Trade Patterns in Manufactured Goods of Less Developed Economies 1955-73

Loraine Donaldson*

In the 1960's less developed economies (LDCs) began to emphasize manufactured goods as an export growth area that could have positive effects upon development and specialization. Specifically, it was argued that manufactures exports growth could lead to an optimum balance between inward-looking and outward-looking trade policies, improve the terms of trade and lessen trade concentration and instability. Pre-dating this emphasis on manufactures exports there was long-standing support, emanating especially from the U.N., for larger intra-regional trade among LDCs. And increasingly of late there has been an interest in more trade among LDC regions. Now that a decade or more of manufactures export emphasis has occurred, it is timely to inquire how this has affected LDC trade patterns--patterns that have had a high degree of interdependence with developed economies of the West.

More specifically, the following questions of interest are addressed in this paper: How have the regional trade patterns in manufactures of LDCs been affected by an increase in volume and products exported? Do the patterns established to date throw light on how continued growth in manufactures trade by LDCs will affect their regional patterns of overall trade? Does increased manufactures trade by LDCs in some or all SITC manufactured goods categories intensify or diversify intra-regional or extra-regional trade patterns? Do intra-regional trade patterns in manufactures differ among LDC regions by SITC breakdowns, and would such differences, if any, have bearing upon increased trade among LDCs?

^{*} Professor of Economics, Georgia State University, The author wishes to express appreciation to Georgia State University for class release time to pursue this research and for the help of Alan Fairfax, research assistant on this project.

The identification of patterns and changes in patterns of regional trade intensity for manufactured goods trade is a prerequisite for examining the potential or lack of potential for expansion of LDC trade in categories of manufactured goods with other LDCs, more developed economies and planned economies, and may prove useful to trade analysts in assessing the effects of various trade policies and treaties. Of additional interest is the relevance to LDC's manufactures trade of the Linder thesis that countries of similar levels of per capita GNP or development will trade more intensely with each other in manufactures goods trade (1961).

Methodology

The statistical approach used to establish regional trade patterns and their changes for total and disaggregated manufactures trade of LDCs over the period 1955-73 is that used by Sautter (1974). This technique in turn is based upon the methodology of Savage and Deutsch (1960) and Goodman (1963) and has been applied to LDC Common Market trade for the Central American Common Market by Wilford and Christou (1973).

The focus of Sauter's article is on identifying world trading regions and changing patterns of world regional groupings for total trade for pre-World War II and postwar years. The focus here is on patterns of LDC regions' manufactures trade in the postwar period during which many LDCs moved from an emphasis on import substitution to export promotion.

Inasmuch as the methodology is established in the literature, a truncated version follows and the detailed description of index formation is placed in the appendix. Divide the world into m regions/countries. Divide world trade into n categories by product groups. Consider trade in the nth product category from the ith region to the jth region. Let N represent the total world trade in that product category, I_n the total exports (imports) in that product category for the ith region and J_n the total imports (exports) for the jth region. Participation rates in world trade in the nth product for exports (imports) would be I_n/N for region i and participation rates for imports (exports) for region j would be J_n/N .

If the level of participation in exports (imports) for country i in world trade and the level of participation of country j in imports (exports) were the only determinants of their trade with each other we could expect that trade to equal $I_n/N \times J_n/N$ percent of world trade. Thus if the ith country's exports of product group n account

TRADE PATTERNS 9

for 5% of world trade in product group n and the jth country's imports 20% of world trade in n, based on trade participation rates exports from i to j would equal 1% of world trade in product category n.

The proportional percentage of world trade obviously will deviate from the actual percentage because of the many variables that enter into determination of trade levels among regions and countries in addition to the size varibale. The index of regional trade intensity is formed by taking the proportionl percentage of world trade in absolute value and dividing it into actual trade. When proportional and actual are the same, the index is l. When proportional exceeds actual it is below one; and it is above one in the opposite case. Indexes above one are used as a norm to identify intense trade levels and to classify countries into trade regions.

The derivation of trade intensity indexes using proportional trade as a denominator produces an index that reflects participation only as a criterion for trade intensity norm levels. While this participation or size variable is a useful benchmark for grouping countries into regions of high trade interdependence and for comparing levels of trade interdependence within trade categories for countries/regions, care must be exercised when comparisons of indexes are made between classification groups that are not homogeneous. Specifically, more aggregate trade indexes can be expected to have greater geographic diversity than less aggregate subcategories and therefore the latter can be expected to exhibit larger index ranges.

It should be noted that the grouping of countries into LDC regions to study trade destination was not based on intensity indexes described herein, but perforce reflects U.N. criteria for grouping. Geographic trade patterns for manufactures for individual LDCs are not published by the U.N. However trade destination data for manufactures categories were obtainable from UNCTAD, Handbook of International Trade and Development Statistics (TD/STAT/6), June 21, 1976, for the following LDC regions for 1955 and subsequent years: Developing Africa, Developing Latin America, Developing Asia in the Middle East, and Developing Other Asia. A list of composite countries is given in Appendix II.

While these regions are the focus of this study, it should be noted that some LDCs are included in other groups. The U.N. designates the four regions as "Developing Market Economies" and thus the Asian groupings omit Planned Asia. And some countries

that would be considered LDCs for part, if not all, of the period covered are located in Europe, e.g. Turkey, Portugal, Greece, Spain, Albania, and Romania. The data for trade of these countries is grouped with Western or Eastern European trade.

Total trade is broken down into manufactures trade (SITC 5-8) and non-manufactures trade (SITC 0-4). Data are available for, identifying geographic patterns for selected years between 1955 and 1973 for the following subcategories of manufactures trade: Chemical SITC 5, Manufactured Goods SITC (6+8 - 67+68), Iron and Steel SITC 67, Non-Ferrous Metals SITC 68, Machinery and Transport Equipment SITC 7. Data for Textile Yarn SITC 65, a subcategory of Manufactured Goods, are available for 1970 and 1973.

Background Data

It is helpful in interpreting the trade intensity indexes to have background data derived from absolute trade magnitudes. Trade in manufactures categories SITC 5-8 accounted for 31% of total trade among LDCs in 1973 and 23% of their total trade outside LDC regions, up from 17% and 12%, respectively, in 1955. Developing Other Asia dominates the SITC 5-8 manufactures exports, accounting for 62% in 1973 of the total manufactures trade for the four LDC regions. Latin America accounted for 21%, Africa for 12.5%, and Asia in the Middle East for 4.5%

SITC5-8 manufactures trade among the four LDC regions was 25% of their total manufactures 5-8 trade in 1973, down from 32% in 1955. Developing Other Asia accounted for 48% of this trade in manufactures among LDCs, while Latin America accounted for 26%. Total manufactures trade for the four LDC regions accounted for 7.4% of world trade in manufactures in 1973, up from levels close to 6.5% in the previous years represented.

	1955	1960	1965	1970	1973
· ·			(\$ million	:)	
Developing Africa	190	250	460	650	1,100
Developing Latin America	150	140	320	980	2,140
Developing Asia in the Middle East	100	195	325	220	730
Developing Other Asia	990	1,270	2,250	5,040	11,630

TRADE PATTERNS 11

Developing Latin America has the highest total exports for the selected intervals of years except 1973, when Developing Other Asia pulls ahead. Yet, Developing Other Asia exported over twice the amount of SITC 5-8 manufactures exported by Developing Latin America. The dominance of Developing Other Asia in Manufactured Goods (SITC 6+8-67+68) exports is worth noting by years.

Textile Yarn and Fabric (SITC 65) shows the following exports for 1973:

	(\$ million)	% of SITC 5-8	% of SITC $(6+8)-(67+68)$
Developing Africa	290	8.9	26
Developing Latin America	445	9.7	21
Developing Asia in Middle East	295	31.3	40
Developing Other Asia	3,010	22.3	26

Interestingly, Developing Other Asia's Machinery and Transport Equipment (SITC 7) exports are greater than her textile exports. Manufactures exports (SITC 5-8) as a percent of total exports increased the most for Developing Other Asia from 1955 to 1973. The increase in the value of mineral fuel exports for Developing Asia in the Middle East and Africa during this period affected their percentages:

•	Manufactures Ex	ports (SITC 5-8)
	As a Per Cent of	of Total Exports
	1955	1973
Developing Africa	18.4	16.5
Developing Latin America	8.6	19.4
Developing Asia in the Middle East	3.9	4.5
Developing Other Asia	19.3	53.1
. F 0 7.44	23.0	55.1

Machinery and Transport Equipment (SITC 7) increased as a percentage of manufactures exports (SITC 5-8) for all LDC regions except Developing Africa:

Latin America has the highest Chemical (SITC 5) exports, followed by Developing Other Asia. In 1973 they accounted for 13.3% of manufactures exports (SITC 5-8) for Latin America and 3.8% for Developing Other Asia.

	ment (SITC 7) as	Fransport Equip- % of Mfg. Exports C 5-8)
	1955	1973
Developing Africa	3.3	2.6
Developing Latin America	2.3	20.0
Developing Asia in the Middle East	7.7	22.2
Developing Other Asia	5.7	18.7

Trade among LDCs and between LDCs and developed economies for SITC breakdowns for 1955 and 1973 presented in Table 1 show differing patterns. In 1955 intra-regional trade among LDCs in Manufactured Goods SITC (6+8-67+68) exceeded extra-regional LDC exports due to the effect of Developing Other Asia's trade pattern. For this category, LDC exports to developed market economies in 1973 are only 9% smaller than imports from these countries. In Iron and Steel SITC 67 intra-regional trade among LDCs exceeds exports to developed market economies in both years.

In absolute value, Manufactured Goods SITC (6+8-67+68) ranked first among LDC exports of manufactures in 1973 in all LDC regions except Developing Africa, where it ranked second behind Non-Ferrous Metals. This category also has the highest trade value for LDC exports to each other. Machinery and Transport Equipment SITC 7 dominates import trade values and Non-Ferrous Metals SITC 68 has the highest export/import ratio.

Iron and Steel SITC 67 and Machinery Transport Equipment SITC 7 have the lowest percentage of LDC-supplied imports, although they are ranked highest in LDC regions for intra-regional trade indexes. In fact, rankings by absolute value tend to be inversely related to intra-regional trade intensity rankings as measured by the indexes.

VALUE OF LDC EXPORTS AND IMPORTS FOR CATEGORIES OF MANUFACTURES TRADES, 1955 AND 1973 Table 1

(million current \$)

SITC Category	Year	Trade Among LDCs* (1)	LDC Exports to MDE* (2)	Trade Among LDCs* LDC Exports to MDE* LDC Imports from MDE 1 + 2 (2) (3)	1 + 2
5 Chemicals	1955	101	135	1,541	.15
(6+8 - 67+68) Manufactured Goods	1955 1973	752	667 11 965	6, 2.2.2 4, 409	.32
67 Iron and Steel	1955 1973	15 483	62 409	1,245	1.18 .06
68 Non-Ferrous Metals	1955 1973	51	1,181 8,605	200	.16 6.16
7 Machinery and Transport Equipment	1955 1973	93	3,830 2,890	1,125 5,304 33,115	3.56 .02 .13

*LDC = Less developed economies and includes Planned Asia.

MDE = More developed economies and includes Planned Europe.

Source: UNCTAD, Handbook of International Trade and Development Statistics, 1976.

Index Findings

Trade intensity index tables are grouped at the end of the paper. Detailed patterns discernable from the indexes have been itemized in Appendix III. Here a summary is given of the broader generalizations and conclusions.

By 1973 Latin America had the highest intra-regional SITC 5-8 manufactures trade indexes except for Developing Asia in the Middle East where only 4% of total trade was in manufactures trade. Both regions show strong gains in intra-regional trade intensity for manufactures from 1955 to 1973. Developing Other Asia showed declining manufactures SITC 5-8 regionalization indexes as her extra-regional trade grew, despite a growing proportion of manufactures exports in her total intra-regional trade from 1955 to 1973. Developing Africa shows some increase in index levels over earlier years for manufactures. However, her intra-regional index levels are the lowest among LDC regions.

Growing manufactures trade has not contributed to greater total trade intensity between the four LDC regions except for the export trade of Developing Asia in the Middle East to Dveloping Africa. Among the LDC regions Latin America stands out as the area with the least geographic diversification and shows the least trade intensity with other LDC regions. Moreover, the trade intensity indexes do not strengthen the Linder thesis that LDCs will trade more intensely with each other in manufactured goods than with more developed countries (1961).

The impact of LDC regions' manufactures trade upon their total exports over the period in regard to new and old regional groupings and diversification varies, of course, with the relative importance of manufactures exports in total trade. Africa's manufactures trade contributed to diversification by intensifying trade with Japan, where SITC 0-4 trade indexes were very low, and helped strengthen trade intensities with Planned Economies.

Manufactures exports helped Latin America retain Japan as an important trade partner, intensified her intra-regional trade dependence, and lessened somewhat her relative dependence in total trade upon the U.S. market. Her lowered total trade index with Europe is also traceable to manufactures exports.

Developing Asia in the Middle East has well-diversified SITC 0-4 trade and relative to this trade, manufactures trade is small. Thus far it has not contributed to diversification.

TRADE PATTERNS 15

Developing Other Asia's trade in manufactures and non-manufactures is well diversified. Manufactures exports mainly affected areas of strong trade intensity: It helped to strengthen U.S. and Australia-New Zealand trade intensities, while contributing to decreased intra-regional intensity.

It is highly probable that individual LDCs with high geographic concentration of trade in SITC 0-4 categories will have experienced lessened geographic concentration with the growth of manufactures exports. And this geographic diversity could be the result of increased trade with other LDCs, especially intra-regional trade. Economies of The Central American Common Market come to mind here (1973).

Europe emerges as an area that could be usefully examined for potential increases in manufactures export trade intensity for LDCs; yet Europe shows declining index trends for all LDC regions. Despite strong historical and geographic ties between Europe and Africa, Japan has stronger manufactures 5-8 regional indexes with Developing Africa. Developing Other Asia's SITC 5-8 manufactures trade intensity indexes with Europe are relatively low and cannot be accounted for fully by geographic distance. (The same can be said for Developing Africa's indexes with the U.S.)

In absolute value Manufactured Goods SITC (6+8-67+68), a relatively heterogeneous grouping, dominates LDC SITC 5-8 exports, with Machinery and Transport Equipment second, but amounting to somewhat less than one-third as much. Manufactured Goods exports showed lower intra-regional LDC indexes than many other indexes, excluding non-ferrous metals. Intra-regional trade absorbed the largest percent of chemical and iron and steel exports. Manufactured Goods along with Non-Ferrous Metals are the categories with the strongest comparative advantage in trade for LDCs as measured by exports relative to imports. This comparative advantage in world markets contributes to the relatively low intra-regional indexes.

The importance in total exports and the high intra-regional ranking of Machinery and Transport Equipment is worth noting. Of course, this category remains one of high net import dependence, with import values in 1973 exceeding the combined import values of the other SITC 5-8 categories. Development economists interested in the development of intermediate technology of a more labor intensive type are examing the possibility that the growth of the capital goods industry in LDCs could be

TRADE INTENSITY INDEX

							Deve	loped Ma	rket Econ	omies	
Imports fi	om	EUR	OPE	SOUTH	AFRICA	CAN	IADA	US	SÁ	JAI	PAN
Exports to		Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Expc
	1955	1.46	2.03	6.06	2.24	.07	.1	.36	1.37	1.23	.2
Developing	1960	1.38	1.87	6.48	2.23	.06	.04	.37	.64	1.23	1.09
AFRICA	1965	1.13	1.48	5.43	2.05	.15	.03	.49	.23	1.6	3:51
ATRICA	1970	1.13	1.46	7.66	.33	.07	.03	.52	.1	1.33	4.58
	1973	1.11	1.37	6.82	.08	.13	.04	.5	.25	1.65	4.02
	1955	.76	1,1	.06	.06	.49	.14	2.71	5,28	.94	.75
Developing	1960	.81	1.23	.06	.2	.59	.09	2.72	4.13	.88	.86
LATIN	1965	.7	.77	.11	.04	.77	.08	2.65	3.53	.83	1.18
AMERICA	1970	.7	.74	.12	.16	.76	.1	2.7	2.54	.92	1.72
	1973	.66	.53	.12	.34	.63	.25	2.87	2.87	1.31	1.74
LAFTA	1970	.72	.87	.09	.16	.78	,12	2.89	2.19	.81	2.07
LAFIA	1973	.69	.53	.13	.4	.59	.26	3.06	2.79	1.09	1.95
Developing	1955	1.2	1.1	0	0	.11	.14	1.11	1.9	1.78	0
ASIA —	1960	1.2	1.13	.1	.57	.12	.27	1.00	1.73	1.33	0
MIDDLE	1965	1.09	.99	.23	.76	.15	.25	1.12	1,53	1.3	2,78
EAST	1970	1.00	.71	0	.49	.15	.06	.88	.32	1.16	.25
BAGI	1973	.96	.74	0	1.24	.22	.04	1.01	.31	1.47	.12
	1955	.87	.48	.27	.49	.28	.28	1,03	1,67	4.51	2.55
Developing	1960	.76	.56	.52	.7	.36	.41	.96	2.09	4.35	1.78
OTHER	1965	.6	.48	.29	.34	,3	.53	1.18	2.62	3.6	2.33
ASIA	1970	.47	.42	37	.33	.32	.56	1.22	2.63	4.00	3,12
	1973	.44	.47	.4	.34	.24	.62	1.29	2.59	3.85	4.80
•	1955	1.05	1.03	.78	1.05	1.38	1.1	.82	.93	.56	1.01
DECM OF	1960	1.05	1.02	.77	1.03	1.28	1.07	.87	.96	.65	1.01
REST OF	1965	1.06	1.02	.88	1.02	1.18	1.05	.87	.93	.72	.92
WORLD	1970	1.07	1.03	.8	1.06	1.16	1.06	.89	.94	.77	.88
	1973	1.07	1.05	.84	1.07	1.17	1.06	.88	.92	.72	.79

Source: United Nations' Conference on Trade and Development, Handbook of Internatio

TOTAL MANUFACTURES TRADE SITC(5-8)

		Devel	oping M	arket Eco	onomie	s	Cer	ntrally Plan	nned Eco	nomies
	RALIA, EALAND	Africa	Latin Ameri- ca	LAFTA	Asia (Mid. East)	Other Asia				
Import	Exports	Ехро	rts (Acro	ss): Imp	orts (D	own)	Imports	s Exports	Imports	Exports
.14	.06	1.18	0		.33	.19	.22	0	.22	.1
.23	.03	1.09	.17		.96	.45	.41	.05	.35	.32
.29	.02	2.76	.07		.86	.17	.93	.46	.73	.49
.36	.04	2.01	.1	.1	.49	.31	2.75	2.35	.79	.65
.22	.06	1.53	.47	.56	.32	.45	.2.91	1.13	.64	.74
.67	.03	0	1.00	_	0	.01	.06	.05	.19	,1
1.19	.07	.02	1.11		0 -	.15	.12	0	.2	.04
1.65	.1	.03	3.47	_	.05	.03	1.44	.63	.38	.05
.24	.03	.19	4.04	3.67	.01	.09	.79	.23	.48	.08
.36	.19	.17	5.13	4.76	.14	.17	.5	.17	.41	.22
.12	.04	.17	3.53	4.58	.02	.11	.02	.08	.15	.09
.32	.22	.18	4.79	5.45	.15	.19	.05	.2	.15	.23
0	0	1.15	.15	_	10.6	.4	0 .	0	.31	.11
.13	.16	1.58	.1	_	7.66	.62	.26	0	.44	.14
.2	.18	1.06	.21	_	6.08	1.09	1.14	0	.54	.29
.4 1	0	2.66	0	0	19.89	.36	2.33	0	1.43	.38
.6	.14	2.05	.03	.02	13.34	.65	.9	.18	1.12	.44
1.51	1.2	1.15	.57		1,22	4.48	2.56	1.00	.17	0
1.85	1.5	1.05	.44	_	.96	4.17	2.61	.8	.35	.14
2.09	1.29	1.01	.48	_ `	1.03	3,46	4.95	.47	.61	.34
3.33	1.14	1.13	.26	.21	1.18	3.3	4.93	.08	.38	.41
3.47	1.71	.61	.15	.17	.82	2.93	4.63	.28	.26	.23
1.18	1.08	1.05	1.08		1.04	.97	1.15	1.08	1.42	1,11
1.02	1.04	1.04	1.06	·	1.02	.96	1.06	1.06	1.29	1.08
.92	1.03	.99	1.00		1,00	.96	.59	1.04	1,14	1.05
.95	1.04	1.01	1.01	1.00	1.00	.96	.59	1.04	1.1	1.06
.93	1.01	1.04	1.00	1.01	1.00	.94	.67	1.07	1.12	1.07

Trade and Development Statistics, 1976. (TD/STAT. 6)

TRADE INTENSITY INDEX

Developed Market Economies

								 .			
Imports f	om	EUF	ROPE	SOUTH	AFRICA	CAN	IADA'	U	SA 🕢	JA	PAN
Exports to	•	Import	s Exports	Imports	s Exports	Imports	Exports	Imports	Exports	Import	s Ехр
	1955	2.16	1,49	2,33	1.83	.15	.23	.54	.64	1.02	.2
Developing	1960	2.09	1.45	1.91	1.46	.16	.16	.83	.59	.55	.2
AFRICA	1965	1.46	1.44	1.92	1.2	.1	.26	1,22	.7	.6	.2
AFRICA	1970	1.46	1.47	2.56	.65	.44	.31	.83	.68	.57	.2
	1973	1.6	1.37	2.55	.48	.24	.69	1.04	1.00	1.09	.3
	1955	.5	.63	.1	.34	.62	.89	2.07	2.55	.22	.7
Developing	1960	.49	.68	.11	.31	.71	1.09	1.93	2.76	.58	.5
LATIN	1965	.43	.7	.18	.35	.83	1.48	1.83	2.55	.59	.6
AMERICA	1970	.4	.66	.11	.38	.68	1.63	2.06	2.7	.59	6
	1973	.41	.66	.13	.34	.63	1.83	2.27	3.17	.81	.4
LAFTA	1970	.41	.74	.2	.42	.64	1.81	3.16	2.51	.68	.6
2211171	1973	.4	.72	.18	.41	.54	2.00	2.89	2.77	.8	.4
Developing	1955	.85	1.15	.3	3.61	.1	.39	1.02	.5	.65	1.0
ASIA —	1960	1.07	1.14	.24	3.6	.26	1.07	1.21	.5	.25	1.4
MIDDLE	1965	.84	1.04	.18	3.56	.11	.5	1.32	.43	1.02	2.1
EAST	1970	.82	1.09	.18	4.28	.26	.28	1.02	.25	1.48	1.8
	1973	.93	1.03	.17	3.86	.19	.56	1.11	.39	2.09	1.6
	1955	.45 ~	.68	.29	1.66	.19	.48	1.03	1.03	3.44	2,5
Developing	1960	.3	.62	.57	1.61	.22	.42	2.06	1.01	3.31	2,4
OTHER	1965	.25	.52	.25	1.66	.23	.34	2.34	1.07	3.96	2.5
ASIA	1970	.22	.41	.2	.64	.38	.39	2.19	1.12	7.86	2.6
	1973	.17	.37	.22	.49	.42	.33	1.96	.96	6.63	2.8
	1955	1.06	1.13	1.11	.7	1.16	1,35	.94	.6	.91	.8
REST OF	1960	1.06	1.1	1.09	.73	1.15	1.2	.87	.63	.89	.9.
WORLD	1965	1.09	1.09	1.1	.72	1.13	1.15	.85	.72	.84	.8!
WORLD	1970	1.1	1.09	1,1	.75	1.12	1.18	.88	.8	.58	.9
	1973	1.1	1.12	1.1	.67	1.13	1.1	.88	.75	.59	.8

Source: United Nations' Conference on Trade and Development, Handbook of Internatic

TOTAL OTHER TRADE SITC(0-4)

		Devel	oping M	arket Eco	nomie	S	Cen	trally Plan	ned Econ	omies
	RALIA, EALAND	Africa	Latin Ameri- ca	LAFTA	Asia (Mid. East)	Other Asia				
Imports	Exports	Expo	rts (Acro	ss): Impo	orts (D	own)	Imports	Exports	Imports	Exports
.03	.49	2.08	.08	_	.87	.65	,53	.95	.32	.36
.22	,5	1.8	.12	_	.91	.56	.47	1.71	.43	.66
.29	.4	2.09	.11	_	.8	.38	.65	1.32	.54	.61
.61	.48	1,64	.47	.28	.52	.34	1.5	,8	.96	.78
.35	.27	1.6	.97	.32	.53	.29	1.2	.89	.83	.76
.38	.37	,39	2.93		.19	.08	.01	.08	.16	.23
49	.49	.34	3.03	_	.17	.06	.03	.46	.34	.3
.7	45	.38	2.93		.24	.12	.64	1.29	.68	.64
.31	.21	.26	3.26	2.49	.15	.18	.55	.84	.64	.83
.42	.14	45	2.33	2.27	.58	.25	.24	.7	.65	.75
.35	.19	.23	3.75	3.25	.15	.19	0	.03	.098	.33
.45	.14	.46	2.64	2.88	.61	.29	0	.92	.08	.47
.5	3,47	1.25	.27	-	6.5	1.26	.05	.05	.37	.12
.92	2.75	1.51	.27	_	4.31	1.08	.09	.1	.38	.17
.8	3.00	1.25	.49	_	4.13	1.09	.31	.28	.41	.18
1.1	2.8	1.19	.42	.67	3.79	1.15	1,48	.3	.73	.26
.94	1.89	.78	1.15	1,31	2.51	1.38	.83	.37	.52	.29
.95	2.46	.47	.36	_	1.17	4.37	2.24	2.52	.06	.2
.9	2.64	.38	.28		1.19	4.00	2.36	2.15	.08	.53
1.05	2.67	.75	.2	_	1.34	4.05	4.7	1.95	.21	.77
1.28	2.94	.73	.16	.29	1.34	4.19	6.11	2.03	.12	.81
1.14	2.22	.64	.28	.25	1.09	3.91	5.32	1.56	.23	.62
1.11	.72	1.16	.72	_	.66	.63	1.05	1.12	1.2	1.65
1.09	.73	1.15	.77	_	.84	.81	1.01	.99	1.17	1.45
1.06	.74	1.02	.82	-	.77	.9	.8	.86	1.12	1.31
1.05	.78	1.1	.79	.92	.82	.92	.67	1.09	1.11	1.25
1.07	.96	1.15	.84	.87	.85	.85	.74	1.19	1.12	1.33

rade and Development Statistics, 1976. (TD/STAT. 6)

TRADE INTENSITY INDE:

		-					Dev	cloped M	larket Eco	nomies	
Imports fr	om	EUR	OPE	SOUTH	AFRICA	GAN	NADA	υ	SA	JA	PAN
Exports to	,	Imports	Exports	Importe	Exports	Imports	Exports	Imports	Exports	Imports	Exp
	1955	1.81	1.68	3,7	1.28	.09	.13	.44	.83	1.57	.!
Developing	1960	1.65	1.61	3.65	1.1	.1	.09	.48	.69	1.41	.4
AFRICA	1965	1.3	1.52	3.2	.99	.12	.14	.64	.65	1.83	.1
AFRICA	1970	1.25	1.53	4.72	.3	.18	.16	.61	.5 <u>.3</u>	1.46	.į
	1973	1.28	1.39	4.2	.22	.16	.32	.62	.89	1.91	.ŧ
	1955	.76	.73	.07	.14	.54	,5	2.44	3.32	1.02	1.3
Developing	1960	.82	.78	.1	.14	.6	.62	2.43	3.42	.99	.1
LATIN	1965	.69	.74	.08	.12	.76	.84	2.4	2.87	.89	1.:
AMERICA	1970	.68	.7	.22	.17	.71	.84	2.55	2.59	.97	1.:
	1973	.64	.64	.36	.21	6	.86	2.68	3.14	1.37	.!
LAFTA	1970	.74	.79	.32	.18	.72	.85	3.02	2.38	.94	1.:
LATIA	1973	.697	.68	.49	.26	.55	.92	3.05	2.82	1.2	.!
Developing	1955	1.2	1.29	.19	1.44	.11	.2	1.15	.67	1.85	1.1
ASIA —	1960	1.25	1.25	.24	1.55	.16	.63	1.1	.66	1.4	2.:
MIDDLĖ	1965	1.09	1.1	.11	1.37	.12	.32	1.26	.54	1.38	3.1
EAST	1970	1.00	1.14	.02	1.72	18	.17	1.12	.24	1.25	3.(
EAGI	1973	1.01	1.04	.28	1.79	.19	.29	1.22	.39	1.68	3.1
	1955	.78	.7	.25	.67	.22	.29	1.25	1.3	4,69	3.1
Developing	1960	.66	.64	.5	.79	.28	.31	1.44	1.36	4.31	3.1
OTHER	1965	.54	.52	.29	.58	.26	.36	1.64	1.6	3.75	3.4
ASIA	1970	.43	.42	.39	.34	.34	.44	1.56	1.88	4.23	3.4
	1973	.38	.42	.59	.34	.32	.49	1.54	1.84	3.96	3.1
,	1955	1	1.02	1.03	1.12	1.24	1.23	.84	.69	,56	.:
REST OF	1960	1.01	1.02	-1	1.08	1.21	1.16	.85	.77	.65	.8
WORLD	1965	1.05	1.03	1.05	1.09	1.17	1.13	.85	.85	.72	.:
MOKED	1970	1.07	1.04	.97	1.12	1.15	1.14	.88	.92	.75	.:
	1973	1.08	1.07	.98	1.11	1.16	1.14	.88	.87	.71	.;

Source: United Nations' Conference on Trade and Development, Handbook of Internati

'OTAL TRADE SITC(0-9)

		Deve	loping M	arket Eco	onomie	8	Cen	traily Plan	ıned Econ	omies
	TRALIA, ZEALAND	Africa	Latin Ameri- ca	LAFTA	Asia (Mid. East)	Other				
Import	s Exports	. Ехро	rts (Acro	ss): Imp	orts (D	own)	Imports	Exports	Imports	Exports
.17	.22	1.3	.04	_	.6	.44	.29	.37	.26	.34
.16	.24	1.32	.11	-	.8	.48	.39	.86	.37	.57
.22	.17	1.78	.08	_	.65	,3	.88	1.32	.72	.58
.41	.21	1.39	32	.16	42	.33	2.11	1.13	.88	.69
.24	.13	1.21	.76	.3	.35	.33	1.68	.95	.72	.65
.34	.22	.21	2.08		.14	.06	.03	.04	.19	.24
.51	.25	.2	2.11	_	.12	.06	.07	.25	.23	.26
.77	.21	.23	2.57	_	.18	.1	.95	1.4	.48	.55
.25	.11	.19	3	2.09	.09	.15	.67	.66	.52	.62
.35	.1	.28	2.72	2.4	.32	.24	.39	.6	.5	.54
.21	.11	.17	3.22	2.72	.1	.17	.02	.03	.13	.25
.35	.116	.29	2.9	3.05	.34	.27	.034	.42	.123	.36
.36	1.69	.78	.2		5.12	.97	.03	.02	.33	.13
.64	1.47	1.1	.19	_	3.61	.92	.16	.06	,41	.16
.59	1.43	.85	.4		3.64	.92	,62	.31	.51	.19
.72	1.46	.91	.33	.4	3.41	1.06	1.88	,29	1.2	.25
.62	.87	.61	.92	.94	2.24	1.37	.78	.37	1.02	.25
.82	1.34	.53	.35		.97	3.73	1,98	1.2	.12	.17
.89	1.59	.51	.28	_	.92	3.71	2.3	1.21	.24	.41
1.06	1.47	.76	.3		1,04	3.55	4.43	1.61	.48	.6
1.59	1.58	.89	.2	.21	1.13	3.69	5.42	1.04	.28	.57
1.65	1.69	.58	.25	.188	.83	3.4	5.11	.89	.25	.37
1.19	1.1	1.15	1.02	_	.98	.91	1.11	1.2	1.28	1.27
1.14	1.06	1.11	1.03		1.01	.93	1.04	1.12	1.22	1.19
1.08	1.07	1.06	.99	_	.98	.97	.73	.95	1.13	1.13
1.07	1.07	1.07	.99	.97	1.01	.96	.63	1.06	1.11	1.12
1.06	1.08	1.11	.98	.97	1.04	.92	73	1.1	1.12	1.16

ade and Development Statistics, 1976. (TD/STAT. 6)

TRADE INTENSITY INDEX

	_	ž.					Deve	loped Ma	rket Econ	omies	
Imports fr	om -	EUR	OPE	SOUTH	-AFRICA	CA	NADA	υ	SA	JA	PAN
Exports to	ı	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exp
	1955	1.5	1.39	8.01	4.85	.06	0	.21	.77	0 .	1.:
Developing	1960	1.43	1.19	9.32	3.73	.09	. 0	.2	1.44	.1	0
AFRICA	1965	1.31	.87	10.33	.71	.07	0	.3	1.07	.14	0
AFRICA	1970	1.25	.88	14.49	0	.04	0	.33	.67	.22	
	1973	1.22	1.09	16.39	0	.1	0	.37	.63	.23	. 0
	1955	.67	.89	0	0	.6	.38	2.35	5.27	.37	1.
Developing	1960	.75	.6	0	0	.59	.18	2.13	8.69	.36	.!
LATIN	1965	.73	.5	.41	0	.5	.13	2.18	6.21	.37	.:
AMERICA	1970	.71	.5	.25	.38	.47	.23	2.35	4.6	.56	
	1973	.7	.53	.35	.23	.59	.24	2.62	4.07	.56	·
LAFTA	1970	.73	.54	.35	0	.34	.277	2.48	4.42	.61	
LATIA	1973	.71	.043	.46	.384	.47	.322	2.76	3.01	.62	1.0
	1955	1.37	1.13	0	0	0	0	.77	0	0	0
Developing	1960	1.37	1.39	0 .	0	0	0	.76	0	0	0
ASIA -	1965	1.3	.64	.91	5.85	.15	0	.74	.49	.32	1.
MIDDLE	1970	1.22	.33	0	3.16	.07	0	.66	0	.4	0
EAST	1973	1.16	.14	0	7.49	.28	0	.68	.26	.41	0
•	1955	.98	.35	.45	0	.37	.18	.94	1.13	5.04	2.
Developing	1960	.88	.28	.75	0	.5	0	.91	1.63	6.62	. 1.
OTHER	1965	.64	.21	.24	0	.4	.16	1.16	1.64	4.88	2.
ASIA	1970	.51	.13	.31	.29	.7	.11	1,17	.91	5.23	3.
	1973	.47	.11	.36	.28	.56	.17	1.26	1,18	5.84	3.
	1955	1.03	1.02	.62	1.02	1.34	1.05	.81	.92	.6	
REST OF	1960	1.04	1,03	.55	1.03	1.27	1.06	.92	.88	.47	1.
WORLD	1965	1.05	1.02	.54	1.02	1.23	1.04	.87	.9	.72	
MOKED	1970	1.08	1.04	.41	1.04	1.2	1.05	.89	.95	.72	• 1.
	1973	1.08	1.04	.4	1.02	1.18	1,05	.85	.95	.61	.!

Source: United Nations' Conference on Trade and Development, Handbook of Internat

CHEMICAL PRODUCTS SITC(5)

		Deve	loping M	arket Ec	onomie	s	Ce	ntrally Pla	nned Ecor	omies
	ralia, Ealand	Africa	Latin Ameri- ca	LAFT	Asia A (Mid, East)	O+1				•
Import	s Exports	Expo	rts (Acro	ss): Imp	orts (D	own)	Import	s Exports	Imports	Export
0	0	2.42	0	_	1.38	1.00	.56	0	.34	0
0	.59	4.71	0	_	.8	.55	41	Ô	.49	0
.23	0	6.77	.38	_	1.27	.79	.64	.99	.51	.33
.18	0	5.05	.08	0	1.53	.8	2.76	.52	.55	2.29
.22	0	3.4	.6	.64	.36	.82	2.09	.88	.49	1.84
.9	0	0	1.09		0	0	0	.43	.14	1.24
.92	0	0	1.53	_	0	0	.2	0	.34	.32
.8	0	0	3.45		0	.12	1.41	.76	.42	.39
.08	0	.33	4.42	3.12	0	.13	.76	1.03	.36	.25
.03	.19	.03	5.17	3.85	0	.2	.33	.12	.33	.07
0	0	0	4.29	5.06	0	.24	0	.31	.109	
.03	.312	.058	5.93	6.3	0	.337	0	.196	.127	.177
0	0	0	0	_	21.19	1.29	0	0	.17	0
0 .	0	1.41	0		7.82	.88	0	0	.15	1.11
0	.93	1.07	.53		2.34	2.19	1.41	0	.34	1.81
0	0	2.29	0	0	23.31	1.36	1.06	0	.57	.26
1.48	0	2.81	.17	.11	14.77	2.62	.32	1.28	.66	.76
.78	.36	.15	.14	_	.5	4.1	1.38	9.05	.12	0
1.14	1.48	.19	0	_	1.01	6.42	3.01	3.56	.19	0
1.23	1.45	.48	.12	_	.78	6.91	2.63	.31	.41	.27
2. 2	1.34	1.23	.08	.057	1.04	7.82	2.69	0	.53	.42
1.28	1.44	.9	.09	.076	.61	7.53	3.44	.69	.38	.31
1.21	1.05	1.04	1.03	_	1.01	.96	1.25	.85	1.45	1.03
1.14	1.04	1.02	1.03	_	1.03	.97	.97	1.01	1.32	1.05
1.09	1.02	.98	.98		1.02	.93	.77	1.02	1.21	1.03
1.1	1.04	1.00	.97	1.05	.98	.94	.77	1.04	1.19	1.03
1.11	1.03	1.01	.95	1.00	.99	.91	.8	1.03	1.19	1.03

ade and Development Statistics, 1976. (TD/STAT. 6)

TRADE INTENSITY INDEXES: OTH (Excluding Iron a

							Deve	loped Ma	rket Econ	omies	
Imports fr	om	EUR	OPE	SOUTH	AFRICA	CAN	NADA	U	SA	JAI	PAN
Exports to	ı	Îmports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Expo
	1955	1.33	1.69	4.32	3.26	.02	.46	.2	1 .	.93	0
D11	1960	1,34	1.5	4.86	2.02	.04	.14	.23	.58	1.03	0
Developing	1965	1.1	1.05	3.44	1.2	.07	.05	.39	.2	1.11	0
AFRICA	1970	1.06	1.11	4.87	0	.1	.04	.47	.17	.75	.0
	1973	1.09	1.11	6.18	0	.14	.08	.37	.13	.87	1,6
	1955	.72	.21	.13	.25	.48	.57	3.51	4.42	.53	0
Developing	1960	.79	.66	0	.75	.76	.41	3.57	2.67	.9	1.7
LATIN	1965	.65	.3	0	.2	1.01	.34	3.3	2.84	.89	.3
AMERICA	1970	.61	.27	.06	.32	1.38	.32	3.82	3.02	.94	.7
	1973	.58	.42	.08	.58	1.43	.6	4.26	2.76	1.1	1.1
LAFTA	1970	.68	.474	.106	.591	1,47	.558	4.02	2.25	.82	8
LAFIA	1973	.63	.447	.14	.754	1.29	.169	4.52	2.59	1.13	.1
Dll	1955	1.08	1.13	0	0 -	.11	.18	.71	1.51	2.12	0
Developing ASIA —	1960	1.08	1.18	.18	.58	.03	.31	,9	1.31	1.54	0
	1965	1.00	.98	.29	. 4 1	.08	.35	.79	1.38	1.64	3.4
MIDDLE	1970	.83	.77	0	.35	.13	.12	.72	.38	1.75	.2
EAST	1973	,81	.85	0	.91	.15	.08	.79	.33	2.32	.0
	1955	.64	.57	.29	.5	.09	.34	1,16	.8	3.4	2.5
Developing	1960	.54	.63	.68	.75	.11	.49	1.00	1.41	3,11	1.5
OTHER	1965	.42	.53	.43	.54	.22	.66	1.07	2.03	3.3	1.9
ASIA	1970	.34	.45	.77	.46	.29	.83	1.18	2.26	3.9	2.8
	1973	.34	.48	.85	.5	.26	.87	1.23	2.25	4.38	3.9
	1955	1.09	1.06	.85	1.05	1.44	1.09	.78	1.02	.67	.9
w nom on	1960	1.06	1.04	.79	1.03	1.3	1.08	.86	.99	.77	1.0
REST OF	1965	1.07	1.04	.98	1.04	1,17	1.05	.88	.92	.78	.9
WORLD	1970	1.09	1.07	.92	1.08	1.12	1.05	.86	.87	.78	.8
	1973	1.08	1.09	.89	1.09	1.11	1.05	.88	.84	.75	.6

Source: United Nations' Conference on Trade and Development, Handbook of Internation

MANUFACTURED GOODS SITC(6+8) (67+68) iteel and Non-Ferrous Metals)

		Deve	oping M	arket Ec	onomie	s	Ce	ntrally Plai	ned Econ	omies
	RALIA, EALAND	Africa	Latin Ameri- ca	LAFT	Asia A (Mid. East)	Other		•		
Import	s Exports	Expo	rts (Acro	oss): Imp	orts (D	own)	Import	s Exports	Imports	Exports
.26	0	2.87	0 .		.87	.31	.26	0	.35	.7
.18	0	1.99	.16		2.99	.19	.24	0	.41	.71
.38	0	4.89	.11	_	1.88	.06	.92	1.96	.6	1.33
.55	.06	5.4	.09	.06	1.56	.07	2.97	.72	.65	2.12
.36	.13	3.49	.24	.42	.97	.27	2.72	.23	.79	2.35
1.05	.15	0	3.12	_	0	.06	.13	0	.28	0
2.45	.41	.09	3.55		0	.7	.13	0	.18	.08
3.11	.35	.05	7.22		0	.05	1.89	0	.28	.03
.28	.04	.07	6.87	4.83	0	.16	1.01	0	.44	.18
.47	.27	.16	7.18	6.14	.36	.23	.71	.72	.48	.51
.27	.094	.143	6.14	8.8	0 .	.27	.04	0	.29	.295
.49	.031	.189	6.33	7.37	.396	.27	.12	.879	.25	.591
0	0	.98	.22		9,52	.19	0	0	.44	.22
0	.16	1.32	.08		6.11	.61	.3	0	.57	.12
.24	.12	1.00	.16	_	4.99	1.11	.8	0	.69	.18
.61	0	2.63	0	0	17.25	.14	2.93	0	1.15	.63
.46	.19	2.46	0		13,93	.26	1.28	0	.87	.64
1.17	1.36	1.2	.84		1.26	3.61	3.37	.33	.22	0
1.3	1.51	1.09	.68	_	.9	3.4	2.7	.87	.3	.2
2.22	1.58	1.17	.69	_	.98	2.79	6.16	1.00	.5	.46
3.56	1.22	1.23	.37	.35	1.1	2.55	5.28	.14	.23	.54
3.59	1.72	.84	.37	.25	.97	2.25	5.51	.72	.15	.34
1.16	1.03	1.00	1.04	_	.97	.88	.94	1.11	1.39	1.12
.98	1.01	1.01	1.04	_	.97	.88	1.03	1.06	1.27	1.09
.81	.99	.94	.98	_	.96	.9	.5	1.00	1.14	1.05
.89	1.02	.94	.98	1.01	.95	.9	.53	1.11	1.14	1.05
.9	.96	1.01	.97	.98	,94	.9	.64		1.12	1.05

rade and Development Statistics, 1976. (TD/STAT. 6)

TRADE INTENSITY INDEX

****						<u> </u>					
	_						Deve	elopment	Market Ed	onomies	
Imports fr	om .	EUR	OPE	SOUTH	AFRICA	CA	NADA	U	SA	JA	PAN
Exports to	,	Import	Exports	Import	Exports	Imports	Exports	Imports	Exports	Imports	Exp
	1955	2.69	1.45	0	4.06	0	0	0 .	.62	0	0
Damalanina	1960	2.25	1.36	6.89	4.72	.15	0	0	.3	0	.7
Developing	1965	1.48	1.42	6.12	4.76	.2	.07	.77	.1	.68	2.3
AFRICA	1970	1.68	1.22	5.03	1.2	.06	.09	.4	.05	.4	2.4
	1973	1.43	1.24	4.86	.83	.11	.05	.36	.24	.31	1.9
	1955	1.22	.85	0	0	.48	0	2,99	1.78	5,64	.3
Developing	1960	.97	.98	0	0	.94	0	2.57	2.24	0	.4
LATIN	1965	.79	.84	.31	0	.58	0	3.17	2.12	.96	.7
AMERICA	1970	.48	.95	0	0	.88	0	3,99	1.8	.53	1,1
	1973	.61	.86	0	0	.71	.08	4.28	1.96	.4	1.1
* 1 ED 1	1970	.45	.95	0 -	o	.92	0	4.17	1.82	,299	1.1
LAFTA	1973	.62	.85	0	0	.62	.085	4.71	1.98	.23	1.1
D1	1955	2.42	1.86	0	0	.48	0	0	0	4.21	0
Developing	1960	2.42	1.7	0	0 .	.24	0	.64	0	0	0
ASIA —	1965	2.26	.98	0	0	.2	0	.96	0	0	8.9
MIDDLE	1970	1.66	.65	0	0	.54	0 .	.71	48	1.14	1.0
EAST	1973	1.51	.75	0	0	.8	0	.54	0	.93	.7
· · · · · · · · · · · · · · · · · · ·	1955	1.08	.34	0	.81	47	1.43	1.46	2.06	7.6	10.9
Developing	1960	.8	.51	Ó	.73	1.4	1.59	.73	1.97	14.82	5.4
OTHER	1965	.48	.32	.55	0	.79	2.52	3.31	2.1	9.81	4.2
ASIA	1970	.31	.42	.15	0	1.08	1.78	2.51	2.64	11.81	3.1
	1973	.33	.52	.14	0	.78	1.32	1.68	1.77	13.84	3.1
	1955	.97	.96	1.07	.5	1.04	1.42	.93	.85	.68	.7
REST OF	1960	.99	.97	1.02	.48	1.01	1.34	.98	.87	.53	.8
WORLD	1965	1.02	1.00	.99	.59	1.05	1.21	.83	.91	.65	.5
WOKLD	1970	1.03	1.00	1.03	1.18	1.02	1.3	.86	.97	.64	.5
•	1973	1.03	1.01	1.04	1.19	1.03	1.22	.87	.98	.53	.7

Source: United Nations' Conference on Trade and Development, Handbook of Internation

JON-FERROUS METALS SITC(68)

	,	Devel	oping M	arket Ec	onomie.	s	Centrally Planned Economies				
	RALIA EALAND	Africa	Latin Ameri- ca	LAFTA	Asia A (Mid. East)	Other Asia					
Import	Exports	Ехро	rts (Acro	ss): Imp	orts (D	own)	Imports	Exports	Imports	Exports	
0	.14	.94	0	_	0	.24	0	0	0	0	
0	0	.51	.67		0	1.2	1.27	.08	.74	.33	
0	0	.94	0	_	.21	.29	2.08	0	1.12	.32	
.58	.09	.73	.21	.25	.08	.69	2.05	1.79	1.23	.12	
.34	.09	1,15	.99	1.52	.05	.86	1,99	.69	.67	.04	
.39	0	0	1,33	_	0	0	0	0	0	0	
0	0 -	0	.82	-	0	.1	0	0	.37	0	
.37	0	0	2.27	_	0 -	0	0	.76	.62	0	
0	0	0	2.69	2.9	0	.05	.68	0	.56	.05	
.05	0	0	3.09	3,37	0	.02	.43	0	.41	.36	
0	0	0	2,62	2.97	0	.046	0	0	.087	.054	
.06	0	0	2.92	3.02	0	.023	0	0	.16	.371	
0	0	0	0		0	0	0	0	0	0	
0	0	0	0	_	0	0	0	0	.59	0	
0	0	0	0	_	0	0	0	0	.33	1,82	
1.24	0	6.3	0	0	45.5	2.1	0	0	.63	0	
.68	0	2.95	0		33,73	0	.66	0	.55	1.98	
5.76	.52	0	1.27		1.88	4.31	0	0	.24	0	
3.85	2.34	.55	1.09	_	.86	2.85	0	1.51	.42	0	
3.8	2.00	1.29	1.09	_	.52	2.33	0	.28	.25	.64	
3.93	.32	.79	.41	.48	2.55	2.22	1.32	0	.22	.55	
5.36	.21	.38	.19	.23	1.65	2.57	1.19	0	.24	.44	
.92	1.45	1.29	1,14	_	1.4	1.19	1.07	1.51	1.06	1.51	
.95	1.29	1.3	1.1	_	1.38	1.01	1.08	1.33	1.06	1.37	
.93	1.26	1.15	.97	_	1.33	1.19	1.08	1.26	1.05	1.3	
.94	1.38	1.22	.92	.89	1.18	1.15	1.00	1,07	1.04	1.35	
.88	1.29	1.12	.85	.85	1.12	1.03	1.01	1.22	1.06	1.24	

rade and Development Statistics, 1976. (TD/STAT. 6)

TRADE INTENSITY INDE:

	_				,		Deve	eloped Ma	rket Econ	omies	
Imports fr	om	EUR	OPE	SOUTI	H AFRICA	CA	NADA	υ	SA	JA	PAN
Exports to		Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Import	s Exp
· ·	1955	1.39	1.1	13.3	ő	0	0	.19	13,4	.91	0
Developing	1960	1.26	1.31	5.93	0	0	0	.21	0	.89	25.6
AFRICA	1965	1.21	.51	6.58	7.93	.24	0	1.03	0	.62	34,3
AFRICA	1970	1.05	.94	7.49	0	.06	0	.8	0	.93	7,1
	1973	1.09	.78	8.19	0	.17	0	.87	1.52	.91	8.0
-	1955	.78	1.7	0	0	1.25	0	2.01	.87	2.25	0
Developing	1960	.85	1.2	.58	0	1.29	0	3.01	2.34	1.08	0
LATIN	1965	.72	.64	0	0	2.08	0	3.26	1.54	1.27	3,5
AMERICA	1970	.55	.27	.13	0	1,69	0	3.22	1.93	1.59	5.2
	1973	.49	.17	.16	.45	1.2	.34	4.39	3.54	1.82	7.7
LAFTA	1970	.52	.277	.16	0	1.53	0	3.65	1.89	1.78	5.3
	1973	.45	1.75	.18	.584	1.118	.405	4.47	2.87	1.93	7.5
Developing	1955	1.36	0	0	0	0	0	.61	0	,52	0
ASIA —	1960	1.28	2.28	0	0	.45	0	.88	0	.53	0
ASIA – MIDDLE	1965	1.12	0	0	0	.17	0	.74	0	1.02	0
EAST	1970	.79	.33	0	0	.1	0	.69	0	1.26	0
LASI	1973	.73	.29	0	0	.36	0	.88	.25	1.86	0
	1955	.74	0	0	0	.16	0	.91	0	5.72	0
Developing	1960	.64	.24	.31	0	.34	0	1,33	3.2	6.05	4.7
OTHER	1965	.38	.09	0	0	.12	0	2.83	.68	3.16	0
ASIA	1970	.26	.11	0	0.	.28	0	2.04	.78	3.28	17.3
	1973	.19	.21	0	1.32	.14	.08	1.43	1.89	3.52	8.3
	1955	1.03	1.00	.39	1.02	1.18 ·	1.02	.92	1.004	.28	1.0
DECT OF	1960	1.03	1.01	.88	1.02	1.12	1.02	.81	.98	.52	.9
REST OF	1965	1.07	1.01	.94	1.01	1.07	1.02	.66	1.00	.79	.9
WORLD	1970	1.1	1.04	.86	1.04	1.09	1.04	.79	1.01	.79	.7
	1973	1.14	1.04	.89	1.02	1.15	1.04	.7	.97	.66	.7

Source: United Nations' Conference on Trade and Development, Handbook of Internati

RON AND STEEL SITC(67)

		Devel	opment	Market l	Econor	nies	Centrally Planned Economies				
	RALIA, EALAND	Africa	Latin Ameri- ca	LAFTA	Asia A (Mid East)	Other					
Import	s Exports	Expo	rts (Acro	ss): Imp	orts (I	own)	Import	s Exports	Imports	Exports	
0	0	0	0		0	0	••0	0	.07	0	
.46	0	3.28	0		0	0	1.93	0	.28	Õ	
.45	2.58	6.87	0		0	0	1.43	0	.41	0	
.43	0	5.91	0	0	0	0	1.32	2.7	.63	1.38	
.11	0	3.84	1.23	1.14	o ·	_	2.34	2.38	.54	1.01	
.68	. 0	0	1,3		0	0	0	0	.31	0	
.99	0	0	4.01		0	0	0	0	.28	o ·	
2.3	.46	.25	7.22	_	-:67	0	.15	0	.42	0 -	
.29	0	2.01	8.33	9.24	.22	0	.46	.24	.44	0	
.98	.0	.08	7.36	7.98	,15	.08	.37	.18	.37	.02	
.17	0	2.12	7.84	9.68	.234	. 0	0	.254	.2	Ö	
.99	0	.097	8.49	9.4	.175	.092	0	.21	.12	.025	
0	0	0	0	_	0	0	0	0	.21	0	
0	0	0	0	_	0	0	0	0	.22	. 0	
0	0	0	0	_	22,91	0	2.62	0	.7	2.24	
.34	0	1.89	0	0	27.75	0	1.05	0	1.36	.59	
.48	0	2.24	0	0	16.55	1.05	.39	0	1.06	.19	
1.04	0	0	0	-	0	12.5	1,13	0	.18	0	
1.58	1.00	0	0	_	0	7.38	1.82	1.87	.27	0	
1.39	0	.34	0	_	2.77	10.34	3.02	0	,31	0.	
4.5	.64	1.24	.14	.18	6,32	5.52	2.75	.19	.26	.64	
3.36	1.51	.72	.81	.96	2.3	5.42	3.67	0	.23	.3	
1.18	1.02	1.02	.95		1.02	1.01	1.28	1.02	1.32	1.01	
1.02	1.01	1.01	.99	_	1.02	.97	1.01	1.00	1.22	1.02	
.93	1.01	1.00	.94	_	.99	.94	.8	1.02	1.15	1.02	
.84	1.03	.98	.95	.90	.93	.96	.9	1.03	1.11	1.03	
.85	1.02	1.02	.94	.93	.98	.95	.77	1.04	1.15	1.04	

rade and Development Statistics, 1976. (TD/STAT. 6)

TRADE INTENSITY INDEXES: MACHIN

						Developed Market Economies							
Imports fr	om	EUR	OPE	SOUTH	AFRICA	CA	NADA	τ	JSA	JA	PAN		
Exports to	•	Imports	Exports	Import	s Exports	Imports	Exports	Imports	Exports	Imports	Exp		
	1955	1.52	1.5	13.1	3.19	.33	0	.49	0	2.84	0		
Developing	1960	1.39	1.66	14.4	5.54	.18	0	.49	0	1.58	0		
AFRICA	1965	1.06	.39	13.18	3.81	.28	0	.5	0	2,67	1		
AFRICA	1970	1.11	.85	15.24	.93	.07	0	.52	.14	1.89	0		
	1973	1.11	.93	15.4	0	.13	.17	.48	.08	2.04	0		
-	1955	.75	.91	0	0	.83	0	2.23	8.76	.98	0		
Developing	1960	.79	.89	0	0	.68	0	2.28	6.21	1.11	0		
LATIN	1965	.7	.3	.18	0	.82	0	2.25	1.64	.8	Ö		
AMERICA	1970	.75	.27	.24	.29	.6	.04	2.17	2.86	.81	0		
	1973	.71	.16	.22	.42	.43	.12	2.27	3.54	1.28	1.		
T 4 T T T	1970	.76	.24	0	.37	.64	.044	2.35	2,85	.58	0		
LAFTA	1973	.76	.14	0	.47	.45	.13	2.46	3.61	.81	1.5		
D- 1 .	1955	1.14	1.71	0	0	.26	0	1.42	0	.89	0		
Developing	1960	1.17	1.05	0	0.	.34	0	1.14	.97	.92	0		
ASIA —	1965	1.05	1.16	0	0	.28	0	1.34	.58	1.00	0		
MIDDLE	1970	1.04	.79	0	0	.16	0	.91	.12	.8	Ó		
EAST	1973	1.02	.58	0	0	.2	0	1.08	.31	.97	0		
	1955	1.12	.14	0	0	1.15	0	1.00	.44	5.77	0		
Developing	1960	.91	.19	.27	0	.41	0	.91	.41	5.35	,(
OTHER	1965	.76	.2	.2	0	.29	.06	.99	2.53	3,61	3,		
ASIA	1970	.61	.25	.1	.11	.21	.15	1.14	3.15	3.81	2.1		
	1973	.55	.31	.16	.09	.16	.42	1.29	3,43	3.16	3.5		
N 1 - 10 - 11	1955	1.09	1.08	0	1.08	1.26	1.08	.88	1.07	.31	1.(
DECT OF	1960	1.06	1.05	.06	1.05	1.29	1.05	.88	1.04	.5	1.0		
REST OF	1965	1.07	1.02	.23	1.02	1.2	1.02	,9	1.00	.62	1.0		
WORLD	1970	1.06	1.03	.19	1.03	1.2	1.03	.92	.99	.77	1.0		
	1973	1.06	1.03	.19	1.04	1.22	1.03	.92	.95	.76	.9		

Source: United Nations' Conference on Trade and Development, Handbook of Internati

AND TRANSPORT EQUIPMENT SITC(7)

		Devel	oping M	arket Ec	onomie	Centrally Planned Economies					
	RALIA, EALAND	Africa	Latin Ameri- ca	LAFTA	Asia (MId East)	Other					
Imports	Exports	Expo	rts (Acro	oss): Imp	orts (D	lown)	Import	s Exports	Imports	Export	
.32	.9	5.28	0		1.44	0	0	0	.14	0	
.49	0	5.14	0		0	0	2.32	0	.3	O'	
.48	0	11.31	0		1.62	0	1.12	0.	.85	0	
.5	0	9.75	.23	0	1.24	0	4.29	6.69	.87	.17	
.28	0	6,49	.34	.23	.96	.55	3.69	10.65	.6	.71	
1.04	0	0	3.31		0	0	0 -	0	.12	0	
1.33	0	0	2.75	_	0	0	1.9	0	.15	0	
2.31	0.	0	9.03	_	0	0	4.86	0	.39	0	
.55	.12	.16	6.47	7.46	0	.14	1,13	0	.51	0 -	
.54	.2	.42	5.91	6.75	.05	.21	1.83	0	.39	.03	
.26	.139	1.11	6.86	8.8	0 •	.167	0	0	.107	.03	
.34	.203	.43	5.87	7.16	.055	.22	0	0	.126	.035	
0	0	1.64	0	_	9.09	1.69	0	0	.24	0	
.58	0	1.8	.49	_	14.83	0	0	0	.43	0	
.53	0	1.37	.5	.—	14.07	0	1.29	0	.41	0	
.45	0	2.79	0	0	18.39	0	2.53	0	1.62	0	
.44	0	1.71	0	0	18.26	.16	1.16	Ó	1.23	0	
2.3	.3	.17	.09	_	.95	11.68	1.12	.54	.14	0	
3.00	.24	.25	.13	_	1.45	10.63	5.14	.86	.43	0	
2.61	.24	.39	.14	_	1.15	8.16	4.47	.38	.79	.07	
4.5	.49	1.21	.22	.18	.86	5.32	5.2	.13	.47	.03	
4.75	1.13	.38	.22	.14	.5	4.33	6.76	.24	.29	.03	
1.08	1.08	1.07	1.08	_	1.07	1.03	1.5	1.08	1,57	1.08	
.84	1.05	1.04	1.05		1.03	1.00	.34	1.04	1.37	1.05	
.76	1.02	1.01	1,00	_	1.00	.97	.19	1.02	1.14	1.02	
.84	1.03	1.01	1.00	.99	1.01	.98	.41	1.03	1.09	1.03	
.84	1.02	1.03	1.00	.98	1,01	.96	.31	1.03	1.13	1.04	

Trade and Development Statistics, 1976. (TD/STAT. 6)

important to new technology of this type. Another component of this category, Transport Equipment, has strong multinational corporation participation.

The presumption that manufactures trade among LDCs will have greater intensity than non-manufactures trade is not supported by the trade intensity indexes. However, intra-regional trade indexes for manufactures SITC 5-8 for LAFTA were above those for non-LAFTA countries in Latin America by an average of 1.0. This points to a healthy possibility for further growth in LDC trade in manufactures with each other since LAFTA has not been a dynamic free trade area due to limited lessening of protectionist policies.

The potential for further growth in intra-regional and interregional trade among LDCs is important to the further growth in their manufactures trade in light of the fact that the modest increase in LDC manufactures trade as a proportion of world manufactures trade in the 1970's from 6.5% to 7.4% has elicited protectionist policies in developed countries. Certainly further growth in trade with other LDCs could play a strong role in enabling Developing Latin America to expand manufactures exports from the current 19% of total trade to levels nearer those of Developing Other Asia where more than half of total trade is in manufactures. And Developing Africa's relative index levels indicate a potential for increased intra-regional trade intensity in manufactures.

Appendix I

Consider a 6 by 13 matrix (A) with the rows (i=1,2...6) represented by the four LDC regions as exporters, the rest of the world and the total world, and the columns (j=1,2...13) represented by the regions/nations of the world as importers and the total world column. X_{ij} is the value of exports of the commodity or grouping of commodities, X, under consideration from the region i to the region j expressed in million U.S. dollars. The sum of a row, $\sum_{i=1}^{N} X_{ij}$, gives the total exports of commodity X from region

¹ For a discussion of data limitations (biases, etc.) see Theodore Morgan (1975), pp. 53-58.

TRADE PATTERNS 33

i. The sum of a column, $\sum\limits_{i}^{\Sigma}X_{ij}$, gives the total imports of a region j from all regions. The elimination of customs, freight and other charges will assure that row 6 column 13 is the summation of both total row and total column figures. (This matrix is for LDC exports but the same procedure can be used to establish import indexes for LDCs.)

Let X be total world trade in commodity χ . To form matrix B, multiply matrix A by $1/\chi$, giving a ratio Y_{ij} representing the share in world trade of commodity X of exports of region i to region j. The sum of a row divided by χ , $\sum_{j} X_{ij}/\chi$, gives the share of world trade of commodity X accounted for by region i. The sum of a column gives the total imports of a region j as a ratio of world trade in commodity X $(\sum_{i} X_{ij}/\chi)$. Moreover, row 6 column 13 can be expressed $\sum_{i} \sum_{j} Y_{ij} = 1$.

Now consider only the "total" row, Y_{6j} , representing imports to each region of commodity X as a per cent of world imports of each region. When this vector is multiplied by each of the scalers representing total exports of regions i=1,2...5 as a per cent of world exports of commodity X found in the "total" column for regions Y_{i13} , this produces a new 5 by 13 matrix (C) composed of the "total" row vector multiplied in turn by each of the five regions' scalers. R_{ij} now represents the percentage of world trade the jth region would import from the ith region were that trade perfectly proportionate to each region's participation in world imports and exports of commodity X.

The index of regionalization of trade in commodity X is attained by forming a ratio of the percentage of actual trade for each region in matrix B divided by the hypothetical ratio for that region found in matrix C, thus producing the index matrix (D). The index will be 1 when the actual and hypothetical (or proportional) percentages of world trade in commdity X by region i are the same. The index can be expected to vary from 1 and a comparison of regional indexes will establish relative regionalization of trade in commodity X.

Appendix II

Developing Africa

Algeria, Morocco, Tunesia, Egypt, Libyan Arab Republic, Sudan, Benin, Burundi, Chad, Madagascar, Ruanda, Somalia, Togo, Zaire, Central African Republic, Congo, Gabon, Cameroon, Ivory Coast, Mali, Mauritania, Niger, Senegal, Upper Volta, Kenya, Uganda, Tanzania, Angola, Botswana, Cape Verde Islands, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, Lesotho, Liberia, Malawi, Mauritius, Mozambique, Nigeria, Reunion, Sao Tome Principe, Sierra Leone, S. Rhodesia, Swaziland, Zambia.

Developing Latin America

Argentina, Brazil, Mexico, Paraguay, Urguay, Bolivia, Chile, Columbia, Ecuador, Peru, Venezuela, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Cuba, Dominican Republic, Haiti, Panama (excluding Canal Zone), Bahamas, Barbados, Belize, Guyana, Leeward Islands, Trinidad and Tobago, Windward Islands, Bermuda, Falkland Islands, French Guiana, Greenland, Guadeloupe, Jamaica, Martinique, Netherlands Antilles, Surinam, U.S. Virgin Islands.

(LAFTA is composed of the first eleven countries.)

Developing Asia in the Middle East

Cyprus, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Saudi Arabia, Syrian Arab Republic, Yemen.

Developing Other Asia

Afghanistan, Indonesia, Malaysia, Philippines, Singapore, Thailand, Bangladesh, Brunei, Burma, Cambodia, Hong Kong, India, Republic of Korea, Laos, Macau, Nepal, Pakistan, South Vietnam, Sri Lanka.

Appendix III Index Patterns

Total Manufactures SITC 5-8

- 1. LDC trade indexes with Europe for exports and imports show a downward trend except for Developing Other Asia's exports, which show no trend.
- 2. Exports from Developing Africa to Japan show a strong upward trend in trade intensity, as do imports for Developing Africa from Planned Asia. Developing Africa's export indexes are highest for Japan, her import indexes for South Africa.
- 3. Developing Latin America's indexes show a pronounced downward change for exports to the United States, while the indexes for imports from the U.S. are stable. Her trade intensity

TRADE PATTERNS 35

with Japan has strengthened.

4. Developing Other Asia's export indexes with Japan have a strong upward trend, rising above the import indexes to 4.8 in 1973, the highest index value for a single year for her exports. The export index for the U.S. rises above 2.5 in 1965 and remains in that mid-range through 1973.

- 5. Developing Other Asia shows a strong geographic trade intensity with Japan, Planned Asia, and Australia-New Zealand. No other LDC region shows such strong geographic trade intensity indexes outside their own region. This geographic intensity is also evident in SITC 0-4 trade. It is stronger for import than export trade.
- 6. Developing Other Asia's trade intensity indexes with Planned Asia are low for exports and high for imports for SITC 5-8 trade. There is growing disparity in SITC 0-4 export and import indexes (which are both high), with import indexes increasing while export indexes are decreasing.
- 7. Developing Latin America and Asia in the Middle East show strong gains in intra-regional trade intensity, while Developing Africa shows some increase over earlier years but values well below the other two LDC areas. Developing Other Asia shows a downward trend for intra-regional trade.
- 8. Developing Asia in the Middle East stands out as the LDC region with the greatest intra-regional trade intensity in manufactures, and Latin America stands out as the LDC region with the lowest indexes for trade with other LDC regions.
- 9. In two of the four LDC regions, Latin America and Developing Asia in the Middle East, total intra-regional trade would have exhibited less intensity without the effects of manufactures goods SITC 5-8 trade. Latin America's intensified intra-regionalization for total trade is entirely due to changes in manufactures goods SITC 5-8 trade. Due to the small absolute level of manufactures trade relative to total trade for Developing Asia in the Middle East, the impact of manufactures upon total trade intensity was minimal.
- 10. With a few exceptions in individual years, SITC 5-8 indexes for interregional trade among LDC regions are lower than SITC 0-4 indexes.
- 11. Both SITC 5-8 and 0-4 export and import indexes for LDC regions tend to be low for Planned Europe and USSR.

Total Exports (SITC 0-9)

- 1. Indexes for exports and imports for LDCs are generally higher in later years for Eastern Europe and USSR.
- 2. LDC export and import indexes show a downward trend for Western Europe. No other region/country shows similar consistency of trends for exports and imports.
- 3. Developing Africa and Latin American trade indexes are above 1 for only one region or country outside their own region, whereas Developing Asia in the Middle East and Developing Other Asia trade indexes are above 1 for four outside regions or countries.
- 4. Latin America is the only region where intra-regional trade indexes are smaller than those for an outside region or country--U.S. indexes.
- 5. Developing Asia in the Middle East and Developing Other Asia show indexes consistently close to 1 for trade with each other.

Comparisons Across Categories SITC 5-8, Manufactured Goods, Including Subcategories

As mentioned previously, trade intensity indexes are affected by the degree of aggregation and this must be kept in mind when comparing indexes across categories. This caveat does not constrain the development of many useful comparisons, however.

- 1. When intra-regional indexes for SITC 5, 6+8-67+68, 67, 68 and 7 are ranked by size for each LDC region, the following generalizations emerge:
 - a) Iron and Steel (SITC 67) indexes were ranked among the top two indexes for intra-regional trade for all LDC regions except Developing Africa.
 - b) Machinery and Transport Equipment (SITC 7) ranked first for Developing Other Asia and Developing Africa, a close third for Developing Latin America and fourth for Developing Asia in the Middle East.
 - c) Non-Ferrous Metal (SITC 68) has the lowest intraregional indexes for all regions except Developing Asia in the Middle East for 1970 and 1973, where SITC (6+8-67+68), Manufactured Goods, is lowest. Generally, Non-Ferrous Metal indexes are the only ones below those for total exports.

- d) Chemicals (SITC 5) are most often ranked third among SITC categories.
- e) Manufactured Goods (SITC 6+8-67+68) is ranked second among SITC categories for Latin America. It ranks fourth or fifth for other LDC regions.
- f) Latin American index rankings have the least similar pattern among LDC regions; Developing Africa and Developing Other Asia have similar ranking patterns.
- g) Data for only two years are available for SITC 65, Textile Yarn and Fabric, a subcategory of SITC (6+8-67+68), Manufactured Goods. For 1970 and 1973 this category had low intra-regional indexes relative to other SITC categories for Developing Africa, Developing Other Asia, and Developing Asia in the Middle East. It ranked alongside with the first-ranked SITC 67, Iron and Steel, for Latin America.
- 2. Indexes for Latin American Chemical exports (SITC 5) are consistently the highest indexes for Latin American exports to the U.S. for categories SITC 5-8. These exports are tied in part to U.S. multinational corporations (MNCs).
- 3. Developing Asia in the Middle East has more export indexes above 1 for Europe than other Developed regions. However, there is a downward trend in these indexes.
- 4. Developing Other Asia generally has export and import indexes above 1 for trade with the U.S., Japan and Australia-New Zealand. Indexes with Japan are generally higher than those with the U.S. Some of these exports are tied to MNCs.
- 5. Developing Other Asia's indexes are higher with a larger number of regions/countries than other LDCs.
- 6. Developing Other Asia's export indexes with Latin America tend to be somewhat above other LDC export indexes with Latin America, although indexes for LDC trade with Latin America are generally low.
- 7. With the exception of Iron and Steel (SITC 67) and Non-Ferrous Metals (SITC 68), Latin American export indexes with the U.S. were generally the highest extra-regional LDC export trade indexes for all LDC regions. Developing Other Asia's import indexes for Japan were generally the highest extra-regional LDC import indexes.

8. The incidence of increased import indexes with developed market economies is greater than the incidence of increased export indexes, which was confined mainly to Developing Other Asia.

Chemicals (SITC 5)

- 1. Latin America has an upward trend in intra-regional exports, but over the period covered has had lower intra-regional indexes than other LDC regions. Her highest indexes have been U.S. export indexes; but these have a declining trend. U.S. MNCs shape in part this regional intensity. While Latin America is the largest LDC exporter of chemicals, she has the lowest indexes with other LDC regions.
- 2. Export indexes for Developing Asia in the Middle East with South Africa and Developing Africa have moved toward high trade intensity levels.
- 3. Developing Asia in the Middle East and Developing Other Asia show fairly consistent indexes of moderately high trade with each other, as do Developing Other Asia in the Middle East and Developing Africa.
- 4. Developing Other Asia has an upward trend for intraregional indexes. She has an upward trend in import indexes for the U.S.
- 5. Generally LDC import indexes are higher than export indexes for trade with Canada and Japan.

Manufactured Goods (SITC 6+8-67+68)

- 1. Developing Africa shows an upward trend for import indexes with the U.S., South Africa, Canada, and Latin America and an increasing export index with Japan and Australia-New Zealand. The import indexes with South Africa are very high.
- 2. Developing Africa's import indexes for Planned Asia are generally higher than her export indexes and have an upward trend. In contrast, her export indexes to Eastern Europe and USSR exceed her import indexes.
- 3. Developing Other Asia shows declining intra-regional indexes while all other LDC regions show larger indexes in later years.
- 4. Developing Other Asia's indexes for imports from the U.S. are generally above 1, but less than export indexes. Her import

TRADE PATTERNS 39

indexes far exceed her export indexes for Planned Asia.

5. Developing Other Asia's export indexes with LDCs are generally higher than her import indexes. Export indexes with Africa show an increasing trend.

- 6. Latin America's export indexes with LDCs are generally lower than her import indexes. All indexes are below 1. Neither condition holds for other LDC regions.
- 7. Latin America shows an upward trend in import indexes with the U.S.
- 8. Generally, LDC import indexes are higher than export indexes for Japan and Australia-New Zealand.

Textile Yarn and Fabric (SITC 65), 1970 and 1973

- 1. Intra-regional indexes are lowest for Developing Other Asia, highest for Latin America.
- 2. Developing Africa's indexes for Eastern Europe-USSR exceed her intra-regional indexes.
- 3. The strongest reciprocal trade indexes among LDC regions are those for Developing Asia in the Middle East and Developing Africa.
- 4. The highest extra-regional indexes are those of Latin America with the U.S., of Developing Other Asia with Japan, and of Developing Africa with Eastern Europe-USSR.
- 5. Developing Other Asia, the dominant exporter, has indexes below .4 for Europe and South Africa.

Iron and Steel (SITC 67)

- 1. Japan stands out as a developed economy with high indexes for imports from LDCs. These indexes exceed those for LDC imports from Japan.
- 2. Indexes for LDC trade with other LDC regions are highest for trade between Developing Asia in the Middle East and Developing Other Asia.
- 3. Developing Asia in the Middle East has the most concentrated intra-regional trade. Total exports for Developing Asia in the Middle East are small--smaller than African exports.

Non-Ferrous Metals (SITC 68)

- 1. Developing Asia in the Middle East has by far the highest intra-regional trade. The value of her total exports are very small compared to other LDCs, totaling 4% of the next highest region in 1973.
- 2. Except for 1973, Developing Africa's intra-regional indexes are less than 1. She is consistently the highest exporter of nonferrous metals among LDCs with a widening lead. This category composes 58.7% of her SITC 5-8 exports value.
- 3. Developing Other Asia had more export indexes greater than 1 than other LDC regions. She also has the most regional indexes with other LDCs that have a value greater than 1.
- 4. Export indexes for Latin America with Europe are the highest among her SITC 5-8 categories of exports to Europe.
- 5. Intra-regional trade shows an upward trend for Latin America.
- 6. The highest indexes in this category are the export and import indexes for Developing Other Asia with Japan; however, the export indexes have a downward trend.

Machinery and Transport Equipment (SITC 7)

- 1. Indexes for exports to the U.S. by LDC regions show a downward trend for Latin America, but an upward trend for Developing Other Asia.
- 2. Intra-regional indexes show an upward trend for LDC regions except Developing Other Asia, which shows a rather marked downward trend.
- 3. Developing Other Asia's extra-regional export indexes generally show upward trends, although her indexes for Developing Asia in the Middle East and Planned Asia are exceptions. In value terms, Developing Other Asia's exports are well above levels for other LDC regions, with Latin America, the next highest exporter, exporting about one-third as much in later years.
- 4. Latin America's export indexes are the most concentrated over the period, although there are indications of growing diversification. MNCs participate in this trade.

41

- 5. Developing Africa shows sizeable export indexes with Planned Asia for 1970 and 1973.
- 6. Developing Africa and Developing Asia in the Middle East generally have indexes greater than 1 for trade with each other.

References

- Goodman, Leo A., "Statistical Methods for the Preliminary Analysis of Transaction Flows," *Econometrica*, XXXI, 1963, pp. 197-208.
- Linder, Staffan B., An Essay on Trade and Tansformation, New York: John Wiley & Sons, Inc., 1961.
- Morgan, Theodore, Economic Development, New York: Harper and Row, 1975.
- Sautter, Hermann, "Tendencies of Regionalization in World Trade Between 1938 and 1970," in *The International Division* of Labour Problems and Perspectives, Türbingen: J.C.B. Mohr, 1974, pp. 483-524.
- Savage, I. R. and K. W. Deutsch, "A Statistical Model of the Gross Analysis of Transaction Flows," *Econometrica*, XXVIII, 1960, pp. 551-72.
- Wilford, W. T. and Georgios C. Christou, "A Sectoral Analysis of Disaggregated Trade Flows in the Central American Common Market, 1962-70," Journal of Common Market Studies, 12, December 1973, pp. 159-75.

•