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Working Paper No.3.

AN OVERVIEW OF THE EXPORTS
OF
MANUFACTURES BY DEVELOPING AREAS
IN THE PERIOD 1960-1975 *

Prepared by

the Secretariat of UNIDO

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Introduction

This section provides a general view of the last fifteen years evolution of the exports of manufactures by developing countries.

The objective is to draw the medium-term perspective within which the short-term analysis presented in further sections have to be inserted.

The time span covered here goes from 1960 to 1975. This will appear as a rather long period to those aware of the problems of comparability arising when putting together time series covering a large number of developing countries. Fortunately a new set of data published by the UN Statistical Office in mid-1977 provided a way to overcome these problems. ^{1/}

^{1/} See UN Monthly Bulletin of Statistics, vol. XXXI, No. 6, June 1977, Special Table F. p. XXVIII - XXXI. This material does not descend into much details concerning the definition and disaggregation of manufactures (manufactures are defined as the sections 5-8 of the Standard International trade classification and are disaggregated in three broad categories, chemicals, machinery, other manufactures); nor does it concern the source and destination of exports (only two areas, the developing and the developed, none of which include the centrally planned economies, are identified as source and destination). But as compensation the material does offer a relatively long time series of comparable data.

1. The Growth Rates of Exports of Manufactures by Developing Countries

While the sixties have been a period of relatively normal cyclical fluctuations and stable prices, the seventies, on the contrary have been quite agitated by the world inflation, the currency upheavals, the increase on the oil price and the unusually deep depression of 1975. This contrast makes it futile to estimate a constant rate of growth over the entire period for the variable considered here. The exports of manufactures by developing countries seem to be quite sensitive to cyclical fluctuations besides that the available data are expressed in current value. Under these circumstances it is clearly unwarranted to assume that over the 1960-1975 period the current value of exports grew at some constant rate with minor variations resulting of random events.

The best recourse then is perhaps to present year to year increments, expressed in percentage, to the value of exports. This is done in Table 1.

Two main aspects of the information contained in Table 1 attract the attention. First the high levels generally attained by the percentage increments to the exports. Two-digit rates are frequent for every category of manufactures be it exported to developing or to developed areas. Even though it is partly due to changes in the accounting unit, the marked expansion of the exports of manufactures exhibited a clear dynamism during most of the period reviewed.

IDS - Trade - Table 1 - Annual rate of increase of exports of manufactures

Exports from developing areas to developing areas

<u>Year</u>	<u>Chemicals</u>	<u>Machinery</u>	<u>Other manufactures</u>
1960-1965 *	16.9	14.9	8.1
1966-1966	12.5	10.7	8.3
1966-1967	11.1	0.0	6.3
1967-1968	6.7	9.7	9.8
1968-1969	31.3	47.1	13.1
1969-1970	7.1	30.0	22.6
1970-1971	15.6	24.6	9.9
1971-1972	28.8	37.0	28.1
1972-1973	47.8	49.5	39.3
1973-1974	62.6	68.1	43.3
1974-1975	1.2	16.1	1.1

Exports from developing areas to developed areas

<u>Year</u>	<u>Chemicals</u>	<u>Machinery</u>	<u>Other manufactures</u>
1960-1965 *	6.2	12.9	9.9
1965-1966	17.4	72.7	21.3
1966-1967	0.0	31.6	6.9
1967-1968	7.4	44.0	21.0
1968-1969	13.8	44.4	22.5
1969-1970	30.3	46.2	12.1
1970-1971	9.3	34.2	0.1
1971-1972	29.8	62.7	17.4
1972-1973	42.6	71.1	65.5
1973-1974	113.8	28.2	27.7
1974-1975	-22.6	-2.7	-12.3

*/ Average annual rate of growth

Source: UNIDO based on UN Monthly Bulletin of Statistics, Vol. XXXI, No. 6, June 1977.

Second, it appears that the rhythm of progress of external sales of manufactures is quite exposed to cyclical conditions. The clearest illustration is given by the drop recorded in the sales to developed areas in 1975. This experience, together with earlier examples of zero-growth or pronounced slow down years, suggests a marked dependence of the exports of manufactures of developing countries in respect to the state of the world economy. This is not to say that the exports of manufactures are simply drawn out of developing areas by the expansion of international demand. The analysis presented in the next section concludes on the contrary that, at least between 1971 and 1975, it is chiefly by enhancing their competitiveness that the developing countries have managed to improve their export performance. It ought, however, to be recognized that in general the sixties and the early seventies have been years of buoyant demand and that this fact helped in no small measure to materialize the exports achievements registered by developing areas. The accidents in the progressive rhythms are there to recall that adoption of outward looking policies and acquisition of other ingredients of competitiveness are not sufficient conditions for export growth.

2. Ratio of Developing Areas

2.1. The ratio in total exports

From 1960 to 1975, the total exports of developing areas, measured in current value, increased from 26 to 198 thousand million US dollars ^{1/}, a multiplication by 7.6. The corresponding factor of multiplications registered by developed areas was 6.6 (their exports grew from 82 to 541 million US\$). It would thus seem that total exports have grown faster in developing areas than in developed ones.

But this is a first sight impression based only on a comparison of the initial and final years of the period. A detailed inspection of the data assembled in table 2 reveals another picture.

The ratio between the exports of developing and developed areas, which hereafter will be called the ratio of developing areas, declined steadily from 1960 to 1971. In 1972 and 1973 part of the loss was recuperated probably as an effect of the vigorous demand for imports in the booming developed areas. In 1974 a substantial increase took place clearly as a consequence of the rise of petrol prices. In 1975, year of depression in the developed areas, the ratio fell again.

As can be seen the evidence is inconclusive. It is still too early to ascertain if the ratio attained in the mid-seventies will have to undergo an erosion similar to the one that occurred in the sixties or if, on the contrary, the developing areas have obtained a durable improvement of their competitive position in international trade.

IDS - Trade - Table 2 - Ratio of total exports of developing areas to total export of developed areas, 1960-1975 (percent)

<u>Year</u>	<u>Ratio</u>
1960	31.7
1965	27.5
1966	27.3
1967	26.2
1968	25.6
1969	24.6
1970	24.3
1971	24.1
1972	24.3
1973	26.8
1974	41.0
1975	36.6

Source: UNIDO based on UN Monthly Bulletin of Statistics, Vol. XXXI, No. 6, June 1977

^{1/} FOB values like all other exports values in this text.

2.2. The ratio in exports of manufactures

Though the exports of manufactures grew at a very fast pace in developed areas in the sixties and early seventies, the developing areas succeeded in growing even faster and therefore in increasing their ratio. ^{1/} This evolution is illustrated in Table 3 which shows in its column 4, that in the case of manufactures exported to developing and developed area the ratio grew from 6.8 percent in 1960 and 1965 to an average of 7.6 percent in 1970-1972 and of 9.0 percent in 1973-1975.

Columns 5 and 6 of Table 3 show that the increase reported in the ratio in the case of total manufactures was due to increments realized both in the cases of exports to developing areas and of exports to developed areas. In 1960 about the same ratio was registered in each market (7.0 percent for exports to developing areas, 6.7 percent for exports to developed areas). Thus, if the ratio is any indication of competitive position, it can be said that the competitive position of developing areas as compared to developed areas was about the same in the two markets. However, in the course of the 1965-1975 decade signs of change become manifest. As indicated by the relative evolution of the ratios the competitive position of developing areas seems to have improved faster in the market sales of manufactures to developing areas than in the ones to developed areas.

IDS - Trade - Table 3 - Exports of manufactures by developing areas: current value, ratio to exports of manufactures by developed areas, 1960-1975 (thousand million dollars FOB and percent)

Year	Value of exports (thousand million dollars FOB)			Ratio of exports by developing areas to exports by developed areas (percent)		
	To developing and developed areas	To developing areas	To developed areas	To developing and developed areas	To developing areas	To developed areas
1960	3.69	1.15	2.54	6.8	7.0	6.7
1965	5.90	1.85	4.05	6.8	8.8	6.2
1966	6.98	2.02	4.96	7.2	8.9	6.7
1967	7.47	2.14	5.33	7.2	9.1	6.7
1968	8.81	2.34	6.47	7.4	8.7	7.0
1969	10.80	2.82	7.98	7.7	9.6	7.2
1970	12.61	3.43	9.18	7.8	10.2	7.2
1971	13.37	3.89	9.49	7.3	10.3	6.6
1972	16.72	5.06	11.66	7.7	11.7	6.8
1973	26.49	7.22	19.25	9.2	12.3	8.4
1974	36.29	10.95	25.34	9.5	12.1	8.7
1975	33.86	11.49	22.38	8.4	10.2	7.7

Sources: UNIDO based on UN Monthly Bulletin of Statistics, Vo. XXXI, No.6, Jy.

2.3. The ratio in exports of broad categories of manufactures

The information available entails a disgregation of exported manufactures in three broad categories: chemicals, machinery and other manufactures.

The improvement of the competitive position of developing areas observed at the level of total manufactures is underpinned by an improvement in all the identifiable categories of manufactures. This statement can be verified in Table 4 which shows that the ratios applicable to chemicals exports, machinery exports and other manufacturing exports have tended to increase throughout the period reviewed.

In the case of exports to developing and developed areas the relevant ratio for chemicals rised from 4.5 in 1960 to an average of 6.1 percent in 1973-1975; the corresponding figures for machinery are 0.9 and 3.5 percent (a multiplication by almost 4) and for other manufactures 12.4 and 16.3 percent.

In the case of exports to developed areas it seems that not much change took place in the competitive position of chemicals, the value of the ratios was 4.1 percent in 1960, on average, 4.1 during 1973-1975. As far as exports of machinery are concerned the developing areas have substantially improved their sales in relation to the developed areas: the ratio increased from 0.4 percent in 1960 to 2.7 percent in 1973-1975. A moderate improvement, indicated by a change from 12.1 to 15.2 in the ratio, took place in other manufactures.

In the case of exports to developing countries the ratio clearly increases in everyone of the three categories: from 5.4 yo 11.9 percent in chemicals, from 1.8 to 5.5 in machinery, from 13.3 to 21.2 in other manufactures.

Ratio of Exports of Developing Areas to Exports of Developed Areas, 1960-1975
(percent)

Year	Exports to developing areas			Exports to developed areas			Exports to developing areas		
	Chemicals	Machinery	Other Manufactures	Chemicals	Machinery	Other Manufactures	Chemicals	Machinery	Other Manufactures
1960	4.52	0.91	12.42	4.07	0.42	12.11	5.45	1.84	13.29
1965	4.70	1.04	12.90	3.21	0.40	11.90	8.48	2.75	16.86
1966	4.79	1.17	13.84	3.36	0.60	13.02	8.33	2.78	17.27
1967	4.69	1.20	14.25	3.07	0.72	13.39	8.90	2.67	17.87
1968	4.34	1.29	14.80	2.83	0.88	14.11	8.38	2.49	17.82
1969	4.68	1.59	15.09	2.76	1.07	14.42	10.37	3.24	18.30
1970	4.86	1.87	15.16	3.17	1.31	14.18	9.91	3.77	19.88
1971	4.89	2.08	14.19	3.13	1.50	12.98	10.36	4.04	20.02
1972	5.37	2.65	14.43	3.39	2.05	12.71	11.51	4.69	23.56
1973	5.60	3.31	17.05	3.41	2.71	15.75	12.28	5.29	23.73
1974	6.57	3.78	16.61	4.75	2.92	15.57	11.83	6.13	20.91
1975	6.26	3.40	15.30	4.08	2.62	14.31	11.69	5.07	18.96

Source: UNIDO, based on U.N. Monthly Bulletin of Statistics, Vol. XXXI, No. 6, June 1977

Table 4 also reveals that the highest proportion between exports of developing and developed areas is obtained in the category other manufactures exported to developing areas.

It has already been noted that the developing areas have generally performed better when exporting to developing areas than in their exports to developed areas. A final remark concerning Table 4 will be that this effect is higher for chemicals exports, intermediate for machinery and lower for other manufactures.

3. Composition of exports of developing areas

3.1. Share of exports of manufactures in total exports

From the information contained in Table 5 it appears that the composition of developing areas exports has gone through a process of restructuration in favour of manufactured exports.

As the basic data on exports are depicted in current values it is clear that the evolution of the shares of Table 5 is sensitive to changes in the terms of trade between non-manufactures and manufactures. Actually, during the sixties, the terms of trade moved in a sense tending to inflate the share of manufactures.^{1/}

But there is little doubt that underlying this price influence, real factors have played a role to strengthen the share of manufactures in total exports of developing areas. In 1974 and 1975 after the oil price rise had dramatically increased the relative unit value of primary exports the share of manufactures was still higher, than in 1960, it may thus be said that a new structure has taken place in which manufactures clearly have more importance than in the beginning of the period.

^{1/} The unit value index of world exports of SITC sections 0-4 divided by unit value index of world exports of SITC sections 5-8 was the following:

1960	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
111	104	103	101	101	102	100	102	103	113	168	156

(See UN Monthly Bulletin of Statistics, Vol. XXXI, No.6, June 1977, P. XXXI). Hence from 1960 to 1970 the unit value of primary commodities decreased in relation to the unit value of manufactures. It will be recalled that this evolution in the terms of trade was one of the prominent reasons invoked to promote exports of manufactures.

Year	Share		
	Export to developed and developing areas	Export to developed areas	Export to developing areas
1960	14.2	12.8	18.9
1965	17.5	15.5	24.3
1966	18.9	17.7	25.5
1967	20.0	18.2	26.5
1968	21.4	20.0	26.7
1969	23.7	22.2	28.9
1970	24.2	22.5	30.9
1971	23.1	21.2	29.9
1972	24.2	21.7	32.9
1973	25.6	24.0	31.3
1974	17.3	15.5	23.5
1975	17.1	14.9	23.8

Source: UNIDO, Monthly Bulletin of Statistics, Vol. XXXI, No. 6
June 1977

Comparing columns 2 and 3 in Table 5 reveals that as far as developing areas are concerned the share of manufactures is higher in exports marketed in the developing areas themselves than in the ones going to developed areas.

It is quite suggestive to relate the feature just mentioned to the fact that the developing areas import more manufactures in proportion of their total imports than the developed areas do. ^{1/} But the connection, if any, between the composition of exports of developing areas and the structure of demand of the areas where these exports are sold remains to be established and explained.

3.2. Composition of exports of manufactures in broad categories

Table 6 reports on the percentage distribution of exports of manufactures in three broad categories: chemicals, machinery and other manufactures. The most noteworthy aspect of Table 6 seems to be the shift in favour of machinery that took place in the composition of exports of manufactures of developing countries throughout the period 1960-1975. Of special interest is the fact that the shift has been more pronounced among the manufactures bought by the developed areas.

For sure, it is most hazardous to risk a guess about the economic characteristic of the commodities exported when all the indication available is the verbal description of the SITC section under which they are classified. Nevertheless, one would be tempted to identify machinery with the bunch of goods which are at the core of modern industrialization and are produced with relatively capital and research intensive techniques.

^{1/} During 1971-1975 the manufactures amounted to 65.6 percent of the imports of developing market economies as against 59.2 percent of the imports of developed market economies. These ratios have been calculated on the basis of data published in the UN Monthly Bulletin of Statistics, Vol. XXXI, No. 5, May 1977.

IDS - Trade - Composition of exports of manufactures from Developing areas to developing and developed areas, to developing areas and to developed areas, 1960-1975 (percent)

	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>
<u>Exports going to developing and developing areas</u>				
Chemicals	7.6	8.0	6.9	9.1
Machinery	5.4	6.6	11.2	20.0
Other manufactures	87.0	85.4	81.9	70.9
<u>Exports going to developing areas</u>				
Chemicals	9.6	13.0	13.1	14.2
Machinery	12.2	15.1	19.0	28.2
Other manufactures	78.2	71.9	67.9	57.6
<u>Exports going to developed areas</u>				
Chemicals	6.7	5.7	4.7	6.4
Machinery	2.4	2.7	8.2	15.8
Other manufactures	90.9	91.6	87.1	77.8

Source: UNIDO based on UN Monthly Bulletin of Statistics, Vol. XXXI, No. 6, June 1977

It might therefore seem that the kind of export structure that took form in the period reviewed is inconsistent with the expectation that the developing countries would specialize on commodities saving these two scarce factors.

Perhaps is the apparent paradox a purely speculative one but the fact remains that the export labelled machinery are a growing component of exports of manufactures of developing areas. This fact is in order with the rise of machinery in the structure of domestic production: the sector of metal products, where machinery are produced, almost doubled its importance in the manufacturing value added of developing countries between 1960 and 1975.^{1/} The concomitancy of the two phenomenons does not tell if and why a causal relation exists between them, neither, a fortiori, which one led the other. Plausible hypothesis, however, are not lacking. A production-leading-to-export hypothesis would be that the countries having import-substituted machinery or planning to do so were incentivated by stronger economies of scale higher barriers to entry to give preference to this sector in the allowance of subsidy to exports. An export-leading-to-production hypothesis would be that most of the investment in the machinery sector of developing countries was made in view of exporting low labour cost goods or in view of securing an access to the commercial unions concluded among the developing areas.

^{1/} See UNIDO, Industrial Development Survey, working paper No.2, table 10.

4. Destination of Exports of Manufactures by Developing Area

The distribution of the developing areas exports of manufactures by kind of market remained fairly stable throughout the period under review. The share of developing and developed areas as markets fluctuated around 29.2 and 69.8 percent respectively as Table 7 illustrates.

At the category level the growing importance of the market of developed areas for the exports of machinery is to be noted. It appears, however, that after 1973 the developed areas are recovering importance as buyers of machinery.

IDS - Trade - Table 7 - Destination of exports of manufactures of developing areas, 1960-1975 (percentage)

Share of the area of destination in the total exports of the category of manufactures

Year	Developing area market				Developed area market			
	Chemicals	Machinery	Other manu- facture	All manufac- ture	Chemicals	Machinery	Other manu- facture	All manufac- ture
1960	39.3	70.0	28.0	31.2	60.7	30.0	72.0	68.8
1965	51.1	71.8	26.4	31.4	48.9	28.2	73.6	68.6
1966	50.0	62.0	24.2	28.9	50.0	38.0	75.8	71.1
1967	52.6	55.4	24.1	28.6	47.4	44.6	75.9	71.4
1968	52.5	48.6	22.4	26.6	47.5	41.4	77.6	73.4
1969	56.0	49.0	21.0	26.1	44.0	51.0	79.0	73.9
1970	51.1	46.1	22.6	27.2	48.9	43.9	77.4	72.8
1971	53.1	44.3	24.2	29.0	46.9	45.7	75.8	71.0
1972	52.3	40.1	25.9	30.3	47.7	59.9	74.1	69.7
1973	52.7	36.9	22.7	27.3	47.3	63.1	77.3	72.7
1974	46.4	43.4	24.8	30.2	53.6	56.6	75.2	69.8
1975	52.9	47.9	27.6	33.9	47.1	52.1	72.4	66.1

Source: UNIDO based on UN Monthly Bulletin of Statistics, Vol. XXXI, No. 6, June 1977.

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