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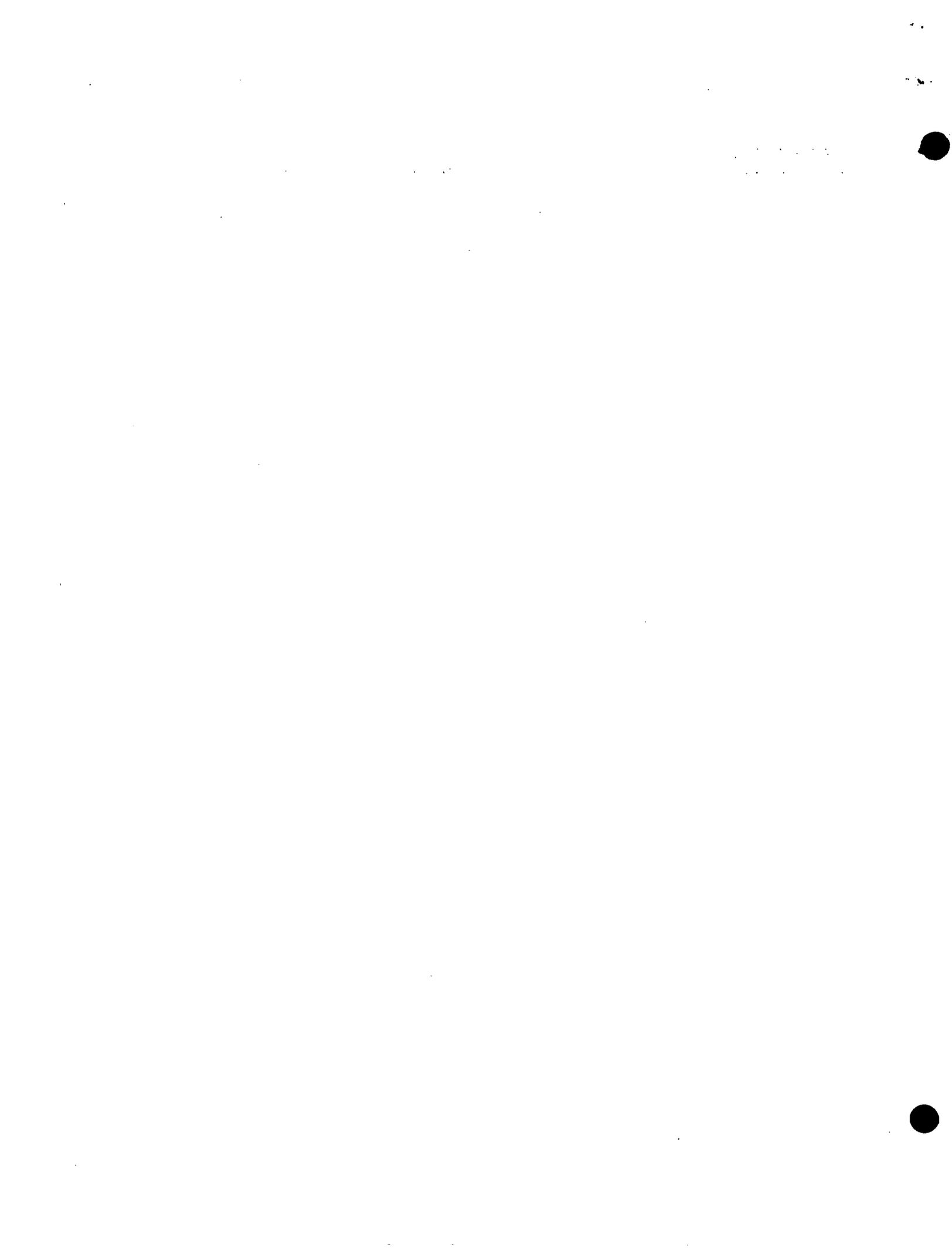
From: The Acting Secretary

Subject: Industrial Policies of Industrial Countries - Impact on  
Developing Countries

As indicated in EB/CW/DC/88/4 (8/8/88), there is attached for the information of the Committee of the Whole a paper prepared by the staff of the World Bank on "Industrial Policies of Industrial Countries: Impact on Developing Countries."

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# International Bank for Reconstruction and Development

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FROM: The Deputy Secretary

August 5, 1988

DEVELOPMENT COMMITTEE MEETING: SEPTEMBER 26, 1988

Industrial Policies of Industrial Countries:

Impact on Developing Countries.

Attached is a paper entitled "Industrial Policies of Industrial Countries: Impact on Developing Countries" for consideration by the Executive Directors meeting as a Committee of the Whole on August 30, 1988. This is a background paper for the meeting of the Development Committee on September 26, 1988.

Also attached is a short note, prepared jointly by the Bank and Fund staff, summarizing the main findings of the Bank paper as well as those of a paper on the same subject prepared by the Fund staff, and presenting a few issues for discussion by the Development Committee.\*

Under separate cover a paper on the same topic prepared by the Fund staff will be circulated.

Questions on this paper should be referred to Mr. Michael Finger, (Ext. 33927) or Mr. Paul Meo, (Ext. 33802).

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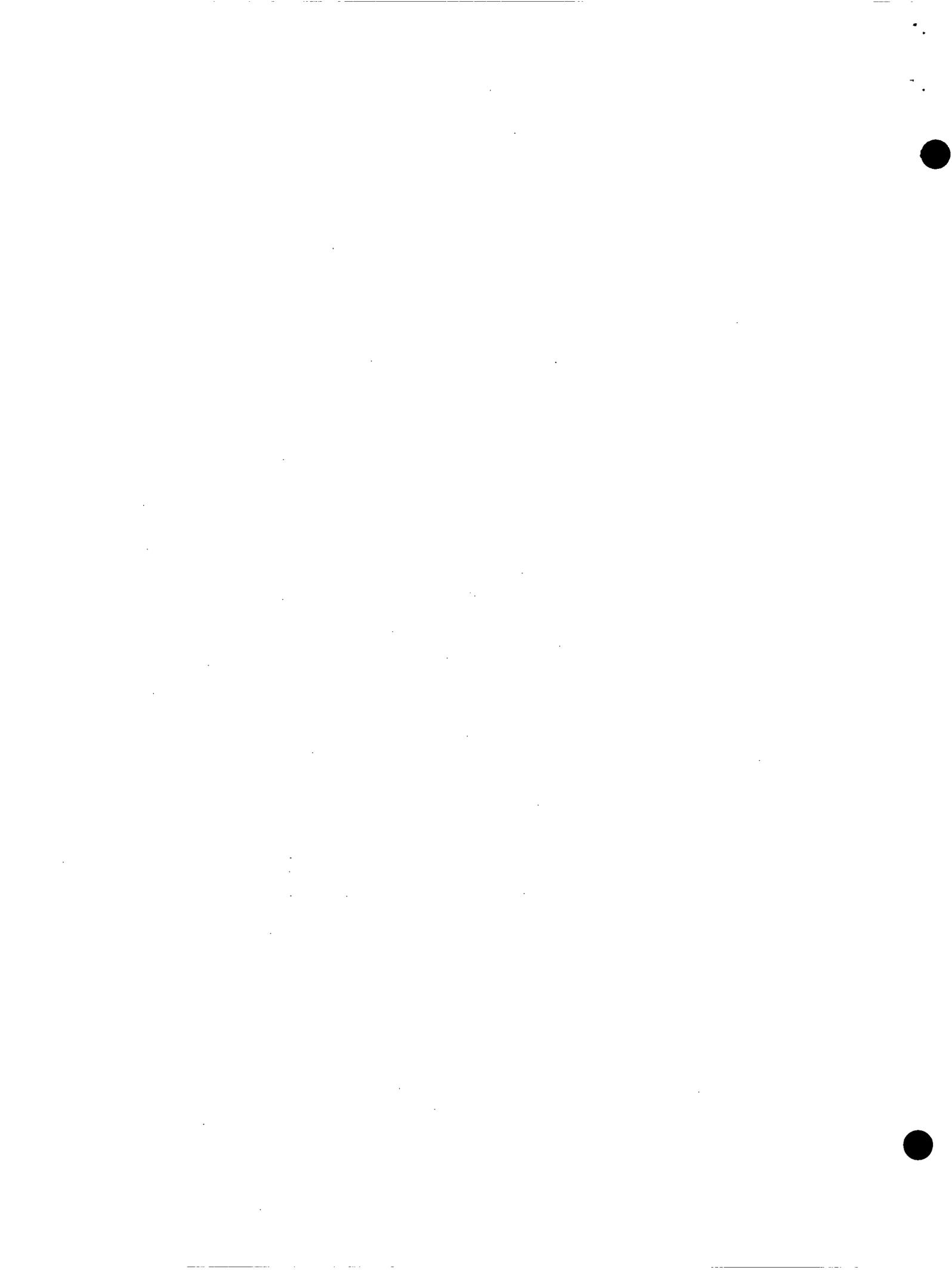
**INDUSTRIAL POLICIES OF INDUSTRIAL COUNTRIES:  
IMPACT ON DEVELOPING COUNTRIES**

**August 3, 1988**



## Table of Contents

	Page
Executive Summary.....	i
I. Introduction.....	1
II. Industrial Policies: What They Are.....	2
III. Domestic Subsidies.....	4
Domestic subsidies over time.....	4
Sectoral incidence.....	6
Comparison with trade restrictions.....	8
IV. Tariffs: Patterns and Effects.....	9
MFN rates.....	10
Departures from MFN rates.....	10
Tariff peaks.....	12
Tariff escalation.....	12
V. Nontariff Barriers.....	16
VI. Effects on Developing Countries.....	19
Complexity of new trends in protection.....	20
Effect on export receipts.....	23
The concentration of exports.....	25
Efficiency or "welfare" gains.....	28
Factor mobility/flexibility.....	30
VII. Major Findings and Implications.....	31
Uruguay Round.....	33
Reducing protectionist pressures.....	34
References.....	36
Annexes .....	39



## EXECUTIVE SUMMARY

Over recent decades the rapid growth of developing country manufactured exports has made an important contribution to their economic development and increasing prosperity. Many factors are behind this export performance. Among the more important were the efforts of developing countries themselves to expand their resource bases and to use them more effectively. The openness of the multilateral trading system has also been important as has the steady expansion of income in the industrial countries. In the 1980s developing country manufactured exports have continued to grow more rapidly than world trade, though not as rapidly as they grew in the previous two decades. A significant part of slower growth in the 1980s can be explained by the slower growth of world income. However, the openness of the international trading system is being increasingly compromised by new trade barriers and by some forms of domestic assistance to industry.

At the request of the Development Committee, this paper

- o examines the pattern of industrial countries' "industrial policies" and the impact of these policies on developing countries, particularly on their trade in manufactures;
- o reviews some policy changes that would be of significant benefit to developing countries.

This paper, of course, covers only part of the effects of policy measures it examines and these policy measures are only one factor among many that influence the growth of developing countries. The World Bank has long emphasized the importance of a developing country's own policies and has publicized this view in many ways. Likewise, the Bank in recent World Development Reports has drawn attention to the cost that a country's trade restrictions imposed on the country itself -- and industrial countries that attempt to "protect" themselves with trade restrictions are no exception. The aim of this report is to look into a matter that previous World Bank reports have not thoroughly explored -- the cross-country effects of industrial country policies on developing country trade and output.

### Major Findings

The major findings of this review of the patterns of industrial countries' support for their own manufactured industries, and of the effects of this support on developing countries, are listed below.

1. While agriculture and transportation tend to be heavily subsidized in industrial countries, industry, on the whole, is aided primarily by import restrictions. The shift toward direct subsidies for manufacturing in the late 1970s and early 1980s seems to have been temporary. Border protection seems to

be preferred particularly in those parts of manufacturing in which developing countries have a strong export interest. Steel is an example.

2. Industrial country tariffs tend to be considerably higher on manufactured imports from developing than from industrial countries. Two factors underlie this difference:
  - (a) MFN rates tend to be higher on products exported in significant part by developing countries.
  - (b) On trade among industrial countries, particularly among Western European countries, reductions from MFN rates, i.e., preferences, on trade in manufactured goods among these countries are larger than preferences on their imports from developing countries.
3. On manufactured goods, developing country exports to industrial countries face 50 percent more NTBs than does manufactures trade among industrial countries.
4. Restrictions on commodity imports --both tariffs and NTBs-- often increase with the degree of processing. This escalation protects not only sophisticated forms of processing and refining, but also such simple processes as crating and packaging -- activities of particular interest to lower-income developing countries whose export receipts are concentrated on a few primary products. Furthermore, tariffs or taxes on any stage tend to raise the cost of the final good and thereby to reduce demand for the primary product. This is a further burden on countries dependent on primary products for their export earnings.
5. There has been a significant increase in the 1980s in the number of administered protection cases (e.g., antidumping, countervailing duty), particularly against developing countries. These cases not only generate specific trade restrictions, they also create uncertainty as to the continued openness of industrial country markets and an additional expense for trading enterprises. This uncertainty may be itself a significant impediment to international trade, as is the legal and administrative expense of administered protection.
6. Industries with high fixed costs often file antidumping cases in order to extend to imports the "price discipline" that domestic firms have agreed, often with tacit government approval. Steel, autos and petrochemicals are examples.
7. The growth of global systems of VERs (e.g., the MFA) tends to eliminate international resistance to protection. The price

discipline and barriers to entry provided by such systems assure strong exporters of continuing profits and seduce potential suppliers to negotiate for a share of a controlled market rather than compete for a share of an open one.

8. The United States purchases over one-half of industrial countries' manufactured imports from developing countries. The European Community accounts for less than one-third, down from almost one-half in 1965, and Japan for less than 10 percent. The East Asian NIEs account for over half of the developing country manufactured exports.
9. Industrial country protection reduces developing country national income by roughly twice the amount of official development assistance that is provided.
10. Relatively high industrial country MFN tariffs on manufactured products of export interest to developing countries and the dominance especially in Western Europe of preferences (departures from MFN rates) that favor other Western European countries' over preferences for developing countries reflect the importance of reciprocity in reducing trade restrictions.
11. GSP schemes often exclude key exports for developing countries and can be withdrawn unilaterally.

#### Implications

The Uruguay Round provides a major opportunity to strengthen the multilateral trading system. Many of the issues that have been tabled there are of significant interest to developing countries.

- o Higher tariffs tend to be on products of particular export interest to developing countries; hence, a developing country's interest in tariff proposals that would bring more than proportionate reductions to high tariff rates.
- o In the tropical products and natural resource-based products negotiations, reduction of protection on unsophisticated forms of processing such as crating and packaging would be of particular interest to many poorer countries whose exports are concentrated on primary products.
- o Negotiating groups on safeguards, subsidies and the Tokyo Round Codes will review the administrative procedures the GATT prescribes for the regulation of trade. The objective here is to contain grey area measures and to minimize the extent to which the procedures themselves have a negative effect on trade.

Because trade restrictions tend more and more to take subtle forms that mute exporting firms and consumers' resistance to them, the political base for open trade is being eroded. Creating increased public awareness of the economy-wide costs of protection and channeling this awareness into more effective trade supporting arrangements are important. One suggestion that would augment public awareness of the domestic cost of import restrictions is the "protection balance sheet" proposed in the 1985 "Leutwiler Report." Other suggestions include annual studies by the GATT Secretariat on important trade issues such as the costs and consequences of the shift from tariff to nontariff barriers. The Federal Republic of Germany's biannual "Subsidies Report", obliged by law, publishes the amount of subsidies paid by the German government through tax allowances as well as direct payments. In Australia, the Industries Assistance Commission's statutory charter requires it to report on government assistance provided to industries and on the economy-wide effect of that assistance. Such reports have had a significant impact on public awareness of the costs of subsidy and import relief policies. To complement better national surveillance, the GATT Secretariat could have enhanced authority and capacity to collect and publish information on national policy measures that affect trade. The economics of the matter is that in the end more imports as well as more exports are parts of the gains from an open international trading system. The more the public is aware of this truth, the greater and the more secure will be the opportunity for each country to develop and to prosper.

## INDUSTRIAL POLICIES OF INDUSTRIAL COUNTRIES: IMPACT ON DEVELOPING COUNTRIES

### I. INTRODUCTION

Since 1980 the volume of world merchandise trade has grown by only 3.6 percent yearly. This compares with the 1960s and 1970s, when the volume of world trade averaged 5.3 percent yearly. The volume of developing country manufactured exports, however, has consistently expanded more rapidly than world trade -- in the 1980s, as well as the 1960s and 70s. In 1985, developing countries supplied 12 percent of the world's exports of manufactures, up from 7 percent a decade earlier. While the 8 percent per year growth of manufactured exports in the 1980s is below the 12 to 14 percent per year growth over the previous 15 years, it has been one of the few buoyant factors in developing country exports during this decade. <sup>1/</sup>

Many factors lie behind this impressive performance. Among the more important were the efforts of the developing countries themselves to expand their resource bases and to use them more effectively. The open international trading system, created (after WWII) by the international community through the workings of the General Agreement on Tariffs and Trade (GATT) has also been important, as has the steady, significant income expansion since 1950 in the industrial countries. This income growth that fueled the demand for manufactured imports, and along with trade liberalization, encouraged developing countries to enter the product cycle as changes in comparative advantage occurred.

The slower growth in the 1980s -- of world trade as well as of developing countries' trade -- is due mostly to the slower growth of income. Also, the openness of the international trading system is being increasingly compromised by new trade barriers and some forms of domestic assistance to industry. Prospects are that OECD GDP growth will continue at rates significantly below those before 1980.

At the request of the Development Committee, this paper:

- o examines the impact of industrial countries "industrial" policies on developing countries particularly on their trade in manufactures; and

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<sup>1/</sup> World Development Report 1988.

- o reviews some policy changes that would be of significant benefit to developing countries -- particularly changes that might be taken up at the ongoing Uruguay Round of multilateral trade negotiations.

This paper, of course, covers only part of the effects of the policy measures it examines, and these policy measures are only one factor among many that influence the growth of developing countries. The World Bank has long emphasized the importance of a developing country's own policies, and has publicized this view in many ways. Likewise, the Bank, in recent World Development Reports, has drawn attention to the costs that a country's trade restrictions impose on the country itself -- and industrial countries that attempt to "protect" themselves with trade restrictions are no exception.

The aim of this report then is to look into the matter that previous World Bank reports have not thoroughly explored -- the cross-country effects of industrial countries' policies on developing country trade and output. To a degree, this report breaks new ground. While a number of studies of the "own country" effects of trade restrictions have been conducted and published in recent years, very little research has been done on cross-country effects -- on the effects of one country's import restrictions on its export suppliers. One of the reasons so many studies have been done on the effect protection has on the protecting country, and so few done on the exporting country, is that the former is easier to understand and measure. As this paper will demonstrate, measuring the latter is more difficult; some ratios are given only to give the reader an idea of the possible magnitudes involved. This perspective is then carried over into the review of possible policy actions.

## II. INDUSTRIAL POLICIES: WHAT THEY ARE

"Industrial policies" refer to government actions and programs that are used to support particular firms or industries. These policies are conditioned by countries' different institutional and policy settings, are aimed at many different objectives that are approached through many different instruments and, as a recent OECD report suggests, often reflect no overall economic strategy. <sup>1/</sup> While in this paper "industrial policies" is broadly used to include mining and agroindustries as well as manufacturing, their impact on developing countries is viewed (with only a few exceptions) through

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<sup>1/</sup> "Monetary, energy and technological upheavals have meant stormy times for all economic players but especially for governments. Pulled in every direction by interest groups, governments have found it difficult to sort out their priorities and evaluate their actions in the industrial field." OECD, Structural Adjustment and Economic Performance, p. 223.

their effect on manufactured exports. <sup>1/</sup> While their advocates often focus on the "benefits" of industrial policies, it is often forgotten that there are many direct costs to some industrial policies. Some programs or policies -- designed to favor labor, regional development or other industries -- have clear and specific adverse effects on industries, often to the detriment of that country's export potential. For the purpose of this paper, however, we shall only examine those policies which are at least ostensibly designed to benefit industries.

While some policies or functions of government are designed to affect particular productive enterprises or sectors, the effects of other functions and policies are available to all enterprises and sectors. Enforcement of commercial law, provision of roads and highways, of education and other public services are supportive of productive activity in general, but of no productive activity in particular. They might affect the size or the effectiveness of a country's resource base, but their effect on the allocation of that resource base to one activity or another is minimal. Macroeconomic policies, that influence overall efficiency, expenditure or savings rates without influencing the allocation of such spending or savings to one sector or another, would be considered general policies, and therefore not in the category of "industrial" policies. <sup>2/</sup>

Some policies support a domestic industry by restricting imports of competing goods. Tariffs and import quotas are the traditional forms of import restriction, but governments have been able to find many novel and complex ways to restrict imports. (The various forms of import restriction will be discussed below.) Other policies, sometimes gathered together under the label "Nonborder Measures," provide a more direct stipend or subsidy to domestic production -- for example, a direct cost subsidy, an advantageous

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<sup>1/</sup> The operational definition of manufactures is SITC categories 5 through 8, minus 68. The coverage of these categories is as follows:

- SITC 5: Chemical elements and compounds
- 6: Semimanufactures and manufactures by material
- 7: Machinery and transport equipment
- 8: Miscellaneous manufactures
- 68: Nonferrous metals

<sup>2/</sup> The test of "general availability" is a basic concept used to guide enforcement of antisubsidy, or countervailing duty law. While general availability is useful, it is not a perfect screen. Some sectors may be more "education intensive" or "transport intensive" than others, and therefore relatively advantaged by the general provision of education or of roads and highways.

depreciation or investment allowance, an interest subsidy, tax relief, concessional financing from public funds, and many other instruments. 1/

### III. DOMESTIC SUBSIDIES

The multiplicity of objectives and of forms of industrial support tend to complicate analysis of such policies. Direct subsidies are readily quantifiable, and a skilled analyst can estimate the "subsidy equivalent" of policies such as tax allowances or loans from public funds. On the other end of the scale, it is quite difficult to quantify "administrative guidance," and perhaps even more difficult to calculate its subsidy equivalent. 2/ Even where the accounts of subsidy-granting agencies are complete and comparable, the task of pulling together such information is long and complex. A recent study of German support programs reports, for example, that the relevant inventory included some 10,000 different items from the budgets of several hundred governmental agencies. 3/

#### Domestic subsidies over time

Subsidies to industry expanded widely after the first oil shock, and grew rapidly through the early 1980s. The expansion was particularly marked in Western Europe. Even in countries in which such aid is traditionally low, such as the US and Switzerland, there was a substantial rise.

Much of the rise was assistance to help industry and transport adjust to increased petroleum prices; financial or tax incentives to save energy or switch to fuels produced at home -- electricity, gas and coal. That part of the increased assistance not aimed at energy tended to focus on a small number of sectors in difficulty: shipbuilding and steel, and --to a lesser extent-- electronics, aircraft and autos.

The balance of payments dimension of the oil shock created an interest in expanding exports, and this interest led to a considerable increase of indirect export subsidies provided through government export

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1/ Catalogings of objectives and of instruments are provided in OECD, Selected Industrial Policy Instruments, OECD 1978.

2/ A recent OECD study accepted the impossibility of providing a generic definition and opted instead to take a pragmatic approach, to proceed without a definition, while acknowledging that "the field of investigation... is bound to vary according to each country's institutional and policy setting. OECD, Structural Adjustment and Economic Performance, p. 224.

3/ Juttemeier, p. 2.

credits, insurance and guarantees. The subsidy element in such programs however, has been small relative to direct subsidies to domestic production. 1/

The expansion of aids to industry has apparently stabilized since the mid-1980s. "Almost all OECD member countries have begun to retreat on a number of interventionist fronts, especially on subsidies supporting specific industries or enterprises." 2/ Part of this stemmed from the contraction of the industries subsidized. Some contracted in work force and capacity as planned, others in spite of plans. For instance, in Sweden until the mid-1970s economic and industrial development was supported in the main by macroeconomic and tax policy. The Government shifted in 1976/77 to a much larger, more selective industrial program. More than half of the aid was provided through programs designed to support specific enterprises or industries such as shipbuilding. From 1982/83 to 1985/86, however, industrial aid substantially fell and shifted significantly in composition, toward functional categories such as aid to research and development, or to regional development.

A similar shift has been recorded in France. Today, the French steel industry's labor force is only half its size in the 1970s. Restructuring of the industry has reduced aid to cover operating losses to less than FF1 billion, well below the FF7 billion to FF10 billion covered earlier in the decade. Similarly, the state Renault automobile group --with its work force reduced by one fourth-- is now operating profitably. Part of the explanation for its return to profitability is continued border protection. As in Sweden, there has been a significant shift of the state aid that remains towards support of research and development.

The United States, with the election of a conservative federal administration in 1980, moved away from consideration of an active industrial policy, although the individual states continue to compete actively in offering subsidies for plant locations. Cutbacks of industrial aids in many countries were obviously related to fiscal problems. There has been an upsurge of interest in deregulation and privatization in many industrial countries.

While there has been some steadying of the level of domestic assistance to industry, the same does not seem to be true for agriculture. As the World Development Report 1986 documents, industrial countries' support for agriculture has increased production much more rapidly than their internal markets have expanded, and this has led to considerable disruption of international markets and to displacements of developing country exporters. There

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1/ The subsidy element in export guarantee, insurance and credit programs (as estimated by Henry 1987), as a fraction of direct payments to enterprises by central governments in 1983-84 is as follows: Federal Republic of Germany, 2.0%; United Kingdom, 4.0%; France, 4.0%; United States, 3.4%.

2/ OECD, Structural Adjustment and Economic Performance, p. 232.

has been increased funding of subsidies to support agricultural exports. <sup>1/</sup> Estimates reported in WDR 1986 indicate that these support programs have domestic costs in the range of 0.6 percent to 1.0 percent of GNP -- to support a sector that provides from 2 percent to 5 percent of GNP.

Lack of information on domestic fiscal support to industry makes it not only difficult to compare its magnitude with that of trade restrictions, it makes it almost impossible to estimate its impact on specific trading partners. Nevertheless, several generalizations seem defensible:

- (1) Fiscal assistance focuses on agriculture, coal production and services, particularly transportation services, rather than on manufacturing industry.
- (2) Within the manufacturing sector, it is moving towards support for high technology and defense-related industries. These tend not to be industries in which most competition is among industrial countries.
- (3) In the manufacturing sector, fiscal support appears to be small relative to assistance through import restrictions.

#### Sectoral incidence

Limited information is available on the distribution of fiscal assistance across sectors. Table 1 provides sketches of that distribution for two countries, the Federal Republic of Germany and France. These data illustrate the concentration of such assistance on agriculture and services. In 1985, industry provided 34 percent of France's GDP, 40 percent of Germany's; its share of nonborder assistance was considerably lower in each country. Agriculture, on the other hand, contributes only 2 percent of Germany's GDP and 4 percent of France's, yet receives 17 percent and 27 percent, respectively of governmental nonborder assistance.

Though manufacturing, generally, receives relatively low levels of nonborder support, some manufacturing industries have been more heavily supported. As mentioned above, in Western Europe the iron and steel sector has been heavily subsidized. Reductions in the amounts of subsidy payments have been more or less simultaneous with contraction of output, hence the lower subsidy amounts still represent a significant percentage of the value of output. Shipbuilding and aircraft are other manufacturing sectors for which the ratio of assistance to value added exceeds the economy-wide average.

Other activities, although they have received some assistance, would be, in net terms "payers" rather than receivers of such assistance. Fiscal interventions, any more than border interventions, do not create resources.

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<sup>1/</sup> GATT, Developments in the Trading System, April-September 1987, Geneva, October 28, 1987.

Table 1: DISTRIBUTION OF FISCAL ASSISTANCE ACROSS SECTORS

<u>Federal Republic of Germany, 1984</u>		<u>France, 1982</u>	
<u>Sector</u>	<u>% of total assistance</u>	<u>Sector</u>	<u>% of total assistance</u>
Agriculture and food processing	17	Agriculture and food processing	27
Industry & mining	17	Industry	25
Transportation & utilities	31	Energy	7
Housing and human services	35	Construction and housing	9
		Transport	17
		Commerce and other services	15
Total	100	Total	100

Sources: France: Dutailly, p. 7.

Federal Republic of Germany: Juttemeier, p. 26.

They move them from one use to another. While their proponents tend to stress the effects that will be produced where the resources move to, equal attention should be paid to the effects where they move from. 1/

#### Comparison with trade restrictions

Except for agriculture, direct comparisons of border and nonborder assistance are infrequently made. In the US, Canada, Australia and New Zealand --major net agricultural exporters-- two-thirds or more of assistance to agriculture is provided through government payments and purchases, while in Japan and Western Europe --net agricultural importers-- two-thirds of assistance is provided through the transfer from consumers implicit in high domestic prices. 2/

For manufacturing, however, the only such comparison we were able to find is the one for Australia, prepared by the Australian Industries Assistance Commission. Their data indicate that import restrictions provide more than 95 percent of governmental assistance to Australian manufacturing. 3/ Among industrial countries, Australia tends to have relatively high tariffs, relatively extensive NTBs and relatively low subsidies, but the figure is broadly indicative of the "mix" of border vs. nonborder protection for industrial countries. 4/

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- 1/ The prominence of agriculture in the Uruguay Round has led to considerable attention to the effects on manufacturing output and employment of governmental assistance to agriculture. A series of studies, organized by the Center for International Economics in Canberra, will estimate how other sectors are affected by governmental support for agriculture in the EC, Japan, Korea, and the US. A "reverse case" -- the cost to Australian agriculture of high levels of Australian support for manufacturing -- will also be included. The OECD Secretariat is working on a single, global model which would provide similar estimates for OECD countries.
  - 2/ OECD, National Policies and Agricultural Trade, p. 132.
  - 3/ Australian Industries Assistance Commission, Assistance to Manufacturing Industries: 1977-78 to 1982-83.
  - 4/ Compared to figures for all industrial countries, the average Australian tariff rate is 1.8 times as high. [Finger and Laird] Australian NTBs cover 1.3 times as large a fraction of imports [Nogués, Olechowski and Winters] and Australian subsidies (as a share of GNP) are 0.9 times as large. [OECD, National Accounts] Imports as a share of GNP is approximately the same, 18 percent, for Australia as for the industrial countries as a group. [WDR '87] If, in calculations for the industrial countries as a group, we use the same elasticities as were used in the Australia calculation, take nonborder assistance to be twice as high as in Australia, border protection to be one-half as high, we would still conclude that \$8 of every \$10 of assistance would be provided through the price effects of import restrictions.

In sum, industrial countries' government subsidies to industry tend to be small relative to their subsidies to agriculture and transportation; also, small relative to the assistance they provide their industries by restricting imports. To the extent that subsidies are provided to the manufacturing sector, developing countries' export interests are affected most, in three industries: petroleum, (because petroleum is a substitute for domestically-produced coal), shipbuilding, and steel. Industrial countries' subsidies to shipbuilding have declined in recent years, and developing countries now supply over one-third of global exports of ships and boats -- up from 7 percent in 1970. From 1970 to 1975 the developing country share of global steel exports has increased from 7 percent to 15 percent, and industrial country support for its steel industry has shifted from subsidies toward import restrictions. More and more, tariff and nontariff barriers are the industrial policies of industrial countries that most affect developing countries.

#### IV. TARIFFS: PATTERNS AND EFFECTS

Following seven rounds of multilateral negotiations in the GATT since 1947, tariffs in the industrial countries are on average quite low. In the Kennedy Round of the 1960s tariffs on all but key sensitive products, such as textiles and steel, were reduced by some 50 percent. In the 1970's Tokyo Round, the trade-weighted average most favored nation (MFN) rate on industrial products was estimated by GATT to have been reduced from 7.0 percent to 4.7 percent for the industrial countries as a group. <sup>1/</sup> The Generalized System of Preferences, introduced in the 1970s, has provided for preferential reductions on the industrial countries' imports from developing countries.

Although tariffs in industrial countries are indeed quite low, on average, several characteristics of their tariff schedules still create significant market access problems for developing country exports.

- (1) MFN rates are, on average, higher on goods imported from developing countries.
- (2) Departures from MFN rates sometimes favor other industrial countries rather than developing countries -- various preferential arrangements among industrial countries often outweighing the impact of the Generalized System of Preferences.
- (3) Tariff peaks (i.e., high tariffs) tend to be concentrated on products exported by developing countries.

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<sup>1/</sup> GATT, The Tokyo Round of Multilateral Trade Negotiations - II Supplementary Report, Geneva, January 1980.

- (4) Tariff escalation (i.e., higher tariff rates on processed products than on the raw materials) means that even relatively low tariff rates can generate relatively high effective rates of protection and retard the movement of primary exporting countries into processing.

#### MFN rates

MFN rates are the "standard" rates in industrial countries' tariff schedules. They are, on the whole, "bound" under the GATT, i.e., each country has promised through the GATT to charge import duties (on goods coming from any other GATT contracting party) no higher than these posted rates. Differences (Table 2) in the MFN rates on imports from developing vs. from other industrial countries reflect the generally higher MFN rates on products that are important in developing country exports. These differences may reflect the low level of developing country participation in earlier trade negotiations. In any case, these differences are part of the reason the rates actually applied to imports from developing are higher than imports from other industrial countries. (Table 2, the right hand column.) The other part of the reason, discussed below, is that rates actually applied are "discounted" below the MFN rate more often on imports from other industrial countries than on imports from developing countries.

#### Departures from MFN rates

The tariff rates that industrial countries actually apply are often lower than the MFN rates bound through the GATT. This is well known; preferences for all developing countries (Generalized System of Preferences-GSP), the least-developed countries (LLDCs), and even certain developing countries (e.g., the Caribbean Basin Initiative and the Lome Convention) have reduced the effective tariffs faced by developing countries. What may not be so well known is that industrial countries offer substantial preferences to each other; between EFTA and the EC; between Australia and New Zealand; between the US and Canada for automobiles (40 to 50 percent of their trade in manufactures), and so on. The calculations reported in Table 2 compare bound MFN rates with the rates actually applied.

The GSP and other forms of tariff preferences for developing countries are reflected in the differences between MFN and applied rates on imports from developing countries. However, reductions from MFN rates on imports from other industrial countries are often even larger. Most EFTA countries have applied rates 3 to 4 times higher for developing countries, reflecting the duty-free treatment of most manufactured goods traded between the EEC and EFTA.

**Table 2: INDUSTRIAL COUNTRIES' TARIFF AVERAGES ON MANUFACTURES**

(import-weighted averages of post-Tokyo Round MFN rates and applied rates as of 1983)

Importing Country Origin of Imports	MFN Rate	Applied Rate
<b>Australia</b>		
Industrial Countries	15.2	10.0
Developing Countries	18.4	9.8
<b>Canada</b>		
Industrial Countries	7.7	4.6
Developing Countries	13.8	10.3
<b>European Community</b>		
Industrial Countries	5.6	3.3
Developing Countries	6.0	4.5
<b>Finland</b>		
Industrial Countries	6.7	0.8
Developing Countries	11.1	6.7
<b>Japan</b>		
Industrial Countries	4.2	3.9
Developing Countries	5.2	2.9
<b>New Zealand</b>		
Industrial Countries	16.9	13.5
Developing Countries	21.6	14.7
<b>Norway</b>		
Industrial Countries	5.7	0.8
Developing Countries	5.1	4.6
<b>Sweden</b>		
Industrial Countries	5.0	0.8
Developing Countries	7.2	5.7
<b>Switzerland</b>		
Industrial Countries	2.7	0.2
Developing Countries	2.8	2.6
<b>United States</b>		
Industrial Countries	3.9	3.9
Developing Countries	7.9	7.6

**Notes:** Applied rates are calculated from information on customs collections by tariff line, by country of origin. In the case of EC member states, trade-weighted rates against industrial countries are based on imports from outside the Community, i.e., intra-EC trade is excluded -- not treated as a departure from MFN rates. In computing applied rates account is taken of volume limitations on the application of GSP rates.

**Source:** Computations by World Bank Staff.

### Tariff peaks 1/

Industrial country tariff rates, in general, are low. Yet, 20 percent of EC tariffs on manufactured imports have MFN rates in excess of 10 percent ad valorem, as do 18 percent of US and 13 percent of Japanese manufactured tariff lines. Most of the higher rates protect textiles and clothing and miscellaneous manufactures; categories where developing countries tend to have significant export positions. These high-rate sectors are also those which have a higher incidence of nontariff barriers, as well. As products in which developing countries are strong exporters tend to be excluded from tariff preference systems, developing country exports are usually subject to these high MFN rates, receiving little or no preference in these categories. 2/

### Tariff escalation

Even where tariffs are generally low, they can still be a considerable barrier to processed exports by producers of primary products. For example, jute enters most industrial countries duty free, but Austria's 3 percent duty on jute fabrics provides 7 percent effective protection for the Austrian processing of jute into fabrics. Likewise, Australia imports hides and skins duty free, but its 20 percent duty on leather manufactures provides 36 percent effective protection for leather manufacturing. Effective rates of protection for the processing of oilseeds into vegetable oils exceed 50 percent in the EC and in Japan.

Table 3 shows the escalating tariff and nontariff barriers (NTBs) faced by a variety of developing country exports to most industrial country markets. The resulting high rates of effective protection, of course, encourage firms in industrial countries to import raw materials and process them at home, rather than to import materials in processed form. Table 4 shows the result -- developing countries' exports are heavily concentrated in products at lower stages of production.

This tariff escalation has negative effects on primary production as well as on processing. Not only does the high effective protection retard the development of processing industries in developing countries, tariffs on any stage raise the price of the "final" good, and hence tend to reduce consumption. Internal taxes have a similar effect. West Germany imposes a consumption tax of DM3.60 per kilogram on unroasted coffee, DM4.30 per kilogram on roasted coffee, and DM9.35 per kilogram on soluble coffee. Such internal taxes

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1/ This section draws on information from Erzan and Karsenty (1987), including unpublished material supplied by the authors.

2/ EEC-EFTA manufactures trade is duty-free, another disadvantage for developing countries.

Table 3: ESCALATION OF INDUSTRIAL COUNTRY PROTECTION

Processing chain and stage	Average tariff <u>a/</u>	NTB coverage ratio <u>b/</u>
<b>Meat</b>		
Fresh and frozen	6.2	34.0
Prepared	8.4	41.3
<b>Fish</b>		
Fresh and frozen	4.3	56.9
Prepared	4.1	7.0
<b>Vegetables</b>		
Fresh	6.9	42.6
Preparations	13.2	16.4
<b>Fruits</b>		
Fresh	17.0	24.0
Preparations	11.1	15.0
<b>Tobacco</b>		
Unmanufactured	14.9	12.0
Manufactures	30.0	25.0
<b>Sugar</b>		
Sugar and honey	1.0	51.0
Preparations	20.0	19.0
<b>Cocoa</b>		
Beans, powder, paste	1.0	0.0
Chocolate and products	3.0	1.0
<b>Rubber</b>		
Crude	7.2	0.0
Manufactures	19.4	3.3
<b>Leather</b>		
Hides and skins	0.1	0.0
Leather	2.9	1.7
Manufactures	7.2	11.7
<b>Wood</b>		
Rough	0.0	0.0
Shaped	0.2	0.2
Veneer and plywood	1.7	6.6
Manufactures	3.5	2.7
<b>Cotton</b>		
Raw	0.0	0.0
Yarn	3.0	2.2
Fabrics	5.8	62.1

Table 3, continued

Iron		
Ore	0.0	4.9
Pig iron	2.2	8.7
Ingots and shapes	2.2	8.7
Bars and plates	3.4	18.7
Other metallic ores		
Nonferrous ores	0.0	4.9
Wrought and unwrought metals	2.4	1.0
Phosphates		
Natural	0.0	0.0
Fertilizer	3.2	13.7
Vegetable oils		
Oilseeds	0.0	1.9
Oils	4.4	15.8

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Notes:

- a/ The tariff rates are trade weighted averages of rates actually applied by Australia, Austria, EC, Finland, Japan, Norway, New Zealand, Sweden, Switzerland, and the United States.
- b/ Percentage of industrial countries' import value that is subject to nontariff barriers, as described in Section V, below.

Source: Yeats 1987, Table 15.1.

Table 4: DISTRIBUTION OF IMPORTS OF SELECTED INDUSTRIAL a/  
COUNTRIES BY STAGE OF PROCESSING b/

Level of processing	Disbribution of imports from developing countries (%)	Imports from developing countries as a % of imports from all countries
Stage 1	72	41
Stage 2	25	30
Stage 3	2	29
Stage 4	1	11
All Stages	100	36

a/ Australia, Austria, European Community (10), Finland, Japan, New Zealand, Norway, Sweden, Switzerland and the United States.

b/ Product coverage is the same as Table 3; stages, as listed there.

on tropical beverages are widespread among Western European countries. <sup>1/</sup> Without this tax and tariff burden, consumption of final products, and therefore demand for primary products would be higher.

Especially important for the poorer countries are measures that would increase the demand for primary products and would facilitate lower-income primary producing countries' expansion into "first stage" processing activities. Higher stage processing requires many of the same skills and factor inputs as manufacturing, and expansion of higher stage exports tends to be dominated by the industrial and the more advanced developing countries. There is however, considerable room for processing to increase in lower-income countries without their moving into higher stage activities. Escalation often protects very simple processes. For example, the US tariff on pineapples in bulk is 0.64¢ per kilogram. Based on 1984 import-unit values, this comes to 8.4 percent ad valorem. On crated or packaged pineapples the rate is 1.3¢ per kilogram. If packaging and crating increases by 20 percent the value of a shipment of pineapples, then the effective rate of protection these nominal rates provide for packaging and crating is 5.2 times higher than the rate of protection provided to pineapple growers. The EC duty is 9 percent ad valorem on pineapples, 20 percent on unsugared pineapple juice. The EC allows a GSP rate of 17 percent on unsugared pineapple juice. On sugared juice, the rate is 19 to 42 percent, depending on density, plus an additional charge on the sugar content. Again, the effective protection provided the juicing process is proportionally higher. Imports of pineapple juice from Lomé Agreement countries enter duty free, but this source is not a serious threat to EC processors. In 1983, imports from Lomé countries accounted for less than 6 percent of EC consumption, and EC intratrade in pineapple juice continues to grow more rapidly than imports from Lomé countries.

#### V. NONTARIFF BARRIERS

While the momentum of past GATT negotiations has continued to bring industrial country tariffs down (the last tranche of cuts agreed at the Tokyo Round went into effect on January 1, 1987), the 1980s have seen a slow but continuous increase in the use of nontariff barriers until they now affect about one-fifth of the industrial countries' overall imports. The expansion of NTBs is illustrated in Table 5. These restrictions take many different forms. The definition followed in this paper covers the following categories of actions.

##### Hard-core NTBs

Quantitative import restraints (including discretionary import licensing)

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<sup>1/</sup> GATT, "Tropical Products: Background Material for Negotiations," (MTN.GNG/NG6/W/6/REV1) 18 January 1988.

**Table 5: INDICES OF NTB COVERAGE APPLIED BY SELECTED INDUSTRIAL COUNTRIES, 1981-1987**

1981 = 100

	1981	1982	1983	1984	1985	1986	1987
<b>All Products Except Fuels</b>							
All NTBs	100	103	104	106	112	119	120
Hard Core NTBs	100	101	99	104	106	106	105
<b>Hard Core NTBs</b>							
On All Products	100	101	99	103	104	104	104
On Manufactured Products	100	99	101	101	112	111	109

**Note:** The index is constructed as follows:

- (1) Each importing country's "NTB schedule" for each year is applied to its import values as of 1984. (The intent is to isolate the expansion of NTBs, hence the changing schedule of NTBs is applied to a given pattern of trade.)
- (2) The proportion of total import value covered by each year's NTB schedule is converted to an index number, with 1981 set at 100.

**Source:** UNCTAD, "Problems of Protectionism and Structural Adjustment: Introduction and Part I; Restrictions on Trade and Structural Adjustment," TD/B/1081 (Part I).

Voluntary export restraints (VERs)

Measures for the enforcement of decreed prices

Other NTBs

Tariff quotas

Antidumping and countervailing duties

Price investigations and other price and volume monitoring measures

Nondiscretionary or automatic import licensing

Government procurement regulations that might discriminate in favor of domestic suppliers are not covered, simply for lack of information. Likewise, health, sanitation and technical regulations are not covered.

The expansion of "hard core" NTBs reflects several actions widely reported in the general media:

- o VERs on steel and steel product imports of the US and the EC from all major suppliers;
- o VERs on automobile imports of Canada and of the US;
- o VERs on television receivers, video recorders and other consumer electronics products on EC imports from Japan and South Korea;
- o Expansion of the product and country coverage of the Multifibre Arrangement (MFA), and additional restraints on textile imports outside the MFA.

Less often noted in the public media, but equally threatening to the openness of the international trading system was the simultaneous expansion of various kinds of import surveillance and import price discipline measures, particularly antidumping measures. During 1980-86, there were 1,605 anti-dumping or countervailing duty cases in the industrial countries. Sixty percent (981) led to a formal import restriction; many others were part of a process that led to VERs.

Analyses of antidumping cases in Australia, the United States and the EC -- three of the most frequent users of such procedures -- have found that antidumping enforcement is indeed often protection for domestic industries. It imposes limits on foreign sellers that antitrust regulations do not impose on domestic firms. The author of the Australian study recommended that Australia's system be changed to "reduce the discrepancy between the concept of 'unfair trading practices' as it is applied within Australia and as it is

applied by Australia to its imports." <sup>1/</sup> Apart from the formal import restrictions and VERs that were generated, the frequency with which such cases are filed against successful exporters creates considerable uncertainty that successful export performance can be maintained against the domestic politics of administered protection. This has a chilling effect on developing countries' efforts to make the efficiency gains and investments necessary for export-led growth.

Some import barriers were removed in the 1980s, e.g., on US and Canadian imports of footwear. Among "soft" NTBs the major change was the elimination by the United States of an automatic licensing requirement on imports of petroleum. But on the whole, approximately \$4 of the industrial countries' imports have come under hard core import controls for each \$1 on which such controls have been removed. New VERs fell relatively heavily on developing country exports. For example, of 124 such arrangements listed in the October 1987, GATT Secretariat report, 77 were with a developing country exporter. <sup>2/</sup>

NTBs cover approximately the same percentage of industrial countries' total imports from developing as from other industrial countries. (Annex Table 1) But beneath this overall equality lie considerable sectoral differences. Since many tropical products, fuels and natural materials tend to be noncompetitive, they face fewer NTBs than more competitive food and raw materials imported from other industrial often temperate-climate countries. In manufactures, where they do compete head on, however, developing countries' imports face 50 percent more NTBs than industrial countries.

The sectoral differences in NTBs imply considerable differences in protection faced by different groups of developing countries. Manufactured imports from developing countries are particularly affected by NTBs and increasingly face discriminatory restrictions (VERs) aimed at the most successful exporters. Nearly one-third of industrial country imports from major developing exporters of manufactures are subject to NTBs -- more than two-thirds of their textiles and clothing imports, more than half of their steel imports.

## VI. EFFECTS ON DEVELOPING COUNTRIES

The forms of protection that have become popular over the last decade are sophisticated and complex. Consequently, analyses of their effects are extremely difficult, as is the formulation of strategies to combat protectionism.

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<sup>1/</sup> Handbook on Multilateral Negotiations, p. 158.

<sup>2/</sup> GATT, Developments in the Trading System, October 28, 1987.

### Complexity of new trends in protection

A tariff, the trade restriction instrument that is declining in use, reduces export volume and at the same time pushes down the price the exporter will receive. (The extent it does either is affected by the demand and supply elasticities for each product.) A VER reduces import volume, but it may allow the exporter to collect a higher price since it restricts neither the quality of the product nor the ability of the exporter to charge the higher price caused by the supply constraint. He could thereby earn greater profits on a smaller volume of sales. Antidumping and countervailing duty actions tend to have a similar effect -- to keep import prices from slipping below the traditional or full-cost price in the home market.

The clearest example of this complexity has evolved in textiles and clothing. The centerpiece of protection in this sector is the Multifibre Arrangement (MFA). Within this arrangement, importing nations negotiate bilateral agreements with individual exporting nations with quotas for each specific product (114 products for the EC, 108 for the US). These highly complex agreements have carryover provisions for part of the unused quotas, "surge" provisions to restrict rapid growth, annual growth constraints, and so on. Over time the MFA has expanded to include more and more products and countries; the newest version, MFA IV will run until mid-1991.

The bilateral VERs, negotiated within the MFA have important and complex effects on exporters. In Hong Kong, quota rights are allocated among exporters according to historical market shares, but the quota rights are negotiable and tend to have a high market value. During 1982-83, their value came to about 10 percent of the industry's value added, or 1.2 percent of Hong Kong's GDP. 1/ They are a rent received by the established exporting firms.

Besides the complex of bilateral quotas, the industrial countries continue to maintain high tariffs in this sector. Post-Tokyo Round rates across textile and clothing products average 17 percent in the United States, 20 percent in Canada, 10 percent in the EC, Sweden and Switzerland, 25 percent in Finland. 2/ These high tariffs have two effects: First, they regulate trade in textiles and clothing among the industrial countries. (Intra-industrial country trade in textiles and clothing is about 50 percent larger than industrial country imports from developing countries. 3/) Secondly, tariffs absorb some of the price margin created by the quantitative restrictions on imports from developing countries.

From different perspectives, the MFA appears to be different things. To governments of developing countries that are major suppliers or

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1/ Hamilton, 1985.

2/ USTR, Twenty-fourth Annual Report of the US President.

3/ Handbook, p. 181.

have the potential to be major suppliers, the MFA is a restriction on their exports. To firms in these countries, the MFA is a restriction of their exports from their home base, but not necessarily to the expansion of their production and export from offshore. It is, at the same time, a guarantee of profits on the share of the market they have managed to negotiate. This is perhaps one of the more insidious features of the MFA -- the wedge it may drive between the economic interests of a supplying country and the business interests of the established firms in a country. A further complication is that the rents arising from quotas may not be appropriated by exporters or their governments. The Hong Kong example is not common; in many smaller exporters quota rights are not negotiable or transferable among producers, and their producers deal directly with large, sophisticated importers (e.g., clothing stores). To the extent the importer has control over the supplier he can share in the rents by paying lower prices.

Because of the immense discretion the MFA gives importers, political factors loom as important as economic ones. A prospective supplier must negotiate its way into an agreed market share, i.e., must compete diplomatically for an allowed volume of exports. But having a quota and filling it are not the same thing. The country must be able to compete economically for that market share with stronger established exporters.

Over the long run, perhaps the most threatening aspect of the MFA is the precedent it establishes for how trade will be managed. The MFA, in its inception, was an attempt to balance exporters' interests with those of import-competing firms. The goals of the MFA express this intent. The operational clauses of the MFA however relate only to the second goal, particularly to the control of disruptive imports. Even though the trading nations were conscientious to negotiate this system of import regulation into the GATT, the proprotection forces it incorporates have turned out to be much stronger than its antiprotection disciplines.

World trade in steel is now well on the way to being as tightly controlled as world trade in textiles and apparel. Imports into two major markets, the US and the EC, are now controlled by a system of 37 bilateral arrangements, 1/ including the US-EC bilaterals. Ten of these bilaterals involve a developing country supplier. These steel arrangements have not been incorporated into the GATT, and, as compared with the bilateral arrangements negotiated under the MFA are subject to even lesser requirements of transparency and even weaker demands for a balance of exporter vs. importer rights and obligations. Such arrangements directly retard developing country exports. W.M. Corden has suggested that they may also harm developing countries by discouraging a shift to more export-oriented adjustment and growth strategies. 2/

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1/ GATT, October 28, 1987, pp. 98-100.

2/ W.M. Corden, "The Revival of Protectionism," Occasional Papers, No. 14, Group of Thirty, (New York 1984).

The petrochemicals industry presents an interesting example of trade problems that primary-producing countries encounter as they develop an indigenous processing capacity.

In the early 1960s, industrial countries' tariffs on petrochemicals were high -- as high as 20 to 40 percent on some products. During the Tokyo Round, the industrial countries agreed to substantial reductions of petrochemical tariffs. The United States' special valuation system (the "American Selling Price") for assessing petrochemical import values -- that increased the ad valorem equivalent of US tariff rates -- was also eliminated. Moreover, during the 1980s, the US and others dropped their prior licensing requirements for petroleum imports, thus reducing the nontariff barriers affecting the primary product. During the early 1970s, however, the industrial countries had built new capacities in order to meet a then projected buoyant domestic demand. The actual growth of demand was much less than had been expected. By 1981, excess world capacity ran from 25 percent (synthetic fiber) to 50 percent (ethylene) of world consumption, and the petrochemicals industry in the US, Europe and Japan were suffering major losses. Since the industry has relatively low variable costs, price cutting became fierce. Price cutting across national borders is often in conflict with antidumping rules, hence, protection took the form of antidumping actions, often as a complement to the tacit acceptance by industrial country governments of price fixing arrangements among domestic producers. During 1980-84, there were 21 antidumping cases on petrochemical products in the United States, 77 cases in the European Community. The US and Japanese industries have since undergone major restructurings, involving shutdowns of a large amount of older capacity. Europe has also restructured, but less extensively.

While capacity was contracting in the industrial countries, several oil-producing countries were building large petrochemicals facilities. Among Gulf countries, Iraq and Qatar were the first to move into petrochemicals in the mid-1970s. By 1985 Saudi Arabia had invested over \$250 billion in its petrochemicals industry. The industry seemed particularly well suited to Saudi Arabia. It is quite capital-intensive and capital is a relatively abundant resource in Saudi Arabia. In Saudi Arabia a basic feedstock, ethane gas, is a by-product of oil production and it is not economically viable to collect and liquify the gas for export. The best economic alternative to use as a petrochemical feedstock is, in fact, flaring.

Middle East investments during this period were large. In just one year, 1985, capacity that came on stream in Saudi Arabia increased global petrochemical capacity by 5 percent. Because this new capacity was under construction in a period of slack demand and extensive restructuring in the US, Europe, and Japan, it aroused concerns that the industrial country markets would be swamped by cheap petrochemical imports and the industry would be even further depressed. These concerns turned out to be unwarranted; by the time Gulf capacity began to add substantially to world supply, the market for petrochemicals had recovered its vigor. According to the OPEC Bulletin of November 1987, "The industry was fortunate that the new producers of the Middle East and Canada came on stream and entered the marketplace in this

commercial environment. Saudi Arabian product has been absorbed without the anticipated upset in world markets and, in fact, it has been needed to supply this surging demand growth."

As petrochemicals prices recovered, the number of US and EC anti-dumping cases in the industry dropped off sharply -- from 98 in the 5 years 1980-84 to 20 in the 3 years 1985-87. Of these 118 antidumping cases, only 2 have been against suppliers from the Gulf -- 1986 EC cases against Kuwaiti and Saudi exports of urea. These cases came at the same time as cases against six other exporters of urea to the EC, and covered 11 percent of Saudi Arabia's and 46 percent of Kuwait's 1986 exports of petrochemicals to the EC. These cases were concluded in November 1987. Six of the exporting countries agreed to observe a minimum price undertaking on their urea exports to the EC. Saudi Arabia, along with Libya, did not agree to the price undertaking, and in the end an antidumping duty of 46 percent was imposed on EC imports of urea from Saudi Arabia, a slightly lower duty on imports from Libya.

The other recorded import policy actions against exports from Gulf countries were EC decisions in 1985 and in 1987 to exclude certain important petrochemical exports of Saudi Arabia from eligibility for preferential treatment under their GSP.

In oil-importing countries, the price of basic petrochemical feedstocks varies directly with the price of crude petroleum. However, the Gulf countries produce from gases that have no alternative economic use. A tight world market for petrochemicals benefits industrial country producers and Persian Gulf producers alike. The most advantageous situation for OECD petrochemical producers, however, is when the crude oil market is depressed and the petrochemical market is booming. In this situation their disadvantage on feedstock prices is minimized, and offset by the much higher cost of transporting petrochemicals from the Gulf over the cost of transporting crude oil. Because of this, oil producers of the Gulf are diversifying their petrochemical investments into ownership of petrochemical companies whose production facilities are in the industrial countries. Their home production will be relatively profitable when the crude oil market is tight, their offshore investments when oil prices are low. Such diversification is also a hedge against the anti-import actions that might spring forward when the industry moves into its next cyclical downturn.

#### Effect on export receipts

Estimation of the effects of trade restrictions is difficult, especially in industries such as textiles and clothing which have a wide and diversified product mix, and whose production is spread from the world's most technologically advanced countries to some of the least advanced. Furthermore, the restrictions themselves may include tariffs and quotas, and these sometimes overlap. The tariff is thus not the sole instrument that restricts some trade flows, but it does influence the distribution of the profits that the quantitative restriction creates. Thus, quantitative studies, particularly the details of how much any one country gains or loses, should be interpreted within fairly wide margins of error.

Several studies have estimated separately the consumer and efficiency costs in importing countries, the effect on the volume of developing country trade, and the "rent income" that accrues to suppliers through the higher prices that the restrictions provide. Notably sparse, however, have been estimates of the efficiency effects on developing country suppliers -- the cost to these economies of their inability to take full advantage of their comparative advantage, i.e., lack of the opportunity to use their resources in sectors in which these resources are, by world standards, the most effective.

Estimates of effects on export earnings tend to take a shorter-run, static perspective -- to focus on increased exports as a matter of putting idle resources to use, or of switching resources from producing for the domestic market to producing for the export market. In line with such concerns, a recent UNCTAD study has estimated that a full OECD liberalization would lead to a more than 10 percent increase in developing country exports. More than half of this increase would be in exports of textiles and clothing. <sup>1/</sup> Erzan and Karsenty found that the gains from reducing the highest OECD tariffs to a maximum 10 percent would also be concentrated in this area; that is where the highest tariffs and most restrictive NTBs are. <sup>2/</sup> Viewed from a longer-term perspective, this concentration of the trade effects of protection in a few sectors indicates it has had a significant effect on the pattern of resource allocation in developing countries. Other analyses corroborate this. Kirmani concluded that the removal of tariff and nontariff barriers in the main OECD countries could increase developing country exports of textiles by 82 percent and clothing by 93 percent. <sup>3/</sup> Deardorff and Stern, in an analysis focused particularly on the allocative effects of industrial country protection, estimated that the apparel industry would increase by more than 20 percent in 7 of the 16 developing countries for which the study provides estimates.

A recent study by Irene Trela and John Whalley <sup>4/</sup> uses a general equilibrium model to estimate the effects of the MFA. Their results indicate that elimination of all industrial country tariffs and quotas would yield an increase of both production and exports in all the 34 developing countries covered by the study. Speculation that ending the MFA would lead to established suppliers such as Hong Kong and Korea being squeezed out by newcomers may be unfounded, although the larger relative increases would accrue to such "second wave" exporters as Indonesia, Malaysia, and Bangladesh. Even with major developing country suppliers taken into account, industrial country consumption is still largely supplied by domestic production plus imports from other industrial countries. The contraction of this trade would make room for expansion of exports by all developing country suppliers.

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<sup>1/</sup> UNCTAD, TD/B/1081 (Part I).

<sup>2/</sup> See Erzan and Karsenty, 1987.

<sup>3/</sup> Kirmani, et al., 1984.

<sup>4/</sup> See Irene Trela and John Whalley, March 1988.

Overall, textile and clothing output in the industrial countries might decline by about 6 percent. Allowing for the expanded global production and consumption when restrictions are removed -- and for the relatively small share of developing country exports in industrial country consumption -- this translates into an increased value of sectoral output of 15 to 30 percent in a number of developing countries.

#### The concentration of exports

The initial benefits of liberalizing industrial country industrial policies would be concentrated on the middle-income developing countries that account for a large and growing share of developing countries' manufactured exports. Lower-income countries have not kept pace as suppliers of manufactured exports. In 1965, the World Bank's list of low-income developing countries (as defined in 1987) produced almost one-third of developing country manufactured exports; two decades later, they were down to only one-sixth. If China and India are excluded from this group, the other low-income countries account for only 3 percent of developing countries' manufactured exports. Most of the shift toward middle-income countries stems from the growing share of four East Asian economies -- Singapore, Hong Kong, South Korea, and Taiwan, China. By 1985, these four economies accounted for more than half of the manufactures exported by the 93 developing economies covered by our data base. In fact since 1980, all four have usually been in the top 20 exporters of manufactures. By 1986, Korea and Taiwan, China's manufactured exports exceeded those of Canada; Hong Kong's manufactured exports exceeded those of Sweden and Austria; together the manufactured exports of Hong Kong, Korea, and Taiwan, China exceeded those of the United States.

While the four Asian NIEs account for over half of developing country manufactured exports, "export success" has not been as concentrated as that fact suggests. A number of other developing countries have experienced comparably rapid growth of manufactured exports, though the values of their exports are still relatively small. Over the period 1965-1985, 27 developing countries (outside the 4 Asian NIEs) increased their manufactured exports by a larger percentage than Singapore. Included in this 27 are Brazil and Mexico, whose manufactured exports (together) are less than one-sixth as large as those (total) of the four Asian NIEs. Export values for the other 25 sum to less than the total for Mexico and Brazil.

Four countries --the US, Japan, the Federal Republic of Germany, and the United Kingdom-- have imported three quarters of developing country manufactured exports to all industrial countries for more than twenty years. Recently, the first three have accounted for over two thirds. In fact, since 1980, the United States and Japan alone have been responsible for two-thirds of the increment of developing country manufactured exports; the US alone accounted for over half.

Three of these major importers have a high concentration of sources. Almost three-fifths of the US and Japan's manufactured imports from developing countries come from the East Asia Four; Germany's import sources are dispersed. Countries that have large export shares have earned them mostly by providing

Table 6: SHARE OF MANUFACTURED EXPORTS BY DEVELOPING COUNTRIES a/  
(percent)

	1965	1985
Low income	30	16
China <u>b/</u>	11	10
India	11	3
Other low income	8	3
Middle income	70	84
East Asian Four <u>c/</u>	20	56
South Africa	8	3
Other middle income	42	25
Total	100	100

a/ Based on a selected group of 93 developing countries.

b/ Not including Taiwan, China, which is included among the East Asian Four, below.

c/ Singapore, Hong Kong, South Korea, and Taiwan, China.

Source: Comtrade data base.

**Table 7: COUNTRY SHARES OF MANUFACTURED IMPORTS FROM DEVELOPING COUNTRIES**  
(percent)

	1965	1975	1986
All Industrial Countries	100	100	100
United States	33	34	51
European Community	47	43	30
Germany (FR)	10	16	11
United Kingdom	24	11	6
France	3	5	5
Italy	2	3	3
Japan	5	8	8
Canada	3	3	3
Other Industrial Countries	12	12	8

Source: Comtrade data system.

reliable supplies of high quality, competitively-priced merchandise. However, finding ways to minimize the impact of trade restrictions has also played a role. Economic actions to exploit the loopholes in import restrictions have been important, for example, shifting the product variety. Political skills, to preserve and sometimes create the loopholes are also useful.

### Efficiency or "welfare" gains

Table 8 presents John Whalley's estimates of the "welfare gain" from elimination of all industrial country tariffs and nontariff barriers. <sup>1/</sup> These estimates are from simulations on one of the few global general equilibrium models that has been used to examine complete trade liberalization, and do not cover the effects of nonborder measures. The welfare gain measures the increase in real national income. It takes into account the increase of real output that results from "allocative efficiency" -- shifting resources toward sectors in which a country has comparative advantage -- and the gain (or loss) of purchasing power resulting from terms of trade changes. These figures are measures of the static gains. They do not take into account possible improvements of efficiency that might be stimulated by specific static gains, or, more broadly, by the more open trading system. Finally, the simulations on which the estimates are based assumed that macroeconomic management maintained a given level of resource utilization in each country.

The estimated efficiency effect then comes to about 3 percent of all developing countries' GNP. In other words, because of industrial country trade restrictions the developing countries' GNP is, each year, about 3 percent less than it otherwise would be. This cost, as related to industrial country income, comes to 0.6 percent or about twice the 0.3 percent that the OECD countries devote to official development assistance.

An alternative estimate by Haaland and Norman <sup>2/</sup> came to the same overall figure but separates the effects on the newly industrialized economies (the NIEs) and on other developing countries. As one might expect, the impact on the NIEs is larger -- about 4 percent of their GNP as compared with 2 to 2.5 percent for other developing countries. The employment increase might be much higher, since the affected exports are among the more labor-intensive ones.

The limits of such estimates should be kept in mind. The models are built on a 1979 data base, and in 1979 trade restrictions were less extensive than they are now. Further, they exclude the many dynamic impacts of policy changes. Models would hardly have predicted in 1965, when Korea's chief export was wigs, that it would become a major exporter of manufactures; nor would they have projected the tremendous changes in the automobile trade since

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<sup>1/</sup> John Whalley, Trade Liberalization Among Major World Trading Areas, MIT Press, Cambridge, Massachusetts, 1985.

<sup>2/</sup> See Jan I. Haaland and Victor D. Norman, October 14, 1987.

Table 8: EFFICIENCY GAINS TO DEVELOPING COUNTRIES FROM  
REMOVAL OF INDUSTRIAL COUNTRIES' TRADE BARRIERS a/

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	As a percentage of developing countries' GNP	As a percentage of industrial countries' GNP
Unilateral removal by:		
European Community	1.1	0.7
United States	0.8	0.4
Japan	0.7	1.0
Multilateral removal by:		
All industrial countries	2.9	0.6

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Note:

a/ Estimates of the effects of the complete removal of all tariffs and nontariff barriers in place in 1977. The estimates assume no change in the level of resource utilization.

Source: Based on estimates by John Whalley, Trade Liberalization Among Major World Trading Areas, p. 181. (MIT Press, Cambridge, Massachusetts, 1985.)

1960. Even the static effects may be misleading. Modelers not only find it hard to model the increasingly complex methods of OECD protectionism, they find it hard to handle well intraindustry trade and economies of scale, particularly when both are little in evidence in the base year. Finally, the models do not yet incorporate the trade effects of nonborder measures.

#### Factor mobility/flexibility

How countries adjust to restrictions on their trade, while difficult to measure, is important. The easier and faster the reallocation of resources from product lines or industries that come under restriction to other product lines or industries, the less the impact of protection. <sup>1/</sup> This flexibility requires several factors that are usually found in proportion to a country's development. Entrepreneurship and marketing skills are one such factor. A poorer country's contact with international markets is often through the periodic visits of buyers from the major markets. If a country has developed a capacity to produce, say, tableware to international specifications, and tableware imports into the market for which this capacity has been developed are restricted, the result to the exporter will be simply that the foreign buyer no longer appears. As the foreign buyer disappears, the exporter is not provided with information on designs that might minimize the impact of restrictions or sell well in other markets, nor on how to shift his production to such designs and his sales to such markets.

On the production side, a high investment rate and an educated labor force are important for flexibility. A high investment rate allows for rapid reshaping of a country's capital stock. Conversely, a low investment rate makes it difficult to move out of production lines hurt by trade restrictions, and into new ones. High savings rates or capital inflows are corrolaries of high investment, while financial mechanisms capable of channeling capital to the most productive uses are also needed. Likewise, a labor force with a high level of general education can adjust from one task to another more quickly than a less educated labor force. Finally, it is important how these characteristics interact with the factors on which a country's trade composition is based.

International movement of goods and (nonfactor) services tend to compensate for unequal endowments in factors of production. Increased restraints on trade have, in the 1980s, paradoxically, been reinforced by reduced mobility of capital and labor. The debt crisis, in particular, has reduced capital movements to many developing countries. Actual and potential trade restrictions themselves reduce creditworthiness, and also the incentive for foreign private direct investment. And while there were major labor movements from South to North in the 1950s and 1960s, especially in Western Europe and North America, high unemployment levels in the former halted, and

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<sup>1/</sup> Capacity to resist the imposition of protection by threatening retaliation in some economic, political, or strategic form is also important, and is enhanced by economic size and by strategic and political links.

in some cases led to a reversal of this trend. Also, the new US immigration law is designed to reduce the inflow of undocumented workers. Yet in the presence of huge international income differences, highlighted by the free flow of information, pressures to migrate are bound to persist and rise. Free trade and free capital movements may well constitute the politically most desirable way to eliminate these pressures. Conversely, for countries well endowed with capital but short on labor, capital expenses may relieve economic pressures to import labor.

## VII. MAJOR FINDINGS AND IMPLICATIONS

The major findings of this review of the patterns of industrial countries' support for their own manufactured industries, and of the effects of this support on developing countries, are listed below. The obvious policy recommendation in each instance is to remove the trade restriction. As trade liberalization brings increased efficiency to the liberalizer and to its trading partners all sides would benefit. However, to develop the institutions that will transform this underlying economics into political action is a challenge.

1. While agriculture and transportation tend to be heavily subsidized in industrial countries, industry, on the whole, is aided primarily by import restrictions. The shift toward direct subsidies for manufacturing in the late 1970s and early 1980s seems to have been temporary. Border protection seems to be preferred particularly in those parts of manufacturing in which developing countries have a strong export interest. Steel is an example.
2. Industrial country tariffs tend to be considerably higher on manufactured imports from developing than from industrial countries. Two factors underlie this difference:
  - (a) MFN rates tend to be higher on products exported in significant part by developing countries.
  - (b) On trade among industrial countries, particularly among Western European countries, reductions from MFN rates, i.e., preferences, on trade in manufactured goods among these countries are larger than preferences on their imports from developing countries.
3. On manufactured goods, developing country exports to industrial countries face 50 percent more NTBs than does manufactures trade among industrial countries.
4. Restrictions on commodity imports --both tariffs and NTBs-- often increase with the degree of processing. This escalation protects not only sophisticated forms of processing and refining, but also such simple processes as crating and

packaging -- activities of particular interest to lower-income developing countries whose export receipts are concentrated on a few primary products. Furthermore, tariffs or taxes on any stage tend to raise the cost of the final good and thereby to reduce demand for the primary product. This is a further burden on countries dependent on primary products for their export earnings.

5. There has been a significant increase in the 1980s in the number of administered protection cases (e.g., antidumping, countervailing duty), particularly against developing countries. These cases not only generate specific trade restrictions, they also create uncertainty as to the continued openness of industrial country markets and an additional expense for trading enterprises. This uncertainty may be itself a significant impediment to international trade, as is the legal and administrative expense of administered protection.
6. Industries with high fixed costs often file antidumping cases in order to extend to imports the "price discipline" that domestic firms have agreed, often with tacit government approval. Steel, autos and petrochemicals are examples.
7. The growth of global systems of VERs (e.g., the MFA) tends to eliminate international resistance to protection. The price discipline and barriers to entry provided by such systems assure strong exporters of continuing profits and seduce potential suppliers to negotiate for a share of a controlled market rather than compete for a share of an open one.
8. The United States purchases over one-half of industrial countries' manufactured imports from developing countries. The European Community accounts for less than one-third, down from almost one-half in 1965, and Japan for less than 10 percent. The East Asian NIEs account for over half of the developing country manufactured exports.
9. Industrial country protection reduces developing country national income by roughly twice the amount of official development assistance that is provided.
10. Relatively high industrial country MFN tariffs on manufactured products of export interest to developing countries and the dominance especially in Western Europe of preferences (departures from MFN rates) that favor other Western European countries' over preferences for developing countries reflect the importance of reciprocity in reducing trade restrictions.
11. GSP schemes often exclude key exports for developing countries and can be withdrawn unilaterally.

## Uruguay Round

Industrial countries do not usually change their trade regimes unilaterally; they do it reciprocally at multilateral trade negotiations. Moreover, industrial country trade restrictions have a bigger impact on developing countries than industrial country fiscal measures; and it is exactly these policies (as well as some nonborder policies) which are negotiated at such times. The Uruguay Round, which began in September 1986 and may last through 1990, is thus the most important vehicle for reducing the impact of industrial countries' industrial policies on developing countries.

The Uruguay Round provides a major opportunity to revitalize world trade and growth. This new round is indeed a crucial one. Not only has there been a rise in protectionism, the support for it seems to be increasing in industrial countries. There has been a growing move towards bilateral "deals;" the EFTA/EEC and Australia/New Zealand free trade agreements may soon be matched by a US/Canada one. Bilateral trade threats have also increased, and "gray area" trade barriers (measures against the spirit, but not the letter of GATT) have grown. To many therefore, both the liberal, open trade environment and its major principles-- nondiscriminatory treatment and multilateralism-- are now at stake.

The developing countries have much to lose if this were to occur; many by both acceding to the GATT and joining in the Uruguay Round as full negotiators have recognized their interests lie primarily in the GATT process. Aware perhaps of the minimal "spillover benefits" provided by their limited participation in previous GATT rounds, developing countries have been quite active in the present Uruguay Round, as they were in developing an international consensus to undertake the round.

As the round proceeds, many of the proposals by industrial countries have become of great interest to developing countries. Most tariff proposals --whether they be to reduce industrial tariffs to zero, reduce higher tariffs more than proportionately, or reduce all higher tariffs to a maximum-- would reduce higher tariffs more. As we have seen, these affect developing countries more. The European Communities have proposed that duties on semi-processed tropical products be eliminated or significantly reduced; even tariffs on final processed tropical products would be reduced by half or more. This would be combined with the progressive elimination of the consumption taxes that have shown a bias against exporter processing. Many of these offers are contingent on developing countries joining in the negotiation, in a way commensurate with their development, financial and trade situations. There is a risk that attention will focus on sophisticated forms of processing in which the industrial countries and the newly industrialized countries have comparative advantage. Unsophisticated forms of processing, such as crating and packaging, tend also to be protected by escalation of tariffs and NTBs. This sort of escalation is of more immediate interest to many poorer countries whose exports are concentrated on primary products.

Discussion of nontariff barriers is still only beginning. Excluding agricultural barriers -- where formal offers are abundant and detailed --

these will be negotiated in at least four groups; nontariff measures, safeguards, subsidies and countervailing measures, and textiles and clothing. The group negotiating the reduction of nontariff barriers has received several proposals, including one from the US that NTBs be included along with tariff reductions in negotiations on exchange of concessions. Australia has proposed that the effective protection equivalent be used to guide and monitor negotiations on tariffs and NTBs. The objective of the textile and clothing group is to formulate modalities that would facilitate trade liberalization and permit the eventual integration of this sector into GATT. The groups on GATT articles, safeguards, subsidies and the Tokyo Round codes will review the administrative procedures the GATT prescribes for the regulation of trade. The objective here is to contain gray area measures and to minimize the extent to which the procedures themselves have a negative effect on trade. Nevertheless, most of these groups will begin their most intense period after the Uruguay Round's mid-term review in early December at Montreal.

By the end of 1992 the members of the European Communities will have joined into one single market; the largest in the world. This will have a major impact on manufactured exports of developing countries, particularly since the US market may be less buoyant for some time as the US redresses its macroeconomic imbalances. The trade policies of the EC -- which will be determined during the Uruguay Round -- will thus be of immense importance to developing countries.

#### Reducing protectionist pressures

Beyond the Uruguay Round, improved institutional arrangements will also be needed. Trade restrictions more and more take subtle forms that mute exporting firms' and consumers' resistance to them. As a result, the political base for open trade has been eroded. Creating increased public awareness of the economy-wide costs of protection -- and channeling this awareness into more effective trade-supporting arrangements -- is the other cornerstone in reversing protectionist trends and revitalizing the world economy.

A number of ways have been suggested that would augment public awareness of the domestic costs of import restrictions. The 1985 "Leutwiler Report," (a report of "wise men" commissioned by GATT) suggested that a public "protection balance sheet" be used to analyze trade policy actions. Companies would be required to reveal in their financial statements any subsidies received. Paul Volcker, in his address for the 40th anniversary of the GATT, suggested that the GATT Secretariat, on its own authority, sponsor, say once a year, a careful investigation of an important trade issue. Mr. Volcker offered several possible topics:

- the costs and consequences of the shift from tariffs to NTBs
- the costs of selected protectionist measures recently put in place in industrial and developing countries.

"[C]areful analysis, sponsored by a neutral and respected institution," Mr. Volcker commented, "can itself be a powerful force in shaping an informed consensus."

The Federal Republic of Germany's biannual "Subsidies Report" 1/, obliged by law, lists the subsidy amounts of programs implemented through tax allowances as well as programs funded from the federal budget, and provides some information on state and local assistance programs. In Australia, the Industries Assistance Commission's statutory charter requires it to report on government assistance provided to industries and on the economy-wide effects of that assistance. Its tabulations of such assistance have had a significant impact on public discourse, and its use of the "effective protection" concept has introduced the concept into the public domain.

International surveillance is a necessary complement. Interests that benefit from public assistance will work constantly to minimize the coverage of national surveillance. Each time the Federal Republic of Germany government has revised its definition of subsidies for its Subsidies Report the amount of subsidization reported has become smaller. 2/ Australian experience provides another such example. Assistance in Australia has been expanding through forms (such as antidumping) that evade IAC coverage. To complement better national surveillance, then, the GATT Secretariat could have enhanced authority and capacity to collect --and most important-- publish information on national policy measures that affect trade.

The economics of the matter is that, in the end, more imports as well as more exports are parts of the gains from an open trading system. The more the public is aware of this truth the greater and the more secure will be the opportunity for each country to develop and to prosper.

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1/ Deutscher Bundestag, "Bericht der Bundesregierung uher die Entwicklung der Finanzhilfen und Steuervgunstigungen gemass @ 12 des Gesetzes fur Forderung der Stabilitat und des Wachstums der Wirtschaft."

2/ Juttemeier, p. 2.

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Annex Table 1: EXTENT OF SELECTED INDUSTRIAL COUNTRIES' NTBS ON IMPORTS  
FROM INDUSTRIAL AND FROM DEVELOPING COUNTRIES: 1984

Product category	Percent covered by NTBs			
	Value of imports from industrial countries	Value of imports from developing countries	Number of import categories from industrial countries	Number of import categories from developing countries
All	17	19	11	21
Agricultural	44	33	42	35
Fuels and Ores	18	10	13	11
Manufacturing	14	21	7	18
Textiles	25	62	20	58
Steel	50	46	21	21
Footwear	2	4	14	14
Electrical machines	10	7	5	8
Vehicles	30	3	6	10

Note: The data cover a broad range of NTBs, including para tariff measures (for example, variable levies, seasonal tariffs, countervailing and antidumping duties) quantitative restrictions (including prohibitions, quotas, nonautomatic licensing, state monopolies, voluntary export restraints, restraints under MFA and similar textile arrangements), import surveillance, and price control measures. Health and technical regulations are not included. The industrial market economies covered are Canada, EC (excluding Spain and Portugal) Finland, Japan, New Zealand, Norway, Switzerland and the United States.

Source: UNCTAD data base on trade measures.

Annex Table 2: INDUSTRIAL COUNTRIES' IMPORTS OF FUELS AND PETROCHEMICALS

(percentage of total imports coming from indicated source a/)

Source	Imports of														
	United States					Japan					European Community				
	1981	1984	1985	1986	1987	1981	1984	1985	1986	1987	1981	1984	1985	1986	1987
Mineral fuels and refinery products <u>a/</u>															
Industrial countries	19	28	31	29	26	9	10	11	15	--	12	17	19	21	22
Developing countries	81	72	69	71	74	91	90	89	85	--	88	83	81	79	78
Persian Gulf states <u>c/</u>	21	9	5	11	13	53	48	46	40	--	42	14	12	17	16
Petrochemicals <u>b/</u>															
Industrial countries	88	80	78	80	83	77	79	76	74	--	75	78	76	78	79
Developing countries	12	20	22	20	17	23	21	24	26	--	25	22	24	22	21
Persian Gulf states <u>c/</u>	0.4	0	0.8	1.6	1.1	0	1.5	3.5	5.7	--	0	0.3	2.2	2.5	2.2

Notes:

-- indicates not available

a/ SITC 3

b/ includes the following SITC (Rev. 1) categories:

Synthetic rubber	231.2, 599.76
Synthetic fibers	266.2 excl. 266.23 263.3 excl. 266.33
Organic petrochemicals	512, 599.75
Plastics & synthetic resins	581 excl. (581.3, 581.91 and 581.92)
Carbon black	513.27
Surfactants	554.2

c/ Includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates.

Source: COMTRADE, UN Statistical Office's Data Base.