

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: Trade and Structural Change in Pacific Asia

Volume Author/Editor: Colin I. Bradford, Jr. and William H. Branson, editors

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-07025-5

Volume URL: <http://www.nber.org/books/brad87-1>

Publication Date: 1987

Chapter Title: Japan and Her Asian Neighbors in a Dynamic Perspective

Chapter Author: Ippei Yamazawa

Chapter URL: <http://www.nber.org/chapters/c6918>

Chapter pages in book: (p. 93 - 120)

Japan and Her Asian Neighbors in a Dynamic Perspective

Ippei Yamazawa

4.1 Introduction

The Asian newly industrializing countries (NICs) and the countries belonging to the Association of South East Asian Nations (ASEAN) recorded an economic growth rate of 6%–10% during the 1970s, a rate matched by no other group of countries in the world. Japan's growth rate of 5.2% during 1976–80, while much higher than that of other developed countries, fell far short of the growth performance of her Asian neighbors.

The rapid growth of the Asian NICs and ASEAN countries in the 1970s has been outward-looking, based on the rapid expansion of production and exports of manufactured goods, whose ultimate destination has been predominantly the developed countries. North America and Western Europe absorbed 37% and 23% respectively of the industrial exports from the NICs during the years 1969–79. They also absorbed 25% and 21% of those from ASEAN. Japan's share of the industrial exports from the NICs was 11%, and its share from ASEAN was 8%.

After the second oil shock, however, developed-country markets were depressed considerably in 1981 and 1982, and the export growth of the NICs and ASEAN decelerated. They each suffered from foreign exchange shortages and were forced to slow down their development programs, resulting in their economic growth rate dropping by 2–5 percentage points. Economic recovery began in early 1983, originating from the revived import expansion of the United States. It is likely that the industrial exports from the NICs and ASEAN will continue to flow into the developed-country markets. This reflects the basic com-

Ippei Yamazawa is professor of international economics at Hitotsubashi University, Tokyo, Japan.

plementarity of the industrial structures of the two groups; however, the trade pattern involved presents some problems.

First, the growth of the economies of the NICs and ASEAN will be disrupted again by a setback to developed-country economies. Secondly, growth of their exports to those markets will be limited in the long run, because the growth of those markets, especially that of Western Europe, has decelerated and the recent expansion of the NICs' exports has aggravated the adjustment difficulty of import-competing industries there and has provoked import restriction. Diversification of their export markets is desirable to avoid the vulnerability of their exports in both the short and the long run. During the 1970s the number of their export markets was expanded to include the Middle East, Japan, and China, but considering the growth potential of the NICs and ASEAN countries, their own markets deserve more attention as promising demand sources.

It is often suggested that Japan should absorb more industrial exports from the NICs and ASEAN countries. If primary products are included, Japan has absorbed 27% of the ASEAN exports, far exceeding the absorption by North American (18%) and Western Europe (16%). But her importation of industrial products from the NICs and ASEAN still remains a smaller share, and the possibility of its expansion is yet to be explored.

This paper examines Japan's economic relationship with the Asian NICs and ASEAN countries from a global perspective.¹ The trade matrices in tables 4.1–4.3 show the trade flows of Japan, the Asian NICs, and the ASEAN countries, both among themselves and with the rest of the world, at three different levels of commodity aggregation—all commodities, industrial goods, and textiles and clothing. Singapore is duly regarded as a NIC given its stage of industrial development, but in our analysis it is included in the ASEAN group because of the effect of geographical location on its trade pattern.

Although primary commodities still composed 75% of Japan's imports, 36% of the NICs' imports, and 74% of ASEAN exports in 1979, it is industrial goods trade that receives attention in this paper. The catching up of the NICs and ASEAN has been most prominent in the production and export of textiles and clothing.

The trade of Mainland China is represented as an independent entry in our trade matrices. It absorbed 3.6% of Japan's industrial goods exports and supplied 11.7% of Japan's textile and clothing imports in 1979. It is widely anticipated that Japan will be further involved in trade and other forms of international division of labor with China in the 1980s. But the unpredictability of China's future course confines our discussion to Japan's relationship with her Asian neighbors that are characterized by a market economy system.

4.2 The Spread of Industrialization

In the Far East industrialization has spread sequentially from Japan to the NICs and finally to the ASEAN countries. Changes in the comparative advantage structure of individual countries have corresponded to the spread of industrialization.

Let us give a brief overview. In the prewar period, Japan was the only industrialized country in the region, and the trade pattern was a simple complementary manufactures/primary commodities exchange between Japan and other countries. The present-day NICs completed import substitution of light manufactures in the 1950s and started exporting them to the United States and Europe in the 1960s. There then emerged a competitive aspect to the trade relations between the NICs and Japan and a complementary relationship between the NICs and ASEAN. Following this new development, the 1970s saw the development of ASEAN light industrialization and the start of a competitive relationship between ASEAN and the NICs. The NICs, in turn, proceeded with heavy industrialization and in some commodities began to compete with Japan.

It should not be ignored that at present Japan still supplies heavy industrial products, such as capital and intermediate goods, on a large scale to these countries, and about 80% of ASEAN exports consist of primary commodities. There is a growing tendency in Japan, however, to import from the NICs and ASEAN low-price light manufactures instead of producing them domestically; this is expected to continue. Therefore, in summary, the present trade relationship among Japan, the NICs, and ASEAN is a complex structure consisting of both competitive and complementary elements. This of course reflects the economic differences among the three groups, such as their varying levels of industrialization and the different sizes of their domestic markets.

The achievement of industrial development and trade expansion by the Asian NICs and ASEAN countries can be attributed to the activities of the private sector. Direct investment by U.S. and Japanese firms and technology transfer through their activities played an important role in the spreading of industrialization to the present NICs and the ASEAN countries. Leading local enterprises have evolved in response to the growth of demand both at home and abroad. The commercial activities of overseas Chinese also had a role in creating the division of labor within the region.

However, government policies of both the NICs and the ASEAN countries have affected private business activities and are partly responsible for the present structure of extra- and intraregional trade. Foreign investment and protection policies of the governments of the NICs and the ASEAN countries contributed by paving the way for

Table 4.1 Trade Matrix of All Commodities, 1969 and 1979 (millions of U.S. \$)

	1.	2.	3.	4.	5.	6.	7.
1. Japan		606*	767*	615	313*	138*	434
		4,365	6,245	3,675	2,665	1,506	1,714
2. Taiwan	158*		22*	93*	26*	9*	27*
	2,260		171	1,131	422	130	185
3. Korea	133*	13*		24*	12*	2*	6*
	3,352	160		531	197	86	110
4. Hong Kong	141	35	18		90	26	26
	530	185	41		282	86	64
5. Singapore	110*	10*	11*	47*		85*	58*
	1,365	112	230	961		2,037	607
6. Malaysia	305*	—*	37	18*	352		11*
	2,590	193	209	188	1,931		149
7. Thailand	153*	31	1*	56	57*	55	
	1,112	64	50	247	427	228	
8. Philippines	337	15	26	8*	5*	1*	4
	1,201	61	141	158	66	57	19
9. Indonesia	252*	6*	4*	7*	141*	50	7
	7,192	407	387	99	1,964	66	38
10. South Asia	331*	2*	8*	55	45	6*	10
	3,426	209	237	276	168	71	53
11. Australia/New Zealand	1,160	36*	16*	64	84	73*	31
	5,849	409	570	377	486	442	158
12. North America	4,040	333*	506*	375	154*	71*	155
	20,695	3,239	4,153	2,106	2,333	981	914
13. Western Europe	1,340*	99*	198*	553	278*	231	282
	8,328	1,313	2,073	3,163	2,218	1,349	1,217
14. Middle East	1,730*	a*	24*	44	4*	46*	10*
	27,563	1,900	2,863	95	3,399	606	899
15. China	245*	—	—*	401*	123	72	—
	2,968	—	5	2,719	370	199	218
16. Rest of the world	2,055	29*	3*	66*	48*	12*	8*
	7,887	688	901	673	416	263	470
17. World total	12,490*	1,215*	1,642*	2,425*	1,729*	878*	1,068*
	96,318	13,305	18,276	16,399	17,343	8,107	6,815

Sources: Institute of Developing Economies, *Computerized Trade Statistics Search System* (AIDXT) (Tokyo), supplemented by United Nations, *Monthly Bulletin of Statistics* (New York), and individual country trade statistics. See Yamazawa, Hirata, and Taniguchi 1983 for details of the compilation.

Notes: The numbers making up the headings across the top of the table indicate the importing countries and regions. In the body of the table, the upper figure indicates the

8.	9.	10.	11.	12.	13.	14.	15.	16.	17.
476	237*	184*	579	5,498	2,052*	207*	391*	3,495	15,990*
1,620	2,124	2,189	3,191	28,336	16,524	9,610	4,115	15,154	103,032
15*	13*	1*	16*	440*	104*	7*	—	118*	1,050*
201	399	61	448	6,092	2,306	902	—	1,370	16,078
1*	2*	1*	6*	327*	55*	2*	—	37*	623*
109	195	248	181	4,777	2,841	1,366	—	900	15,052
17*	62	11	72	827	557*	23*	6*	266	2,178
115	42	56	417	4,079	3,915	434	120	793	11,160
6*	36*	24*	50*	186*	250*	15*	57	605	1,549*
237	483	709	718	2,088	2,209	482	170	1,825	14,233
25	16*	11*	50	274*	293*	13*	45	200	1,650*
118	235	328	264	1,988	2,133	199	182	361	11,068
3	13*	31	4*	104	139*	12*	—*	50*	707*
11	188	86	59	613	1,372	261	77	412	5,207
	1*	1*	5*	324	77*	a*	—*	19*	823
	46	8	97	1,434	1,001	50	52	211	4,601
25*		a*	62	120*	123*	a*	a	3*	800*
165		64	241	3,199	1,230	62	—	475	15,590
4	9*	1,097	80	576	841	274*	82*	142*	3,562
13	182	2,025	264	1,890	4,317	2,194	581	2,461	18,366
67	27*	69	250	860	1,700	59*	125*	491	5,110
251	331	357	1,445	3,353	4,284	974	914	2,814	23,014
394	201	1,500	1,140	18,760	14,320	1,289*	115*	7,856	51,210
1,607	1,021	3,126	4,677	68,736	56,161	9,985	2,243	46,785	228,762
252	192*	1,296	1,800	11,900	78,310*	3,220*	520*	18,250	118,720
974	1,304	5,886	5,954	47,240	478,278	33,910	3,941	104,098	701,246
13*	1*	507*	215*	481	4,530*	660*	19*	1,095*	9,380*
863	328	5,639	1,760	18,637	59,178	8,395	202	18,108	150,435
—	39	126*	36	27*	405	85*		692	2,250*
109	119	958	216	707	2,149	749		3,772	15,258
13*	25*	1,471	135	7,034*	19,753	1,225*	1,190	26,892	56,960
241	400	1,195	614	57,578	100,576	7,753	4,965	120,579	305,200
1,311	873*	6,329	4,500	47,740	123,510	7,090*	2,550*	57,210	272,560
6,634	7,397	22,935	20,546	250,747	738,474	77,326	17,561	320,119	1,638,302

trade value (f.o.b.) in 1969 and the lower figure the value in 1979. * = the growth rate is higher than the world average; a = the trade value is less than U. S. \$1 million; — = no record in the basic data. The years 1969 and 1979 were chosen in order to highlight the increase in world export. Since 1979 was a peak year before the adverse effects of the second oil shock emerged, the 1969–79 period will reveal the fastest growth in world export.

Table 4.2 Trade Matrix of All Industrial Goods, 1969 and 1979
(millions of U.S. \$)

	1.	2.	3.	4.	5.	6.	7.
1. Japan		561* 4,056	584* 5,787	569* 3,450	294* 2,576	132* 1,453	422 1,652
2. Taiwan	31* 1,379		2* 94	76* 1,052	19* 387	7* 122	25* 156
3. Korea	57* 2,360	8* 122		20* 484	11* 182	1* 83	5* 104
4. Hong Kong	96 421	25* 173	16 35		73 241	18 72	22 46
5. Singapore	3* 248	1* 52	1* 43	15* 328		30* 1,325	11* 280
6. Malaysia	87 377	—* 28	1* 52	4* 137	35* 352		5 25
7. Thailand	8* 215	a* 6	a* 13	3* 98	4* 163	1* 37	
8. Philippines	3* 155	1* 19	a* 10	2* 115	1* 22	1* 16	3 18
9. Indonesia	4* 114	—* 3	a a	a* 43	108 275	1* 28	a* 15
10. South Asia	58* 592	a* 34	5 18	37 193	26 57	2* 49	9 32
11. Australia/New Zealand	93 520	10* 123	a* 62	34* 230	27* 281	29 123	18 105
12. North America	1,657 7,519	200* 1,844	198* 1,872	292 1,574	132* 2,146	53* 873	110* 679
13. Western Europe	1,148 6,713	88* 1,174	193* 1,942	494 2,921	239* 2,006	193* 1,227	256 1,081
14. Middle East	30* 425	a* 48	2* 28	34 19	3 3	8 6	1* 13
15. China	51* 700	— —	—* 3	169* 1,470	73 216	30 71	—* 61
16. Rest of the world	595 2,359	1* 73	1* 448	9* 427	2* 164	1* 55	1* 14
17. World total	3,920* 24,098	895* 7,756	1,005* 10,406	1,757* 12,544	1,045* 9,072	507* 5,539	888 4,281

Sources: Institute of Developing Economies, *Computerized Trade Statistics Search System (AIDXT)* (Tokyo), supplemented by United Nations, *Monthly Bulletin of Statistics* (New York), and individual country trade statistics. See Yamazawa, Hirata, and Taniguchi 1983 for details of the compilation.

Notes: The numbers making up the headings across the top of the table indicate the importing countries and regions. In the body of the table, the upper figure indicates the

8.	9.	10.	11.	12.	13.	14.	15.	16.	17.
432	226*	174*	548	5,273	1,848*	198*	382*	3,328	14,970*
1,532	1,975	1,883	3,113	27,679	15,866	9,345	3,587	15,086	99,041
13*	12*	1*	15*	387*	46*	6*	—	95*	734*
176	266	45	432	5,903	2,105	657	—	1,304	14,077
<i>a</i> *	2*	1*	5*	306*	33*	1*	—	29*	479*
104	176	237	173	4,595	2,673	1,287	—	843	13,428
14*	58	10	66*	815	542*	22*	2*	234	2,01015
112	41	47	410	4,001	3,879	432	103	720	10,734
3*	30	9*	7*	38*	22*	4*	<i>a</i> *	192	365*
135	135	267	158	1,532	1,056	464	72	620	6,715
5	11	4*	3*	153*	49*	1*	—*	43	401*
23	16	36	95	991	686	33	2	157	3,009
<i>a</i> *	3	1*	1*	63	29*	<i>a</i> *	—*	5	117*
5	13	35	35	357	599	83	11	13	1,683
	<i>a</i> *	1*	2*	43*	4*	<i>a</i> *	—*	6*	67*
	10	26	48	430	146	24	2	44	1,085
<i>a</i> *		—*	1*	21	34*	<i>a</i> *	<i>a</i>	3*	173
17		27	9	23	231	32	—	16	832
3	8	53*	46	329	314*	50*	2*	472	1,414*
7	24	1,666	208	1,171	3,021	1,063	326	655	9,171
43	17*	13*	192	180	210	2*	5*	213	1,088
124	131	180	970	525	807	72	218	871	5,343
293	99*	273	919	14,257	8,626	422*	<i>a</i> *	7,740	35,271
1,246	643	1,426	3,970	49,631	34,590	7,265	758	31,582	147,618
212	163*	632*	1,672	10,104	57,876*	1,545*	427*	17,825	93,070
868	1,198	5,140	5,395	39,829	357,792	29,303	3,616	85,143	545,349
1	<i>a</i> *	2*	5*	151	251*	6*	<i>a</i> *	127	619*
3	4	228	31	108	1,585	2,406	21	671	5,599
—*	33	28*	30	15*	147*	1*		83*	660*
15	99	212	171	460	1,126	509		2,382	7,495
1*	5*	2,265	37*	1,267*	6,819	2,805	771	9,989*	24,568
59	80	1,176	269	8,643	23,752	3,948	3,248	62,415	107,166
1,020	667*	3,466	3,550	33,400	76,850	5,065*	1,590*	40,284	176,010
4,425	4,813	12,632	15,487	145,878	449,914	56,976	12,000	202,523	978,345

trade value (f.o.b.) in 1969 and the lower figure the value in 1979. Industrial goods represent SITC sections 5–8. * = the growth rate is higher than the world average; *a* = the trade value is less than U.S. \$1 million; — = no record in the basic data. The years 1969 and 1979 were chosen in order to highlight the increase in world export. Since 1979 was a peak year before the adverse effects of the second oil shock emerged, the 1969–79 period will reveal the fastest growth in world export.

Table 4.3 Trade Matrix of Textiles and Clothing 1969 and 1979
(millions of U.S. \$)

	1.	2.	3.	4.	5.	6.	7.
1. Japan		51 140	103 296	220 568	107 173	11 41	47 47
2. Taiwan	10* 449		a* 23	39* 473	10* 128	1* 30	7 18
3. Korea	36* 1,242	a* 41		11* 204	9* 85	1* 14	3 17
4. Hong Kong	11* 188	6 23	1* 15		26 90	7 20	3* 18
5. Singapore	a* 20	a* 2	a* 3	2* 14		2* 97	1 5
6. Malaysia	a* 21	a a	—* 2	a* 6	1* 11		a a
7. Thailand	2* 51	a* 2	a* 3	a* 36	2* 37	a* 10	
8. Philippines	a* 20	a a	—* a	a* 27	a* 11	a* 1	—* a
9. Indonesia	a* 10	a 1	— —	a* 15	a* 45	a* 1	— —
10. South Asia	11* 114	a* 6	—* 2	24 118	19 27	2 1	1 1
11. Australia/New Zealand	1* 24	a* 23	a* 3	3 14	1 4	a 2	a* 2
12. North America	15* 210	3* 19	3* 26	20 66	3* 19	1 5	3 5
13. Western Europe	84* 780	a* 15	1* 24	62 219	16 63	9 20	7 9
14. Middle East	a* 11	a* 15	a —	a 1	a* 1	—* a	a —
15. China	23* 426	a —	—* 2	79* 752	38 92	9 13	—* 12
16. Rest of the world	1* 59	a* 60	a* 3	a* 20	a* 5	a* 2	a* 1
17. World total	198* 3,627	62 347	109 402	462 2,533	235 791	45 258	71 135

Sources: Institute of Developing Economies, *Computerized Trade Statistics Search System* (AIDXT) (Tokyo), supplemented by United Nations, *Monthly Bulletin of Statistics* (New York), and individual country trade statistics. See Yamazawa, Hirata, and Taniguchi 1983 for details of the compilation.

Notes: The numbers making up the headings across the top of the table indicate the importing countries and regions. In the body of the table, the upper figure indicates the

8.	9.	10.	11.	12.	13.	14.	15.	16.	17.
44	27	21*	118	635	147	57*	14*	495	2,097
77	88	174	215	593	328	430	112	1,060	4,343
3*	4*	a*	8*	114*	24*	4*	—	38*	263*
46	54	16	115	1,121	488	134	—	440	3,535
a*	2*	a*	1*	120*	26*	1*	—	15*	226*
11	27	63	71	1,234	1,106	170	—	378	4,664
1*	22	6	40	318	319*	6*	a*	108	874
52	6	29	201	1,681	2,055	162	41	247	4,829
a*	4	2*	1*	15*	7*	2*	a*	49	85*
3	2	79	25	155	195	30	2	102	733
a	a	a*	a*	5*	1*	a*	—*	1*	10*
1	1	3	25	36	129	5	1	22	263
—*	2	—*	a*	1*	2*	a*	—*	a*	11*
2	4	20	17	84	214	61	5	6	551
	a	—*	a*	3*	a*	a*	—	a*	5*
	a	a	10	81	110	6	—	5	273
—*		—*	a*	a*	a*	a*	—	a*	1*
1		a	3	8	18	14	—	3	118
a	5	25*	39	284	141	23*	2*	240	817
a	1	336	107	543	1,488	533	92	236	3,584
1	a*	a*	19*	5	4*	a*	a*	5	41*
3	1	5	118	21	114	6	5	9	251
19	23	3	32*	217	294	10*	a*	288	935
47	4	9	211	818	1,618	132	34	1,333	4,556
4	4	10	126	773	6,643	126*	10	1,306	9,183
13	6	45	303	1,545	34,702	1,327	36	3,697	42,804
—	—	a	2	36	72*	4*	a	31	146*
—	—	—	5	61	760	154	—	40	1,048
—*	18	8	23	12*	54*	a*	—	46*	311*
a	16	31	122	296	477	222	—	1,301	3,763
a	a*	7*	2*	76*	189*	23*	1*	417*	717*
—	a	64	38	784	3,298	737	121	3,414	8,606
73	111	83*	412	2,614	7,923	256*	27*	3,037	15,720
256	211	873	1,586	9,061	46,958	4,123	449	12,310	83,921

trade value (f.o.b.) in 1969 and the lower figure the value in 1979. Textiles represent SITC sections 65 and 84. * = the growth rate is higher than the world average; a = the trade value is less than U.S. \$1 million; — = no record in the basic data. The years 1969 and 1979 were chosen in order to highlight the increase in world export. Since 1979 was a peak year before the adverse effects of the second oil shock emerged, the 1969–79 period will reveal the fastest growth in world export.

industrialization. The change of their development strategy from an inward- to an outward-looking one has accelerated the export expansion of manufactures from these countries. However, it has tended to increase the extraregional concentration of their exports while leaving their intraregional division of labor lagging behind.

4.3 Competition with the NICs and ASEAN in the Export Market

Japan trades with the global market, and her trade with the NICs and ASEAN represents only slightly more than one-fifth of her total exports and imports. These statistics, however, underestimate Japan's close competitive/complementary relations with these countries. Competition between their products has been occurring more often in third-country markets than in their own.

In table 4.4 the trade matrices of tables 4.1–4.3 are rearranged to illustrate competition among Japan, the NICs, and ASEAN in their major export markets. For all industrial goods, each of the three increased its share in both North America and Western Europe. Although Japan still retains much larger shares, the NICs and the ASEAN countries more than doubled their shares. In the NICs' and ASEAN markets the decline of Japanese shares was matched by increases in the NICs' and ASEAN shares. In textile competition this is more visible. While Japan lost half of its shares in all markets, the NICs gained an amount equal to the Japanese loss. It is clear that textile exports from the NICs and the ASEAN countries were very competitive with Japan's products and succeeded in replacing them at the low-quality end of the product line.

4.4 Japan's Industrial Imports from the NICs and ASEAN

Japanese imports of manufactures from the NICs and ASEAN countries started in the late 1950s but reached a significant level only in the latter half of the 1970s. The basic reason for the recent increase is the rise in wage costs in Japan, but the following factors also contributed to Japan's import expansion: (1) substantial tariff cuts in 1967–72 in the Kennedy Round, the Unilateral Tariff Reduction, and the Generalized System of Preferences to developing-country exports; (2) repeated, rapid yen appreciation during the 1970s; (3) some products of Japanese multinational companies and procurements by government trading companies flowed back to Japan (boomerang phenomenon); and (4) the NICs' efforts to diversify their export markets to the Middle East and Japan in response to the rise of protectionism in the United States and Western Europe.

Table 4.2 shows that Japan's imports of manufactures rose sixfold, from \$4 billion in 1969 to \$24 billion in 1979. Especially notable in this is the rise of the NICs' share. Textile imports, according to table 4.4, show an even more sharp increase and in value terms increased eighteen times in the same period; more than half of it from the NICs. The share of imports from ASEAN countries shows a rising trend but is still small. Japan's imports of textiles from the NICs and ASEAN became comparable in size to those of the United States and Western Europe combined, although Japan imports much more from Korea and Taiwan than from the others.

Detailed analysis of individual commodity items will be worthwhile. The combined share of the NICs and ASEAN in Japan's manufactured imports averaged 22% in 1979, but many individual commodity items exceeded this figure. Table 4.5 lists the twenty groups (out of 102 SITC three-digit level categories) in which the Asian NICs and ASEAN countries held the largest shares of Japan's import market, in order of the size of the share. More than half of the Japanese imports in these twenty categories were supplied by the NICs and ASEAN countries. Tin (concentrates and metal) has been included in the table although it may be classified as a primary commodity. Cement, watches, radios and televisions, and five products from SITC division 67 (iron and steel) are new exports which had only very small shares, if any, in the 1960s but grew to be major export commodities of these countries in the 1970s. The last three columns of the table identify the major exporters and their shares. It is remarkable that for seventeen commodities either Korea or Taiwan held the largest share, followed by Hong Kong, which led in two items (see table 4.5). On the other hand, the ASEAN countries had shares of more than 5% only in eight commodity groups (textiles, miscellaneous products, and indigenous products; see table 4.6).

4.5 Japan's Exports of Intermediate and Investment Goods to the NICs and ASEAN

An examination of the competitive aspect of trade does not tell the whole story. Although the NICs, and to a lesser degree the ASEAN countries, have substantially increased their exports of consumer goods, they cannot yet domestically supply many needed intermediate and investment goods and have to import them from Japan and other developed countries. Every aspect of competition and complementarity in trade relations can be observed in trade matrices, in the change of market shares, and in the expansion of imports. But the coexistence of both can be established only with an international input-output table.

An international I/O table has been completed recently by the Institute of Developing Economies, Japan. It links the I/O tables of Japan,

Table 4.4 Competition in Major Markets (millions of U.S. \$)

	Importing Country						
	Japan	NICs	ASEAN	North America	Western Europe	Australia and N. Z.	Middle East
	All Commodities						
Japan		37.6	27.3	11.5	1.7	12.9	2.9
		29.8	20.8	11.3	2.2	15.5	12.4
NICs	3.5	3.9	5.7	3.3	0.6	2.1	0.5
	6.4	4.6	5.7	6.0	1.2	5.1	3.5
ASEAN	9.3	5.2	16.2	2.5	0.7	3.8	0.6
	14.0	7.3	24.2	3.7	1.1	6.7	1.4
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total	(12,490)	(5,281)	(5,860)	(47,740)	(123,510)	(4,500)	(7,090)
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	(96,318)	(47,980)	(46,296)	(250,747)	(738,474)	(20,546)	(77,326)

Industrial Goods							
Japan		46.9	36.5	15.8	2.4	15.4	3.9
		43.3	32.7	18.9	3.5	20.1	16.4
NICs	4.7	4.0	6.8	4.5	0.8	2.4	0.6
	17.3	6.4	8.1	9.9	1.9	6.6	4.2
ASEAN	2.7	0.7	6.1	1.0	0.2	0.4	0.1
	4.6	3.1	10.3	2.2	0.6	2.2	1.1
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total	(3,920)	(3,657)	(4,128)	(33,400)	(76,850)	(3,550)	(5,065)
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	(24,098)	(30,707)	(28,130)	(145,878)	(449,914)	(15,487)	(56,976)
Textiles and Clothing							
Japan		59.1	44.1	24.1	1.9	28.6	22.3
		30.6	25.8	6.5	0.7	13.6	10.4
NICs	28.8	9.1	18.3	21.1	4.6	12.1	4.3
	51.8	23.7	37.4	44.5	7.8	24.4	11.3
ASEAN	1.5	0.5	2.8	0.9	0.1	0.5	0.8
	3.4	3.4	14.1	4.0	1.4	5.0	2.8
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total	(198)	(634)	(535)	(2,614)	(7,923)	(412)	(256)
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	(3,627)	(3,282)	(1,651)	(9,061)	(46,958)	(1,586)	(4,123)

Source: Tables 4.1–4.3.

Note: See notes to table 4.1.

Table 4.5 Japan's Imports of Manufactured Goods from Asian NICs and ASEAN

SITC Code No.	Commodity	Japan's Total Imports 1979 (U.S. \$1,000)	Eight Countries' Combined Share		Individual Countries' Share (1979, %)		
			1979 (%)	1970 (%)			
687	Tin	452,413	98.6	98.0	ML (57.9)	IN (20.9)	TH (19.7)
679	Iron and steel castings	1,989	87.1	51.5	KR (57.1)	TW (30.0)	
632	Wood manufactures	141,127	77.4	61.9	TW (55.6)	TH (7.6)	KP (6.8)
					PH (3.5)	ML (1.7)	SP (1.0)
674	Iron and steel plates	224,109	70.8	0.5	KR (41.4)	TW (29.2)	
851	Footwear	288,709	68.1	22.6	KR (42.0)	TW (25.6)	
673	Iron and steel bars	26,329	63.4	19.7	KR (39.4)	TW (23.4)	
841	Clothing	1,650,406	63.3	54.5	KR (39.6)	TW (16.1)	HK (5.7)
					PH (1.1)		
651	Textile yarn and thread	592,608	61.9	40.3	KR (45.7)	TW (10.6)	HK (2.6)
693	Wire products of metal	8,733	61.8	0.2	KR (54.5)	TW (3.6)	HK (2.3)
821	Furniture	231,910	61.2	10.9	TW (40.2)	KR (6.8)	HK (6.4)
					TH (2.6)	PH (2.2)	ML (1.4)
					SP (1.0)		

661	Cement and building materials	94,477	59.5	12.2	KR (47.8)	TW (11.6)	
677	Iron and steel wire	9,911	57.8	0.7	KR (55.8)	TW (2.0)	
521	Mineral tar	67,605	57.4	18.9	KR (56.8)		
899	Other manufactured articles	258,284	56.1	39.7	TW (26.6)	KR (14.5)	HK (8.6)
					PH (2.1)	IN (1.8)	ML (1.4)
842	Fur clothing	150,820	55.5	8.0	HK (49.9)	KR (5.5)	
864	Watches and clocks	209,571	50.5	5.6	HK (20.5)	TW (9.7)	SP (7.2)
					KR (6.2)	PH (5.9)	
654	Tulle, lace, embroidery, etc.	63,790	48.1	9.7	KR (43.6)	TW (3.9)	
672	Ingots of steel	165,584	47.0	18.4	TW (25.4)	KR (21.6)	
612	Manufactures of leather	40,159	45.5	23.7	KR (39.0)	TW (6.2)	
724	Radios and TVs	320,713	45.3	7.6	TW (23.2)	KR (15.6)	HK (2.4)
					SP (3.3)		
Total (20 items)		4,999,265					

Source: Compiled and computed by H. Kohama using the AIDXT program of the Institute of Developing Economies.

Notes: All percentages in parentheses indicate the proportions of Japan's total imports from individual countries. KR = Republic of Korea; TW = Taiwan; HK = Hong Kong; SP = Singapore; ML = Malaysia; TH = Thailand; PH = Philippines; IN = Indonesia.

Table 4.6 **Japan's Other Major Imports from ASEAN**

Commodity	Exporter	(%)
611 Leather	PH	(10.1)
897 Jewelry	TH	(9.7)
621 Materials of rubber	ML	(7.9)
656 Made-up textile articles	TH	(7.6)
655 Special textile fabrics	SP	(6.6)
667 Precious stones	TH	(6.6)
541 Medical products	SP	(6.5)
683 Nickel	PH	(5.0)

Source: Compiled and computed by H. Kohama using the AIDXT program of the Institute of Developing Economies.

Notes: Percentages indicate the proportions of Japan's total imports from individual countries.

SP = Singapore; ML = Malaysia; TH = Thailand; PH = Philippines.

the United States, Korea, and the five ASEAN countries by means of trade matrices and enables us to trace both direct and indirect effects of an increase in a country's final demand on the trade and production of all countries.

Table 4.7 is an excerpt from the inverse matrix computed from the international I/O table (IDE 1982). It gives the induced manufacturing output generated by a million U.S. dollar increase of final demand for the manufacturing output in each country. It includes the expansion of manufacturing output both directly and indirectly required for induced export expansion.

For example, a million dollar increase in demand for manufacturing output from Indonesia induces the expansion of manufacturing output not only in Indonesia but also in other countries (in the form of imports). It includes both direct inducement of the product demand and indirect inducement of intermediate input into the production. It amounts to a \$1,155,300 increase in manufacturing output for Indonesia, \$600 for Malaysia, and so on. The induced manufacturing output for the other seven countries combined totals \$131,900 and that for all eight countries totals \$1,287,200.

Even with constant exogenous demand for each individual country, the different composition of final output of each country, that is, the different structure of production of intermediate inputs, results in different amounts of induced expansion of output. Japan has the largest amount of induced domestic output, \$1,782,000, reflecting the high degree of intermediate production characteristic of her industrial structure. On the other hand, induced expansion of foreign output reflects

Table 4.7 Interdependence of Manufacturing Production among Asia-Pacific Countries: Output Induced by \$1 Million Increase in Demand for Manufacturing Output in the Importing Country (thousands of U.S. \$)

Importing Country	Exporting Country							
	Ind.	Mal.	Phil.	Sing.	Thai.	Korea	Japan	U.S.
Indonesia	1,155.3	1.0	0.2	27.2	0.2	1.2	1.1	0.2
Malaysia	0.6	1,219.1	0.4	26.1	0.8	5.4	0.8	0.7
Philippines	0.3	0.3	1,257.5	0.9	0.4	1.1	2.0	0.5
Singapore	9.0	16.0	0.4	1,210.2	1.9	0.5	1.0	0.4
Thailand	0.6	6.0	0.3	4.7	1,277.2	1.3	1.6	0.2
Korea	1.7	1.5	0.8	3.9	2.3	1,459.1	2.5	1.2
Japan	97.2	65.0	71.1	122.8	82.9	143.4	1,782.0	16.6
U.S.	17.1	25.1	36.6	67.9	11.2	69.2	22.0	1,626.2
Total induced output abroad	131.9	114.9	109.8	253.5	99.7	222.1	31.0	19.8
Total induced output both at home and abroad	1,287.2	1,334.0	1,367.3	1,463.7	1,376.9	1,681.2	1,813.0	1,646.0

Source: Rearranged from the inverse matrix of the twenty-four-sector international I-O table (Institute of Developing Economies 1982).

import dependence. Singapore has the highest figure, \$253,500 in output induced abroad per million dollars of exogenous demand in Singapore.

A detailed examination of the table establishes the unique role of Japan in providing Korea and ASEAN countries with the intermediate inputs needed for their manufacturing production. The induced expansion for Japan is on the order of U.S. \$70–\$140 thousand and far exceeds those for other countries, which are on the order of \$200–\$2,000 except in the case of Singapore, with its closer ties to Indonesia, Malaysia, and Thailand (\$2–\$26 thousand).

Let us take as an example the Japan-Korea relationship. The replacement of a million dollars' worth of Japanese products by Korean ones (a million dollar increase in Korean exports and a corresponding decrease of Japanese exports, say, to North America) generates \$140 thousand in Japanese output, resulting in a net \$840 thousand decrease in Japan's manufacturing output. The figure \$140 thousand is the induced effect for all manufacturing on average, but the amount is much larger for some manufactures (\$290 thousand for textiles, \$400 thousand for machinery, and \$530 thousand for metals) because the intermediate inputs needed for such heavy manufacturing are less available at home.²

How will further heavy industrialization of Korean industry affect this complementary relationship with Japan? Indeed, the import substitution in the heavy industries would reduce complementarity; however, since Korea cannot promote heavy industrialization in many product lines at the same time because of its limited market and capacity size, it is more likely that Korean heavy industrialization will increase both complementarity and competition with Japan. A similar competition/complementarity relationship exists between the ASEAN countries and Japan, although to a lesser extent.

Japan's export growth continued at a reasonable speed in the latter half of the 1970s. Partly, this was because of the steady export expansion of automobiles, electronics, machinery, etc., to the major markets of the United States and Europe and to the new market of the Middle East. Industrialization in the NICs and the ASEAN countries, on the other hand, through its inducement effect, promoted Japan's export of intermediate and investment goods to these countries.

Incidentally, the intermediate induced expansion to Korea and Singapore from the other four ASEAN countries reflects the emerging dependence of the latter on the former for the supply of intermediate and investment goods. It is presumed that this dependence has increased since 1975, considering the recent export expansion of those commodities from Korea and Singapore.

4.6 Japan's Trade Balance with the NICs and ASEAN

The trade matrix of all commodities (table 4.1) shows the regional structure of the balance of trade. Comparison of figures in the cells at symmetrical positions using the diagonal line as an axis enables us to obtain each country or region's balance of trade with others. Table 4.8 provides data on the balance of trade for Japan, the Asian NICs, and the ASEAN countries. Japan and the Asian NICs together, all of which are industrial goods exporters, incur deficits with such resource-rich countries as Australia, Indonesia, Malaysia, and the Middle East, and maintain trade surpluses with North America and Western Europe. And all Asian NICs and the less-resource-rich ASEAN countries (Thailand and the Philippines) incur big trade deficits with Japan, offsetting much of their surplus with other countries, from which stem the present complaints of these countries against Japan. It goes without saying that individual bilateral trade should not necessarily be balanced in a world of multilateral trade. So long as Japan imports raw materials and exports in processed form, a surplus in industrial goods trade is needed to pay for her imports of primary products.

However, Japan experienced big surpluses in current accounts in 1977-78 and 1981-83. The surplus of U.S. \$27.5 billion in 1977-78

Table 4.8 Regional Structure of the Balance of Trade, 1969 and 1979
(millions of U.S. \$)

	Trade Balance with						
	World	Japan	Asian NICs	ASEAN	Austr. and N.Z.	North America	Western Europe
Japan	+3,500		+1,556	+441	-581	+1,458	+712
Asian NICs	+6,714		+8,143	-3,831	-2,658	+7,641	+8,196
Taiwan	-165	-448	+67	+28	-20	+107	+5
	+2,773	-2,105	+957	+500	+39	+2,853	+993
Korea	-1,019	-634	-3	-56	-10	-179	-143
	-3,224	-2,893	+479	-320	-389	+624	+768
Hong Kong	-247	-474	-64	+85	+8	+452	+4
	-5,239	-3,145	-1,436	-1,064	+40	+1,973	+752
Total	-1,431	-1,556	0	+57	-22	+380	-134
Total	-5,690	-8,143	0	-884	-310	+5,450	+2,513
ASEAN							
Singapore	-180	-203	-60	-870	-34	+32	-23
	-3,110	-1,300	+402	-1,024	+232	-245	-9
Malaysia	+772	+167	+18	+213	-23	+203	+62
	+2,961	+1,084	+288	+45	-178	+1,007	+784
Thailand	-361	-281	+29	+48	-27	-51	-143
	-1,608	-602	+2	+41	-99	-301	+155
Philippines	-488	-139	+16	-48	-62	-70	-175
	-2,033	-419	-65	-343	-154	-173	+27
Indonesia	-73	+15	-60	+175	+35	-81	-69
	+8,193	+5,068	+257	+1,281	-90	+2,178	-74
Total	-330	-441	-57	0	-111	+33	-348
	+4,403	+3,831	+884	0	-289	+2,466	+883

Source: Rearranged from table 4.1.

Note: The upper figures are for 1969 and the lower for 1979.

was resolved through various channels, partly through the appreciation of the yen, partly through capital outflow, partly by means of expansionary monetary and fiscal policies, and finally by the second oil price hike. The surplus of U.S. \$32.4 billion in 1981-83 has not yet been followed by the appreciation of the yen but has been matched mainly by short-term capital outflow in response to higher interest rates in the United States. Capital flow of a longer-term nature (direct investment, long-term export credit, etc.) has also contributed to the capital account deficit, which offset the big current account surplus. Furthermore, fiscal

and monetary expansion has been implemented, though insufficiently, being constrained by the accumulation of government debt and the fear of further depreciation of the yen.

Because of Japan's increasing surplus in her overall current account, complaints about trade with Japan have been leveled by the United States and the European Economic Community as well as by her Asian neighbors, all of them demanding the "opening of the Japanese market" to their products. However, Japan's overall imbalance should be distinguished from her bilateral trade imbalance with her Asian neighbors. The overall imbalance itself needs to be resolved by proper macro-economic measures. The "Economic Policy Package" should have been implemented earlier than June 1983 and should have provided greater stimulus to aggregate economic activities. Many Japanese economists have been embarrassed by the cheaper yen rates and wish to see the capital outflow discouraged by the closing of the interest rate differential and by the appreciation of the yen rate to a level reflecting Japan's "fundamentals." It is expected that the overall imbalance will be improved to generate a surplus reflecting the normal level of her investment-savings gap. However, Japan's bilateral trade surplus with her Asian neighbors will remain, even after her overall imbalance is resolved.

In spite of the standard economic reasoning arguing that bilateral trade should not necessarily be balanced, the complaints of the NICs and ASEAN about their bilateral trade deficits with Japan will be examined to determine the extent of their validity. The preference for industrial production and industrial employment cannot be denied, and mutual exports of industrial products are needed to satisfy this preference. Free trade will not be maintained unless both parties are satisfied with gains from trade. What, then, affects Japan's imports of manufactures from the Asian NICs and the ASEAN countries?

4.7 Factors Affecting Japan's Imports of Manufactures

In spite of the recent increases in Japan's imports of manufactures from the Asian NICs, Japan is still strongly criticized abroad for importing insufficient amounts; only 11% of NICs' manufactured exports and 8% of ASEAN's manufactured exports go to Japan. It cannot be denied that Japan does not import enough manufactures, even after taking into account the smaller size of her market relative to those of the United States and Europe. This reflects the lack of complementarity in manufacturing production between Japan and the NICs and the ASEAN countries as depicted in table 4.7. Balanced growth of manufactures trade in this region requires further expansion of Japan's imports of manufactures.

Why does Japan import at such a low level? Tariffs and import quotas, implicit import restrictions (such as voluntary export restraints and administrative guidance to importers), and a complicated distribution channel are often mentioned, but they do not seem to be very important in affecting the long-run trend of imports.

Japan's tariffs on manufacturing have been lowered below those of Europe and the United States through a series of trade liberalization moves, i.e., the Kennedy Round Tariff Reduction (1967–72), the Unilateral Trade Reduction (1972), and the Tokyo Round Tariff Reduction (1980–87). Furthermore, imports under the Generalized System of Preferences (exempting 50%–100% of the duties on manufactured imports from developing countries) have increased steadily since 1971, and NICs and the ASEAN countries have been the major beneficiaries. Import quotas on manufactures have been almost totally abolished, leaving only those on raw silk, silk fabrics, and leather goods. Japan has not yet resorted to quota restriction of textile imports under the bilateral agreement of the Multi-Fiber Arrangement, Article 4.

What about voluntary export restraints and the infamous administrative guidance to importers? Voluntary restraint was requested only at a private business level from exporters of a few commodities: from Korea and Pakistan for cotton yarns, from China for cotton fabrics, and from Korea for certain steel products. All of them took place in cases of import surge into the Japanese market. Their import-restricting effect, however, was rather dubious, but the Korean Spinner's Association agreed on voluntary restraint of cotton yarn exports when a dumping case was brought up by its Japanese counterpart.

An import surveillance system and administrative guidance were introduced for textiles and clothing by the government in 1973–74 after the import surge motivated by speculation. The former is no more than an early-warning system based on import contract statistics. A record of all import contracts was collected from individual importers and circulated to all importers in order to avoid import without deficit market prospects. The latter is conducted by officials of the Ministry of International Trade and Industry, who telephone major importers in order to discourage further increase of import contracts in case of an import surge. There were a few cases when this scheme was attempted to discourage an increase of imports of cotton yarn, but it was not very effective since importation continued by minor importers. This tactic is seldom attempted for imports of such differentiated products as fabrics and clothing, where small-lot transactions are handled by many traders and thus high administrative costs would be incurred. It may well be concluded that administrative guidance can prevent import surges caused by speculation but not import increases caused by market forces.

Conventional import procedures and complicated distribution channels are often referred to as barriers to penetration into the Japanese market by foreign exporters. The import procedure, however, will be improved considerably by an overall amendment of the Import Law proposed in December 1982. The complicated distribution channels reflect the major role of Japanese wholesalers in providing small- and medium-sized manufacturers with merchandizing and financing facilities. A recent MIPRO report (1983) pointed out that the distribution channels for imported products are shorter and more simplified than those for their domestic competitors, thereby giving a competitive edge to importers. Direct imports of cheap consumer manufactures have been increased by department stores and supermarkets.

The same report listed around fifty European and American firms which have succeeded in establishing their distribution channels in Japan either independently or in cooperation with Japanese agents. Moreover, the alleged "lack of acquaintance" of foreign exporters with the Japanese market is much less important for Korean and Taiwanese exporters, who have had close contact with the Japanese market.

4.8 Structural Adjustment of Domestic Production

The slow expansion of Japan's imports of manufactures has been affected by such structural factors as adjustment of domestic production, competition within the Japanese market, and the business behavior of Japanese firms. We need to investigate how Japanese manufacturing industries have been adjusting to the increased export capability of the NICs and ASEAN. The data in table 4.9 show the change over time (1965–80) in export-output and self-sufficiency ratios for forty major industries. The two ratios are defined as E/X and $(X - E) / (X + M - E)$, where X , E , and M refer to domestic production, export, and import respectively. We expect the two ratios to decline in an industry in which Japan is losing comparative advantage.

For the manufacturing total (row 41) a slow adjustment is depicted. The export-output ratio increased by 4%, while the self-sufficiency ratio declined by 2% between 1965 and 1980. But more distinct adjustment is observed at less aggregated levels. For textiles and miscellaneous products (rows 16–20, 22) the self-sufficiency ratio showed a greater decline (10%–15% for natural fiber yarn and leather products); the export-output ratio also declined for many of them. Among processed foodstuffs (rows 10–15), meat, dairy, and fishery products showed distinct declines in the two ratios, while small amounts of exports and high self-sufficiency continued for others.

On the other hand, the export-output ratios increased greatly for machinery (rows 37–40), while their self-sufficiency ratios remained

unchanged at 95–99% (except for precision instruments). For chemicals and metals, the self-sufficiency ratios declined slightly, and their high export-output ratios remained unchanged. The declining shares of the first two groups in total output and the increasing shares in machinery obscure the progress of structural adjustment when looking at the manufacturing industry as a whole.

Primary industries except fisheries (rows 1–3, 5–9) had insignificant export performance. The self-sufficiency ratios of forestry, coal, and non-ferrous-metal ores declined rapidly, while those for other minerals had been very low from the beginning. The increased self-sufficiency of livestock and the small decline of the same ratio for agriculture reflected partly the increase in domestic prices in the two sectors, since the ratio is calculated on the basis of current price data. Primary production contributed only 8% to the total output.

Competition has increased in textiles and miscellaneous products, for which both export-output and self-sufficiency ratios declined. The decrease in the two ratios will be more distinct when certain industrial activities, such as cotton yarn, fabrics, and lumber products, are disaggregated, while the two ratios will remain as high for others, such as synthetic fiber yarn and fabrics. This difference attributed to revived competitiveness in the latter industrial activities in Japan.

The products of the textile and other consumer goods industries have been diversified and upgraded in the face of increased competition with cheap imports from Asian developing countries, and their competitive edge has been strengthened significantly by changes in consumption patterns at home. It seems to be understood only insufficiently by economists that revitalization has resulted from the successful response of textile firms to changes in consumer taste in developed countries and also from the change in emphasis of firms from quantity to quality, and that microelectronic technology is geared well to efficient production of assorted items in small lots.

A recent General Agreement on Tariffs and Trade report (GATT 1983) criticized the current research efforts in automatic clothing production in developed countries as a waste of capital and suggested that the same supply of clothing could be obtained through trade with developing countries. However, the report misses the point that the constant change in taste and the preference for diversity are major characteristics of this industry. As a matter of fact, textile businessmen in developing countries, recognizing the current demand change in their export markets and expecting similar changes in their domestic markets in the near future, have started to upgrade the quality of their products.

However, the combined share of textile, miscellaneous products, and processed foodstuffs declined to 10% of the total output in 1980. The decline in self-sufficiency is needed in machinery and chemical-metal

Table 4.9 **Structural Adjustment of Japanese Industries**

	Share in Total Output (%)				Export-output Ratio (%)				Self-sufficiency Ratio (%)			
	1965	1970	1975	1980	1965	1970	1975	1980	1965	1970	1975	1980
1. Cultivation agriculture	6.4	4.1	4.3	3.0	0.5	1.6	0.2	0.6	80.7	78.8	77.9	76.4
2. Livestock	2.0	1.5	1.7	1.4	0.4	0.2	0.1	0.0	86.5	90.9	94.8	96.4
3. Forestry	2.1	1.2	0.9	0.7	0.5	0.6	0.8	1.0	83.3	67.8	67.1	57.9
4. Fishery	1.4	1.1	1.2	1.1	10.0	4.0	1.6	1.4	97.6	95.5	91.7	91.7
5. Coal	0.5	0.2	0.1	0.1	0.2	0.1	0.3	0.7	66.1	30.5	13.9	18.8
6. Iron ore	0	0	0	0	0	0	0	0	6.2	1.9	0.7	0
7. Non-ferrous-metal ore	0.1	0.1	0.1	0	0.3	0.2	1.5	2.3	36.3	17.8	14.7	11.6
8. Crude petroleum and natural gas	0	0	0	0	0.7	2.1	0.1	0	4.3	2.9	1.0	0.9
9. Other nonmetallic minerals	0.6	0.8	0.8	0.9	1.0	1.0	1.0	1.0	77.9	82.4	82.0	84.4
10. Meat and dairy products	1.7	1.4	1.7	1.4	0.9	0.5	0.2	0.4	92.2	91.6	89.1	86.8
11. Fishery products	1.1	0.9	1.1	1.2	10.0	10.8	7.2	5.8	95.5	92.0	88.0	85.0
12. Grain, milled and flour	3.3	2.0	1.8	1.4	0.3	1.1	0.1	0.8	95.5	99.5	99.6	99.6
13. Other processed foods	5.1	4.0	4.8	4.7	1.9	1.4	0.9	0.5	93.8	93.5	91.5	94.5
14. Beverages	2.2	1.9	1.8	1.6	0.5	0.4	0.4	0.8	99.7	99.3	98.6	97.9
15. Tobacco	1.2	0.9	0.9	0.8	0.4	0.1	0	0	99.6	99.6	99.3	99.4
16. Natural fiber yarn	1.4	0.7	0.5	0.4	6.2	6.1	3.0	2.3	98.0	92.7	87.8	83.1
17. Man-made fiber yarn	0.6	0.5	0.3	0.2	5.6	9.7	12.6	14.2	100.0	99.8	99.3	97.4
18. Fabrics and other textile products	5.2	4.1	3.3	2.6	17.4	14.5	14.0	14.1	99.0	97.2	94.8	93.3
19. Wearing apparel	1.6	1.6	1.8	1.5	13.6	8.8	2.5	2.2	99.6	98.9	96.6	93.6
20. Leather and leather products	0.3	0.2	0.2	0.2	12.6	12.9	14.7	14.2	95.7	93.3	89.8	86.6

	Share in Total Output (%)				Export-output Ratio (%)				Self-sufficiency Ratio (%)			
	1965	1970	1975	1980	1965	1970	1975	1980	1965	1970	1975	1980
21. Rubber products	1.0	0.8	0.9	0.9	17.5	16.7	16.1	16.5	99.5	99.1	96.1	95.3
22. Miscellaneous products	2.2	2.5	2.7	3.0	19.0	12.7	7.8	8.7	97.0	96.3	96.3	96.3
23. Lumber and wooden products	2.7	2.6	2.1	1.8	4.0	2.3	1.1	0.8	98.5	95.3	92.8	89.2
24. Furniture	1.1	1.3	1.3	1.1	1.3	1.0	0.7	1.3	99.9	99.8	99.1	98.2
25. Printing and publishing	2.0	2.1	2.4	2.3	0.8	0.9	0.5	0.6	99.2	99.9	99.1	99.3
26. Pulp and paper	3.1	3.0	3.0	3.1	2.2	2.5	3.1	2.7	97.3	97.2	96.8	95.5
27. Basic industrial chemicals	3.7	3.3	3.8	4.3	8.5	9.2	12.6	8.4	94.6	95.2	95.3	93.6
28. Chemical fiber materials	1.2	1.0	0.6	0.5	14.9	16.6	28.3	25.7	99.6	99.3	99.4	97.1
29. Other chemical products	2.4	2.3	2.6	2.7	4.1	6.1	8.8	9.4	93.1	89.9	91.0	89.7
30. Petroleum products	2.8	2.7	4.9	6.0	4.0	2.3	3.8	2.4	98.8	89.9	90.4	86.9
31. Coal products	0.8	0.9	1.4	1.3	0.2	0.2	0.8	1.4	99.8	99.8	99.7	99.9
32. Ceramic and other nonmetallic mineral products	2.6	3.0	3.1	3.2	8.3	5.5	5.8	6.3	99.4	99.3	99.2	98.9
33. Pig iron and crude steel	4.3	4.9	5.2	4.4	0.3	0.2	0.9	0.2	94.3	95.2	98.2	98.1
34. Primary steel products	6.7	8.2	7.2	7.5	16.8	13.8	25.5	17.9	99.9	99.8	99.9	99.4
35. Primary non-ferrous-metal products	1.7	2.2	2.0	2.5	6.8	5.0	7.7	11.4	85.1	82.3	86.8	79.9
36. Other metal products	3.6	4.2	3.9	3.8	7.9	7.4	9.7	10.2	99.3	99.3	99.0	98.9
37. Industrial machinery	6.7	9.4	8.5	8.1	8.3	8.9	14.7	19.4	95.0	95.7	96.3	96.5
38. Electrical machinery	5.9	8.6	6.7	8.7	12.7	13.2	18.4	23.0	97.2	94.4	95.5	95.6
39. Transport equipment	7.7	8.6	9.5	10.2	15.7	17.3	29.7	30.3	97.7	97.3	97.2	96.8
40. Precision instruments	1.2	1.3	1.0	1.3	19.5	23.6	32.3	38.4	93.5	89.8	84.9	84.3
41. Manufacturing total (rows 10–40)	86.9	91.1	90.9	92.8	8.7	8.6	11.6	12.3	96.5	96.0	95.5	94.5
42. Total (rows 1–40)	100.0	100.0	100.0	100.0	7.7	8.0	10.6	11.5	92.7	92.3	89.1	87.6

Source: Compiled by Takeshi Suzuki with data from the Economic Planning Agency.

Note: The two ratios are defined as follows. The export-output ratio and self-sufficiency ratio are defined as E/X and $(X - E)/(X + M - E)$, where X , E , and M refer to domestic output, exports, and imports respectively.

groups in order to increase Japan's import of manufactures. Although Japan still retains international competitiveness in these activities, the NICs have been promoting domestic production and export of these products, and they have a competitive edge in the labor-intensive, standardized portions of the production process.

It is typical for Japanese firms to procure some parts and intermediate inputs from affiliated suppliers within Japan. This type of firm behavior has been fostered for a long time by Japan's import substitution strategy to offset her persistent balance-of-payments deficits in her development process. It is also related to the well-developed system of subcontracting and the high technology and skill level of subcontracting firms. If, however, they modify their policy and extend their procurement sources to include their Asian neighbors, intraregional trade in parts and intermediate products will in the long run be as prevalent between Japan and the NICs as it is between the countries of Western Europe.

Japan's Asian neighbors need improved skills and technology to promote intraregional trade in both consumer goods and intermediate products.

4.9 Toward a Harmonious Division of Labor

Many Japanese economists welcome the catching up of NICs and ASEAN countries in various sectors of industrial activities. These countries have the highest potential for growth in the world, and Japan must cooperate with them for mutual prosperity. These economists recognize the need for promoting industrial development in the region at the cost of increasing competition with some Japanese sectors. There are of course strong objections from businessmen in import-competing sectors, and their demand for protection has increased recently. However, the Japanese government maintains a free trading position, and Japan has remained the last major developed country refraining from a policy of restraining textile imports under the MFA. Its industrial policies for adjustment assistance to the manufacturing sector are generally consistent with the idea of positive adjustment policies.

The promotion of industrial cooperation, however, should be consistent with the market forces and initiatives of private enterprises and individuals. The government can arrange a favorable atmosphere for technical transfer and upgrading of skills only through a joint venture with the private sector. An increasing number of Japanese businessmen have been regarding the East and Southeast Asia as an integrated area to which the supply of their parts and intermediate inputs may freely be relocated from the "traditional" domestic sources. But there still remains room for host governments to improve their rules and regulations that have been discouraging these private business activities beyond the national borders of Japan.

The promotion of a harmonious division of labor between Japan and her Asian neighbors requires modification of conventional governmental and firm behavior on both sides.

Notes

1. The first five sections of this paper are based on the joint research of the author and two of his colleagues. For details of the analysis and statistical information, refer to Yamazawa, Hirata, and Taniguchi 1983.

2. These figures are obtained from the original inverse matrix of the twenty-four-sector I-O table in Institute of Developing Economies 1982.

References

- GATT. 1983. *Prospects for international trade: Main conclusions of GATT study for 1982-83*. Geneva.
- Institute of Developing Economies. 1982. *International input-output tables for ASEAN countries 1975*. IDE Statistical Data Series, no. 39. Tokyo.
- MIPRO (Manufactured Import Promotion Committee of the International Trade Conference). 1983. *An analysis of and recommendations regarding the Japanese distribution system and business practices*.
- Yamazawa, I. 1983. Renewal of the textile industry in developed countries and world textile trade. *Hitotsubashi Journal of Economics* 24, no. 1.
- Yamazawa, I., A. Hirata, and K. Taniguchi. 1983. Trade and industrial adjustment in Pacific Asia. *Developing Economies* 21, no. 4. Tokyo.

This Page Intentionally Left Blank