW(2)                      |                      | ID(53)              |                      | LS                 | 0                |
| 16 Machinery and Mechanical Appliances(84-85)    | 145                    |                      |                      | LS(5), OC(4)<br>DW                |                      | ID(26)<br>0         |                      | LS(14)             |                  |
| 17 Vehicles, Aircraft, Vessels Etc.(86-89)       | 19                     |                      |                      | LS(3)                             |                      | ID(11)              | 0(5)                 |                    |                  |
| 18 Optical, Photographic, Etc.(90-92)            | 65                     | LS(2)                |                      | LS(5), OC(5)<br>0(4), PIH, ECR(4) |                      | ID(25)              |                      |                    |                  |
| 19 Arms and Ammunition; Parts Etc.(93)           | 4                      |                      |                      |                                   |                      | ID(3)               |                      | LS(3)              |                  |
| 20 Miscellaneous Manufactured Articles(94-96)    | 15                     |                      |                      |                                   |                      | ID(7)               |                      |                    |                  |
| 21 Works of Art, Collectors' Pieces Etc.(97-99)  | 32                     |                      |                      |                                   |                      | ID(27)<br>0(2)      |                      |                    |                  |

Source: Tabulated from United Data Base on Trade Measures

Note: Figures within Bracket indicate number of Tariff Lines subject to particular NTB.

Only one Tariff Line is subject NTB in Cases where numbers are not given.

For abbreviation of NTBs please see Table 2.

Table 9a

Non-Tariff Barriers operating in the EC countries @  
1979 To 1986

| Description of NTBs                         | Belgium | Denmark | Germany | Greece | France | Ireland | Italy | U.K |
|---|---------|---------|---------|--------|--------|---------|-------|-----|
| 1 Advalorem Charges (AC)                    |         |         | 2       |        |        |         |       |     |
| 2 Advalorem Tariff with Spe. Min.(ATP)      |         |         | 2       |        |        |         |       |     |
| 3 Authorization Dep. on Certification (ADC) |         |         |         | 9      |        |         |       |     |
| 4 Basic Import Price (BIP)                  |         |         | 2       |        |        |         |       |     |
| 5 Declaration with Visa (DWV)               |         |         |         |        |        | 12      |       |     |
| 6 Entry Control Measures (ECM)              |         |         |         |        |        | 12      |       |     |
| 7 Global Quota (GQ)                         |         |         | 1       |        |        |         |       |     |
| 8 Import Deposit (ID)                       |         |         |         |        | 699    |         |       |     |
| 9 Intra-Community Surveillance (ICS)        | 50      | 26      |         | 14     | 54     | 54      |       |     |
| 10 Licence for Surveillance (LS)            | 11      | 9       |         | 143    | 55     | 147     | 209   | 74  |
| 11 Licence (L)                              |         | 9       |         |        |        |         |       |     |
| 12 MFA Quota (MQ)                           | 6       | 74      |         |        |        | 9       | 7     | 5   |
| 13 Multi-Fibre Arrangement (MFA)            |         | 220     |         |        |        |         |       |     |
| 14 Prohibition of Indirect Import (PII)     | 9       |         |         |        |        | 52      | 6     | 3   |
| 15 Prohibition (P)                          |         |         |         |        |        |         | 1     |     |
| 16 Quota by Country (QC)                    | 1       |         |         | 1      | 238    | 239     | 5     | 66  |
| 17 Quota (Q)                                | 1       | 1       |         |        | 1      | 19      |       | 1   |
| 18 Reference Import Prices (RIP)            |         |         | 3       |        |        |         |       |     |
| 19 Retrospective Surveillance (RS)          |         |         | 1       |        |        |         |       |     |
| 20 Seasonal Advalorem Tariff (SAT)          |         |         | 4       |        |        |         |       |     |
| 21 Tariff with Quota (TQ)                   |         |         | 2       | 1      | 57     |         |       |     |
| 22 Technical Requirement (TR)               |         |         |         | 1      |        |         |       |     |
| 23 Variable Component (VC)                  |         |         | 25      |        |        |         |       |     |
| 24 Variable Levy (VL)                       |         |         | 2       |        |        |         |       |     |

Source: Computed from UNCTAD Data Base on Trade Measures.

Note : @ Figures indicate Number of Tariff Lines subject to NTBs  
for the whole or part of the period.

Table 10

Incidence of Non-Tariff Barriers in EC Countries:  
Number of Cases of Non-Tariff Barriers<sup>S</sup>

| Year | Belgium | Denmark | Germany | Greece | France | Ireland | Italy | U.K. |
|------|---------|---------|---------|--------|--------|---------|-------|------|
| 1980 | 56      | 67      | 9       | 14     | 101    | 0       | 7     | 58   |
| 1981 | 68      | 378     | 9       | 431    | 196    | 204     | 295   | 204  |
| 1982 | 68      | 383     | 9       | 376    | 418    | 24      | 297   | 204  |
| 1983 | 69      | 404     | 10      | 396    | 435    | 205     | 290   | 202  |
| 1984 | 78      | 385     | 11      | 390    | 449    | 205     | 289   | 461  |
| 1985 | 78      | 388     | 11      | 1068   | 498    | 209     | 321   | 207  |
| 1986 | 41      | 388     | 2       | 1013   | 390    | 200     | 293   | 150  |

Source: Computed from UNCTAD Data Base on Trade Measures.

<sup>S</sup> This records Number of Cases of NTBS occurred during the year.

Table 11

India's Quota Utilisation in the EC

| Category/Description         | 1988   | 1989   | 1990   |
|------------------------------|--------|--------|--------|
| 1 Cotton Yarn                | 45.00  | 43.00  | 108.00 |
| 2 Cotton Fabric              | 86.00  | 82.00  | 112.00 |
| 4 T-Shirts                   | 96.00  | 116.93 | 124.49 |
| 5 Jerseys & Pullovers        | -      | 83.92  | 103.87 |
| 6 Trousers and Gents' Shirts | 98.45  | 105.95 | 109.38 |
| 7 Ladies Blouses             | 96.62  | 102.81 | 113.07 |
| 8 Gents' Shirts              | 109.81 | 114.74 | 114.56 |
| 15 Ladies Jackets            | 62.57  | 49.78  | 37.47  |
| 20 Bedlines                  | 66.00  | 70.00  | 104.00 |
| 26 Ladies' Dresses           | 78.82  | 72.96  | 88.73  |
| 27 Ladies Skirts             | 104.86 | 97.13  | 97.71  |
| 29 Ladies Coordinate Suits   | 97.80  | 103.11 | 98.62  |
| 30 Tarte linen               | 19.00  | 18.00  | 20.00  |

Source: Apparel EPC. and Cotton Textile EPC.

Reproduced from: Iyer Parameswaran (1991)

Table 12

## India's Country Wise Garment Exports in EC

(Rs.Crore)

| Country  | Quota Exports |        |            | Non Quota Exports |       |            | Total Exports |        |            |
|----------|---------------|--------|------------|-------------------|-------|------------|---------------|--------|------------|
|          | 1989          | 1990   | % Increase | 1989              | 1990  | % Increase | 1989          | 1990   | % Increase |
| Germany  | 346.0         | 485.0  | 40         | 99.0              | 173.0 | 75         | 445.0         | 658.0  | 48         |
| UK       | 290.0         | 371.0  | 28         | 56.0              | 131.0 | 134        | 346.0         | 502.0  | 45         |
| France   | 145.0         | 214.0  | 48         | 51.0              | 81.0  | 100        | 196.0         | 295.0  | 51         |
| Benelux  | 98.0          | 137.0  | 46         | 33.0              | 66.0  | -33        | 131.0         | 203.0  | 55         |
| Italy    | 78.0          | 114.0  | 19         | 39.0              | 26.0  | 57         | 117.0         | 140.0  | 20         |
| Denmark  | 26.0          | 31.0   | 67         | 7.0               | 11.0  | 100        | 33.0          | 42.0   | 27         |
| Spain    | 15.0          | 25.0   | 40         | 7.0               | 14.0  | 100        | 22.0          | 39.0   | 77         |
| Ireland  | 5.0           | 7.0    | 250        | 1.0               | 2.0   | 180        | 6.0           | 9.0    | 50         |
| Portugal | 0.4           | 1.4    | 200        | 0.5               | 1.4   | 400        | 0.9           | 2.8    | 211        |
| Greece   | 1.0           | 3.0    |            | 0.1               | 0.5   |            | 1.1           | 3.5    | 218        |
| Total    | 1004.4        | 1388.4 | 38         | 293.6             | 505.9 | 72         | 1298.0        | 1894.3 | 46         |

Source : European Commission

Reproduced from Iyer Parameswaran (1991)

Table 12a

## India's Country Wise Cotton Textile Exports in EC

(Rs.Crore)

| Country   | Quota Exports |       |            | Non Quota Exports |       |            | Total Exports |       |            |
|-----------|---------------|-------|------------|-------------------|-------|------------|---------------|-------|------------|
|           | 1989          | 1990  | % Increase | 1989              | 1990  | % Increase | 1989          | 1990  | % Increase |
| Germany   | 80.7          | 152.7 | 89         | 35.1              | 63.4  | 81         | 115.7         | 216.1 | 87         |
| France    | 56.2          | 83.0  | 48         | 7.3               | 17.3  | 137        | 63.5          | 100.3 | 58         |
| Italy     | 56.3          | 111.4 | 98         | 33.6              | 43.2  | 29         | 89.9          | 154.6 | 72         |
| Benelux   | 25.9          | 56.1  | 116        | 34.7              | 44.2  | 27         | 60.6          | 100.2 | 65         |
| Denmark   | 10.3          | 19.6  | 91         | 4.1               | 4.5   | 10         | 14.4          | 24.1  | 68         |
| S.Ireland | 98.8          | 4.1   | 139        | 1.0               | 0.4   | -63        | 2.7           | 4.5   | 66         |
| UK        | 1.7           | 204.6 | 107        | 87.1              | 117.7 | 35         | 185.9         | 322.2 | 73         |
| Greece    | 0.7           | 1.9   | 158        | 0.4               | 2.1   | 407        | 1.2           | 4.0   | 249        |
| Spain     | 5.6           | 10.0  | 78         | 5.2               | 8.7   | 66         | 10.9          | 18.7  | 72         |
| Portugal  | 0.2           | 3.1   | 1435       | 0.1               | 0.5   | 275        | 0.3           | 3.5   | 1000       |
| Total     | 336.4         | 646.5 | 92         | 208.6             | 302.0 | 45         | 545.1         | 848.2 | 74         |

Source : European Commission

Reproduced from Iyer Parameswaran (1991)

Table 13  
Nature, Extent and Types of NTBs facing Indian Exports in USA  
1979 TO 1986

|   | Average<br>Coverage<br>Ratio | Average<br>Frequency<br>Ratio | India's Share in<br>Own Export USA<br>to Japan Total Import |       | RCA<br>1983 | Description<br>of<br>Non-Tariff<br>Barriers |
|---|------------------------------|-------------------------------|---|-------|-------------|---|
|   | P E R C E N T                |                               |   |       |             |   |
| 051 Vegetables, Fresh, chilled, frogen, etc.                              | 100                          | 100.0                         | 0.02  | 3.85  | 4.1         | SST   |
| 062 Sugar confectionary not containing Cocoa and other sugar preparations | 99.3                         | 66.7                          | 0.60  | 0.84  | 0.9         | VL,GB                                       |
| 073 chocolate and other food preparations containg cocoa                  | 100                          | 100.0                         | na  | na    | na          | QC  |
| 112 Alcoholic beverages   | 66.6                         | 66.6                          | 0.01  | 0.669 | 0.0         | ST  |
| 122 Tobacco manufactured  | 3.5                          | 33.3                          | 0.02  | 0.08  | 0.2         | ST  |
| 262 Wool and other animal hair  | 37                           | 75.0                          | 0.00  | 0.03  | 0.0         | MFA   |
| 263 Cotton  | 100                          | 100.0                         | 0.00  | 0.62  | 0.7         | QC  |
| 291 Crude animal materials  | 14.2                         | 8.3                           | 0.05  | 0.71  | 0.8         | PH,Q  |
| 331 Petroleum, crude and partly refined                                   | 50                           | 50.0                          | 25.23   | 0.98  | 1.0         | AL  |
| 332 Petroleum products  | 50                           | 50.0                          | 2.44  | 3.01  | 3.2         | AL  |
| 553 Perfumary, cosmetics and toilets preparations                         | 72.2                         | 14.2                          | 0.17  | 1.93  | 2.0         | CVD   |
| 612 Manufactures of leather etc...  | 4.3                          | 5.6                           | 0.19  | 0.94  | 1.0         | CVI,MON                                     |
| 642 Paper and paperboard, cut to size ...                                 | 4.4                          | 9.5                           | 0.02  | 0.22  | 0.2         | ST  |
| 652 Cotton Fabrics Woven EX Narrow or Spec.Fabrics                        | 49.4                         | 92.8                          | 0.75  | 2.92  | 3.1         | MFA   |
| 653 Text Fabrics Woven EX Narrow, Spec, Not Cotton                        | 31.1                         | 58.8                          | 0.03  | 0.08  | 0.1         | MFA   |
| 654 Tulle, Lace, Embroidery, Ribbon, Trimmings                            | 40.3                         | 42.1                          | 3.13  | 10.27 | 10.8        | MFA   |
| 656 Tulle,lace embroidery, ribbons, etc.                                  | 96.5                         | 75.0                          | 0.40  | 10.4  | 11.0        | MFA   |
| 657 Special textile fabrics nd related products                           | 75.1                         | 60.9                          | 0.12  | 1.17  | 1.2         | MFA   |
| 658 Made-up articles, wholly or chiefly of textile materials              | 94.4                         | 67.2                          | 0.54  | 2.24  | 2.4         | MFA   |

Table 13  
 Nature, Extent and Types of NTBs facing Indian Exports in USA  
 1979 TO 1986

|  | Average           | Average            | India's Share in       |                     | RCA  | Description<br>of<br>Non-Tariff<br>Barriers |
|--|-------------------|--------------------|------------------------|---------------------|------|---|
|  | Coverage<br>Ratio | Frequency<br>Ratio | Own Export<br>to Japan | USA<br>Total Import |      |   |
| P E R C E N T  |                   |                    |                        |                     |      |   |
| 659 Floor coverings, etc   | 74                | 57.0               | 3.21                   | 13.42               | 14.2 | MFA   |
| 678 Tube, pipes, and fittings, of iron or steel                            | 26                | 16.6               | 0.01                   | 0.03                | 0.0  | ADD, CVI                                    |
| 679 Iron and steel castings, forgings, etc.                                | 16.3              | 13.0               | na                     | na                  | na   | CVI   |
| 691 Structures and parts of structures, n.e.s., of iron, steel or allumini | 100               | 100.0              | 0.57                   | 27.53               | 29.0 | ADD, CVD, ADI                               |
| 694 Nails, screws, nuts, bolts, etc.                                       | 79                | 46.0               | 0.11                   | 0.35                | 0.4  | CVD, SUT, MON                               |
| 697 Household equipmeny of base metals, n.e.s.                             | 0.01              | 3.0                | 1.94                   | 3.51                | 3.7  | SUT, MON                                    |
| 713 Internal combustion piston engines, and parts thereof. n.e.s.          | 34.6              | 26.6               | 0.04                   | 0.06                | 0.1  | SUT   |
| 783 Road motor vehicles. n.e.s.  | 0.2               | 17.0               | 0.16                   | 0.01                | 0.0  | SUT   |
| 785 Motor cycles , motor scooters and other cycles, etc..                  | 49.3              | 22.0               | 0.00                   | 0                   | 0.0  | ATQ, SUT                                    |
| 847 Clothing accessories, of textile fabrics, n.e.s.                       | 100               | 100.0              | 0.03                   | 1.04                | 1.1  | MFA   |
| 848 Articles of apparel and clothing accessories, etc...                   | 16                | 29.0               | 0.00                   | 0.07                | 0.1  | MFA   |
| 851 Footwear   | 48.5              | 43.3               | 0.33                   | 0.14                | 0.1  | CVI, MON                                    |
| 896 Works of Art, collectors' pieces and antiques                          | 0.01              | 4.0                | 1.67                   | 1.84                | 1.9  | MFA   |

Source: Calculated from UNCTAD Data Base on Trade Measures.

Note : For abbreviations please see appendix C

: # Export shares from UNCTAD Data Base and DGCI&S need not be equal partly due to aggregation problem to convert to SITC from Tariff Lines.

43

Table 14

## Nature, Extent and Types of NTBs facing Indian Exports in Japan

1979 TO 1986

| SITC<br>NO  | Average<br>Coverage<br>Ratio | Average<br>Frequency<br>Ratio | India's Share in       |                         | RCA<br>1983 | Description<br>of<br>Non-Tariff<br>Barriers |
|---|------------------------------|-------------------------------|------------------------|-------------------------|-------------|---|
|   |                              |                               | Own Export<br>to Japan | Japan's<br>Total Import |             |   |
| P E R C E N T   |                              |                               |                        |                         |             |   |
| 001 Live animals chiefly for food                             | 100                          | 100                           | 0.02                   | 1.05                    | 0.2         | IA, GQ, HSR                                 |
| 011 Meat and edible meat offals, etc...                       | 100                          | 100                           | 0.01                   | 0.36                    | 0.1         | IA, HSR                                     |
| 031 Fish, Fresh & Simply Preserved                            | 100                          | 100                           | 0.00                   | 0.16                    | 0.0         | GQ, IA, HSR                                 |
| 034 Fish, fresh, chilled or frozen                            | 100                          | 100                           | 0.00                   | 0.17                    | 0.0         | IA, HSR                                     |
| 035 Fish, dried, salted or in brine; smoked fish              | 100                          | 100                           | 0.01                   | 0.08                    | 0.0         | IA, HSR                                     |
| 036 Crustaceans and molluscs, chilled, frozen, salted etc ... | 100                          | 100                           | 23.01                  | 18.60                   | 3.2         | IA, HSR                                     |
| 053 Fruit, Preserved and Fruit Preparations                   | 100                          | 100                           | 0.04                   | 3.75                    | 0.6         | HSR   |
| 054 Vegetables, fresh, chilled, roots, tubers etc....         | 100                          | 100                           | na                     | na                      | na          | HSR   |
| 057 Fruits and Nuts, fresh or dried                           | 100                          | 100                           | 0.96                   | 12.68                   | 2.2         | HSR   |
| 058 Fruits, preserved, and fruit preparation                  | 100                          | 100                           | 0.10                   | 27.41                   | 4.7         | HSR, GQ                                     |
| 071 Coffee and coffee substitutes                             | 100                          | 100                           | 1.29                   | 2.54                    | 0.4         | HSR   |
| 074 Tea and mate  | 100                          | 100                           | 0.39                   | 11.49                   | 2.0         | HSR   |
| 075 Spices  | 100                          | 100                           | 0.42                   | 17.88                   | 3.1         | HSR   |
| 081 Feeding stuff for animals                                 | 100                          | 100                           | 0.02                   | 0.18                    | 0.0         | HSR, IA                                     |
| 099 Food Preparations n.e.s.                                  | 100                          | 100                           | 0.00                   | 0.02                    | 0.0         | IA, GQ, HSR                                 |
| 112 Alcoholic beverages                                       | 100                          | 100                           | 0.11                   | 0.60                    | 0.1         | SMI, HSR, GQ                                |
| 121 Tobacco, unmanufactured; tobacco refuse                   | 100                          | 100                           | 0.23                   | 1.15                    | 0.2         | SIA, SMI, GQ, HSR                           |
| 211 Hides and skins raw                                       | 100                          | 100                           | 0.00                   | 0.93                    | 0.2         | HSR   |

Contd.

Table 14  
Nature, Extent and Types of NTB facing Indian Exports in Japan  
1979 TO 1986

| SITC<br>NO  | Average           | Average            | India's Share in       |                         | RCA<br>1983 | Description<br>of<br>Non-Tariff<br>Barriers |
|---|-------------------|--------------------|------------------------|-------------------------|-------------|---|
|   | Coverage<br>Ratio | Frequency<br>Ratio | Own Export<br>to Japan | Japan's<br>Total Import |             |   |
| P E R C E N T   |                   |                    |                        |                         |             |   |
| 223 Oilseeds and oleaginous fruits,whole or broken etc...       | 100               | 100                | na                     | na                      | na          | HSR   |
| 247 Other wood in the rough or roughly squared                  | 0.14              | 33                 | 0.19                   | 2.05                    | 0.3         | PE,HSR                                      |
| 271 Fertilizers,crude   | 100               | 100                | 0.01                   | 0.03                    | 1.4         | HSR   |
| 277 Natural abrasives n.e.s.                                    | 62                | 50                 | na                     | na                      | na          | HSR   |
| 278 Other crude minerals  | 4.6               | 14                 | 0.49                   | 1.94                    | 0.3         | HSR   |
| 287 Ores and concentrates of base metals n.e.s.                 | 2.9               | 80                 | 37.26                  | 15.53                   | 2.7         | GQ,HSR                                      |
| 288 Non ferrous base metal and waste and scrap,n.e.s.           | 100               | 100                | 0.13                   | 1.80                    | 0.3         | GQ  |
| 291 crude animal materials,n.e.s.                               | 100               | 100                | 1.53                   | 3.91                    | 0.7         | IA,HSR,PE                                   |
| 292 Crude vegetable materials,n.e.s.                            | 100               | 100                | 0.82                   | 3.90                    | 0.7         | L,HSR,IP,GQ,SMI,OIM                         |
| 264 Jute and other textile bast fibres,n.e.s.                   | 95                | 67                 | 1.18                   | 54.76                   | 9.4         | IA  |
| 423 Fixed vegetable oils,'soft'crude refined                    | 100               | 100                | 0.87                   | 93.24                   | 16.0        | HSR   |
| 513 Carboxylic acid,and their anhydrides,halides etc...         | 100               | 100                | 0.05                   | 0.49                    | 0.1         | HSR,IP                                      |
| 514 Nitrogen-function compounds                                 | 100               | 100                | 0.03                   | 0.32                    | 0.1         | HSR,IP,GQ                                   |
| 516 Other organic chemicals                                     | 100               | 100                | 0.07                   | 46.45                   | 8.0         | HSR   |
| 522 Inorganic chemicals elements, oxides and halogen salts      | 2.44              | 33                 | 0.01                   | 0.79                    | 0.1         | HSR   |
| 531 Synthetic organic dyestuffs,etc....                         | 100               | 100                | 0.02                   | 0.30                    | 0.1         | HSR   |
| 532 Dyeing and tanning extracts,and synthetic tanning materials | 100               | 100                | 0.00                   | 4.00                    | 0.7         | HSR   |
| 541 Medicinal and pharmaceutical products                       | 100               | 100                | 0.13                   | 1.84                    | 0.3         | HSR,GQ,IP                                   |
| 551 Essential oils,perfume and flavour materials                | 100               | 100                | 0.06                   | 3.97                    | 0.7         | HSR   |

Contd.

Table 14  
Nature, Extent and Types of NTBs facing Indian Exports in Japan  
1979 TO 1986

| SITC<br>NO  | Average           | Average            | India's Share in       |                         | RCA<br>1983 | Description<br>of<br>Non-Tariff<br>Barriers |
|---|-------------------|--------------------|------------------------|-------------------------|-------------|---|
|   | Coverage<br>Ratio | Frequency<br>Ratio | Own Export<br>to Japan | Japan's<br>Total Import |             |   |
| P E R C E N T   |                   |                    |                        |                         |             |   |
| 554 Soap,cleansing and polishing preparations                     | 100               | 100                | 0.00                   | 0.02                    | 0.0         | HSR   |
| 562 Fertilizers, manufactured                                     | 100               | 100                | 0.00                   | 0.39                    | 0.1         | L   |
| 582 Condensation, Polycondensation and Polyaddition Products. etc | 100               | 100                | 0.00                   | 0.01                    | 0.0         | HSR   |
| 583 Polymerization and Copolymerization Products                  | 75                | 86                 | 0.00                   | 0.01                    | 0.0         | HSR   |
| 611 Leather   | 28                | 64                 | 0.85                   | 23.34                   | 4.0         | ATQ,GQ                                      |
| 613 Fur Skins,Tanned or Dressed, Including Dyed                   | 86                | 80                 | 0.00                   | 0.00                    | 0.0         | P   |
| 629 Articles of Rubber,n.e.s.                                     | 100               | 100                | 0.00                   | 0.00                    | 0.0         | HSR   |
| 635 Wood Manufactures, n.e.s.                                     | 66                | 33                 | 0.01                   | 0.11                    | 0.0         | HSR,GQ                                      |
| 651 Textile Yarn and Thread                                       | 43                | 56                 | 0.19                   | 1.61                    | 0.3         | HSR   |
| 652 Cotton Fabrics Woven EX Narrow or Spec.Fabrics                | 99.8              | 80                 | 0.74                   | 6.31                    | 1.1         | IA  |
| 653 Text Fabrics Woven EX Narrow, Spec, Not Cotton                | 100               | 100                | 0.00                   | 0.17                    | 0.0         | IA  |
| 654 Tulle, Lace, Embroidery, Ribbon, Trimmings                    | 100               | 100                | 0.74                   | 6.30                    | 1.1         | IA  |
| 657 Floor Coverings, Tapestries, etc.                             | 3                 | 20                 | 0.10                   | 4.16                    | 0.7         | IA  |
| 659 Floor Covering,etc.   | 53                | 80                 | 0.04                   | 0.93                    | 0.2         | TQ,GQ                                       |
| 861 Scientific,Medical,Optical,Meas./Contr.Instrum.               | 100               | 100                | 0.01                   | 0.81                    | 0.1         | HSR   |
| 863 Developed Cinematographic Film                                | 16                | 33                 | 0.00                   | 0.08                    | 0.0         | HSR   |
| 872 Medical Instruments and Appliances,NES                        | 100               | 100                | 0.00                   | 0.00                    | 0.0         | HSR   |
| 896 Works of Art, Collectors Pieces and Antiques                  | 66                | 33                 | 0.000                  | na                      | na          | PE,GQ                                       |
| 899 Manufactured Articles.NES                                     | 99                | 67                 | 0.037                  | 0.967                   | 0.17        | PE,GQ                                       |

Source: Calculated from UNCTAD Data Base on Trade Measures.

Note: same as in Table 13

Table 15  
Non-Tariff Barrier Impact Index (NTBI)

| SITC Product<br>No. Description             | Nature<br>of NTB | Time Period<br>Coverage<br>of NTB | NTBI#        |
|---|------------------|-----------------------------------|--------------|
| 062 Sugar confectionary etc.                | VL,CO            | 1982-86                           | 99.30 3.74   |
| 112 Alcoholic beverages                     | ST               | 1983-86                           | 100.00 5.24  |
| 122 Tobacco,manufactured                    | ST               | 1983-86                           | 50.00 2.83   |
| 612 Manufactures of leather etc.            | CVI,MON          | 1981-83                           | 8.50 1.06    |
| 642 Paper and paperboard                    | ST               | 1983-86                           | 6.70 -ve     |
| 678 Tubes,pipes and fittings                | ADO,CVI,ADI      | 1983-86                           | 78.00 63.53  |
| 679 Iron and steel casting etc.             | CVI              | 1984                              | 98.00 2.34   |
| 713 Internal combustion piston engines etc. | SUT              | 1983-86                           | 52.00 150.71 |
| 785 Motor cycles,motor scooters etc.        | ATO,SUT          | 1983-86                           | 0.20 0.35    |
| 851 Footwear                                | CVI,MON          | 1981-84                           | 97.00 1.31   |

Source: Calculated from UNCTAD Data Base on Trade Measures.

Note: # NTBI has been estimated as the ratio of growth rate of export during the period without NTB to growth rate of export during the period with NTB.

# APPENDIX A: Non-Tariff Measures: Types and Definitions

---

| Non-Tariff Measures | Definition/ How does it operate |
|---------------------|---------------------------------|
|---------------------|---------------------------------|

---

## 1. Fiscal Measures

### 1.1 Import Specific Charges

#### 1.1.1 Para-Tariff Barrier

1.1.1.1 Tariffs with Quota It is a hybrid of tariff and quota with a higher tariff applied when imports exceed the quota.

1.1.1.2 Seasonal Specific Tariff

Different rates of tariff charged to a product depending on the period of the year.

1.1.1.3 Ad valorem tariff with specific minimum

Tariff defined in percentage term but with a specified minimum amount for the duty payable.

#### 1.1.2 Charges applied on the basis of declared value

These are import specific charges except tariffs (viz., levies and other duties). These are charged on the basis of value declared by the importer/exporter or by application of standard customs valuation procedures.

#### 1.1.3 Charges applied on the basis of decreed value

Charges applied on the basis of the difference between the value established (decreed) by the authorities in the importing country and the value declared by the importer.

1.1.3.1 Variable Levy Levies are designed to achieve domestic price stability by imposing a charge on imports which varies to hold the landed price of foreign goods constants.

1.1.3.2 Variable Component An import charge with a fixed and variable component e.g., specific minimum.

#### 1.1.3.3 Transaction Specific Charges

Anti-dumping duties and countervailing duties are the most widely used forms. These are charged when foreign exporter is accused of setting the export price below its fair value. The fair value is determined by the home market price (in case of dumping) or a constructed price net of subsidies (in case of countervailing cases).

## 1.2 Product Specific Taxes

- 1.2.1 Ad valorem taxes
  - 1.2.2 Specific taxes
  - 1.2.3 Combined taxes
- 

## 2. Volume Restraining Measures

### 2.1 Prohibitions

#### 2.1.1 Total prohibitions

- 2.1.1.1 General
- 2.1.1.2 Health and safety
- 2.1.1.3 Wild-life
- 2.1.1.4 Prohibition (censorship)
- 2.1.1.5 Seasonal

#### 2.1.2 Conditional prohibitions

- 2.1.2.1 General conditional
- 2.1.2.2 On the basis of origin
- 2.1.2.3 Prohibition (except certain purchasers, eg. **State monopoly of imports, Sole import agency**)
- 2.1.2.4 Prohibition for certain use.

#### 2.1.3 Quotas

- 2.1.3.1 General
- 2.1.3.2 Global

Any country can export any amount of goods until the maximum import permissible by the importing country exhausts

- 2.1.3.3 Bilateral Quota fixed by bilateral negotiations.
- 2.1.3.4 Seasonal
- 2.1.3.5 Voluntary export restraint (VER)

It is a quota imposed by an exporting country on its export to another in response to pressure from the importing country. It is a policy of protecting domestic producers of the importing country under the exporting country's administration.

---

## 3. Import Authorisation

### 3.1 Non-Automatic Authorisation

#### 3.1.1 Authorisations to control entry

##### 3.1.1.1 Discretionary Authorisation

Permission to import upon submission of application is at the discretion of the competent authority. These procedures are mostly used for the administration of quantitative restrictions. The variants of these procedures are (i) general import authorisation, (ii) automatic licensing, (iii)

discretionary licensing, (iv) declaration with visa, (v) select purchase authorisation, and (vi) import permit.

### 3.1.1.2 Conditional import authorisation

Permission to import is given subject to fulfilling certain conditions, eg., export performance in case of intermediaries, local content specification and scarcity in domestic market.

### 3.1.2 Authorisation to control compliance with standards regulation

This includes authorisation dependent on certification on (i) health and safety (ii) technical standards and (iii) censorship.

## 3.2 Automatic Authorisation

Import licenses are granted automatically. The procedures are maintained for statistical purposes or for special reasons eg., monitoring of import of sensitive products.

- 3.2.1 Licence for surveillance purpose
  - 3.2.2 Liberal licencing
  - 3.2.3 Declaration with visa requirement
  - 3.2.4 Intra-community surveillance system
- 

## 4. Control of the Price Level

### 4.1 Minimum pricing system

If the actual prices are below the minimum fixed by the country, a trigger action in the form of compensatory duties or price investigation is undertaken by the importing country. The minimum import price may be described as minimum import price or reference import price or basic import price or trigger price.

### 4.2 Prior investigation

Investigations are undertaken by the importing country to determine whether the imported articles are subsidised or there is dumping. If products are sold at less than fair value prices the investigating authority also determines the subsidy or dumping margin. The authority also investigates whether the domestic industry is injured by such un fair pricing.

### 4.3 Price surveillance

Price surveillance action is intended to ensure that possible injury of domestic

industry by low priced, but not subsidised or dumped imports.

---

## **5. Other Measures**

### **5.1 Standards and regulations**

Requirements concerning the standard of the commodity to be imported. In principle, these regulations are applicable to domestically produced goods also.

### **5.2 Measures to assist import competing production**

These are measures which may distort international trade flows by providing assistance to domestic import competing production.

#### **5.2.1 Production subsidies**

5.2.1.2 Subsidies to material inputs

5.2.2 Subsidies to labour

5.2.3 Subsidies to capital

5.2.3.1 Investment grants

5.2.3.2 Research & development grants

5.2.3.3 Product specific acceleration depreciation

5.2.3.4 Product specific tax concessions

### **5.3 Other import measures**

#### **5.3.1 Multi-Fibre Arrangement (MFA)**

5.3.1.1 MFA quota

5.3.1.2 MFA consultation agreement

This is a provision under which importing country calls for consultation with a view of introducing quantitative restriction under certain conditions for the articles in which bilateral agreement under the MFA has not set quantitative restraints at the moment of its signature.

#### **5.3.2 Additional customs formalities**

#### **5.3.3 Import Deposits**

It is a requirement to deposit a specified sum of money (normally defined as a percentage of the value of the transaction) prior to importation. The deposit may be reimbursed either immediately after importation or after a specified period of time (without payment of interest or compensation for devaluation).

---

Appendix B

India's Exports to EEC : Share, Revealed Comparative Advantage and Growth  
1983 To 1990

| HS Code | Nomenclature/Commodity Description   | Share (%) to India's Total Export to EEC |       | Rank          |      | India's Revealed Comparative Advantage in EEC |         | India's Export Growth to EEC (Percent) |         |       |       |        |        |
|---------|--|--|-------|---------------|------|---|---------|--|---------|-------|-------|--------|--------|
|         |  | EEC-12(90) EEC-12(87) EEC-10(83)         |       | EEC-12 EEC-10 |      | EEC-12(90) EEC-12(87) EEC-10(83)              |         | EEC-12 EEC-10 EEC-10                   |         |       |       |        |        |
|         |  | 1990                                     | 1987  | 1983          | 1983 | 1983-90                                       | 1983-87 | 1983-87                                | 1983-87 |       |       |        |        |
| 61      | Articles of apparel and clothing accessories, not knitted or woven                 | 15.28                                    | 15.46 | 11.24         | 1    | 1   | 2       | 7.39                                   | 8.22    | 7.65  | 15.92 | 16.79  | 17.37  |
| 71      | Natural or cultured pearls, precious or semi-precious stones                       | 13.39                                    | 11.34 | 14.38         | 2    | 2   | 1       | 6.61                                   | 5.64    | 5.91  | 9.83  | -0.70  | 24.78  |
| 42      | Articles of leather; saddlery and harness; travel goods                            | 6.78                                     | 4.85  | 2.36          | 3    | 7   | 11      | 17.24                                  | 11.19   | 7.62  | 26.99 | 26.79  | 32.82  |
| 52      | Cotton   | 6.28                                     | 9.19  | 3.53          | 4    | 3   | 9       | 8.42                                   | 9.88    | 3.99  | 29.44 | 34.55  | 3.95   |
| 41      | Raw hides and skins (other than furskins) and leather                              | 3.26                                     | 8.60  | 6.94          | 5    | 4   | 5       | 10.33                                  | 14.31   | 14.76 | 6.89  | 11.76  | 8.18   |
| 57-58   | Carpets and other textiles floor coverings   | 4.89                                     | 6.32  | 9.58          | 6    | 5   | 3       | 10.32                                  | 13.21   | 19.32 | 0.79  | -4.57  | 8.41   |
| 60-61   | Knitted or crocheted fabrics   | 4.34                                     | 3.81  | 1.53          | 7    | 9   | 15      | 3.08                                   | 2.49    | 1.31  | 28.60 | 33.18  | 23.29  |
| 64      | Footwear, gutters and the like; parts of such articles                             | 4.14                                     | 3.99  | 1.99          | 8    | 8   | 13      | 4.83                                   | 4.26    | 2.55  | 23.13 | 25.95  | 19.48  |
| 09      | Coffee, tea, mate and spices   | 2.81                                     | 5.22  | 7.86          | 9    | 6   | 4       | 7.99                                   | 7.92    | 9.33  | -4.23 | -4.39  | -4.85  |
| 03      | Fish and crustaceans, molluscs and other aquatic invertebrates                     | 2.37                                     | 2.13  | 1.65          | 10   | 10  | 14      | 2.97                                   | 2.68    | 3.39  | 16.87 | 12.95  | 22.85  |
| 23      | Residues and waste from the food industries; prepared animal or vegetable products | 2.28                                     | 1.27  | 5.93          | 11   | 18  | 6       | 3.36                                   | 1.95    | 5.82  | -9.89 | -17.96 | 43.88  |
| 54-55   | Man-made filaments   | 2.20                                     | 0.66  | 0.23          | 12   | 26  | 41      | 3.38                                   | 0.49    | 0.21  | 32.88 | 37.12  | 78.54  |
| 63      | Other made-up textile articles; sets; worn clothing and accessories                | 2.14                                     | 1.63  | 3.66          | 13   | 14  | 8       | 7.73                                   | 5.77    | 15.72 | 2.72  | -16.35 | 35.67  |
| 84      | Nuclear reactors, boilers, machinery and mechanical appliances                     | 2.10                                     | 1.84  | 1.13          | 14   | 11  | 19      | 0.14                                   | 0.15    | 0.12  | 21.14 | 19.54  | 23.32  |
| 27      | Mineral fuels, mineral oils and products of their distillation                     | 1.99                                     | 0.32  | 4.61          | 15   | 35  | 7       | 0.23                                   | 0.03    | 0.22  | -1.63 | -45.44 | 115.95 |
| 29      | Organic chemicals  | 1.86                                     | 1.30  | 0.54          | 16   | 17  | 28      | 0.68                                   | 0.44    | 0.21  | 32.26 | 31.71  | 32.98  |
| 72-73   | Iron and steel   | 1.62                                     | 0.36  | 0.19          | 17   | 34  | 46      | 0.36                                   | 0.08    | 0.05  | 30.86 | 28.47  | 94.96  |
| 25      | Salt; sulphur; earths and stones; plastering materials; lime                       | 1.46                                     | 1.37  | 0.99          | 18   | 15  | 23      | 3.18                                   | 2.76    | 1.68  | 17.32 | 14.99  | 29.49  |
| 15      | Animal or vegetable fats and oils and their cleavage products                      | 1.24                                     | 0.45  | 1.33          | 19   | 30  | 16      | 3.00                                   | 0.94    | 2.05  | 9.95  | -19.87 | 65.45  |
| 32      | Tanning or dyeing extracts; tannins and their derivatives; dyes                    | 1.19                                     | 1.13  | 0.44          | 20   | 20  | 33      | 1.91                                   | 1.87    | 1.81  | 27.79 | 34.00  | 19.87  |
| 26      | Oran, slag and ash   | 1.10                                     | 0.95  | 0.72          | 21   | 22  | 24      | 1.48                                   | 1.23    | 0.69  | 17.81 | 13.33  | 24.04  |
| 08      | Edible fruit and nuts; peel of citrus fruits or melons                             | 1.06                                     | 1.82  | 1.01          | 22   | 12  | 22      | 1.11                                   | 1.73    | 1.04  | 11.71 | 22.62  | -1.33  |
| 50      | Wool   | 1.02                                     | 1.33  | 1.07          | 23   | 16  | 20      | 12.32                                  | 20.41   | 16.65 | 10.19 | 12.81  | 7.82   |
|         | Total Share  | 66.79                                    | 85.15 | 82.91         |      |   |         |  |         |       |       |        |        |

Source: Calculated from EUROSTAT, European Commission, Various Issues.

## **APPENDIX C: Non-Tariff Barriers to Trade**

### **Japan**

1. **Advalorem Tariff with Quota(ATQ)**
2. **Global Quota(GQ)**
3. **Health and Safety Regulation(HSR)**
4. **Import Authorisation(IA)**
5. **Import Permit(IP)**
6. **License(L)**
7. **Other Import Measures(OIM)**
8. **Prohibition(P)**
9. **Sole Import Agency(SIA)**
10. **State Monopoly of Imports(SMI)**
11. **Tariff with Quota(TQ)**

### **United States**

1. **Advalorem Tariff with Quota(ATQ)**
2. **Anti-Dumping Duties(ADD)**
3. **Anti\_dumping Investigation(ADI)**
4. **Automatic Licensing(AL)**
5. **Countervailing Duties(CVD)**
6. **Countervailing Investigation(CVI)**
7. **Global Quota(GQ)**
8. **Monitoring(MON)**
9. **Multi-Fibre Arrangement(MFA)**
10. **Supplementary Tariff(SUT)**
11. **Seasonal Specific Tariff(SST)**
12. **Variable Levy(VL)**
13. **Specific Taxes(ST)**
14. **Prohibition (wild-Life)(PH)**
15. **Quota(Q)**
16. **Quota by Country(QC)**