



Munich Personal RePEc Archive

The extent of non tariff barriers to industrial countries' imports

Nogues, Julio and Olechowski, Andrezej and Winters, L. Alan

The World Bank

1985

Online at <https://mpra.ub.uni-muenchen.de/87378/>

MPRA Paper No. 87378, posted 16 Jun 2018 22:50 UTC

DISCUSSION PAPER

Report No. DRD115

The Extent of Non-Tariff Barriers
to Industrial Countries' Imports

Julio J. Nogués
Andrzej Olechowski
L. Alan Winters

January 1985

Development Research Department
Economics and Research Staff
World Bank

The World Bank does not accept responsibility for the views expressed herein which are those of the author(s) and should not be attributed to the World Bank or to its affiliated organizations. The findings, interpretations, and conclusions are the results of research supported by the Bank; they do not necessarily represent official policy of the Bank. The designations employed, the presentation of material, and any maps used in this document are solely for the convenience of the reader and do not imply the expression of any opinion whatsoever on the part of the World Bank or its affiliates concerning the legal status of any country, territory, city, area, or of its authorities, or concerning the delimitations of its boundaries, or national affiliation.

The Extent of Non-Tariff Barriers to Industrial Countries' Imports*

Julio. J. Nogués
Andrzej Olechowski
L. Alan Winters

Economists
Development Research Department

This paper is the result of a joint UNCTAD/World Bank study on non-tariff barriers. J. Michael Finger's direction and comments have been instrumental to this paper's progress as have the programming skills and diligence of Jerzy Rozanski. Helpful contributions have also been made by Emmanuel Aniebonam, Shirin Fozouni, Paula Holmes, Farrokh Mamaghani, and Shahin Outadi. First rate typing by Nellie Artis and Jackson Magargee is also greatly appreciated. Naturally none of these people are responsible for the paper's remaining shortcomings.

*The World Bank and the UNCTAD do not accept responsibility for the views expressed herein which are those of the authors and should not be attributed to the World Bank or UNCTAD or to their affiliated organizations. The findings, interpretations, and conclusions are the results of research supported by the Bank; they do not necessarily represent official policy of the Bank or UNCTAD. The designations employed, the presentation of material, and any maps used in this document are solely for the convenience of the reader and do not imply the expression of any opinion whatsoever on the part of the World Bank or UNCTAD or their affiliates concerning the legal status of any country, territory, city, area, or of its authorities, or concerning the delimitation of its boundaries, or national affiliation.

Abstract

This paper examines the extent of non-tariff barriers to sixteen industrial countries' visible imports. Using three alternative measures it shows that governmental commodity-specific border-measures affect over 27% of all imports and over 34% of imports from developing countries. It also shows that during the period 1981 - 83, NTBs became significantly more extensive. Detailed statistics reveal considerable variations in NTB coverage by commodity, type of barrier, importer and exporter. The data on which these conclusions are based are compiled from official information at the finest level of disaggregation; they are described in the paper.

Since the 1940s, considerable progress has been made in liberalizing tariff barriers to international trade through a series of multilateral negotiations. For example, the Tokyo Round concluded in 1979 with an agreement to lower industrial countries' tariffs by about 25% on average, and the Geneva (1956), Dillon (1962), and Kennedy Rounds (1968) produced similar reductions. In consequence, the average level of the tariff of industrial countries was reduced from about 40% in the mid-1930s to 4-8% after the Tokyo Round.

As the GATT rounds have brought about a significant decline of tariffs as obstacles to trade, non-tariff barriers (NTBs) have become more prevalent. The GATT itself, in attempting to limit the imposition of trade restrictions, specifically allows countries to impose several kinds of measures; e.g., safeguard restrictions, antidumping and countervailing duties. In addition, governments and import competing interests have been quite inventive both in developing and implementing forms of restriction; e.g., "Voluntary" Export Restraints, which are outside of the GATT, and in adding provisions to the GATT to sanction widespread restrictions, e.g. on agricultural products, when the GATT was initially negotiated, and later, the Multifibre Arrangement for textiles and clothing.

Behind this paper lies an interest, of course, in moving the international community toward liberalization of such restrictions, but we do not address directly that topic here. This paper takes up an important prerequisite to such work -- the presentation of credible information on the nature and extent of non-tariff barriers in international trade. The quantitative work reported here concentrates on a basic dimension, the amount

of trade "subject to", or "covered by" NTBs. Within this quantitative dimension the paper addresses three questions:

- (1) What is the prevalence of the most notable non-tariff barriers on industrial countries' imports?
- (2) Has it increased in recent years?
- (3) Are the imports from developing countries particularly subject to these NTBs?

Section I describes the types of NTBs included in this study and discusses the sense in which each type is a restriction on international trade. Section II discusses the concept, data and statistical indicators used, while Sections III to V present the results. Section VI briefly compares our results with other recent estimates and finally, Section VII provides a summary and conclusions.

I. NON-TARIFF BARRIERS INCLUDED

The array of trade practices considered by governments as non-tariff barriers to trade is very wide. For example the "Table of Contents of the Inventory of Non-Tariff Measures" which is used by the GATT Secretariat in its Report of the Group on Quantitative Restrictions and Other Non-Tariff Measures, enumerates over 40 categories of measures. In this paper we investigate a restricted selection of the measures, included in the GATT "Table of Contents": specifically those which are (a) product-specific (b) border measures and (c) for which comprehensive and internationally comparable data are available. While there is room for debate about the composition of a complete set of NTBs, our selection, drawn from official definitions and based on official sources, represents a minimum list of non-tariff trade policies. It comprises five groups of the most common and explicit border measures used to control the inflow of foreign goods.

There are many political and administrative mechanisms through which import restrictions are put in place, and many reasons, legal, political, and otherwise, why a government might argue against the application of the label "protection" or "import regulation" to its policy measures. In certain circumstances the GATT allows the use of some types of import restrictions, but whether or not an action is GATT-conforming is not a basis for sorting between protection and not protection. Safeguard actions, for example, are GATT-conforming, and are universally interpreted as trade restrictions or protection. We deal here only with the economics of such measures -- only with their tendency to impose conditions on import sales which they (or parallel rules and regulations on domestic commerce) do not impose on sales by domestic firms.

(1) Quantitative import restrictions.

Prohibitions, embargoes on the importation of a product. A prohibition may be total, may admit exceptions at the discretion of the competent authority, or may operate only under certain conditions.

Quotas. Ceilings (specified in value or quantitative terms) imposed on the importation of a product for a given period of time may be global, country-specific or seasonal.

Discretionary import authorizations. Permission to import is granted at the discretion of competent authorities (customs or other) upon completion of an application procedure. These are often used for the administration of quantitative limits.

Conditional import authorizations. Permission to import is subject to the importer undertaking commitments in areas other than importation, or to specified overall economic conditions (e.g. authorization is dependent on export performance, or the purchase of an equivalent quantity of domestic output) or the unavailability of domestic supply.

(2) "Voluntary" export restraints (VER).

Agreements between an exporter and an importer as to the maximum amount of exports (specified in value or quantity terms) to be effected within a given period of time. This category covers, inter alia, measures employed for the administration of bilateral agreements on textile trade reached within

the framework of the Multi-fibre Arrangement (MFA), i.e., specific limits, consultation levels, and export controls. 1/

(3) Measures for the enforcement of decreed prices.

Variable levies. Variable import charges serving to equalize the c.i.f. import price with a decreed price.

Minimum price systems. A minimum import price is set by the importing country, and import prices below the decreed minimum trigger an additional duty or some other penalty.

"Voluntary" export price restraints. This category covers agreements between the exporter and the importer on the minimum price to be observed by the exporter.

(4) Tariff-type measures.

Tariff quotas. Two tariff rates are applied, the higher rate coming into operation when the quantity of imported goods exceeds a specified level.

Seasonal tariffs. Different tariff rates are applied to the same (agricultural) product according to the time of year.

(5) Monitoring measures.

Price and volume investigations, surveillance. Such practices are usually associated with charges by domestic producers about unfair trading practices of an exporting country. While an investigation is obviously necessary to determine the facts, there is evidence that the inquiry process itself has a protective effect, independent of the eventual findings. (Finger,

1/ While voluntary export restrictions are administered by exporting countries, they are monitored by the importing country and their imposition is the result of successful protectionist requests in importing countries.

1981). The investigative process or continued surveillance generates uncertainty about the exporter's continuing access to the market, and creates an incentive to raise his price, whether or not guilty of a legally unfair practice. A surveillance process is often the means by which a government monitors "voluntary" price maintenance agreements or volume restraint agreements contracted between exporting and import-competing industries rather than between governments. (Government to government VERs are included above.) Surveillance is often the precursor to more formal import restrictions, ^{1/} or a signal to exporters to practice "self-restraint" to avoid a more formal "voluntary restraint." "Automatic" licensing procedures are often restrictive, e.g., they serve to police bans on imports from certain countries, or to funnel all imports of a product through a government authorized association of import-competing local producers of that product, or of a finished good made from that product.

Anti-dumping and countervailing duties. In theory, anti-dumping duties are levied on a product that is sold in the importing country at a lower price than in the exporting country, and countervailing duties are levied to offset rebates or subsidies provided for the production export of a good for export. As to whether or not such trade practice regulations bear more heavily on import sales than on sales by domestic producers, William Dickey (1979) has explained for the United States several ways in which such rules on import sales practices are more restrictive than is comparable "domestic" (mainly anti-trust) law of domestic firms' sales practices. There

^{1/} Indeed European Economic Community regulations [e.g., Council regulation (EEC) 288/82] explicitly refer to surveillance for this purpose. (See the Official Journal of the European Communities, 1982.)

is also evidence that the outcome of the pricing test in dumping and countervailing duty cases is significantly influenced by economic variables usually used (in the parallel injury test) to measure injury, i.e., that the economics of dumping and countervailing duties is much the same as the economics of safeguards cases. [Finger, Hall & Nelson, 1982].

While our selection of NTBs includes a broad range of policies, it still constitutes only a sub-set of the trade restrictions included in the GATT and UNCTAD lists. 1/ For example, it does not include domestic policy measures (e.g. subsidies to import competing sectors, government procurement, restrictions on domestic sale of foreign goods), generalized procedures applying to all imports, restrictive business practices, the use of technical or sanitary requirements as barriers to trade, or subtle forms of import restrictions such as changing ports of entry, any of which could affect international trade dramatically.

1/ See UNCTAD (1985)

II. MEASUREMENTS OF NTB COVERAGE

The basic unit of measure used in this study is the amount, or share of a country's imports subject to NTB. Operationally, this concept is quantified by marking on each line of a country's import list, which types of NTBs are applied to that line. Many such restrictions are not "global" or "m.f.n.", and apply only to imports from particular countries, hence the import list must be disaggregated by both product and country of origin. The sums of imports over lines "subject to NTB" divided by the sums over "all" import lines are the NTB prevalence or coverage ratios which we will present. (Details are provided below.)

The prevalence or coverage ratio is a more elementary concept than a tariff average; a more appropriate parallel is the ratio of dutiable to total (dutiable plus duty free) imports. While a tariff rate provides a measure of the "intensity" of restriction it entails, non-tariff measures provide us with no such "natural" measure of intensity, nor has the analysis of NTBs yet brought us to the point where we have an estimated set of intensity figures for NTBs. We have only a "Yes or No" indicator -- a strictly qualitative indicator of whether or not governmental considerations, as opposed to just normal commercial considerations, influence the amount or the direction of international trade.

The Statistical Indicators

Three indices of the prevalence of NTBs are used below. Each summarizes the presence or absence of NTBs on several tariff headings simultaneously, but each uses a different scheme to combine observations. For any importer (i) and type of non-tariff barrier (b) let

$$\begin{aligned} N_{qx} &= 1 \text{ if there is a barrier on imports of "q" from exporter "x"} \\ &= 0 \text{ otherwise.} \end{aligned}$$

For sets of commodities (Q) and exporters (X), all three indices take the form:

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

While one might wish to combine NTBs with reference to the amount by which they reduce trade, or to the levels that trade would attain in the absence of NTBs, this is not possible. Neither of these is observable. Indeed, one purpose of developing an NTB coverage index is to move us toward estimating the trade effects of these NTBs, toward construction of the counterfactual "free trade" pattern of imports. 1/

The Own Imports Coverage Ratio (I_c): defines W_{qx} as the value of i 's actual imports of q from x .

The World Trade Coverage Ratio (I_w): defines W_{qx} as the value of 'world' imports of q , shared over exporters (x) according to i 's actual imports. (See Appendix 1 for details).

The Frequency Ratio (I_f): defines W_{qx} as the presence or absence of a flow of q from x to i ; thus

$$\begin{aligned} W_{qx} &= 1 \text{ if imports of } q \text{ from } x \text{ are non-zero,} \\ &= 0 \text{ otherwise.} \end{aligned}$$

1/ There are many jokes about economists assuming away the problem, and the suggestion that the coverage ratio be based on "free trade" values is an example of why such jokes have an element of valid criticism in them.

Note that while both N_{qx} and W_{qx} must refer to particular years, these need not be the same, provided that, as here, both have been converted to the same classification. 1/

Each of the three indices has strengths and weaknesses. The own imports coverage ratio is possibly the most natural, in that the extent of an NTB is represented by the size of the particular trade flows it affects. Its drawback is that more restrictive NTBs tend to receive lower weight than less restrictive ones, because they reduce imports by more. In the extreme, a total prohibition shows up as zero imports covered by NTBs. This difficulty is reduced by allowing W_{qx} to refer to a year in which there were relatively few barriers.

To the degree that a country's own restrictions are not correlated with those on world trade, then the weight that the world trade coverage ratio applies to a particular NTB will be largely independent of the latter's restrictiveness. If, on the other hand, all importers restrict a particular commodity (e.g. textiles), its weight in world trade will still be understated relative to the free trade case and the NTBs it faces correspondingly underweighted in the overall index. The drawbacks of I_w as a measure of the "free trade" coverage of individual countries' NTBs are, first, that world imports may not be representative of the import pattern of a particular importer, because import bundles differ from country to country quite independently of the level of NTBs, and, second, the inevitable inaccuracies in

1/ UNCTAD converts NTB information from the trade classification current when they are reported to the 1981 classification used for the trade data. To the extent that this is occasionally impossible our figures may slightly understate the prevalence of NTBs.

estimating world trade for each tariff-line of each importer's trade classification (see Appendix 1).

Most current protection is of recent origin and is intended to prevent further increases in import shares, rather than to drastically roll back imports. Moreover, most industrial countries do tend to protect the same sectors, e.g. agriculture, textiles and iron and steel. Thus, when comparing NTB coverage between countries, we believe that "own imports" is a better proxy for free trade imports than are our constructed "world trade" data.

The frequency ratio goes still further towards avoiding the downward bias in I_c relative to free trade imports coverage. The extent of NTBs is measured by the number of trade flows that are affected, so that every barrier on every observed trade flow receives equal weight. 1/ Its difficulties are twofold, however. First, it ignores the perfectly natural differences in the sizes of different trade flows, and second, it is exaggerated by the tendency of trade classifications to become more fragmented the more sensitive and restricted is a category of trade.

None of our indices allows for the fact that some barriers are inherently more restrictive than others. For example, discretionary licenses could involve only the threat of a restriction or a very direct one, but our measures are insensitive to such dimensions. Thus it remains a large and

1/ The use of "observed" trade flows means that prohibitions are still excluded in I_f . This could be overcome by defining W_{qx} as unity wherever $N_{qx} = 1$, even if actual imports were zero. This involves a certain arbitrariness, however, since it is not guaranteed that every zero trade subject to an NTB would be positive in the absence of the NTB. For example, suppose an importer has a global quota of zero on bananas: thus $N_{qx} = 1$ for all x , when $q = \text{bananas}$. While we may like to have $W_{qx} = 1$ for Trinidad, we would not wish it so for Iceland.

speculative step to draw conclusions about the restrictiveness of trade regimes on the strength of these indices.

In making comparisons of NTB coverage across time, we use import values from one period to calculate NTB coverage for both periods. Thus we get a reliable indicator of changes of the extent of NTB but, as the reader has been reminded before, not of the changes in their restrictiveness.

The data

The import data used in construction of the coverage ratios are provided by national authorities to the GATT and thence to UNCTAD. These data classify imports by tariff-line and distinguish trade with all partner countries, except for EEC countries, where intra-Community trade is ignored. All trade data are annual and refer to 1981.

Sixteen industrial country markets are examined in this paper: the ten EEC countries (with Belgium and Luxembourg combined), Australia, Austria, Finland, Japan, Norway, Switzerland and the USA. In 1981 these markets accounted for about 60% of total world imports and about 70% of imports from developing countries. (See Annex A Table 11 for details.)

The data on non-tariff barriers have been collected by UNCTAD within the framework of its Data Base on Trade Measures. This contains, inter alia, information on governmental product-specific border non-tariff measures applied in most developed market-economy countries. The data are recorded at the tariff-line level (i.e. at the level at which they are applied), and are derived from official national and intergovernmental (e.g. GATT) publications. After the preliminary collection of information, or if

substantive changes are introduced, governments are invited to verify and comment upon the accuracy of the data on their import regimes. 1/

The UNCTAD data contain information on the dates of introduction and elimination (if applicable) of individual NTBs, thus enabling the investigation of changes in NTB import coverage over time. Our estimates refer to periods of one year, and we set $N_{qx} = 1$ for a barrier even if it has been in application for only part of the period concerned. This possibly imparts an upward bias to our ratios, but it allows us to capture a more representative sample of short-term and seasonal barriers than would a "snapshot" view.

1/ For fuller details of the Data Base on Trade Measures see UNCTAD (1983).

III. RESULTS, NTBs ON INDUSTRIAL COUNTRIES' IMPORTS

Tables A-C summarize the prevalence in 16 industrial economies of the NTBs we have been able to document. The discussion in this section will be focused on aggregate results. However, two annexes contain extensive tables reporting detailed estimates for particular markets, products and barriers. Annex A provides the detailed figures underlying the text tables and the discussion of this section. 1/ Annex B provides additional tables using different aggregations of goods (all products less fuels) and of NTBs (excluding "other import management measures"). These definitions have been used in the World Bank Management's presentations to the Development Committee Meeting of April 1985, and are included here for comparative purposes.

Overall Prevalence of NTBs

Overall, 13% of these countries' tariff lines are subject to NTBs, and 27% of their imports fall into these categories. In comparison, tariff concessions negotiated at the Tokyo Round covered about 18% of the imports of the major developed countries. 2/ The value of imports influenced by the non-tariff trade policies of these 16 country governments (some \$231 billion, based on 1981 trade flows) is almost half as large again as the total imports of the state-trading East European centrally planned countries.

1/ Text tables below are referred to by letter, annex tables by number. Each annex table is replicated for own imports coverage ratios (C), world imports coverage ratios (W) and frequency ratios (F).

2/ The total value of trade affected by m.f.n. tariff reductions and bindings at prevailing rates amounted to 17.8% (\$125 billion) of 1976 imports of the major developed import markets (see GATT (1979) p.118).

Table A

Extent of Industrial Countries' NTBs
by Product Categories, 1983

16 industrial markets, all exporters, all NTBs

Index	Manufactures										
	All	All, less		Agricul				Iron &	Electrical	Vehicles	Rest of
	Products	Fuels	Fuels	tural	All	Textiles	Footwear	Steel	Machinery	(10)	Manuf.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Coverage Ratio:											
Own Imports	27.1	18.6	43.0	36.1	16.1	44.8	12.6	35.4	10.0	30.4	8.8
World Imports	21.8	18.5	31.0	40.4	14.9	37.8	17.7	35.8	10.8	25.9	7.2
Frequency Ratio	12.8	12.7	23.9	29.5	10.8	38.1	13.5	18.3	5.4	7.4	3.2

Table B

Extent of Industrial Countries' NTBs
by Type of Measure, 1983

16 industrial markets, all exporters, all products

Index	Quantitative	Voluntary	Decreed	Tariff-	Monitoring	All NTBs:
	import	export	prices	type	Measures	Union of
	restrictions	restrictions	(3)	(4)	(5)	(1) thru (5)
	(1)	(2)				(6)
Coverage Ratio:						
Own Imports	8.6	3.0	1.7	1.3	14.8	27.1
World Imports	9.5	1.4	3.4	1.6	9.8	21.8
Frequency Ratio	5.0	3.4	1.7	1.4	4.6	12.8

TABLE C

Extent of Industrial Countries' NTBs by Country, 1983

All products, all exporters, all NTBs

Industrial Country Markets	Coverage Ratios		Frequency Ratio (3)
	Own Imports (1)	World Imports (2)	
EEC	22.3	18.9	13.8
Belgium-Luxembourg	26.0	21.0	11.6
Denmark	11.7	13.3	11.4
France	57.1	44.2	24.0
West Germany	12.4	14.7	12.5
Greece	13.4	19.0	13.6
Ireland	13.4	13.0	9.1
Italy	6.9	10.0	9.7
Netherlands	25.5	21.4	13.1
United Kingdom	14.3	13.9	13.8
Australia	34.1	44.4	18.3
Austria	4.9	7.5	5.4
Finland	34.9	34.3	13.4
Japan	11.9	9.0	9.3
Norway	5.7	6.1	9.7
Switzerland	32.2	42.9	19.4
USA	43.0	34.3	7.0
All 16 Markets	27.1	21.8	12.8

Sectoral Coverage

While NTBs affect almost all internationally traded goods, 1/ Table A shows that in the case of industrial countries they are especially prevalent in certain sectors. In particular, agricultural products, textiles, mineral fuels and iron and steel generally show a greater prevalence of NTBs than other product groups. It is quite common for imports of agricultural products to be regulated to such an extent that their origin, quantity, quality, price and time of entry are specified in advance by the importing country authorities. While the management of imports is particularly elaborate in the EEC, where, for example, minimum import prices for certain products are adjusted almost daily, agricultural products face a wide array of NTBs in all industrial countries. Among the measures employed are various kinds of quotas (global, bilateral, seasonal), varying (seasonal) tariff duties, minimum import prices and import authorizations including permits dependent, for example on the purchase of equivalent quantities of locally grown products. Their use is so widespread that in Switzerland they cover 73% of imports, in Austria and Japan 42%, in Australia 36%, etc. (See Table 1C).

Even so, agriculture is certainly a case where our indices underestimate the extent of NTBs. First, we do not account for such measures as quality standards or state trading, which are particularly frequent in agriculture and can restrict imports just as effectively as volume or price

1/ For example, about 98% of 4-digit CCCN product groups face some sort of volume restriction somewhere in the world and often in more than one country (UNCTAD (1983a) p.11).

measures. Second, existing trade restrictions are quite strenuous, 1/ and hence tend to push both the own imports and world imports coverage ratios downward; international trade in those agricultural products currently subject to restriction would certainly be considerably greater under free trade.

Textile imports face NTBs to the same or higher degree than agriculture. Most international trade in textiles and clothing is governed by the MFA, an umbrella arrangement under which voluntary export restraints of a varying restrictiveness are negotiated between (industrial country) importers and (developing country) exporters. Countries which do not apply MFA restrictions, resort to other devices: for example, Australia imposes tariff quotas (with higher rates set at the prohibitive levels), Switzerland applies automatic licensing and monitors prices of products from certain suppliers, and Norway applied (until July 1984, when it introduced MFA measures) global quotas.

As in the case of agriculture, our indices probably underestimate the extent of NTBs on textiles. First, textile measures are generally highly restrictive. For example, under the current MFA the annual growth rate of the US imports from Hong Kong is limited to 1.5% for textiles and 0.7% for clothing, while EEC imports of textiles from Colombia are allowed to grow by 0.3% and from Mexico by 0.1%. As recently concluded by the GATT Textiles Surveillance Body, "under MFA III, restraints have been more extensive and in many cases more restrictive [than under MFA II]. Most importing countries, in restraining imports under the MFA, had recourse to extensive invocation of

1/ See, for example, Bale and Koester (1983).

'exceptional circumstances' or of the need to maintain 'minimum viable production'". 1/

Second, volume and price restrictions are frequently accompanied and reinforced by other measures, particularly requirements of origin, which our indices do not include. Recent instances suggest that these measures are becoming progressively more restrictive, e.g., the new "Customs Regulating Amendments Relating to Textiles and Textile Products" in the USA, which provide more stringent guidelines for the determination of the origin of textile imports.

Contrary to a popular belief that raw materials are free of trade barriers, mineral fuels are among the product groups subject to a close government control. The average coverage ratio for fuels is a high 42.9 reflecting licensing or quota requirements for all or selected imports of hydrocarbons into the USA, Finland, Australia, Norway, Switzerland and France. For example, in France petroleum imports are subject to a global quota. In the US a license is required for imports of natural gas, petroleum and all petroleum products. In all these categories the licensing is "intended to restrict the quantity of imports", 2/ and in the case of natural gas to exclude those imports which are not "consistent with the public interest". 3/ Due to falling consumption, current petroleum imports are not formally restricted, but the authority to license imports enables government to affect its direction, e.g., imports into the US from Libya are prohibited.

1/ GATT (1984a) p.10.

2/ See GATT (1983) p.10.

3/ See Section 3 of the United States Natural Gas Act (1938).

The fourth product group strongly affected by non-tariff barriers is iron and steel. Relatively free in the 1970s, iron and steel imports have become - in a remarkably short period of time - almost as tightly regulated as textile trade, particularly in the EEC, USA and Australia. These three economies maintain elaborate "umbrellas" shielding their structurally ailing industry from foreign competition. The EEC closely monitors its imports through the system of automatic licenses "to ensure that traditional trade patterns in steel products are not disturbed"; 1/ a number of "voluntary" export arrangements limit imports from the major suppliers, and minimum ("basic") import prices are established for selected products.

In the US, additional duties and a global quota were imposed on the imports of specialty steel in 1983 and subsequently a number of "voluntary" export arrangements have been concluded with major suppliers. 2/ For certain carbon and alloy steel products a maximum level of import penetration was set (18.5%) and is enforced by "voluntary" export and "surge control" arrangements with major suppliers and countries whose exports have increased rapidly.

Finally in Australia, the Steel Industry Plan provides, inter alia, for an "import watch system" and reviews of levels of protection (which relies on tariffs and bounties) if the domestic producers' market share falls below 80% or rises above 90% in specified product categories.

1/ GATT (1984) p.4.

2/ To "encourage" such agreements the US has advised its suppliers that the global quota would be divided between countries which concluded orderly marketing arrangements with only a small part (about 5%) left for other producers.

A common feature of the iron and steel protection is a frequent resort by all the countries to anti-dumping and countervailing actions. For example in 1982, 149 cases were initiated in the USA, 19 in the EEC and 13 in Australia. 1/ Anti-dumping and countervailing duty actions (along with Section 301 actions) are explicitly provided for in the Presidential decision on the protection for the US steel industry, while a "fast track dumping mechanism" is one of the elements of the Australian Steel Industry Plan. 2/ Both are examples of a measure established to regulate trade practices being applied to problems of a structural character.

Other product groups are less restricted by NTBs. The relatively high ratios for vehicles reflect "voluntary" export arrangements on Japanese exports and surveillance of car imports in the EEC. Ratios for footwear and electrical machinery are moderate. This latter group includes electronics which (particularly from Japan, Republic of Korea and Hong Kong) meet increasing restrictions. However, due to the still relatively low value of trade in this category and the selective nature of import restrictions (usually "voluntary" export restraints or quotas by country) the ratios for the whole group of electrical products are not large.

1/ See UNCTAD (1984a) p.8.

2/ See Industries Assistance Commission (1984) pp.21-27.

Types of Barriers

Table B gives the break-down of NTBs by type. 1/ Quantitative import restrictions and monitoring measures are the most pervasive of barriers according to all three indices. Since the latter are predominately concerned with the quantity of imports, it seems that qualitative measures far outweigh price measures in the set of NTBs.

More revealing than the aggregate picture of Table B is the separate analysis of types of barrier for agriculture and manufactures found in Tables 5 and 6 of Annex A. It is obvious that different policies are emphasized in different sectors. Agricultural protection comprises mainly price measures and quantitative restrictions. The former are particularly important in the EEC, where much trade is subject to variable levies, but in other countries direct quantity restrictions are relatively more important - see, for example, Japan, where over 46% of imports from developing countries or Switzerland where 47% of imports from industrial countries are affected. Manufacturing is primarily protected by quantity measures and monitoring measures. In Europe surveillance is common - much of it quite explicitly warning exporters to restrain themselves (see footnote 1 on page 6 above) - but so too are more rigid restrictions in the form of quantitative restrictions and VERs. The USA's protection of manufacturing appears to be both more limited and more subtle, relying almost exclusively on monitoring through mechanisms intended to police trade practices, and "voluntary" agreements. Japan's manufactured imports appear to face very few barriers of the type discussed here.

1/ The sums of the ratios across groups of measures frequently exceed the totals quoted. This is because single trade flows are often subject to NTBs of two or more classes. Such flows are counted once for each class and once (only) for the total.

Country Comparisons

All three indices in Table C point to France, Australia and Switzerland as the countries where NTBs are most prevalent, while the two coverage ratios are also high for Finland and the USA. However when fuels are excluded from the product coverage (Annex A, Tables 1C, 1W and 1F) the US and Finland shift to the group of countries with small or moderate ratios. Thus, NTBs on fuels are the prime source of their high coverage indices.

Whether or not restrictions on imports of fuels are taken into account, France, Australia and Switzerland remain among the countries with the highest NTB ratios. For the first two this is a reflection of an extensive system of quotas and licensing. Tables 2F and 2C indicate that about 10% of import flows accounting for over 47% of imports face these measures in France and about 13% of import flows or 27% of imports in Australia. Quantitative restrictions are also significant in Switzerland (8% of import flows or 12% of import value is subject to these restrictions) but the most extensive barrier in the system of automatic licensing which covers about 11% of import flows and 32% of total imports.

Imports of Austria and Norway appear to be facing relatively few border non-tariff barriers, but both countries apply other import measures such as state trading, import charges, technical standards as well as grant direct assistance to several import-competing industries. In addition, Austria maintains relatively high tariff duties. 1/

1/ Post Tokyo Round weighted average ratio is 10.1% compared with 3.6% average for major developed economies (see Olechowski, A. and Yeats, A. [1982], p.81).

The NTB ratios are also relatively low for Italy and Japan. Italy appears to apply fewer but tighter border measures than other EEC countries, for her the frequency ratios consistently and significantly exceed her import coverage ratios. Japan, as is well known, is often suspected of using measures not covered in our exercise -- e.g., testing procedures, restrictions on retail outlets for foreign products, administrative guidances -- to restrict imports.

In comparing the NTB coverage figures between countries the reader should remember that the information we have measures the extent of NTBs, and not the restrictiveness. It would be inappropriate to use these figures to argue that countries with higher indices "owe" the international community a unilateral "round" of trade liberalization, or that a country with a low coverage index is justified in imposing restrictions against its trading partners.

IV. THE EXTENT OF NTBs ON DEVELOPING COUNTRIES' EXPORTS

Having discussed the prevalence of NTBs in aggregate we now turn to the question of whether NTBs impinge more heavily on the exports of developing countries than on intra-industrial country trade. The indices in Table D are aggregates over the 16 industrial markets for which we have NTB information, and present NTB coverage ratios for imports from four groups of exporters - industrial countries, all developing countries, major developing country exporters of manufactures, and major borrowers. (These groupings are defined in Appendix 2.)

Table D shows that NTBs are significantly more prevalent on imports from developing countries than from industrial countries, and this is replicated for nearly all individual markets (see Table 3).

Table D

Extent of Industrial Countries NTBs
on Imports from Industrial and Developing Countries

16 industrial markets, all products, all selected NTBs

Index	Exporters:	Industrial Countries	Developing countries		
			All	Major Exporters	Major Borrowers
Coverage ratio					
Own Imports		21.0	34.3	26.5	35.4
World Imports		17.1	27.0	24.6	29.4
Frequency Ratio		8.8	18.6	18.1	19.4

Not only the relative, but also the absolute, extent of NTB coverage is larger in the case of developing countries' products. For example, the value (in 1981 terms) of imports from developing countries subject to NTBs is

US\$ 86 billion compared with US\$ 79 billion in the case of imports from industrial countries.

Another important implication of Table D is that NTBs are relatively extensive on the exports of the developing country major borrowers. For these countries all three indices assume values which are 1-2 percentage points higher than those for all developing countries and 7-8 percentage points higher than those for all exporters. This difference is partly due to the presence of three large oil exporters (Indonesia, Mexico and Venezuela) among the major borrowers. However, even if fuels are excluded, the coverage indices for major borrowers remain higher than those for all developing countries while the frequency ratio is marginally lower. 1/ Given that the major borrowers' ability to cope with current balance of payments difficulties depends to a large degree on their ability to export to the industrial countries, these figures emphasise how closely linked are debt and trade policy issues.

In the case of major exporters of manufactures, the evidence is less clear cut. It is often alleged that the newly industrialized countries are the prime targets of protective actions, but the figures in Table D do not support this thesis. However, when fuels are excluded the values of all three indices

1/ The respective values are: 25.5 (own imports coverage ratio), 24.0 (world imports coverage ratio) and 18.1 (frequency ratio) for major borrowers and 22.4, 22.7 and 18.5 for all developing exporters.

for the exporters of manufactures are higher than for all developing countries. 1/

The structure of the apparent discrimination against developing countries is explored in Table E and Annex A Table 4. These show that almost universally NTBs are less prevalent on industrial countries' imports of agricultural goods from developing countries than on those from other industrial countries, but that the reverse is true for manufactures. Nonetheless, developing countries still generally face more barriers on agricultural exports than on manufactures, and since agriculture accounts for a higher share of imports from developing countries than from industrial ones, agricultural protection still contributes to the differential incidence at the aggregate level. In the manufacturing sector developing countries face more barriers than industrial countries where their exports are large, e.g., in textiles and footwear, and fewer where they are small, e.g., in electrical machinery and vehicles.

1/ They are: 23.8 (own imports coverage ratio), 24.5 (world imports coverage ratio) and 19.4 (frequency ratio).

Table E

Extent of Industrial Countries NTBs
on Imports from Industrial and Developing Countries

16 industrial markets, all selected NTBs

Index	Exporter:	Industrial Countries		Developing Countries	
		agricultural	manufactures	agricultural	manufacturing
Coverage Ratio					
Own imports		40.5	14.5	31.2	21.3
World Imports		46.1	13.2	30.5	20.5
Frequency Ratio		31.9	6.7	25.6	17.4

A striking feature of Table 6 of Annex A is the much greater prevalence of VERs on imports of manufactures from developing countries than on those from industrial countries. For example, the overall world imports coverage ratio of VERs for developing countries' manufactures is 10.9% compared with 0.4% for industrial countries, and this pattern is repeated for every market with VERs. While our figures do not reflect the restrictiveness of trade regimes at all accurately, the evidence of a widespread bias in the application of voluntary export restraints seems overwhelming.

V. THE GROWTH OF NTBs

The final issue we examine is the expansion of NTB coverage through time. Text Table F and Table 7 of Annex A present changes in the coverage of NTBs between 1981 and 1983. The UNCTAD Data Base does not provide precise information on the dates of introduction before 1981 and, at the time our investigation was carried out, did not contain data on measures imposed after June 1984.

Table F

Extent of Industrial Countries NTBs on Imports from Industrial and Developing Countries

16 industrial markets, all products, all selected NTBs,
differences between indices for 1983 and 1981 in percentage points

Index	Exporter:		
	All Countries	Industrial Countries	Developing Countries
Coverage Ratio			
Own Imports	1.5	2.2	1.1
World Imports	1.8	2.3	1.1
Frequency Ratio	0.3	0.1	0.9

All three measures indicate that NTBs are encroaching progressively further on international trade. For the 16 markets whose NTBs have been tabulated, there was, between 1981 and 1983, a net increase of 2,486 in the number of NTBs recorded. The NTBs in place in 1983 covered \$12.8 billion more of 1981's imports than did those in place in 1981. This additional \$12.8 billion

which came under NTBs was approximately 1.5% of these countries' total imports in 1981, and approximately 6% of the value of imports subject to NTBs. Note that these figures refer only to new NTBs and not to any tightening or reinforcement of existing ones.

According to the coverage ratios, the new measures seem to be aimed mostly at imports from the industrial countries. 1/ When the coverage and frequency indicators are compared, it appears that new NTBs were imposed on a larger number of small trade flows from developing countries and a smaller number of large flows from industrial countries. This is a reflection of concentration of new NTBs in areas such as iron and steel and electrical machinery, where developing countries are only now entering international trade. This pattern does not mean, however, that developing countries were exempt from the rise in protectionism, for their main exports (such as textiles and clothing) experienced considerable tightening of the existing restrictions.

1/ For description of new NTBs see UNCTAD (1984 and 1985) and IMF (1984).

VI. THE COMPARISON OF EXISTING ESTIMATES OF NTB COVERAGE

While this study is a first attempt to estimate NTB prevalence in a comprehensive and precise fashion, there do exist some approximations in the literature. This section compares our results, with those of Balassa and Balassa (1984), Cline (1985) and Jones (1983).

Balassa and Balassa define NTBs relatively narrowly - quotas, licensing, voluntary export restraints, orderly marketing agreements, safeguard measures and "restrictive application of standards" - and use 4-digit SITC(R) NTB data from the US Special Trade Representative's Office. Their trade statistics - at 4-digit SITC(R) level - refer to 1980 and come from the World Bank Trade System. Balassa and Balassa's higher level of aggregation tends to bias their estimates of coverage upward. However, when we recalculate our figures on their definitions (see Table 8 of Annex A); the results are rather similar, so in this case the bias appears small.

A second comparison is with Cline (1985). Cline's figures, displayed in Table 9 of Annex A, suggest very much higher estimates than our own, despite his restricted definition of NTBs (decreed price measures plus quantity measures). However, he works with very aggregated NTB and trade data: 4-digit ISIC level. His exaggeration of the extent of protectionism probably arises from:

- (i) the high level of his commodity aggregation (the ISIC contains just 81 4-digit manufacturing categories);
- (ii) the combination of NTBs from a series of years - "broadly the middle 1970s to 1981"! (In fact, in no single year did all the NTBs Cline records for the USA apply); and

(iii) the counting of all imports of a good as "affected" even if trade with only certain partners is restricted. (For example, the UK VER with Japan over car imports, leads Cline to include all vehicle imports in his measure - even buses imported from Germany!)

A final comparison is with Jones' (1983) figures for the UK in 1980 (see Table 10 Annex A). Jones uses a tighter definition of NTBs than ourselves - even if we exclude our "other import management measures" group - but he does work with tariff-line data. Taking account of differences in product and country groupings, his results match our 1981 estimates quite closely.

VII. SUMMARY AND CONCLUSIONS

Given the lack of sound empirical evidence on the extent of non-tariff barriers, this paper has attempted to identify some basic features of the situation. By employing the most comprehensive and detailed existing NTB and trade information and calculating three indices of the prevalence of NTBs, we have generated the most comprehensive analysis extant.

Four major conclusions emerge from the results. First, the extent of NTBs is indeed large. At least 27% of the sixteen major industrial economies' imports, some \$230 billion of 1981 imports, would have been covered by one or more of the selected NTBs as they applied in 1983. NTBs are particularly widespread in agricultural products, textile and clothing, mineral fuels and iron and steel.

Second, volume controls appear to be the most prevalent of individual NTBs -- much more so than price controls which are applied mainly to agricultural imports.

Three different measures indicate that NTBs are significantly more prevalent on imports from developing countries than from industrial countries. The NTBs applied in 1983 by the sixteen industrial markets examined here would have covered \$86 billion of imports from developing countries and \$79 billion of imports from industrial economies. Particularly significant is the higher coverage of the exports of developing country major borrowers.

In relative terms developing countries face more barriers than industrial countries in manufactured trade and less in agricultural trade. However, developing countries still generally encounter more barriers on agricultural exports than on manufactures, and since agriculture accounts for a higher share of their exports than of industrial countries' exports,

protection in this sector contributes to the differential incidence observed at the aggregate level.

Finally, the results provide evidence that NTBs are encroaching progressively further on international trade and at a significant pace. In the period 1981-1983, a net increase of 2,486 NTBs, covering \$12.8 billion of 1981 imports was observed. Since this increase does not reflect the tightening or reinforcement of already existing measures, the growth of NTBs should be taken very seriously.

APPENDIX 1

World Trade Weights for the World Imports Coverage Ratio

Index I_w , the world imports coverage ratio, is based on world trade weights, but naturally the data for such weights are not available on each country's own detailed trade classification. We derived them as follows.

First 1981 import data from the World Bank System at the 4-digit level of the SITC(R) were summed across the 102 importers for which they existed ("the world" - see Appendix 1 Table A.1). These were converted to a 5-digit SITC(R) basis by prorating each 4-digit total over its component 5-digit groups according to shares derived from the sample of countries reporting 5-digit data for that category. (This sample varied by 4-digit groups, but its trade invariably covered at least 75% of the 4-digit world total). These 5-digit SITC(R) data were then converted to a 4-digit CCCN basis (Z_j) using a converter supplied by UNCTAD, and then used to update each country's own tariff-line data as follows:

$$\hat{X}_{ijkx} = \frac{X_{ijkx}}{\sum_k X_{ijkx}} \cdot Z_j$$

where X_{ijkx} is i 's imports from x of tariff item k within CCCN sub-group j , and \hat{X}_{ijkx} is the updated 'world' version of this.

In the notation of the text, W_{qx} for country i is set to \hat{X}_{irsx} where tariff index q corresponds to tariff item s within CCCN sub-group r . Thus we are weighting CCCN sub-groups together by world trade weights

($\sum_{imn} \hat{X}_{ijmn} = Z_j$), while using a country's own trade weights for both the composition and direction of trade within the sub-group. Thus while the world

index I_w makes allowances for differences in the restrictiveness of barriers on broad groups of goods, it makes no such allowance for differences in the restrictiveness of barriers on different tariff-items or sources within the broader groups. In particular, this approach implies that if some X_{ijkx} were zero, so too would be the corresponding "world" weight \hat{X}_{ijkx} . Thus prohibitions still receive zero weights in I_w . The total of \hat{X}_{ijkx} is world imports and is the same for each of the countries treated above.

For very small proportions of each country's trade the classification conversions from CCCN to tariff-line were not straightforward. They were treated as follows.

(A) Non-USA Data

Several headings in each of the non-USA national trade statistics were not matched in our SITC-CCCN converter.

CCCN 0407 equated to UN Special Code SITC(R) 0990 (edible animal products n.e.s.)

CCCN 3507 received half of SITC(R) 51291 the other half going to CCCN 2940

CCCN 7107, 7108 gold - no corresponding SITC(R) world data. Their share in total imports was kept the same in the adjusted (world weighted) and the unadjusted (national) trade data-sets.

(B) EEC Data

For EEC countries further difficulties comprised:

NIMEXE 736n and 737n n= 01....9. These are a subdivision of CCCN 7315 (iron and steel). Trade allocated by the converter to CCCN 7315 was spread over 7315, 736n and 737n using national shares.

NIMEXE nn97 postal trade
nn98 ships stores
NIMEXE nn99 unidentified
0090 unidentified

Shares in total imports were kept the same in the adjusted (world weighted) series as in the unadjusted (national) series.

(C) USA Data

The USA classifies trade data by the TSUS and TSUSA which relate directly to neither the CCCN nor the SITC(R). Using a converter provided by the Special Trade Representative's Office, the world trade data were converted from SITC(R) to TSUSA 7-digit groups. When one SITC(R) category fed n TSUSA category each of the latter was allocated $1/n$ of the former. The 7-digit data were then aggregated to a 5-digit (TSUS) basis comparable to the US trade data received from the GATT.

The whole of this process resulted in around 7% of headings and trade being unmatchable. These headings were given the same weight in the adjusted (world) trade series as in the national (USA) statistics. The mismatches were fairly evenly spread except for a concentration in iron and steel.

Current research is trying to resolve these difficulties. Overall it is likely that our world imports coverage ratios for the USA are less accurate than those for other countries, and that our results for all countries' iron and steel sectors are less accurate than those for other sectors.

Table A.1: THE "WORLD" WEIGHTS - COUNTRY COVERAGE

Algeria	Madagascar
Argentina	Malawi
Australia	Malaysia
Austria	Malta
Bahrain	Martinique
Bangladesh	Morocco
Belgium-Luxembourg	Netherlands Antilles
Bermuda	Netherlands
Brazil	New Caledonia
Brunei	New Zealand
Canada	Nicaragua
Chile	Niger
Columbia	Norway
Costa Rica	Oman
Cyprus	Pakistan
Denmark	Panama
Dominican Republic	Peru
Ecuador	Philippines
Egypt	Poland
El Salvador	Portugal
Ethiopia	Qatar
Faeroe Islands	Reunion
Fiji	Samoa
Finland	Saudi Arabia
French Guiana	Senegal
French Polonesia	Seychelles
France	South Africa
Germany, F.R.	Spain
Greece	Sri Lanka
Greenland	St. Pierre & Miquelon
Guadeloupe	Sudan
Guatemala	Sweden
Honduras	Switzerland
Hong Kong	Thailand
Hungary	Togo
Iceland	Tonga
Indonesia	Trinidad
Ireland	Tunisia
Israel	Turkey
Italy	Tuvalu
Ivory Coast	United Arab Emirates
Jamaica	United Kingdom
Japan	Tanzania
Jordan	Upper Volta
Kenya	Uruguay
Korea, Republic of	USA
Kuwait	Vanuatu
Liberia	Venezuela
Libya	Yemen
Macao	Yugoslavia

APPENDIX 2

Definitions of Product and Country Groups

<u>Product</u>	<u>TSUSA Headings</u>	<u>CCCN 4-digit headings</u>
All	10001-87045	0101-9906
All, less fuels	10001-47462, 48005-52121 52141-87045	0101-2604, 2801-9906
Agricultural Goods	10001-19324	0101-2402
Manufactured Goods	20003-47462, 48005-49520, 53101-54805, 60502-87045	2801-9906
of which		
textiles	30010-39060	5001-6302
footwear	70005-70095	6401-6406
iron and steel	60600-61081	7300-7399
electrical machinery	68205-68847	8501-8528
vehicles	69202-69260	8701-8714

Major Exporters of Manufacturers: Argentina, Brazil, China (Taiwan Province), Hong Kong, Israel, Korea, Philippines, Portugal, Singapore, South Africa, Thailand, Yugoslavia

Major Borrowers: Argentina, Brazil, Chile, Egypt, India, Indonesia, Israel, Korea, Mexico, Turkey, Venezuela, Yugoslavia

(all had over \$15 billion of long-term debt at the end of 1983).

Industrial Countries and Developing Countries:

World Bank definitions (WDR 1984), except that Greece is transferred from developing to industrial countries, because its trade policy is determined with that of other industrial countries in the EEC.

References

- Balassa, B. and Balassa, C. "Industrial protection in the developed countries", The World Economy, June 1984, pp179-96.
- Bale, Malcolm D. & Ulrich Koester. "Maginot Line of European Farm Policies", The World Economy, vol. 6, No. 4, Dec. 1983, pp 373-92.
- Cline, W. Imports of Manufactures from Developing Countries: Performance and Prospects for Market Access, Brookings Institution, Washington, D.C. ,1985.
- Dickey, William L. "The Pricing of Imports into the United States", Journal of World Trade Law, vol. 13, May-June 1979, pp 238-56.
- Finger, J. M., H.K. Hall and D.R. Nelson. "The Political Economy of Administered Protection", The American Economic Review, vol. 72, 1982, pp. 452-66.
- Finger, J. M. "The Industry-Country Incidence of 'Less than Fair Value' Cases in U.S. Import Trade", Quarterly Review of Economics and Business, Summer 1981, pp. 260-79.
- GATT. The Tokyo Round of Mutilateral Trade Negotiations, Geneva, 1979.
- GATT. Reply to the questionnaire on licensing: USA, L/5131, Geneva, 1983.
- GATT. Report of the Group on Quantitative Restrictions and other Non-Tariff Measures, L/5713, Geneva, 1984.
- GATT. Developments in the Trading System, C/W/448, April 1984-September 1984, Geneva, 1984a.
- IMF. Exchange Arrangements and Exchange Restrictions, Annual Report, Washington, D. C., 1984.
- Industries Assistance Commission. Annual Report, Canberra, 1983-84.
- Jones, C.D. "Visible Imports Subject to Restraint", Government Economic Service Working Paper No. 62, HMSO, London, 1983.
- Natural Gas Act. Act of 21 June 1938, C.556, 52 Stat. 821-833, 15 U.S.C. 717-717w.
- Olechowski, A. and Yeats, A. "Implications of the Tokyo Round for East-West Trade Relations", Oxford Bulletin of Economics and Statistics, February 1982, pp. 79-96.
- UNCTAD. Non-tariff barriers affecting the trade of developing countries and transparency in world trading conditions: the inventory of non-tariff barriers, TD/B/940, Geneva, 1983.

UNCTAD. Protectionism, trade relations and standard adjustment, TD/274, Belgrade, 1983a.

UNCTAD. Protectionism and standard adjustment in the world economy, Part I: Analysis of major issues and policy requirements, TD/B/981, Geneva, 1984.

UNCTAD. Problems of protectionism and structural adjustment, Part I: Restrictions to trade and structural adjustment, TD/B/1039, Geneva, 1985.

ANNEX A
List of Tables

Table 1	NTBs by Product Category, 1983*
Table 2	Types of NTB, 1983*
Table 3	The differential impact of NTBs*
Table 4	Differential impact of NTBs by product category, 1983
Table 5	Differential impact of NTBs by type, agriculture, 1983
Table 6	Differential impact of NTBs by type, manufacturing, 1983
Table 7	Change in the Extent of NTBs; 1981-1983*
Table 8	Balassa and Balassa's Results for Manufactures
Table 9	Cline's Results for Manufactures
Table 10	Jones' Results for the UK
Table 11	Industrial Countries' Trade, 1981

* Versions of these tables excluding fuels and "monitoring measures" appear in Annex B.

TABLE 1C

Extent of Industrial Countries' NTBs
by Product Category, by Country, 1983

Own imports coverage ratio; all exporters

Industrial Country Market	All Products	All, less Fuels	Fuels,	Agri- culture	Manufac- turing	Textiles	Footwear	Iron & Steel	Electrical Machinery	Vehicles	Rest of Manuf.
EEC	22.3	21.1	24.4	36.4	18.7	52.0	9.5	52.6	13.4	45.3	10.3
Belgium-Lux	26.0	33.9	10.0	55.9	33.6	38.3	12.3	47.4	19.5	54.3	30.6
Denmark	11.7	15.9	0.0	28.5	13.2	46.5	13.6	49.9	6.7	35.0	5.4
France	57.1	28.1	91.0	37.8	27.4	48.4	6.6	73.9	41.7	42.9	19.4
West Germany	12.4	18.3	0.0	22.3	18.5	57.0	9.7	53.5	6.8	52.0	6.6
Greece	13.4	23.2	0.0	46.4	20.4	21.8	22.8	54.5	13.5	65.5	8.5
Ireland	13.4	15.0	0.0	24.8	13.8	31.7	8.8	23.0	0.5	65.8	6.6
Italy	6.9	14.6	0.0	39.9	9.3	37.2	0.2	48.6	7.1	10.2	2.6
Netherlands	25.5	28.0	22.0	51.9	17.8	57.3	12.0	35.5	4.0	49.7	10.7
UK	14.3	17.5	0.0	34.9	14.8	59.6	12.2	42.1	12.7	44.3	6.7
Australia	34.1	24.1	98.0	36.1	23.6	30.9	50.0	55.6	48.7	0.7	21.6
Austria	4.9	6.0	1.0	41.7	2.4	2.2	0.1	0.0	0.0	2.9	3.0
Finland	34.9	9.2	94.0	31.5	6.7	31.0	68.8	43.9	0.0	0.0	0.4
Japan	11.9	16.9	7.0	42.9	7.7	11.8	34.1	0.0	0.0	0.0	7.7
Norway	5.7	5.8	5.0	24.2	4.1	42.9	5.4	0.1	0.0	0.2	0.4
Switzerland	32.2	23.6	94.0	73.4	17.6	57.4	0.0	3.9	28.1	1.1	14.6
USA	43.0	17.3	100.0	24.2	17.1	57.0	11.5	37.7	5.2	34.2	6.1
All 16 Markets	27.1	18.6	43.0	36.1	16.1	44.8	12.6	35.4	10.0	30.4	8.8

TABLE 1W

Extent of Industrial Countries' NTBs
by Product Category, by Country, 1983

World imports coverage ratio; all exporters

Industrial Country Market	All Products	All, less Fuels	Fuels	Agri- culture	Manu- facturing	Textiles	Footwear	Iron & Steel	Electrical Machinery	Vehicles	Rest of Manuf.
EEC	18.9	21.0	13.0	39.5	18.3	44.2	10.7	48.6	10.9	42.3	7.1
Belgium-Lux	21.0	22.0	18.0	41.5	19.1	36.3	10.4	45.2	11.2	55.8	7.6
Denmark	13.3	18.0	0.0	40.8	14.5	38.7	16.8	46.8	5.7	35.9	3.4
France	44.2	31.2	81.0	47.9	29.1	52.8	8.0	70.9	40.6	41.0	16.7
West Germany	14.7	19.9	0.0	35.6	17.7	48.3	9.5	48.0	5.6	47.5	5.1
Greece	19.0	25.8	0.0	44.2	23.3	42.1	19.5	49.7	16.1	56.8	11.1
Ireland	13.0	17.8	0.0	32.3	16.1	34.5	8.5	42.4	0.9	51.6	4.8
Italy	10.0	13.3	0.0	36.5	9.6	42.0	0.7	44.8	4.4	4.9	2.6
Netherlands	21.4	22.6	18.0	41.4	19.8	49.4	11.6	45.2	3.6	50.4	8.4
UK	13.9	18.8	0.0	34.5	16.5	53.4	11.4	45.6	9.8	36.9	4.3
Australia	44.4	26.6	95.0	31.1	24.8	27.3	54.4	49.2	49.2	0.4	21.9
Austria	7.5	10.1	0.0	53.9	2.4	2.1	0.1	0.0	0.0	3.5	2.9
Finland	34.3	14.3	90.0	48.7	8.8	43.1	75.0	43.7	0.0	0.0	0.8
Japan	9.0	9.6	7.0	33.8	5.4	14.0	39.6	0.0	0.0	0.0	6.0
Norway	6.1	7.4	3.0	32.5	2.9	27.2	4.9	0.1	0.0	0.5	0.5
Switzerland	42.9	26.0	91.0	77.5	16.1	45.7	0.0	5.9	23.8	0.9	15.2
USA	34.3	12.3	96.0	14.5	12.3	48.1	12.6	36.2	2.5	28.2	3.8
All 16 Markets	21.8	18.5	31.0	40.4	14.9	37.8	17.7	35.8	10.8	25.9	7.2

TABLE 1F

Extent of Industrial Countries' NTBs
by Product Category, by Country, 1983

Frequency ratio; all exporters

Industrial Country Market	All Products	AlI, less Fuels	Fuels	Agri- culture	Manu- facturing	Textiles	Footwear	Iron & Steel	Electrical Machinery	Vehicles	Rest of Manuf.
EEC	13.8	13.8	14.8	30.3	12.0	45.2	7.7	23.4	5.6	9.8	2.6
Belgium-Lux	11.6	11.4	42.0	31.1	8.9	32.7	13.8	17.8	1.0	2.8	2.9
Denmark	11.4	11.4	0.0	29.7	9.6	35.9	12.1	18.2	1.1	2.2	1.5
France	24.0	23.9	32.0	41.8	21.9	56.0	2.2	56.6	31.7	41.2	7.0
West Germany	12.5	12.6	1.0	25.1	11.1	43.9	11.0	19.5	0.7	1.4	1.5
Greece	13.6	13.7	0.0	32.7	12.3	37.5	6.7	24.4	7.6	19.8	6.7
Ireland	9.1	9.2	0.0	35.0	7.6	32.4	7.8	9.6	0.7	3.9	1.6
Italy	9.7	9.8	0.0	25.6	8.4	38.4	2.7	21.2	1.0	3.6	1.0
Netherlands	13.1	12.8	45.0	30.1	10.2	41.9	10.8	16.2	1.0	3.0	2.4
UK	13.8	13.8	0.0	27.7	12.3	59.8	4.5	16.9	1.6	1.7	0.9
Australia	18.3	18.1	56.0	21.4	17.9	25.9	43.6	14.4	25.4	6.1	15.4
Austria	5.4	5.5	1.0	33.0	0.9	1.8	1.0	0.0	0.0	9.0	0.5
Finland	13.4	13.2	50.0	30.2	11.9	37.3	58.8	39.2	0.0	0.0	0.6
Japan	9.3	9.3	10.0	36.2	5.1	14.8	32.3	0.0	0.0	0.0	2.8
Norway	9.7	9.8	3.0	30.3	7.9	33.2	4.4	0.7	0.0	1.0	1.5
Switzerland	19.4	19.1	56.0	58.1	13.2	37.1	0.0	4.6	15.8	2.9	8.0
USA	7.0	6.6	94.0	6.4	6.9	30.8	5.4	22.8	0.6	1.3	1.6
All 16 Markets	12.8	12.7	23.9	29.5	10.8	38.1	13.5	19.3	5.4	7.4	3.2

TABLE 2C

Extent of Industrial Countries' NTBs
by Type of Measure, by Country, 1983

Own imports coverage ratio; all products; all exporters

Industrial Country Market	Quantitative import restriction (1)	Voluntary export restriction (2)	Decreed prices (3)	Tariff- type (4)	Monitoring measures (5)	All NTBs: Union of (1) thru (5) (6)
EEC	11.8	2.2	3.3	1.9	7.8	22.3
Belgium-Lux	12.8	0.8	4.1	1.6	19.0	26.0
Denmark	3.0	2.1	3.3	2.4	4.0	11.7
France	47.2	1.2	2.2	1.3	10.1	57.1
West Germany	1.7	3.9	3.1	1.8	5.1	12.4
Greece	5.4	1.0	3.2	1.6	6.5	13.4
Ireland	2.1	1.4	2.8	2.6	7.3	13.4
Italy	1.8	1.0	3.7	1.1	1.9	6.9
Netherlands	6.6	2.0	4.6	1.9	14.0	25.5
UK	3.5	2.8	3.4	3.4	7.4	14.3
Australia	27.0	0.0	0.7	3.3	4.6	34.1
Austria	2.5	0.2	1.4	0.8	0.6	4.9
Finland	30.7	0.2	0.7	1.0	3.8	34.9
Japan	9.8	0.0	0.0	2.2	0.0	11.9
Norway	5.5	0.0	0.4	0.3	0.0	5.7
Switzerland	11.8	0.0	0.6	0.2	21.6	32.2
USA	1.3	6.8	0.9	0.2	34.9	43.0
All 16 Markets	8.6	3.0	1.7	1.3	14.8	27.1

TABLE 2W

Extent of Industrial Countries' NTBs
by Type of Measure, by Country, 1983

World imports coverage ratio; all exporters

Industrial Country Market	Quantitative import restrictions (1)	Voluntary export restriction (2)	Decreed prices (3)	Tariff- type (4)	Monitoring measures (5)	All NTBs: Union of (1) thru (5) (6)
EEC	6.0	1.8	4.9	1.9	9.6	18.9
Belgium-Lux	4.1	1.5	5.2	1.8	14.4	21.0
Denmark	2.3	1.8	4.8	2.3	6.0	13.3
France	28.3	1.8	5.0	1.4	15.2	44.2
West Germany	2.2	2.1	5.4	2.2	7.4	14.7
Greece	7.2	1.8	4.5	1.9	9.2	19.0
Ireland	1.4	1.4	4.7	1.6	8.0	13.0
Italy	2.1	1.9	5.2	1.4	3.7	10.0
Netherlands	4.3	2.3	5.0	1.9	14.4	21.4
UK	2.5	2.1	4.6	2.2	8.5	13.9
Australia	38.2	0.0	0.7	3.7	3.3	44.4
Austria	4.6	0.2	3.9	1.3	0.7	7.5
Finland	29.0	0.2	2.4	0.8	5.0	34.3
Japan	7.2	0.0	0.0	1.8	0.0	9.0
Norway	6.0	0.0	1.1	0.2	0.0	6.1
Switzerland	10.6	0.0	0.7	0.1	33.2	42.9
USA	1.6	4.9	0.4	0.5	27.7	34.3
All 16 Markets	9.5	1.4	3.4	1.6	9.8	21.8

TABLE 2F

Extent of Industrial Countries' NTBs
by Type of Measure, by Country, 1983

Frequency ratio; all products; all exporters

Industrial Country Market	Quantitative import restriction (1)	Voluntary export restriction (2)	Decreed prices (3)	Tariff- type (4)	Monitoring measures (5)	All NTBs: Union of (1) thru (5) (6)
EEC	4.2	5.0	2.5	1.8	5.4	13.8
Belgium-Lux	4.2	3.9	2.8	1.9	3.8	11.6
Denmark	2.1	5.6	2.4	1.7	2.0	11.4
France	9.6	4.6	2.4	1.8	13.7	24.0
West Germany	2.2	6.4	2.5	2.0	2.6	12.5
Greece	5.0	3.2	2.9	1.4	4.8	13.6
Ireland	2.4	4.4	2.0	1.4	3.7	9.1
Italy	1.5	4.4	2.4	1.9	2.2	9.7
Netherlands	4.3	5.5	2.6	2.0	4.4	13.1
UK	5.0	5.0	2.5	1.7	7.4	13.8
Australia	12.8	0.0	0.1	4.2	1.8	18.3
Austria	2.3	0.3	2.2	1.8	0.1	5.4
Finland	2.4	0.5	0.2	0.6	10.6	13.4
Japan	8.9	0.0	0.1	0.4	0.0	9.3
Norway	9.6	0.0	0.4	0.2	0.1	9.7
Switzerland	8.1	0.0	1.7	0.2	11.0	19.4
USA	0.9	4.8	0.1	0.4	1.2	7.0
All 16 Markets	5.0	3.4	1.7	1.4	4.6	12.8

TABLE 3C

Extent of Industrial Countries MTBs on Imports
from Industrial and Developing Countries

Own imports coverage ratio; all products

Importer	Imports from:			
	Industrial Countries	Developing Countries		
		Total	Major Exporters of Manufactures	Major Borrowers
EEC	18.6	25.4	32.8	25.3
Belgium-Lux	25.7	38.1	61.7	33.1
Denmark	9.5	29.5	37.4	32.7
France	31.3	50.1	30.2	43.0
West Germany	13.7	18.1	29.4	25.9
Greece	26.1	6.2	18.7	4.9
Ireland	13.4	19.6	21.8	25.5
Italy	11.0	7.3	13.3	8.6
Netherlands	25.8	29.3	45.3	37.1
United Kingdom	15.4	23.3	36.0	26.4
Australia	23.6	43.7	39.6	61.1
Austria	4.5	13.8	17.9	24.4
Finland	10.9	38.4	35.2	27.6
Japan	21.4	12.1	21.2	11.3
Norway	4.3	16.8	26.8	14.4
Switzerland	27.2	43.4	36.7	39.9
USA	26.0	54.0	21.3	56.6
All 16 Markets	21.0	34.3	26.5	35.4

TABLE 3W

Extent of Industrial Countries' NTBs on Imports
from Industrial and Developing Countries

World imports coverage ratio; all products

Importer	Imports from:			
	Industrial Countries	Developing Countries		
		Total	Major Exporters of Manufactures	Major Borrowers
EEC	18.6	20.7	25.4	22.7
Belgium-Lux	20.5	22.0	27.8	24.8
Denmark	14.1	20.3	36.5	31.9
France	30.4	41.7	33.7	41.6
West Germany	17.4	15.6	24.3	23.4
Greece	22.8	17.0	25.1	14.1
Ireland	15.9	16.2	17.3	23.2
Italy	9.8	11.6	13.9	12.8
Netherlands	20.8	23.4	30.5	32.5
United Kingdom	16.3	18.1	29.6	20.6
Australia	26.6	52.8	39.1	72.1
Austria	8.6	9.8	14.5	18.6
Finland	14.2	37.0	34.6	22.4
Japan	10.2	10.7	12.9	10.5
Norway	5.3	15.2	22.9	14.4
Switzerland	27.7	67.2	49.2	52.1
USA	17.6	51.7	16.0	55.6
All 16 Markets	17.1	27.0	24.6	29.4

TABLE 3F

Extent of Industrial Countries' NTBs on Imports
from Industrial and Developing Countries

Frequency ratio; all products

Imports from:				
Importer	Industrial Countries	Developing Countries		
		Total	Major Exporters of Manufactures	Major Borrowers
EEC	7.7	20.9	20.7	22.1
Belgium-Lux	5.9	20.0	19.2	22.4
Denmark	4.6	24.6	22.5	26.1
France	17.9	30.0	30.1	31.5
West Germany	5.4	18.4	19.7	19.8
Greece	9.5	17.0	17.3	18.3
Ireland	3.9	22.0	19.9	24.5
Italy	4.6	14.9	14.0	15.9
Netherlands	5.5	21.3	21.1	23.3
United Kingdom	9.0	19.7	20.1	21.7
Australia	17.5	19.7	18.9	21.4
Austria	4.8	6.3	5.9	8.6
Finland	11.9	21.0	20.6	17.4
Japan	8.2	11.4	9.8	11.2
Norway	8.0	18.5	19.2	15.5
Switzerland	17.4	24.8	21.9	26.0
USA	3.9	10.8	9.5	11.5
All 16 Markets	8.8	18.6	18.1	19.4

TABLE 4C

Extent of Industrial Countries' NTBs on Imports
from Developing and Industrial Countries,
by Product Category, 1983

Own imports coverage ratio; developing (above), industrial (below)

	All products	All, less fuels	Fuels	Agricul- ture	Manufac- turing	Textiles	Footwear	Iron & Steel	Electrical Machinery	Vehicles	Rest of manuf.
EEC	25.4 18.6	26.9 18.9	22.3 14.7	26.9 47.7	29.9 15.2	68.0 15.6	9.9 0.6	31.9 51.8	7.0 15.8	8.4 49.9	14.7 9.3
Belgium-Lux	38.1 25.7	45.1 27.1	11.2 9.7	35.1 72.0	54.7 22.5	43.5 30.4	5.6 6.5	40.2 43.4	0.2 21.4	0.1 56.5	58.1 13.5
Denmark	29.5 9.5	35.8 10.9	0.0 0.0	36.3 20.9	36.7 9.8	72.3 11.1	16.3 0.2	34.4 48.5	0.0 5.9	0.5 38.0	5.4 5.0
France	50.1 31.3	28.6 27.4	78.1 78.2	28.1 53.3	33.0 25.0	64.6 21.9	11.3 0.3	35.1 78.1	35.5 42.8	29.0 45.6	21.3 18.3
West Germany	18.1 13.7	23.9 14.5	0.0 0.0	16.6 28.5	30.2 13.3	71.9 8.8	2.9 0.5	32.2 51.6	0.2 8.8	0.0 56.2	3.5 7.2
Greece	6.2 26.1	12.9 26.4	0.0 0.0	20.1 61.8	11.8 22.6	33.5 4.4	41.2 0.1	43.6 50.4	6.9 16.5	41.9 71.9	2.9 10.2
Ireland	19.6 13.4	19.9 13.8	0.0 0.0	21.2 29.1	19.5 12.8	55.5 17.6	10.5 0.0	4.4 19.2	0.0 0.3	0.0 67.9	9.3 6.3
Italy	7.3 11.0	16.2 11.9	0.0 0.0	32.1 47.6	12.0 6.0	49.0 4.4	0.3 0.2	33.8 47.0	0.1 6.9	0.0 16.8	1.0 3.1
Netherlands	29.3 25.8	32.3 27.1	23.9 13.5	38.3 68.8	28.0 15.3	72.4 6.7	8.9 1.7	15.9 35.7	0.0 6.8	0.2 53.3	8.7 11.6
United Kingdom	23.3 15.4	27.4 17.0	0.0 0.0	24.4 44.5	30.4 13.2	78.6 26.0	18.0 0.6	26.8 40.4	5.8 16.7	0.0 46.7	5.0 6.8
Australia	43.7 23.6	27.9 23.4	99.7 48.9	21.6 47.7	28.6 22.7	29.1 28.1	48.5 51.6	42.5 57.8	62.5 46.8	0.0 0.7	22.3 21.7
Austria	13.8 4.5	19.2 4.7	3.6 0.0	40.5 39.9	6.1 2.4	15.1 0.0	0.0 0.0	0.0 0.0	0.0 0.0	1.9 3.0	0.0 3.3
Finland	38.4 10.9	26.9 7.4	99.3 80.8	28.7 32.6	27.5 5.5	63.0 23.5	56.2 72.0	15.8 42.8	0.0 0.0	0.0 0.0	0.6 0.5
Japan	12.1 21.4	17.5 16.9	6.7 52.8	53.3 36.8	4.4 9.7	13.0 11.0	36.3 27.9	0.0 0.0	0.0 0.0	0.0 0.0	1.3 10.6
Norway	16.8 4.3	18.2 4.9	0.0 0.0	15.4 27.0	20.9 3.2	59.5 39.5	20.5 0.1	20.6 0.0	0.0 0.0	43.9 0.2	5.0 0.2
Switzerland	43.4 27.2	34.5 22.4	100.0 87.9	67.3 74.9	19.5 17.4	45.8 60.8	0.0 0.0	7.7 3.8	10.1 28.9	0.0 1.1	3.6 15.1
USA	54.0 26.0	18.9 16.6	99.9 99.8	25.1 23.5	18.6 16.5	64.0 31.1	16.7 0.0	48.9 35.6	5.3 5.2	0.0 34.7	5.4 6.4
All 16 Markets	34.3 21.0	22.5 17.1	51.9 59.5	31.2 40.5	21.3 14.5	57.2 23.3	17.3 3.5	31.4 34.3	6.1 11.8	5.0 31.4	11.0 9.8

TABLE 40

Extent of Industrial Countries' NTBs on Imports
from Developing and Industrial Countries
by Product Category, 1983

World imports coverage ratio; developing (above), industrial (below)

	All products	All, less fuels	Fuels	Agricul- ture	Manufac- turing	Textiles	Footwear	Iron & Steel	Electrical Machinery	Vehicles	Rest of manuf.
EEC	20.7 18.6	23.6 19.4	6.5 13.0	29.3 47.4	23.3 16.3	66.4 16.0	12.7 1.4	32.7 45.5	6.5 11.2	9.1 47.0	7.4 6.5
Belgium-Lux	22.0 20.5	22.1 21.0	22.0 14.0	24.6 55.6	22.9 17.3	51.1 16.6	4.8 2.1	50.6 39.1	0.3 12.0	0.1 58.5	12.0 5.9
Denmark	20.3 14.1	29.6 15.6	0.0 0.0	38.2 43.4	27.8 12.3	64.9 11.1	20.5 1.9	25.3 46.1	0.0 5.1	0.1 38.8	2.3 3.2
France	41.7 30.4	33.8 29.1	58.0 66.0	36.7 56.3	36.0 26.2	71.5 26.3	13.2 1.6	34.7 70.0	34.7 41.4	29.2 43.2	20.6 15.2
West Germany	15.6 17.4	21.9 18.2	0.0 0.0	27.5 41.6	21.2 15.7	70.2 13.4	2.8 1.1	32.2 45.2	0.2 7.2	0.0 51.6	2.8 4.8
Greece	17.0 22.8	26.2 24.1	0.0 0.0	34.9 47.0	25.6 21.2	68.2 14.3	36.5 0.4	37.9 46.5	7.9 16.5	39.7 61.1	10.0 10.7
Ireland	16.2 15.9	16.6 16.9	0.0 0.0	16.4 45.9	20.1 14.3	58.8 15.7	9.2 0.0	17.6 34.3	0.0 0.5	0.0 54.5	4.2 4.5
Italy	11.6 9.8	16.7 10.1	0.0 0.0	35.9 38.3	11.9 6.8	58.6 7.3	0.5 1.2	30.0 42.2	0.1 3.3	0.0 7.6	1.3 2.9
Netherlands	23.4 20.8	24.5 21.4	21.0 10.0	27.5 52.0	24.3 18.2	74.0 16.2	8.0 3.4	15.6 43.4	0.0 4.5	0.1 54.0	9.2 8.0
United Kingdom	18.1 16.3	23.6 18.4	0.0 0.0	21.7 45.6	26.2 15.1	78.0 25.1	15.9 2.4	36.5 44.4	4.2 12.1	0.0 39.2	2.7 3.9
Australia	52.8 26.6	32.6 24.9	96.0 61.0	33.4 29.7	26.5 24.2	26.0 25.5	53.9 52.7	35.3 52.0	58.9 47.7	0.0 0.4	19.1 22.4
Austria	9.8 8.6	16.8 9.2	0.0 0.0	40.1 59.3	3.4 2.4	11.6 0.0	0.0 0.0	0.0 0.0	0.0 0.0	1.3 3.5	0.0 3.2
Finland	37.0 14.2	28.8 12.1	99.0 78.0	35.2 51.6	26.2 7.0	67.2 34.3	65.8 77.0	18.8 43.1	0.0 0.0	0.0 0.0	0.1 0.9
Japan	10.7 10.2	10.5 9.3	11.0 39.0	30.2 35.6	5.4 5.4	14.2 14.0	42.2 33.8	0.0 0.0	0.0 0.0	0.0 0.0	1.9 7.1
Norway	15.2 5.3	17.1 6.8	0.0 0.0	19.1 36.1	19.3 2.1	42.4 23.7	17.3 0.1	8.2 0.0	0.0 0.0	34.6 0.5	7.1 0.2
Switzerland	67.2 27.7	42.4 24.0	100.0 64.0	72.7 78.4	17.9 16.0	40.8 46.9	0.0 0.0	18.3 5.8	8.0 24.7	0.0 0.9	3.6 15.8
USA	51.7 17.6	15.9 10.9	97.0 90.0	14.3 15.1	17.8 10.5	65.7 25.7	19.1 0.0	34.6 36.5	0.1 4.4	0.0 29.0	5.6 3.4
All 16 Markets	27.0 17.1	22.7 16.8	36.9 20.6	30.5 46.1	20.5 13.2	55.5 20.5	21.5 10.3	21.5 33.7	6.6 11.3	7.9 27.4	7.1 7.2

TABLE 4f

Extent of Industrial Countries' NTBs on Imports
from Developing and Industrial Countries
by Product Category, 1983

Frequency ratio; developing (above), industrial (below)

	All products	All, less fuels	Fuels	Agricul- ture	Manu- facturing	Textiles	Footwear	Iron & Steel	Electrical Machinery	Vehicles	Rest of manuf.
EEC	20.9 7.7	20.9 7.6	16.1 11.4	27.2 32.6	20.0 5.7	64.7 16.6	5.0 1.7	17.0 22.6	6.1 4.3	8.1 9.8	2.5 1.8
Belgium-Lux	20.0 5.9	19.9 5.7	45.8 37.7	27.4 33.9	18.3 3.4	52.3 7.7	7.1 2.5	9.5 17.6	0.7 0.3	0.9 3.1	4.5 1.6
Denmark	24.6 4.6	24.6 4.6	0.0 0.0	26.7 30.0	24.4 2.6	65.5 6.4	7.3 0.9	8.7 15.7	0.2 0.4	1.2 2.3	1.5 0.7
France	30.0 17.9	30.0 17.9	29.5 17.5	37.3 45.1	28.9 15.7	70.4 34.2	3.2 1.7	50.1 57.6	36.3 27.4	38.3 40.4	7.1 5.3
West Germany	18.4 5.4	18.5 5.4	0.0 0.0	21.7 28.5	18.2 3.3	59.5 10.2	3.6 1.7	15.2 17.4	0.1 0.3	0.0 1.9	0.9 0.8
Greece	17.0 9.5	17.1 9.5	0.0 0.0	26.3 32.0	16.1 8.1	60.2 12.1	11.1 4.3	17.5 21.7	8.3 7.1	17.0 20.5	6.6 5.9
Ireland	22.0 3.9	22.1 3.9	0.0 0.0	35.3 33.2	20.6 2.6	61.7 7.8	5.2 0.0	3.9 9.0	0.0 0.4	0.0 6.0	1.8 1.2
Italy	14.9 4.6	15.0 4.6	0.0 0.0	21.2 28.9	14.4 3.2	59.2 8.3	4.0 1.6	13.1 20.5	0.1 0.6	0.0 4.8	0.8 0.9
Netherlands	21.3 5.5	21.1 5.3	58.1 37.1	28.5 31.9	19.1 2.9	62.8 5.8	5.0 2.4	7.4 16.3	0.0 0.2	0.6 2.9	2.3 1.4
United Kingdom	19.7 9.0	19.8 9.0	0.0 0.0	25.2 30.2	19.1 7.3	76.9 36.4	5.7 1.3	9.5 18.5	1.2 0.8	0.0 3.2	0.6 0.7
Australia	19.7 17.5	19.5 17.3	67.5 50.6	19.6 22.8	19.5 17.0	27.2 25.0	40.3 46.2	12.6 15.2	26.7 24.5	0.8 7.4	16.5 14.8
Austria	6.3 4.8	6.3 4.8	3.8 0.4	22.3 36.0	1.9 0.7	6.3 0.0	0.0 0.0	0.0 0.0	0.0 0.0	12.9 9.1	0.4 0.5
Finland	21.0 11.9	21.0 11.7	50.0 48.9	27.3 30.2	20.1 10.5	55.1 32.4	59.4 56.2	15.8 40.3	0.0 0.0	0.0 0.0	1.0 0.5
Japan	11.4 8.2	11.3 8.2	16.0 5.7	39.4 32.5	4.1 5.5	9.8 18.1	28.3 34.6	0.0 0.0	0.0 0.0	0.0 0.0	2.3 3.0
Norway	18.5 8.0	18.6 8.1	0.0 0.0	28.4 30.2	17.2 6.3	41.3 29.9	13.0 1.6	13.3 0.0	0.0 0.0	11.6 0.2	5.7 0.9
Switzerland	24.8 17.4	24.7 17.2	71.4 50.7	51.0 60.5	18.5 11.5	46.2 32.8	0.0 0.0	13.1 3.8	21.5 13.8	0.0 3.9	8.8 7.4
USA	10.8 3.9	10.3 3.6	95.6 91.4	5.7 7.2	11.8 3.2	52.1 10.1	9.5 0.9	13.7 26.1	0.4 0.9	0.0 2.4	2.4 1.0
All 16 Markets	18.6 8.8	18.5 8.7	29.5 20.5	25.6 31.9	17.4 6.7	55.8 20.1	10.3 11.5	14.6 18.7	6.1 4.3	6.6 7.2	3.6 2.9

TABLE 5C

Extent of Industrial Countries' NTBs on Agricultural Products
on Imports from Developing and Industrial Countries by Type of Measure, 1983

Own imports coverage ratio; developing (above), industrial (below)

	Quantitative import restriction (1)	Voluntary export restraints (2)	Decreed prices (3)	Tariff- type (4)	Monitoring measures (5)	All NTBs: Union of (1) thru (5) (6)
EEC	14.1 21.3	0.0 0.0	13.4 27.2	6.6 8.0	2.7 2.2	26.9 47.7
Belgium-Lux	15.7 28.9	0.0 0.0	23.5 42.6	5.3 5.4	0.1 0.0	35.1 72.0
Denmark	33.6 8.3	0.2 0.0	7.9 12.4	1.4 10.8	0.1 0.1	36.3 20.9
France	15.1 19.7	0.0 0.0	10.0 23.0	5.4 11.2	7.7 15.3	28.1 53.3
West Germany	7.4 12.2	0.0 0.0	9.0 18.7	7.3 6.2	1.0 0.1	16.6 28.5
Greece	13.8 33.5	0.0 0.0	6.2 27.7	6.9 11.6	5.1 2.1	20.1 61.8
Ireland	17.0 17.4	0.0 0.0	7.4 19.8	2.7 2.1	0.5 0.2	21.2 29.1
Italy	17.9 5.1	0.0 0.0	20.9 45.8	6.6 4.0	4.0 0.1	32.1 47.6
Netherlands	16.4 50.2	0.0 0.0	21.2 21.1	6.2 2.9	0.7 0.1	38.3 68.8
United Kingdom	15.0 19.5	0.2 0.0	10.8 29.0	8.3 14.4	2.2 0.3	24.4 44.5
Australia	21.4 44.8	0.0 0.0	0.2 1.7	0.0 0.0	0.0 3.0	21.6 47.7
Austria	37.8 14.3	0.0 1.2	3.0 24.6	1.2 9.1	0.0 0.0	40.5 39.9
Finland	18.3 31.2	0.0 0.0	0.0 15.3	17.3 10.3	0.0 0.0	28.7 32.6
Japan	46.0 31.4	0.0 0.0	0.0 0.1	7.9 6.2	0.0 0.0	53.3 36.8
Norway	14.4 24.9	0.0 0.0	5.2 5.0	5.6 3.6	0.2 0.5	15.4 27.0
Switzerland	19.4 47.0	0.0 0.0	0.2 8.8	0.9 2.6	50.3 26.7	67.3 74.9
USA	18.1 8.7	0.0 0.0	15.2 4.1	3.8 2.2	3.3 13.0	25.1 23.5
All 16 Markets	20.8 23.5	0.0 0.0	11.1 13.0	5.9 5.9	3.1 4.8	31.2 40.5

TABLE SW

Extent of Industrial Countries' NTBs on Agricultural Products
on Imports from Developing and Industrial Countries, by Type of Measure, 1983

World imports coverage ratio; developing (above), industrial (below)

	Quantitative import restriction (1)	Voluntary export restraint (2)	Decreed prices (3)	Tariff- type (4)	Monitoring measures (5)	All NTBs: Union of (1) thru (5) (6)
EEC	16.0 15.5	0.2 0.0	15.2 34.1	8.1 8.5	3.4 2.1	29.3 47.4
Belgium-Lux	18.2 23.4	0.1 0.0	13.7 36.7	6.9 7.5	0.7 0.1	24.6 55.6
Denmark	21.3 17.4	0.6 0.0	16.9 30.9	4.9 17.3	1.4 0.1	38.2 43.4
France	18.1 14.4	0.0 0.0	14.5 33.7	5.4 6.1	14.0 14.3	36.7 56.3
West Germany	16.2 9.7	0.0 0.0	17.9 36.6	14.7 7.9	1.0 0.1	27.5 41.6
Greece	14.2 20.8	0.0 0.0	16.4 26.4	10.6 6.5	5.4 3.1	34.9 47.0
Ireland	6.6 7.0	0.3 0.0	6.9 40.6	6.1 3.9	1.8 0.1	16.4 45.9
Italy	20.7 7.1	0.0 0.0	23.8 35.3	8.8 5.5	2.8 0.1	35.9 38.3
Netherlands	17.2 23.0	0.2 0.0	13.0 34.9	8.2 5.4	0.8 0.3	27.5 52.0
United Kingdom	10.1 14.5	0.5 0.0	12.3 33.5	7.1 13.9	2.1 0.1	21.7 45.6
Australia	32.9 28.4	0.0 0.0	0.5 0.9	0.0 0.0	0.0 1.4	33.4 29.7
Austria	34.5 39.4	0.0 0.8	11.7 42.2	0.9 11.5	0.0 0.2	40.1 59.3
Finland	26.8 50.6	0.0 0.0	0.9 29.6	14.0 5.3	0.0 0.0	35.2 51.6
Japan	25.4 31.9	0.0 0.0	0.8 0.5	5.3 4.7	0.0 0.0	30.2 35.6
Norway	18.6 34.7	0.0 0.0	3.9 11.0	2.3 1.2	0.1 0.1	19.1 36.1
Switzerland	28.2 45.9	0.0 0.0	0.1 8.7	0.4 1.4	48.3 35.5	72.7 78.4
USA	7.1 9.5	0.0 0.1	5.0 0.8	4.6 4.1	2.5 4.2	14.3 15.1
All 16 Markets	18.6 25.4	0.1 0.1	10.7 23.8	6.6 6.2	4.4 4.3	30.5 46.1

TABLE 5F

Extent of Industrial Countries' NTBs on Agricultural Products
on Imports from Developing and Industrial Countries by Type of Measure, 1983

Frequency ratio; developing (above), industrial (below)

	Quantitative import restriction (1)	Voluntary export restraints (2)	Decreed prices (3)	Tariff- type (4)	Monitoring measures (5)	All NTBs: Union of (1) thru (5) (6)
EEC	12.7 13.4	0.0 0.0	12.9 18.8	7.5 7.9	3.6 3.5	27.2 32.6
Belgium-Lux	18.9 21.4	0.1 0.0	13.5 19.9	6.3 7.3	0.3 0.2	27.4 33.9
Denmark	14.7 10.8	0.5 0.0	10.8 19.2	7.8 7.7	0.6 0.2	26.7 30.0
France	12.9 15.6	0.1 0.1	11.9 17.2	7.0 8.1	18.4 21.1	37.3 45.1
West Germany	8.8 9.5	0.0 0.0	11.6 18.3	7.8 8.2	0.3 0.1	21.7 28.5
Greece	14.6 12.7	0.0 0.0	10.8 19.9	6.9 6.0	4.0 3.5	26.3 32.0
Ireland	22.5 15.3	0.2 0.0	18.8 23.4	9.9 5.9	1.9 0.6	35.3 33.2
Italy	7.3 8.2	0.0 0.0	11.8 20.7	7.1 7.2	1.5 0.6	21.2 28.9
Netherlands	17.1 19.3	0.0 0.0	12.0 16.0	8.6 9.5	0.6 0.5	28.5 31.9
United Kingdom	10.2 10.5	0.1 0.0	16.4 19.9	7.4 7.8	0.5 0.3	25.2 30.2
Australia	19.5 21.6	0.0 0.0	0.1 0.2	0.0 0.0	0.0 1.6	19.6 22.8
Austria	10.6 15.6	0.6 1.2	9.2 17.4	6.0 12.2	0.0 0.0	22.3 36.0
Finland	21.0 28.0	0.0 0.0	0.5 3.9	11.2 6.9	0.0 0.0	27.3 30.2
Japan	38.5 30.1	0.0 0.0	0.0 1.2	1.2 1.9	0.0 0.0	39.4 32.5
Norway	26.8 29.0	0.0 0.0	2.8 5.6	2.4 2.5	1.3 0.6	28.4 30.2
Switzerland	27.6 26.5	0.0 0.0	5.2 17.4	2.1 0.9	22.6 25.2	51.0 60.5
USA	2.7 4.9	0.0 0.0	0.7 0.3	2.6 2.5	0.4 0.7	5.7 7.2
All 16 Markets	14.5 17.5	0.1 0.1	8.7 12.5	5.7 5.7	3.3 4.2	25.6 31.9

TABLE 6C

Extent of Industrial Countries' NTBs on Manufactured Products
on Imports from Developing and Industrial Countries, by Type of Measure, 1983

Own imports coverage ratio; developing (above), industrial (below)

	Quantitative import restriction (1)	Voluntary export restraints (2)	Decreed prices (3)	Tariff- type (4)	Monitoring Measures (5)	All NTBs: Union of (1) thru (5) (6)
EEC	10.7 1.9	17.0 0.1	0.9 2.1	2.0 1.7	14.7 12.9	29.9 15.2
Belgium-Lux	48.3 5.5	4.7 0.0	0.5 1.6	1.8 2.3	50.8 20.0	54.7 22.5
Denmark	0.8 0.0	32.5 0.0	1.4 3.0	2.1 2.8	0.5 7.0	36.7 9.8
France	15.5 6.3	10.4 0.0	0.5 1.7	1.6 1.3	21.4 21.0	33.0 25.0
West Germany	2.1 0.1	25.8 0.0	1.0 2.9	1.6 2.2	1.8 11.0	30.2 13.3
Greece	3.2 8.2	6.0 0.1	1.0 2.5	1.3 2.0	1.7 16.9	11.8 22.6
Ireland	3.7 0.0	13.5 0.2	0.8 1.7	5.1 2.9	3.3 3.3	19.5 12.8
Italy	2.5 0.7	7.7 0.0	0.9 1.8	2.5 0.8	1.4 5.2	12.0 6.0
Netherlands	3.9 0.7	22.4 0.0	0.9 1.6	2.3 2.6	14.9 12.5	28.0 15.3
United Kingdom	10.0 0.5	22.0 0.1	1.3 1.7	2.6 0.9	22.3 11.8	30.4 13.2
Australia	14.9 15.0	0.0 0.0	0.7 0.9	8.1 3.1	6.0 5.7	28.6 22.7
Austria	0.0 1.0	6.1 0.0	0.0 0.0	0.0 0.4	0.0 1.0	6.1 2.4
Finland	0.0 0.3	6.5 0.0	0.0 0.0	0.0 0.0	25.4 5.2	27.5 5.5
Japan	4.2 9.4	0.0 0.0	0.0 0.0	0.2 0.3	0.0 0.0	4.4 9.7
Norway	20.9 3.2	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	20.9 3.2
Switzerland	2.2 10.5	0.0 0.0	0.0 0.0	0.0 0.0	18.2 8.4	19.5 17.4
USA	0.1 0.4	13.0 11.1	0.5 0.0	0.0 0.0	5.6 5.6	18.6 16.5
All 16 Countries	5.4 3.2	12.1 3.9	0.6 0.8	1.0 0.8	8.6 7.5	21.3 14.5

TABLE 6W

Extent of Industrial Countries' NTBs on Manufactured Products
on Imports from Developing and Industrial Countries, by Type of Measure, 1983

World imports coverage ratio; developing (above), industrial (below)

	Quantitative import restriction (1)	Voluntary export restraint (2)	Decreed prices (3)	Tariff- type (4)	Monitoring measures (5)	All NTBs: Union of (1) thru (5) (6)
EEC	6.2 2.0	14.8 0.0	1.3 2.9	1.7 1.3	10.2 14.0	23.3 16.3
Belgium-Lux	7.0 1.0	13.0 0.0	1.8 2.9	1.7 1.4	14.4 15.7	22.9 17.3
Denmark	0.8 0.0	24.0 0.0	1.5 3.2	1.5 1.5	0.4 10.7	27.8 12.3
France	20.1 5.7	12.2 0.0	0.7 3.0	1.2 1.2	20.5 21.9	36.0 26.2
West Germany	1.9 0.2	16.7 0.0	1.4 3.1	1.4 1.4	2.0 14.1	21.2 15.7
Greece	5.9 8.5	12.6 0.0	1.5 2.1	2.6 1.3	10.4 15.0	25.6 21.2
Ireland	5.7 0.2	16.1 0.2	0.9 2.8	2.4 1.7	10.2 12.1	20.1 14.3
Italy	0.7 0.7	9.5 0.0	1.0 2.8	1.1 0.8	1.5 6.0	11.9 6.0
Netherlands	5.5 1.8	17.1 0.0	1.1 3.1	1.6 1.6	13.5 16.4	24.3 18.2
United Kingdom	8.6 0.4	18.8 0.1	2.1 3.3	1.9 0.7	19.2 14.1	26.2 15.1
Australia	12.0 15.4	0.0 0.0	0.9 1.0	12.1 4.8	3.4 5.8	26.5 24.2
Austria	0.0 0.6	3.4 0.0	0.0 0.1	0.0 0.5	0.0 1.3	3.4 2.4
Finland	0.0 0.6	5.7 0.0	0.0 0.0	0.0 0.0	25.2 6.5	26.2 7.0
Japan	5.3 5.3	0.0 0.0	0.0 0.0	0.1 0.1	0.0 0.0	5.4 5.4
Norway	19.3 2.1	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	19.3 2.1
Switzerland	2.3 10.0	0.0 0.0	0.0 0.0	0.0 0.0	16.1 6.9	17.9 16.0
USA	2.0 0.7	12.3 7.1	0.1 0	0.0 0.0	3.8 3.4	17.8 10.5
All 16 Markets	6.0 3.4	10.9 0.4	0.9 1.6	1.9 1.0	8.2 9.1	20.5 13.2

TABLE 6F

Extent of Industrial Countries' NTBs on Manufactured Products
on Imports from Developing and Industrial Countries, by Type of Measure, 1983

Frequency ratio; developing (above), industrial (below)

	Quantitative import restriction (1)	Voluntary export restraints (2)	Decreed prices (3)	Tariff- type (4)	Monitorin measure (5)	All NTBs: Union of (1) thru (5) (6)
EEC	4.7 1.4	14.1 0.1	0.4 0.9	1.3 1.1	6.8 3.5	20.0 5.7
Belgium-Lux	3.1 0.6	13.9 0.1	0.4 1.0	2.0 1.1	6.6 2.0	18.3 3.4
Denmark	0.6 0.0	22.2 0.1	0.3 0.8	1.3 1.1	0.2 1.3	24.4 2.6
France	14.4 4.4	12.0 0.2	0.3 0.9	1.2 1.2	15.1 10.6	28.9 15.7
West Germany	1.4 0.4	15.3 0.1	0.5 1.0	1.3 1.2	1.0 1.6	18.2 3.3
Greece	3.8 3.8	8.2 0.0	1.1 1.2	1.4 0.8	4.4 3.6	16.1 8.1
Ireland	4.9 0.1	18.1 0.1	0.4 0.7	1.5 0.9	9.5 1.3	20.6 2.6
Italy	0.8 0.2	12.0 0.1	0.5 1.1	1.8 1.3	1.0 1.7	14.4 3.2
Netherlands	1.9 0.5	16.6 0.1	0.3 0.9	1.0 0.8	6.6 1.8	19.1 2.9
United Kingdom	6.7 2.7	12.7 0.1	0.3 0.9	1.1 1.2	12.3 5.2	19.1 7.3
Australia	12.1 11.4	0.0 0.0	0.1 0.1	6.4 4.1	1.6 1.9	19.5 17.0
Austria	0.3 0.2	1.4 0.0	0.0 0.1	0.2 0.3	0.0 0.1	1.9 0.7
Finland	0.0 0.1	4.2 0.0	0.0 0.0	0.0 0.0	19.4 10.3	20.1 10.5
Japan	4.0 5.5	0.0 0.0	0.0 0.0	0.1 0.0	0.0 0.0	4.1 5.5
Norway	17.2 6.3	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	17.2 6.3
Switzerland	6.3 4.6	0.0 0.0	0.0 0.0	0.0 0.0	12.9 7.5	18.5 11.5
USA	0.2 0.6	10.6 2.2	0.0 0.0	0.0 0.0	1.1 0.8	11.8 3.2
All 16 Markets	4.7 2.6	10.6 0.2	0.3 0.5	1.2 0.8	5.6 3.3	17.4 6.7

TABLE 7

Change in the Extent of Industrial Countries' NTBs
for All Products, All NTB Types

Percentage Point Increase, 1981-1983

Exporters Markets	Own Imports Coverage Ratio			World Imports Coverage Ratio			Frequency Ratio		
	all	industrial	developing	all	industrial	developing	all	industrial	developing
EEC	2.5	4.5	1.2	2.8	4.1	1.3	1.5	1.6	1.5
Belgium-Luxembourg	1.9	3.5	0.8	2.1	3.0	0.8	1.5	1.5	1.4
Denmark	2.9	3.8	1.0	2.7	3.7	0.7	1.8	1.5	1.4
France	2.7	5.1	2.1	2.8	3.8	2.3	2.0	1.9	2.3
West Germany	2.8	5.5	0.8	2.6	3.9	0.8	1.5	1.6	1.3
Greece	4.0	10.2	0.9	5.9	8.7	3.4	2.9	3.0	3.3
Ireland	3.8	4.5	2.3	2.8	4.3	0.7	1.1	1.2	1.1
Italy	1.0	2.6	0.7	1.5	2.3	0.6	1.6	1.6	1.7
Netherlands	2.0	4.3	0.8	2.6	4.2	1.0	1.2	1.2	1.0
United Kingdom	3.6	4.2	1.4	2.4	3.1	0.8	1.2	1.5	0.8
Australia	2.5	2.7	2.7	2.8	3.7	2.6	0.3	0.4	0.2
Austria	0.1	0.0	2.1	0.2	0.0	1.1	0.1	0.0	1.0
Finland	-3.8	-5.5	-1.4	-3.1	-4.2	-2.0	-11.5	-11.5	-10.6
Japan	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1
Norway	-0.3	-0.4	1.0	-0.2	-0.3	1.7	0.1	-0.1	1.7
Switzerland	2.5	2.7	1.2	2.5	3.1	1.6	1.4	0.9	2.5
USA	1.3	1.6	1.4	0.5	0.6	0.4	0.1	0.1	0.1
All 16 Markets	1.5	2.2	1.1	1.8	2.3	1.1	0.3	0.1	0.9

Table 8:

Balassa and Balassa's Results for Manufactures

Own imports coverage ratio

		Nogués Olechowski and Winters		Balassa and Balassa
		(a)	(b)	
USA	1981	16.4	11.7	11.7
	1983	17.1	11.9	12.7
Japan	1981	7.6	7.3	7.2
	1983	7.5	7.4	7.2
EEC	1981	13.9	8.1	10.8
	1983	18.7	8.5 (c)	14.9

Memorandum

data-level	tariff-line	4-digit SITC(R)
NTB year	1983	1983
trade year	1981	1980
NTB definition (a)	(1)-(5) (1)-(2)	(1)-(2) plus standards (b)

(a) In terms of groups defined in the text

(b) "The restrictive application of standards"

(c) At least part of the reason for this figure being below the Balassas' is the treatment of voluntary export restrictions on the EEC's vehicle imports from Japan. The Balassas include these, but in general we do not, because the VERs have never been officially reported by national sources or GATT, and thus are excluded from the UNCTAD data. In fact the EEC uses surveillance to "implicitly enforce" unofficial (in Britain's case explicitly private) VERs. If we include EEC surveillance on vehicles the figure comparable to the Balassas' rises to 11.1. Of course the surveillance practices are included in column (a) of this table.

Table 9:

Cline's Results for Manufactures

Own imports coverage ratios

<u>Importer</u>	<u>Exporter</u>	Nogués Olechowski and Winters		Cline
		(a)	(b)	
USA	all	16.4	12.2	45.1
	developing	20.2	17.5	43.0
W. Germany	all	13.4	10.4	27.5
	developing	28.5	28.1	30.8
France	all	21.8	9.5	40.4
	developing	28.3	17.9	29.4
Italy	all	6.7	5.9	32.4
	developing	10.6	10.4	29.4
U.K.	all	9.4	5.6	25.7
	developing	27.9	25.1	23.8
Japan	all	7.6	7.3	22.1
	developing	4.4	4.2	27.5

Memorandum:

data-level	tariff-line	4-digit ISIC
NTB year	1981	mid-1970's to 1981
Trade year	1981	1981
NTB definition (a)	(1)-(5) (1)-(3)	(1)-(3)

(a) In terms of groups defined in the text

Table 10:

Jones' Results for the UK

Own imports coverage ratio

Nogués
Olechowski
and Winters

Jones

	<u>Category of imports</u>	<u>Coverage ratio</u>		<u>Category of imports</u>	<u>Coverage ratio</u>
of:	manufactures	5.6	of:	industrial products	6.0
	agricultural	34.6		agricultural	44.0
from:	developing countries	20.4	from:	developing countries	14.8
	industrial countries	6.6		other developed countries	7.9

Memorandum:

data-level	tariff-line	tariff-line
NTB year	19811980	
trade year	1981	1980
NTB definition (a)	(111) (414)	

(a) In terms of groups defined in the text.

Table 11
Industrial Countries' Trade, 1981

(A) All Products

in US \$ billion

	Total Imports	Imports from Developing Countries (b)	Imports from Industrial Countries (b)
EEC (a)			
Belgium-Luxembourg	24.7	2.1	10.2
Denmark	9.1	1.4	3.9
France	62.6	18.8	21.5
Germany, Fed. Rep.	87.3	23.4	34.4
Greece	4.5	1.5	1.4
Ireland	2.6	0.4	1.8
Italy	53.9	20.3	14.8
Netherlands	31.8	9.1	11.2
United Kingdom	64.4	13.9	28.8
Australia	20.9	3.7	14.5
Austria	19.0	1.6	13.7
Finland	14.3	1.0	7.1
Japan	141.7	48.4	48.8
Norway	15.6	1.0	11.2
Switzerland	30.5	2.4	25.5
USA	258.6	97.7	135.2
Total	841.5	251.7	384.0

(B) Product Structure

in percentage

	Total Imports	Imports from Developing Countries (b)	Imports from Industrial Countries (b)
All	100.0	100.0	100.0
Fuels	34.8	40.1	9.6
Agricultural	10.2	16.3	10.8
Manufactures	52.1	38.9	76.9
Textiles	4.8	9.4	3.9
Footwear	0.7	1.4	0.6
Iron & Steel	2.8	1.3	4.6
Electrical Machinery	4.6	4.8	6.3
Vehicles	5.6	0.6	11.2
Other Manufactures	33.6	21.4	50.3

(a) Excluding intra-community trade.

(b) For definition of country and product grouping see Annex 2.

ANNEX B

Additional Tables

The World Bank paper on Trade, Protection and Development, prepared as background for its Development Committee Meetings in April 1985, uses information in part based on the sources and methods developed in this paper. However, it considers a narrower product grouping (all products less fuels) and in the major part of its analysis a narrower selection of NTBs (group 1 to 4 above - tariff-type measures, decreed prices, quantitative restrictions and VERs). For the sake of comparison, this annex presents certain of our tables prepared on this basis. They are numbered according to the equivalent tables in the text and the previous annex. Since the original figures were prepared for the Development Committee slight revisions have been made to the results on the NTB coverage of imports from industrial countries. These are incorporated into this annex. Thus in a few cases the figures reported here differ slightly from those circulated earlier.

List of Tables

C	The Prevalence of NTB's 1983 - Three Indices
1W	NTMs by Product Category, 1983
2W	Types of NTM, 1983
3W	The Differential Impact of NTMs
7	Changes in the Prevalence of NTMs, 1981-83

ANNEX B Table C:

THE PREVALENCE OF NTMs, 1983 - THREE INDICES
all products less fuel; all countries

Industrial Country Markets	Coverage Ratio	World Trade Weighted Average	Frequency Ratio
EEC	15.3	13.9	11.7
Belgium-Luxembourg	27.2	13.8	10.7
Denmark	13.0	12.7	10.9
France	14.7	17.2	15.0
West Germany	13.8	13.1	12.1
Greece	17.5	19.0	11.4
Ireland	8.8	10.8	8.5
Italy	13.1	11.7	9.2
Netherlands	23.3	15.1	12.2
United Kingdom	12.5	12.2	11.7
Australia	20.2	23.7	16.5
Austria	5.2	9.1	5.2
Finland	3.8	7.8	2.9
Japan	16.9	9.6	9.3
Norway	5.8	7.4	9.7
Switzerland	14.3	15.5	9.9
USA	12.1	9.2	5.9
All Industrial Country Markets	13.9	13.0	10.3

ANNEX B Table 1W

NTMs BY PRODUCT CATEGORY, 1983
All countries; World trade weighted average

Industrial Country Markets	All Products	All, less Fuels	Agri- culture	Manu- facturing	Textiles	Footwear	Iron & Steel	Electrical Machinery	Vehicles	Rest of Manuf.
EEC	12.7	13.9	37.8	10.1	42.4	10.2	37.9	4.2	3.9	3.8
Belgium-Lux	10.3	13.8	41.5	9.1	35.5	9.8	37.8	0.7	0.2	4.7
Denmark	9.3	12.7	40.8	7.9	38.7	16.2	36.6	1.2	0.0	1.9
France	33.9	17.2	36.6	14.1	49.2	7.4	35.8	22.1	0.7	7.7
West Germany	9.7	13.1	35.6	9.3	47.9	8.9	40.6	0.3	0.0	2.6
Greece	14.0	19.0	40.4	15.8	39.8	18.7	44.7	10.5	28.4	6.5
Ireland	7.9	10.8	32.3	7.8	31.7	8.5	36.7	0.5	1.1	2.7
Italy	8.8	11.7	36.3	7.7	41.5	0.2	37.0	2.1	4.3	1.1
Netherlands	11.1	15.1	41.4	10.6	48.7	11.0	36.9	0.6	0.1	5.0
UK	9.0	12.2	34.5	8.4	48.0	10.8	34.7	0.2	0.0	2.0
Australia	42.3	23.7	30.8	21.4	22.8	54.4	46.4	41.7	0.4	18.5
Austria	6.7	9.1	53.5	1.2	2.1	0.1	0.0	0.0	3.5	1.0
Finland	29.5	7.8	48.7	0.9	4.5	0.0	0.0	0.0	0.0	0.8
Japan	9.0	9.6	33.8	5.4	14.0	39.6	0.0	0.0	0.0	6.0
Norway	6.1	7.4	32.4	2.9	27.2	4.9	0.1	0.0	0.5	0.5
Switzerland	11.4	15.5	49.2	9.5	0.0	0.0	3.0	23.8	0.9	11.7
USA	6.8	9.2	11.5	9.1	47.8	0.1	21.8	0.0	28.0	0.4
All Industrial Country Markets	14.1	13.0	37.4	8.8	31.2	11.9	25.8	6.4	4.2	4.5

ANNEX B Table 2W

TYPES OF NTM, 1983

All products less fuels; all countries; world trade weighted average

Industrial Country Markets	Price Measures		Quantity Measures		Sum of Columns (a) (1) to (4)	Other border import control measures (b)	Sum of Columns (a) (5) and (6)
	Tariff-type	decreed prices	Quantitative import restriction	Voluntary export restriction			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
EEC	2.5	6.7	5.0	2.5	13.9	11.6	21.0
Belgium-Lux	2.4	6.9	5.5	2.0	13.8	13.1	22.0
Denmark	3.1	6.6	3.1	2.4	12.7	8.1	18.0
France	1.9	6.8	9.7	2.4	17.2	20.6	31.2
West Germany	2.9	7.3	3.0	2.8	13.1	10.0	19.9
Greece	2.6	6.2	9.8	2.4	19.0	12.4	25.8
Ireland	2.2	6.4	1.9	2.0	10.8	10.9	17.8
Italy	1.9	6.9	2.9	2.5	11.7	4.9	13.3
Netherlands	2.6	6.7	5.8	3.1	15.1	13.0	22.6
UK	2.9	6.1	3.4	2.8	12.2	11.4	18.8
Australia	5.1	0.9	18.2	0.0	23.7	4.5	26.6
Austria	1.7	5.3	6.2	0.2	9.1	1.0	10.1
Finland	1.1	3.3	7.1	0.3	7.8	6.8	14.3
Japan	0.9	.0	8.9	0.0	9.6	0.0	9.6
Norway	0.2	1.5	7.2	0.0	7.4	.0	7.4
Switzerland	0.2	1.0	14.4	0.0	15.5	12.9	26.0
USA	0.7	0.5	2.2	6.7	9.2	3.4	12.3
All Industrial Country Markets	2.0	4.5	6.8	1.8	13.0	8.3	18.5

(a) The figures in this column are less than the sum of those in columns reported because some trade flows face several barriers.

(b) Countervailing and anti-dumping duties, price surveillance, price investigation, quantity surveillance and automatic licensing.

ANNEX B Table 3W
THE DIFFERENTIAL IMPACT OF NTMs
All products less fuels; World Imports coverage ratio

Industrial Country Markets	All Countries	Industrial Countries	Developing Countries		
			All	Major Exporters of Manufactures	Major Borrowers
EEC	13.9	10.2	21.8	23.8	24.9
Belgium-Luxembourg	13.8	9.9	21.8	28.2	23.3
Denmark	12.7	9.0	29.5	36.5	37.5
France	17.2	13.1	25.5	24.6	24.5
West Germany	13.1	8.6	21.4	24.7	25.3
Greece	19.0	15.5	22.4	22.6	23.5
Ireland	10.8	8.2	16.5	17.3	23.4
Italy	11.7	7.8	16.4	13.9	16.7
Netherlands	15.1	10.8	24.0	28.3	33.4
United Kingdom	12.2	9.1	22.2	28.3	27.9
Australia	23.7	21.8	30.4	29.7	31.0
Austria	9.1	8.0	16.8	14.6	20.2
Finland	7.8	6.6	16.8	15.2	15.1
Japan	9.6	9.3	10.5	11.6	9.6
Norway	7.4	6.7	17.1	23.3	16.5
Switzerland	15.5	15.6	12.2	19.9	27.7
USA	9.2	7.7	12.9	10.7	14.5
All Industrial Country Markets	13.0	10.5	19.8	21.1	21.9

ANNEX B Table 7

CHANGES IN THE PREVALENCE OF NTMs, 1981-83

All products less fuels; changes in percentage points

Industrial Country Markets	Own imports coverage ratio			World imports coverage ratio			Frequency ratio		
	all countries	industrial countries	developing countries	all countries	industrial countries	developing countries	all countries	industrial countries	developing countries
EEC									
Belgium-Luxembourg	1.9	2.1	1.0	1.6	1.5	1.1	1.4	1.2	1.4
Denmark	2.9	3.1	1.1	1.6	1.6	1.2	1.4	1.2	1.3
France	2.6	2.1	3.2	2.5	2.1	3.5	1.9	1.9	2.3
West Germany	2.0	2.3	1.0	1.8	1.6	1.0	1.3	1.3	1.2
Greece	2.2	2.4	1.6	2.4	1.8	3.0	1.4	1.3	1.5
Ireland	3.7	3.8	2.9	1.9	2.0	1.4	1.1	1.0	1.2
Italy	1.8	1.4	2.2	1.4	1.3	1.6	1.5	1.4	1.7
Netherlands	2.0	2.3	1.1	1.9	1.9	1.3	1.0	1.0	1.0
United Kingdom	2.7	1.3	1.8	1.4	0.8	1.1	1.0	1.2	0.9
Australia	1.4	1.7	-0.2	3.0	3.2	2.2	-0.8	-0.9	-0.7
Austria	0.2	0.0	3.2	0.1	0.0	1.8	0.2	0.0	1.0
Finland	-9.0	-8.9	-7.5	-8.3	-7.9	-8.4	-17.9	-17.4	-18.1
Japan	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1
Norway	0.3	-0.5	1.1	-0.2	-0.4	1.9	0.1	-0.1	1.6
Switzerland	2.4	2.6	0.6	1.9	2.1	0.4	1.1	0.8	2.2
USA	1.0	1.1	0.4	0.3	0.5	0.0	0.6	0.6	0.5