The effects of industrial countries’ policies on developing countries
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THE EFFECTS OF INDUSTRIAL COUNTRIES' POLICIES ON DEVELOPING COUNTRIES

J. MICHAEL FINGER
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3

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Table of Contents

1 Introduction 1

2 Industrial policies: what are they? 2

3 Domestic subsidies 3
   Expansion of domestic subsidies 3
   Sectoral incidence 4
   Comparison of subsidies and trade restrictions 5

4 Tariffs: patterns and effects 6
   MFN rates 6
   Departures from MFN rates 6
   Tariff peaks 7
   Tariff escalation 7

5 Nontariff barriers 10

6 Evolving forms of protection 12

7 The concentration of exports 15

8 Effects on developing countries 17
   Efficiency or “welfare” gains 17
   Effect on export receipts 18
   Factor mobility and flexibility 18

9 Major findings and implications 20
   The Uruguay Round 21
   Reducing protectionist pressures 21

Endnotes 23
References 25
Annex 27
Tables

1 Distribution of fiscal assistance across sectors
2 Industrial countries' tariff averages on manufactures
3 Escalation of industrial country protection
4 Distribution of imports of selected industrial countries by stage of processing
5 Indices of NTB coverage applied by selected industrial countries, 1981-1987
6 Share of manufactured exports by selected developing economies
7 Country shares of manufactured imports from developing economies
8 Efficiency gains to developing countries from removal of industrial countries' trade barriers
Introduction

Since 1980 the volume of world merchandise trade has grown only 3.6 percent a year, down from the 1960s and 1970s, when the annual growth averaged 5.3 percent. 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 1970s. In 1985, developing countries supplied 12 percent of the world’s exports of manufactures, up from 7 percent a decade earlier. While 1980’s 8 percent a year growth of manufactured exports is below the 12 to 14 percent annual growth recorded over the previous 15 years, it has been one of the few buoyant factors in developing country exports.

Many factors lie behind this impressive performance. Among the more important were the efforts by the developing countries to expand their resource bases and to use them more effectively. The open international trading system governed by 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 fueled demand for manufactured imports, and along with trade liberalization, encouraged developing countries to enter the product cycle as changes in comparative advantage occurred.

Slower growth in the 1980s — of world trade as well as of developing countries’ trade — is due mostly to slower income growth, and prospects are that the Organization for Economic Co-operation and Development (OECD) countries’ growth of gross domestic product (GDP) will slow significantly from the rates recorded before 1980. Thus, at a time when the openness of the international trading system is increasingly threatened by new trade barriers and domestic assistance to industry, it is particularly important to developing countries that openness be maintained.

In keeping with this concern, this paper examines two questions:

1. What is the impact of industrial countries’ “industrial” policies on developing country trade in manufactures?
2. What policy changes to benefit developing countries might be taken up at the ongoing Uruguay Round of multilateral trade negotiations?

This paper covers only some of the effects of the policy measures it examines, and these 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 domestic policies. In recent World Development Reports, the Bank has drawn attention to the costs that trade restrictions impose on the country itself — and industrial countries that attempt to protect themselves with trade restrictions are no exception. This report examines a subject that previous World Bank reports have not thoroughly explored — the cross-country effects of industrial countries’ policies on developing country trade and output.
Industrial policies are government actions and programs that support particular firms or industries. These policies, which are conditioned by different institutional and policy settings and aimed at different objectives, often reflect no overall economic strategy. While their advocates often focus on the benefits of industrial policies, it is often forgotten that there are many direct costs. 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 the country’s export potential. For the purpose of this paper, however, we shall only examine those policies that 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, education and other public services support productive activity in general. 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. Macro-economic policies that influence overall efficiency, expenditures or savings rates without influencing allocations to one sector or another would be considered general — not industrial — policies.

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. Other policies, sometimes labeled “Nonborder Measures,” provide a more direct stipend or subsidy to domestic production — for example, a direct cost subsidy, an advantageous depreciation or investment allowance, an interest subsidy, tax relief, concessional financing from public funds, and many other instruments.
Domestic subsidies

The multiplicity of objectives and forms of industrial support tends 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. 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.

Expansion of domestic subsidies

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 United States 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 in indirect export subsidies provided through government export credits, insurance, and guarantees. The subsidy element in such programs however, has been small relative to direct subsidies to domestic production.

The expansion 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." 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, until the mid-1970s Sweden's 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 designed to support specific enterprises or industries, such as shipbuilding. From 1982-83 to 1985-86, however, industrial aid fell substantially and shifted significantly toward functional categories, such as aid to research and development, or to regional development.

A similar shift has been recorded in France. The French steel industry's labor force today is only half as large as in the 1970s. Restructuring has reduced aid to cover operating losses to less than FF1 billion, well below the FF7 to FF10 bil-
Table 1  Distribution of fiscal assistance across sectors

<table>
<thead>
<tr>
<th>Sector</th>
<th>Federal Republic of Germany, 1984</th>
<th>France, 1982</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage of total assistance</td>
<td>Percentage of total assistance</td>
</tr>
<tr>
<td>Agriculture and food processing</td>
<td>17</td>
<td>27</td>
</tr>
<tr>
<td>Industry and mining</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>Transportation and utilities</td>
<td>31</td>
<td>7</td>
</tr>
<tr>
<td>Housing and human services</td>
<td>35</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Total 100</td>
<td>Total 100</td>
</tr>
</tbody>
</table>


lion spent earlier in the decade. Similarly, the state Renault automobile group, which cut its work force by a fourth is now operating profitably. Part of the explanation is continued border protection. As in Sweden, there has been a significant shift in the state aid that remains toward support of research and development.

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

While there has been some leveling off in domestic assistance to industry, the same does not seem to be true for agriculture. As the 1986 World Development Report documents, one result of industrial countries' support for agriculture has been that production outpaced domestic demand, and the resulting surpluses disrupted international markets and displaced developing country exporters. According to the report subsidies for agricultural exports entailed domestic costs in the range of 0.6 to 1.0 percent of GNP — to support a sector that provides from 2 to 5 percent of GNP.

Lack of information on 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:

- Fiscal assistance focuses on agriculture, coal production, and services, particularly transportation services, rather than on manufacturing.
- Within the manufacturing sector, support is moving toward high technology and defense-related industries. These tend to be industries in which most competition is among industrial countries.
- 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 data on the Federal Republic of Germany and France showing the concentration of 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, contributed only 2 percent of Germany's GDP and 4 percent of France's, yet received 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 heavily supported. As noted above, the iron and steel sector in Western Europe has been heavily subsidized. But reductions in subsidy payments have been more or less simultaneous with output contractions, so the lower subsidies 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 net "payers" rather than receivers of such assistance. Fiscal and border interventions do not create resources. 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.\textsuperscript{11}

Comparison of subsidies and trade restrictions

Except for agriculture, direct comparisons of border and nonborder assistance are rare. In the United States, Canada, Australia, and New Zealand — major net agricultural exporters — two thirds or more of the assistance to agriculture is provided through government payments and purchases, while in Japan and Western Europe — net agricultural importers — two thirds of the assistance is provided by consumers through high domestic prices.\textsuperscript{12}

For manufacturing, however, the only such comparison available applies to Australia. Data prepared by the Australian Industries Assistance Commission indicate that import restrictions provide more than 95 percent of governmental assistance to the manufacturing sector.\textsuperscript{13} Among industrial countries Australia tends to have relatively high tariffs, relatively extensive nontariff barriers (NTBs), and relatively low subsidies, but the figure is broadly indicative of the “mix” of border versus nonborder protection for industrial countries.\textsuperscript{14}

In sum, industrial countries’ government subsidies to industry tend to be small relative to subsidies for agriculture and transportation — and relative to the assistance provided to industry by restricting imports. To the extent that subsidies are provided to the manufacturing sector, they primarily affect developing country exports in three industries: petroleum, (which substitutes for domestically produced coal), shipbuilding, and steel. Subsidies to shipbuilding have declined in recent years, and developing countries now supply over a 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 increased from 7 to 15 percent, and industrial country support for steel has shifted from subsidies to import restrictions. Increasingly, tariff and nontariff barriers are the industrial policies that most affect developing countries.
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 some 50 percent. In the 1970s Tokyo Round, the trade-weighted average most-favored nation (MFN) rate on industrial products was estimated to have been reduced from 7.0 percent to 4.7 percent for the industrial countries. The Generalized System of Preferences (GSP), introduced in the 1970s, has provided preferential access to imports from developing countries.

Still, several characteristics of tariff schedules still create significant market access problems for developing countries.

- MFN rates are, on average, higher on goods imported from developing countries.
- Departures from MFN rates sometimes favor other industrial countries rather than developing countries. Various preferential arrangements among industrial countries often outweigh the impact of the GSP.
- Tariff peaks (that is, high tariffs) tend to be concentrated on products exported by developing countries.
- Tariff escalation (that is, 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, that is, each country has promised to charge import duties (on goods from any other GATT contracting party) no higher than these posted rates. As table 2 shows, the MFN rates on products that are important in developing country exports are generally higher. This 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 countries are higher than the rates on imports from other industrial countries. Another reason 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 GATT's MFN rates. This is well-known; preferences for all developing countries (GSP), the least-developed countries (LLDCs), and even certain developing countries (for instance, the Caribbean Basin Initiative and the Lomé 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,
including those between the European Free Trade Association (EFTA) and the European Community (EC); between Australia and New Zealand; between the United States and Canada for automobiles (40 to 50 percent of their trade in manufactures), and so on. The calculations in table 2 compare MFN rates with the rates actually applied.

The GSP and other tariff preferences for developing countries are reflected in the differences between MFN and applied rates on imports from developing countries. But reductions from MFN rates on imports from industrial countries are often even larger. Most EFTA countries have applied rates three to four times higher on developing country goods, reflecting the duty-free treatment of most manufactured goods traded between the European Economic Community (EEC) and EFTA.

**Tariff peaks**

Despite generally low industrial country tariffs, 20 percent of EC tariffs on manufactured imports have MFN rates above 10 percent, as do 18 percent of American 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.

**Tariff escalation**

Tariffs are a considerable barrier to processed exports. For example, jute enters most industrial countries duty free, but Austria's 3 percent duty on jute fabrics provides 7 percent effective protection for Austrian processors of jute fabrics. Similarly, Australia imports hides and skins duty free, but its 20 percent duty on leather manufactures provides 36 percent effective protection for those manufactures. Effective rates of protection for oilseed processing exceed 50 percent in the EC and in Japan.

Table 3 (overleaf) shows the escalating tariff and nontariff barriers faced by a variety of developing country exports. The high rates on processed goods shield domestic processors from import competition and encourage imports of raw materials. Table 4 (overleaf) shows the result: exports from developing countries are heavily concentrated in products at lower stages of production.

This tariff escalation has negative effects on primary production as well as on processing. Tariffs on any stage raise the price of the final good, and hence tend to reduce consumption.

---

<table>
<thead>
<tr>
<th>Importing country</th>
<th>Origin of imports</th>
<th>MFN rate</th>
<th>Applied rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Industrial countries</td>
<td>15.2</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>Developing countries</td>
<td>18.4</td>
<td>9.8</td>
</tr>
<tr>
<td>Canada</td>
<td>Industrial countries</td>
<td>7.7</td>
<td>4.6</td>
</tr>
<tr>
<td></td>
<td>Developing countries</td>
<td>13.8</td>
<td>10.3</td>
</tr>
<tr>
<td>European Community</td>
<td>Industrial countries</td>
<td>5.6</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Developing countries</td>
<td>6.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Finland</td>
<td>Industrial countries</td>
<td>6.7</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>Developing countries</td>
<td>11.1</td>
<td>6.7</td>
</tr>
<tr>
<td>Japan</td>
<td>Industrial countries</td>
<td>4.2</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>Developing countries</td>
<td>5.2</td>
<td>2.9</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Industrial countries</td>
<td>16.9</td>
<td>13.5</td>
</tr>
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<td></td>
<td>Developing countries</td>
<td>21.6</td>
<td>14.7</td>
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<tr>
<td>Norway</td>
<td>Industrial countries</td>
<td>5.7</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>Developing countries</td>
<td>5.1</td>
<td>4.6</td>
</tr>
<tr>
<td>Sweden</td>
<td>Industrial countries</td>
<td>5.0</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>Developing countries</td>
<td>7.2</td>
<td>5.7</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Industrial countries</td>
<td>2.7</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>Developing countries</td>
<td>2.8</td>
<td>2.6</td>
</tr>
<tr>
<td>United States</td>
<td>Industrial countries</td>
<td>3.9</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>Developing countries</td>
<td>7.9</td>
<td>7.6</td>
</tr>
</tbody>
</table>

*Note: 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, that is, 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: World Bank.*
Table 3  Escalation of industrial country protection

<table>
<thead>
<tr>
<th>Processing chain and stage</th>
<th>Average tariff</th>
<th>NTB coverage ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh and frozen</td>
<td>6.2</td>
<td>34.0</td>
</tr>
<tr>
<td>Prepared</td>
<td>8.4</td>
<td>41.3</td>
</tr>
<tr>
<td>Fish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh and frozen</td>
<td>4.3</td>
<td>56.9</td>
</tr>
<tr>
<td>Prepared</td>
<td>4.1</td>
<td>7.0</td>
</tr>
<tr>
<td>Vegetables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh</td>
<td>6.9</td>
<td>42.6</td>
</tr>
<tr>
<td>Preparations</td>
<td>13.2</td>
<td>16.4</td>
</tr>
<tr>
<td>Fruits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh</td>
<td>7.4</td>
<td>24.0</td>
</tr>
<tr>
<td>Preparations</td>
<td>17.1</td>
<td>15.0</td>
</tr>
<tr>
<td>Tobacco</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unmanufactured</td>
<td>1.2</td>
<td>12.0</td>
</tr>
<tr>
<td>Manufactures</td>
<td>18.1</td>
<td>25.0</td>
</tr>
<tr>
<td>Sugar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar and honey</td>
<td>1.0</td>
<td>51.0</td>
</tr>
<tr>
<td>Preparations</td>
<td>20.0</td>
<td>19.0</td>
</tr>
<tr>
<td>Cocoa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beans, powder, paste</td>
<td>1.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Chocolate and products</td>
<td>3.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Rubber</td>
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<tr>
<td>Crude</td>
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<td>0.0</td>
</tr>
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<td>Manufactures</td>
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<td>3.3</td>
</tr>
<tr>
<td>Leather</td>
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<tr>
<td>Hides and skins</td>
<td>0.1</td>
<td>0.0</td>
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<td>Leather</td>
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<td>1.7</td>
</tr>
<tr>
<td>Manufactures</td>
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<td>11.7</td>
</tr>
<tr>
<td>Wood</td>
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<tr>
<td>Rough</td>
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<td>Veneer and plywood</td>
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<td>Manufactures</td>
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<td>Cotton</td>
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<td>Raw</td>
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<td>Yarn</td>
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<td>Fabrics</td>
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<td>Iron</td>
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<tr>
<td>Ore</td>
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</tr>
<tr>
<td>Ingots and shapes</td>
<td>2.2</td>
<td>8.7</td>
</tr>
<tr>
<td>Bars and plates</td>
<td>3.4</td>
<td>18.7</td>
</tr>
<tr>
<td>Other metallic ores</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonferrous ores</td>
<td>0.0</td>
<td>4.9</td>
</tr>
<tr>
<td>Wrought and unwrought metals</td>
<td>2.4</td>
<td>1.0</td>
</tr>
<tr>
<td>Phosphates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>3.2</td>
<td>13.7</td>
</tr>
<tr>
<td>Vegetable oils</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil seeds</td>
<td>0.0</td>
<td>1.9</td>
</tr>
<tr>
<td>Oils</td>
<td>4.4</td>
<td>15.8</td>
</tr>
</tbody>
</table>

a. The tariff rates are trade-weighted averages of rates actually applied by Australia, Austria, the European Community, Finland, Japan, Norway, New Zealand, Sweden, Switzerland, and the United States.
b. Percentage of industrial countries' import value that is subject to nontariff barriers.
Source: Yeats (1987, table 15.1).

Table 4  Distribution of imports of selected industrial countries by stage of processing

<table>
<thead>
<tr>
<th>Level of processing</th>
<th>Distribution of imports from developing countries (percent)</th>
<th>Imports from all countries as a percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>72</td>
<td>41</td>
</tr>
<tr>
<td>Stage 2</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Stage 3</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Stage 4</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>All stages</td>
<td>100</td>
<td>36</td>
</tr>
</tbody>
</table>

Note: Includes Australia, Austria, European Community (10), Finland, Japan, New Zealand, Norway, Sweden, Switzerland, and the United States. Product coverage is the same as table 3; stages, as listed there.
Source: World Bank data.

Internal taxes have a similar effect. West Germany imposes a consumption tax of DM3.60 a kilogram on unroasted coffee, DM4.30 a kilogram on roasted coffee, and DM9.35 a kilogram on soluble coffee. Such internal taxes on tropical beverages are widespread in Western European countries. 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 demand for primary products and facilitate primary producing countries' advance to 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 industrial and advanced developing countries. There is, however, considerable room for processing in lower-income countries.

Tariff escalation often protects very simple processes. For example, the U.S. tariff on pineapples in bulk is 64 cents a 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 cents a kilogram. If packaging and crating increases the value of a shipment of pineapples by 20 percent, then the effective rate of protection these nominal rates provide for pack-
aging 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, accounting for less than 6 percent of EC consumption in 1983.
Nontariff barriers

While the momentum of past GATT negotiations has continued to reduce industrial country tariffs (the last tranche of cuts agreed at the Tokyo Round went into effect January 1, 1987), the 1980s have seen a slow but continuous increase in the use of nontariff barriers, which now affect about one-fifth of overall imports by industrial countries (see table 5). These restrictions take many different forms; the definition used here covers the following categories of actions:

- Hard-core NTBs
  - Quantitative import restraints (including discretionary import licensing)
  - Voluntary export restraints (VERs)
  - Measures to enforce decreed prices
  - Tariff quotas
  - Antidumping and countervailing duties
  - Price investigations and other price and volume monitoring measures
  - Nondiscretionary or automatic import licensing

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

The expansion of hard-core NTBs reflects several widely reported actions:

- VERs on steel and steel products imported by the United States and the European Community from all major suppliers;
- VERs on automobiles imported by Canada and the United States;
- VERs on television receivers, video cassette recorders, and other consumer electronic products imported by the EC from Japan and South Korea;
- 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 media but equally threatening to an international trading system was the simultaneous expansion of various kinds of import surveillance and import price discipline measures, particularly antidumping measures.

Table 5  Indices of NTB coverage applied by selected industrial countries, 1981-1987
(1981 = 100)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All products except fuels</td>
<td>100</td>
<td>103</td>
<td>104</td>
<td>106</td>
<td>112</td>
<td>119</td>
<td>120</td>
</tr>
<tr>
<td>All NTBs</td>
<td>100</td>
<td>101</td>
<td>99</td>
<td>104</td>
<td>106</td>
<td>105</td>
<td></td>
</tr>
<tr>
<td>Hard-core NTBs</td>
<td>100</td>
<td>101</td>
<td>99</td>
<td>103</td>
<td>104</td>
<td>104</td>
<td>104</td>
</tr>
<tr>
<td>On all products</td>
<td>100</td>
<td>101</td>
<td>99</td>
<td>103</td>
<td>104</td>
<td>104</td>
<td>104</td>
</tr>
<tr>
<td>On manufactured products</td>
<td>100</td>
<td>99</td>
<td>11</td>
<td>101</td>
<td>112</td>
<td>111</td>
<td>109</td>
</tr>
</tbody>
</table>

Note: The index is constructed as follows:
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.)
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 (1986).
From 1980 to 1986, there were 1,605 antidumping 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—have found that antidumping enforcement is often protection for domestic industries. It imposes limits on foreign sellers that antitrust regulations do not impose on domestic firms. The Australian study recommended that Australia “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.” Apart from formal import restrictions and VERs, the frequency with which such cases are filed against successful exporters creates considerable uncertainty that their performance can be maintained, given the domestic politics of administered protection. This has a chilling effect on developing country efforts to make the efficiency gains and investments necessary for export-led growth.

Some import barriers were removed in the 1980s, for instance, on American 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 $4.00 of industrial countries’ imports have come under hard-core import controls for each $1.00 on which such controls have been removed. New VERs fell relatively heavily on developing country exports. For example, of 124 such arrangements listed by GATT, 77 were with a developing country exporter. NTBs cover approximately the same percentage of industrial countries’ total imports from developing as from industrial countries. (Annex table 1) But beneath this overall equality lie considerable sectoral differences. Since many tropical products, fuels, and raw materials tend to be noncompetitive, they face fewer NTBs than more competitive food and raw materials imported from industrial (often temperate-climate) countries. In manufactures, where they do compete head-on, however, developing countries’ exports face 50 percent more NTBs than industrial countries. Nearly a third of industrial country imports of manufactures from major developing country exporters are subject to NTBs—more than two-thirds of textiles and clothing imports, more than half of steel imports.
Evolving forms of protection

The forms of protection that have become popular over the last decade are complex. A tariff reduces export volume and at the same time pushes down the price the exporter will receive. A VER reduces import volume but at the same time allows the exporter to collect a higher price and thereby gain greater profits on a smaller volume of sales. Antidumping actions tend to have a similar effect — to keep import prices from slipping below the full-cost price in the home market. VERs tend to focus on supply discipline, from which price discipline follows; antidumping focuses on price discipline, from which supply discipline follows.

The most elaborate example of modern trend of protection has evolved in textiles and clothing. The centerpiece of protection in this sector is the Multifibre Arrangement (MFA), under which each importing nation negotiates bilateral agreements with individual exporting nations covering quotas on specific products.

In addition, the industrial countries continue to maintain high tariffs in this sector. Post-Tokyo Round rates on textiles and clothing average 17 percent in the United States, 20 percent in Canada, 10 percent in the European Community, Sweden and Switzerland, and 25 percent in Finland. 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. Second, 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 have the potential to be major suppliers, the MFA restricts exports. To firms in these countries, the MFA restricts exports from their home base, but not necessarily their offshore exports. It is, at the same time, a guarantee of profits on the share of the market they have managed to negotiate. In Hong Kong, for example, quota rights are allocated among exporters according to historical market shares, but these rights are negotiable and tend to have a high market value. From 1982 to 1983, their value came to about 10 percent of the industry's value added, or 1.2 percent of Hong Kong's GDP.

Because of the immense discretion the MFA gives importers, political factors loom as important as economic ones. Prospective suppliers must negotiate an agreed market share, that is, they 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. 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 control of dis-
ruptive imports. Even though the trading nations conscientiously negotiated this system under the GATT, the protection it incorporates has turned out to be much stronger than its antiprotection disciplines. The large profits the MFA preserves for established exporters reduces their interest in opposing such arrangements. Potential exporters may find it more attractive to negotiate for a share of a controlled market than to compete for a share of an open one.

World trade in steel is on the way to being as tightly controlled as trade in textiles and apparel. Imports to markets in the United States and the European Community are now controlled by 37 bilateral arrangements; ten 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 less subject to requirements of transparency and are even weaker vis-à-vis the balance of exporters versus importers.

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 — between 20 and 40 percent on some products. During the Tokyo Round, substantial reductions of petrochemical tariffs were negotiated. The U.S. valuation system (the "American Selling Price") for assessing petrochemical import values, which increased the ad valorem equivalent of U.S. tariffs — was also eliminated. Moreover, during the 1980s the United States and others dropped their prior licensing requirements for petroleum imports. The industrial countries had also expanded capacity to meet projected buoyant domestic demand. The actual growth of demand was much less than 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 United States, Europe, and Japan was 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, and producers in many developed nations sought protection in the form of antidumping actions, often as a complement to the tacit acceptance by the government of price-fixing arrangements among domestic producers. Between 1980 and 1984, there were 21 antidumping cases on petrochemical products in the United States and 77 cases in the European Community. American and Japanese plants have since been restructured and a large amount of older capacity shut down. Europe’s petrochemical industry 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 onstream in Saudi Arabia increased global output 5 percent. Because this new capacity was under construction in a period of slack demand and extensive restructuring, it aroused concerns that 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 production 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 antidumping cases filed by the United States and the European Community dropped sharply — from 98 in the five years from 1980 to 1984, to 20 in the three years from 1985 to 1987. Of these 118 antidumping cases, only two were filed against Gulf suppliers (Kuwaiti and Saudi urea exports). These cases came at the same time as cases against six other exporters of urea and covered 11 percent of Saudi Arabia’s and 46 percent of Kuwait’s 1986 exports of petrochemicals to the EC. Six exporting countries agreed to observe a minimum price on urea exports to the EC.
Saudi Arabia, along with Libya, did not agree and in the end an antidumping duty of 46 percent was imposed on urea from Saudi Arabia, a slightly lower duty on imports from Libya.

There are two other recorded import policy actions against Persian Gulf exports. The first was an EC decision in 1985 to apply to Saudi Arabian polyethylene, methanol, and glycol the 13 to 14 percent ad valorem rates specified in the EC's Common External Tariff, and applied to imports from all developed and developing countries that are larger than the "competitive need" thresholds specified in the EC's tariff preference system. This was an action within the discretionary authority of existing EC regulations. Negotiations to reverse the action continued until 1987, when the regulations were changed to shift imports of petrochemicals from Saudi Arabia into a category on which the EC staff does not have the authority to provide duty-free treatment under GSP.

In oil-importing countries, the price of basic petrochemical feedstocks varies directly with the price of crude petroleum. However, the Gulf countries produce feedstock from gases that have no alternative economic use. A tight world market for petrochemicals benefits industrial country and 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 instead of crude oil. As a result Gulf oil producers are diversifying into ownership of petrochemical companies with production facilities in the industrial countries. Their home production will be relatively profitable when the crude oil market is tight; offshore investments when oil prices are low. Such diversification is also a hedge against the anti-import actions that might be devised when the industry moves into its next cyclical downturn.
The concentration of exports

The middle-income developing economies account for a large and growing share of manufactured exports. Lower-income economies have not kept pace as suppliers of manufactured exports (see table 6). In 1965, the World Bank’s list of low-income developing economies produced almost a third of all manufactured exports from developing economies; two decades later they were down to only a sixth. If China and India are excluded from this group, the others account for only 3 percent of developing economies’ manufactured exports. Most of the shift stems from the growing share of Singapore, Hong Kong, South Korea, and Taiwan. By 1985, these four accounted for more than half the manufactures exported by the 93 developing economies. In fact since 1980, all four have usually been in the top 20 exporters of manufactures. By 1986, manufactured exports from Korea and Taiwan 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 exceeded those of the United States.

Still, export growth has not been confined to these four. A number of other developing economies have experienced rapid growth of manufactured exports, though the value of these exports is still relatively small. From 1965 to 1985, 27 developing economies (outside the four Asian Newly Industrializing Economies [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 a sixth as large as those (total) of the four Asian NIEs. Export values for the other 25 total less than the total for Mexico and Brazil.

Four countries — the United States, Japan, the Federal Republic of Germany, and the United Kingdom — have imported three-quarters of developing country manufactured exports for more than 20 years (see table 7, overleaf). Recently, the first three have accounted for over

Table 6  Share of manufactured exports by selected developing economies

<table>
<thead>
<tr>
<th></th>
<th>1965</th>
<th>1985</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low income</td>
<td>30</td>
<td>16</td>
</tr>
<tr>
<td>China</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>India</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Other low income</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Middle income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Asian Four*</td>
<td>20</td>
<td>56</td>
</tr>
<tr>
<td>South Africa</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Other middle income</td>
<td>42</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: Based on a selected group of 93 developing economies.
a. Singapore, Hong Kong, South Korea, Taiwan.
Source: Comtrade database.
In fact, since 1980 the United States and Japan have been responsible for two-thirds of the increment of developing country manufactured exports; the United States alone accounted for more than half. Almost three-fifths of these imports come from the four Asian NIEs; Germany's import sources are dispersed.

These large export shares have been earned mostly by providing reliable supplies of high quality, competitively priced merchandise. But 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, in shifting the product variety. Political skills — to preserve and sometimes create the loopholes — are also useful.

Table 7  Country shares of manufactured imports from developing economies (percent)

<table>
<thead>
<tr>
<th></th>
<th>1965</th>
<th>1975</th>
<th>1986</th>
</tr>
</thead>
<tbody>
<tr>
<td>All industrial countries</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>United States</td>
<td>33</td>
<td>34</td>
<td>51</td>
</tr>
<tr>
<td>European Community</td>
<td>47</td>
<td>43</td>
<td>30</td>
</tr>
<tr>
<td>Germany (FR)</td>
<td>10</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>24</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>France</td>
<td>3</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Italy</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Japan</td>
<td>5</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Canada</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Other industrial countries</td>
<td>12</td>
<td>12</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Comtrade database.
Effects on developing countries

There are a number of recent examinations of industrial country trade restrictions. Most of these studies, however, concentrate on own-country effects. There have been few studies of the effects on exporting countries; particularly few estimates of the efficiency effects on developing country suppliers — the cost to these economies of the inability to exploit their comparative advantage and use their resources in sectors in which these resources are, by world standards, the most effective. This section will review the effects of industrial country trade restrictions on the export earnings of developing countries and on their overall potential to produce output from a given resource base — the efficiency, or welfare, effect.

Efficiency or "welfare" gains

Table 8 presents estimates of the welfare gain from elimination of all industrial country tariffs and nontariff barriers.24 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 in efficiency that might be stimulated by specific static gains, or by a more open trading system. Finally, the simulations that the estimates are based on assume 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 coun-

Table 8  Efficiency gains to developing countries from removal of industrial countries' trade barriers

<table>
<thead>
<tr>
<th></th>
<th>As a percentage of developing countries' GNP</th>
<th>As a percentage of industrial countries' GNP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unilateral removal by:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>European Community</td>
<td>1.1</td>
<td>0.7</td>
</tr>
<tr>
<td>United States</td>
<td>0.8</td>
<td>0.4</td>
</tr>
<tr>
<td>Japan</td>
<td>0.7</td>
<td>0.5</td>
</tr>
<tr>
<td>Multilateral removal by:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All industrial countries</td>
<td>2.9</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Note: 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: John Whalley (1985, p 181).
try 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 Norman²⁶ came to the same overall figure but separates the effects on the major exporters of manufactures and on other developing countries. As one might expect, the impact on the major exporters of manufactures is larger — about 4 percent of GNP as compared with 2 to 2.5 percent for other developing countries.

Keep in mind the limits of such estimates. The models are built on a 1979 database, and in 1979 trade restrictions were less extensive than they are now. Further, they exclude many dynamic impacts of policy changes and do not incorporate the trade effects of nonborder measures.

**Effect on export receipts**

Estimates of effects on export earnings tend to take a shorter 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, where they do not earn foreign exchange, to producing for the export market, where they do. In line with such concerns, a recent United Nations Conference on Trade and Development study has estimated that elimination of all industrial country trade restrictions would lead to a more than 10 percent increase in developing country exports. More than 40 percent of this increase would be exports of clothing, another 10 percent exports of food and food products.²⁶ Erzan and Karsenty found that the gains from reducing the highest industrial country tariffs to a maximum 10 percent would be even more concentrated on clothing and textiles, products that bear the highest tariffs and most restrictive NTBs.²⁷

Viewed from a longer-term perspective, this concentration of the trade effects of protection indicates it has had a significant effect on resource allocation. 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.²⁸ Deardorff and Stern, in an analysis focused particularly on the allocative effects of industrial country protection, estimated that employment in the apparel industry would increase by more than 20 percent in seven of the 16 developing economies in the study.²⁹

**Factor mobility and flexibility**

How countries adjust to trade restrictions is difficult to measure. The easier and faster the reallocation of resources from product lines or industries under restriction to other product lines or industries the less the impact of protection.³⁰ 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 to the designated market are restricted, the foreign buyer no longer appears. Thus, the exporter is not informed on designs that might minimize the impact of restrictions or sell well in other markets, nor 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 a rapid reshaping of a country’s capital stock. Conversely, a low investment rate makes it difficult to move out of production affected by trade restrictions. High savings rates or capital inflows are corollaries 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 education can adjust 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 trade restraints have been reinforced by reduced mobility of capital and labor in the 1980s. The debt crisis has slowed capital flows to many developing countries. Actual and potential trade restrictions reduce creditworthiness and are disincentives to 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 Europe halted — and in some cases reversed — this trend. In the United States the new immigration law is designed to reduce the inflow of undocumented workers. Yet in the presence of huge interna-
tional income differences, highlighted by the free flow of information, pressures to migrate are bound to 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 of labor, capital expenses may relieve economic pressures to import labor.
Major findings and implications

The major findings of this review 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 will benefit. But developing the institutions that will transform this concept 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 manufacturing segments in which developing countries have a strong export interest, such as steel.

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 by developing countries.
   b. Reductions from MFN rates on imports of manufactured goods from industrial countries, particularly among Western European countries, are larger than reductions or preferences on imports from developing countries.

3. Developing country exports of manufactured goods to industrial countries face 50 percent more NTBs than similar 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 reduce demand for the primary product. This is a further burden on countries dependent on primary products.

5. There has been a significant increase in the 1980s in the number of administered protection cases (for example, antidumping, countervailing duty), particularly against developing countries. These cases not only generate specific trade restrictions and create uncertainty as to the continued openness of industrial country markets, they also constitute an additional expense for trading enterprises. This uncertainty may be a significant impediment to international trade, as are the legal and administrative expenses of protection.

6. Industries with high fixed costs often file antidumping cases in order to extend to imports the “price discipline” that domestic firms have established, often with tacit government approval. Steel, autos, and petrochemicals are examples.

7. The growth of global systems of VERs (for instance, 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 half of all industrial countries' manufactured imports from developing countries. The European Community accounts for less than a third, down from almost half in 1965, and Japan has less than a 10 percent share. The East Asian NIEs account for over half of developing country exports of manufactures.

9. Industrial country protection reduces developing country national income by roughly twice the amount provided by official development assistance.

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 that favor other Western European countries over the developing countries reflect the importance of reciprocity in reducing trade restrictions.

11. GSP schemes often exclude key developing country exports and can be withdrawn unilaterally.

The Uruguay Round

Industrial countries do not usually change their trade regimes unilaterally; they negotiate agreements at multilateral trade talks. The Uruguay Round is thus an important vehicle for reducing the impact of industrial countries' trade restrictions on developing countries. Talks come at a crucial time for the multilateral system. Trade restrictions have begun to multiply, and there is a growing movement toward bilateral agreements, including the EFTA-EEC, Australia-New Zealand, and U.S.-Canada. Bilateral trade threats have also increased, and "gray area" trade barriers (measures against the spirit, but not the letter of GATT) have grown. Both the liberal open trade environment and its major principles — nondiscriminatory treatment and multilateralism — are now at stake.

Because the developing countries have much to lose if this scenario occurs, they are very active participants in the round. Several issues are of particular interest. A number of tariff proposals have been offered. Some emphasize the elimination of all industrial tariffs while others focus on the remaining higher rates. The European Community has proposed that duties on semi-processed tropical products be eliminated or significantly reduced; even tariffs on final processed tropical products would be trimmed by at least half. This cut would be combined with the progressive elimination of consumption taxes on tropical products. Many such proposals are contingent on developing countries joining in the bargaining, in a way commensurate with their development, financial and trade situation. There is a risk that attention will focus on sophisticated forms of processing, while unsophisticated processing, such as crating and packaging, are of more immediate interest to many poorer countries.

Nontariff barriers on industrial goods 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 NTBs has received several proposals, including one from the United States 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 GATT administrative procedures. The objective is to contain gray area measures and to minimize the extent to which the procedures themselves have a negative effect on trade.

By the end of 1992 the members of the European Community will have one single market; the largest in the world. This will have a major impact on manufactured exports of developing countries, particularly since the U.S. market may be less buoyant as the nation redresses its macroeconomic imbalances. The trade policies of the European Community 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 take subtle forms that mute exporting firms' and consumers' resistance. 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
A number of ways have been suggested that would augment public awareness of the domestic costs of import restrictions. The 1985 "Leutwiler Report," commissioned by the GATT, suggested that:

"In each country, the making of trade policy should be brought into the open. The costs and benefits of trade policy actions, existing and prospective, should be analyzed through a 'protection balance sheet.' Private and public companies should be required to reveal in their financial statements any subsidies received. Public support for open trade policies should be fostered."

Paul Volcker, in his address on the 40th anniversary of the GATT, suggested that the GATT Secretariat sponsor, say once a year, a careful investigation of an important trade issue. Mr. Volcker offered two possible topics: the costs and consequences of the shift from tariffs to NTBs; and the costs of selected protectionist measures recently adopted by 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," required by law, lists subsidy programs implemented through tax allowances as well as programs funded under the federal budget, and provides information on state and local assistance programs. In Australia, the Industries Assistance Commission's statutory charter requires it to report on government assistance 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 has revised its definition of subsidies for the Subsidies Report the amount of subsidization reported has become smaller. Australian experience provides another example. Assistance in Australia has been expanding through forms (such as antidumping) that evade the commission's coverage. To complement better national surveillance, then, 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 are that, in the end, more imports as well as more exports are generated by 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 prosper.
Endnotes

2. The operational definition of manufactures is Standard Industrial Trade Classification (SITC) categories 5 through 8, minus 68. The coverage of these categories is as follows:
   SITC 5: Chemical elements and compounds
   6: Semimaneufactures and manufactures by material
   7: Machinery and transport equipment
   8: Miscellaneous manufactures
   68: Nonferrous metals
3. "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 1987b, p. 223).
4. 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 roads and highways.
5. A catalogue of objectives and instruments is provided in OECD 1978.
6. 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 1987b, p. 224).
8. 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%.
11. 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 support for agriculture in the European Community, Japan, Korea, and the United States. 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 to give similar estimates for OECD countries.
14. Compared to figures for all industrial countries, the average Australian tariff rate is 1.8 times as high. (Finger and Laird 1987). Australian NTBs cover 1.3 times as large a fraction of imports (Nogués, Olechowski and Winters 1986) and Australian subsidies (as a share of GNP) are 0.9 times as large. (OECD 1986) Imports as a share of
GNP are approximately the same for Australia as for the industrial countries as a group, 18 percent. (WDR '87) If, in calculations for the industrial countries, we use the same elasticities as were used in the Australia calculation, take non-border assistance to be twice as high as in Australia, border protection to be one-half as high, we would still conclude that $8.00 of every $10.00 of assistance would be provided through the price effects of import restrictions.

15. GATT 1980.
16. This section draws on information from Erzan and Karsenty 1987, including unpublished material supplied by the authors.
30. Capacity to resist the imposition of protection by threatening retaliation in some economic, political, or strategic form is also important. This capacity is enhanced by economic size and by strategic and political links.
References


## Annex

Annex Table 1  Extent of selected industrial countries’ NTBs on imports from industrial and developing countries, 1984

<table>
<thead>
<tr>
<th>Product category</th>
<th>Percentage of value of imports from</th>
<th>Percentage of import categories from</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Industrial countries</td>
<td>Developing countries</td>
</tr>
<tr>
<td>All</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>Agricultural</td>
<td>44</td>
<td>33</td>
</tr>
<tr>
<td>Fuels and Ores</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>Textiles</td>
<td>25</td>
<td>62</td>
</tr>
<tr>
<td>Steel</td>
<td>50</td>
<td>46</td>
</tr>
<tr>
<td>Footwear</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Electrical machines</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Vehicles</td>
<td>30</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: The data cover a broad range of NTBs, including paratariiff 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, the EC (excluding Spain and Portugal), Finland, Japan, New Zealand, Norway, Switzerland, and the United States. Source: UNCTAD database.
### Annex Table 2  Industrial country imports of fuels and petrochemicals

(percentage of total imports)

<table>
<thead>
<tr>
<th>Source</th>
<th>United States</th>
<th>Japan</th>
<th>European Community</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mineral fuels and refinery products</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial countries</td>
<td>19 28 31 29 26 9 10 11 15 ++</td>
<td>12 17 19 21 22</td>
<td></td>
</tr>
<tr>
<td>Developing countries</td>
<td>81 72 69 71 74 91 90 89 85 ++</td>
<td>88 83 81 79 78</td>
<td></td>
</tr>
<tr>
<td>Persian Gulf states&lt;sup&gt;b&lt;/sup&gt;</td>
<td>21 9 5 11 13</td>
<td>53 48 46 40 ++</td>
<td>42 14 12 17 16</td>
</tr>
<tr>
<td><strong>Petrochemicals</strong>&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial countries</td>
<td>88 80 78 80 83</td>
<td>77 79 76 74 ++</td>
<td>75 78 76 78 79</td>
</tr>
<tr>
<td>Developing countries</td>
<td>12 20 22 20 17</td>
<td>23 21 24 26 ++</td>
<td>25 22 24 22 21</td>
</tr>
<tr>
<td>Persian Gulf states</td>
<td>0.4 0 0.8 1.6 1.1</td>
<td>0 1.5 3.5 5.7 ++</td>
<td>0 0.3 2.2 2.5 2.2</td>
</tr>
</tbody>
</table>

+ Indicates not available

<sup>a</sup> SITC 3

<sup>b</sup> Includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates.

<sup>c</sup> Includes the following SITC (Rev. 1) categories:
- Synthetic rubber 231.2, 599.76
- Synthetic fibers 266.2 excl. 266.23
- Organic petrochemicals 512, 599.75
- Plastics and synthetic resins (581 excl. 581.3, 581.91 and 581.92)
- Carbon black 513.27
- Surfactants 554.2

Source: Comtrade database.
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