

# International Trade: Patterns and Prospects

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INTERNATIONAL TRADE: PATTERNS AND PROSPECTS

Introduction

1. This paper presents the results of some of the background analyses of the structure and patterns of international trade and of developments in commercial policy that were undertaken in connection with the global modelling exercise for WDR II. The focus of these analyses was on the relative performance of developing countries in international trade and of the implications of changes in the international environment on their past performance and prospects.

2. The first two sections of the paper provide an overview of trends in international trade in the period 1960-78, and of developments in commercial policy in the past five years. The third and fourth sections focus on the geographic patterns and commodity structure of the trade of developing countries over the past two decades. The use of disaggregated data serves to highlight the differential responses of individual countries to changes in the international environment and also emphasizes the importance of supply factors in determining trade performance. The final section sets out the assumptions underlying the international trade component of the global model.

Trends in International Trade

3. The volume of world trade grew at an average annual rate of 7.4% between 1963 and 1977 (Table 1); this compares with an increase of 5% in world output in the same period. Exports of manufactures were the most rapidly growing component of total exports (9.2% per annum) and their volume-share increased from 53% of total exports in 1963 to almost 70% in 1977. Both agriculture and minerals exports declined in volume-shares of total world trade, although because of relative price movements, the latter have gained in value-share from 17% in 1963, to 23% in 1977. The volume of world trade has not only

grown more rapidly than world output in this period, but in fact the growth of trade in each major sector--agriculture, minerals, and manufactures--has been more rapid than that of world output in the corresponding sector. This reflects the increasing international division of labor which took place in this period.

Table 1: EVOLUTION OF WORLD EXPORTS AND PRODUCTION, 1963-78

	1963	1968	1970	1973	1974	1975	1976	1977
<b>World Exports</b>								
<u>Value, 1963 prices</u>								
Total (\$bln., f.o.b.)	<u>154</u>	<u>228</u>	<u>274</u>	<u>358</u>	<u>370</u>	<u>359</u>	<u>400</u>	<u>416</u>
Agriculture (% share)	29	24	22	18	17	18	18	18
Minerals/a (% share)	17	16	15	14	13	13	12	13
Manufactures (% share)	53	59	61	63	67	65	67	68
<u>Index, 1963=100<sup>/b</sup></u>								
Total	<u>100</u>	<u>149</u>	<u>178</u>	<u>231</u>	<u>240</u>	<u>232</u>	<u>259</u>	<u>270</u>
Agriculture	100	121	135	147	142	150	160	160
Minerals/a	100	144	165	192	190	180	185	190
Manufactures	100	166	204	280	304	292	327	345
<b>World Output</b>								
<u>Index, 1963=100<sup>/b</sup></u>								
All commodities	<u>100</u>	<u>133</u>	<u>146</u>	<u>175</u>	<u>179</u>	<u>178</u>	<u>190</u>	<u>198</u>
Agriculture	100	115	119	129	130	134	137	140
Minerals/a	100	129	143	163	166	163	171	177
Manufactures	100	141	159	197	203	200	216	227

/a Including fuels and non-ferrous metals.

/b Using 1970 weights.

Source: GATT, International Trade 1977/78, 1978.

Table 2: GROWTH AND COMPOSITION OF MERCHANDISE EXPORTS 1960-76  
(1975 prices)

		Growth Rate 1960-76 Annual average (%)	LDCs share in world exports	
			1960	1976
Non-fuel primary:	LDCs	3.7	37.3	33.6
	World	4.4	100.0	100.0
Fuel:	LDCs	6.3	44.2	41.3
	World	6.7	100.0	100.0
Total Primary:	LDCs	<u>4.9</u>	<u>40.0</u>	<u>37.2</u>
	World	<u>5.4</u>	<u>100.0</u>	<u>100.0</u>
Machinery, Trans- portation equipments:	LDCs	17.5	1.6	4.7
	World	9.9	100.0	100.0
Other manufactures:	LDCs	11.8	8.6	13.7
	World	8.5	100.0	100.0
Total manufactures:	LDCs	<u>12.7</u>	<u>5.7</u>	<u>9.5</u>
	World	<u>9.1</u>	<u>100.0</u>	<u>100.0</u>
Total merchandise:	LDCs	<u>6.3</u>	<u>24.3</u>	<u>20.7</u>
	World	<u>7.4</u>	<u>100.0</u>	<u>100.0</u>

Sources: UN, Yearbook of International Trade Statistics, various issues; UNCTAD, Handbook of International Trade and Development Statistics, various issues; GATT, Networks of World Trade, Studies in International Trade No. 7, 1978.

4. The aggregate trade performance of developing countries<sup>1/</sup> has been significantly below that of the industrialized countries; the rate of growth of LDC export volume in the period 1960-76 was 6.3 percent, while that of total world exports was 7.4 percent (Table 2). This primarily reflects the fact that LDC exports were heavily concentrated in commodities in which global trade expanded at relatively slow rates. In 1976, non-fuel primary exports accounted for roughly one-third of developing countries exports, but only for one-fifth of world exports. Furthermore, trade among the industrialized countries was the main source of global trade expansion during the sixties and early seventies, reflecting such factors as regional integration in Western Europe, the United States-Canada automobile agreement, and the Kennedy Round trade liberalization among industrialized countries. For example, 85% of the increase in the imports of manufactures by industrialized countries in the period 1960-76 were provided by trade between the industrialized countries. The relatively strong export performance of developing countries in manufactures, 12.7 percent per annum as compared to 9 percent for the industrialized countries, is therefore, a significant achievement.

5. The poorest export performance of developing countries was in agricultural commodities, exports of which grew at an average annual rate of approximately 3.5 percent. The slow growth of agricultural exports from developing countries is a reflection of a number of factors, among the more important being (1) internal supply constraints and (2) protectionist agricultural policies in importing countries. Principally as a result of the

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<sup>1/</sup> Unless otherwise specified, developing countries are defined as including Southern Europe and excluding the capital surplus oil-exporting countries (Oman, Saudi Arabia, Libya, UAE, Qatar and Kuwait).

slow growth of agricultural exports, the share of developing countries in world exports (in 1975 prices) declined from 24 percent in 1960 to 21 percent in 1976; however, their share in world exports of manufactures increased from 6 percent in 1960 to 10 percent in 1976.

Trends in Protectionism

6. Despite rapid growth in world trade and increasing shares for developing countries in manufactures exports, the future is clouded by what is perceived to be a "rising tide of protectionism" in the developed countries. As summarized in Table 3, non-tariff barriers are numerous and

Table 3: PRESENT TRADE BARRIERS IN DEVELOPED COUNTRIES

Product Group	Average Nominal Tariffs	Nontariff Barriers
Industrial raw materials (Ores, fibers, etc.)	Very low (about 2%); majority enter duty free	Rarely exist except in fuels
Relatively unprocessed food products	Very low to low (3-8%) not counting variable levies	Very common, often high
Processed food products	Generally low to inter- mediate (6-13%); high in tobacco, liquor	Very common, often high
Most industrial products	Low (7-10%)	Very few
Textiles and clothing	Relatively high (fabrics 18%, clothing 25%)	Numerous, serious, and increasing
Other LDC manufactured specialties	Intermediate (generally 11-17%)	Increasingly frequent

Source: IBRD, Trade Liberalization and Export Promotion, June 30, 1977, p. 3.

severe in agriculture and textiles and clothing. Average tariffs on most industrial raw materials and manufactures (outside of textiles and clothing) are low and non-tariff barriers are few. However, since 1974, the industrialized countries have increasingly resorted to official and unofficial safeguard actions to relieve domestic producers from foreign competition. At the same time, industrialized countries have been engaged in negotiations within the GATT to liberalize trade barriers and reform and strengthen the rules governing commercial policy. An attempt is made here to briefly summarize these divergent developments affecting the international trading environment.

7. Tables 4 and 5 present data relating to safeguard actions taken in the U.S. and EEC respectively on industrial commodities. The first column in each table shows the value of imports of protected products from restricted foreign suppliers, and the percentage share of this value in total manufactured imports. This is the closest measure of trade flows directly affected by the safeguard measures. The second column gives the value and percentage share of total imports of protected products, which in most cases measures a broader flow of trade since safeguard actions have frequently been country specific rather than global. The figures in column two may be relevant for analysis if changing barriers (perhaps by creating uncertainty) affect unrestricted foreign suppliers as well as those directly subject to the restraints. Column three is intended to show the importance of developing countries as suppliers of products protected by recent safeguard actions.

Table 4: TRADE FLOWS AFFECTED BY U.S. SAFEGUARD ACTION, 1976

Product	Restricted Suppliers	(1) Imports from Restricted Supplier		(2) Total Imports		(3) Imports from LDCs		(4) Exports from Restricted Supplier		(5) Exports from LDCs	
		US\$ Million	% of Total US Manufactured Imports/a	US\$ Million	% of Total US Manufactured Imports/a	US\$ Million	% of Total US Manufactured Imports/a	US\$ Million	% of Total Manufactured Exports/b	US\$ Million	% of Total Manufactured Exports/b
Bolts, nuts and large screws of iron or steel	Global	270.163 (1975)	.56 (1975)	270.163 (1975)	.56 (1975)	11.844 (1975)	.14 (1975)	1,037.929 (1975)	.20 (1975)	26.506 (1975)	.08 (1975)
High carbon ferrochromium	Global	73.537	.11	73.537	.11	11.500	.10	n.a.	n.a.	n.a.	n.a.
CB transceivers	Global	938.036	1.42	938.036	1.42	114.759	1.02	n.a.	n.a.	n.a.	n.a.
Television sets and parts	Japan	615.262	.93	879.385	1.33	256.593	2.27	1,391.844	2.64	128.206 (1975)	.41 (1975)
Non-rubber footwear	Taiwan, <sup>/b</sup> Republic of Korea	184.662 (1975)	.38 (1975)	1,297.961	1.97	402.650 (1975)	4.80 (1975)	n.a.	n.a.	498.970 (1975)	1.54 (1975)
Stainless steel alloy tool steel	Global	156.928 (1974)	.30 (1974)	156.928 (1974)	.30 (1974)	4.885 (1974)	.06 (1974)	n.a.	n.a.	n.a.	n.a.

<sup>/a</sup> Total manufactured imports or exports defined as SITC categories 5 through 8, less 68.

<sup>/b</sup> UN data on Taiwan available only in aggregation with "Developing Asian Economies, other than Middle East."

Sources: UN Monthly Bulletin of Statistics, June 1978, Special Table F.  
 UN Yearbook of International Trade Statistics, 1976.  
 US Bureau of the Census, US General Imports: Schedule A, 1976.  
 OECD, Trade by Commodities, Series C, 1975 and 1976.

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Table 5: TRADE FLOWS AFFECTED BY EEC SAFEGUARD ACTION, 1975

Product (Member Country Involved)	Restricted Suppliers	(1) Imports from Restricted Supplier		(2) Total Imports		(3) Imports from LDCs		(4) Exports from Restricted Supplier		(5) Exports from LDCs	
		US\$ Million	% of Total Manufactured Imports/a of Protected Ctry.	US\$ Million	% of Total Manufactured Imports/a of Protected Ctry.	US\$ Million	% of Total Manufactured Imports/a	US\$ Million	% of Total Manufactured Exports/b	US\$ Million	% of Total Manufactured Exports/b
Steel/b (All EEC)											
Non-leather footwear (United Kingdom)	Taiwan/c	2.170	.01	71.682	.28	24.636	3.78	116.862 (1974)	.57 (1974)	124.023 (1974)	.40 (1974)
Motorcycles (Italy)	Japan	25.615 (1976)	.14 (1976)	44.813 (1976)	.25 (1976)	.875	1.39	1,161.949	2.21	14.863 (1974)	.04 (1974)
Portable monochrome tele- vision sets (United Kingdom)	Rep. of Korea, Taiwan/c	1.532	.01	147.742	.60	13.061	2.00	183.542	.70	110.888 (1974)	.36 (1974)
Enameled iron and steel/b (France)	Spain										
Cycle tires (Ireland)	Non-OECD,/d Japan	2.633 (1976)	.10 (1976)	21.784 (1976)	.81 (1976)	.668	3.92	601.295 (1976)	.57 (1976)	56.987 (1972)	.39 (1972)
Cast iron tubes and pipes (Italy)	Taiwan/c	neg.	neg.	74.484 (1976)	.42 (1976)	7.751	12.33	35.643 (1974)	.17 (1974)	96.202 (1974)	.31 (1974)
Bags and sacks of poly- olefine, polyethylene, polypropylene strips (United Kingdom)	Rep. of Korea	.029	.00	337.712	1.30	3.686	.56	8.357	.20	66.385 (1973)	2.82 (1973)
Sisal binder twine (All EEC)	Global	96.278	.06	96.278	.06	20.212 (1977)	n.a.	n.a.	n.a.	n.a.	n.a.
Textile and textile products/b (Some products all EEC, others specific to member countries)											
Tape recorders (Italy)	Global	39.699	.13	36.691	.13	1.874 (1977)	n.a.	1,722.445	.36	131.432	.41

neg. = negligible

/a Total manufactured imports or exports defined as SITC categories 5 through 8, less 68.

/b These products will be discussed separately in the text.

/c UN data on Taiwan available only in aggregation with "Developing Asian Economies, other than Middle East."

/d Data available only as "Developing Market Economies."

Sources: Statistical Office of the European Communities, Eurostat, 1977.  
OECD, Trade by Commodities, Series C, 1975 and 1976.  
UN Monthly Bulletin of Statistics, June 1978, Special Table F.  
UN Yearbook of International Trade Statistics, 1976.

8. In recent years, resort to safeguard protection by the U.S. and the EEC has been selective. It is not therefore surprising to find that in 1976, U.S. imports of goods which received safeguard protection (1975-1978) constituted less than 5% of total manufactured imports; in the EEC, imports of goods receiving safeguard action in 1975 in every case amounted to an insignificant (less than 0.5%) proportion of total manufactured imports of the country imposing restrictions. In fact, total imports of goods receiving safeguard protection (including imports from non-restricted foreign suppliers) constitute small shares of total manufactured imports in the U.S. as well as in the EEC countries. The shares of the products receiving safeguard protection in total imports of manufactures from LDCs is also relatively low, exceeding three percent in only four cases: non-rubber footwear (U.S.), non-leather footwear (U.K.), cycle tires (Ireland) and cast iron tubes and pipes (Italy).

9. As to the question of the importance of the goods receiving U.S. and EEC safeguard protection in the export bundles of the restricted foreign suppliers and LDCs as a group, our data are less reliable. The evidence that is available, and it must be stressed that it is only approximative, suggests that these products do not weigh heavily in manufactured exports of the restricted foreign suppliers specifically or LDCs in general (see columns 4 and 5 of Tables 4 and 5).

10. In textiles and steel, the two sectors in which protection has been granted outside the safeguard avenue, measurement of the affected trade flows is rather more difficult because of the complexity of the bilateral agreements that govern trade in these sectors.

11. In textiles (SITC 65), less than 25% of developed country imports originate in the developing countries; over 50% of their clothing imports come from LDCs, however. From the LDC perspective, better than 50% of textile exports and some 87% of clothing exports are destined for developed country markets, access to which has been increasingly limited by new MFA agreements. This together with the fact that textiles and clothing account for almost one-third of LDC manufactured exports suggest that LDC export performance may well fall short of past standards as a result of increased protectionism. It remains to be seen, however, whether LDCs will be able to circumvent textile restraints (as many were successful in doing in the past) or compensate by diversifying exports into other manufacturing branches or relatively less protected markets.

12. The implications of increased protectionism in the steel trade, where developing countries possess less comparative advantage, are of course not as severe. The principal target of U.S. and EEC protection in steel has been Japan. Developing countries account for but a small share of developed country imports. However, over 50% of the iron and steel that LDCs do export (about 2% of total LDC manufactured exports) is destined for industrialized countries, and may well become subject to quantitative controls in the future.

13. To summarize, outside of textiles and clothing, recent protectionism in the U.S. and EEC in the form of official changes in import barriers does not appear to constitute a serious obstacle to continued expansion of LDC manufactured exports. Moreover, the apparent trend is one of trade liberalization in Japan, which should expand opportunities for LDC exports.

14. Going beyond official trade actions and looking to the future offers a less sanguine view. Defensive subsidization of industry in Europe is on the rise. Unofficial, secret agreements between governments and industries to restrict trade are by all reports proliferating. Whatever the present level of industrial protectionism (and judging from the export performance of many LDCs since 1975 it cannot yet constitute an insurmountable obstacle), an upward trend is all too clear.

15. While facing mounting pressures from protectionists, the developed countries have been intensively engaged in multilateral negotiations to lower tariffs and revise GATT codes governing non-tariff barriers. The average cut in tariffs that is likely to come out of the Tokyo Round, after exceptions are taken into account, is little more than 30 percent.<sup>1/</sup> Since tariff levels are already relatively low (10-12 percent on average) and reductions will be phased over an 8-10 year period, the expected gains are not great for either the developed or developing countries.

16. The "brilliant accomplishment," according to Robert Baldwin,<sup>2/</sup> is "a sweeping elaboration and partial revision. . . in almost every article of the GATT." Some developing countries are less enthusiastic about the outcome, however. The draft codes on subsidies and countervailing duties do not exempt the developing countries when their export subsidies are deemed to have caused injury to their trading partners. Moreover, the draft code commits the developing countries "to reduce or eliminate export subsidies when their use is inconsistent with their competitive needs."

17. The safeguard code is also opposed by some developing countries because it will (at EEC insistence) likely provide legal cover for selective "voluntary"

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<sup>1/</sup> Robert Baldwin, "The Multilateral Trade Negotiations: Towards Greater Liberalization?", mimeo., unpublished, 1979.

<sup>2/</sup> Baldwin, op. cit. p.31.

export restraints and orderly marketing agreements, which the developing countries believe will be largely used against them. The argument has been made, however, that discriminatory restrictions may transfer opportunities to the poorer developing countries which are otherwise unable to compete.

18. While the Kennedy Round produced immediate, measurable gains from significant tariff reductions, the results of the Tokyo Round are less tangible and will pay off only over the longer run. It is difficult to deny that any effort to restore a liberal trade environment will benefit all countries in the long run. Nevertheless, it is clear that the immediate concerns of developing countries will not be assuaged by the results of the Tokyo Round. Agricultural trade barriers remain unpenetrable; bilateral restraints on textile trade, and those emerging in steel, remain outside Tokyo Round negotiation. In order to provide some perspective to the prospects for exports from developing countries in the 1980s, the next section analyzes the performance of developing countries in the past decade or so.

#### Structure and Trends in Trade of Developing Countries

19. In 1976, of total merchandise exports from developing countries, 65 percent were to developed country markets, while 26 percent consisted of inter-developing country trade and 7 percent of exports to the rest of the world (Table 6). The share of inter-developing country trade was somewhat higher for manufactures; in particular, exports of machinery and transport equipment from the developing countries were in almost equal proportions directed to markets in the developed and in the developing countries. Most likely, this relatively high share of inter-developing country trade in machinery and transport equipment (in itself a small but rapidly growing item,

**Table 6: DEVELOPING COUNTRY MERCHANDISE EXPORTS BY DESTINATION**

A. Growth of Developing Country Exports by Destination, 1963-76<sup>/a</sup>  
(% increase per annum in 1975 prices)

	To World		To Developing Countries	
	1963-73	1973-76	1963-73	1973-76
Primary products (excl. fuel)	3.8	-0.6	5.3	4.2
Fuel	8.7	0.0	5.2	1.6
Manufactures	12.2	11.2	12.4	16.0
Total	7.4	3.3	7.6	7.8

B. Geographic Distribution of Developing Country Exports, 1976<sup>/b</sup>  
(% distribution)

	Devel- oped	Develop- ing	Centrally Planned	Capital Surplus Oil Exporters	Total <sup>/c</sup>
Fuel	69	24	1	0	100
Other Primary	65	23	11	1	100
Manufactures	61	31	6	2	100
Machinery & transport equipment	50	42	6	2	100
Other manufactures	65	27	5	2	100
Total	65	26	6	1	100

<sup>/a</sup> Developing countries include OPEC surplus countries and exclude most of Southern Europe and South Africa; World excludes Centrally Planned Economies.

<sup>/b</sup> Regional definitions conform to WDR.

<sup>/c</sup> Shares shown may not add up to 100, as sometimes part of exports is not allocated to any specific destination.

Sources: A. UN, Monthly Bulletin of Statistics, various issues.  
B. UN, Yearbook of International Trade, 1977.

representing about 6.5 percent of total exports from developing countries) reflects intra-regional activities of LDC affiliates of multinational companies (mostly of the United States).

20. One of the important characteristics of developing countries' trade is the fact that the rate of growth of trade between developing countries in the period 1963-76 has been significantly higher than the rate of growth of exports from developing countries to the world as a whole. This has been particularly so since 1973, when the rate of growth of trade between developing countries was more than twice as rapid as the expansion of exports from developing countries to the world as a whole. Although the overall significance of this development is limited by the fact that it relates to a relatively small base, it nevertheless reflects a trend that is likely to continue and could eventually become an important source of developing countries export growth.

21. Although almost two thirds of the developing countries' exports of manufactures are absorbed by the industrialized countries, the relative importance of these markets has declined since the early seventies (Table 7). Penetration by manufactures from developing countries has been strong in markets both of developed and developing countries. The contribution of intra-LDC trade to the expansion of developing countries' exports, which steadily declined in the fifties and sixties, is now rapidly increasing. At the same time their share in the industrialized countries' imports of manufactures is also increasing. Table 7 suggests the growing interdependence of developed and developing economies through trade linkages, particularly in manufactures. Developing country markets are a rapidly growing outlet for exports from developed countries, as well as for developing countries. To a certain extent both elements may be part of the same phenomenon, namely the activities of

industrialized countries' multinational companies, mainly in Latin America. To the extent that the activities of multinationals promote exports from developing countries, the impact is for obvious reasons likely to be bigger on inter-developing country trade at the regional level than on their exports to the rest of the world.

**Table 7: REGIONAL DISTRIBUTION OF THE INCREASE IN EXPORTS AND IMPORTS OF MANUFACTURES OF DEVELOPED AND DEVELOPING COUNTRIES (Percent)**

		Developed Countries	Developing Countries	Other	World
<u>Incremental export shares:</u>		----- Destination -----			
Developed countries:	1963-1973	76	17	7	100
	1973-1976	57	33	10	100
Developing countries:	1963-1973	70	25	5	100
	1973-1976	59	36	5	100
<u>Incremental import shares:</u>		----- Origin -----			
Developed countries:	1963-1973	82	8	4	100
	1973-1976	86	10	4	100
Developing countries:	1963-1973	79	12	9	100
	1973-1976	84	10	6	100

Source: GATT, Networks of World Trade by Areas and Commodity Classes, 1955-1976, Studies in International Trade No. 7, 1978.

22. Above all the incremental regional shares in Table 7 show clearly that the expansion of manufactured exports from the developed countries have benefited substantially more from increased access to the developing countries' markets than vice-versa. Trade between developed countries accounted for more than three quarters of the increase in their exports in the period 1963-73. This share was down to 57% in the period

1973-76 while the contribution of the developing countries almost doubled between the two periods. Unconstrained international division of labor would lead one to expect the same pattern with regard to the expansion of exports from developing countries, i.e. an increasing reliance upon the developed countries' markets. In fact the reverse is true: decreasing intensity of trade with the industrialized countries to the benefit of trade among the developing countries. Protectionism is in this connection one among many other limiting factors. No doubt the phenomenon is partly to be explained by specific short-term factors such as the 1974/75 recession in the industrialized world, followed by an only partial recovery and a continuing record of slow growth and underemployment. There is also ample evidence that supply constraints and inappropriate policies in the developing countries themselves have also contributed to limit their overall export performance.

23. Developing countries remain today net importers of manufactures despite the expansion in their share of world exports of manufactures. Their share in world imports of manufactures was in 1976 almost three times as high as their share in world exports. Although the oil-importing developing countries' exports of manufactures grew more rapidly than imports, the absolute deficit in manufactures trade is increasing; however, the size of the gap in relation to the level of exports has diminished rapidly (Table 8).

Table 8: OIL IMPORTING DEVELOPING COUNTRIES' TRADE IN MANUFACTURES

	1955-1963	1963-1973	1973-1976
	-----(% increase per annum)-----		
Volume of exports	7	12	9 1/2
Volume of imports	4	7 1/2	4
	<u>1963</u>	<u>1973</u>	<u>1976</u>
Trade balance (billion US dollars f.o.b. at current prices)	-16	-27	-40
in % of the level of exports of manufactures	457	116	95

Source: R. Blackhurst, et. al., Adjustment, Trade and Growth in Developed and Developing Countries, GATT Studies in International Trade No. 6, 1978.

24. The developing countries' export performance in manufactures reflects a high degree of product diversification, shared by an increasing number of countries. The growing diversification in the pattern of manufactured exports from the oil-importing developing countries is illustrated in Table 9. The share of semi-manufactures in total exports from developing countries declined from 60% in 1963 to 35% in 1976, with the share of textile exports declining from 33% to 14% in the same period. On the other hand, the share of engineering products more than doubled from 13% in 1963 to 29% in 1976, with a commensurate expansion in exports of office, telecommunications and other electrical equipment. The declining share of textile exports and declining rate of increase in the share of clothing exports are no doubt in part a reflection of rising protectionism; however, it is impossible to know to

what extent, since these developments are as well the inevitable consequences of the export diversification that occurs from dynamic changes in comparative advantage. And, rapid growth among the more successful developing country exporters (the so-called NICs) has significantly shifted their comparative advantage from low technology, labor-intensive products to more sophisticated manufacturers.

Table 9: PRODUCT STRUCTURE OF DEVELOPING COUNTRIES'  
EXPORTS OF MANUFACTURES

(US\$ billions (f.o.b.); percentages)

	1963	1973	1976
	----- Value -----		
All manufactures	3.5	23.2	42.2
	----- Shares -----		
Semi-manufactures	60	41	35
Textiles	33	17	14
Iron and steel	4	4	4
Plywood and paper	3	4	2
Other	20	16	15
Engineering products	13	26	29
Industrial machinery	4	5	6
Office, telecommunications and other electrical equipment	7	17	18
Transport equipment	2	3	5
Other finished products	27	33	35
Clothing	9	17	19
Footwear, toys, leather goods and miscellaneous finished products	18	16	16

Source: R. Blackhurst, et. al., Adjustment, Trade and Growth in Developed and Developing Countries, GATT Studies in International Trade No. 6, 1978.

25. The diversification of manufactured exports is even more marked if one considers a sample of the more successful developing countries exporters --e.g. Republic of Korea, Hong Kong, Brazil and India. As shown in Table 10, the percentage of total exports accounted for by the 10 and 20 most important traded commodities has steadily declined between 1965 and 1976. By way of comparison, the 20 principal manufactured export commodities (aggregated at the 4-digit level) represented 60% of total manufactured exports of Japan, 40% for the Netherlands and 45% for the Federal Republic of Germany.

**Table 10: PRODUCT CONCENTRATION OF EXPORTS OF MANUFACTURES  
FROM THE REPUBLIC OF KOREA, HONG KONG, BRAZIL AND INDIA**

(Percentages)

		Share in exports of manufactures of the leading products (SITC 4-digit level)	
		10 leading products	20 leading products
Korea, Republic of	1965	70	84
	1970	76	85
	1976	53	68
Hong Kong	1965	66	79
	1970	67	78
	1976	64	75
Brazil	1965	55	72
	1970	47	63
	1976	39	51
India	1965	79	87
	1970	63	75
	1976	53	67

Source: R. Blackhurst, et. al., Adjustment, Trade and Growth in Developed and Developing Countries, GATT Studies in International Trade No. 6, 1978.

26. Not only is there diversification of the commodity composition of manufactured exports, the geographic distribution of sources of supply of LDC manufactured exports has broadened as well. Table 11 gives, for 1970 and 1977, the average number of developing countries exporting to industrialized countries (averaged at the SITC 4-digit level). On average, the number of developing countries with exports of manufactures to the industrialized markets has increased by more than 40% through 1970-77. The increase is particularly strong in machinery and transport equipment and clothing.

Table 11: INDUSTRIALIZED COUNTRIES' IMPORTS OF MANUFACTURES, 1970-1977:  
NUMBER OF DEVELOPING PARTNER COUNTRIES

	<u>Average number of developing partner countries /a</u>	
	1970	1977
Chemicals	10	14
Textiles	15	20
Iron and Steel	6	7
Machinery & Transport equipment	19	27
Clothing	31	43
Other manufactures	15	20
Total manufactures	14	20

/a Arithmetic average of numbers of developing partner countries at the 4-digit SITC level.

Source: UNCTAD, Handbook of International Trade and Development Statistics, 1978 (forthcoming).

The Structure of the Industrialized Countries' Imports from the Developing Countries

27. The strong recent export performance of selected developing countries in the OECD markets is shown in Table 12. Most of these countries did relatively well compared to the expansion of OECD imports from all developing countries as well as compared to intra-OECD trade. Paradoxically, those countries most likely to be affected by recent protectionist measures (Korea, Taiwan, Hong Kong) show the best and comparatively most stable performance. Of course inter-country comparisons are biased to the extent that the numbers also reflect divergent relative price movements among commodities, in particular between primary commodities and manufactures. Nevertheless, the data reveal the importance of flexibility, an industrial characteristic for which the East Asian exporting countries are renowned.

Table 12: GROWTH OF OECD IMPORTS FROM SELECTED DEVELOPING COUNTRIES  
(Annual growth rates at current prices)

	1975- 1976	1976- 1977	1977- 1978 <sup>a</sup>
Yugoslavia	29.5	9.9	0.4
Mexico	16.8	28.4	8.3
Brazil	11.1	28.0	-10.1
India	36.2	11.3	-1.1
Malaysia	43.5	21.0	-2.4
Singapore	36.4	23.0	3.0
Korea, Peoples Rep. of	58.9	19.4	12.5
Taiwan	44.2	19.7	20.1
Hong Kong	40.4	10.5	9.9
Philippines	-4.7	20.7	2.8
All developing countries	20.3	15.4	-6.9
OECD countries	13.3	12.3	5.1
World	15.1	13.3	1.6

<sup>a</sup> Estimate based on actual figures for the 10 first months

Source: OECD, Statistics of Foreign Trade, Series A, February 1979.

Table 13: PRODUCT COMPOSITION OF THE INCREASE IN MANUFACTURED IMPORTS  
FROM DEVELOPING COUNTRIES/a OF SELECTED OECD COUNTRIES

(Percent)

		USA	Canada	Japan	U.K.	Germany	Italy	France
Chemicals	1964-70	5	2	10	29	5	12	10
	1970-76	3	2	9	4	3	11	7
Textiles	1964-70	4	14	24	-15	14	23	11
	1970-76	4	7	17	10	14	20	13
Iron and Steel	1964-70	2	-1	10	-2	4	24	32
	1970-76	3	3	0	2	2	11	7
Electrical Machinery	1964-70	20	6	9	9	6	9	4
	1970-76	25	13	15	8	10	11	10
Other Machinery	1964-70	5	2	-3	11	6	4	5
	1970-76	6	10	7	9	7	6	9
Clothing	1964-70	24	35	16	19	26	1	12
	1970-76	22	36	21	30	42	7	23
Other Manufactures	1964-70	40	42	34	49	39	27	26
	1970-76	37	29	31	37	22	34	31
Total Manufactures	1964-70	100	100	100	100	100	100	100
	1970-76	100	100	100	100	100	100	100

/a Including the oil-exporting developing countries.

Source: OECD, Trade by Commodities, Statistics of Foreign Trade (Serie B), various issues.

28. Among the OECD countries, the United States absorbed 21% of their combined increase in imports from developing countries during 1964-70 and 29% over 1970-76. This increase was almost entirely due to US fuel imports, the incremental share of which rose from 5% in 1964-70 to 27% in 1970-76. It is interesting to note that in manufactures the US incremental share declined in all major categories, except iron and steel. Nevertheless, between 1970 and 1976 the United States market still absorbed more than 40% of the increase in developing countries' exports of manufactures to the OECD area. During that same period, however, the contribution of Japan and UK to the expansion of developing countries' exports of manufactures increased most.

29. Turning to the product composition of the increase in each of the major OECD countries' imports of manufactures from developing countries, Table 13 shows a rather heterogeneous picture. The incremental share of chemicals has declined for all countries, the same holds for textiles (with the United Kingdom as a major exception). The contribution of iron and steel increased in North America but fell in the EEC countries, with again the United Kingdom as exception. The share of clothing has increased in all countries, except in the United States, most dramatically in Germany where it accounted for 42% of the expansion of manufactured imports from developing countries. Apart from clothing, it is in particular electrical machinery, and to a lesser degree other machinery, that has provided a rising contribution to the increase in the developing countries' exports of manufactures to the industrialized country markets.

#### Assumptions for the Base Case Projections

30. This section sets out the assumptions for the WDR II Base Case projections and indicates where there are differences with historical trends. It must be emphasized that built into the projections for the exports' performance

of developing countries is a continuing, and increasingly more important, expansion in trade between them.<sup>1/</sup>

31. International Trade. Table 14 below summarizes the assumptions regarding the projected growth rate of merchandise exports used in the base case of WDR I and WDR II, and compares them with those for the period 1960-75. As was true in WDR I, the growth rate of world trade in 1975-90 is assumed to be significantly below the 7% average annual rate which was attained in 1960-75. After an 11.3% volume increase in world trade in 1976, reflecting a partial recovery from the 1974/75 recession, world trade is assumed to slowdown to an average annual rate of about 5% for the remainder of this decade.

Table 14: GROWTH OF MERCHANDISE EXPORTS, 1960-90

(In constant 1975 prices)

	1960-75				1975-90		
	World Trade	Industrialized Countries	Developing Countries		World Trade	Industrialized Countries	Developing Countries
Primary Commodities (excluding fuels)	4.0	4.9	3.0	WDR I	4.3	4.9	3.7
				WDR II	3.7	3.6	4.1
Fuels	6.5	4.6	6.1	WDR I	3.0	2.6	2.8
				WDR II	3.6	3.3	3.6
Manufactures	8.9	8.8	12.3	WDR I	7.7	6.8	12.4
				WDR II	7.4	6.9	11.5
Total Merchandise	<u>7.1</u>	<u>7.5</u>	<u>5.9</u>	WDR I	6.3	6.3	6.8
				WDR II	<u>6.1</u>	<u>6.2</u>	<u>6.6</u>

<sup>1/</sup> It is intended to include in a revised version of this paper a discussion of the trade assumptions of the Low and High Case projections; also the origin/destination structure of the trade projections will be made explicit.

For the period 1975-90, compared to WDR I, the overall trade picture is now slightly more pessimistic (i.e., an average growth rate of 6.1% a year during 1975-90 compared with 6.3% a year in WDR I). The major adjustments are in the exports of developing countries, where an upward revision in the assumed growth rate of primary exports does not fully compensate for the downward revisions in manufactures. In comparison with the 1960-75 historical period, however, the assumed growth rates of exports from developing countries are higher, while those for the industrialized countries are substantially lower. In the case of the developing countries, the overall improvement in export performance is expected to result from export growth rates for primary commodities which are significantly above those attained in 1960-75, outweighing the projected slowing-down in the rate of growth of manufactured exports.

32. As a result the gap between the rate of growth of exports from industrialized and developing countries is reversed. This trend, however, conceals widely diverging developments in the different trade categories. For the developing countries, 1976 was not only a boom year for exports of manufactures, but of all primary commodities as well. For the 1976-80 period the projected growth of primary exports is below the historical performance of food and beverages and non-food agriculture, both for the developing and the industrialized countries. Throughout the 1980s, however, a substantial acceleration of primary exports from developing countries is projected both in food and non-food agriculture. The projected growth of energy exports is lower than in the past, although higher than in WDR I. The projection reflects demand constraints through the early 1980s (low OECD growth, conservation measures, etc.) and, gradually emerging supply constraints in the second half of the decade. The projected slowdown

of exports from the main international sources of supply is likely to create a global imbalance by 1990.<sup>1/</sup> As in the case of energy, the projected growth rates of manufactured exports are below historical performance. The projected slowdown in manufactured exports from developing countries from a 12 to 13% p.a. historical trend to about 11% through 1976-90 is not as sharp as for energy but has on average a much more substantial impact on total developing countries' merchandise exports because of their very rapidly increasing share therein (from 27% in 1976 to 50% in 1990, while energy is projected to decline from 38 to 26%).

33. The projected growth of world trade implies a substantial downward shift in its elasticity with respect to growth of the industrialized countries' economies (1.4% in the 1980s, compared with 1.8% in the 1960s and early 1970s). This is because the projections incorporate the change from the liberal trade environment of the 1960s and early 1970s to the (moderately) protectionist one of recent years. A summary of the WDR II trade projections is given in Tables 15 and 16.

34. In Table 15, elasticities of exports to world trade provide an indication of the implicit rate of market penetration underlying the projections. The elasticity of developing countries' manufactured exports with respect to world trade (i.e. total demand for manufactured exports) is over 1.5, which suggests a quite strong market penetration, increasing the share of the developing countries in world manufactured exports from 8.9% in 1975 to 15.6% in 1990 (Table 16). However, it is evident that such an export performance can only materialize if the developed countries are willing to maintain a relatively high growth rate of their imports. This is suggestively illustrated

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<sup>1/</sup> The gap, however, could be closed through a combination of increases in energy production in developed and OPEC surplus countries and conservation in the former countries.

by the implicit income elasticities, also figuring in Table 15. These are higher for developed than for developing countries, which is consistent with historical evidence, although the margin is narrowing. The income elasticity differential is particularly striking in the case of manufactures, almost 2 for developed and 1.2 for developing countries. However, the income elasticities of imports underlying the projections are certainly not out of line with recent historical evidence.<sup>1/</sup> The commodity pattern of income elasticities also seems plausible, at least at that level of aggregation, with higher elasticities for manufactures than for primary commodities, both for developed and developing countries.

Table 16: PERCENTAGE SHARES IN WORLD EXPORTS

(In constant 1975 prices)

	Primary Commodities/a		Fuels		Manufactures		Total Merchandise	
	1975	1990	1975	1990	1975	1990	1975	1990
Developing Countries	32.1	33.8	41.9	41.9	8.9	15.6	20.3	22.1
Industrialized Countries	58.3	57.4	16.9	16.2	80.9	75.6	63.6	64.7
Other	9.6	8.8	41.2	41.9	10.2	8.8	16.1	13.2
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

/a Excluding fuels.

<sup>1/</sup> Over the period 1953-76 the developed countries' imports/GDP elasticity is 2.26 for manufactures, .99 for non-fuel primary commodities and 1.85 for fuels; the corresponding numbers for the developing countries are respectively 1.25, .96 and .67. These estimates are based on log-linear regression using UN statistical material.

35. Global Balances. In Table 17 a synthesis of the overall trade outlook is presented. Resource balances by commodity at 1975 prices are shown for the aggregate regions of the world. For merchandise and non-factor services together the projected global resource balance is approximately a constant proportion of total world trade. This is also generally the case for the individual commodity categories.

36. Looking at the regional resource balances it is evident that developing countries are projected to continue having a significant trade deficit. Their resource gap (merchandise and non-factor services) is the result of continued large deficits in manufactures and surpluses in all other commodity categories. While the deficit of manufactures increases in absolute terms its proportion to the level of exports decreases from 221% in 1975 to 65% in 1990 continuing the trend discussed in the preceding section of this paper. For the developed countries, resource balances show a large surplus for manufactures whereas they are negative for all other commodity categories; for total merchandise the balance is positive and increasing. The OPEC Surplus Countries show large and growing surpluses for the energy sector. Their overall resource surplus, however, is diminishing quite rapidly. The Centrally Planned Economies show a declining deficit for merchandise and non-factor services combined, reaching a negligible magnitude in 1990.

37. International Prices. As was the case in WDR I, the index of world inflation in the global analyses in WDR II is a US dollar denominated GDP deflator for OECD North. The inflation index is applied to all service and capital account transactions in the global analytical framework; separate deflators are used for the six groups of traded commodities.

Table 17: GLOBAL BALANCES

(1975 prices; US\$ million)

	1975	1980	1990
<b>Primaries (excluding Fuels)</b>			
Developing Countries	18,496	30,533	48,955
OPEC Surplus Countries	- 2,796	- 4,318	- 10,379
Developed Countries	- 11,775	- 19,941	- 28,437
Centrally Planned Economies	- 3,062	- 5,012	- 9,668
World	863	1,262	471
<b>Fuels</b>			
Developing Countries	33,365	42,893	33,950
OPEC Surplus Countries	54,581	62,914	96,663
Developed Countries	- 90,542	-105,450	-134,600
Centrally Planned Economies	6,956	11,472	8,344
World	4,360	11,829	4,357
<b>Manufactures</b>			
Developing Countries	-101,789	-121,861	-151,783
OPEC Surplus Countries	- 13,152	- 32,733	- 59,429
Developed Countries	129,256	172,321	226,706
Centrally Planned Economies	- 10,260	- 12,247	- 2,499
World	4,055	5,480	12,995
<b>Merchandise <sup>/a</sup></b>			
Developing Countries	- 46,584	- 45,667	- 66,110
OPEC Surplus Countries	38,469	25,700	26,692
Developed Countries	26,106	45,480	62,219
Centrally Planned Economies	- 5,496	- 4,187	- 2,223
World	12,495	21,326	20,578
<b>Merchandise and non-factor services</b>			
Developing Countries	- 41,242	- 38,803	- 54,582
OPEC Surplus Countries	32,420	9,020	3,277
Developed Countries	17,213	40,424	63,980
Centrally Planned Economies	- 4,586	- 3,026	- 331
World	3,805	7,615	12,344

<sup>/a</sup> Including non-monetary gold.

38. Principally because of the depreciation of the US dollar through November 1978, the GDP deflator is now projected to increase by 15.3% in 1978 and 10.1% in 1979, as compared with increases of about 8% in each of these two years assumed in WDR I. For 1980 onwards the rates of increase are the same as projected last year, i.e. 7% per annum for the period 1980-85 and 6% per annum through 1985-90. The revised index is thus 10% higher in 1990 than projected last year (Table 18), implying that financial flows in real terms which remain unchanged from WDR I will now be somewhat higher in nominal terms.

39. Table 18 below summarizes the assumptions about trade prices for different commodity groups and for services that have been incorporated into the base case for WDR II. The index of inflation for the weighted average of all traded goods and services increases at an average of 6.6% a year during 1975-90. The price of energy is assumed to rise at the same rate. Food price increases are slightly smaller than those for the average mainly due to expected surpluses for beverages. The non-food prices increase more rapidly due to supply constraints for timber and rubber and despite adverse price prospects for jute and cotton. The price increase for metals and minerals is also above average, reflecting the fact that these resources are non-renewable.

Table 18: INDICES OF GLOBAL TRADE PRICES

Index	Index (1975=100)		Average Annual Increase (%)		
	1980	1990	1975-80	1980-90	1975-90
Food	130.6	255.1	5.5	6.9	6.4
Non-food	156.2	320.1	9.3	7.4	8.1
Metals & minerals	140.7	295.8	7.1	7.7	7.5
Energy	145.9	260.4	7.8	6.0	6.6
Manufactures	146.7	249.7	8.0	5.5	6.3
Gold	144.2	270.6	7.6	6.5	6.9
Non-factor services	151.8	284.9	8.7	6.5	7.2
Total merchandise and NFS	<u>145.9</u>	<u>260.4</u>	<u>7.8</u>	<u>6.0</u>	<u>6.6</u>
<u>Memorandum Item:</u>					
Index of Global Inflation (GDP deflator)					
WDR I	139.2	261.2	6.8	6.5	6.6
WDR II	151.8	284.9	8.7	6.5	7.2

Conclusion

40. The information assembled in this paper provides a view of the emerging pattern of developing country exports, and of the trade assumptions on which the Base Case projections were undertaken. The paper serves to emphasize the great variation in the performance of individual developing countries, specific groups of commodities, and different international markets. An understanding of these differences requires further analyses with a systematic framework which could delineate the impact of major supply and demand determinants of the export performance of developing countries. It is through such a process that the ability to quantitatively assess the impact of changes in the international trade environment on developing countries' performance would be enhanced. This is the direction of work in progress.