CHAPTER III

"Fortress Europe?" Non-Tariff Barriers: A Conceptual Study

Section - I

Towards Definition of NTBs

Despite considerable amount of research on non-tariff barriers (NTBs) carried out by different institutions as also as individuals, there has still been a serious lack of an accepted standard definition by which all NTBs can be covered in a most transparent way. The area covered by NTBs is so vast and wide-ranging that a single definition would not suffice to take into account the entire gamut of its operation. Apart from definitional aspects, there have also been differences in terminology used for this purpose. Sometimes it is called non-tariff "measures", sometimes non-tariff "barriers" and sometimes non-tariff "distortions". GATT and UNCTAD prefer to call that all trade distorting measures (apart from tariffs) as "non-tariff measures (NTMs)". The World Bank usually calls it non-tariff barriers (NTBs) which cover all distortions and interventions (including subsidies) of all kinds whether applied to exports, imports and or domestic production(1).

Regardless of the differences in terminology and complexities involved in definition, the "non-tariff barriers (NTBs) encompass all trade policy instruments that restrict free movement of goods and thus raise cost of production"(2). According to one perception definition "non-tariff barriers are all public regulations and government practices that introduce unequal treatment for domestic and foreign goods of the same or similar production(3)".

In spite of the existence of a plethora of definitions by several researchers, the most and apparently acceptable one is suggested by Robert E. Baldwin. In defining NTBs, he says that a non-tariff trade distorting policy is "any measure (public or private) that causes internationally traded goods and services to be allocated in such a way as to reduce potential real world income(4)." Though there is no straight forward way to measure the "potential real.

2. UNCTAD (1988a), "Consideration of the Question of Definition and Methodology Employed in the UNCTAD Data Base on Trade Measures". (TD/BAC/42/5), (Geneva, UNCTAD).
world income" indirectly one can easily say what is the attainable level of income if the resources are allocated in economically efficient way.

Productive resources are said to be efficiently allocated if they cannot be distributed in such a way that some individuals will be better off and none will suffer. But one (not the only) set of circumstances that would satisfy the condition of a perfectly competitive free-market structure in the world economy\(^5\). Trade distorting measures shall be evaluated in terms of world income rather than the income level of any particular nation. By imposing restrictions on imports through higher tariffs, a country may restrain increase its imports and thus encouraging domestic production and employment. But, on the other hand, this action will reduce the income and thus employment of the exporters. Therefore, if every country is guided by selfish motivation in trade, the most (if not all) of the countries will be ultimately poorer due to weak foreign trade multiplier\(^6\).

To define NTBs more precisely and accurately, **Ingo Walter (1969)**\(^7\) opines that in the broadest sense "non-tariff barriers to international trade encompass all private and government policies and practices that serve to distort the volume, commodity composition and direction of trade in goods and services". Though it is a weak proposition as mentioned by himself but the definition gives a fair judgment as to what constitutes the trade distortion. Trade restrictive measures increases product differentiation through changes in styles or advertising, will reduce imports if it is practiced by import competing firms. Most of the economists would not clarify such policies as NTBs because they are not assumed to convey any unfair competitive advantage. But in regard to dumping or predatory pricing, everybody would agree that these practices should be classified as NTBs due to their content. Whatever may be the complexities involved in identifying NTBs, Walter suggests that the measures are taken on the basis of their apparent intention.

**Peter Lloyd (1974)**\(^8\) defines NTBs in a somewhat different way from Ingo Walter.

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5. Ibid n. 2. p.51.
6. Ibid n. 2. p.52.
   (b) Walter, Ingo (1972), "Non-Tariff Protection Among Industrial Countries : Some Preliminary Empirical Evidence", *Economic Internationale* Vol. 55 (May) pp. 335-54
According to Lloyd, "non-tariff barrier is an omnibus term for the set of government policy instruments and practices which operate directly (or sometimes indirectly) to restrain imports or distort exports." It is conventional to exclude only exchange rate changes and other monetary and fiscal measures which affect exports and import competing goods.

SECTION II

Wide Ranging Form of NTBs and Methods of their Measurement

II (a) Different Forms of NTBs

In a broader sense, any cost escalating measure apart from customs duties will be treated as non-tariff barriers. Therefore from the definition it is evident to us that non-tariff barriers are a plethora of measures (i.e. priced or non-priced) enforced to restrain free flow of goods. Most of these measures are Government sanctioned policies and practices which distort free movement of goods and services except some qualifications. Ingo Walter (1972) proposed that NTBs broadly encompasses all private and government policies and practices that distorted the volume, commodities composition or direction of the trade in goods and services. GATT has so far identified 800 or so variants of wide ranging NTBs, based mainly on bureaucratic technical regulations the number of which has been ever increasing. Apart from some well known NTBs (like quota, licensing and procurement policies) there are other labyrinthine NTBs which are more apparent and effective in distorting trade of developing countries in which they have comparative advantage. Kessing has made an effort to categories the entire gamut of NTBs. According to Kessing Schema, there are three broad categories of NTBs. These are:

First : Quantitative restrictions (both exports and imports)

Second : Subsidies to domestic supplies (both on exports and imports)

Third : Cost imposed on imports.

9. Ibid n. 7(b).
Under each category, there are several reported NTBs.

1. **Quantitative Restriction**
   
i) Quotas (balance of Payment reason, Article XII and XVIII)
   
ii) Discretionary Licensing of Imports
   
iii) Voluntary Export Restraints (VERs)
   
iv) Safeguard Measure (GATT Article XIX)

2. **Subsidies of Domestic Supplies**
   
i) Rebates
   
ii) Subsidised Credit
   
iii) Resale Arrangements
   
iv) Insurance Guarantees
   
v) Production subsidy includes expenditure on R&D

3. **Cost Imposed on Imported Goods**
   
i) Surveillance Schemes
   
ii) Custom Valuation Practices
   
iii) Advance Deposit Scheme (ADS)
   
iv) Health and Safety Requirements
   
v) Variable Levies
   
vi) Lengthy Paper Work
   
vi) Cost imposed on imports by fighting legal skirmishes
   
vi) Anti Dumping Legislation

**R.E. Baldwin**\(^{(12)}\) has prepared another nomenclature of NTBs which is presented below:

i) Quantitative restrictions (i.e. quotas and restricted state trading practices).

ii) Export Subsidies (i.e. taxes and countervailing duties)

iii) Discretionary Government and Private Procurement Policies

iv) Selective indirect tax and border tax adjustment

v) Selective domestic subsidies and aid

vi) Restrictive custom practices

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vii) Anti-dumping regulation

viii) Restrictive administrative and technical regulations. (It includes safety regulations for machinery and vehicles, health regulation concerning foods, plants, pharmaceutical products, trade mark and patent rules).

ix) Restrictive business practices which includes collusions among products of the different countries for the purpose of sharing market prices.

x) Control over foreign investment which includes local discrimination against foreign owned firms; home Government’s control over foreign investment and regulation of international monopolistic action that reduce world income.

xi) Restrictive immigration policies, control over movement of labour among countries can distort trade just as restriction on capital movement.

xii) Restrictive monetary controls and discriminatory exchange rate policies which includes the regulation which directs that importers must deposit with the customs authorities for six months, the equivalent of 50 per cent of the value of the imported goods. Such a scheme also exists in Japan and in many LDCs.

UNCTAD\(^{(13)}\) has prepared an inventory of NTBs on the basis of information received from its 108 members. According to UNCTAD Scheme, product specific non-tariff measures (i.e. NTBs are applied on particular product, irrespective of its origin) are grouped into five broad categories depending on their method of operation: fiscal measure, volume restraining measure, import authorisation, measure to control price levels and a miscellaneous group of restrictions. Separate records are also maintained by UNCTAD for measures like state trading, general entry and exit control procedures, or foreign exchange controls that influence the general level of imports. The UNCTAD classification scheme for non-tariff trade control measures of a product specific nature is described below:

1. **Fiscal Measures**

   1.1 Import specific charges
   1.1.1 Tariffs
   1.1.1.1 Tariffs with quota
   1.1.1.1.1 Ad valorem tariffs with quota

1.1.1.1.2 Specific tariff with quota
1.1.1.1.3 Combined tariff with quota
1.1.1.2 Seasonal quota
1.1.1.2.1 Seasonal ad valorem tariff
1.1.1.2.2 Seasonal specific tariff
1.1.1.2.3 Seasonal combined tariff
1.1.1.3 Ad valorem tariff with specific minimum
1.1.2 Changes applied on the basis of declared value
1.1.2.1 Ad valorem charges
1.1.2.2 Specific charges
1.1.2.3 Combined charges
1.1.3 Charges applied on the basis of declared value
1.1.3.1 Variable import duties
1.1.3.1.1 Variable levies
1.1.3.1.2 Variable components
1.1.3.2 Transaction specific charges
1.1.3.2.1 Countervailing duties
1.1.3.2.2 Anti-dumping duties
1.2 Product specific taxes
1.2.3 Combined taxes

2. **Value Restraining Measures**

2.1 Prohibition
2.1.1 Total Prohibition
2.1.1.1 Prohibition of a general nature
2.1.1.2 Health and safety prohibition
2.1.1.3 Wildlife Prohibition
2.1.1.4 Prohibition (Censorship)
2.1.1.5 Seasonal Prohibition
2.1.2 Conditional Prohibition
2.1.2.1 General conditional prohibition
2.1.2.2 Prohibition on basis or origin
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<th>Description</th>
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<tr>
<td>2.1.2.3</td>
<td>Prohibition (except certain purchases)</td>
</tr>
<tr>
<td>2.1.2.3.1</td>
<td>State monopoly of imports</td>
</tr>
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<td>2.1.2.3.2</td>
<td>Sole importing agency</td>
</tr>
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<td>2.1.2.4</td>
<td>Prohibition for certain use</td>
</tr>
<tr>
<td>2.1.3</td>
<td>Quota</td>
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<tr>
<td>2.1.3.1</td>
<td>General quota</td>
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<td>2.1.3.2</td>
<td>Global quota</td>
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<tr>
<td>2.1.3.3</td>
<td>Quotas by country</td>
</tr>
<tr>
<td>2.1.3.4</td>
<td>Seasonal quota</td>
</tr>
<tr>
<td>2.1.3.5</td>
<td>Voluntary export restraints</td>
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### 3. Import Authorisation

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<tr>
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<th>Description</th>
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<tr>
<td>3.1</td>
<td>Non-automatic authorisation</td>
</tr>
<tr>
<td>3.1.1</td>
<td>Authorisation to control entry</td>
</tr>
<tr>
<td>3.1.1.1</td>
<td>Discretionary authorisation</td>
</tr>
<tr>
<td>3.1.1.1.1</td>
<td>General import authorisation</td>
</tr>
<tr>
<td>3.1.1.1.2</td>
<td>Discretionary licensing</td>
</tr>
<tr>
<td>3.1.1.1.3</td>
<td>Automatic licensing</td>
</tr>
<tr>
<td>3.1.1.1.4</td>
<td>Declaration with visa</td>
</tr>
<tr>
<td>3.1.1.1.5</td>
<td>Select Purchaser authorisation</td>
</tr>
<tr>
<td>3.1.1.1.6</td>
<td>Import permit required</td>
</tr>
<tr>
<td>3.1.1.2</td>
<td>Conditional import authorisation</td>
</tr>
<tr>
<td>3.1.1.2.1</td>
<td>Export dependent authorisation</td>
</tr>
<tr>
<td>3.1.1.2.2</td>
<td>Supply dependent authorisation</td>
</tr>
<tr>
<td>3.1.1.2.3</td>
<td>Dependent on domestic purchase</td>
</tr>
<tr>
<td>3.1.1.2.4</td>
<td>Dependent on foreign financing</td>
</tr>
<tr>
<td>3.1.2</td>
<td>Authorisation to control standard compliance</td>
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<tr>
<td>3.1.2.1</td>
<td>Health and safety authorisation required</td>
</tr>
<tr>
<td>3.1.2.2</td>
<td>Technical standard authorisation required</td>
</tr>
<tr>
<td>3.1.2.3</td>
<td>Censorship authorisation required</td>
</tr>
<tr>
<td>3.2</td>
<td>Automatic authorisation</td>
</tr>
<tr>
<td>3.2.1</td>
<td>Licence for surveillance purposes</td>
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</table>
3.2.2 Liberal licensing
3.2.3 Automatic licensing
3.2.4 Declaration with visa requirement
3.2.5 Intra-community surveillance system

4. Control of the Price Level

4.1 Minimum prices
4.1.1 Minimum general import price requirement
4.1.2 Reference import price requirement
4.1.3 Basic import price requirement
4.1.4 Trigger price system
4.2 Trigger price system
4.2.1 Anti-dumping investigation
4.2.2 Countervailing duty investigation
4.3 Price surveillance
4.3.1 Price surveillance system

5. Other Measures

5.1 Technical requirements
5.1.1 Health and safety regulations
5.1.2 Technical standard
5.1.3 Marking and packaging requirement
5.2 Measures to assist import competition production
5.2.1 Production subsidies
5.2.1.1 Subsidy 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 accelerated depreciation
5.2.4 Product specific tax concession
5.9 Other important Measures
IIb. Literature Survey

The problems of non-tariff barriers were not addressed properly in the Kennedy Round of multilateral trade negotiations (1963-67) though the NTBs have been existing since early 1960s through the enunciation of EC's Common Agricultural Programme (CAP) under whose banner all agricultural imports into the EC have been subject to EC's variable levies. Kennedy Round basically dealt with the reduction of tariffs and completely ignored the gravity of NTBs in distorting world trade though they reached some consensus on anti-dumping code. Prior to Kennedy Round negotiations were made on different aspects of NTBs, but they failed to reach in definite conclusions<sup>14</sup>.

Like the earlier rounds of negotiations, Tokyo round<sup>15</sup> also emphasised reduction of tariffs rather than removal or reduction non-tariff barriers. The entire range of studies that have been conducted during this period basically aims at to estimate the effects of the tariff reduction on trade flows. All the studies have been subdivided into two groups. One was ex-post analyses based on post Tokyo round liberalisation and second was ex-ante studies, i.e. estimating the effects before liberalisation took place. Apart from the above mentioned ones five other studies are available showing the impact of Tokyo round tariff reductions on the export of developing countries. All the studies that have been done so far are on the basis of post Kennedy round tariffs reductions but formulae and coverages vary among different studies.


Cline’s(16) country coverage included mainly US, Japan, EEC, Canada and seven smaller industrial countries along with LDCs. On the other hand Baldwin’s(17) study concentrated on US only, but included bilateral balances with the nine EC countries and selected other EC countries. Stone(18) dealt with the US, EEC and Japan, whereas Baldwin and Murray(19) were concerned with the LDCs exports but they had considered US, EEC and Japan as importing countries. Stern(20) study was unique in the sense that it was based on the general equilibrium framework with the eighteen (18) countries which were considered of having closed system. Cline(21) used thousand (1000) tariff line items but Baldwin and Murray(22) had covered hundred commodity groups. Stern and Stone used(23) broader index categories. All these five studies dealt with the effect of tariff reductions on trade flows of manufacturing sector based on post Kennedy round tariff rates.

Ingo Walter(24) launched a study with a view to estimating the impact of DCs, NTBs on the exports of LDCs. Two conclusions emerged from his study, viz. (i) most of the NTBs were enforced by developed countries on the exports of developing countries, and (ii) NTBs were imposed on items where LDC’s competition was much higher than its developed counterpart. Similar to his predecessors (Yeats(25), Cline and Baldwin), he categorised the entire gamut of NTBs into three groups. The main findings in his studies are as follows:

21. Ibid n. 16(b).
22. Ibid n. 19
i) In 1968, 20.9 per cent of the developed countries' imports from the developing countries was subject to former's NTBs. In respect of coverage ratio, Japan was the highest (58.4 per cent) followed by USA (37.9 per cent), France (23.5 per cent) and U.K. (13.9 per cent) respectively.

ii) A total of 44.3 per cent of US imports of manufactures and semi-manufactures were covered by NTBs, out of that 66.9 per cent coming from developing countries. The corresponding figures in case of UK were 13.9 per cent and 9.6 per cent in case of Japan these were 35.6 per cent and 57.7 per cent, for FRG and France the respective figures were 18.0 per cent and 10.6 per cent and 43.8 per cent and 72.7 per cent respectively.

iii) It was observed from his study that the intensity of application of NTBs appeared to have a positive correlation with the competitive strength (1) of developing countries in respect of manufactures and semi-manufactures. The Spearman rank correlation between the variables was 0.2317 which was statistically significant at the 0.95 per cent level of confidence.

On the basis of UNCTAD inventory on NTBs, World Bank has done a study with the leadership of A. Olechowsky(26) in order to address

(a) What is the prevalence of major NTBs to imports of industrialised countries.
(b) Whether this phenomenon has increased in recent times, and
(c) How much imports from developing countries are susceptible to these NTBs enforced by developed market economies.

The World Bank study has shown the coverage and frequency ratios of imports of developed countries exposed to NTBs. It has developed three indices. First one is based on the value of each country's own imports of particular commodity (as well as exports), the second one is the world trade value of these items, and third one is the number of flows of these commodities. The first one is the own import coverage ratio (Ic) measures the sum of the values of a country's import group affected by NTBs over the total value of its imports of that group. The world coverage ratio (Iw) for each commodity imported by a country measures the sum of the value of world trade of an import group affected by NTBs.

of these countries. The frequency ratio \( I_f \) is the number of country's import flows covered by NTBs and divided this sum by the total number of import flows for that country.

For calculating these three ratios for any importer \( i \) and type of non-tariff barriers \( b \), let \( N_{qx} = 1 \), if there is a barrier on imports of the commodity \( q \), from exporters \( x \), and = \( 0 \) otherwise. For sets of commodities \( Q \) and exporters \( X \) all three indexes take the form as follows:

\[
I = \frac{\sum_{q \in Q} \sum_{x \in X} W_{qx} N_{qx}}{\sum_{q \in Q} \sum_{x \in X} W_{qx}}
\]

The authors define \( W_{qx} \) differently for each ratio.

(i) \( 'I_c' \) defines \( W_{qx} \) as the value of \( i \)'s actual imports of \( q \) from \( X \).

(ii) \( 'I_w' \) for each of the commodities \( q \) imported by \( i \), defines \( W_{qx} \) as the value of world imports of \( q \) aggregated across all exporters.

(iii) \( 'I_c' \) defines \( W_{qx} \) as the presence of a flow of \( q \) from \( x \) to \( i \), thus \( W_{qx} = 1 \) if imports of \( q \) from \( X \) are subject to NTBs and \( Q \) equals to Zero (0) otherwise.

The world bank study has come across four conclusions which are as follows:

**First**: The extent of NTBs is varied and wide ranging. At least 27 per cent of the total imports of 16 major industrial countries (around $ 230 bn in 1981) was covered by one or more selected NTBs as they applied in 1983 and in case of manufactured goods it was 13 per cent during the same period. France, FRG, Australia, Switzerland, Austria, USA, Netherlands and Benelux are some of the major protectionist countries. NTBs are widespread on some of the agricultural products, textiles and clothing, mineral fuel and iron and steel.

**Second**: Quantitative restrictions appear to be the single most important NTBs seem to have more trade distorting effects than price control. QR is 8.6 per cent of all NTBs, of own imports (i.e. 27 per cent in \( I_c \)). Though Monitoring Measures attain the highest percentage (i.e. 14.8 per cent) of all NTBs, followed by quantitative import restriction (8.6 per cent) QR mainly applies on agricultural imports.
Third: In 1983, imports worth of $86 bn. by developed countries from the developing world were subject to NTBs which was $79 bn. in case of developed countries.

Fourth: The study provides ample evidence that use of NTBs has proliferated in the successive periods. From 1981 to 1983, there had been a net increase of 2,481 NTBs covering imports of $12.8 bn. in 1981. Since this increase does not reflect the tightening or reinforcement of existing measures, the growth of NTBs and their effect on international trade should be taken very seriously.

Alexander J Yeats (1979) made a significant contribution in measurement of non-tariff barriers. Using UNCTAD Inventory on NTBs and applying UNCTAD inventory approach, he had shown that 34.7 per cent of India's total exports to the EC, the USA and Japan was covered by NTBs in 1974. Yeat's study was basically meant to see the total exports of developing countries exposed to NTBs enforced by USA, Japan and the EC. Yeats had shown the coverage and frequency ratio of NTBs applied by developed countries on its imports from developing countries.

UNCTAD Inventory Approach is nothing but the index of frequency of application of NTBs and its coverage ratio. One measure derived from the NTB inventories is frequency index showing the per cent of tariff lines in major product groups covered by the non-tariff restraints. Frequency measure (Fj) is defined as:

\[ F_j = \frac{N_r}{N_j} \times 100 \]

Where 'Nr' is the number of commodities subject to reported NTBs in a given product class, and 'Nj' is the total number of commodities in that class. A second was to assess the important of NTBs in the protectionist profiles of various countries is to estimate the proportion of total imports in each commodity group subject to restraints. The NTB coverage measure (Cj) is defined as:

\[ C_j = \frac{M_r}{M_j} \times 100 \]

Where 'Mr' is the value of imports in each commodity group subject to NTBs and 'Mj' represents the total value of imports in product group j.

27. Ibid n. 25.
The measure suffers from the problem of any "own trade weighted" index in that product facing very restrictive NTBs, will extend the calculation with zero or low weights. The index is therefore downward biased. Since it fails to account for the most trade restrictive NTBs. An alternative to weighting the coverage of national non-tariff measures by country's own imports would be to employ OECD trade weights. The measure is defined as:

\[ O_j = \frac{M_{rW}}{M_{jW}} \]

Where ‘MrW’ represents the sum of OECD imports to which country applies its NTBs, while ‘MjW’ indicates the total OECD imports of commodity. The formula employed in estimating the ad valorem incidence of the NTBs (Bj)

\[ B_j = \frac{P_{dj}}{P_{wj}} - N_j + T_j - 1.0 \]

Where Pdj & Pwj are domestic and international prices for commodities prices, Nj is the nominal tariff, Tj is the estimated ad valorem incidence of various taxes. (1)

In another World Bank Study Sam Laird and Alexander J. Yeats have developed an index to measure the extent of NTBs which is closer to UNCTAD inventory approach. One such measure is a frequency index (Fj) showing the percentage of transactions (i.e. imports of a tariff line product from a given country) covered by pre selected group of NTBs.

\[ F_j = \left[ \frac{\sum D_i N_i}{N_i} \right] \times 100 \]

Where ‘N’i is the transaction ‘i’, ‘Di’ is a dummy variable that takes a value of unit if one or more NTB is applied to this transaction (or zero otherwise) and ‘Nt’ is the total number of transactions in the product group. Given that matched trade data are also available in which individual countries of origin for shipment are identified. A second index showing the share of total imports subject to NTM can also be computed. This trade coverage measure (Cj) is defined as:

\[ C_j = \left[ \frac{\sum D_i, t-m \cdot V_i, t-n}{\sum V_i, t-n} \right] \times 100 \]

Where Vi, ‘t-n’ represents the value of imported item ‘i’ in year (t-n) and Dit-m is a dummy variable that taxes a value of unity if an NTB is applied to the item in year.

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(b) Ibid n. 11 p. 116
'm' and zero otherwise. If 'n' and 'm' are zero, the index is based on current trade values, otherwise it is expressed in base year trade weights. Holding 'n' constant and varying 'm' will measure the effect of changes in protection with constant trade weights. In that analysis they have used current year trade weights (i.e. m=n) given the major structural changes that occurred in the developed countries over 1966-86. On the basis of their study they have reached three conclusions, viz\(^{30}\).

**First**, it is revealed from the study that in 1966, NTBs affected 25 per cent of developed countries' imports which figure increased to 48 per cent in 1986. In value terms, $30\text{ bn.} of OECD countries' imports were affected by NTBs in 1966 ($100\text{ bn.} in 1986 prices) which was $356\text{ bn.} in 1986. The latter figure corresponds to a trade coverage of $205\text{ bn.} while multilateral trade organizations like GATT and UNCTAD have been endeavoring to remove barriers to trade through the reduction of tariffs. At the same time protectionism in favour of NTBs greatly expanded and in many cases have offset the benefits of liberalized import duties.

**Secondly**, spread of NTBs has been uneven across countries and industrial sectors. Study shows that EC is the most protectionist country in the world according to coverage ratio which is due to the extension of Common Agricultural Policy (CAP) to new products. On the other hand, United States and Japan have registered same NTB growth (below average). But the most disquieting feature is that recently USA and Japan have introduced variable import levies on their agricultural imports similar to that of EC and Sweden. Textiles, clothing, foodstuffs and ferrous metals were the four major areas where NTBs applied most extensively during 1966-86.

**Thirdly**, during the last 20 years (i.e. 1966-86) there have been a proliferation of discriminatory NTBs like VER (particularly in the USA) resulting in a significantly higher share of trade affected by NTBs than suggested by commonly used trade coverage ratios.

Stern\(^{31}\) has developed a general equilibrium model for estimating the impact of trade barriers. In his model, he has considered 18 industrial countries as a closed system (no LDCs) with 22 tradable and 7 non-tradable items. The full system incorporates 6000 equations and finally it is reduced to 39 equations. Stern et al\(^{32}\) assumes a uniform worldwide

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30. Ibid n. 21 p. 21.
32. Ibid n. 23.
price for each of tradable commodities according to global mainstream. They have developed a system of 22 equations to determine prices plus 17 equations determining exchange rates among the 18 countries by means of which the world price for each commodity is converted with home currency price. The (Simulation) equations are not given within each country. There is a sub-system of about a dozen equations. In addition, there are several overall balancing equations for each commodity over all countries and for each country over all commodities. The main elements included in the evaluation of this procedure are as follows:

a) Reliability of the parameters (e.g. elasticities obtained elsewhere, Stern's source is different from Cline.

b) Evaluation of the model itself.

The general equilibrium nature of the model explains the results that shows concentration occurring in the non-traded good industries - a result that should be taken as a long run effect. An assessment of the model requires the 39 equations which are not given. However, the assumption of the law of one price (worldwide) each commodity embodied in the study has been challenged in the host of studies.

IIb2 Some Econometric Methods of Measurement of Non-Tariff Barriers

Non-tariff barriers can be classified into two categories: one is the quantitative restrictions barring any direct cost escalating measure and the second one is the various types of para-tariff measures apart from nominal customs tariffs, which have direct impact on cost escalation. The entire premises of theoretical studies on non-tariff barriers is based on some strong assumptions. These are:

(i) The analysis is based on deterministic and partial equilibrium basis.
(ii) This is a static analysis of "tariff and subsidies" affecting trade.
(iii) Production at home is perfectly competitive.
(iv) The production structure is vertically integrated
(v) Elasticity of foreign supply curve is highly elastic
(vi) Size of the country is small in affecting international trade.
(vii) Single homogeneous product produced at home and import.

(viii) Exchange rate is given.
(ix) Imports are residuals of the domestic production because price is the same for all cases.
(x) Money income remains constant.
(xi) Non-tariffs and tariffs have the same trend i.e. increase in non-tariffs means increase in tariffs and vis-a-vis.

The impact of non-tariff barriers on domestic demand, supply, cost, output as well as foreign demand and supply, the elasticities of demand and supply both in domestic as well as foreign counties, and the redistribution effects are shown in the following figure.

**FIGURE - 1**

![Diagram showing the impact of non-tariff barriers on demand, supply, and output]
In the above figure supply curve of imports is highly elastic i.e. SS', demand curve for domestic good is DAD and supply curve of the domestic import competitive production is HH. Dorne's demand for the production is DD which is also the demand curve for imports and domestic production. Initially OA was produced at home and consumption was OB, the rest i.e. AB amount of goods were imported. This was free-trade scenario.

Now NTBs are imposed by ST/OS i.e., at the ad valorem rate not the specific tariff, the implication of which may be different in certain cases. When price of import declines income generation from ad valorem tariffs will be lower than the unit specific tariffs. If tariff is imposed at ST/OS rate, than price of the domestically produced goods increases at the same rate of OT. If tariff is $'$T / OS' then there will be same effects. At first, price of the products will be increased from OS to OT. Second, due to increase in the price of domestically produced goods, domestic producer will enhance their production from OA to OA' and consumption will be declined from OB to OB', due to increase in price. Thirdly; demand for imports will be declined from AA' to BB' (in the production effect and consumption effect). Value of imports will be declined by AKFA' and B'GLB (i.e. production effect AKFA' and consumption effect BGLB). As a result of increase in customs tariff customs revenue will increase by FJVG. Since tariff is higher, it eliminates imports, a time will appear when tariff will be TO. In that situation production will be OAO and consumption will be OAO also, and then thee would not be any import. Therefore, it is simply the rate of tariffs which eliminates imports. If the tariff further increases then the equilibrium position, production will be greater than the consumption which leads to increase in unsold stock.

The effects of increase in tariffs due to increase in non-tariffs are:

First : The production effect i.e. increase in production from OA to OA' i.e. an increase in AA'. The protected output measure equivalent to the import value i.e. AKFA' and the new domestic price established by the tariff is ANJ'A' instead of OSKA. An import subsidy could have produced the same result of anti-protection, which is shown by the line S"S". The result of such phenomena is the decrease in domestic production and increase in imports.

Second : Consumption effect is the decrease in consumption due to increase in tariffs and thus prices by ST amount, and the domestic consumption will be reduced by BB' amount.

Third : Imports or balance of payment effect will be declined. It can be argued that decline in imports will be the combination of production and consumption effect which generate the
adverse impact on BOP position of any country specially to those who are facing acute problem in it.

Fourth: Revenue effect is nothing but the total revenue which is raised by the authority through the increase in tariffs. The only revenue that government can earn is the customs revenue which is equal to tariffs imposed on imported goods.

Fifth: Regarding redistribution effect, of the increase in NTBs/TBs and thus prices, the price of the domestic production will be escalated at the cost of customers. As price rises, domestic producers will increase their supply from OA to OA1 by shifting of supply curve from HH to H’H’ i.e. in the downward direction as a result of increase in tariffs. Demand for imports will be shifted to left ward from DD to D’D’ and demand for import will be declined by BB’. Therefore it is clearly seen from the figure that a rise in income due to increase in price due to higher tariffs and non-tariffs, will be enjoyed by the domestic producers. This profit is in excess of normal profit which is regarded as the quota profit that will be enjoyed by the producers. If the producers are in perfectly competitive situation then it will be shared among them but if they are monopolists, then entire profit will be enjoyed by the monopolist only. therefore, the distribution of income due to higher tariff will go in favour of producers against consumers.

Tariff is imposed on imports by ST\OS amount which increases the price from OS to OT. The output has increased from OA to OA’. As a matter of fact, this excess output is subsidized by the consumer on domestic producers, the amount of which is STJF, called as the subsidy equivalent. Since no subsidy is paid by the Govt. the entire amount of which is borne by the consumers. Henceforth, consumers pay in two ways, one is the direct payment to the producers which is called subsidy equivalent, another mode of payment is indirect i.e. in the form of customs revenue which is paid by the customers to the Govt. (i.e. FJVG). Therefore consumers’ payment is the combination of STJF (subsidy equivalent) and FJVG (customs revenue) which is equal to STVGT.

* Non-tariff barrier lowers the elasticity of demand which is seen through the shift in demand curve from DD to D’D’ and again to D*D*. As the elasticity of demand curve gradually declines due to NTBs the margin between demand price and supply price widens, which on the hand, implies increase in quota profit to be enjoyed by the traders. For the
second time when NTB is introduced, demand curve shifts from D'D' to D*D* implies reduction in demand from Oq1 to Oq2. This would increase the margin between demand price and supply price. In this case, price paid to the foreign seller is OP2 and priced by the consumers rises to OP'2. Therefore, P2CDP'2 is the margin between the demand and supply price which could be treated as the quota profit enjoyed by the traders at the cost of consumers in addition to the normal profit. But the above phenomenon may not be always true. There may have a possibility when normal profit in combination with the quota profit will fall, and in that case imports would

Measurement of NTBs can either be specific to particular known NTBs, or it can be generally, designed to capture the net effects of all NTBs together. The study of non-tariff barriers (NTBs) is a vast subject, therefore the methodologies of measurement of NTBs are also of different types suited for particular purpose. Among several methods, two have received wide acceptance among the researchers. One is the general approach which estimates the impact of NTBs through quantity-oriented regression model of trade flows, and other one is the NTB-Specific approach which provides an information about the specific NTBs in a particular industry. As these two approaches have considerable amount of merits and demerits, yet they have contributed significantly to the measurement of the impact of NTBs in distorting international trade flow. Therefore, in our present context we will discuss the merits and demerits of both approaches.

On the one hand, under more formal approach, NTB specific approach provides inputs into a general trade flow regression model, and, on the other hand, in the quantity oriented regression model one can see the change in quantity of exports before/after the enforcement of NTBs. General type of approach has advantages over NTB-specific approach. In spite of that fact it has several disadvantages also:

i) The direct approach only considers those NTBs that have been identified but is indifferent to a particular type of NTBs that is used by industry.

ii) Even if the NTBs are included, it is extremely difficult to process the diverse direct information that is available on each in a way that will be comparable across NTBs and then permit them to be added up to obtain a total measure of trade interference.
iii) In case of presence of more than one NTBs in a given industry, it is understood that presence of one NTBs will reduce the effects of another so that an analysis of each of them separately may lead to an over-statement of their total effects.

Though the direct approach is based on static deterministic and partial equilibrium, yet in evaluating overall levels of protection, general equilibrium effect is bound to matter, such as the effect of barrier for one sector of trade to another and the effect of all together on exchange rates etc. Therefore, in spite of having so many advantages it does not provide a good starting point for a general type analysis. Fortunately, there has emerged a host of studies in general approach which have bypassed such difficulties.

The various general methodologies of measuring the impact of NTBs are classified as follows:

1) Frequency Type of Measurement
2) Price Impact Measures
3) Quantity Impact Measures
4) Elasticity Estimation
5) Estimation of the determinants of variation in elasticity estimates.
6) Estimation of the variation in effect on estimates NTBs over time.
7) Estimates of the binding of NTBs
8) Estimating the risk characteristic of NTBs.
9) Estimating the effects of rent seeking

1. Frequency Type Measures

The information relating to frequency of application of NTBs can only be available from UNCTAD/GATT. The UNCTAD/GATT has been preparing an inventory on NTBs since mid 70's on the basis of complaints of the member countries. With the help of such information it is possible to build up unweighted and trade weighted measures of NTB frequency using the detailed inventory listing of NTBs maintained by UNCTAD/GATT.34

34. (a) Ibid n. 28(a).
(c) UNCTAD, "Reports on Trade, Tariff and Non-Tariff Barriers (Inventory)", (Several Issues, UNCTAD, Geneva), 1974.
a) **Survey Evidence**

US Tariff Commission (1974) had classified the entire gamut of NTBs into 46 sub-sectors spread among 5 major groups of NTBs. A survey was conducted by US trading firms to elicit information on the experience and complaints they had about particular NTBs. Frequency distributions were then prepared for all NTBs covered and according to each type, country and commodity group.

b) **Country/Commodity coverage, unweighted**

UNCTAD has been preparing inventory containing information on NTBs enforced by the industrial countries on their imports from developing countries. Based on such data Ingo Walter (1972), Walter and Chung (1972) and Yeats (1979) merged the individual products with 1-digit and 2-digit SIT commodity groups that were subject to some identifiable NTBs in each major industrialised country. The number of products subject to NTBs was then expressed as a percentage of the total number of products included in each SITC groups.

c) **Country/Commodity coverage weighted**

Using the same source, the value of imports of each commodity subject to NTBs was aggregated by SITC commodity group and expressed as a percentage of the total value of imports in each SITC group. The weights were based on own country imports and total OECD imports for each SITC group.

2. **Price Impact Measures**

As already mentioned that NTBs have significant impact on domestic prices, in comparison to some reference (international) prices. Price impact is the basic property of NTBs which one should take into account, and such price comparison can pick up net effect of all NTBs that are present in a market without it being necessary for the investigator to identify what these NTBs are. In the actual world it is impossible to observe the prices before and after

36. Ibid n. 7(b).
38. Ibid n. 25.
the enforcement of NTBs. Instead, actual measures of NTBs have focused on a comparison of the domestic and foreign prices in the presence of NTBs\(^{(39)}\).

Let \(P_1'\) and \(P_1\) are the domestic and foreign prices and letting upper-case letters represent the prices themselves as opposed to their logarithms, these price comparisons are normally reported either as price relatives.

\[
R = \frac{P_1'}{P_1} \times 100
\]

as a percentage difference between the prices, comparable to a tariff

\[
T = \frac{(P_1' - P_1)}{P_1} \times 100
\]

which is on the other hand nothing but the "nominal tariff" or "implicit tariff". Implicit protection or "tariff equivalent". But in real world, it is very difficult to do price comparison of the same goods because in most of the cases imported goods are not identical to the domestic goods in respect of different qualities and grades of products. Instead one should employ price of the closest domestic goods as a proxy for \(P_1'\) while \(P_1\) should be the CIF invoice price of foreign goods facing the NTBs inclusive of tariffs and any special taxes. In some products like steel, cement or some agricultural goods, it is possible to make price comparison. Another problem of price comparison is that it does not include the transport cost inside the country. Domestic wholesale prices are recorded at the nearest consuming centers whereas border prices are normally compiled as ports of entry. In order to avoid such problems let us construct another set of indices on the basis of the following variables:

\[
\begin{align*}
P_{ds} & : \text{the prices of the domestic substitutes for the imported goods} \\
P_{di} & : \text{the prices on the domestic market of the imported goods itself} \\
P_d & : \text{the prices of the goods on the domestic market independently of whose it was produced; thus an index of } P_{ds} \text{ and } P_{di}. \\
P_i & : \text{the invoice price of the imported goods as paid by the domestic importer to the foreign exporter but inclusive of tariffs and transport cost.} \\
P_x & : \text{the invoice price received by an exporter of the goods from the domestic country exclusive of transport cost and export tax, if any.}
\end{align*}
\]

In addition to all these domestic prices there have been also comparable prices for the other countries which is marked with an asterisk (*) or with a country subscript. The "implicit tariff" rate may accordingly be calculated from the formula given above for T, but using Pd and Pi as the relevant price:

\[ IT^1 = \frac{(Pd - Pi)}{Pi} \times 100 \]

This is a valid measure of NTBs but it has serious flaw because of its limitation to incorporate information about the apparent substitutability between domestic and foreign goods. In case the invoices of imports are also available, the alternative is made to do with the domestic prices only, but taken from a variety of country.

\[ IT^2 = \frac{(Pd - Pd^*)}{Pd^*} \times 100 \]

Here Pd* may be either the domestic price in a particular foreign exporting country where the measure may be of bilateral NTB or it may be the minimum observable domestic price among all foreign exporters.* But if domestic and foreign prices are exactly substitute then it would be the most valid method of measurement otherwise complexities may arise. However, this method of measurement is even subject to error from substitutability. In addition there exists a basic difference between these two measures, IT^2 which includes transport cost while IT^1 does not\(^{40}\).

3. **Quantity Impact Measure**

Quantity impact measure is the alternative to price impact measure of an NTBs which mainly shows how the quantum of exports of any country get reduced due to enforcement of NTBs. In a study Jagar & Lanjouw (1977)\(^{41}\) have empirically shown that quality measure is preferable to price measure in the sense that *ceteris paribus*, it will show the movement of quantity of exports due to NTBs which is difficult to cover in the price measure through "tariff equivalence". It would be difficult to find out the relationship between price effect and quantity effects because of elasticities of demand, domestic and foreign supply. Rather, if we know the movement of a particular NTB, then we can build up time-series cross-country and cross-commodity econometric model of the imports that they cover and thus to


estimate what would be the impact in absence of such NTBs. But this is NTB specific approach not NTBs as a whole.

But the general type of approach has certain limitations. Before ensuring about the quantum impact of NTBs i.e. to estimate that trade would have been in the absence of NTBs and to compare this with the situation when actually it does occur, one should build up a satisfactory export function model specifying the determinants of trade and for the sake of convenience we should have\textit{ceteris peribus} assumption and the trading regime would be approximately free. With a view to build up such an econometric model of quantity-impact of non-tariff barriers,\textbf{Leamer and Stern (1970)}^{42}\textit{ have built up a single equation export function model where the explanatory variables are country's GNP, resource endowments, utility structure and trade resistance factors which could also be used as indication of comparative advantage of production and exports as well. The equation stands like this:}

\[ X = f (Y, R, U, TR) \]

\textbf{Where} \quad X = \text{quantity of exports}  \\
R = \text{Resource endowments}  \\
U = \text{Utility structure}  \\
TR = \text{Trade resistance}

Existing literature on NTBs shows that ample studies are available showing the quantity impact of NTBs not of a specific nature. All these studies have clearly depicted in\textbf{Deardorff's}^{43}\textit{ analysis. The entire gamut of studies on general type of NTB can be categorized into two broad groups. One is based on Heckescher Ohlin type of analysis and another is ad-hoc study. All econometric analysis on NTBs are based on three different lines of empirical analysis. Some of them follow Heckescher Ohlin (H-O) line of approach in international trade and third one follows the gravity flow analysis.}

\textbf{R.E. Baldwin (1971)}^{44}\textit{ has presented his empirical analysis on the basis of single equation export function model where he regressed a country's net trade across commodities:}
with a view to measure the intensity of the various primary factors required for the production of these commodities. A second empirical analysis of H-O type is presented by Leamer (1974) who runs separate regression for each commodity across countries where explanatory variables are different factor endowments and trade resistance factor such as distance between the two countries as a proxy to the cost of production.

Finally, third line of approach is the gravity flow analysis presented by Tinbergen (1962). In the Tinbergen analysis explanatory variables are country size and trade resistance variables such as distance. In the gravity flow analysis of the impact of NTBs, the supply of exports of a country depends on its economic size i.e. GNP, the absorptive capacity for imports is determined by the size of country’s market (i.e. GNP of the importing country and the volume of trade will depend on transportation costs which are determined by the distance between two countries. In all the above mentioned econometric analysis, NTBs are treated either as the residuals from the regressions or by using dummy variables.

Saxenhouse (1983) has made an attempt analogous to Leamer to determine whether the factors influencing Japan’s foreign trade are distinctive in comparison with the other major countries. Following H-O framework he assumes technology and preferences are identical and time-invariant across the countries. His empirical presentation is based on a time-series and cross section of countries and products covering 109 internationally traded commodities in 1959, 1962, 1964, 1967, 1969, 1971 and 1973 for nine countries (viz. Japan, USA, Canada, France, Germany, Italy, Netherlands, UK and South Korea). In his single equation model, explanatory variables include national endowments of directly productive capital stock, labour, educational attainment, petroleum resources, iron ore, resources and cultivable land as well as a measure of distance to approximate the role of transport costs as an impediment to trade. Separate regressions are run for each commodity and includes a set of country-specific dummy variables taken to be time invariant.

The second example of H-O type analysis is the work done by McCulloch and Hilton (1983) which is analogous to Baldwin. In their model they have regressed certain bilateral

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trade flows across commodities on variables which serve to determine bilateral comparative costs. Their model has taken bilateral ratios of exports to imports for 296 industries in explaining US trade with eight major trading partners. They have also followed the H-O framework where they have explained the phenomenon that relative costs between regions are related to factor value shares and relative differences in factor prices for specific commodities (industries). The value shares were calculated from 1970 US census and 1972 input-output ratio for five endowment variables, unskilled labour, skilled labour, capital, land and natural resources. Separate cross-section regression were calculated for the export-import ratios and value shares for the US vis-a-vis Canada, France, West Germany, Italy, Japan, UK, East Asia and South Asia.

In order to find out the extent of non-tariff barriers, the predicted trade ratios were then compared to the actual ratios at the industry level and a large divergence between them was the first hand evidence of the existence of non-tariff barriers. Thus, the residuals from these regression provide the basis for estimates of NTBs for each commodity and country pair. Using the value of 2.0 to place bounds on the estimated trade ratios, about two-thirds of the actual ratios fell within this range. In about 20 per cent of the cases the export/import ratio was below the range indicating US “under performance” and then “possibility” that NTBs resulted in the US, exporting less and importing more or both in these industries.

Roningen (1978) study is very important in the sense that we can extend this model to include comprehensive NTB frequency and coverage indices as explanatory variables. Such approach could overcome some of the major shortcomings of the IMF restrictive information. Roningen model is the extension of Saxenhouse & Meullah, where the latter’s model reflected the departure from comparative advantage and thus to identify industries and countries in which trade intervention may possibly diminish or augment trade performance. Roningen estimates a cross section model of bilateral trade flows on an annual basis for 1967-73 for aggregate trade for the 14 major OECD countries. His explanatory variables for the exporting and importing countries include GDP to reflect economic size, area to reflect the potential size of the domestic and foreign sectors, distance to reflect the impediments to trade from cost point of view and dummy variable to reflect preferential trading arrangements and common language. A general index of restrictiveness of each country exchange, payments and trade regime was constructed based on the number of country restriction listed on the IMF Annual

Report on export restrictions. Separate indexes were also constructed for the three major types of restrictions.

The entire gamut of quantity impact analysis is not immune from flaws. The drawbacks are as follows:

**First**: If the NTBs are measured as departure of trade from what the included variables can explain; there is a tremendous burden on the model used to explain trade. Indeed, the worse is the model of trade flows the greater will be the estimate of NTBs, thus suggesting a considerable upward bias in their estimation.

**Second**: It is argued that the theoretical trade models like as H-O are only capable of determining patterns of trade in an average sense and are not adequate to the task of predicting trade exactly in particular industries and countries. Thus a departure of actual trade from what is predicted by a regression model may only reflect this indeterminacy and not the presence of NTBs.

**Third**: These approaches can only work for comparisons among industries or countries; they cannot tell us for the world as a whole, how far it departs from the free trade. If NTBs restrict trade everywhere that may be “explained” by the constant term in the regression equation and not show up in the residuals of co-efficient of dummy variables.

4. **Elasticity Estimation**

We have shown in our theoretical analysis that elasticity of import demand curve shifts leftward (i.e. gets reduced) if NTBs are imposed on the importable. The extent of NTBs can be measured from the degree of reduction of import elasticity of demand. The reduction may be both in the aggregate or individual commodities/sectors using data from several countries and interactive dummy variables in order to determine how these elasticities may differ across countries. This should provide an indication of the extent to which the price responsiveness of import demand is reduced by NTBs in some countries in its coverage since it would include even cultural barriers and other institutional factors that may restrict trade.

5. **Variation in Elasticity Estimates**

Many studies are available to estimate the import demand elasticities. *Stern, Francis*
and Schumacher (1976) and Goldstein and Khan (1984) have done a good literature survey on different elasticities (both exports and imports) in international trade. The magnitude of elasticities varies between different countries and industries. It might be feasible to take recourse to regression methods to explain the variations in these estimates in terms of country and industry characteristics. The regression residuals would then provide another estimate of how the price responsiveness departs from what it would otherwise be, presumably again because of the existence generally of NTBs.

6. Effects of NTBs over time

All the theoretical analysis related to non-tariff barriers are based on certain demand and supply conditions. This is based on *ceteris paribus* assumption. But incidentally, if such conditions (demand and supply) change due to an indigenous or exogenous factor, keeping the NTBs intact, then the effects of NTBs are expected to be altered. If any one is interested to see these effects over time, it will be worthwhile to repeat any one of the methods mentioned above for successive 7 years. The same thing is applicable if the NTBs themselves are to change over time.

7. Binding of NTBs

It is equally important to know how restrictions are binding and how they vary over time including their probable impact on trade flows. With a view to getting answers to such questions one has to calculate either the permitted or potential level of imports and then comparing this with actual imports. The comparisons will be significant in so far as the effects of NTBs will surely depend on whether the NTBs are fully or partially binding or not binding at all.

8. Risk characteristics of NTBs

It has increasingly been visualized that since the last decade developed countries have been taken recourse to increasing amount of administered protection. Trading firms have

been confronted with the uncertain NTBs that may appear at any moment of time. As a sequel to that firms are inclined to do comprehensive insurance coverage to face the uncertainty arising out of unpredictable NTBs. Naturally, cost escalation due to insurance coverage to combat with the uncertain NTBs would be termed as cost due to risk characteristics of NTBs.

9. Effects of Rent Seeking

Anne Krugerr has done pioneering work in this area focussing attention on the possible costs in the form of wasted resources that might be incurred in competing for the rents arising from import licensing. Based on the theoretical grounds, she argues that the resources waste would equal to value of rent itself and thus she used estimates of rents as extent of rent seeking. Her calculations suggested that the rents totaled as much as 7.3 per cent of Indian national income in 1964 and 15 per cent of Turkey's GNP in 1968. Indian estimate was based on the assumption that domestic value of Indian imports was 75 per cent above this value on world market in 1964. This was very much "conservative estimate" of the Government Report, but, in fact, import licenses were worth 100 to 500 per cent of their face value.

Kruger's work has been important in changing the way of thinking as how to estimate the cost of trade barriers. Bhagwati & Srinivasan (1980) have done similar type of theoretical analysis of estimating cost of trade barriers other than quota. Besides Kruger's work of calculating rents that are implicit in various NTBs, hardly any significant work is available to measure directly the rent seeking activities themselves, in order to evaluate the theoretical argument that their value should equal the rents.

Instead, there have been a host of contradictory arguments which state that rents themselves overstates the true cost due to rent seeking. Bhagwati (1982) in his argument says that rent seeking inevitably takes place in what is already second best world, and, therefore, even if the resources are used unproductively, could conceivably be beneficial. Bhagwati accepts the assumption that rent seeking equals rent, but shows that it may nonetheless be desirable.

Varian (1982) has raised a very fundamental question about the validity of assumption that

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54. Ibid n. 52, p. 39.
the rent seeking equals the rent. He opines that the supply conditions associated with the rents should take account of free rider problems among the rent seekers, effects on and distortions in related markets, distributional considerations as to who pays and receives the rents and direct transfers to the providers of rents. At least one aspect is clear from the above study that a careful and detailed analysis of specific cases must be carried out in order to determine the extent to which observed quota rents may constitute social costs.

SECTION III

EC Specific NTBs

Due to its internal political compulsions, the EC has become more one of the most protectionist countries in the world. It has enforced labyrinthine non-transparent barriers to its imports from developing countries with a view to restricting cheaper flow of imports on the ground of market disruption. GATT and UNCTAD have prepared inventory on NTBs identifying the major NTBs enforced by developed contracting parties on its import from rest of the world in general and developing countries in particular. This information is based on the reports of affected parties. The particular allegation of application of NTBs against any contracting party is referred to UNCTAD documents in which the measure has been ratified and which may be referred further details as necessary.\textsuperscript{58}

The inventory prepared by the UNCTAD contains information on tariff treatment and NTBs applicable to products of interest to developing countries into 11 developed countries' markets. The tables contain in the inventory provide comprehensive information on tariff treatment, trade data and information on NTB on products of interest to developing countries into 11 Developed Market Economies (DMEs). Here we will mention some of the selected NTBs enforced by European Communities on its imports from developing contracting parties. This is based on the UNCTAD inventory on tariff treatment and non-tariff measures applicable in European Communities to selected products of interest to developing contracting parties applied in 1984. It is assumed that NTBs enforced in 1984 have been applicable thereafter also.

\textsuperscript{58} UNCTAD, "Reports on Trade, Tariff and Non-Tariff Barriers", (UNCTAD, Geneva). This is UNCTAD Inventory on Tariff and Non-Tariff Barriers. Data Compiled every year for 63 developed and developing countries.
Name of the specific NTBs corresponding UNCTAD articles and referees to UNCTAD documents are shown below:\(^5\):

<table>
<thead>
<tr>
<th>Name of the NTBs with enforcing contracting party</th>
<th>GATT Article</th>
<th>Reference to GATT documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. State Trading (Spain)</td>
<td>Article XVII</td>
<td>NTM/W/6/R.3</td>
</tr>
<tr>
<td>2. Import Levy (EEC)</td>
<td>Article XXIV</td>
<td>AG/FOR/EEC/1</td>
</tr>
<tr>
<td>3. Certificates (EEC)</td>
<td>Licensing Procedure</td>
<td>AG/FOR/EEC/1</td>
</tr>
<tr>
<td>4. Currency Regulation (EEC)</td>
<td>—</td>
<td>-do-</td>
</tr>
<tr>
<td>5. Voluntary Restraint Agreement (EEC)</td>
<td>—</td>
<td>-do-</td>
</tr>
<tr>
<td>6. Supplementary Amounts (EEC)</td>
<td>Article XXIV</td>
<td>-do-</td>
</tr>
<tr>
<td>7. Non-Automatic Licensing (Spain)</td>
<td>—</td>
<td>NTM/W/6/R.3</td>
</tr>
<tr>
<td>8. Licensing (France)</td>
<td>—</td>
<td>-do-</td>
</tr>
<tr>
<td>9. Seasonal Restriction (Belgium-Lux., Denmark, and Ireland)</td>
<td>—</td>
<td>-do-</td>
</tr>
<tr>
<td>10. Restriction (France, Greece, Portugal)</td>
<td>—</td>
<td>-do-</td>
</tr>
<tr>
<td>11. Quota (Germany, F.R)</td>
<td>—</td>
<td>-do-</td>
</tr>
<tr>
<td>12. Restriction (Bel.-Lux., France, Greece, Portugal)</td>
<td>—</td>
<td>-do-</td>
</tr>
<tr>
<td>13. Seasonal Restrictions (Denmark)</td>
<td>—</td>
<td>-do-</td>
</tr>
<tr>
<td>14. Prohibition for</td>
<td>Article XIX</td>
<td>NTM/W/6/R.3</td>
</tr>
</tbody>
</table>

59. The name of the NTBs have been compiled from several UNCTAD publication on NTBs, as well as Tariff and Non-Tariff information of the Non-Tariff Measures (NTM) Division UNCTAD.
sweet potatoes (EEC)

15. Global Quota (UK) —

16. Compensatory Amount (EEC) Article XIX AG/FOR/EEC/1

17. Restrictions (BLX, DNK, FRA, FRG, IRL, ITA PRT, GBR) From non-members NTM/W/6/R.3

18. Quota (FRA) (EX) — NTM/W/6/R.3

19. Variable Components (EEC) Article XIV AG/FOR/EEC/1


21. Global Quota (Spain) — NTM/W/6/R.3

22. Turnover Tax (ITA) — NTM/INV/VEO

23. Government Procurement (Belgium, Denmark, Luxembourg) USA (Notifying country) NTM/INV/I.C.67.11

24. Import Substitution (Ireland) USA NTM/INV/I.D.O.I

25. Issuance of insufficient no. of permits to transport the goods Czechoslovakia NTM/INV/I.D.I.

26. Imposition of anti dumping or Countervailing Duties (EEC) Korea NTM/INV/I.A.42


28. Customs Formalities (Italy) Czechoslovakia NTM/INV/H.G.3

29. Limitation of Entry Point (Italy) Poland NTM/INV/II.G.4

30. Technical Visas (France) U.S.A. NTM/INV/III.A.3

31. Restrictive Import Australia & NTM/INV/IV.A.36
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<th>Licensing (French)</th>
<th>New Zealand</th>
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<td>32. Requirement of prior Import Permit (Greece)</td>
<td>Hungary</td>
<td>NTM/INV/IV.A.47</td>
</tr>
<tr>
<td>33. Global Quota (Greece)</td>
<td>Hungary</td>
<td>NTM/INV/IV.A.47</td>
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Quota on certain textile fibers, textiles and made-up articles (Berlin)

48. Licensing and Quota on Textile and Jewellery (France)
   Argentina,
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SECTION IV
Fear Relative to "Fortress Europe"

The EC is now set to remove all internal barriers to trade through the elimination of customs duties and letting free movement of goods, services, capital and labour across the border. The dismantling of customs duties and quantitative restrictions (QRs) to trade among the Common Market countries was accomplished in July 1968, one and half-years ahead of the original schedule. The irreversible removal of trade barriers contributed to a more than six-fold increase of intra-EC trade in the 12-year period following the ratification of the Treaty of Rome. Imports from the non-member countries increased less than three times, intra-area trade has accounted for one-half of the total imports of the EC countries as against less than one-third at the time of Common Market was created. The share of imports from partner countries increased roughly two-and-a-half times (from 4.8 to 12.4 per cent) between 1958 to 1970 while the share of imports from non-member countries rose by one-third only (from 6.4 per cent to 8.7 per cent).

The economic integration or "Fortress Europe" has some distinct impacts on several aspects of economic activities, viz.

i) **The Effect of "Union" on Employment**

One of the most important aspects of the economic union is its influence on employment policy. The main obstacle to effective employment policy in the Western Europe is the latter's great dependence of foreign trade which would accentuate further due to increase in intra-Community trade as a result of relaxing the barriers. Though achievement of full employment is an important goal of public policy in many European countries, this concept is the main obstacle to economic integration. The only way out of this problem is to frame a concerted employment policy to be monitored by a super national employment authority which is supposed to be the most important goal of the economic union. But this seems to be very difficult to fulfill. By any chance if this condition fulfills, then it would become easier for West European countries to maintain a stable employment policy without getting into balance of payment problem because it would reduce its dependence on trade with other non-European countries.

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60. Ibid n. 59.
ii) **The Effect of Integration on Productivity**

The economic integration would certainly enhance the average productivity of labour. The productivity increase is expressed in three ways: viz.

i) Integration will cause people to change their behaviour and producer to change their methods of production.

ii) It will cause a reallocation of production and resources among different producers, and

iii) It will change the volume, nature and direction of investment.

The first two are short-run effects; and the last one is a long run effect - long run in the sense that taking more time to come through and require more far reaching and through-going integration.

iii) **The Effect of Integration on Methods of Production**

It is very difficult to measure the economic effect of integration to the method of production. But the most probable effect on productivity of the change in public policy, social and economic institutions and human attitudes, likely to be brought about by close economic, social and intellectual contacts. Though there are glaring contrasts among the different EC countries in respect of tax systems, social services, industrial and commercial practices as well as in the workers' aspirations and work habits, the engineers imagination and initiative, and the businessman's enterprise, drive and awareness of market opportunities. Fierce competition in the production is the result of economic integration. There will be a large scale production by exploiting the economies of scale. The scale economy is only feasible by changing the method of production from labour intensity to capital intensity.

iv) **The Effect of Integration on the Allocation of Output**

A reallocation of output tending to increase international trade and specialisation among the Union members is perhaps the main effect that pure theory would attribute to economic union. But in case of the EC, this effect is likely to be neither very great nor very important.
v) **The Effect of Integration on Investment**

Though the impact of integration on investment is not prominent, in the short run, in the long run economic integration certainly extended its influence on the volume and pattern of investment. Little is known about the probable effect of economic union on the volume of investment. A common Western European Market may attract a large inflow of American capital, especially if its establishment discourages the importation of goods from the United States. As to the availability of domestic capital, integration may effect savings either way. By increasing competition and lowering prices, integration might diminish inequalities of income and thus lower the propensity to save, but the effect of this on the volume of savings may be offset if integration is thorough-going enough to increase employment and price stability as well as people's confidence in stability.

Though EC has been in the customs union since July 1966 and also has made much progress in liberalizing internal economy catering to the successful operation of the Single European Market, (SEM), but even now it continues to erect labyrinthine of tariff and non-tariff barriers against non-member countries Unless EC launches special programme to dismantle all such anomalies, it will be much more difficult to eliminate various national quotas on imports, especially in sensitive sectors such as cars and textiles, similarly without the renewed efforts to remove the trade-distorting effects of technical regulations and standards, third country exporters would not have the benefit of being able to produce according to one harmonised standard. Local content requirement would be much stricter, even presently the European subsidiaries of third country companies should only be granted an equal right if access to public contract in the EC, atleast 50 per cent of the input value comes from within the company.(61)

**Fortress Europe**

EC's trade policy is still a hybrid between Community and the national measures. Because at the national level still there has been quantitative restrictions on trade. Most of these residual restrictions were allowed to be retained, for a limited period, under special permission granted under the GATT in 1955, what is referred to as "Hard Core Waiver"(62).

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61. Robert McDonald, "Lowering the Drawbridge on Fortress Europe", in *Economic Intelligence Unit, European Trends*, (No.1, 1988, P.60), (EIU, London).
The quotas are clearly in violation of article XI of the GATT which demands the removal of QRs. As against this EC often MFN facilities to the Developing Countries which means non-discriminatory to a particular country in all Trade Policy. Matter. The Community has offered to remove the majority of quota in order to meet "rollback" obligation as agreed during the Uruguay Round.

ECs protectionism is characterised with numerous bilateral agreements restraining exports potentiality of developing countries to the EC market. About one quarter of all export restraint arrangements registered by the GATT Secretariat, ranging from voluntary self restraint via orderly marketing arrangements to market showing accords between industry association, invoice individual EC member as the importing countries seeking protection. Most of significant example of this type of protection is MFA agreement under which entire exports of textiles and garment is controlled by a series of national quotas. Internationalisation of European Community is unlikely to remove all such protectionist measures. Rather it is feared that negative effect of the SEM will aggravate the export prospects of the non-member countries and fares have also been expressed that there has been an increased in the average duration of protective measures, and the range of products subjected to protection has broadened. Moreover, member countries with a relatively high level of protection have been demanding Community-level substitute solutions to replace their own national prospective measures in "sensitive areas". EC Commission's representatives speak of hard core of a small number of products in respect of which particular economic difficulties in a number of member country necessitate regulation (for a limited period and on a declining scale) by the Community.

External dimension of SEM programme is not well thought of as internationalisation. There is no exaggerating the fact that internal liberalisation is not extended to trade with Third countries which violates GATT'S basic principle of non-discrimination. Though EC has extended MFN status to developing countries but internalisation programme is kept outside of its purview. But inspite of this fact "Fortress Europe" is not necessarily inconsistent with the general agreement because the latter allows for departures from this rule of non-discrimination within

63. The main countries affected are Japan, Taiwan, South Korea, and Hong Kong. On the EC's own side, the restriction are concentrated mainly in Italy, France, Greece and the Irish Republic Cf. George Koopmann : "National Protectionism and Common Trade policy" Interecomics, (Hamburg), May/June 1984, p. 105
the framework of customs union and free-trade areas, under the conditions laid down in Article-XXIV. As the Community is a customs union, it is useful to look somewhat closer at this provision, to see which disciplines it imposes on a case of regional integration such as internal market programme.

The most important question now arises to all third world country exporters that whether single European market (SEM) is constructing a Fortress Europe or not\(^67\), though completion of internal market opens new era of liberalisation among the members as well as non-members, but, inspite of this fact, there is not gainsaying the fact that in a number of significant areas EC becomes more aware protectionist. Where EC does not have comparative advantage for a long time. It is true that the Community have not paid much attention to the external dimension of the internal market for a malicious master plan, which the concept of "Fortress Europe" presupposes, but, in number of cases its protectionist measures have deepened\(^68\). But, in general, the thrust of the programme is to extend liberalisation with internally as well as externally. As Pelkman correctly say that one should compare the results of the internal market programme with what the situation would have been in the absence of this programme\(^69\).

**SECTION - V**

*Statutory Safeguards as an Incentive for Protectionism, Article 115 of the Treaty of Rome and Scope of Its Abrogation*

Article 115 is an important tool of neoprotectionism of the European Community. Apart from tariffs and other transparent barriers, if the members of the Community think to protect their domestic industry, from cheap imports of the developing countries, then under the shield of "import causes material injury to domestic industry", they can evoke safeguard clause. Under the safeguard clause (GATT Article XIX). EC member states evoke Article 115, through which they put quantitative restrictions on imports from the non-Community members\(^70\). This protective tool has been frequently used by the individual member states. Article 115

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67. For an account of the Fortress Europe debate as it was held from 1988 to 1990 across the Atlantic, see Stephen Woolcock, "Market Access Issue in EC-US Relations: Trading Partners or Trading Blocs" (London, Pinter Publication for the RIIA, 1991), pp. 13-16.


69. Ibid no. 47, p. 357.

EEC Treaty enables a member state to block indirect import of goods stemming from countries outside the Community which have first been imported by another member state and thus helps to preserve the existence of national commercial policies as opposed to a uniform community system.

Besides safeguard clause as adopted by the Community in general to put a cap on imports stemming from the non-Community countries, there has been a provision of intra-Community safeguard clause which can block indirect imports from one member state to another. The legal basis of this safeguard mechanism is the Article 115 EEC Treaty. The purpose of this treaty is that any good originating outside the Community acquire Community status when brought into free circulations in one of the member states. This means interalia, that these are no longer subject to QRs or measures moving equivalent effect within the Community. But this policy is applicable, if the EEC adopts a common commercial policy.

In practice, if the member states choose to retain individual quotas for certain goods originating in third countries, than it would be easy just to import those goods via a member state which does not impose similar external restrictions. In such a situation one can evoke Article 115, which basically means pampering national commercial policy measures where trade deflection occurs and when differences in these measures lead to economic difficulties. Under condition laid down in Decision 87/433 of 22 July 1987, taken by the Commission implementing Article 115, a member state can apply to the Commission for authorisation to introduce either protective measures or intra-Community surveillance measures to monitor the flow of indirect imports. Such measures usually consist of the Community allowing member states not to apply Community treatment to the goods concerned.

This article is basically meant for restricting imports from Eastern European and State trading countries. The rationale behind this is it is presumed that price structure of

state trading and Eastern European countries is not market determined. In most of the cases, this is administered one, and price structure is often non-transparent. Since pricing is administered, there is enough reason to believe that these economies can sell its products at much less price than its cost actually incurred. Therefore to restrict such type of underpricing, and save domestic industry from imports at price less than cost of production, the Community frequently uses Article 115 under the shield of Safeguard Clause.

In this connection, we can mention to Community regulations which specifically govern trade between EC and state-trading countries: 1) Regulation 1765/82 which contains a list of imports not subject to quantitative restrictions, and ii) Regulation 3420/83 which governs the products and liberalized at Community level. Besides the two above mentioned basic regulations dealing with the state trading countries, there has also been a separate general regulation governing the distribution of imported textiles from outside the Community. The import regime of these goods is governed by Regulation 4136/86. This is a very complex regulation covering the administration of subgroups which have been the deviation from global Community quota agreed upon with the various parties to the Multifibre Arrangements (MFA) under the auspices of GATT.

The application of Article 115 in most prolific textiles covered under MFA. India has considerable interest in this area because almost entire amount of her exports of textiles and garments to the Community markets has been under stringent quantitative restrictions. This Article empowers European Community as a whole as well as member states to put restrictions on imports of textiles from India. With the help of Article 115, member states also fix quota according to its need, independent of EC decisions. Apart from textiles, India does not have to worry in other line of exports. This is because Article 115 is specially designed for restricting imports from state trading countries, not the other market economies where prices are determined by market for us. Frequency of application of Art. 115 shows that in most of the times it has been evoked against the state trading countries.

Textiles is the most affected category susceptible to Community Safeguard clause evoked through Article 115. Textile sector is very weak in Europe and that is why it is

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74. Official Journal 1983, L 346/6 (amended by Regulation 2273/87, O.J. 1987, L 217/1). This regulation also applies to the quantitative restrictions maintained by vis-a-vis China.

given excessive protection. For example, 1987, out of 12 requests granted 10 were concerned with textiles\(^{77}\). India has concluded bilateral agreement with the European Community on textiles. EC has fixed textile quota to India annually. But, in fact, the quotas agreed upon in the bilateral agreement, subsequently divided up among the member states and administered by Community regulations. The fact that the Community itself has assumed competence in this field makes it doubtful whether Article 115 which is designed to protect national commercial policy measure can still be applied. On the other hand the textile products which fall under decisions taken pursuant to Regulations 3420/83 are, in essence, national measures authorized by the Community; therefore, the same uncertainty about their validity does not exist\(^{77}\).

Another major area of concern of Article 115 is the industrial products. In industrial products, all the applications for Article 115 involve quotas which have been set pursuant to Regulation 3420/83. As the listed national quotas are mentioned separately for each member state, there can be no doubt that specific Community authorisation as required by the European Court of Justice has been given. However, the Council when setting these quotas must make sure that these quotas will be maintained keeping in mind the objective of single market.

**Future of Article 115**

Article 115 was specially designed to restrict cheaper imports from the East European countries, not other countries where prices are market determined. Most interesting part is that not all the member states of the European Community have asked for the application of Article 115 with same vigor. Over the years France & Italy have been frequently used Article 115 against the East European states\(^{78}\). But the scenario has completely changed. Erstwhile USSR has been disintegrated into CIS and all the socialist economies have been switched over to the capitalist mode of production. Therefore earlier system of administered pricing has now changed to market oriented prices. Therefore justification to evoke Article 115 has come to an end. All Eastern European countries including CIS have introduced capitalist mode of production which means they will allow market force to operate, and they have to compete in the international market in the same way as others. Therefore Article 115 is not redundant and has lost its relevance.

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76. Ibid n. 71 pp. 236.
78. Ibid n. 71 p. 236.
Article 115 may be applied marginally to other third countries for their cheaper exports of textiles to the community market. According to the Final Act of GATT, all quotas pertaining to textiles are supposed to be over in a ten-year period beginning 1 January 1995. From 1 January 2005, textile trade will be quota free and while integrated with the WTO. Textile trade under WTO regime means, it will be govern by the competitive policy where there will be no barrier barring some exceptional cases WTO regime promotes price competition rather than state control. State trading system has been completely collapsed. The basic reason for applying Article 115 is no more. East European countries do not have any more state trading system. Even in case of India and other textile exporting countries the basic reason for protection will be over by 2005 when quota system will be completely phased out. Though there is enough provision for enforcing transitional safeguard during transitional period, but it is unlikely that, Article 115 will be used so as a protective measure. The importance of Article 115 as a protective tool is getting evoked and loosing its vigor. Rather other forms of non-tariff barriers are sprouting. These are: social clauses environmental clauses, echo-labeling, anti-dumping duties etc.