

TRADE POLICY AND CHANGES IN
JAPAN'S TRADE STRUCTURE
—With Special Reference to Labor-Intensive Manufactures—

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I. PROBLEMS IN STRUCTURAL CONTEXT

JAPAN'S phenomenal economic growth from the late 1950s until 1973 was accompanied by tremendous structural change in production, employment, foreign trade, and foreign investment. This paper focuses on one important aspect of this structural change, the increasing import of labor-intensive manufacture. In the shift from labor surplus to shortage, Japan lost comparative advantage with these manufactures, which had given the lead in exports previously.

Structural changes in employment and trade during the period of heavy industrialization were clearly revealed in the decline of these industries. Such a phenomenon is of no small concern to developing countries in Asia that now have strong comparative advantage in manufactures in reference to the condition of successful export-led growth.

The individual commodity approach is often used in studies of this type, but here, an alternative approach will be taken and, from a macroeconomic perspective on the Japanese economy, the problem will be examined in the context of structural changes in output, employment, and international trade.¹

Summarizing structural characteristics of this problem in the Japanese economy of the postwar era, we see that real GNP grew at an average annual rate of 10.2 per cent from 1953 to 1972, and this was characterized by growth in

This is a revision of the last two chapters of a study conducted for the Council for Asian Manpower Studies (Committee V), by Ipppei Yamazawa and Takuo Tanaka, in "Trade and Employment in Japan's Economic Growth" (1975). This should be referred for details of structural change in output, employment, and trade in the introduction. The author has benefited from comments on the revision by Professor Kiyoshi Kojima and from this journal.

Section IV of the paper includes a short study of postwar trade policy which follows the study of trade policy in prewar years published by this journal: Ipppei Yamazawa, "Industrial Growth and Trade Policy in Prewar Japan," *Developing Economies*, Vol. 13, No. 1 (March 1975).

¹ Studies which examine trends in manufactured imports from developing countries are H. B. Lary, *Imports of Manufactures from Less Developed Countries* (National Bureau of Economic Research, 1968) and N. K. Kim, *Feasibility of Increasing Exports of Sundry Goods to Japan from Selected Asian Developing Countries* (Research Institute of Asian Economies [Korea], 1973).

different sectors. Heavy manufacturing in chemicals, metals, and machinery had the highest growth and there was an accompanying moderately high growth in service and intermediate light manufactures, while there was only moderate growth in agriculture, textiles, and food processing.

With the slow increase in total labor (1.6 per cent per annum), changes in output structure had to be met by changing the labor structure. This was achieved not only by placing new labor in growth sectors but also by shifting existing labor from declining or stagnant sectors into those that were growing rapidly even though increasing labor productivity tended to mitigate such actions. Production in labor-intensive light manufacture had difficulty in reallocating labor, for these stagnant sectors with traditionally low wages had to raise wages faster than growing sectors to maintain their existing employment level. Such efforts were in vain. That is, they had the double handicap of increasing labor cost and trying to secure an adequate labor force.

Structural change in domestic production and employment had of course an impact on the trade structure. Between 1960 and 1970 the light manufacture share declined from 53 per cent to 21 per cent in total exports, whereas chemicals and metal and machinery together increased from 41 per cent to 76 per cent (Table I). On the other hand, a constant share of just more than half of total imports continued to be primary products, in which, however, agricultural materials were replaced by minerals. In the almost constant share held by manufactures (40-42 per cent) the decline of chemicals and metals was offset by minor increases in machinery and light manufactures. The shift in comparative advantage from light to heavy manufactures appeared mainly in export and was less evident in imports.

Heavy industrialization aggravated the unbalanced growth of regional trade. It made for rapid increases in chemical, metal, and machinery export on one hand, and induced minor increases in light manufacture imports on the other, tending to force the Asian developing countries to incur a large deficit in their trade balance with Japan. One reason for this was that they had to export light manufactures to meet the strong import demand for Japanese heavy manufactures.

TABLE I
TRADE STRUCTURE CHANGE: 1960-70

	Exports		Imports	
	1960	1970	1960	1970
Primary			57.5	59.3
Agricultural	5.8	2.1	32.3	24.0
Mineral			25.2	35.3
Manufactures	94.2	97.9	42.5	40.7
Light	52.6	21.3	10.2	11.7
Chemical & metal	16.4	28.8	22.9	16.3
Machinery	25.2	47.9	9.4	12.7

Source: United Nations, *Commodity Trade Statistics*, 1960, 1970.

The trend of manufactured imports from Asian developing countries can be analyzed in this structural context.

II. IMPORT OF LABOR-INTENSIVE-MANUFACTURED GOODS

In an overview of Japan's exports and imports of labor-intensive manufactures, Table II shows trends of import and export of thirty-two commodities for 1960–73. These were selected from a 102 sector input-output table and cover the major labor-intensive-manufactured goods. Capital stock to labor unit (1970) is less than a million yen in twenty-eight sectors and not more than 1.2 million yen in four others (9, 18, 27, and 32).² Columns (1) to (4) are the imports from the entire world, the developing countries, East Asian and ASEAN countries. Asterisks in column (2) indicate the share of developing countries in total import, and those in columns (3) and (4) show shares of East Asian and ASEAN countries in imports from developing countries.

In import performance by commodity groups, processed foods (sectors 1–3) have occupied a large share of total imports from developing countries which have comparative advantage in processing their specialities.

Import increase was most rapid in textiles (sectors 4–16). First, total imports both from developing and developed countries increased rapidly from the negligible levels of 1960. Second, the share for developing countries increased, exceeding 50 per cent in 1973 for all commodities except woollens. Third, more than three-quarters of developing countries' products came from East Asia.³ But, ASEAN countries had only moderate shares in such specialities as tropical fiber products (sectors 11, 13, and 14).

A similar trend is found in wood (sectors 17–19) and leather (sectors 20–22). An increasing level of total imports was accompanied by expanding developing countries' share which exceeded more than 50 per cent in four of them. More than three-quarters came from East Asia except for leather and fur. Imports from ASEAN countries have begun recently except in the area of wood milled.

However, imports of other commodities, ceramics (sector 23), metals and machinery (sectors 24–26), and miscellaneous (27–32), were dominated by products from industrialized countries. It should be noted, however, that shares for developing countries were increasing rapidly from almost negligible level to 15–30 per cent except for sectors 27, 29, and 32. East Asia was the largest contributor except in sectors 23 and 32. ASEAN countries contributed little to these commodity groups.

² The total output of the manufacturing area with capital stock per labor of less than a million yen was 27,827 billion yen in 1970, or 34.7 per cent of the total output of all manufacturing sectors (80,257 billion yen). The twenty-eight sectors together contributed 77 per cent of the former and the thirty-two sectors together contributed 30.4 per cent of the latter. Major sectors excluded from our sample are precision instruments, general machine parts, and others, most of which require high technology and skilled labor.

³ The remainder of raw silk import comes from China, excluded from the developing countries in Table II.

TABLE II
 JAPAN'S IMPORTS OF MANUFACTURES FROM ASIAN DEVELOPING
 COUNTRIES: SELECTED COMMODITIES

(U.S.\$ million)

	Imports from				Exports to	
	World (1)	Developing Countries (2)	East Asia (3)	ASEAN Countries (4)	World (5)	North America (6)
1. Preserved fruit and vegetable:						
1960	14.0	10.3**	4.0*	0	33.8	10.5
1965	35.6	21.9**	7.4*	0.9	45.2	17.2
1970	56.4	32.0**	14.6*	2.8	51.6	19.3
1973	129.8	53.7*	44.0***	4.9	67.5	22.2
2. Preserved seafood:						
1960	0.1	0	0	0	111.8	33.2
1965	3.6	2.6**	2.0***	0	144.6	35.4
1970	9.9	5.8**	4.9***	0.1	213.9	72.6
1973	54.2	36.8**	30.8***	4.4	260.8	83.5
3. Other prepared food:						
1960	33.3	21.7**	0.2	1.6	24.1	4.6
1965	84.4	37.0*	2.2	2.2	17.6	4.9
1970	197.8	113.8**	12.3	3.7	41.5	9.9
1973	473.0	266.7**	40.9	26.1	53.9	18.1
4. Raw silk:						
1960	0	0	0	0	50.5	24.7
1965	5.0	0.4	0.3*	0	18.1	13.1
1970	77.2	38.5*	36.7***	0	5.1	1.9
1973	318.9	85.1*	76.9***	0	4.6	0.2*
5. Cotton yarn:						
1960	0	0	0	0	52.4	0
1965	0.4	0.1*	0	0	20.4	0
1970	11.2	10.9***	4.8*	0	14.8	0.1
1973	84.8	72.1***	20.1*	0.8	19.5	0*
6. Wool yarn:						
1960	1.2	0	0	0	14.9	4.9
1965	1.0	0	0	0	38.0	7.0
1970	5.8	3.5**	3.5***	0	69.4	4.2
1973	43.8	28.3**	18.7**	4.2	35.6	0.4*
7. Silk fabric:						
1960	0.4	0	0	0	109.5	42.9
1965	20.0	1.4	0.6*	0.1	196.1	48.3
1970	56.4	32.2**	30.2***	0.2	109.9	29.2
1973	174.3	86.4*	84.3***	0.5	92.1	24.7*
8. Cotton fabric:						
1960	0.8	0	0	0	351.4	31.2
1965	2.6	0.5	0.2	0	302.6	44.5
1970	30.1	13.6*	12.0***	0.3	187.6	44.6
1973	303.7	175.8**	80.5*	23.7	195.1	32.5*
9. Synthetic fabric:						
1960	0.5	0	0	0	18.1	1.0
1965	1.7	0.6*	0.6***	0	185.6	27.0

TABLE II (Continued)

	Imports from				Exports to		
	World	Developing Countries	East Asia	ASEAN Countries	World	North America	
	(1)	(2)	(3)	(4)	(5)	(6)	
	1970	7.6	2.5*	2.5***	0	625.7	98.8
	1973	79.4	52.1**	41.6***	7.0	999.4	124.6
10. Woolens :							
	1960	8.7	0	0	0	54.5	26.4
	1965	16.5	0	0	0	86.9	62.6
	1970	41.3	0.4	0.3***	0	75.5	50.1
	1973	84.8	3.9	3.0***	0	23.5	10.4*
11. Fabric of hemp, jute, etc. :							
	1960	0.5	0.5***	0	0	0	0
	1965	0.4	0.2**	0	0	2.6	1.9
	1970	4.9	4.3***	0	0.2	2.3	1.1
	1973	16.3	14.0***	0.2	3.5*	2.5	0.7*
12. Knits :							
	1960	0.8	0	0	0	34.5	20.5
	1965	5.0	0.5	0.3**	0	93.3	42.2
	1970	63.2	36.9**	35.4***	0.5	253.1	112.1
	1973	358.1	232.6**	226.3***	2.4	389.5	141.7
13. Rope and fish net :							
	1960	0.8	0.6***	0	0	5.6	0.4
	1965	0.2	0.1**	0	0	37.2	4.1
	1970	1.1	0.8***	0.4**	0.1	26.1	5.5
	1973	6.9	6.0***	2.1*	3.3*	32.9	8.2
14. Other fiber products :							
	1960	4.7	0.4	0.2**	0	67.7	34.8
	1965	8.2	2.6	1.3**	0	65.8	38.4
	1970	26.7	5.5	2.3*	1.9*	99.2	33.6
	1973	87.6	17.9**	9.7**	4.7*	207.4	37.7*
15. Woven apparel :							
	1960	1.3	0	0	0	189.2	119.9
	1965	4.8	1.3*	1.2**	0	217.3	119.8
	1970	34.8	13.9*	12.8***	0.2	333.7	228.7
	1973	270.1	185.9**	177.5***	5.6	237.5	148.6*
16. Made textile goods :							
	1960	1.6	1.1**	0	0	51.7	17.2
	1965	4.6	0.7	0.3*	0	66.8	22.0
	1970	17.4	2.1	1.6***	0.2	85.4	30.2
	1973	105.6	58.5**	49.1***	5.2	87.2	28.9*
17. Wood milled :							
	1960	8.1	0.6	0	0.5***	24.6	9.8
	1965	39.4	6.1	5.4***	0.3	22.9	8.9
	1970	179.9	38.5	21.9**	15.1*	16.4	1.8
	1973	407.3	106.7*	67.4**	40.3*	16.9	0.3*
18. Plywood :							
	1960	0.3	0	0	0	63.8	50.4
	1965	1.1	0.6**	0	0	65.6	54.9

(US\$ million)

TABLE II (Continued)

	(US\$ million)					
	Imports from				Exports to	
	World (1)	Developing Countries (2)	East Asia (3)	ASEAN Countries (4)	World (5)	North America (6)
1970	35.2	33.6***	26.5	3.5	76.0	56.6
1973	186.0	178.2***	160.3***	15.6	75.8	54.0*
19. Furniture :						
1960	0.1	0	0	0	4.4	3.2
1965	1.3	0.3	0	0	13.8	8.0
1970	6.6	1.0	0.6**	0	29.9	16.9
1973	62.2	32.7**	27.3***	3.0	45.1	24.8
20. Leather and fur :						
1960	2.9	2.5***	0	0	1.0	0.1
1965	9.1	6.1**	0.2	0	8.5	5.1
1970	22.6	11.7**	0.7	0	26.7	7.2
1973	76.6	40.3**	5.9	2.1	78.2	9.1
21. Leather products :						
1960	0.1	0	0	0	14.0	7.5
1965	1.8	0.3	0.2**	0	27.3	16.6
1970	9.8	3.6*	1.9**	0.2	44.2	31.5
1973	41.7	19.4*	14.9***	2.2	67.0	46.5
22. Footwear :						
1960	0.1	0	0	0	72.1	56.4
1965	1.1	0.2	0.1**	0	80.6	59.4
1970	8.0	1.8	1.7***	0	133.7	98.5
1973	56.1	33.7**	33.4***	0	43.7	18.5*
23. Pottery :						
1960	0	0	0	0	67.6	40.6
1965	0.4	0.4***	0	0	86.2	52.2
1970	2.1	0.2	0	0	139.0	95.6
1973	14.3	2.4	0.5	0	205.5	142.3
24. Other metal products :						
1960	10.8	0.6	0	0	156.5	84.7
1965	18.6	0.4	0.2**	0	254.1	146.5
1970	52.2	3.1	2.4**	0	575.8	315.8
1973	156.7	24.8	22.4***	0.3	913.1	512.1
25. Household electrical appliances :						
1960	0.6	0	0	0	169.0	81.6
1965	9.1	0.6	0.3**	0	441.5	154.5
1970	34.0	4.5	4.4***	0	1,705.7	1,073.2
1973	94.2	19.3	18.8***	0.3	3,017.3	1,406.6
26. Other low-power electric appliances :						
1960	23.5	0.1	0	0	76.8	31.3
1965	38.0	0.7	0	0	221.4	84.6
1970	153.7	3.1	2.7***	0	610.9	222.9
1973	267.7	16.9	16.0***	0.2	1,292.9	489.8
27. Paper articles :						
1960	1.0	0	0	0	13.5	7.4
1965	2.9	0.2	0	0	18.5	5.4

TABLE II (Continued)

	(US\$ million)					
	Imports from				Exports to	
	World (1)	Developing Countries (2)	East Asia (3)	ASEAN Countries (4)	World (5)	North America (6)
1970	9.3	0.1	0	0	53.7	23.7
1973	15.2	1.6	1.4***	0	59.2	17.5*
28. Toys, sporting goods :						
1960	1.1	0	0	0	119.3	79.3
1965	19.3	1.0	0.6**	0	177.3	113.9
1970	98.9	6.4	6.2***	0	294.5	193.1
1973	179.4	32.8	32.2***	0	344.0	190.2*
29. Musical instrument :						
1960	1.6	0	0	0	5.9	2.7
1965	8.9	0.5	0	0	34.6	26.1
1970	23.9	0.3	0.1*	0	102.0	54.8
1973	47.0	5.0	4.4***	0.4	211.9	94.3
30. Articles of plastic :						
1960	0.9	0	0	0	0	0
1965	4.7	0.3	0.1	0	43.4	27.0
1970	9.5	1.1	1.1	0	76.6	44.0
1973	37.0	12.0*	11.6***	0.4	84.0	32.6*
31. Office supplies :						
1960	0.4	0	0	0	10.6	2.9
1965	5.7	0.2	0	0	23.6	7.7
1970	9.8	0.5	0.5***	0	36.6	11.6
1973	23.6	1.1	1.0***	0	56.0	16.6
32. Miscellaneous:						
1960	13.0	2.2	0.4	0	133.4	77.6
1965	76.3	25.6*	11.3*	0.6	169.2	75.5
1970	214.7	58.4*	23.1*	6.4	219.2	77.4
1973	957.0	247.9*	92.7*	31.7	389.8	93.1
33. Textiles—total (4–16) :						
1960	21.3 (0.5)	2.6 (12.2)	0.2 (7.7)	0	1,000.2 (25.1)	323.9
1965	70.4 (0.9)	8.4 (11.9)	4.8** (57.1)	0.1 (1.2)	1,330.7 (15.8)	430.9
1970	377.7 (2.0)	165.1* (43.7)	142.5*** (86.3)	3.6 (2.2)	1,887.8 (9.9)	640.1
1973	1,934.3 (5.0)	1,018.6** (52.7)	790.0*** (77.6)	60.9 (6.0)	2,326.8 (6.3)	558.6*
34. Total (1–32) :						
1960	133.2 (2.9)	40.6* (30.5)	4.8 (11.8)	2.1 (5.2)	2,102.4 (52.7)	907.7
1965	431.7 (5.5)	113.4* (26.3)	34.8 (30.7)	4.1 (3.6)	3,226.6 (38.4)	1,334.7
1970	1,512.0 (8.0)	484.6* (32.1)	268.1 (55.3)	35.4 (7.3)	6,335.7 (33.1)	3,066.5
1973	5,213.3 (13.6)	2,150.7* (41.3)	1,415.9 (65.8)	192.8 (9.0)	9,609.4 (26.0)	3,830.7

TABLE II (Continued)

(U.S. \$ million)

	Imports from				Exports to	
	World (1)	Developing Countries (2)	East Asia (3)	ASEAN Countries (4)	World (5)	North America (6)
35. Total commodities :						
1960	4,523.0	1,788.1 (39.5)	102.5 (5.7)	579.4 (33.4)	3,989.7	1,239.9
1965	7,915.2	3,397.6 (42.9)	228.8 (6.7)	719.6 (21.2)	8,397.1	2,603.7
1970	18,797.8	7,458.6 (39.7)	556.1 (7.5)	1,863.2 (25.0)	19,162.6	6,504.5
1973	38,313.6	16,139.7* (42.1)	2,369.0 (14.7)	4,708.8 (29.2)	36,931.4	10,555.3

Source: United Nations, *Commodity Trade Statistics*, 1960, 1965, 1970, 1973.

Note: Asterisks in column (2) indicate the share of imports from developing countries in Japan's total imports: * shows more than 25 per cent, ** more than 50 per cent, and *** more than 75 per cent.

Asterisks in columns (3) and (4) are the shares of import from East Asia (Korea, Taiwan, and Hong Kong) and ASEAN countries (Philippines, Thailand, Malaysia, Singapore, Indonesia) in Japan's imports from developing countries respectively: * shows more than 25 per cent, ** more than 50 per cent, and *** more than 75 per cent.

Asterisks in column (6) indicate the decline of Japan's export to North America (United States and Canada) in absolute values.

Figures in parentheses of columns (1) and (5) in rows 33 and 34 are percentage shares of the subtotal of textiles and thirty-two commodities in total commodity imports. These in column (2) row 33-35 designate percentage shares of imports from developing countries in imports from the world and those of columns (3) and (4) in row 33-35 show percentage share of imports from East Asia and ASEAN countries respectively in total imports from developing countries.

A summary can be made of trend analyses for imports of labor-intensive manufactures based on aggregated figures (in rows 33-35) given in Table II. There is rapidly accelerating rate of increase in these commodity imports. The share of thirty-two commodities in total imports increased from 2.9 per cent to 13.6 per cent from 1960 to 1973. The trend was most predominant in textiles (0.5 per cent→5.0 per cent) and then in wood and leather, and to a lesser degree in other commodity groups.

Second, the developing countries share increased in those imports, from a 30 per cent to 41 per cent total, from 12 per cent to 53 per cent in textiles. This trend was accelerated for the 1970-73 period. This was in sharp contrast to the stagnant approximate 40 per cent share of these countries in total commodity imports. Third, East Asia supplied two-thirds of these manufactured imports, and more than three-quarters of the textiles. ASEAN countries, on the other hand, were still minor suppliers on the whole.

Import trends in labor-intensive manufactures seems to reflect Japan's loss of comparative advantage in such commodities and this is also revealed in export performance. Columns (5) and (6) are Japan's exports worldwide and to North America. In the North American market, Japanese labor-intensive manufactures

met severe competition with developing countries' products and rapidly lost its market share. In sixteen out of thirty-two commodities—asterisks in column (6)—Japan's export worldwide and to North America had absolute declines or slight increases. The declining trend was most evident in textiles (ten out of thirteen) and wood products (two out of three) and miscellaneous (three out of six).⁴ These manufactures were previously characterized by high export-import ratios, which declining rapidly as the combined result of both decreasing numerators and increasing denominators.

III. ADJUSTMENT OF DOMESTIC PRODUCTION

How is domestic production related to increasing import and stagnant export? Even in a reasonably disaggregated industry it is often seen that domestic product is exported while its foreign substitute is imported. As far as demand for differentiated products is elastic with regard to relative price, however: (a) as the industry develops and the cost of domestic production declines relative to its foreign substitute, domestic product tends to replace foreign substitute both in domestic and foreign markets, which can be measured by the increase in both self-sufficiency rates and export specialization rate. The two rates are defined as $(X - E) / (X + M - E)$ and E/X ; X , E , and M denoting domestic production, export, and import.

On the contrary: (b) in an industry in which the home country is losing comparative advantage, both export specialization and self-sufficiency rates tend to decline. Incidentally: (c) when home and foreign markets are integrated under mutual tariff reduction, declining self-sufficiency will combine with increasing export specialization. In analyzing imports of labor-intensive manufactures from Asian developing countries, (b) will provide the analytical basis.

Looking into the two rates in Table III by commodity groups, we find that many textile commodities had both a high self-sufficiency rate (99 per cent) and export specialization rate (10–40 per cent) in 1960. In 1973, however, export specialization declined to less than 10 per cent on average and self-sufficiency declined to 95–80 per cent. The declining trend in the two rates is most evident in raw silk, cotton fabric, hemp fabric, and rope and fish net. However, it is to be noted that decline did not occur concomitantly but export specialization declined first and, with some time lag, was followed by self-sufficiency.

On the other hand, the decline occurred mostly in self-sufficiency in food, which were indigenous and low or moderate in export specialization from the beginning. In other commodity groups, rapid decline was more evident in export

⁴ The replacement of Japanese products by those from developing countries in the U.S. market is revealed most clearly in textile goods. During the five years 1969–74 the Japanese share in cotton fabric and wearing apparel declined from 29.4 per cent and 23.0 per cent to 8.2 per cent and 7.8 per cent respectively, whereas the share for developing countries expanded from 37.7 per cent and 45.3 per cent to 52.5 per cent and 62.0 per cent respectively. See U.S., Department of Commerce, *Highlights of Export and Import Trade, 1975*.

TABLE III

EXPORT SPECIALIZATION AND SELF-SUFFICIENCY RATES OF
LABOR-INTENSIVE MANUFACTURES

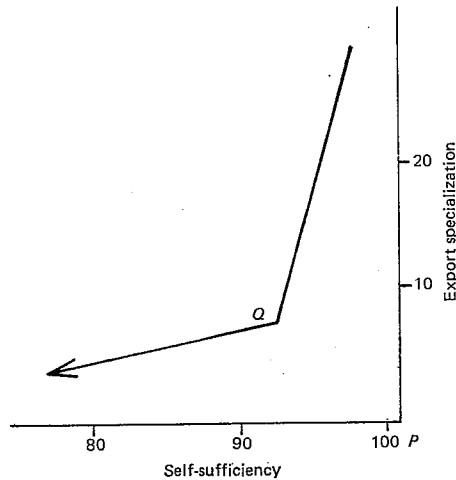
(%)

Commodities	Export-output Rate				Self-sufficiency Rate			
	1960	1965	1970	1973	1960	1965	1970	1973
1. Preserved fruit and vegetable	5.90	8.51	5.17	3.00	96.98	90.58	89.46	90.41
2. Preserved seafood	10.15	7.95	9.54	5.18	99.57	93.62	92.51	84.51
3. Other prepared food	1.70	0.33	0.99	0.78	98.78	96.78	97.48	97.06
4. Raw silk	28.85	5.65	1.29	0.67	99.88	97.41	85.15	72.72
5. Cotton yarn	7.20	3.20	2.64	1.85	98.75	99.48	97.83	92.24
6. Wool yarn	4.76	9.18	13.28	3.17	97.12	97.69	93.89	80.73
7. Silk fabric	23.20	15.33	4.83	2.33	99.87	99.48	95.33	92.79
8. Cotton fabric	37.02	29.94	22.40	12.62	99.86	99.18	96.22	81.45
9. Synthetic fabric	12.49	21.39	26.05	23.78	99.85	99.44	99.61	97.22
10. Woolens	7.99	11.24	6.38	1.31	98.28	97.39	95.47	94.81
11. Hemp, jute fabric, etc.	15.43	10.02	6.52	2.40	97.84	98.93	88.35	82.43
12. Knits	14.22	8.98	13.53	9.76	98.75	99.69	95.44	89.50
13. Rope and fish net	24.64	21.51	10.66	8.17	99.15	99.86	97.69	91.08
14. Other fiber products	4.13	3.34	3.74	4.05	99.93	98.81	98.99	98.44
15. Woven apparel	17.33	11.69	7.52	2.20	99.24	99.74	98.82	96.83
16. Made textile goods	19.16	13.63	7.98	3.69	95.51	99.23	97.07	93.53
17. Wood milled	1.93	1.07	0.42	0.22	99.38	98.01	93.04	92.16
18. Plywood	32.82	11.73	4.16	1.84	99.99	99.87	97.60	95.18
19. Furniture	1.85	0.90	0.86	0.63	99.95	99.88	99.75	99.10
20. Leather and fur	1.51	2.05	7.98	13.12	96.16	93.42	90.86	83.53
21. Leather products	15.29	15.52	12.39	12.01	99.35	98.79	96.04	90.60
22. Footwear	18.52	16.74	14.98	2.83	99.54	99.70	98.70	95.61
23. Pottery	47.73	32.84	24.51	20.76	99.88	99.56	99.33	96.94
24. Other metal products	11.49	8.02	7.44	5.87	99.14	99.09	99.69	98.69
25. Household electrical appliances	16.82	27.39	25.16	25.54	99.59	98.52	98.98	98.10
26. Other low-power electric appliances	3.28	6.11	6.27	6.75	98.89	98.18	97.43	97.70
27. Paper articles	2.35	1.38	1.68	0.93	99.79	99.65	99.45	99.59
28. Toys, sporting goods	69.93	43.14	35.03	23.10	99.09	93.24	85.80	84.65
29. Musical instrument	5.13	13.59	14.14	19.00	96.39	92.90	97.28	96.25
30. Articles of plastic	6.68	8.12	5.40	2.44	99.09	98.41	99.25	98.96
31. Office supplies	12.79	11.46	11.71	10.68	99.52	96.44	94.25	91.97
32. Miscellaneous manufactures	42.77	20.91	13.86	16.01	98.97	95.24	91.06	76.37

Sources: 1960-70: calculated from the 102 sector input-output table in I. Yamazawa, and T. Tanaka, *Trade and Employment in Japan's Economic Growth* (Council for Asian Manpower Studies, 1975). 1973: Ministry of International Trade and Industry, *Kōgyō-tōkeihyō* [Census of manufactures], 1970, 1973 (both preliminary), and United Nations, *Commodity Trade Statistics, 1973*.

Notes: Export specialization and self-sufficiency rates are calculated according to the formula, E/X and $(X-E)/(X+M-E)$ respectively, where X is domestic output, E is export, and M is import, respectively. The 1973 figures for domestic output were estimated from a preliminary report based on establishments with thirty employees or more. It is assumed that the proportion of true to preliminary figures remained unchanged between 1970 and 1973.

Fig. 1.



specialization than in self-sufficiency, as typically observed in footwear, plywood, pottery, toys, whereas declining self-sufficiency was evident only in a few cases such as plastics and leather goods. Export specialization still increases in electric appliances, synthetic fabric, and musical instruments.

In sum, a kinked path of export specialization and self-sufficiency has been depicted. High specialization started declining first to certain levels, and then self-sufficiency began to decrease as illustrated in Figure 1. The position of the kink Q differs between industries. Q will coincide with P in a purely homogeneous industry but diverge from P in an industry with strong product differentiation. This kinked path can explain the often mentioned phenomenon of Japan's high self-sufficiency in manufactures. This has frequently been attributed to either trade barriers or cultural differences but it can in part be due to the time lag element.

Since export specialization has declined to as low as 5 per cent for many labor-intensive manufactures, the self-sufficiency rate has also started to decline and will continue to do so in the future, as observed in the textile industry.

Turning to changes in employment underlying production adjustment, I have suggested elsewhere that under the pressure of the acute labor shortage of the 1960s, domestic production of labor-intensive manufactures was further handicapped by rising labor cost.⁵

Extending the discussion to changes for 1970-73, Table IV is a comparison of changes in labor productivity, wage, and employment of seven industry groups with the average for all manufacturing. Since the only figures available are those for overall industrial category from the 1973 census of manufactures (preliminary), Table IV is not totally compatible with Tables II and III. But it does give us a rough picture of recent changes in employment corresponding

⁵ See I. Yamazawa, and T. Tanaka, *Trade and Employment in Japan's Economic Growth* (Council for Asian Manpower Studies, 1975), Chapter 3.

TABLE IV
EMPLOYMENT SITUATION IN LABOR-INTENSIVE INDUSTRIES

		Food (1)	Tex- tiles (2)	Wood Prod- ucts (3)	Miscel- laneous Prod- ucts (4)	Ceram- ics (5)	Metal Prod- ucts (6)	Elec- tric Ma- chinery (7)	Total Manu- factur- ing (8)
(a) Output per labor	1970	6,274	3,186	3,851	4,141	4,316	4,415	5,466	5,911
(1,000 yen at	1973	8,055	3,767	4,098	5,213	5,804	5,996	7,769	7,539
1970 prices)	1973/1970	1.283	1.182	1.064	1.259	1.345	1.358	1.421	1.275
(b) Value-added per	1970	1,719	1,127	1,319	1,593	2,044	1,889	2,181	2,104
labor (1,000 yen at	1973	2,477	1,499	1,507	2,124	3,019	2,631	3,034	2,895
1970 prices)	1973/1970	1.441	1.330	1.142	1.333	1.477	1.392	1.391	1.376
(c) Yearly earning per	1970	523	477	543	591	714	738	736	734
labor (1,000 yen at	1973	688	626	720	770	914	919	965	939
1970 prices)	1973/1970	1.315	1.312	1.326	1.303	1.280	1.245	1.326	1.279
(d) Total labor	1973/1970	1.015	0.991	0.995	1.059	1.023	1.071	1.060	1.026

Source: Ministry of International Trade and Industry, *Kōgyō tōkeihyō* [Census of manufactures], 1970, 1973 (preliminary).

Note: Labor includes individual proprietors and their family workers.

to the production adjustment mentioned. This was most evident in textile and wood products. In 1970, both labor productivity and wages were below the average for these sector groups. For both in 1970-73, however, labor productivity increased less than the average, whereas wages increased more than the average. In spite of a higher effective wage, employment decreased in absolute figures in the two industries.

Miscellaneous products suffered from a greater-than-average wage increase and a less-than-average productivity increase, but absorbed employment more than the average. Since food includes other indigenous sectors beside the three in Tables II and III, the difficulty was less pronounced here, but the same more-than-average wage increase and relative decrease of labor employment was experienced as with other labor-intensive sectors.

On the contrary, with such commodities as ceramics (including capital-intensive sectors such as cement and glass), metal products, and electrical machinery, productivity increased more than the average and more than wage increase, and consequently difficulty in securing labor supply was not serious in these sectors. Export specialization was still increasing and competition with imports was not very intense yet.⁶

⁶ It should be remembered that adjustment assistance was given to such industries as coal mining and textiles. Evaluation of how this measure assisted adjustment is still to be done. For a concise review of Japanese experience in adjustment assistance policies in Japan, see S. Sekiguchi, *Industrial Adjustment Policies in Japan, A Short Review*, JERC Discussion Paper No. 5 (Tokyo: Japan Economic Research Center, 1975).

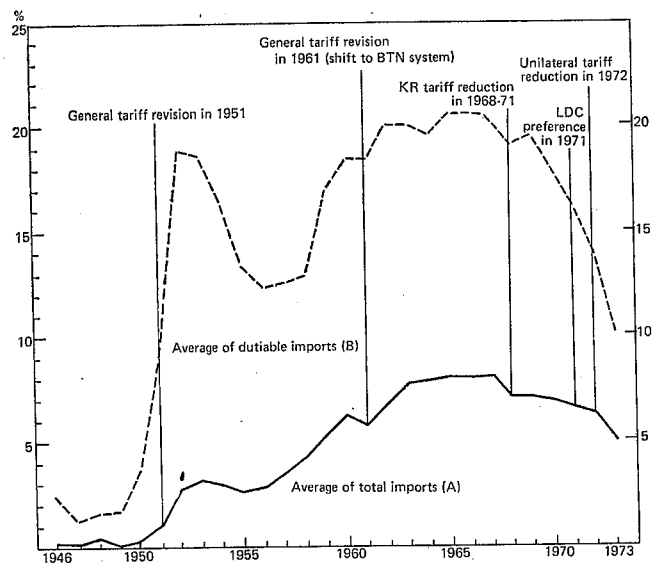
IV. IMPACT OF TRADE POLICY

Difficulty in obtaining an adequate supplying of labor was certainly a main factor in bringing on stagnation in exports and increases in imports. Besides domestic adjustment, however, changes in external policies should be mentioned in their effect on export and import trends in labor-intensive light manufacture.

First the policy which was part of the background of a changing trade structure must be examined. Beginning with a review of Japan's post-World War II trade policy during the first few years immediately after the war, foreign trade was administered by the Occupation Forces. Tariffs were in effect not collected partly because ad valorem equivalents of most specific duties decreased to nothing in the rapid inflation, and partly because the 100 per cent duty on luxury items was not enforced on foreigners' imports of consumer commodities. The general tariff revision in 1951, designed to reestablish an effective system, changed all specific to ad valorem duties, and this pushed the average rate of tariffs upward as shown in Figure 2 in spite of the abolition of 100 per cent luxury duties.

Two factors caused the average tariff rate to climb steadily upward during the following decade. One was the gradual reduction of tariff exemption for machinery, the other was the increase in tariffs on sugar imports (from 15 per cent in 1951 to 37 per cent ad valorem equivalent in 1956 and to more than 100 per cent in 1959. Sugar imports were only 3 per cent of the total share of import values but nearly 40 per cent in total revenues).

Fig. 2. Average Tariffs: 1946-73



Source: Ministry of Finance, *Zaisei kinyū tōkei geppō* [Monthly report of financial statistics], Nos. 178, 228, 269.

Note: (A): collected tariff revenue divided by total import value.
(B): collected tariff revenue divided by dutiable import value.

Tariffs, however, played only a supplementary role in restricting imports for those years. A strict import quota was enforced on almost all commodities in order to assure import of necessities, basic industrial materials and equipment, under the severe constraint of scanty foreign reserves. At the same time, this gave a great protective effect to such infant industries as motor cars and electronic computers.

Japan's 1955 membership in GATT and her prospect of becoming an IMF 8th Article country in the near future (realized in 1964) forced the government to move to abolish import restrictions. The government published a "Schedule of Liberalizing Trade and Exchange Control" to this effect in June 1960. The actual course of trade liberalization, not so much tariff reduction as abolition

TABLE V
TRADE LIBERALIZATION PROCESS (1960-73)

Year	Rate of Trade Liberalization (%)	Number of BTN Four-Digit Items under Quota Restriction	Major Commodities Freed from Quota Restriction
1960	44		Coffee beans, movie film
1961	70		Raw cotton, radio receivers, instant coffee, watches
1962	88		Hosiery, sheet glass, fountain pen, crude petroleum
1963	92	155	Bananas, crude sugar
1964	93	123	Lead and zinc, kao-liang for feeding-stuff, electric power machinery
1965	93	122	Passenger cars
1966	93	124	Cocoa powder, streptomycin
1968	93	121	Perfume and cream
1969	93	118(52)	Brandy and liqueurs
1970	94	90(35)	Wine, margarine, working machinery, electric power machinery (over 400 th kw), chassis with engine mounted, woolen fabrics
1971	95	40(12)	Pork, candy, black tea
1972	95	33 (9)	Ham and bacon, refined sugar, heavy and light petroleum
1973		31*(8)	Digital-type electronic computers

Source: Nihon-kanzei-kyōkai, *Bōeki nenkan* [Japan trade annual], 1974.

Note: Figures in parentheses indicate the number of mining and manufacturing products subject to import quota.

* Major commodity items under quota restriction at present are as follows: beef, milk & cream (fresh and condensed), cheese, fresh oranges, pine-apples, fruit juices, fruit paste, starch, groundnuts, rice and wheat flour, some fishery products (fresh, refrigerated, salted, and dried), coal, leather, and integrated circuits.

of quantitative restriction, is shown in Table V. The rate of trade liberalization, measured by commodity imports free from quantitative restrictions in terms of import composition for 1959, increased rapidly from 41 per cent in 1960 to 88 per cent in 1962. The rate was 95 per cent in May 1973, with thirty-three items (mainly agricultural products) on the restricted list.

As quota restrictions on imports were mitigated, tariff barriers to imports emerged on the surface. The general tariff revision of 1961 was designed to reestablish an effective tariff barrier that was being confronted with the gradual abolishment of quota restrictions, in addition to the shift in tariff schedule to the Brussels Tariff Nomenclature. This resulted in an increase of tariffs on such commodity groups as dairy products, chemical products, and machinery. Figure 2 indicates that both the share of dutiable imports and of average tariff increased for those years. It was during this period that exports and the economy grew rapidly while imports tended to fall behind exports under tariff protection.

The agreements in the Kennedy Round Tariff Negotiation in May 1967 changed Japan's tariff policy turn toward lower tariffs. The KR tariff reduction began to take effect in April 1968 and was completed in 1971 ahead of schedule. Tariffs on 776 mining and manufacturing products were abolished preferentially for the LDC in August 1971. In April and November 1972 the government put into effect two more large-scale tariff reductions. It must, however, be borne in mind that the movement toward lower tariffs has also been prompted by a rapid accumulation of foreign reserves and mounting pressure abroad for Japan to increase imports. The November 1972 reduction was chiefly motivated by the government's desire to alleviate pressure for yen revaluation. Tariffs on 1,865 items were unilaterally reduced by 20 per cent across-the-board. The tariff cut covers 92 per cent of the mining and manufacturing products (2,027 items), excluding duty-free (30 items) and agricultural products (295 items), and is nearly equal to the KR reduction in coverage.

Average tariffs rates have gone down since 1968 and are as low as the average tariff burden rates for other advanced countries. The December 1972 Tariff Board Report on long-range tariff policy principles recommended a shift in tariff principle from industrial protection to import encouragement in order to raise living standards, mitigate inflationary pressure, and assist economic development in the LDCs. It proposes at the same time to establish a system of emergency and seasonal tariffs to prepare for possible market disruption in the absence of quota restriction and high tariff barriers.

Tariff and nontariff barriers are often mentioned as a preventive measure against imports of labor-intensive manufactures from Asian developing countries. We have seen so far that quota restrictions have been eliminated for most manufactures except processed foods and leather. Next we have to look into the tariff structure to see whether it is a possible remaining barrier to import expansion in spite of the decreasing average tariff since the mid-1960s.

One problem is that of tariff escalation. Escalation of tariff rates according to the stage of processing has a long history in major industrial countries but it was much more rapid in Japan than in other countries until the late 1960s.

TABLE VI
TARIFF ESCALATION IN JAPAN AND OTHER ADVANCED COUNTRIES

	Japan		U.S. 1970	EC 1970	U.K. 1970
	1970	1972 ^a			
Raw materials	3.4	4.2	2.5	0.4	0.2
Semi-manufactures	6.3	5.1	5.6	4.8	6.9
Manufactures	12.7	8.6	8.8	8.2	8.6

Source: Nihon-kanzei-kyōkai, *Bōeki nenkan* [Trade annual] (Tokyo: Nihon-kanzei-kyōkai, 1973).

Note: Averages of tariffs on mining and manufacturing products (weighted by import values of individual countries).

^a After 20 per cent tariff cut in November 1972.

Rapid tariff reduction during recent years, however, has lowered the tariffs on semi- and finished-manufactures with raw materials left free from duty. Escalation has been adjusted by 1972 so that it did not climb at the rate that it does in the United States and the EC (see Table VI). The rise in raw material tariff in 1972 that is shown in Table VI reflects the upward adjustment of petroleum tariffs for revenue purposes (tariff revenue from petroleum imports has been earmarked for the coal industry adjustment assistance fund since 1960) and the figure goes as low as 0.3 per cent, if petroleum is excluded. Tariffs on agricultural products are still high and have more rapid rate of escalation. They are 16.0–16.5–24.0 per cent if sugar and bananas are included and 4.9–10.5–24.8 per cent they are excluded.

Looking into tariffs on the thirty-two commodities in Tables II and III in regard to the overall trend of trade liberalization, we find that Table VII shows four types of tariffs, "general," "GATT," "temporary," and "preferential." "General" indicates the rate specified by the Customs Tariff Law, "GATT" the rate given under GATT, "temporary" the rate modified in accordance with

TABLE VII
TARIFFS OF SELECTED COMMODITIES: 1974

Commodity	(%)				
	General (1)	GATT (2)	Tempo- rary (3)	Prefer- ential (4)	Additional Measures (5)
1. Preserved fruits and vegetable (in airtight containers)	25	12	12	12	
2. Preserved seafood (fish in airtight containers)	20	12	12	8	
3. Other food preparations:					
Flour, starch, etc.	25	16	16	—	
Pastry, biscuits, etc.	40	—	—	20	
Instant coffee	35	20	—	—	
Tomato ketchup	25	25	—	—	IQ

TABLE VII (Continued)

Commodity	General (1)	GATT (2)	Tempo- rary (3)	Prefer- ential (4)	Additional Measures (5)	(%)
4. Raw silk	15	7.5	—	—	IQ (1975)	
5. Cotton yarn	5	2.8	2.8	1.4	b	
6. Woolen yarn	10	4	—	0	a	
7. Silk fabric	20	8	—	—		
8. Cotton fabric	10	5.6	5.6	2.8	b	
9. Synthetic fabric (containing more than 50 per cent by weight of synthetic fiber)	25	10	—	0	a,b	
10. Woolens	20	8	8	4	a,b	
11. Fabric of ramie, jute, etc.:						
Fabric of ramie and hemp	35	24	—	0	a	
Fabric of jute	25	16	—	8	b	
12. Knits:						
Stockings and under garments	20	11.2	11.2	5.6	b	
Outer garments	25	14	14	7	b	
13. Rope and fish net:						
Rope (of jute and Manila hemp)	20	8	8	0	a	
Fish net (of jute and Manila hemp)	15	6	6	3	a,b	
14. Other fiber products:						
Carpets	30	12	16.8	6	a,b	
15. Wearing apparel:						
Men's outer garments	25	14	14	7	a	
Men's shirts	20	11.2	11.2	5.6	a	
Handkerchiefs (of cotton)	20	8	—	4	a,b	
16. Made textile goods:						
Linen and curtains	20	11.2	11.2	5.6	a	
Blanket (of wool)	20	8	8	4	a,b	
17. Wood sawn (of thickness exceeding 5 mm):						
Of luan	10	—	—	5	a,b	
Of pine, fir	10	—	—	0	a,b	
18. Plywood:						
Veneer sheets	15	15	—	7.5	a,b	
Plywood	20	20	—	—		
19. Furniture:						
Rattan	30	12	12	0		
Wood	20	8	8	0		
20. Leather and fur:						
Bovine cattle leather (dyed)	20	20	—	10	IQ	
Bovine cattle leather (other)	15	—	—	7.5	IQ	
21. Leather products:						
Luggage, etc.	25	12.5	12.5	6.25	ex HK	
Gloves	25	10	10	—		
22. Footwear:						
With outer soles and uppers of Rubber and artificial plastic material	20	10	—	—		
With outer soles and uppers of leather and composition leather	30	27	27	13.5	ex HK	
23. Pottery:						
Table ware	15	6	6	0	a,b	

TABLE VII (Continued)

(%)

Commodity	General (1)	GATT (2)	Tempo- rary (3)	Prefer- ential (4)	Additional Measures (5)
24. Other metal products :					
Shovels, spades, etc.	15	6	—	0	a,b
Knives	20	7.2	7.2	0	a,b
Spoons and forks	20	8	8	0	a,b
25. Household electrical appliances :					
Vacuum cleaner	15	6	4	0	a,b
Radio broadcast receivers	7.5	14	4	0	a,b
Television receivers	7.5	10	4	0	a,b
26. Other low-power electric appliances :					
Integrated circuits	15	12	6	0	b
Electric accumulators	20	8	—	0	a,b
27. Paper articles :					
Registers, notebook, etc.	15	6	6	0	a,b
28. Toys :					
Toys	20	8	8	4	ex HK
Sport goods	20	8	8	0	b
29. Musical instruments :					
Violin, guitar, etc.	20	6	6	0	a,b
30. Plastic articles	20	10	10	0	a,b
31. Office supplies :					
Fountain pens, ball point pens, etc.	25	16	16	0	a,b
Pencils	20	8	8	0	a,b
32. Other miscellaneous manufactures :					
Buttons	20	10	10	0	a,b
Lighters	20	8	8	0	a,b
Slide fastener	15	6	—	0	a,b
33. Passenger cars (wheel base not more than 270 cm)	10	24	6.4	0	a,b
34. Sheet and plate steel	15	6	—	0	a,b
35. Watches	40	16	6	0	a,b
36. Cameras (35 mm)	30	12	6	0	a,b
37. Medicines (preparations with a vitamins bases)	20	6	—	0	a,b

Source: Nihon-kanzei-kyōkai, *Jikkō kanzeiritsu-hyō* [Customs tariff schedule of Japan] (Tokyo: Nihon-kanzei-kyōkai, 1974).

Note: Explanation of "general," "GATT," "temporary," and "preferential" tariffs is given in the text.

The 20 per cent across-the-board cut in November 1972 shall be applied temporarily to general tariffs but figures in column (1) exclude this in order to show the basic structure of general tariffs.

Dash indicates either that GATT or temporary rate is not specified or that the commodity concerned is excluded from the preference scheme.

Symbols in column (5) indicate additional policy measures as follows: IQ: subject to import quota; a: total ceiling is temporarily suspended; b: a half ceiling to one exporting country is temporarily suspended; ex HK: preferential rate shall not be applied to imports from Hong Kong.

Commodities 33-37 are listed for comparison.

Article 8 of the Customs Temporary Measure Law, and "preferential" indicates the rate applied to imports from developing countries under the general preference scheme. The first three rates shall be applied in the order of GATT, temporary, and general rate. If, however, a GATT rate is equal to or higher than the other rates, the rate applicable shall be the temporary rate, or if no temporary rate is specified, the general rate.

The general rate has been partially revised every year but the basic pattern has remained unchanged since the early 1960s and the KR and across-the-board tariff reductions have resulted in lower GATT and temporary rates. The difference between the general rate and these two partly reflects tariff reduction in recent years.

For each commodity there is listed tariffs on one or more representative items in the respect of competing domestic production and/or imports from Asian countries. High tariffs of 30–50 per cent on luxury goods and precious metals and gems are excluded from the table. Although an arbitrary factor remains, this will give more reliable information on tariff structure than average tariffs either simple or weighted by import values.

General rates as high as 20–40 per cent are imposed on many commodities (twenty-four out of thirty-two) but they are reduced to two-thirds or a half for GATT and temporary rates, which seldom exceed 15 per cent. It should be noted, however, that GATT and temporary rates on food, textile, wood, and leather products are higher than the rest of the commodities including those listed for comparison in Table VII. The 10–25 per cent duties are imposed on finished manufactures in the former commodity group, whereas the latter group has duties imposed on it of 4–8 per cent below the average rate of Table VI.

Although protection for labor-intensive manufactures still exists in Japan's tariff structure, tariff barriers were reduced preferentially for imports from developing countries under the General Preference Scheme put into practice in August 1971. Imports of mining and manufacturing products from recipient countries were in principle exempted from duty up to a predetermined ceiling, beyond which they were subject to the same duties as those from nonrecipient countries.

The ceiling was basically determined for each commodity at the total value of import from recipient countries in 1968, and was increased every year by one-tenth of imports of the commodity concerned from nonrecipient countries two years before. Furthermore, imports from one recipient country were limited to within half the ceiling.

Columns (4) and (5) in Table VII show the application of the preference scheme to the thirty-two commodities in Tables II and III. Many items in textile, wood, and leather product groups were given only 50 per cent preference "in fear of serious damage to competing domestic producers." Silk, plywood, and footwear were excluded from the preference scheme and Hong Kong was excluded from the list of recipient countries for toys, wigs, and a few other commodities for the same reason.

Agricultural and marine products (BTN 1-24) were in principle excluded from this scheme, but 20-100 per cent preference were conceded to seventy-six (BTN four-digit) selected items.

The preference scheme has provided additional reduction of tariff barriers to imports of labor-intensive manufactures from developing countries, now subject to duties of 0-7.5 per cent in general. Average preference margin is estimated to be 6.9 per cent for 1973, which is to be compared with 10.2 per cent of average tariff of dutiable imports for the same year.⁷ However, the comparison of columns (4) and (5) in Table VII and the performance in trade and production shown in Tables II and III suggests that commodities of large import performance tend to be either have a 50 per cent preference or are excluded from the scheme. Under the preference scheme tariff barriers on imports of these commodities from developing countries are reduced to as low as those for imports of heavy manufactures from other industrial countries.

Restrictive effect of the ceiling is shown in Table VIII. Import under preference increased rapidly but its ratio to total imports from developing countries, the gross application ratio, remains small, but this, however, should be interpreted carefully. This ratio is broken down into two terms that are affected by different factors.

TABLE VIII
EFFECT OF GENERAL PREFERENCE SCHEME
(Billion yen and %)

Imports from Developing Countries		July 1971- Mar. 1972	Apr. 1972- Mar. 1973	Apr. 1973- Mar. 1974	Apr. 1974- Mar. 1975	
(1)	Import under preference	a	44.5	110.4	264.9	380.0
	Agricultural and marine products	b	—	17.2	48.8	72.0
	Mining and manufacturing products	c	—	93.2	216.1	308.0
(2)	Imports of preference item	d	147.2	336.8	748.6	729.3
	Agricultural and marine products	e	—	19.0	54.2	78.0
	Mining and manufacturing products	f	—	317.8	694.4	651.3
(3)	Total imports	g	2,846.0	3,176.9	5,613.2	9,658.1
(4)	Gross application ratio	a/g	1.6	3.5	4.7	3.9
(5)	Net application ratio	a/d	30.2	32.8	35.4	52.1
	Agricultural and marine products	b/e	—	90.5	90.0	92.3
	Mining and manufacturing products	c/f	—	29.3	31.1	47.3
(6)	Preference ratio	d/g	5.2	10.6	13.3	7.6

Source: Masahiro Okashita, *Tokkei kanzei no jitsumu* [Practice of tariff preference] (Tokyo: Nihon-kanzei-kyōkai, 1975).

⁷ See, Nihon-kanzei-kyōkai, *Bōeki nenkan* [Trade annual] (Tokyo: Nihon-kanzei-kyōkai, 1974).

$$\left(\frac{\text{Imports under preference}}{\text{Total imports}} \right) = \left(\frac{\text{Imports under preference}}{\text{Imports of preference items}} \right) \cdot \left(\frac{\text{Imports of preference items}}{\text{Total imports}} \right)$$

The first term on the right hand side, the proportion in which preferential tariffs are applied to imports of preference items, the net application ratio, is affected by additional measures as the total and the half ceiling and local content qualification.⁸ The second term, the preference ratio, tends to increase by the elimination of the negative list in mining and manufacturing products and the expansion of the positive list in agricultural and marine products. Net application ratio has raised steadily as the ceiling is partially suspended and as traders get used to the scheme, but still remains as low as 52 per cent.

Small values of the gross application ratio are partly explained by the small preference ratio, which should be carefully considered. Nonpreference items include duty-free raw materials as well as many agricultural and marine products. If the import of duty-free items (48.5 per cent of total imports in 1973) are excluded from the calculation, both preference and gross application ratio will double. The similar calculation for mining and manufacturing products shows still lower net application ratio and preference ratio of 18 per cent. If, however, mineral fuels and materials which are either excluded from the scheme or imported duty-free are excluded from the denominator the preference ratio is estimated to rise to over three-quarters.⁹ In stimulating manufactured imports from the developing countries, greater benefits can be anticipated from the abolition of a remaining ceiling rather than from any effort to increase the preference ratio.

All three trade liberalization measures (i.e., abolition of import quota, tariff reduction, and general preference scheme) have helped to reduce tariff and nontariff barriers and to increase the import of manufactures from Asian countries. However, tariff barriers on labor-intensive manufactures still have to be eliminated to further stimulate these imports.

V. REVALUATION OF YEN AND OVERSEAS INVESTMENT

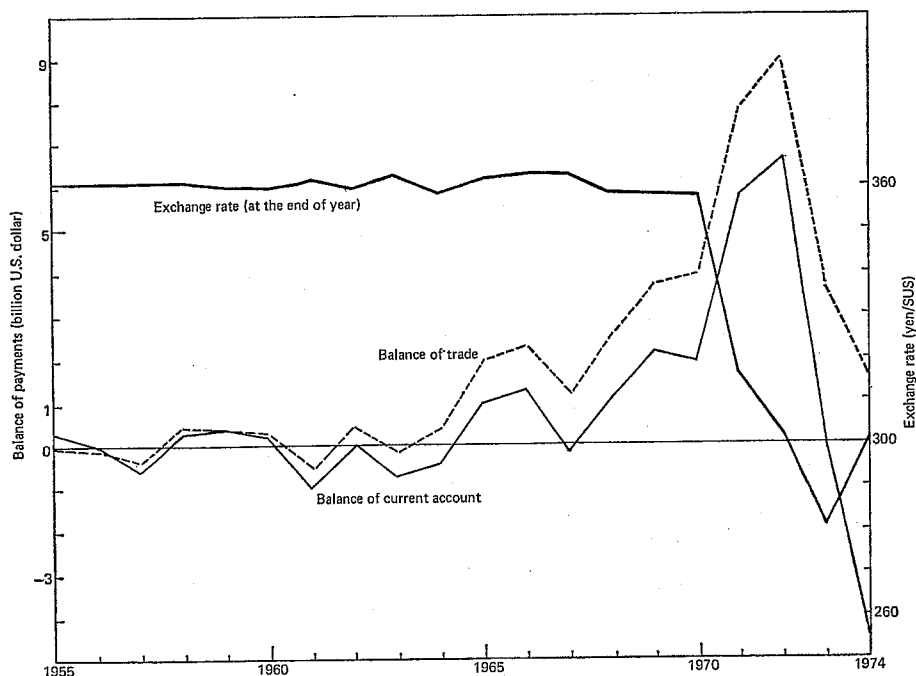
The impact of two other changes in external policies should be examined in regard to the performance of Japanese firms in trade and domestic production. One is the revaluation of the yen beginning in August 1971 and the other is the boom in overseas investment which has taken place since the early 1970s.

The yen was revalued under a floating exchange system for the remainder of 1971, and was pegged at 308 yen per dollar in the Smithsonian Agreement of December. It was further revalued in a floating exchange that began in March 1973 and rose to as high as 260 yen to the dollar in July 1973. The yen was revalued by 36 per cent in a two year time span.

⁸ In case preferential tariff is applied to a product made from imported material, a certain percentage (60 per cent for machinery) of its final value needs to be added in developing countries. Japanese material, however, is exempted from this local content requirement.

⁹ Percentage share of total imports from developing countries for manufacture was 16.2 per cent and for mining products 53.4 per cent in 1973.

Fig. 3. Exchange Rate and Balance of Payments: 1955-74



Source: IMF, *International Financial Statistics*, 1958, 1967, 1974.

In Figure 3, movements in the exchange rate are compared with those in the balance of payments over the past twenty years. There has been a persistent surplus in trade balance and current account balance since the mid-1960s that continued until 1972. On the other hand, the exchange rate was kept at around 360 yen per U.S. dollar until 1971 when the rapid revaluation began. In retrospect it seems that the 360 yen to the dollar rate undervalued the yen in the late 1960s. Rapid adjustments in the exchange rate were a sudden shock to labor-intensive manufacturing sectors which had been protected by an undervalued yen which deprived them of international competitiveness.

A second policy change was made in close connection with the first. After the latter part of the 1960s the Japanese government began to liberalize direct investment abroad in order to offset the accumulating surplus in balance of trade by deficits in long-term capital account. This was also done to soothe the pressure abroad for yen revaluation.

Direct investment abroad by Japanese firms required the approval of the Ministry of Finance according to the stipulation of the Foreign Exchange Act. In October 1969, any direct investment of less than 0.2 million U.S. dollars was subject to automatic approval by the Bank of Japan. In September 1970 in the second round of liberalization the maximum limit on automatic approval was raised to a million dollars. At the third round of liberalization in July 1971, the maximum limit was abolished. At the fourth round in June 1972, all foreign investment by Japanese firms was, in general, free from regulation. In addition

to liberalization, promotional measures through taxing and finance were introduced and refurbished. These included exemption from corporate income tax of 50 per cent of the amount of investment abroad, loan of foreign exchange up to 90 per cent of the amount of investment abroad, and no-interest loans for foreign investment by small and medium firms.

This produced a great deal of direct investment abroad by Japanese firms from the early 1970s on. The amount of overseas investment approved increased from the low level of 0.1–0.2 billion dollars a year in the mid-1960s, to 0.9 billion dollars in 1970–71, and 2.3–3.5 billion dollars in 1972–74. This trend was responsible for a huge deficit in capital account (\$9.8 billion) in 1973 despite the current account deficits after the oil price hike.

Directly encouraged by these policy changes, direct investment abroad by Japanese firms was also motivated by adjustments in domestic production which was being confronted by employment difficulties, and after 1971 this was further accelerated by exchange revaluation and by the general preference scheme.¹⁰

TABLE IX
IMPORTANCE OF EXPORTS TO HOME MARKET IN JAPANESE
BUSINESS ACTIVITIES ABROAD

	Export to Japan/Total Sales of Affiliated Firms in		Share of Home-Market- Oriented Investment (c)
	(a) World Total (%)	(b) Asia (%)	
Food	29.5	34.0	8/40
Textile	13.2	16.0	27/80*
Clothing	46.4	59.6	23/34†
Wood	56.5	40.9	8/13†
Furniture	50.0	90.0	3/5†
Pulp and paper	30.5	20.0	5/17
Chemicals	8.9	7.9	5/76
Rubber	29.0	32.6	12/20†
Leather	37.5	42.8	4/7*
Ceramics	24.7	30.3	7/31
Iron and steel	5.7	8.2	4/32
Nonferrous metal	28.3	22.6	8/23*
Metal products	22.6	25.6	9/27*
General machinery	10.3	14.7	20/81
Electrical machinery	22.3	30.1	41/116*
Transport equipment	8.8	13.5	7/45
Precision instruments	21.1	25.8	12/33
Others	14.5	22.9	20/57*
Manufacturing, total	19.0	23.7	230/757*

Source: Ministry of International Trade and Industry, *Wagakuni kigyō no kaigai jigyō katsudō, 1975, 1976* [Business activities abroad of Japanese enterprises for 1975, 1976].

Note: (c) is the number of firms which indicated "export to Japan" as one of two major forms of yield from investment abroad. The denominator is the number of responses by parent firms in Japan. Daggers and asterisks show that "export to Japan" was the most or second most important form of yield.

¹⁰ It cannot be denied that the exemption of Japanese material from local content requirement has promoted direct investment in simple processing of Japanese material and re-exporting it to Japan.

TABLE X
EMPLOYEES ABROAD OF JAPANESE ENTERPRISES (%)

	(a)			(b)
	Rate of Employees Abroad			Share of Employment-Oriented Investment
	1971	1972	1973	1973
Textiles	16.32	23.86	25.0	76.3†
Paper and pulp	5.5	6.6	6.1	—
Chemicals	1.8	2.6	3.2	2.6
Iron and nonferrous metal	3.4	3.6	4.3	23.6†
Electrical machinery	6.6	9.5	12.5	18.5†
General machinery	1.9	2.3	5.7	50.4*
Transport equipment	3.0	3.0	2.9	22.0*
Precision instrument	1.8	1.9	4.6	44.0†
Manufacturing, total	6.2	8.2	9.3	31.3†

Source: Ministry of International Trade and Industry, *Wagakuni kigyō no kaigai jigyō katsudō, 1975, 1976* [Business activities abroad of Japanese enterprises for 1975, 1976].

- Notes: 1. (a) is $\frac{(\text{employees of local corporations}) \times (\text{Japanese parents' share in capital})}{(\text{employees of Japanese corporate enterprises})}$.
2. (b) is the percentage shares of the number of parent firms which listed "labor supply difficulty at home" as one of two major reasons for overseas investment. Daggers and asterisks indicate 20-50 per cent and 10-20 per cent of parent firms listed "labor supply" as the most important motivation for investment abroad.

Table IX shows the importance of exports to the home market as a part of Japanese business activities abroad. Columns (a) and (b) are shares of export to Japan in total sales by Japanese-affiliated firms abroad as a whole and by those in Asia in 1973. It was nearly 25 per cent on the average for total manufacturing investment in Asia, around 50 per cent for clothing, wood products, and furniture, and more than a quarter for other labor-intensive industries. Column (c) shows the number of parent firms which listed as their major or secondary source of yield from business activities abroad exports to Japan of finished or semifinished products by affiliated firms abroad. The denominator is the number of responding parent firms in Japan. Asterisks and daggers are attached to figures for those industries in which exports to the home market, among various forms of yield, received the largest (†) and second largest (*) votes. In industries with asterisks and daggers, "dividends and royalties paid by affiliated firms abroad" got the largest votes. These figures show that exports to the home market became a major form of activity by Japanese affiliated firms abroad especially in labor-intensive light manufactures.

The ratio of employees abroad in Table X gives some idea of the replacement of Japanese labor by overseas workers through direct investment. It is higher in textiles and electric machinery about a quarter in the former. It is

still small but increasing in such industries as general machinery and precision instruments and chemicals. The importance of difficulty in securing labor supply at home in the motivation for overseas investment by these industries is also evident in column (b). The replacement by employment abroad is a form of autonomous adjustment by Japanese firms in face of labor supply difficulty at home.

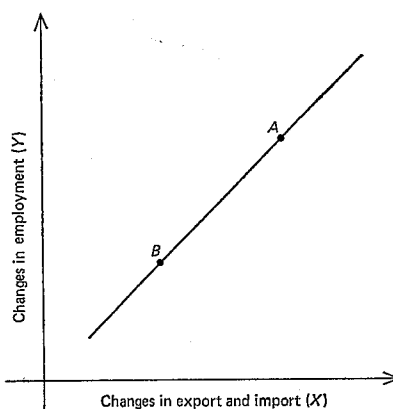
VI. FUTURE PROSPECTS

The problem of the import of labor-intensive manufactures has an internal and external aspect. The internal aspect focuses on the contraction effect that these industries have on the domestic economy, especially labor employment. If large, rapid adjustment are required, this will cause social and economic friction. The external aspect, on the other hand, is reflected in the changes in export and import. With small, slow change, growth is retarded in the Asian developing countries. At present this is typically shown in the increasing protectionism against import for these manufactures internally and in the Japan's surplus trade balance with these countries.

The problem can be expressed in terms of relationship between the rate of change in employment and that in export and import of the industry concerned, the latter being represented as $(\Delta M - \Delta E)/(M + E)$, the numerator ($\Delta M > 0$, $\Delta E < 0$) expressing the decrease in domestic production attributed to external sources. A positive association is assumed between the two, as illustrated in Figure 4.

For 1960-73 rapid economic growth required rapid structural changes in domestic production and employment, increasing y , which, in turn, accelerated changes in comparative advantage and raised x to A in the diagram. In the present recession and the outlook calling for slower growth rate, strong pressure to push y upward is absent. On the contrary, stagnant aggregate demand and

Fig. 4.



production adjustment of the labor-saving type tends not only to mitigate the labor shortage but also to produce employment difficulties. With a small trade balance surplus, the government is not as enthusiastic to increase imports as it was in 1970-73. On the whole there is a trend toward equilibrium closer to the origin as depicted by *B* in the diagram. This will by necessity, retard export growth in the developing Asian economies.¹¹

This is, however, not the best solution to the problem. The positive aspect of a higher x and y should be reappraised. The replacement of costly domestic production by imports from developing countries tends to improve economic efficiency for Japan and her trade partners. Abolition of remaining trade barriers with a well-designed adjustment assistance policy is needed to push x and y up to higher levels.

¹¹ A quantitative assessment of the new equilibrium will be helpful for the discussion, but this will have to wait for the future.