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NONTRADITIONAL MARKETS FOR PHILIPPINE EXPORTS

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The study analyzes the pattern of diversification of Philippine export flows over the last two decades as a clue to the problem of export expansion. Coefficients of concentration show a marked diversification in both geographic and commodity structures of Philippine export trade. In particular there is found a 'healthy' shift away from traditional markets and towards non-traditional ones, including those of developing countries. Moreover, the commodity structure of the country's manufactured exports is seen to follow the general pattern of labor-intensity suggested by factor proportions theory, a pattern that is found to be reinforced over time. The findings are then interpreted in terms of their implications on policy making for export expansion, particularly of Philippine manufactured products.

1. The Problem and its Significance

There is a growing concern in both official and business circles on the need for market diversification, in view of the presumed instability in export earnings associated with market concentration or, in a longer run context, with the rising tide of protectionism — both explicit and implicit — in the traditional developed country markets for Philippine exports. On the other hand, it has been argued that the scope for further market diversification is limited by the possibilities of penetrating developing country markets mainly because of the similarity between the Philippines and these countries in the same stage of industrial development resulting in the competitive nature of their production structures. And yet recent studies have shown that in spite of possible *a priori* pessimism over the interpenetration of markets by developing countries there are indeed potentials for such trade expansion among them that remain to be tapped (Havrylyshyn and Alikhani, 1983). For one thing, trade in non-fuel exports among developing countries demonstrates a gradually rising trend over time (Havrylyshyn and Wolf, 1983). Moreover, the developing country share of manufactured trade among them was found to have been much in excess of their relative share in the world eco-

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nomy, implying, if anything, an upward bias of developing country trade in manufactures.

And yet, so far, little, if any, inquiry had been made into the nature and structure of Philippine export trade with, and their implications for export expansion into these nontraditional markets. Indeed not enough systematic research has been undertaken to ascertain the extent and direction of market diversification that has taken place over time. Except perhaps in general terms, little is known of the changes in the country's structure of comparative advantage which would indicate the likely direction that the country's pattern of specialization will take in the future. Without such knowledge, the Philippines might fail to take advantage, as had happened in the past, of the possibilities for further growth into potential markets and to institute the necessary policies or establish the institutions that facilitate and foster such growth.

The objective of the present study is thus to examine the emerging pattern of diversification of Philippine export trade away from the traditional markets of North America, Japan, and some European countries. To do this we need to examine in finer detail the structure of comparative advantage of the Philippines as revealed in her pattern of export flows to both traditional and nontraditional markets, as well as the changes in that structure over time.

The study is organized thus: the first three sections that follow present a (qualitative) description of the changes in geographic and commodity structure of Philippine export trade over the past two decades, while the last four sections analyze in a more systematic manner the determinants of such structures. In Section 2, the major trends in geographic diversification of Philippine export flows are examined, particularly with the use of geographic concentration indices. Similarly Section 3 explores the changes over time in the commodity structure of such trade with the use of commodity concentration indices. Because of the emerging importance of manufactured exports to the country's total trade, the geographic and commodity structures of manufactured exports are presented in this section, together with a discussion of the relationships between the observed diversification in such structures over time and the changing configuration of international specialization. Section 4 then inquires into the determinants of the geographic structure of export trade, by employing an eclectic approach to the identification of the explanatory variables. In a second subsection, we attempt to explain the commodity structure of the country's (manufactured) export trade in terms of the theoretical expectations of the factor propor-

tions theory, highlighting the characteristic features of export flows to traditional as against nontraditional markets as well as their changes over time. In Section 5, we proceed to examine the possible implications of commercial policy, both in the Philippines and in the country's trading partners, on the observed trends in geographic and commodity diversification. A final section then presents the summary of findings and their implications particularly with regard to the future directions that industrial and trade policy might take if the country is to benefit from the shifting patterns of her own comparative advantage as well as those of her trading partners.

2. Trends in Geographic Diversification of Philippine Export Trade

All indicators point to the unmistakable trend in geographic diversification of Philippine exports over time. Two traditional developed country markets, namely the US and Japan, together absorbed a little more than 70 per cent of all Philippine exports in 1963 (i.e., 45% and 27%, respectively); by 1983 their combined share had gone down to only 60 per cent (39% and 21%, respectively). In 1985, this had further slipped to 54 per cent. This declining trend is further reinforced by the declining importance of Western Europe (EC and EFTA) as a market for the country's exports (Table 1).

Table 1 — Philippine Export Trade By Destination, 1963—1983
(Million US Dollars, Per Cent)

Destination	1963	Percentage Distribution	1970	Percentage Distribution	1983	Percentage Distribution
North America	331.8	45.60	436.8	41.89	1,861.7	37.75
US	330.7	99.67	433.3	99.20	1,792.6	96.29
Canada	1.1	0.33	3.5	0.80	69.1	3.71
Economic Community	150.5	20.68	76.2	7.31	819.6	16.62
Belgium	2.0	1.33	5.4	7.09	13.1	1.59
Denmark	5.7	3.79	2.7	3.54	9.6	1.17
France	4.0	2.66	4.00	5.25	91.3	11.14
Germany	53.3	35.42	25.4	33.33	208.3	25.41
Greece	—		—		2.2	0.30
Ireland	—		—		2.8	0.34
Italy	7.6	5.05	3.0	3.94	37.0	4.51
Luxembourg	—		—		—	
Netherlands	69.6	46.25	25.9	33.99	221.6	27.04
UK	8.3	5.51	9.8	12.86	233.7	28.51

Table 1 (Continued)

Destination	1963	Percentage Distribution	1970	Percentage Distribution	1983	Percentage Distribution
European Free Trade Area	14.5	2.0	8.4	0.81	41.5	0.84
Austria	—		—		3.9	9.40
Denmark	5.7	39.31	2.7	32.14	9.6	23.13
Norway	2.2	15.17	1.6	19.05	3.0	7.23
Portugal	0.2	1.38	0.2	2.38	0.7	1.69
Sweden	4.4	30.34	3.0	35.71	15.2	36.63
Switzerland	2.0	13.79	0.9	10.71	9.1	21.93
Australia-N. Zealand	2.4	0.33	4.8	0.46	82.4	1.67
Australia	2.1	87.5	4.7	97.92	76.0	92.23
New Zealand	0.3	12.50	0.1	2.08	6.4	7.77
Japan	198.3	27.25	418.4	40.13	983.7	20.73
Asian NICs	21.0	2.89	69.1	6.63	468.8	9.88
Taiwan	10.9	51.90	17.0	24.60	22.4	4.78
Hongkong	3.0	14.29	13.3	19.25	158.4	33.79
South Korea	6.4	30.48	31.6	45.73	148.7	31.72
Singapore	0.7	3.33	7.2	10.42	139.3	29.71
ASEAN	0.8	0.11	5.3	0.51	219.3	4.62
Indonesia	—	—	1.8	33.96	30.1	13.73
Thailand	0.6	75.0	3.2	60.38	19.9	9.07
Malaysia	0.2	25.0	0.3	5.66	162.1	73.92
Brunei	—		—	5.66	162.1	73.92
					7.2	3.28
South Asia	0.8	0.11	1.2	0.12	8.3	0.17
India	0.7	87.5	0.8	66.67	4.0	48.19
Pakistan	0.1	12.5	0.4	33.33	4.3	51.81
South Africa	1.5	0.21	2.4	0.23	—	
Non-Market Economies	2.1	0.29	2.3	0.22	111.8	2.27
USSR	—		—		86.1	77.01
China	—		—		22.4	20.04
Others	2.1	100.00	2.3	100.00	3.3	2.95
South America	0.2	0.03	1.1	0.11	37.6	0.76
Argentina	0.2	100.0	0.9	81.82	0.1	0.27
Brazil	—		0.2	18 18	3.7	9.84
Mexico	—		—		32.2	85.64
Chile	—		—		1.6	4.26
Oil-Exporting Countries	1.4	0.19	2.2	0.21	110.0	2.23
Rest of World (ROW)	2.3	0.23	14.5	1.39	187.3	3.80
WORLD	727.6	100.0	1,042.7	100.00	4,932.0	100.00

Source: UN ESCAP, *Foreign Trade Statistics of Asia and the Pacific* 1963, 1970, 1983.

Within EC itself there was a noticeable shift in the share of country markets. While the Federal Republic of Germany (FRG) and Netherlands together used to account for four-fifths of the EC market for Philippine exports in 1963, their combined shares had fallen by thirty percentage points in 1983, giving way to increa-

ses in the shares of the United Kingdom (UK) and to a certain e tent, of France. All in all the share of traditional developed cou try trading partners as markets for Philippine exports had shrun by some eighteen percentage points over the last two decades, th is from 96 per cent to 78 per cent.

In contrast, the importance of nontraditional markets ha grown markedly and consistently. In particular the developin country markets had started to gain some prominence. Where the Asian NICs, South Asia, and South America together accounte for less than five per cent of the country's exports in 1963, by 198 their combined share had grown to over 15 per cent, close to 9 per cent of which was accounted for by the growth in East an Southeast Asian developing countries. In addition, Australia an New Zealand made some small, though positive, gains. Simila growth, while admittedly nascent, had likewise been observed fo the oil-exporting countries as well as the non-market economies which together accounted for some four percentage points increas in share.

Among the Asian NICs (Hongkong, Singapore, South Korea, Taiwan) there had been some rearrangement in importance as markets. Taiwan gave way quite evidently to the entrepot traders of the region, namely Singapore and Hongkong. Similarly, Malaysia and, to a certain extent, Indonesia, had supplanted Thailand in 1983 as the country's major export market within the ASEAN.

As a summary measure of geographic concentration of Philippine export trade, we computed the index of geographic concentration for 1963 and 1983, using the Gini-Hirschman coefficient defined as follows:

$$G_{px} = 100\sqrt{\sum_{j}\left(\frac{x_{jp}}{x.p}\right)^2}$$

where x_{jp} refers to exports of the Philippines to country j and $x.p$ represents the Philippines' total exports. The more geographically diversifed the Philippines' exports are (i.e., the larger the number of country-export markets) and the more evenly distributed such exports are among country market j's, the lower will be G_{px}. In the extreme case of complete geographic concentration where there is only one export market, the coefficient will take on a value of 100.

The decline in the index shown in Table 2 confirms the observed trend in geographic diversification. Partitioning the sample of country markets, one can observe that geographic diversification among both developed and developing country groups had occurred, with the concentration in the latter taking place to a greater extent than in the former.

Table 2 — Geographic and Commodity Concentration Coefficients: 1963 and 1983

	G_{px}		C_{px}	
	1963	1983	1963	1983
World	54.53	43.07	40.85	26.80
Developed Countries	56.76	52.79	40.95	20.98
Developing Countries	46.08	36.47	66.15	17.69

Source: UN ESCAP, *Foreign Trade Statistics of Asia and the Pacific*, 1963 and 1983.

However, geographic diversification occurred in the context of a shrinking Philippine share of these markets especially the major ones (Table 3). Philippine exports therefore failed to keep in step with the growth of the import markets not only in the case of US, Japan and EC but also in the developing country markets of the Asian NICs and South Asia. On the other hand there had been increased import market penetration of EFTA, other Western Europe, and import markets of Australia-New Zealand. Philippine exports also improved in terms of developing country market shares such as those of ASEAN, the Latin and Central American NICs, the oil exporting countries and the non-market economies but for some of these, it was up from a zero or near-zero base in 1963. However all these do not adequately compensate for the loss in market shares of the principal trading partners, leading ultimately to a decline in the Philippines' share of total world trade, from 0.54 per cent in 1963 to only 0.3 per cent in 1983 (in current prices, Table 3).

3. Trends in Commodity Diversification of Philippine Export Trade

The geographic diversification of the country's export flows was accompanied by a diversification of commodity composition. To summarize this phenomenon, commodity concentration coefficients were computed, similar to the geographic concentration coefficient as follows:

$$c_{px} = 100 \sqrt{\sum_i \left(\frac{x_{ip}}{x.p} \right)^2}$$

where x_{ip} is the value of the Philippines' commodity export i (2-digit SITC) and $x.p$ is the value of the Philippines' total exports. The lower the value of the coefficient, the larger the number of goods being exported by the Philippines (hence the more diversified is its commodity structure) and the more even is the distribution of export flows among commodities.

Table 3 — Share of Philippine Exports in Partner Country Imports (In Per Cent)

	1963	1970	1983
WORLD	0.54	0.37	0.30
U.S.A.	2.01	1.12	0.73
EC	0.29	0.07	0.14
EFTA	0.10	0.04	0.13
Other Western Europe	0.05	0.07	0.20
Japan	3.56	2.69	0.87
Australia-New Zealand	0.08	0.09	0.34
Africa	0.03	0.03	0.02
Asian NICs	0.82	0.78	0.50
ASEAN	0.06	0.14	0.64
South Asia	0.07	0.11	0.04
Latin and Central American NICs	0.02	0.004	0.03
Oil Exporting Countries	0.02	0.03	0.09
Other Middle East	0.00	0.05	0.04
USSR, China, and other Centrally Planned Countries	0.00	0.00	0.15

Source of Basic Data: IMF, *Direction of Trade*, various issues.

Coefficients of commodity concentration presented in Table 2 show a drastic decline — from 40.85 in 1963 to 26.80 in 1983 — attesting to the diversification of the commodity structure over time. In general the country's exports to developed country markets appear to have been more diversified in 1963 than those destined to developing country markets, but a reversal seems to have occurred as a drastic decline in the commodity concentration coefficient to developing countries is observed in 1983.

The marked shift in the commodity composition of the country's export trade was the result, on the one hand, of considerable shifts from resource-based exports to manufactured exports, and on the other, of commodity diversification which occurred within the resource-based and manufactured export groups themselves. Resource-based exports are, generally speaking, those belonging to SITC 0-4 categories while manufactured exports are those classified under SITC 5-8. Admittedly, some resource-based products have strayed into the SITC 5-8 categories (such as SITC 68: non-ferrous metals) but this is largely ignored here for convenience.

From Table 4 it can be observed that the most striking change that has occurred in the country's commodity structure is the drastic decline in importance of resource-based exports, from a domi-

nant share of some 95 per cent of total exports in 1963 to only 48 per cent in 1983. This implies a corresponding improvement in the share of manufactured exports of about 22 percentage points over the period, that is, from 5 per cent in 1963 to 27 per cent in 1983. It is also apparent that most of the shift had occurred during the last decade. However, an even more bewildering development is the rise to prominence of goods not classified by kind (SITC 9) which used to make up less than one per cent of exports in 1963. By 1983 this category constituted about a quarter of total exports. Assuming that these are basically manufactured exports (for a more detailed discussion, see Section 3.2 below), one can then say that more than half of the country's export trade in 1983 was in manufactured form.

3.1 *Geographic and Commodity Diversification of Resource-Based Exports*

The occurrence of a simultaneous geographic and commodity diversification among resource-based exports can be verified by referring to concentration coefficients in Table 5. Resource-based exports to developed countries are more geographically concentrated than those destined to developing countries, although diversification in country markets had occurred in both. On the other hand, the commodity concentration is higher for resource-based exports destined to developing countries than those to developed markets, while manufactured exports to the latter seem more concentrated than those destined to the former.

The geographic shifts in resource-based exports can be readily observed upon perusal of Table 6. In general there is an observable drift in shares away from the traditional markets, especially the US, towards other developed and developing country markets and the rest of the world. Good examples are sugar, fixed vegetable fats and oils, coffee, tea, spices, fruits and vegetables whose market was originally concentrated in the US but which have undergone a market diversification towards other country markets.

Practically all of the decline in importance of resource-based exports can be attributed to the decline in importance of three (2-digit SITC) commodity groups: namely sugar and sugar preparations (SITC 06), which declined by 15.9 percentage points in share to total exports; oil seeds, nuts, and kernels (SITC 22) by 23 percentage points; wood, lumber, and cork (SITC 24) by 16.6 percentage points (Table 7). There was a fall in both absolute and relative terms in share to total exports for oil seeds, nuts, and kernels. For sugar and sugar preparations and wood, lumber and cork, the decline in

absolute value of exports was cushioned somehow by the diversion to other markets.

On the other hand, it can be seen from the table that a number of new resource-based export commodities had emerged since 1963, such as meat and meat preparations, dairy products and eggs, animal oils and fats, processed animal and vegetable oil, etc., while the share of existing export groups simultaneously improved (for instance, fish and fish preparations, fruits and vegetables, coffee, tea and spices, fixed vegetable oils and fats). However, their combined increases in shares were not large enough to offset the share losses of the traditional resource-based exports, thus leading to the overall decline in importance of resource-based exports over time.

Table 4 — Commodity Structure of Philippine Export Trade (Per Cent)

	SITC 0-4	SITC 5-8	SITC 9	SITC 5-9
World				
1963	95.244	4.663	0.093	4.756
1973				
1983	47.446	26.703	25.851	52.554
United States				
1963	90.874	9.041	0.085	9.126
1973	77.761	14.533	7.706	22.239
1983	34.645	32.406	32.949	65.355
European Community				
1963	99.525	0.436	0.039	0.475
1973	89.381	9.325	1.294	10.619
1983	49.699	27.228	23.071	50.299
European Free Trade Area				
1963	99.493	0.359	0.148	0.507
1973	68.420	21.971	9.609	31.580
1983	—	—	—	—
Japan				
1963	99.581	0.392	0.027	0.419
1973	92.270	7.058	0.672	7.730
1983	71.332	15.611	13.057	28.668
Australia-New Zealand				
1963	96.84	2.244	0.916	3.160
1973	56.809	44.404		
1983	34.301	56.589	9.110	65.699
Asian NICs				
1963	95.112	4.681	0.207	4.888
1973	57.574	36.130	6.296	42.426
1983	44.613	24.939	30.448	55.387
ASEAN				
1963	13.963	80.698	5.339	86.037
1973	18.938	76.560	4.502	81.062
1983	6.930	21.483	71.587	93.070

Source: UN ESCAP, *Foreign Trade Statistics of Asia and the Pacific*, 1963, 1973, 1983.

Table 5 — Commodity and Geographic Concentration Coefficients for Resource-Based and Manufactured Exports 1963 and 1983

		Commodity Concentration Coefficient		Geographic Concentration Coefficient	
		Resource-Based	Manufactured	Resource-Based	Manufactured
WORLD	1963	42.66	80.34	53.57	88.33
	1983	36.95	35.04	42.54	47.05
Developed Countries	1963	42.71	85.02	55.70	94.04
	1983	37.56	36.56	50.25	56.74
Developing Countries	1963	71.05	67.52	48.75	39.85
	1983	39.57	31.26	42.92	42.87

Source: UN ESCAP; *Foreign Trade Statistics of Asia and the Pacific*, 1963 and 1983.

Table 6 — Shares of Resource-Based Exports of the Philippines By Country of Destination, 1963 and 1983 (Per Cent)

		00 Live Animals	01 Meat & Preps.	02 Dairy Prods.	03 Fish & Preps.	04 Cereals & Preps.	05 Fruits & Veg.	06 Sugar & Preps.	07 Coffee, Tea, Spices	08 Animal Feed	09 Misc. Food Preps.	11 Bev.	12 Tobacco & Mfrs.	21 Hides, Skins Undrsd.	22 Oil Seeds, Nuts, Kernels
US	1963	66.67	0.00	0.00	79.69	2.20	72.97	96.32	92.71	10.77	48.39	47.08	30.43	27.91	26.68
	1983	0.00	0.00	0.00	33.02	24.13	31.11	32.78	58.53	0.77	27.47	77.02	17.65	20.31	0.09
EC	1963	16.67	0.00	0.00	0.00	0.00	13.66	0.00	0.00	64.82	0.00	0.00	43.49	0.00	62.20
	1983	0.00	0.00	0.00	18.72	2.26	12.69	0.00	11.56	95.12	0.60	0.00	42.27	0.00	30.11
JPN	1963	16.66	0.00	0.93	13.54	39.56	1.26	3.58	0.30	8.43	0.00	2.59	0.07	67.44	3.84
	1983	0.00	0.00	0.00	33.50	0.01	31.72	19.78	2.59	3.79	2.30	9.22	14.13	59.38	31.67
Asian NICs	1963	0.00	0.00	0.00	0.00	21.98	2.52	0.01	6.55	3.25	3.23	9.07	0.91	0.00	0.00
	1983	97.28	92.99	58.26	3.49	3.95	5.97	14.46	14.08	0.09	14.36	2.06	1.27	0.00	2.12
ASEAN	1963	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.03	6.70	0.09	0.00	0.00
	1983	2.67	6.63	18.26	0.04	39.07	0.39	1.11	0.15	0.00	8.32	3.80	0.02	0.00	0.44
ANZ	1963	0.00	0.00	0.00	0.00	30.77	3.64	0.00	0.00	0.03	0.00	0.00	0.09	0.00	0.00
	1983	0.00	0.00	0.00	0.92	0.69	3.79	0.12	2.27	0.06	12.51	2.06	1.00	10.94	0.00
ROW	1963	0.00	0.00	99.07	6.77	5.49	5.92	0.09	0.44	12.70	19.35	34.56	24.92	4.65	7.28
	1983	0.05	0.38	23.48	10.31	29.89	14.33	31.75	10.82	0.17	34.44	5.84	23.33	9.37	35.57

Table 6 — (Continued)

		23 Rub Crde Synth	24 Wood, Lumber, Cork	25 Pulp & Wste Paper	26 Textile Fiber	27 Crde Fert. N.e.s.	28 Metal Ores & Scrap	29 Crde Anml Veg. Mat.	32 Coal, Coke Brqts.	33 Petrolm & Prods.	34 Gas Ntrl & Mftrd.	41 Anml Oils & Fats	42 Fixed Veg. Oil Fat	43 Prcsd Anml Veg. Oil
US	1963	0.00	3.41	0.00	26.97	0.00	24.60	0.00	0.00	62.13	0.00	0.00	85.11	0.00
	1983	15.28	7.24	0.02	24.17	0.63	9.21	13.97	0.00	19.27	0.00	0.00	44.11	0.00
EC	1963	0.00	2.48	0.00	27.89	0.00	1.67	36.71	0.00	13.37	0.00	0.00	12.07	0.00
	1983	6.59	34.94	34.12	28.28	0.74	0.52	41.03	0.00	0.00	0.00	0.00	33.67	33.06
JPN	1963	0.00	81.15	0.00	30.85	0.00	73.11	12.14	0.00	1.72	0.00	0.00	0.21	0.00
	1983	5.46	36.86	65.10	33.28	59.93	69.59	17.16	0.00	61.40	17.43	98.44	4.48	0.00
Asian NICs	1963	0.00	0.40	0.00	3.58	0.00	0.11	9.37	0.00	5.23	0.00	0.00	0.00	60.00
	1983	17.04	3.09	0.28	4.65	8.51	17.18	12.77	0.00	12.55	82.57	1.56	5.17	35.59
ASEAN	1963	0.00	10.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00
	1983	0.02	0.07	0.00	0.28	6.23	0.08	0.46	0.00	0.98	0.00	0.00	0.20	1.90
ANZ	1963	0.00	0.21	0.00	0.85	0.00	0.14	0.56	0.00	1.30	0.00	0.00	0.00	0.00
	1983	0.00	3.71	0.00	0.20	0.00	0.12	5.61	0.00	0.00	0.00	0.00	0.21	0.00
ROW	1963	0.00	1.57	0.00	9.86	0.00	0.37	41.22	0.00	16.25	0.00	0.00	2.21	20.00
	1983	55.61	14.09	0.48	9.22	23.96	3.30	9.00	0.00	5.80	0.00	0.00	12.16	29.45

Source: UN ESCAP, *Foreign Trade Statistics of Asia and the Pacific*. 1963, 1983.

Table 7 — Value and Percentage Distribution of Resource-Based Exports
1963 and 1983

SITC Code	Commodity	1963 Export Value	1963 Share of Total Exports	1983 Export Value	1983 Share of Total Exports
00	Live animals	6	0.00	2,062	0.04
01	Meat and preparations	0	0.00	528	0.01
02	Dairy products and eggs	0	0.00	2,688	0.05
03	Fish and preparations	192	0.03	131,695	2.63
04	Cereals and preparations	91	0.01	14,550	0.29
05	Fruits and vegetables	28,925	4.04	326,653	6.53
06	Sugar and preparations	159,840	22.30	320,546	6.41
07	Coffee, tea, coco, spice	672	0.09	73,066	1.46
08	Animal feedstuff	13,061	1.82	75,667	1.51
09	Misc. food preparations	62	0.01	7,828	0.18
11	Beverages	463	0.06	2,763	0.06
12	Tobacco and manufactures	12,656	1.77	34,966	0.70

Table 7 (Continued)

21	Hides, skins, furs undressed	43	0.01	64	0.00
22	Oil seeds, nuts, kernels	166,443	23.22	9,718	0.19
23	Rubber, crude, synthetic	0	0.00	5,071	0.10
24	Wood, lumber and cork	151,821	21.18	230,559	4.61
25	Pulp and paper	0	0.00	9,960	0.20
26	Textile and fibres	33,395	4.66	25,452	0.51
27	Crude fertilizers	928	0.13	5,521	0.11
28	Mtllfrs ores scrap	65,106	9.08	439,761	8.79
29	Crude animal, vegetable materials, n.e.s.	1,441	0.20	20,189	0.40
32	Coal, coke, briquettes	0	0.00	0	0.00
33	Petroleum and products	2,849	0.40	108,314	2.17
34	Gas, natural and manufactured	0	0.00	2,226	0.04
41	Animal oils and fats	0	0.00	1,991	0.04
42	Fixed vegetable oil fat	44,657	6.23	519,148	10.38
43	Processed animal and vegetable oil	5	0.00	1,579	0.03
	TOTAL	682,656	95.24	2,372,565	47.42

Source: UN, ESCAP, *Foreign Trade Statistics of Asia and the Pacific*, 1963, 1983.

3.2 *Geographic and Commodity Diversification of Manufactured Exports*

The increasing proportion of manufactured exports to total exports had been accounted for mainly by the share increases of miscellaneous manufactured goods (SITC 8) and basic manufactures (SITC 6). Table 8 provides a finer breakdown at a two-digit SITC level of disaggregation. It is clear that the improvement in shares of miscellaneous manufactured goods is concentrated in clothing (SITC 82), and to a much lesser extent in miscellaneous manufactured goods n.e.s., (SITC 89), furniture (SITC 82) and footwear (SITC 85). On the other hand, that for basic manufactures is mainly accounted for by electrical machinery (SITC 72) and to a certain extent, of textile yarn and fabrics, etc. (SITC 65) replacing the once dominant position of wood, cork and wood manufactures (SITC 63).

Similar to that observed for resource-based exports, there is an indisputable trend towards commodity diversification in manufactured exports. Whereas in 1963 manufactures of wood and wood products and cork (SITC 62) alone made up four-fifths of the country's manufactured exports to the world, in 1983 its share had gone down to 12 per cent while the combined share of the two top export categories — namely wearing apparel and manufactures of electrical machinery — was only about two- fifths of total. Such diversification is also evident from an examination of commodity concentration indices (Table 5). Although the coefficients show manufactured exports to be much more highly concentrated than resource-based exports in 1963, the drastic decline in the coefficients over time led to a slightly more diversified commodity structure of manufactured exports than resource-based exports. This is closely reflected in changes over time in commodity concentration coefficients of manufactured exports destined to both developed and developing countries. Although exports to the latter group seemed to be less concentrated than those to the former, a much greater degree of diversification appears to have occurred in exports to developed countries.

Another remarkable feature of the shifts in commodity structure is the rise to prominence of commodity exports belonging to SITC 9, as has been pointed out in an earlier section. There is however a high degree of concentration in SITC 931, which for the most part is made up of apparel (931.21: finished embroidered goods, apparel, excluding footwear and clothing) and in SITC 932 (932.22: finished electrical and electronic machinery, equipment and parts). They are processed from imported raw materials on consignment

Table 8 — Value and Percentage Distribution of Manufactured Exports
1963 and 1983

SITC Code	Commodity	1963 Export Value	1963 Share of Total Exports	1983 Export Value	1983 Share of Total Exports
51	Chemical elements compounds	1,288	0.18	51,618	1.03
52	Coal, petroleum, etc. chemicals	34	0.00	5,124	0.10
53	Dyes tanning color product	110	0.02	2,542	0.05
54	Medicinal etc. products	418	0.06	6,764	0.14
55	Perfume cleaning etc. product	23	0.00	2,492	0.05
56	Fertilizers manufactured	0	0.00	32	0.00
57	Explosives pyrotechnic product	0	0.00	2,710	0.05
58	Plastic materials, etc.	0	0.00	11,778	0.24
59	Chemicals n.e.s.	2	0.00	11,561	0.23
61	Leather dressed fur etc.	2	0.00	353	0.01
62	Rubber manufactures n.e.s.	1	0.00	2,350	0.05
63	Wood, cork manufactures n.e.s.	26,613	3.71	162,053	3.24

Table 8 (Continued)

SITC Code	Commodity	1963 Export Value	1963 Share of Total Exports	1983 Export Value	1983 Share of Total Exports
64	Paper, paper board and manufactures	12	0.00	2,766	0.06
65	Textile yarn fabric etc.	3,100	0.44	44,235	0.88
66	Nonmetal mineral manufactures n.e.s.	22	0.00	26,402	0.53
67	Iron and steel	0	0.00	28,080	0.56
68	Nonferrous metals	2	0.00	94,411	1.89
69	Metal manufactures n.e.s.	135	0.02	10,911	0.22
71	Machinery nonelectric	33	0.00	13,301	0.27
72	Electrical machinery	0	0.00	216,888	4.38
73	Transport equipment	36	0.01	24,702	0.49
81	Plumbing, heating, lighting equipment	0	0.00	1,854	0.04
82	Furniture	301	0.04	83,556	1.67
83	Travel goods, handbags	9	0.00	8,181	0.16
84	Clothing	342	0.05	317,740	6.35
85	Footwear	35	0.00	55,059	1.10
86	Instruments, watches, clocks	0	0.00	14,821	0.30
89	Miscellaneous manufactured goods n.e.s.	845	0.12	130,992	2.62
	TOTAL	33,423	4.65	1,335,276	26.71

Source: UN, ESCAP, *Foreign Trade Statistics of Asia and the Pacific*, 1963, 1983.

basis for shipment back to principals. The US is its biggest destination (46% of total SITC 9 exports), followed by EC (16%), the ASEAN (12%),the Asian NICs (12%), and Japan (10%). Among the ASEAN member countries, Malaysia has the dominant share (89%) while the entrepot traders, Singapore and Hongkong absorbed 62% and 27% respectively, of those destined to the Asian NICs.

Within country-markets, the US had about a third of her imports from the Philippines falling under this category in 1983, while about 23% share was recorded by EC and only 13% by Japan. However among EC countries, there is considerable variation in relative importance of SITC 9 imports, the highest being that in Ireland (52.42%) and Greece (48.85%) in 1983. Surprisingly, the ASEAN countries registered the greatest share of SITC 9 commodities in their total imports from the Philippines, i.e. 72% in 1983, while for Asian NICs their share was about a third of their imports from the country.

The fact that the exports falling under this category belong to SITC 931 or goods processed from raw materials imported under consignment gives us some clues as to the nature of such exports. The offshore assembly provision (OAP) in the US and Western European countries has encouraged the assembly of components in labor-abundant countries for eventual re-export to the countries of origin. This type of trade is believed to constitute an important and rapidly growing share of manufactured exports from developing countries (Finger, 1975; Sharpston, 1975). The OAP refers to provisions in the tariff policy of industrial countries which allow for the duty-free reentry of domestically produced components which have been assembled abroad. The tariff, in this case, would be levied only on the value-added in the assembly process, and not on the domestically produced components.

In the case of the US, the OAP refers to tariff items 807.00 and 806.30. In the Western European case OAP applies to imported products made from components exported by a domestic enterprise on its own account and processed abroad as well as imported by the same enterprise on its own account. Possibly due to its proximity to Western Europe, Eastern European countries provide an important assembly base for this type of product. The US, on the other hand, was sourcing especially in Mexico, although the Asian NICs together already accounted for about half of such imports in 1973 (Finger, 1975).

One suspects that other developing countries like the Philippines have become substitutes for the NICs when the latter's comparative advantage in labor-intensive products began to be eroded by rising wages in the seventies. This explains partly the phenomenal growth in importance of such export between 1973 and 1983.

Table 9 shows the commodity composition of such exports to specific countries for comparative purposes. There is a marked difference in the composition of such exports destined to the Asian NICs and the ASEAN. In the former case, electronics (SITC 931.22) makes up the bulk: South Korea, 89 per cent; Hongkong, 70 per cent; Singapore, 95 per cent; Taiwan, 69 per cent. In the case of the ASEAN, there are differences among member countries. Whereas in Malaysia, 99 per cent of SITC 9 exports are made up of apparel exports (932.21), 80 per cent of those in Thailand are petroleum products for international delivery (SITC 931.30) while about 18 per cent are electronic products (SITC 931.22). In Indonesia's case these are mostly in the form of replacement and goods returned to the country when imported or exported, and samples (SITC 931.91 and SITC 931.93, respectively).

One plausible explanation for the presence of such exports is that they form part of an international subcontracting network of multinational firms that are based in the Asian NICs or in the ASEAN member countries. In the case of exports to the Asian NICs, the bulk of such exports to Hongkong and Singapore and South Korea consists of semiconductor devices (integrated circuits, transistor and watch modules, intermediate frequency transformers) which are parts and components that will possibly be assembled in these countries before being shipped to third countries.

The developed countries still constitute the major market of the contry's manufactured exports. The US alone had absorbed about 44 per cent of these in 1983, and together with Japan, EC, Australia and New Zealand and Canada easily accounted for four-fifths of the country's manufactured exports. In contrast, the Asian NICs and ASEAN countries accounted for a combined share of about 13 per cent, with Hongkong singlehandedly absorbing about 70 per cent of the total Asian NIC market for such products. Thus it remains true that the North-South trading relationship is still dominant even in the case of this future wave of exports. One must note, however, that there had already been some movement of manufactured trade in the direction of other developing countries, judging from the fact that in 1963, 93 per cent of manufactured exports found their way to the developed country markets.

Table 9 — Philippine Exports of SITC 9 Commodities, 1983
(Thousand US Dollars)

Code	Commodity Description	World		USA		EEC		Japan		Asian NICs		ASEAN	
		Value	Percent Distribution	Value	Percent Distribution	Value	Percent Distribution	Value	Percent Distribution	Value	Percent Distribution	Value	Percent Distribution
9	Goods not classified by kind	1,273,638		588,812		197,965		130,233		154,328		152,836	
931	Special transactions not classified according to kind	1,268,084	99.56	583,560	99.96	192,791	97.39	130,180	99.96	154,314	99.99	151,835	100.00
931.21	Finished embroidered goods, apparel from material imported on consignment basis	226,659	17.80	186,238	31.63	22,945	11.59	413	0.32	1.275	0.83	2	0.00
931.22	Finished electrical and electronic machinery, equipment and parts	834,019	65.48	381,525	64.80	159,659	80.65	8,665	6.65	133,568	86.55	140,547	91.96
931.29	Other products manufactured from materials imported on consignment basis	125,562	9.86	2,517	0.43	2,524	1.27	114,520	87.93	2,199	1.42	2	0.00
931.30	Petroleum products for international deliveries	33,998	2.67	6,156	1.04	2,910	1.47	1,186	0.91	2,789	1.81	6,153	4.03
931.91	Replacements and goods returned to the country when imported or exported	33,742	2.65	11,586	1.97	3,764	1.90	4,743	3.64	10,221	6.62	621	0.41
931.92	Personal and household effects of travellers and immigrants	3,491	0.27	14	0.00	115	0.06	37	0.03	211	0.14	2,101	1.37
931.93	Samples	468	0.04	164	0.03	269	0.14	103	0.08	88	0.06	23	0.02
931.94	Articles temporarily imported or exported	6,724	0.53	228	0.04	561	0.28	437	0.34	985	0.64	3,385	2.21
931.95	Gifts, donation and articles for relief, educational scientific and charitable purposes	121	0.01	58	0.01	14	0.01	3	0.00	2	0.00	–	–

Table 9 — (Continued)

Code	Commodity Description	World Value	World Percent Distribution	USA Value	USA Percent Distribution	EEC Value	EEC Percent Distribution	Japan Value	Japan Percent Distribution	Asian NICs Value	Asian NICs Percent Distribution	ASEAN Value	ASEAN Percent Distribution
931.96	Machinery and equipment temporarily imported and brought out upon termination of use	27	0.002	–	–	–	–	27	–	–	–	–	–
931.97	Tourist purchases	227	0.02	60	0.01	27	0.01	42	0.03	4	0.00	–	–
931.99	Other special transactions and commodities, n.e.c.	3,046	0.24	14	0.00	3	0.00	4	0.00	2,972	1.93	–	0.00
941.00	Live animals	503	0.04	238	0.04	139	0.07	53	0.04	14	0.01	1	0.00
951	Armored fighting vehicles	42	0.003	14	0.00	26	0.01						
951.05	Revolvers and pistols	16	0.001	9		7	0.00						
951.09	Parts of arms	26	0.002	5		19	0.01						
961.00	Coin, not being legal tender	274	0.02			274	0.14						
971	Gold, non-monetary	4,735	0.37			4,735	2.39						
971.01	Gold, non-monetary, unwrought, or semimanufactured	2,435	0.19			2,435	1.23						
971.03	Goldsmiths', silversmiths', jewelers' sweepings, residues, levels, and other waste scrap of gold	2,300	0.18			2,300	1.16						

Source of Basic Data: NCSO, Philippine Trade Statistics; 1983.

Such trend in geographic diversification can be verified from the values of the geographic concentration coefficients (Table 5) for manufactured exports. They were much more geographically concentrated in 1963 than resource-based exports. While this remains true in 1983 the gap in geographic concentration coefficients had narrowed down considerably due to the drastic geographic diversification of manufactured exports over time compared to resource-based exports. When partitioned as to countries of destination, manufactured export flows to developed countries appear to be more geographically concentrated than those to developing countries. But while those destined to developing countries appear to have become slightly more concentrated rather than diversified over time, manufactured exports to developed countries are observed to have undergone substantial geographic diversification over the same time period.

Table 10 shows the familiar drift of manufactured exports to nontraditional markets. Commodities such as wood, cork manufactures, transport equipment, travel goods, clothing, footwear which had been almost exclusively destined to the US market in 1963 have found their way to other developed and developing countries in recent years.

One would also expect a difference in the type of manufactured goods according to use destined to developed or to developing markets, in recognition of the difference in the structure of manufacturing sectors between the Philippines and her trading partners, especially with the former. From Table 11, one would note this distinct characteristic: whereas about half of developed countries' manufactured imports from the Philippines is made up of consumer goods (SITC 82-85 and 89), these comprise only about 6 per cent of the ASEAN's imports of such products from the country. Since the Asian NICs already have a somewhat more upgraded industrial structure than the ASEAN, the Philippine included, their manufactured imports already have a slightly higher consumer product content, at 16 per cent of the total in 1983. However, Japan contrasts strongly with other developed countries since her consumer goods imports from the country represent only about a fifth of her total imports, a share only slightly higher than that of the Asian NICs. On the other hand, the proportion of her intermediate goods imports is the highest among the countries/country groups considered.

The observed tendency for the country's export trade to diversify over time in terms of its commodity composition can be seen as a natural consequence of economic development which had occurred

Table 10 - - Shares of Philippine Manufactured Exports By Country of Destination, 1963 and 1983 (Per Cent)

		51 Chem. Compnds etc.	52 Petrol, Chem.	53 Dyes, Tanning prod.	54 Medl. Prods.	55 Perfume Cleaning Prods.	56 Fertilizers Mftd.	57 Explo-sives	58 Plastic Mtls.	59 Chem. n.e.s.	61 Leather etc.	62 Rubber Mftes.	63 Wood Cork Mftrs.	64 Paper & Prbd. Mftrs.	65 Textiles etc.
US	1963	33.85	8.82	0.00	8.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	98.61	75.00	44.05
	1983	3.19	0.00	5.51	5.13	0.60	0.00	0.00	8.91	14.57	7.93	14.98	39.36	2.13	40.35
EC	1963	17.86	88.24	0.00	0.24	0.00	0.00	22.58	3.31	0.00	0.00	0.00	0.14	0.00	9.78
	1983	2.78	0.00	2.56	1.71	0.92	0.00	22.58	3.31	6.25	73.65	0.00	35.42	0.43	7.96
JPN	1963	41.54	0.00	83.64	0.00	8.70	0.00	0.00	0.00	0.00	50.00	0.00	0.36	0.00	0.76
	1983	77.41	100.00	2.32	2.54	1.61	0.00	0.00	4.78	43.98	0.00	0.00	5.60	0.00	0.76
Asian NICs	1963	6.75	0.00	0.91	51.44	65.23	0.00	0.00	0.00	0.00	0.00	0.13	16.67		15.28
	1983	6.76	0.00	62.98	50.90	37.92	3.13	8.15	58.70	12.68	9.35	33.15	9.93	4.12	19.79
ASEAN	1963	0.00	0.00	0.00	28.95	0.00	0.00	0.00	0.00	50.00	0.00	0.00	0.01	8.33	7.94
	1983	4.82	0.00	22.31	23.65	28.13	84.38	19.74	11.11	6.44	0.00	30.47	0.68	33.59	4.23
ANZ	1963	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		100.00	0.04	0.28
	1983	1.41	0.00	0.55	1.76	10.51	0.00	12.55	3.56	8.28	8.78	9.91	2.89	0.47	3.91
ROW	1963	0.00	2.94	15.45	11.0	26.08	0.00	0.00	0.00	50.00	50.00	0.00	0.71	0.00	21.37
	1983	3.63	0.00	3.77	14.31	20.31	12.49	0.34	9.68	7.80	0.29	88.51	6.12	29.65	18.57

Table 10 — (continued)

		66 Nonmtl. Min. Mftrs.	67 Iron & Steel	68 Nonfer. Mtls.	69 Metal Mftrs n.e.s	71 Machy Non-elec	72 Elect. Mach.	73 Trans. Eqmt.	81 Plumbing, Htng. Eqmt.	82 Furni-ture	83 Travel Goods	84 Clothing	85 Footwear	86 Watches, Clocks	89 Misc. Mftrs.
US	1963	13.64	0.00	0.00	14.07	0.00	0.00	100.00	0.00	69.44	100.00	95.91	88.57	0.00	88.05
	1983	14.16	1.70	35.16	13.59	22.99	65.22	33.37	16.88	64.82	46.47	48.46	46.95	7.13	18.82
EC	1963	0.00	0.00	0.00	0.74	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.54
	1983	1.46	0.00	21.15	0.93	0.89	9.21	10.10	0.76	10.39	22.64	26.34	16.34	16.37	22.80
JPN	1963	0.00	0.00	100.00	5.19	9.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83
	1983	7.24	76.80	26.66	7.06	0.97	4.01	27.32	3.40	5.34	9.68	3.26	6.86	3.80	8.71
Asian NICs	1963	45.45	0.00	0.00	25.19	18.18	0.00	0.00	0.00	2.66	0.00	2.92	5.71	0.00	3.08
	1983	42.01	9.59	2.19	25.03	25.86	11.85	4.24	53.29	2.05	0.81	2.30	10.80	20.22	3.78
ASEAN	1963	4.55	0.00	0.00	0.00	42.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24
	1983	15.34	6.29	4.43	26.80	31.04	5.31	11.14	0.81	0.04	0.12	0.27	0.02	3.13	1.36
ANZ	1963	0.00	0.00	0.00	0.00	27.27	0.00	0.00	0.00	1.33	0.00	0.29	0.00	0.00	1.66
	1983	4.85	3.11	0.00	13.56	6.06	0.52	10.29	0.00	7.87	13.75	1.55	8.29	1.19	9.10
ROW	1963	36.36	0.00	0.00	54.81	0.01	0.00	0.00	0.00	26.24	0.00	0.88	5.72	0.00	4.60
	1983	14.94	2.51	10.41	12.95	12.19	3.88	3.54	24.86	9.49	6.53	17.82	10.74	48.16	5.43

Source: UN ESCAP, *Foreign Trade Statistics of Asia and the Pacific*, 1963, 1983.

Table 11 -- Philippine Manufactured Exports According to Use by Country of Destination 1983

SITC	Commodity	World	USA	EEC	Japan	Asian NICs	ASEAN
	CONSUMER GOODS	44.60	51.67	54.07	19.29	16.41	05.72
82	Furniture	06.26	09.27	0.359	0.279	01.41	00.07
83	Travel goods, handbags	00.61	00.65	00.77	00.50	00.05	00.02
84	Clothing	23.80	26.36	34.58	06.49	06.00	01.82
85	Footwear	04.12	04.43	03.72	02.37	04.88	00.03
89	Miscellaneous manufactured goods	09.81	10.95	11.41	07.14	04.07	03.78
	INTERMEDIATE GOODS	35.05	21.77	35.13	70.57	52.05	54.09
51	Chemical elements, compounds	03.87	00.28	00.59	25.02	02.87	05.27
52	Coal, petroleum, etc. chemicals	00.38	00.00	00.00	03.21	00.00	00.00
53	Dyes, tanning, color product	00.19	00.02	00.03	00.04	01.31	01.20
54	Medicinal products	00.51	00.06	00.05	00.11	02.83	03.39
55	Perfume, cleaning, etc. product	00.19	00.00	00.25	00.03	00.78	01.48
56	Fertilizers manufactured	00.00	00.00	00.00	00.00	00.00	00.06
57	Explosives pyrotech product	00.20	00.17	00.25	00.00	00.18	01.13
58	Plastic materials, etc.	00.88	00.18	00.16	00.35	05.67	02.77
59	Chemicals, n.e.s.	00.87	00.29	00.30	03.18	01.20	01.58
61	Leather, dressed, fur, etc.	00.03	00.00	00.11	00.00	00.03	00.00
62	Rubber manufactures, n.e.s.	00.18	00.00	00.00	00.00	00.64	01.52
63	Wood, cork, manufactures, n.e.s.	12.14	10.92	23.12	05.69	13.21	02.12
64	Paper, paperboard and manufactures	00.21	00.01	00.00	00.51	00.09	01.37
65	Textile, yarn, fabric, etc.	03.31	03.06	01.45	01.44	07.18	03.97
66	Nonmetallic mineral manufactures	01.98	00.64	00.16	01.20	09.10	08.58
67	Iron and steel	02.10	00.08	00.00	13.51	02.21	03.74
68	Nonferrous metals	07.07	05.68	08.25	15.76	01.70	08.87
69	Metal manufactures, n.e.s.	00.82	00.25	00.04	00.48	02.24	06.21
81	Plumbing, heating, lighting equipment	00.14	00.05	00.01	00.04	00.81	00.03

Table 11 (Continued)

SITC	Commodity	World	USA	EEC	Japan	Asian NICs	ASEAN
	CAPITAL GOODS	20.35	26.56	10.80	10.16	31.54	40.20
71	Machinery, non-electrical	01.00	00.52	00.05	00.08	02.82	08.74
72	Electrical machinery	16.39	24.45	08.33	05.50	25.39	24.64
73	Transport equipment	01.85	01.41	01.03	04.23	00.86	05.83
86	Instruments, watches, clocks	01.11	00.18	01.40	00.35	02.46	00.98

Source: UN ESCAP, *Foreign Trade Statistics of Asia and the Pacific*, 1963, 1983.

over time. Development is associated with more varied production, and consequently with more varied exports. Moreover, industrialization tends to bring about export diversification. In a study of commodity concentration involving 44 developed and developing countries, Michaely (1977) found that all the countries with high export commodity concentration were primary exporters, while those with highly diversified exports were, generally speaking, exporters of manufactured goods.

Concomitant with commodity diversification, geographic diversification of export flows took place because industrialization which brought about greater diversification in product composition also implied that the country widened its marketing horizons as it acquired new customers while retaining the former ones (Hirschman, 1945). Hirschman's 1945 study, as well as that of Michaely (1977) revealed a positive correlation between commodity and geographic concentration of country trade. Reversing the order of causality, Michaely argues that a country that undergoes a diversification of the geographic destination of its exports also tends to experience commodity diversification because it has to cater to more countries with more varied demand.

There is also some evidence for Philippine exports to expand faster the higher is the growth rate of her trading partners. Regressing the annual growth rates of Philippine exports against partner country GDP growth rates (average annual) indicated a positive relationship as follows:

$$1960\text{-}70: \quad \log e = -0.0121 + 0.0242 \log gdp \qquad r = 00.34$$
$$1970\text{-}80: \quad \log e = \quad 0.2080 + 0.0383 \log gdp \qquad r = 00.37$$

where e is the average annual growth rate of Philippine exports to specific country markets and gdp the annual growth rate of these

countries' GDP. By its geographic location, the Philippines is situated strategically near numerous countries, particularly the fast growing ones, where demand growth is strong. It is well-known that some of the fastest growing markets, especially during the seventies, are located in East and Southeast Asia and these are precisely the country groups that grew in relative importance as the country's export markets.

4. Analysis of the Structure of Philippine Export Trade

After a descriptive presentation of the major trends in geographic and commodity diversification of the country's exports, this section analyzes the structure of such trade. It seeks to identify the determinants of the geographic and commodity structure of the country's exports as well as their changes over time.

4.1 *Determinants of the Geographic Structure of Export Flows*

As we attempt in this section to explain the geographic structure of Philippine export flows, we use a rather eclectic approach by testing the influence of explanatory variables on such geographic structure from both the standard gravity models and the traditional factor proportions theory of trade. Under the gravity model, inter-country differences in shares of Philippine exports are explained using the usual explanatory variables of 'mass' and 'distance.' The former is represented by the size of the import market and the latter by the physical distance between the Philippines and her trading partners. On the other hand, the 'complementarity' hypothesis of the factor proportions theory would suggest that the more dissimilar or complementary the Philippines' factor endowments are with those of her trading partner, the greater is the expected volume of export trade to that country market. Thus a greater proportion of a developing, capital-scarce country's trade would be expected to be destined to developed, capital-abundant countries.

Using a double logarithmic function we estimated the following equation for 1963 and 1983:

$$\log s_{pj} = a_o + b_1 \log GDP_j + b_2 \log G_{pj} + \log D_j + e$$

where s_{pj} is the share of country j in the Philippines' total value of exports to the sample of countries; *GDP* the (current) value of gross domestic product of the importing country j; G_{pj} the absolute difference between the per capita income levels of the Philippines and the importing country j, and D_j the shortest distance (in nautical miles) between Manila and the major port of the importing country j.

GDP represents market size and *D* is the resistance variable. We would have wanted to introduce tariff barriers as a resistance variable, but unfortunately consistent data were not available for all the 16 trading partner countries in the sample. Moreover even if data on the average tariff of a country were available, one could not ignore the empirical evidence that low tariffs are often compensated for by non-tariff barriers, whose restrictiveness, however, is very difficult to measure, let alone compare across countries. In a later section we shall qualify our quantitative results by a qualitative discussion of the possible influence of such barriers on the country's export flows.

G_{ij}, which is the absolute difference between the per capita income levels of the Philippines and her trading partners, was introduced (a la Gruber and Vernon) as an explanatory variable. In Gruber and Vernon's study, this was used to proxy for the difference in consumption patterns between trading partners. However, we prefer to see it as representing the difference in capital endowments between the Philippines and the importing country. This is based on the assumption that a country with a higher income per capita would generally be endowed with a greater amount of physical and/or human capital (or labor skills) than a country with a lower income per capita. If the complementarity hypothesis holds, one would expect exports to be greater the greater is the gap in per capita income levels between the Philippines and her trading partners. Another way by which this complementarity hypothesis was tested was through the introduction of a variable representing the importing country's manufacturing sector value-added to gross domestic product.

The better fitting equations are shown in Table 12. In general the geographic pattern of the country's export trade flows can be explained best by the size of the import market, and to a certain extent, by distance. In spite of the geographic diversification that had been observed between 1963 and 1983 the Philippines still tends to export more to more affluent countries than to poorer ones. 'Distance' consistently, though only mildly, tended to dampen trade flows. As Gruber and Vernon noted, this variable may indicate, in addition to the height of transport cost, the importance of other barriers associated with distance, such as limitations to knowledge about more distant markets.

The variable representing the dissimilarity in factor endowments between the Philippines and her trading partners tended to confirm

Table 12 – Regression Analysis of the Determinants of the Geographic Structure of Philippine Export Trade

Year	C	LGDP	LD	LMNF	LG	$\bar{R}^2$
1963	−11.625*	1.350**	−0.305			0.45
	(−2.303)	(3.093)	(−0.376)			
1983	0.476	0.868**	−1.261*			0.43
	(0.142)	(3.446)	(−2.742)			
1963	−14.219*	0.776*	−1.207*	5.085**		0.81
	(−4.727)	(2.770)	(2.372)	(5.069)		
1983	0.476	0.868**	−1.207*			0.43
	(0.142)	(3.446)	(−2.742)			
1963	−18.817*	0.501		4.253**		0.74
	(7.023)	(1.686)		(3.080)		
1983	−1.555	0.807*		0.744		0.41
	(−0.373)	(3.046)		(0.843)		
1983	−2.312	0.853**	−1.208*		0.342	0.51
	(−0.901)	(4.196)	(−2.782)		(1.140)	

Note: N = 16 countries, figures in parentheses are t values:
**Significant at 1%
*Significant at 5%

the complementarity hypothesis, i.e. it carried the correct sign, but the relationship did not prove to be significant. On the other hand, while there was some indication that the relative size of the manufacturing sector of the importing country determined the relative size of the Philippines' exports, the relationship was found to be significant only in 1963. Examination of the data showed that in 1983, a number of countries in the sample like Canada, Hongkong, Belgium, and UK, while improving in their shares of Philippine exports, nevertheless showed a decline in the share of manufacturing value added to gross domestic product, possibly as a result of the growth of their tertiary sectors.

The generally low overall explanatory power of the estimated equation ($\bar{R}^2$ ranging from 0.4 to 0.8) suggested the importance of other variables that had been left out, such as preferential trading agreements and the commercial policy of the importing countries, a topic to which we shall turn in a later section.

4.2 *Determinants of the Commodity Structure of Philippine Export Flows*

Next we proceed to explain the commodity structure of Philippine exports in terms of the expectations of conventional factor pro-

portions theory. The intent of this section is not to test the validity of the theory itself. As had been pointed out by Krueger (1977) the real test of the factor proportions theory of trade is in the pattern of specialization of production rather than in the factor intensity of exports and import-competing goods as popularized by Leontief. Here, we seek only to explain the commodity structure of the country's manufactured export flows and the overtime changes there in terms of the predictions of the theory.

Generally speaking, one would expect the exports of the Philippines, presumed to be a labor-abundant country, to be heavily weighted by labor-intensive commodities. However, the Philippines exports to countries with different degrees of labor abundance so that it can be considered labor abundant only in reference to a labor scarce trading partner. One would then have to partition the country's exports into those destined to labor scarce and labor abundant countries before one can form expectations as to the relative importance of its exports according to their factor intensity.

Bearing this in mind we regressed the share of specific manufactured exports in the value of total manufactured exports to specific countries or country groups against a measure of capital intensity of the industries from which these originate. A double logarithmic form of the equation was estimated as follows:

$$\log s_{ij} = \log a_0 + b \log k_i$$

where s_{ij} is the share of commodity group i in total manufactured exports of the Philippines to country j.

Using Lary's flow measure of capital intensity, we have:

$$k_i = VA_I/N_i = WVA_i/N_i + NWVA_i/N_i.$$

VA_i is value added in industry i (two or three-digit PSIC or Philippine Standard Industrial Classification) from which the specific two-digit SITC export group originates. VA_i can be further decomposed into the wage value added (WVA_i) and non-wage value added ($NWVA_i$) representing the returns to human and physical capital, respectively. N_i is the number of persons employed in industry i.

To analyze the possible change in the commodity structure of the country's exports over time, the regression equation was estimated for 1963 and 1983 for each country or country group. The main interest is to observe the direction of the relationship between s_{ij}

and k_i and their changes over time. In the case of exports to capital-abundant countries like the US, EC and Japan, one would expect a negative coefficient, but not so in the case of exports to developing countries characterized by either factor proportions similar to those of the Philippines or by more severe capital scarcity. The more marked the difference in capital-labor endowment between the Philippines and her trading partner, the clearer will be the existence of a comparative advantage in labor-intensive exports and hence the greater the possibility that the regression coefficient will be negative and significantly different from zero. The regression coefficients that are not significantly different from zero however carry an economic meaning in that the Philippines may not possess a clear comparative advantage in commodities with either low or high value-added per employee *vis-a-vis* other developing countries.

The results of the regression analysis are shown in Table 13. As can be observed, only the United States shows a significantly negative relationship (at 5% level of confidence) between the shares of its manufactured imports from the Philippines in 1963 and 1983. The 1983 coefficient of the Economic Community is negative and only mildly significant (at 10%), again implying a tendency for EC countries to import more commodities from the Philippines the more

Table 13 -- Regression Analysis of Commodity Structure of Philippine Exports to Specific Country Markets

N	Country	Year	C	LVA
12	US	1963	1.675 (1.138)	−1.461** (−2.239)
23	US	1983	4.119 (1.720)	−1.336** (−2.098)
21	EC	1983	3.585 (1.436)	−1.220* (−1.789)
22	Japan	1983	−0.235 (−0.154)	0.146 (0.388)
24	Asian NICs	1983	1.162 (0.561)	−0.207 (−0.377)
21	ASEAN	1983	−1.337 (−0.812)	0.546 (1.261)

Note: Figures between parentheses are t-values.
**Significant at 5% level,
*Significant at 10% level.

intensive they are. The weaker relationship compared to that of the US might reflect the differences in factor porportions among member countries of the EC *vis-a-vis* the Philippines. In the case of the country's exports to the Asian NICs, the regression coefficient in the 1983 equation carried the expected negative sign, although it was not significantly different from zero. In contrast, the relationship was direct, though insignificant in 1963 when the contrast in factor proportions with the Philippines had not yet emerged. This implies that over time, there may have been a tendency, no matter how weak, for the Philippines' exports to the faster growing, capital accumulating Asian NICs to be weighted more and more by labor-intensive goods. On the other hand, the ASEAN regression coefficient carried the positive sign, just like for the Asian NICs' equation in 1963, although it was not significantly different from zero. This implies that the Philippines has no clear advantage in either low or high value added export commodities *vis-a-vis* her ASEAN neighbors. A disconcerting observation, however, is that of Japan which comes out again as an outlier, because, while being clearly capital abundant relative to the Philippines, the regression coefficient was positive, though not signficantly different from zero, similar to the ASEAN results.

To flesh out the analysis of the commodity structure of Philippine manufactured exports we approached the problem a bit differently. As an alternative approach we computed the percentage distribution of the country's manufactured exports to the world and to each country/country group at the two-digit SITC level and ranked them according to their capital intensity. We then grouped them into three categories, from the least capital intensive (or most labor intensive) to the most capital intensive (or least labor intensive). Because we also wanted to observe the shifts over time, we present in Table 14 the share of each two-digit SITC category to total Philippine manufactured exports to each market in 1963, 1973, and 1983. We assume that there had been no marked changes in the degree of capital intensity of industries to which such exports originate. This seems to be a reasonable assumption considering that the Spearman Rank correlation coefficient of VA_i/N_i in 1965 and 1980 turned out to be 0.74. Examination of the data revealed that only a small number of crossovers occurred such that industries with low capital intensity in 1965 went up in rank and surpassed other industries in 1980 (e.g. pulp and paper).

To start with, Philippine manufactured exports to the world are definitely concentrated in the labor-intensive categories I and II and this has been reinforced over time. Indeed, a remarkable shift

Table 14 — Structure of Manufactured Export Trade According to Labor-Intensity 1963-1983 (in Per Cent)

Destination	Category I			Category II			Category III		
	1963	1973	1983	1963	1973	1983	1963	1973	1983
WORLD	14.05	26.07	49.05	80.19	54.94	33.51	5.86	18.85	17.24
Developed Countries	10.29	23.74	51.82	85.19	55.01	31.33	4.55	16.19	17.03
U.S.A.	9.20	23.27	54.90	89.07	69.37	37.06	1.73	7.33	7.54
EC	93.36	38.01	57.03	6.36	56.40	32.47	0.29	5.64	10.26
EFTA	100.00	17.46	59.10	0.00	82.56	7.89	0.00	0.00	32.99
Japan	4.17	29.06	21.08	13.67	28.13	13.34	82.16	42.81	65.60
Developing Countries	57.22	10.51	22.37	9.89	27.71	58.19	32.91	61.76	19.03
Asian NICs	57.41	28.73	26.08	8.64	42.49	59.88	33.66	28.72	13.85
ASEAN	64.38	9.80	10.67	4.32	59.08	54.87	31.29	30.94	33.33

Source: Appendix I.

over time has occurred in that the concentration has intensified in the least capital-intensive category I, with the largest weight in 1983 appearing in wearing apparel exports. Other fast growers in the group were other manufactures, n.e.s. (SITC 89), furniture except metal (SITC 8) and footwear, except rubber (SITC 85). The drastic decline in the share of category II occurred as a result of the decline in importance of wood and cork manufactured exports (SITC 63) which in 1963 made up close to 100% of category II. Such share, however, was partly taken over by the marked increase in share posted by manufactures of electrical machinery. On the other hand, the growing share of the category II exports was due primarily to the growing importance of transport equipment exports (SITC 73) and nonferrous metals (SITC 68).

Partitioning the country's manufactured exports into developed and developing country destination shows up the contrasts and generally confirms the results of the regression analysis. A trend similar to that of exports to the world is evident in the case of developed country markets, primarily because of the heavy weight of such markets in the country's manufactured export trade. While the country's exports to developed countries are concentrated in the most labor-intensive category, the importance of such exports to the developing countries in the sample in 1983 was rather small. Its share to total exports had gone down drastically from its 1963 share when close to 95% of exports in this category, however, was made up of textile manufactures (SITC 65). Category III, the most capital-intensive exports, on the other hand, carried a larger weight than category I in 1983. Since 1973, however, category II exports had garnered more than half of the share of total manufactured exports to developing countries, due in particular to the performance of electrical machinery exports.

Further breaking down the export flows of the manufactured exports into individual country or country groups reveals the same contrasting trends between flows to capital abundant and capital scarce countries. In the case of the US, EC and even EFTA, the overall structure observed for the 'world' and for 'developed countries' is observed, namely the concentration of exports in the labor-intensive categories I and II with the familiar shift in concentration in category I over time, especially with the decline in importance of resource-based manufactures in the form of wood and cork manufactures belonging to category II. On the other hand, Japan's imports of manufactured products from the country are again concentrated in the most capital-intensive category, though showing a declining trend over time. The most labor-intensive category represented only

about a fifth of total, while category III accounted for about two-thirds of total manufactured exports to Japan in 1983. Such composition resembles more closely that of the Asian NICs or the ASEAN, than that of the developed country group to which Japan properly belongs. However, a difference can be noted between the commodity structure of exports to Japan and to the Asian NICs, namely that in the latter, the greatest concentration can be found in category II instead of category III, particularly in the exports of electrical machinery (SITC 72), and to a certain extent, in wood and cork manufacture (SITC 62) as well as other non-metallic mineral products (SITC 60). Moreover, in the case of the Asian NICs, the importance of both the most and the least labor-intensive categories had been declining since 1963, when practically 90% of total exports was made up of textiles (SITC 65). The shift is thus clearly towards category II exports. The ASEAN commodity structure also resembles that of the Asian NICs, particularly in terms of the trend towards an increased importance of exports belonging to category II. Several reasons had been advanced for this phenomenon. One is the preferential trade relations among member countries of the ASEAN wherein some 18,000 tariff line commodities have been given preferential trading status, especially those originating from ASEAN joint venture programs and industrial complementation schemes. Another reason is that such trade (e.g. exports of transport equipment or electric machinery which is composed mainly of semiconductors) may reflect the global strategy of multinational companies operating in the region where the production of parts and components is subcontracted wherever profitable and later assembled elsewhere.

To summarize, the commodity structure of the Philippines' export trade in manufactures generally reveals a pattern that conforms to the expectations of the factor proportions theory. In general the Philippines tends to export more labor-intensive manufactures than capital-intensive ones, and the pattern has been reinforced over time. Moreover, when trade partners are partitioned into developed and developing countries, relatively more labor-intensive manufactures are observed to be exported to the former than to the latter. Japan, however, remains an outlier among developed countries. On the other hand, there is some tendency for the export trade to the developing country trade partners included in the study (particularly the ASEAN) to concentrate in capital-intensive manufactured exports, similar to the pattern observed by Krueger (1978) for the LAFTA.

The analysis covered only manufactured exports under SITC 5-8, whereas a substantial portion of the country's exports was found in an earlier section to belong to SITC 9 category. These exports, for the most part, consist of garments and semiconductors, which belong to Categories I and II and hence can be considered labor-intensive. Including them in the analysis will reinforce the findings that the country tends to export relatively more labor-intensive commodities to developed countries. It is worth noting, however, that a developing country like Malaysia seems to import more labor-intensive commodities under SITC 9 category than is warranted by the difference between its factor proportions and those of the Philippines. But, if one considers such exports as part of a multinational subcontracting network and are therefore destined not to Malaysia but ultimately to third country developed markets, then there is little room for contention. Additional consideration of such real-world realities would then modify somewhat the initial expectations based solely on examination at face value of recorded trade date.

5. Commercial Policy and Export Trade Diversification

It was pointed out in an earlier section that factors other than differences in the relative factor intensities or production would have to be taken into consideration in explaining the structure of a country's trade. In the following sections we shall attempt to explain in a qualitative manner the possible direction of influence of commercial policy in both the Philippines and the trading partner countries on the changes observed in the geographic and commodity patterns of Philippine export trade.

5.1 *Philippine Commercial Policy and Export Trade Diversification*

The economic environment of the late sixties and seventies was probably more favorable to the expansion of manufactured exports than primary ones. It is true that exports as a whole were discriminated against in terms of their effective rates of protection insofar as the average EPR of exports was negative in 1965 compared to 51 per cent for all manufacturing industries. The EPR of exports was later raised to 4 per cent by the Tariff Reform of the 1970s, thus correcting a bit the penalty imposed on them. Additionally, export incentives were accorded to manufactured exports during the period with the passage of the Export Incentives Act of 1970, thereby raising the EPR on such exports by 3 percentage points. Admittedly though, this was still way below the 44 per cent EPR for all manufacturing. The point worth stressing, however, is that given the minimal changes in

structure of protection, export incentives were instituted favoring manufactured exports, especially of the nontraditional type.

Perhaps more importantly, the successive devaluations in the seventies helped coax out new exports, especially those in manufactured form. The effective exchange rate (EER) for exports was found to have increased sharply in 1970 and to a greater degree for nontraditional exports (i.e. 57% increase as against 32%, respectively). An alternative measure in terms of the purchasing power parity (PPP-EER) index showed that it was higher by 65 per cent for new exports and by 40 per cent for traditional exports than the corresponding average PPP-EERs in 1967-69 (Baldwin, 1975; Bautista, 1979). While it is not proven empirically that such changes in the exchange rate have indeed encouraged the growth of manufactured exports, the observed growth in the latter particularly in the seventies conforms to the theoretical expectations attending exchange rate changes.

Some commodity-specific policies must have also encouraged commodity diversification from primary to manufactured form. In line with the industrialization drive of the sixties, and the policy objective of raising the value-added of exports, certain traditional exports in primary form (such as logs and copra), were discouraged and even banned outright in order to encourage further domestic processing. As a result, the export value of oil seeds, nuts and kernels (SITC 22), as seen earlier, declined in both absolute and relative terms while wood, lumber and cork exports grew only marginally. On the other hand, there was a corresponding growth of derivative exports in processed form. For instance, fixed vegetable oil exports (SITC 42) registered the biggest percentage point increase in share among resource-based exports. However, exports of wood in processed form did not show a similar growth, although wooden furnitures have emerged lately as a promising export.

5.2 *Commercial Policy of Trading Partner Countries*

Changes in the commercial policy of the country's trading partners may also explain in part the observed trends in diversification. Marvel and Ray (1984) had documented that the developed countries have been able to protect their agricultural sectors by replacing tariffs with non-tariff barriers. One of the effects of the imposition of such barriers was to force the primary exporting countries to shift their exports to other markets, a prime example of which is sugar. Traditionally, the US quota on sugar had ensured the country of a sizeable share of the American market. However, with the drastic

reduction of the US quota there was a dramatic decline in sugar exports in 1963 (i.e. from a 95% share of the country's sugar exports to 33% share in 1983). The need to recoup the losses led sugar exporters to seek other markets (Table 6). A proof of this is the drastic decline in the geographic concentration index of sugar from 96.39 in 1963 to 44.12 in 1983.

The trade barriers against sugar in the EC are probably even more severe because its common agricultural policy (CAP) has virtually blocked Philippine sugar exports to the EC countries. Its agricultural subsidy policy had recently caused such huge surpluses in sugar production as to depress the world market price for sugar, which in turn hastened the collapse of the country's sugar industry. Moreover, the EC excludes sugar imports from GSP (Generalized System of Preferences) and imposes an 80 per cent tariff on them (as of 1982, 83 per cent). In addition the EC discourages potential imports of processed goods with sugar content (such as canned pineapples) through its policy of imposing a variable levy that depends on the sugar price in world markets. As a result, both direct and indirect sugar exports to the EC are discouraged. The net effect was to deflect the country's sugar exports to countries with less stringent import barriers.

Empirical evidence also suggests that non-tariff protection is being deployed in the developed countries with increasing frequency against agricultural products. This may explain, at least in part, the drift in resource-based exports towards nontraditional forms, as observed in section 3.1 above.

On the other hand, tariff protection has been found to systematically discriminate against manufactured exports especially those of interest to developing countries (Marvel and Ray, 1984). The escalating nature of the tariff structure, which biases against imports the greater their degree of processing, had been found to have been left generally untouched by the rounds of tariff negotiations in the sixties and seventies. Developing country exportables such as textiles and clothing, leather footwear, rubber and travel goods, had been accorded shallower tariff cuts and retain higher nominal rate averages than exportables of developed countries. And even when the tariff negotiations under the Tokyo Round will have been fully implemented in the second half of the eighties, tariffs on manufactured products are weighted by total imports, suggesting some bias against developing country exportables (Balassa and Balassa, 1984).

Going to specific products, textile and textile products exports are regulated quantitatively under the MFA (Multi-fiber Agreement) with the goal of "ensuring the orderly development of this trade and avoidance of disruptive effects in individual markets and on individual lines of production in both importing and exporting countries." According to the results of a firm-level survey conducted among Philippine garment exporters, the more likely reaction to the MFA quota, when binding on their exports to the US and EC, was to shift to non-quota countries. There is indeed some observable shift in country destination of textiles and apparel exports towards Japan, the Asian NICs and Australia-New Zealand. Ironically, the perception of some exporters is that the MFA has encouraged more exports in the sense that in its absence the Philippines would have been forced to compete with trade stalwarts, such as South Korea, Taiwan, and Hongkong, and would probably have not been able to win the market shares they are now enjoying. With the MFA, the country's garment exporters were in fact assured a slot in these developed country markets. Nevertheless, although the average utilization rate is generally below the ceiling, the quotas on certain individual garment lines were sometimes binding, forcing the exporter to diversify either to non-quota markets or to non-quota product lines. Furthermore, certain garment items not presently under quantitative restrictions face the potential threat of being put under MFA rules, thus introducing some uncertainty that could discourage exportation to quota countries.

Generally speaking, the non-tariff measures on Philippine exports of labor-intensive manufactures set up by developed countries do not yet appear to be seriously impeding the country's exports (Medalla and Tecson, 1986). However, the experience of the more successful export-oriented economies, such as the Asian NICs, has shown that protectionist policy, both overt and covert, will invariably be resorted to by trading partners whenever their domestic industries are threatened. One can therefore expect such barriers to become more severe, the better able the country becomes in penetrating developed country markets. More diversification in terms of markets and commodities in response to stricter import measures in our traditional markets can thus be expected.

6. Summary and Concluding Remarks

The study was an attempt to analyze the pattern of diversification in Philippine export trade and its implications on the prospects for export expansion. Following are some of the main findings of the paper.

Coefficients of both geographic and commodity concentration of Philippine exports show a marked decline, attesting to both market and commodity diversification of export flows that has occurred over the two decades between 1963 and 1983. In general, exports have begun to diversify away from the traditional markets of US, Japan, and EC and towards the nontraditional developed and developing country markets, especially the Asian NICs and ASEAN.

On the other hand, commodity diversification has occurred in the direction of manufactured exports, that is, away from the dominance of primary, resource-based exports in the country's trade. Furthermore, both geographic and commodity deconcentration had been observed in both resource-based and manufactured exports. This implies the emergence of new markets and the growth over time of nontraditional exports, particularly in the manufactured export category. A remarkable feature of the shift in commodity structure is the rise to prominence of exports beloging to SITC 9 or the category of goods not classified by kind. They constituted about a quarter of total exports in 1983, in contrast to a less than one per cent share two decades earlier. But when reclassified according to kind, they appear to be dominated by generally labor-intensive type of exports, specifically garments and electronic devices.

In general the geographic pattern of the country's exports flows in 1963 and 1983 can be explained best by the variation in economic size of the import markets and the distance between the Philippines and those markets. In spite of the observed geographic diversification that has taken place, the country still tends to export relatively more to affluent countries than to less affluent ones, although distance tends to dampen such flows.

The commodity structure of the country's manufactured trade follows the general pattern suggested by the factor proportions theory. The country tends to export more low-value added (labor intensive) manufactures to the world and the pattern has been reinforced over time. Moreover, relatively more labor-intensive manufactures find their way to developed than to developing country markets. Regression analysis showed a significantly negative relationship between shares of manufactured exports and value-added (i.e. capital intensity) of the manufacturing industries from which they originate, but only in the case of importing countries where the difference in factor proportions relative to those of the Philippines was most marked, namely the US (for both 1963 and 1983) and to a certain extent, the EC countries (in 1983 only). Japan was found to be an outlier since the sign was not as expected given its pressured labor

scarcity, and the level of significance of the regression coefficients was unacceptable. Like Japan, there was some tendency for the country's manufactured export flows to the Asian NICs and the ASEAN not to concentrate in the most labor-intensive category.

The above findings suggest a number of implications as to prospects for future expansion of Philippine exports as well as the direction future policy might take.

The observed diversification in both geographic and commodity structures of the country's export flows, while being a largely market-induced phenomenon, could be further reinforced by policy, to the extent that it is perceived to promote stabilization of export earnings as well as a higher rate of export growth. The present policy thrust towards agro-based development should bring about new export commodities not only in the form of nontraditional agricultural crops (such as vegetables, sweet potatoes, livestock) but also, and more specifically, in the form of a whole range of agro-based industrial products similar to those that had spearheaded the export growth of countries like Taiwan. The institution of the proper incentives, including the removal of the existing policy disincentives, to such resource-based and industrial exports as well as a more systematic search for new markets must be high in the agenda of policy-makers in order to reinforce the emerging trends of export diversification.

The country's comparative advantage in labor-intensive production has already become evident in her trade with developed countries. Such a development must be fully taken advantage of because it is there where the short- and medium-term potentials of export expansion appears greatest. Moreover, from a broader development context, the experience of countries like Japan and the Asian NICs has shown that maximum utilization of a country's comparative advantage in labor-intensive exports during the initial stages of growth has not only helped to finance and assure further growth but also led to the easing of the problem of unemployment and the attainment of a more equitable distribution of income. This would suggest, on the policy side, the elimination of policies that distort the country's pattern of comparative advantage by cheapening capital-use at the expense of labor employment.

While the export drive in garments and semiconductor exports must be sustained, there is a need to broaden the labor-intensive commodity base of the country's export trade. There are indications from previous studies (e.g. Tecson, 1986) that a strong demand in

other commodity lines of the labor-intensive type does exist but that supply-side constraints are more serious. Both private and public effort must thus be oriented towards the identification of such demand where it exists as well as towards the loosening of the supply-side bottlenecks.

Among the more welcome findings of the study is the observed shift in export flows towards developing countries, especially to the Asian NICs and ASEAN, this in spite of the *a priori* pessimism as to the potentials for export growth among low-income economies. Similar efforts could be pursued to accelerate growth into other NICs' markets, such as those of Latin America. However, the results of other studies suggest that domestic market-oriented policies, particularly in line with industrialization objectives, have limited the access of developing countries into each other's markets (e.g., Medalla and Tecson, 1986). The country's present efforts at trade liberalization may be profitably used to invite reciprocal trade concessions on both bilateral and multilateral basis. Moreover, the ASEAN's initiative at instituting preferential trade arrangements could be systematically oriented towards the creation of a truly regional free trade area in some specified time in the future.

It was pointed out that there was a tendency for Philippine exports destined to her developing country neighbors (particularly to the ASEAN), to be capital-intensive. On the other hand, the magnitude of trade to ASEAN (read: Malaysia) classified under SITC 9 suggests a labor-intensive trade that does not seem to be warranted by the differences in their factor proportions. It has been suggested in the paper that the multinational activity in the region has been responsible for a large part of the observed characteristics of ASEAN trade. This is an area of research that definitely needs further exploration, to determine its true nature, its determinants, and implications in terms of efficiency and policy responses.

Finally, there are indications that the country's trade structure is evolving according to the pattern suggested by the stages approach to comparative advantage (e.g. Balassa, 1979). It was shown how its commodity composition has shifted from natural resource-based to manufactured exports, and how the labor intensive character of manufactured exports has been reinforced over time. If true and if one could expect the Philippines to travel along the stages of the export expansion path traced out by Japan and the Asian NICs, then one could look forward to the country's graduation into higher

value-added exports trade. This presupposes that the more advanced NICs are able themselves to graduate into higher stages and yield their areas of comparative disadvantage to other latecomer developing countries like the Philippines. Such prospects, however, imply a number of policy initiatives, among them the rationalization of trade and industrial policy in order to encourage movement along this path, a systematic monitoring of market demand changes as well as changes in other developing country patterns of comparative advantage, upgrading of the country's physical and human capital capabilities, and active support for the promotion of a truly free and open global trading system, to mention only a few.

Appendix A — Value Added per Employee of Manufacturing Industries and Commodity Structure of Export Trade By Country of Destination, 1963-83 (Thousand pesos; Per cent)

PSIC Code	Industry	World			
		VA/E_i	1963	1973	1983
	Category I		14.05	26.07	49.05
85	Manufacture of footwear except rubber	12.29	0.11	0.86	4.12
84	Manufacture of wearing apparel	12.70	1.02	4.60	23.80
61	Manufacture of leather and leather goods	13.69	0.01	0.07	0.03
82	Manufacture and repair of furniture except metal	14.11	0.90	0.53	6.26
8	Manufacture of furniture and fixtures of metal	17.55			
86	Manufacture of professional and scientific instruments	18.40	0.00	0.06	1.11
89	Other manufacturing industries	20.22	2.53	8.38	9.81
83	Travel goods and handbags		0.03	1.82	0.61
65	Manufacture of textiles	21.69	9.45	9.75	3.31
	Category II		80.19	54.94	33.51
71	Manufacture of machinery except electrical	22.11	0.10	0.93	0.99
69	Manufacture of metal products except machinery	22.51	0.40	0.67	0.82
63	Manufacture of wood and wood products and cork	25.00	79.62	40.99	12.13
66	Manufacture of other non-metallic mineral products	26.49	0.07	10.32	1.98
58	Manufacture of plastic products	30.27	0.00	1.07	0.88
72	Manufacture of electrical machinery	37.84	0.00	0.38	16.39
81	Plumbing, heating and light equipment		0.00	0.19	0.14
62	Manufacture of rubber products	40.10	0.00	0.04	0.18
56	Manufacture of miscellaneous products of petroleum (fertilizers)	40.68	0.00	0.35	0.00
	Category III		5.86	18.85	17.24
73	Manufacture of transport equipment	61.21	0.11	0.48	1.85
68	Nonferrous metal	62.37	0.01	11.94	7.07
64	Paper and paper products	67.15	0.04	3.70	0.21
53	Manufacture of paints, varnishes, and other chemical products	77.98	0.33	0.35	0.19
59	Manufacture of other chemical products	91.31	0.01	0.21	0.87
55	Manufacture of soap, perfumes, cosmetics, toilet preparations	93.62	0.07	0.33	0.19
54	Manufacture of drugs and medicines	100.48	1.25	0.71	0.51
51	Manufacture of industrial chemicals	187.36	3.85	0.83	3.87
67	Iron and steel basic industries	241.56	0.00	0.30	2.10
52	Petroleum refineries	1,871.40	0.10	0.08	0.38

Appendix A (continued)

PSIC Code	Industry	Developed Countries 1963	1973	1983
	Category I	10.29	28.74	51.82
85	Manufacture of footwear except rubber	0.09	1.06	4.35
84	Manufacture of wearing apparel	1.06	5.41	25.47
61	Manufacture of leather and leather goods	0.00	0.08	0.03
82	Manufacture and repair of furniture except metal	0.70	1.52	7.19
8	Manufacture of furnitures and fixtures of metal			
86	Manufacture of professional and scientific instruments	0.00	0.01	0.47
89	Other manufacturing industries	2.53	10.24	10.93
83	Travel goods and handbags	0.03	2.44	0.72
65	Manufacture of textiles	5.88	7.98	2.66
	Category II	85.19	55.01	31.33
71	Manufacture of machinery except electrical	0.04	0.24	0.41
69	Manufacture of metal products except machinery	0.09	0.18	0.71
63	Manufacture of wood and wood products and cork	85.05	50.49	13.60
66	Manufacture of other non-metallic mineral products	0.01	3.07	0.71
58	Manufacture of plastic products	0.00	0.60	0.25
72	Manufacture of electrical machinery	0.00	0.27	15.54
81	Plumbing, heating and light equipment	0.00	0.15	0.04
62	Manufacture of rubber products	0.00	0.01	0.07
56	Manufacture of miscellaneous products of petroleum (fertilizers)	0.00	0.00	0.00
	Category III	4.55	16.19	17.03
73	Manufacture of transport equipment	0.12	0.10	1.81
68	Nonferrous metal basic industries	0.01	14.11	7.80
64	Paper and paper products	0.03	1.08	0.08
53	Manufacture of paints, varnishes, and other chemical products	0.30	0.02	0.03
59	Manufacture of other chemical products	0.00	0.05	0.76
55	Manufacture of soap, perfumes, cosmetics, toilet preparations	0.00	0.13	0.03
54	Manufacture of drugs and medicines	0.12	0.01	0.07
51	Manufacture of industrial chemicals	3.86	0.66	3.93
67	Iron and steel basic industries	0.00	0.03	2.06
52	Petroleum refineries	0.11	0.00	0.46

Appendix A (continued)

PSIC Code	Industry	Developing Countries 1963	1973	1983
	Category I	57.2	10.51	22.37
85	Manufacture of footwear except rubber	0.13	0.18	3.36
84	Manufacture of wearing apparel	0.66	1.19	4.93
61	Manufacture of leather and leather goods	0.00	0.02	0.02
82	Manufacture and repair of furniture except metal	0.53	0.42	1.34
8	Manufacture of furniture and fixtures of metal			
86	Manufacture of professional and scientific instruments	0.00	0.10	1.94
89	Other manufacturing industries	1.85	1.37	4.04
83	Travel goods and handbags	0.00	0.05	0.05
65	Manufacture of textiles	54.05	7.18	6.69
	Category II	9.89	27.71	58.19
71	Manufacture of machinery except electrical	1.32	1.43	4.77
69	Manufacture of metal products except machinery	5.27	1.08	3.31
63	Manufacture of wood and wood products and cork	2.44	7.60	10.14
66	Manufacture of other non-metallic mineral products	0.86	15.62	9.80
58	Manufacture of plastic products	0.00	0.81	4.88
72	Manufacture of electrical machinery	0.00	0.27	23.83
81	Plumbing, heating and light equipment	0.00	0.15	0.56
62	Manufacture of rubber products	0.00	0.06	0.88
56	Manufacture of miscellaneous products of petroleum (fertilizers)	0.00	0.69	0.02
	Category III	32.91	61.76	19.03
73	Manufacture of transport equipment	0.00	0.68	2.17
68	Nonferrous metal basic industries	0.00	3.14	3.79
64	Paper and paper products	0.20	54.38	0.61
53	Manufacture of paints, varnishes and other chemical products	1.19	0.34	1.25
59	Manufacture of other chemical products	0.07	0.35	1.32
55	Manufacture of soap, perfumes, cosmetics, toilet preparations	0.99	0.44	1.08
54	Manufacture of drugs and medicines	24.72	1.36	2.83
51	Manufacture of industrial chemicals	5.74	0.34	3.47
67	Iron and steel basic industries	0.00	0.57	2.51
52	Petroleum Refineries	0.00	0.16	0.00

Appendix A (Continued)

PSIC Code	Industry	U. S. A. 1963	1973	1983
	Category I	9.20	23.27	54.90
85	Manufacture of footwear except rubber	0.11	1.28	4.43
84	Manufacture of wearing apparel	1.11	7.43	20.38
61	Manufacture of leather and leather goods	0.00	0.02	0.004
82	Manufacture and repair of furniture except metal			
8	Manufacture of furnitures and fixtures of metal	0.71	1.57	9.27
86	Manufacture of professional and scientific instruments	0.00	0.01	0.18
89	Other manufacturing industries	2.52	6.81	10.95
83	Travel goods and handbags	0.03	1.55	0.65
65	Manufacture of textiles	4.72	4.60	3.06
	Category II	89.07	69.37	37.06
71	Manufacture of machinery except electrical	0.00	0.13	0.52
69	Manufacture of metal products except machinery	0.06	0.02	0.25
63	Manufacture of wood and wood products and cork	89.00	66.31	10.02
66	Manufacture of other non-metallic mineral products	0.01	2.54	0.64
58	Manufacture of plastic products	0.00	0.00	0.18
72	Manufacture of electrical machinery	0.00	0.21	24.44
81	Plumbing, heating and light equipment	0.00	0.16	0.05
62	Manufacture of rubber products	0.00	0.00	0.06
56	Manufacture of miscellaneous products of petroleum (fertilizer)	0.00	0.00	0.00
	Category III	1.73	7.33	7.54
73	Manufacture of transport equipment	0.12	0.10	1.41
68	Nonferrous metal basic industries	0.00	6.45	5.68
64	Paper and paper products	0.03	0.62	0.01
53	Manufacture of paints, varnishes, and other chemical products	0.00	0.00	0.02
59	Manufacture of other chemical products	0.00	0.07	0.23
55	Manufacture of soap, perfumes, cosmetics, toilet preparations	0.00	0.01	0.002
54	Manufacture of drugs and medicines	0.12	0.004	0.06
51	Manufacture of Industrial chemicals	1.48	0.04	0.28
67	Iron and steel basic industries	0.00	0.04	0.03
52	Petroleum refineries	0.01	0.00	0.00

Appendix A (Continued)

PSIC Code	Industry	EEC 1963	EEC 1973	EEC 1983
	Category I	93.36	38.01	57.03
85	Manufacture of footwear except rubber	0.00	0.23	3.72
84	Manufacture of wearing apparel	0.00	2.34	34.58
61	Manufacture of leather and leather products	0.00	0.00	0.11
82	Manufacture and repair of furniture except metal	0.29	1.00	3.59
8	Manufacture of furniture and fixtures of metal			
86	Manufacture of professional and scientific instruments	0.00	0.00	1.40
89	Other manufacturing industries	3.76	27.92	11.41
83	Travel goods and handbags	0.00	1.32	0.77
65	Manufacture of textiles	89.31	5.20	1.45
	Category II	6.36	56.40	32.47
71	Manufacture of machinery except electrical	0.29	0.47	0.05
69	Manufacture of metal products except machinery	0.29	0.03	0.04
63	Manufacture of wood and wood products and cork	5.78	54.73	23.72
66	Manufacture of other non-metallic mineral products	0.00	0.26	0.16
58	Manufacture of plastic products	0.00	0.00	0.16
72	Manufacture of electrical machinery	0.00	0.84	8.33
81	Plumbing, heating and light equipment	0.00	0.05	0.01
62	Manufacture of rubber products	0.00	0.02	0.00
56	Manufacture of miscellaneous products of petroleum (fertilizers)	0.00	0.00	0.00
	Category III	0.29	5.64	10.26
73	Manufacture of transport equipment	0.00	0.04	1.03
68	Nonferrous metal basic industries	0.00	4.47	8.25
64	Paper and paper products	0.00	0.01	0.004
53	Manufacture of paints, varnishes, and other chemical products	0.00	0.05	0.03
59	Manufacture of other chemical products	0.00	0.05	0.30
55	Manufacture of soap, perfumes, cosmetics, toilet preparations	0.00	0.18	0.01
54	Manufacture of drugs and medicines	0.29	0.05	0.05
51	Manufacture of industrial chemicals	0.00	0.79	0.59
67	Iron and steel basic industries	0.00	0.00	0.00
52	Petroleum Refineries	0.00	0.00	0.00

Appendix A (Continued)

PSIC Code	Industry	EFTA 1963	EFTA 1973	EFTA 1983
	Category I	100.00	17.46	59.10
85	Manufacture of footwear except rubber	0.00	0.00	1.76
84	Manufacture of wearing apparel	0.00	0.41	27.30
61	Manufacture of leather and leather goods	0.00	0.00	0.00
82	Manufacture and repair of furniture except metal	0.00	0.18	13.09
8	Manufacture of furniture and fixtures of metal			
86	Manufacture of professional and scientific instruments	0.00	0.05	0.10
89	Other manufacturing industries	15.69	11.77	12.53
83	Travel goods and handbags	0.00	0.23	0.65
65	Manufacture of textiles	84.31	4.82	3.67
	Category II	0.00	82.56	7.89
71.	Manufacture of machinery except electrical	0.00	1.04	1.72
69	Manufacture of metal products except machinery	0.00	0.00	0.03
63	Manufacture of wood and wood products and cork	0.00	78.67	5.56
66	Manufacture of other non-metallic mineral products	0.00	1.31	0.18
58	Manufacture of plastic products	0.00	0.00	0.31
72	Manufacture of electrical machinery	0.00	1.49	0.09
81	Plumbing, heating and light equipment	0.00	0.05	0.00
62	Manufacture of rubber products	0.00	0.00	0.00
56	Manufacture of miscellaneous products of petroleum (fertilizers)	0.00	0.00	0.00
	Category III	0.00	0.00	32.09
73	Manufacture of transport equipment	0.00	0.00	0.52
68	Nonferrous metal basic industries	0.00	0.00	32.22
64	Paper and paper products	0.00	0.00	0.00
53	Manufacture of paints, varnishes, and other chemical products	0.00	0.00	0.02
59	Manufacture of other chemical products	0.00	0.00	0.03
55	Manufacture of soap, perfumes, cosmetics, toilet preparations	0.00	0.00	0.09
54	Manufacture of drugs and medicines	0.00	0.00	0.00
51	Manufacture of industrial chemicals	0.00	0.00	0.11
67	Iron and steel basic industries	0.00	0.00	0.00
52	Petroleum refineries	0.00	0.00	0.00

Appendix A (Continued)

PSIC Code	Industry	Japan 1963	1973	1983
	Category I	4.17	29.06	21.08
85	Manufacture of footwear except rubber	0.00	0.03	2.37
84	Manufacture of wearing apparel	0.00	2.54	6.49
61	Manufacture of leather and leather goods	0.13	0.25	0.00
82	Manufacture and repair of furniture except metal	0.00	1.30	2.79
8	Manufacture of furniture and fixtures of metal			
86	Manufacture of professional and scientific instruments	0.00	0.00	0.35
89	Other manufacturing industries	0.91	7.72	7.14
83	Travel goods and handbags	0.00	4.85	0.50
65	Manufacture of textiles	3.13	12.37	1.44
	Category II	13.67	28.13	13.34
71	Manufacture of machinery except electrical	0.39	0.06	0.08
69	Manufacture of metal products except machinery	0.91	0.43	0.48
63	Manufacture of wood and wood products and cork	12.37	20.77	5.69
66	Manufacture of other non-metallic mineral products	0.00	4.66	1.20
58	Manufacture of plastic products	0.00	1.93	0.35
72	Manufacture of electrical machinery	0.00	0.10	5.50
81	Plumbing, heating and light equipment	0.00	0.17	0.04
62	Manufacture of rubber products	0.00	0.00	0.00
56	Manufacture of miscellaneous products of petroleum (fetilizers)	0.00	0.01	0.00
	Category III	82.16	42.81	65.60
73	Manufacture of transport equipment	0.00	0.11	4.23
68	Nonferrous metal basic industries	0.26	37.98	15.76
64	Paper and paper products	0.00	2.75	0.51
53	Manufacture of paints, varnishes, and other chemical products	11.98	0.06	0.04
59	Manufacture of other chemical products	0.00	0.04	3.18
55	Manufacture of soap, perfumes, cosmetics, toilet preparations	0.26	0.36	0.03
54	Manufacture of drugs and medicines	0.00	0.02	0.11
51	Manufacture of industrial chemicals	69.66	1.48	25.02
67	Iron and steel basic industries	0.00	0.01	13.51
52	Petroleum refineries	0.00	0.00	3.21

Appendix A (Continued)

PSIC Code	Industry	ASIAN NICs 1963	1973	1983
	Category I	57.41	28.73	26.08
85	Manufacture of footwear except rubber	0.21	0.33	4.88
84	Manufacture of wearing apparel	1.05	3.85	6.00
61	Manufacture of leather and leather goods	0.00	0.00	0.03
82	Manufacture and repair of furniture except metal	0.84	0.38	1.41
8	Manufacture of furniture and fixtures of metal			
86	Manufacture of professional and scientific instruments	0.00	0.03	2.46
89	Other manufacturing industries	2.73	2.56	4.07
83	Travel goods and handbags	0.00	0.15	0.05
65	Manufacture of textiles	52.58	21.43	7.18
	Category II	8.64	42.49	59.88
71	Manufacture of machinery except electrical	0.63	0.77	2.82
69	Manufacture of metal products except machinery	3.58	1.45	2.24
63	Manufacture of wood and wood products and cork	3.68	19.14	13.21
66	Manufacture of other non-metallic mineral products	1.05	19.33	9.10
58	Manufacture of plastic products	0.00	1.43	5.67
72	Manufacture of electrical machinery	0.00	0.06	25.39
81	Plumbing, heating and light equipment	0.00	0.16	0.81
62	Manufacture of rubber products	0.00	0.15	0.64
56	Manufacture of miscellaneous products of petroleum (fertilizers)	0.00	0.00	0.00
	Category III	33.66	28.72	13.85
73	Manufacture of transport equipment	0.00	0.25	0.86
68	Nonferrous metal basic industries	0.00	11.18	1.70
64	Paper and paper products	0.21	12.28	0.09
53	Manufacture of paints, varnishes, and other chemical products	0.11	0.32	1.31
59	Manufacture of other chemical products	0.00	0.46	1.20
55	Manufacture of soap, perfumes, cosmetics, toilet preparations	1.58	0.83	0.78
54	Manufacture of drugs and medicines	22.61	1.56	2.83
51	Manufacture of industrial chemicals	9.15	0.78	2.87
67	Iron and steel basic industries	0.00	0.44	2.21
52	Petroleum refineries	0.00	0.62	0.00

Appendix A (Continued)

PSIC Code	Industry	ASEAN 1963	ASEAN 1973	ASEAN 1983
	Category I	64.38	9.80	10.67
85	Manufacture of footwear except rubber	0.00	0.31	0.03
84	Manufacture of wearing apparel	0.00	0.79	1.82
61	Manufacture of leather and leather goods	0.00	0.00	0.00
82	Manufacture and repair of furnitures except metal	0.00	0.22	0.07
8	Manufacture of furniture and fixtures of metal			
86	Manufacture of professional and scientific instruments	0.00	0.56	0.98
89	Other manufacturing industries	0.51	1.49	3.78
83	Travel goods and handbags	0.00	0.02	0.02
65	Manufacture of textiles	63.87	6.41	3.97
	Category II	4.32	59.08	54.87
71	Manufacture of machinery except electrical	3.56	7.50	8.74
69	Manufacture of metal products except machinery	0.00	2.54	6.21
63	Manufacture of wood and wood products and cork	0.51	1.68	2.32
66	Manufacture of other non-metallic mineral products	0.25	43.33	8.58
58	Manufacture of plastic products	0.00	2.65	2.77
72	Manufacture of electrical machinery	0.00	0.76	24.64
81	Plumbing, heating and light equipment	0.00	0.50	0.03
62	Manufacture of rubber products	0.00	0.11	1.52
56	Manufacture of miscellaneous products of petroleum (fertilizers)	0.00	0.01	0.06
	Category III	31.29	30.94	33.33
73	Manufacture of transport equipment	0.00	3.57	5.83
68	Nonferrous metal basic industries	0.00	1.77	8.87
64	Paper and paper products	0.25	15.70	1.97
53	Manufacture of paints, varnishes, and other chemical products	0.00	0.87	1.20
59	Manufacture of other chemical products	0.25	0.38	1.58
55	Manufacture of soap, perfumes, cosmetics, toilet preparations	0.00	0.65	1.48
54	Manufacture of drugs and medicines	30.79	5.95	3.39
51	Manufacture of industrial chemicals	0.00	0.73	5.27
67	Iron and steel basic industries	0.00	1.37	3.74
52	Petroleum refineries	0.00	0.00	0.00

Source: *Annual Survey of Establishments, Manufacturing 1972*, NCSO Publications; UN ESCAP: *Foreign Trade Statistics of Asia and the Pacific*, 1963, 1973, 1983.

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