

POLITICAL MANAGEMENT OF FOREIGN TRADE AND BALANCE OF PAYMENTS IN POSTWAR JAPAN AND THE FEDERAL REPUBLIC OF GERMANY (THE JAPANESE CASE)*

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1. A Comparison of Development of Trade Policy

1.1 Background of the Development

1.1.1 Similarities

The world is taking a new look at the Japanese economy, observing not only such quantitative changes as Japan's rising gross national product and rapid increase in standard of living, but also such qualitative changes as Japan's success in combating with stagflation and its early recovery from steep oil price hikes after 1973. That global attention is being given to these features of Japanese economy is certainly to be welcomed.

Japan's success were achieved by adopting Western thinking, technology, and management practices and improving on them. This behavior was inevitable, because Japan makes its way in the world

by importing raw materials and exporting finished goods, Japanese corporations are compelled to become ever more competitive in the international market, and management must be thorough in emphasizing efficiency. In the sense of poor endowments of natural resource and of importance of exporting finished products, and not lastly, of rich human resources with high educational standard has German economy some similarities in the background of economic development after the second war.

The remarkable performances of both economies can be summarized in the Table 1.1, from the viewpoint of discovering similarities of economic development.

Table 1.1 shows that economic growth of German economy in fifties would be initiated by investment and export activities, because growth rates of investment and export (14.2% and 19.2%

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Table 1.1 Economic development of Japanese and German economy (%)

	Germany		(B)/(A) (C)	Japan 1960-70 (D)	(C) × (D) (E)
	1950-60 (A)	1960-70 (B)			
GNP (nominal)	11.9	8.5	71.4	16.4	11.7
GNP (real)	8.6	4.9	57.0	11.0	6.3
investment (nominal)	14.2	9.8	69.0	17.5	12.1
export (FOB)	19.1	10.1	52.9	16.9	8.9
import (CIF)	14.1	9.9	70.2	15.4	10.8
production					
iron & steel	9.3	2.9	31.2	15.5	4.8
cars	21.0	6.5	31.0	21.4	6.6
cement	8.6	4.4	51.2	9.7	5.0
electric power	10.2	7.6	74.5	12.0	8.9
industry production index	9.5	5.7	60.0	13.9	8.3

source : T. Shimano & T. Sagami, *Nishi doitsu keizai no kyokun to nihon (Lessons of German economy and Japan)*, Ekonomisuto, Aug. 18, 1975, p. 18.

respectively) are higher than growth rate of GNP (11.9% nominal and 8.6% real respectively). This assumption could be proved by noticing growth rate figures of important industry production. The excellent export performance of finished products was based on these strong production increases in fifties.

At the same time we can verify typical slow-down tendency of growth rates in German economy in sixties. For example, average growth rate of nominal GNP is 8.5% and real growth rate 4.9% which are about 57% of real growth rate in fifties. Although investment and export have increased still stronger than the GNP growth rates in sixties, the contribution of these two demand components to raise German economic growth became presumably weaker. As a result of these changes, production increases have shown only one-digit growth rates.

On the other hand, the growth rates of Japanese economy in sixties (column

Table 1.2 Weights of finished products of manufacturing industries

	Japan	US	Germany	UK
industry	60.2	57.8	57.0	61.5
export	39.5	51.3	75.8	63.0

Japan-1958, US and UK-1957, Germany-1954

source : MITI, *Boueki Jiyuka to Sangyo Kouzo, (Trade Liberalization and Industrial Structure)*, 1960, Toyo Keizai Shimpou sha.

(D) in Table 1.1) show in general similar strong increase as those of German economy in fifties. So we may conclude that similarities between Japan and Germany in the background of economic development as well as trade policy could be verified with *ten years time-lag hypothesis*. With regard to trade policy in Japan there are two examples for it. Firstly, Yen-appreciation has been realised after the smithonian agreement in 1971, while DM-appreciation already in March 1961. Secondly, convertibility of main European currencies has been recovered in 1958, while free-Yen accounts

Table 1.3 Export Specialization Ratios of main Advanced Countries in 1958

	Japan	US	UK	Germany	France
foods	0.6	1.1	0.4	0.1	0.9
textiles	4.6	0.4	1.3	0.6	1.4
non-metal minerals	2.3	0.6	1.2	1.3	1.0
chemicals	0.8	1.2	1.3	1.7	1.3
metal	1.0	0.7	1.0	1.2	1.4
machine tools	0.7	1.2	1.4	1.5	0.8

source : *ibid.* p. 19.

for non-residents was approved not exactly ten years later, but in 1965. With regard to another economic figures we can count such similarities with time-lag of ten years. For example, GNP per capita in 1960 was 1,350 US Dollar in Germany, while GNP per capita in 1970 was 1,236 US Dollar, calculated by 1960 price. The income weight of primary industry in Germany was 6% in 1960, while in Japan 8% in 1970. Export ratio of manufactured goods was 80% in 1960 in Germany, while 76% in 1970 in Japan. Lastly, diffusion ratio of cars (population/car) in Germany was 11 in 1960, while in Japan exactly same in 1970.

The column (E) in Table 1.1 shows a simple projection of Japanese growth rates under the condition that Japanese economy would experience the same slow down in seventies as German economy has experienced in sixties. As we all know, actual figures of growth rates in Japan in seventies have been much larger, at least in the beginning of seventies. But owing to the oil price hikes, growth rates in seventies have been remarkably slower.

One more additional information would be useful to understand, why Japanese export could show such a big progress in

sixties. The key factor is a divergence of industrial structure from export structure. Already in fifties Japanese economy has achieved what so called heavy industrialization (Table 1.2). The weights of finished goods of manufacturing industries was 60.2% in 1958. This was practically the same as another advanced countries have realized. But Japanese weight of finished products regarding to export was in 1958 the smallest among advanced countries. This means, however, that Japanese economy as late-comer in international trade regarding to finished products could have big export potential in future, if the international framework of free trade would be guaranteed by GATT.

Although Japanese export has been concentrated mostly in light industry finished products in fifties, Japanese heavy industry sectors have accumulated export potentials for coming sixties. This can be verified with coefficients of specialization ratio¹⁾. According to these ratios in 1958, finished products of big-

1) Coefficient of specialization ratio is calculated by following formula :

$$\text{B products specialization ratio of A country is} \\ \frac{\text{export of B products}}{\text{total export of A}} \bigg/ \frac{\text{export of B products (world)}}{\text{total export (world)}}$$

gest comparative advantage were textiles and non-metal minerals. Coefficients of these products were 4.6 and 2.3 respectively. Coefficient of machine tools was only 0.7. In other words, Japanese export of machine tools was at that time under the average of the world (Table 1.3).

1.1.2 Dissimilarities

The most distinguished dissimilarity (difference) between Japan and Germany in fifties is the initial conditions of international relations. As both countries were under the control of occupation forces, it seems that the starting point of economic development for both countries would be almostly the same. But scope and intensity of international relations are, in my view, quite different. While Japanese economy was strongly dependent on the US economy, German economy has had to find his future direction of economic development in the much complicated framework of international relations. Positive contributions to create European Community for Steel and Coal (ECSC) in 1951 and European Economic Community (EEC) by Germany were the manifestation of decision making by which German economy must be maintained as open as possible. Principles of social market economy have successfully promoted to function market mechanism not only of internal, but also of external markets.

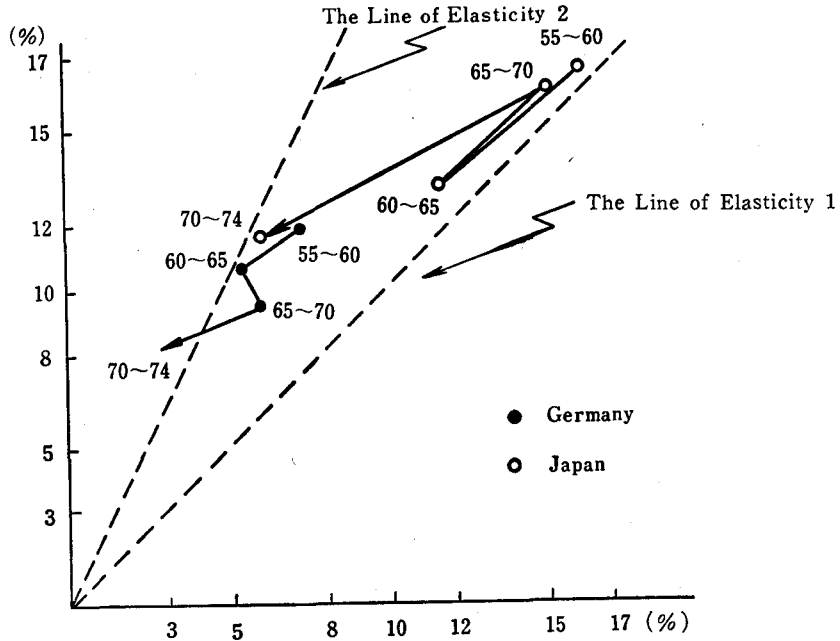
On the other hand, Japanese economy was considerably timid and defensive, so far as trade liberalization policy is concerned. MITI and Ministry of Finance have played a big roll to protect

relevant industry sectors which would become key industries in future, partly with subsidies or with favorable financing from special banks, partly with protectionistic measures against foreign competitors.

If we look at economic development of both countries in sixties, then we can find easily another dissimilarity in realizing balance of payments equilibrium for both countries. German economy has found himself in sixties in the decreasing process of economic growth. Realgrowth rates in fifties were in average about 8%, but in sixties about 5% which were nearly equal to the average level of advanced countries. In these decreasing process, DM appreciation in 1961 and 1969 have played a big role to maintain external equilibrium. This policy measure has enabled to import important raw materials for industry sectors and various semi- and finished products at a relatively cheap prices. Because of bottleneck in German labor market, the slow down of economic growth was inevitable for German economy. However, it must be repeatedly emphasised that strong confidence on market adjustment in Germany has moderated outbreaks of disequilibrium. In the slow down process of economic growth import elasticities have reached in the neighborhood of 2 (Fig. 1.1).

On the other hand, Japanese economy has oft experienced trade balance deficit in that periods in which real growth rates were extremely high favored by a business boom. Trade balance deficit has shown in each time a ceiling of economic

Fig. 1.1



source : Keizai Hakusho Tokushu (*Special Issue for White Paper on Japanese Economy*), Ekonomisuto, Aug. 18, 1975, p. 190.

Table 1.4 Export elasticities of Japan and Germany, 1961-73

	Japan	Germany
1961-65	1.53	1.01
1965-69	1.24	1.12
1969-73	1.09	1.03

Source : Keizai Hakusho Tokushu (*Special Issue for White Paper on Japanese Economy*), Ekonomisuto, Aug. 25, 1978, p. 213.

growth and therefore a symptom for changing economic policy, that is, for introducing restrictive measures by fiscal and monetary policy. However, a ceiling of economic growth has already disappeared in the second half of sixties, because competitive strength of Japanese manufactured industry sectors has remarkably increased and surplus of trade balance has become continuous. Japanese export elasticities were much higher than German (Table 1.4).

In connection with continuous surplus of trade balance we can notice a clear contrast in adjustment process for external disequilibrium between Japan and Germany. Briefly speaking, Japanese adjustment for it in sixties was mostly fulfilled by quantity change. Under quantity change we mean growth rate change regulated mainly by easy or tight monetary policy¹⁾ according to each trade

1) Japanese monetary policy in fifties as well as in sixties was effective due to the following factors: Firstly, government sector could maintain its equilibrium, therefore, fiscal policy in these period was practically neutral to Japanese high economic growth. Secondly, very active investment activities in industry sector were financed with borrowing from banking sector. This what so called indirect financing, that is, money flow for investment financing is intermediated by banking sector from household sector to industry sector, was the main background, why monetary policy so effective in these period was. Thirdly, interest rate were strongly controlled by the Bank of Japan. In

balance situation. Until the end of December 1971 when the Smithsonian agreement was effected, Yen was still fixed. Moreover, interest rates, short and long terms, were regulated under the strong control of policy authorities. So Japanese economy has had practically no room to function price adjustment something like German economy.

It may be safely concluded that Japanese economy could already realise trade surplus even in the first half of sixties, if growth rates would be reduced a little. In reality Japanese economy has selected another way to maximize growth rates at the cost of exchange reserve accumulation. Yen was undervalued for a long time in sixties. In addition to technological improvement in various industry sectors, the undervaluation of Yen was one of the crucial factors of export competitive strength.

order to guarantee the necessary investment money for key industry sectors as cheap as possible, cheap money policy was managed by the Bank of Japan. However, when Japanese economy had to struggle with the intricate task of meshing debt-management policy with monetary policy in the seventies, the past practice of floating large volumes of national bonds at low interest rates and rigid interest-rate structure have become contradictory with monetary policy. Monetary policy has suffered a loss of effectiveness.

For excellent presentations of Japanese monetary policy see R. Tachi, "Kinyuseisaku no Riron" (*Theory of Monetary Policy*), Tokyo Daigaku Shuppankai, 1982, Y. Suzuki, "Kinyuseisaku no Kohka" (*Effectiveness of Monetary Policy*), Toyo Keizai Shimposha, 1966, A. Horiuchi, "Nihon no Kinyuseisaku" (*Monetary Policy in Japan*), Toyo Keizai Shimposha, 1980, and K. Iwata and K. Hamada, "Kinyuseisaku to Ginko-koudoh" (*Monetary policy and Bank Behavior*) Toyo Keizai Shimposha, 1980.

1.2 Formation of Comparative Advantage Structure

1.2.1 Catching period (1945-55)

Through the post-war period for about 10 years after rehabilitation, Japan has come across the Period of full-scale economic development. This development was accompanied by technological improvement and rapid change of industrial structure. At the same time, it must not be forgotten that this development has been promoted by introducing some policy measures, for example, by credit-rationing for important industry sectors, by giving subsidy-measures for what so called infant industry sectors which were future-promised from the viewpoint of economic development, and by introducing a multiple exchange rate.

Japanese exchange rate policy has been operated immediately after the war in the scheme of trade policy and of external policy in wider sense. Even after abolishing a multiple exchange rate and introducing a single fixed exchange rate in 1949, exchange rate policy has always closely connected with detailed regulations for trade transactions on the base of the law on exchange rate and foreign trade control (Gaikoku kawase oyobi gaikoku boueki kanrihoh). One of the most powerful regulations was the rules for standard settlement of payments (Hyojun kessai houhoh ni kansuru kiso-ku) based on above mentioned law. These rules have enabled to control trade transactions and at the same time to give favorable trade finance credits. Besides these export promoting measures,

warranty system for import (Yunyu tampokin seido) in 1949 and budget system for exchange reserves (Gaika yosan seido) in 1949 have played a big role to controlling imports.

Japanese exchange rate policy or trade policy in this period has treated export and import side asymmetrically, promoting export with some favorable policy measures, while regulating import with some restrictive control measures. The background of such asymmetry of trade policy would be an overvaluation of Yen (one Dollar=360 Yen) from the viewpoint of competitiveness of Japanese products. Because of scarce exchange reserves the maintaining of this fixed rate was practically an important policy target toward which trade cycle policy has been operated. So far as trade cycle policy in this period is concerned, exchange rate policy was basically very passive. The central role of trade cycle policy was in the fiscal- and monetary policy.

It must not be misunderstood, however, that the above mentioned asymmetrical exchange rate policy or trade policy has been the only one cause for realizing international competitiveness of Japanese industry products. In my view, Japanese technological improvement has been raised from such seeds as introduced technology from advanced countries, levelled up by engineers in various industry sectors, and, particularly, rendered increased competitive strength by the technology of production and remodeling. In the process of catching-up, Japan gained remarkable success.

1.2.2 Expansion period (1955-70)

On the aspects of international trade during 15 years from 1955 to 70, Japan had shown every 5 years the increases in export of more than 2 times and in import of less than 2 times. This noteworthy expansion of Japanese trade has been enabled not only by fruitful change of supply side¹⁾ of Japanese economy such as technological improvement, but also by good international economic environment guaranteed with the stable systems known as IMF and GATT. In effect, taking a look back on this period, it is evident that most of the economic policies on an international level had exerted itself for relaxation of trade restriction and increase in trade volume, thereby the real growth rate of world trade volume reaching annual average of 7%.

(1) Macroeconomic background on remarkable export performance of Japan

In the high growth periods of Japanese economy, 1955-70, each deficit of balance of payments has practically shown the

1) See T. Nakamura, "Sengo no Sangyo Seisaku" (*Industry Policy after the War*), in: "Nihon no Sangyo Soshiki" (*Japanese Industrial Structure*), ed. by Niida and Ono, Iwanami Shoten, 1969, for further discussion and empirical estimates of the impact of industry policy on high economic growth. The aim of Nakamura's paper is to show as to how far industry protection policy after the war has played a role to make Japanese key industry sectors, iron and steel, machine tools and chemical manufacturing, grow in fifties. According to the classification of protection policy, (1) relaxation of Anti-monopoly Act and approval of cartel, (2) positive protection measures such as favorable tax regulations, credit and financing and export promoting, (3) other administrative guidances, have contributed to give key industry sectors strong incentives to grow.

necessity sign of changing economic policy, as already mentioned.

Suppose the proportional rate of increase of Japanese export, \dot{x} depends on the rate of increase of world trade, \dot{w} and on the changing rate of export relative price, $\dot{p}_{xj}-\dot{p}_{xw}$. And suppose that the increasing rate of Japanese import, \dot{m} , depends on the Japanese growth rate, \dot{y} , and the changing rate of domestic relative price, $\dot{p}_j-\dot{p}_{mj}$. Then we have following two equations :

$$\dot{x} = \alpha \dot{w} + \beta (\dot{p}_{xj} - \dot{p}_{xw}) \quad (1)$$

$$\dot{m} = \gamma \dot{y} + \delta (\dot{p}_j - \dot{p}_{mj}) \quad (2)$$

where $\alpha, \beta, \gamma, \delta$ are elasticity value respectively. According to statistical data for this period, $\dot{w}=8.2$, $\dot{p}_{xj}=-0.4$, $\dot{p}_{xw}=1.5$ and $\dot{x}=1.74$. Providing now $\beta=-1.2$, and using (1), so the corresponding value of α is about 1.8. In the same procedure of the calculation using (2) under the assumption on the import side, i. e., $\dot{y}=10.8$, $\dot{p}_j=0.9$, $\dot{p}_{mj}=0.6$ and $\dot{m}=14.7$, we have $\gamma=1.3$, provided $\delta=0.5$.

For simplicity, assume trade balance is in equilibrium and all prices in the domestic economy as well as in the world are stable. Then the second terms of the equations (1) and (2) are equal to zero. Therefore, the equilibrium condition for trade balance is $\dot{x}=\dot{m}$. This means $\dot{y}=(\alpha/\gamma)\dot{w}$. Introducing the actual (calculated) value of α and γ into this equilibrium condition, we can easily conclude that Japanese economy must grow about 1.4 times higher than the world trade. In this period the world trade has increased two times higher than the growth rates of advanced countries

excluding Japan. So it is clear that the trade surplus of Japanese economy would be inevitable, unless the Japanese growth rate were three times higher than the other advanced countries. Even the remarkable growth performance of Japanese economy, it was impossible to realize such a high growth. This means that by the end of 60s Balance of Payments has already not played a role as constraint¹⁾ for economic growth.

(2) Intra-industry trade

Liberalization of world trade in the post-war period, especially in this period, has led to a notable increase in simultaneous exports and imports of industrial goods classified in the same industry sector or commodity category. However, the fundamental difference in the geographical location between Japan and European countries has brought about different trade pattern concerning to intra-industry trade. It is worthy to classify the distinct types of goods that enter intraindustry trade and to define them respectively, if we consider the

1) M. Shinohara has explained this constraint for economic growth with introducing "turnabout point" in which the ceiling of full-employment and the ceiling of balance of payments equilibrium coincide with each other. On the left side of this turnabout point the ceiling of balance of payment equilibrium was lower than the ceiling of full-employment. Therefore, it was reasonable to introduce various industry policy initiated and promoted by MITI, in order to settle the problem of exchange reserve shortage. On the other side, such industry policy by MITI has been impossible on the right side of this turnabout point, because the ceiling of balance of payment equilibrium lies above the ceiling of full-employment, so that inflationary factors in Japanese economy became more explicit. M. Shinohara, "Gendai Keizaigaku Sainyumon" (*Re-introduction to modern Economics*), Kunimoto Shobou, Chapt. 14, 1978.

past development and present stage on Japanese intra-industry trade. Type A goods are close substitutes in production in the sense that they can be produced with a similar input mix. Type B goods are close substitutes in consumption, but have very different factor input requirements. Type C goods are close substitutes in both production and consumption and can only be differentiated by style, quality, Appearance or brand image¹⁾.

The shares of manufactured goods with low processing in the total export were in 1965 almost equal to the share of manufactured goods with high processing. Concretely, final goods as well as intermediate goods made of iron and steel and chemical elements and compounds have had at that time relatively large export shares. Textile goods were also important export components. In other words machinery and transport equipment did not yet play a big role in export.

In the period 1965-75, Japanese export structure has shown a big change²⁾. There was a marked lowering in the export shares of textiles and other miscellaneous manufactured goods, whereas the export shares of machine tools, transport equipment, industry machines and other machinery have remarkably increased. In 1975 machinery export was

1) See Willmore, L., *The Industrial Economics of Intra-Industry Trade and Specialization*, in : ed. H. Giersch, *On the Economics of Intra-Industry Trade*, Institut für Weltwirtschaft, Kiel, 1979 and Grubel, H. G., *Intra-Industry Specialization and the Pattern of Trade*, *Canadian Journal of Economics and Political Science*, 1967, 374-88

in the top ranking.

Comparing now German export shares of various manufactured goods in the same period with Japanese, it is easy to conclude that their export structure has nearly unchanged. This means that relatively large export shares of manufactured goods have been already established before 1965, namely before repeated appreciation of DM.

On the other hand, we can observe in the same period 1965-75 a very clear contrast in import structure between Japan and Germany. Japanese import shares of goods classified by processing grade were nearly unchanged. Import shares of mineral fuels and agricultural

2) Japanese export-performance coefficients which are the difference between Japanese increasing rate of export (volume) in the country in question (for example US) and the increasing rate of import (volume) in the country in question (for example US), are according of the empirical research of MITI, remarkably higher than those of another advanced countries (Table A).

Table A Real Export Performance of Main Advanced Countries

	Increasing Rate of Import (A)		Increasing Rate of Export (B)	
	1975	1976	1975	1976
Japan	1.0	10.0	2.0	23.3
US	-9.0	8.25	-2.6	4.5
Germany	-2.25	11.0	-10.6	13.5
UK	-1.0	11.25	-2.3	8.25
	Export-performance (B)-(A)		Export-performance (Average)	
	1975	1976	63-70	70-75
Japan	1.0	13.3	6.75	2.75
US	6.4	-3.75	-3.75	1.25
Germany	-8.35	2.5	-0.5	0.75
UK	-1.3	-3.0	-5.0	-1.25

source : Tsusho Hakusho for the Year 1977, MITI, p. 215.

These high coefficients mean that Japanese shares of export in each country have become larger.

Table 1.5. Intra-Industry Trade of Japan and Germany, 1965 and 1975

Industry	1965				1975			
	Japan	Germany	(Intra EC)	(Outside EC)	Japan	Germany	(Intra EC)	(Outside EC)
Construction machinery	67.3	50.9	(52.5)	(45.1)	52.2	37.6	(37.6)	(35.8)
Machine tools	82.5	51.8	(51.5)	(57.9)	71.9	25.3	(34.1)	(30.2)
Transport equipment	76.5	57.9	(36.1)	(67.0)	85.2	38.2	(28.3)	(69.2)
Industry machinery	29.6	56.9	(51.0)	(59.7)	52.7	58.7	(43.3)	(68.6)
Other machinery	36.6	52.9	(40.8)	(54.4)	84.8	16.3	(16.6)	(24.7)
Other final products	86.6	43.6	(41.5)	(45.0)	29.4	30.5	(35.8)	(35.0)
Foods	54.5	57.9	(53.9)	(61.2)	75.0	36.8	(34.0)	(55.4)
Textiles	82.6	32.2	(41.3)	(35.5)	68.4	25.4	(25.6)	(42.2)
Timber and Pulps	54.2	41.6	(31.6)	(43.8)	51.3	32.8	(20.7)	(42.5)
Steel products	85.3	50.4	(42.4)	(60.3)	72.2	54.7	(39.1)	(65.2)
Nonferrous metal products	61.6	33.2	(23.9)	(50.7)	63.2	36.2	(17.5)	(61.1)
Pottery products	72.9	39.9	(37.5)	(49.9)	76.2	34.5	(22.0)	(48.6)
Chemicals	30.0	53.7	(43.2)	(57.9)	26.8	45.6	(23.2)	(63.7)
Basic Chemical elements	71.0	49.1	(39.3)	(61.1)	76.8	38.1	(23.5)	(53.1)
Agricultural commodities	88.4	87.0	(59.3)	(90.3)	95.7	66.2	(45.1)	(76.9)
Minerals	95.2	72.1	(53.0)	(81.6)	94.1	59.5	(47.1)	(74.1)
Number of industries whose values of coefficient are under 50 among 116 categories.	30	52	(71)	(44)	32	78	(92)	(49)

goods were continuously large, while import shares of manufactured goods regardless of processing grade were still small.

Already in 1965 the German import shares of manufactured goods were very high. Nevertheless the import share of machineries with high processing has in these ten years continuously increased, whereas shares of import goods with low processing such as mineral fuels and other miscellaneous manufactured goods were in minor increase.

These features of trade structure reflect on the intra-industry trade of both countries directly. Using now Balassa's formula¹⁾ and comparing the present stage on intra-industry trade of both

countries, we can safely conclude that Japanese intra-industry trade is with small exceptions undeveloped, while German trade is characterized with widespread development excluding some trade categories (Table 1.5).

(3) Trade specialization coefficients of Japan

The level of Japanese industrialization measured by the weight of heavy industry sectors has already reached the same

1) Balassa's formula is $\frac{1}{n} \sum_{i=1}^n |X_i - M_i| / (X_i + M_i)$, where X_i and M_i represent the value of exports and imports respectively, in trade category i and where n is the number of categories included in the index. According to this formula, the calculated value under 50 means that intra-industry trade in trade category i has been developed considerably well.

Table 1.6 Trade specialization coefficients of Japan and main advanced countries, 1953-79

	Japan				Main advanced countries			
	Share of heavy industry sectors in total industrial structure	Share of heavy industry sectors in total export	Share of machine tools in total production	Share of machine tools in total export	Share of heavy industry sectors in total industrial structure	Share of heavy industry sectors in total export	Share of machine tools in total production	Share of machine tools in total export
1953	52.0	44.1	19.8	20.0	56.3	80.9	27.0	47.7
1958	54.6	47.6	27.8	27.3	56.8	82.7	27.1	52.0
1963	59.8	60.1	30.6	34.6	60.6	81.2	31.1	55.1
1968	63.8	72.9	33.7	46.9	61.6	82.2	32.7	55.9
1973	64.7	84.1	32.9	58.4	61.4	81.1	33.2	55.6
1979	64.0	88.5	34.3	63.8	65.2	81.5	35.4	54.8

level of other advanced countries in the second half of 60's (Table 1.6). The value-added and export ratios of knowledge-intensive machinery industries (machine tools, electro-machines, cars and fine mechanics) in the manufacturing industry sectors as a whole have also shown nearly the same figures as other advanced countries in that period.

In spite of these similarities of trade and industrial structures there is still now a big difference between Japan and Germany in horizontal and intra-industry trade.

The German trade structure is well-balanced in the sense that the export and import specialization structures are quite similar. Taking the trade (export and import) specialization coefficients¹⁾ into account, it is practically near the average value of total OECD countries. The reason could be found in the large weight of intra-EC-trade and in the horizontal division of labor between EC countries.

On the other hand, the extent to which Japanese horizontal division of labor has achieved is still low in compari-

son with Germany. The export specialization coefficients of the strong competitive sectors (iron and steel, machine-tools, electro-machines, and cars) are much above the average value of total OECD countries, whereas the Japanese import specialization coefficients are far below the OECD average. Concretely saying, strong competitive goods such as cars, telecommunication-machines, TV-sets, audio and video recorders etc. which show high export specialization coefficients, are respectively in the very low ranking of input specialization coefficients.

The reason why such trade structure

- 1) The formula for the trade specialization coefficients is

$$\sum w_i \frac{X_{ij} - M_{ij}}{X_{ij} + M_{ij}}, \text{ where } w_i = (X_{ij} + M_{ij}) / \sum_j (X_{ij} + M_{ij}),$$

X_{ij} = export value of i th commodities to j region

M_{ij} = input value of i th commodity from j region.

This coefficients are an index indicating on how division of labor of one industry sector has developed. The value of this industry sector are balanced. This means that division of labor has well realized. On the other hand, the value approaches to 1 under the export specialization, whereas -1 under the import specialization.

has formed in Japan could be then clarified, if we consider the following three factors in detail: (1) Japan has had no homogeneous advanced countries as neighbor which are in the same development stage as Germany; (2) in order to pay the necessary import of natural resources and crude oil, industrial goods for Japanese economy have in principle had to supply for oneself; (3) because of relative big size of domestic markets, it was appropriate for Japanese economy to develop the mass-production typed industry sectors guaranteed so-called scale merits.

1.2.3 Adjustment period (1971-82)

In a time when it entered 1970's, flexible exchange rate system has been introduced and the world energy situation has completely changed. The confrontation of interests between developed countries and developing countries on the one side and between oil-producing countries and oil-consuming countries on the other side became severe more and more. Almost every developed country suffered from stagflation and deterioration in balance of payments. Under these circumstances of international environment, Japanese economy was reinforced to adjust her industrial structure to external pressures. In order to understand the importance of adjustment process, one must know that Japanese economy faces now a difficulty which has been brought about by so-called development-phase-gap between European countries and Japan.

For Example, in 1960 the GNP per capita in Germany exceeded \$1,300. At

this time its economic growth dropped from 8% level to 4% level and it came across the maturity of domestic market. So the efforts of German industry were being made to develop the export market. The establishment of common market by the Rome treaty was fortunately harmonious with these efforts. Likewise, Japan reached in 1970 at the same level of economy as Germany's. The economic growth rates of Japan fell into 5% level. Keeping with the production capacity of 10% growth level and accelerating their competitive strength, eyes of Japanese industry were being kept pointing to the overseas markets. However, remarkable influences by the change of international economic environment had been exerted on the supply and demand situation in the developed countries especially in European countries, so it would no longer be permitted to make an easy pull-out from the domestic market. Trade friction among developed countries and the importance of political management for it will be discussed later in detail.

2. The big Role of Trade Policy as Structural Policy

2.1 Industry adjustment

The two oil crises have spurred a change-over of Japanese economy from a system of mass production based on the extensive use of natural resources like oil and pursuit of economies of scale to a production system oriented toward energy conservation and high value added. What is worth noting is

Table 2.1 Capital and Laborinputs of Main Industry Sectors

	l_i	k_i		l_i	k_i
Oil-refinery & Coal	23	287	Iron & Steel	52	267
Chemicals	42	131	NE-metal	70	168
Pulp & Paper	101	179	Transport-machine	88	109
Cement	96	96	Foods	113	88
Rubber-prodts.	108	82	Machine	98	69
Electro-machine	101	58	Other manufacturing	123	63
Printing	91	45	Textiles	170	63

Source : Tsusho Hakusho for the Year 1982, p. 288.

Remarks :

$$l_i = \frac{L_i / \sum L_i}{F_i / \sum F_i}$$

$$k_i = \frac{K_i / \sum K_i}{F_i / \sum F_i}$$

 l_i = labor-input coefficient of i_{th} industry (average=100) k_i = capital-input coefficient of i_{th} industry (average=100) F_i = value-added of i_{th} industry (1979) L_i = number of employee of i_{th} industry (1979) K_i = Fixed capital stock of i_{th} industry (End of 1979)

that, in terms of overall performance, Japan has managed to weather the second oil crises far better than other advanced countries and—this is the most important point—much better than it did the first oil crisis by means of industry adjustment.

What does a production system oriented toward high value added mean? Concretely, it means to decrease input of production factors necessary to produce one unit of value added. From the viewpoint of industrial structure, it means to expand such industry sectors in which much more value added could be produced with much less input of production factors. Briefly speaking, it means the improvement of productivity, and the promotion of products to higher grades. This could be enabled by (1) adding existing products some new functions and raising their quality (including safety, durability and functionality), (2) developing new products superior to existing

products and substituting for them, and (3) adapting to economic needs internally and externally.

In order to clarify these industry adjustment after two oilcrises, let us now compare the present situation of labor- and capitalproductivity of relevant industry sectors. For example, oilrefinery and coal industry, typical capital-intensive industry, uses capital-input of 287 and labor-input of 23 for the value-added of one-unit (the value-added produced by capital- and labor-input of 100, respectively, in the average of manufactured industry as a whole), whereas textile industry, typical labor-intensive industry, uses capital-input of 63 and laborinput of 170. Needless to say, the reciprocal value of these coefficients is labor- and capitalproductivity of each industry sector. In general, high labor-productivity industry is capital-intensive industry, while high capital-productivity industry is labor-intensive industry

(Table 2.1).

It is important to notice that several industry sectors that consume large volumes of oil have lost much of their competitiveness as a result of significant increases in production costs triggered by high-priced energy. In some industries the situation is so serious that recovery is beyond the reach of most enterprises in this process of industry adjustment. For instance, Japan's aluminium industry must pay 16.5 Yen for every kilowatt-hour of electricity it consumes¹⁾. The same situation prevails in the petrochemical industry and oil-refining industry.

On the contrary, the situation of processing industries is completely different. Comparing the production level in the April-June quarter of 1981 with that recorded for the October-December quarter of 1978, just prior to the outbreak of the second oil crisis, we see that while production by manufacturing industries as a whole registered an average increase of 14.4%, production in the processing industries was up by as much as 23.5%. The most remarkable increases were seen in the precision machinery and electric machinery industries, 115.9% and 47.2%, respectively. On the other hand, as is easily assumed, the production level in materials industries had topped off and was down by an average of 0.4% overall.

It must be remembered that the process of industry adjustment in the seventies

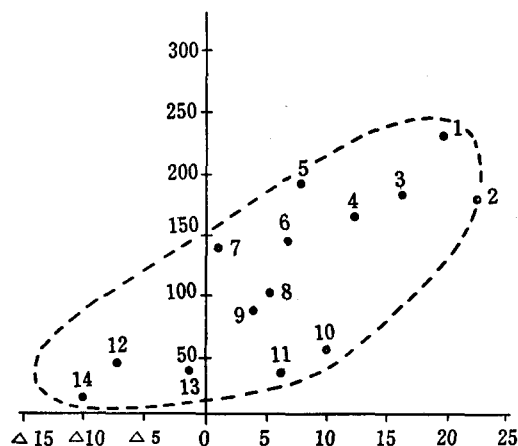
and especially the impressive increase of production-volumes in Japanese machinery industry were brought about by the contribution of parts manufacturers, who constitute the industry's base, and of the raw materials concerns that furnished the stable supply of high-quality materials required by the machinery industry. In other words, Japanese machinery industry and its biggest comparative advantage in trade are supported by a system whereby every component along the line functions in cooperation with every other component to produce the most competitive goods possible.

2.2 Technological Improvement and comparative advantage structure

There is a high correlation between export- and import comparative advantage coefficients and R&D intensiveness in Japanese manufacturing industries (Fig. 2.1). For example, precision machinery, transport machinery, electric machinery etc. show very clearly their high comparative advantage coefficients and at the same time their strong R & D activities, and *vice versa*.

In the more than three decades since World War II, Japanese industry has moved steadily from being dependent on technology imports to being a technology exporter, but until now the shift has been a slow one. However, this does not mean that the level of Japanese technology is still low. The reverse is the case. Japanese industry has made prodigious efforts to digest this imported technology and transform it into some-

1) The unit cost of electric power for the US aluminium industry is only 4.5 Yen/kwh. Canada's aluminium industry gets 100% of its electricity from hydraulic power, at a cost of only 1.25 Yen/kwh.

Fig. 2.1 Close Relationship of comparative advantage to R & D Intensiveness

- 1 precision machinery
- 2 transport machinery
- 3 electric machinery
- 4 general machinery
- 5 rubber products
- 6 metal products
- 7 chemicals
- 8 manufacturing industry as a whole
- 9 cement
- 10 iron and steel
- 11 textiles
- 12 foods
- 13 pulp and paper
- 14 crude oil and coal

Source : Tsusho hakusho for the year 1982, p. 289.

thing indigenous, thereby attaining its present position of technological strength.

Especially, Japanese industry has shown much enthusiasm for more mundane fields like steel, autos and consumer appliances. So Japanese productivity has continued to rise and technological development has come of age. In other words, imported foreign technology was obviously important, but I would like to emphasize that Japanese subsequent efforts were the main factor in its development of comparative advantage structure.

According to the analysis and policy

proposals of Tsusho hakusho for the year 1982, it would be still necessary to make continuous efforts to develop the new and creative technology, because long lead-time is needed to put the new scientific knowledge as a technological system to practical use. For example, the new seeds of technology like bio-technology, energy-relevant technology, communication technology and space technology are, according to the viewpoint of MITI, significant industry sectors thereby future industry frontiers would be widened¹⁾.

2.3 Strategy and Perspective on Import Expansion of Finished Products

The most effective means of coping with the trade friction Japanese economy is experiencing since the second half of seventies, are the import expansion of finished products from other advanced countries. In other measures along similar lines are conceived and tried out, these strategies would prove indispensable in effecting a long-term expansion of international trade.

Finished products import in terms of volume has, due to the severe depression in 1975, remarkably decreased about 25.1 %, compared with one of previous year. In proportion with the upward trend of Japanese economic activity after that, the imports of finished products have increased rapidly. Because of going up of import prices mainly due to the Yen-

1) Tsusho Hakusho for the year 1981, p. 309. MITI stresses that the eighties are the most important period preparing for the epoch-making technological innovation in nineties.

Table 2.2 Import of Finished Products of Advanced Countries

	Japan	Germany	US	UK	France
Import of finished products (in terms of value) Mill. US Dollar					
1975	11,521	40,909	52,098	27,772	30,718
1979	30,568 ¹⁾	91,443	119,563	67,102	64,304
Average increasing rate (%)	21.6	22.3	23.1	24.7	20.3
Increasing rates of main items (%)					
Chemicals	21.8	14.6	7.1	11.2	17.0
Semi-finished	36.4	30.2	25.8	29.8	29.7
Machines	25.9	34.6	46.2	43.7	35.6
Others	16.0	20.5	20.9	15.3	17.7

Source : Tsusho hakusho for the year 1981, p.253.

Remark 1) only for Japan the import value is for 1980.

depreciation, however, they are decreasing again.

The features of Japanese finished products import are summarized in Table 2.2. If we compare Japanese finished products import with those of other advanced countries, the increasing rate of Japanese import is almost in the same level, excluding that its absolute value is still relatively small. On the other hand, the increasing rate of import of semi-finished products is in Japan the highest. This means that the increasing rate is closely related with levels of domestic economic activity.

With respect to strategy and perspective on Japanese import expansion of finished products, there are two points to be analysed and discussed. One is the possibility of technology export and another is the open-door policy of Japanese markets.

(1) Possibility of technology export

From the viewpoint of future development of horizontal division of labor, one of the effective trade policies as structural policy would be to make Japan's tech-

nology freely available to other countries, enabling them to manufacture low-cost and high-quality products that sold on Japanese market. This combination, that is, technology export and finished products import, should become the most important trade policy in forming future trade posture of Japan.

Although foreign interest is today being focused on technological development in Japan, many advanced countries did not believe until recently that Japan had any technology and management worth acquiring. In my view, Japanese industries are now in a position to make their know-how and technology available and respond to other countries' requests for technology transfers. In other words, Japanese industries would voluntarily make a major effort to export technology and import the manufactured finished products this technology would yield. With such possibility of technology export, international cooperation would be extended to the point where the recipient can produce sophisticated finished products with high quality that

will attract Japanese manufacturer and consumer. Without such efforts from both sides, the question of access to Japanese market would leave unfortunately unresolved.

"To be sure, Japan should no longer pride itself in its status as a trading country if trade is considered to be synonymous with exports. Japan is now in a period in which it must direct every effort to seeing how much the country can buy, especially how much it can increase the import of manufactured goods."¹⁾

(2) Open-door policy of Japanese market

Considering the sharp criticism of Europe and the United States on the closedness of Japanese market, Tsusho Hakusho (*MITI White Paper on international trade*) has devoted extra one section in the paper for the year 1982 to explain as to whether Japanese nontariff barrier, distribution system and oligopolistic situation of industrial organization would have such discriminative effects against foreign import as they blame for. This is practically an (official?) answer for the following foreign criticisms of the Japanese distribution system:

(a) Import cartels

Under the guidance of MITI, the importation of phenol was limited to a few companies, resulting in a lower level of imports (Jones report, Trade Study Group report).

(b) Monopolistic control of distri-

bution

Monopolistic control of distribution discriminates against foreign goods (for example, the government tobacco monopoly's handling of foreign tobacco product sales). Manufacturers' control of sales networks makes it difficult for foreign goods to gain market access (Jones report).

(c) High domestic distribution margins

High distribution margins suppress demand for foreign products. MITI requires that foreign exporters establish Japanese import agents before it approves applications to sell their products in Japan. This impedes independent sales activities (Jones report). The policy of not making import quotas public impedes foreign exporters' access to the market (*American Chamber of Commerce in Japan White Paper*).

Of course, we can find many appropriate explanations on the present situation of Japanese market in this MITI White Paper. For example, the procedures for inspection and application approval are for themselves domestic matters. From the viewpoints of security and safety, it would be indispensable that such administrative procedures are different in each country. Nevertheless, it is true, there are many points to be revised to make foreign manufacturer and investor easy to access to Japanese market. This is also the case for Japanese distribution system. There is no doubt that distribution system in every country has had a long historical and cultural background, as MITI White Paper

1) M. Moritani, "A Technological Strategy for Import Expansion", *Economic Eye*, Vol.3, No. 2, June 1982, p. 31.

pointed. So it may be true that obstacles and barriers in Japanese distribution system should be conquered with steady export efforts and sales promotions of foreign manufacturer.

As far as above mentioned three criticisms of Japanese distribution system are concerned, however, discriminative effect against foreign manufacturer is, in my view, obvious.

For phenol import an import cartel was formed with the result that domestic phenol makers were allowed to maintain their relatively high production costs. Needless to say, such protection policy for domestic phenol makers is, from the open-door policy's and the longterm industrial structure policy's view, absurd and even harmful. In this respect, Japanese government should not introduce such import restriction through import cartel which in meant only to protect certain sectors.

Regarding to monopolistic control of distribution, concretely, to some kinds of joint action within corporate groups, it is difficult to point out one or another actual case in which a particular company in a group would try to curb imports of competitive products to benefit another company of the same group, because these invisible import barriers have been developed within corporate groups without government intervention. It would be advisable, however, that the Japanese Fair Trade Commission should watch such strong ties of corporate groups closely. In my view, the strict application of the Anti-monopoly Law against actions that limit competition is urgently

necessary for maintaining of fair trade, even though it is difficult to judge the fairness of distributional ties between maker and distributor with personal and capital combination.

With regard to high domestic distribution margins which are, in general, enabled by a system of keeping resale prices at a fixed level, the Fair Trade Commission should make a thorough investigation whether Japanese practices could regard as a barrier to foreign manufacturers' entry into Japanese market and whether such practices restrict free competition.

2.4 Trade Policy for Industrial Cooperation

Scope and content of industrial cooperation are, as is shown in today's activities of advanced countries, wide-spread and comprehensive. It includes not only trade relations of various industry-sectors, but also interdependent transactions in the field of capital, technology and know-how, so that industry activities could be strengthened mutually and revitalized in the long run. Therefore, industrial cooperation is the most important trade policy in near future. In connection with former two sections, 2.2 and 2.3, it would be useful to take Japanese activities as an example: Industrial cooperation between Matsushita Electric Industrial and Philips and between Mitsubishi Electric and Westinghouse have had already a long history. As recent cooperation we have Hitachi's tieups with General Electric and BASF, Fujitsu's tieups with Siemens and Inter-

Table 2.3 Main Items of Industrial Cooperation between Japan and Germany

1) Electronics	Production and joint-venture (Colored TV-sets etc.) Technology license (Video-cassette recorder etc.) OEM contracts (TV and VTR etc.)
2) Computer and Robot	OEM contracts (Large-scale computer) Technology license (Software)
3) Industry machine	Capital participation (Production of machine tools) Joint development (NC-appliances)
4) Autos	Business cooperation (Small-size passenger cars) Technology and Business cooperation (Tires)
5) Aeroplanes	Joint development (Helicopter)
6) Others	OEM contracts (Cameras etc.) Cross-license (Laser communication technology etc.)

Source : Tsusho Hakusho for the year 1982, p. 386.

national Computers (ICL), Honda Motor's tieup with BL, and JVC's tieups with Thorn-EMI and AEG-Telefunken.

According to the MITI-White Paper on international trade (*Tsusho Hakusho*) for the year 1982, industrial cooperation between Japan and Germany is also very comprehensive (Table 2.3).

Industrial cooperation should be promoted by vitality and future perspective of industrial development. It contributes to stimulate competition-incentives and to build up appropriate division of labor in a interdependent relations. From the viewpoint of political management of industrial cooperation, we have to solve another some outstanding issues such as differences of historical and cultural background. However, it would be not so serious to overcome these difficulties in the case of industrial cooperation between advanced countries. But in the event that newly industrializing countries do acquire Japanese technology in a scheme of industrial cooperation, we may have to experience politically and socio-logically unsettled problems.

3. The increased Necessities of Political Management after Oil-Crisis

3.1 International and Domestic Requirements¹⁾ for Political Management

The background that has called for our study on the political management for trade conditions may roughly be divided into two phases. First, we know that the improvement of international trade environment is in pressing need and the issue of whether its outcome could bear success or failure will be so much of an importance as to decide the future course of world economy in the eighties.

1) See T. Shimano, "Kokusai Sougoizon Kankei to Kokuaiyochoh no Genkai" (Interdependence and the Limits of Cooperation), in : *Kokusai Keizai no Seijigaku (World Politics and International Economic Relations)*, Nihon Kokusai Seiji Gakkai, Yuhikaku, 1978, 34-46 ; T. Shimano, "Kokusai Boueki to Ippan Keizai Seisaku" (International Economics and General Economic Policy), in : *Tenkanki ni aru 1980 nendai no Kokusai Boueki Taisei (On the Crossroad of International Trade System in Eighties)*, Sekai Keizai Kenkyu Kyokai, 1982, 123-56.

For now, let us call this an *international requirement* for political management. What this requirement implies is broad as well as deep. Specifically, inasmuch as the contemporary world economy has been unable to get rid of the confusion caused by repeated hikes in crude oil prices and suffering from vicious spiral of inflation and recession, this *international requirement* became not only more and more complexed but even discordant as well. In advanced countries, disequilibrium of balance of payments tend to widen, and centering on these adjustments, there has been on the more a claim to lay priority on bilateral balance to global balance. Given a generalization of this claim, the world trade can not help but fall into the balance in a reduced level and what's more, it would have to go against the spirit of GATT. Thus, the welfare of world economy as a whole will result in conspicuous deterioration.

The deterioration in international trade environment has been caused to come into being by not merely price hike in crude oil. In the process, from the sixties through the seventies during which the supreme advantage of the American economy have receded; the EC and Japan have come to the fore, the lacking of international adjustment rules that are to assure of the long-term stability of world economy has amplified this dislocation. In this regard, therefore, it may be seen that political management for trade conditions should be concentrated on clarifying the essential international adjustments and establishment of the trade rules.

Second, Japan and Germany are now such a power whose economy rank second and third in terms of economic scale in the free-world countries. For now, let us call this a *domestic requirement* for political management. Especially, Japan's share in the world trade has shown remarkable increases, and the yen has come to the taken as one of the strong currencies in the world. Judging from the Influences that Japanese economy has exerted on the world economy, we have seen that Japan could no longer be permitted to hold passive behavior which to act taking it for granted that the international environment is as given as it is. Rather, Japan must behave actively to improve the international trade environment by way of making appropriate commitments to the countries in the world with regard to "efficiency and fairness"¹⁾ of the world trade. Among appropriate commitments open access to Japanese markets, direct investments and industrial cooperations are most important. Whichever problems they may be, it would be necessary for us to understand that much in scope and degree has been increased, on the basis of which Japan's sttitude and decision-making should contribute to the improvement

1) Though it is much more difficult to realize "efficiency and fairness" in the world trade than in domestic transactions, this problem would become more serious, when evaluation the ties of interdependence from the standpoint afforded by two concepts of economics, the division of labor (exchange) and distribution. As horizontal division of labor advances, attention is increasingly turned to the questions of distribution of production, employment, and profit. The proliferating "trade frictions" and protectionism mirror the aspiration to protect national production and employment.

of international trade environment.

3.2 Disequilibrium of Bilateral Trade Balance and Its Remedies

3.2.1 Background of Trade Frictions¹⁾

Trade friction erupts more frequently when the international industrial configuration is horizontal than when it is vertical. With horizontal specialization, differences in product quality and price determine the winners and losers in sales competition because one company's, or country's goods can easily be substituted for another's. The West's seesawing between support of free trade and support of protectionist measures, two concepts that theoretically cannot coexist, is the result of tension between the pursued and the pursuer under circumstances of horizontal international specialization. Even though Europe and the US know full well that competition constitutes the international division of labour in its natural form, they are pressing for Japan to curtail its exports because they cannot speed up their own export activities in a short period of time. They will only continue to support free trade as long as orderly marketing is maintained.

If the flow of Japanese products into

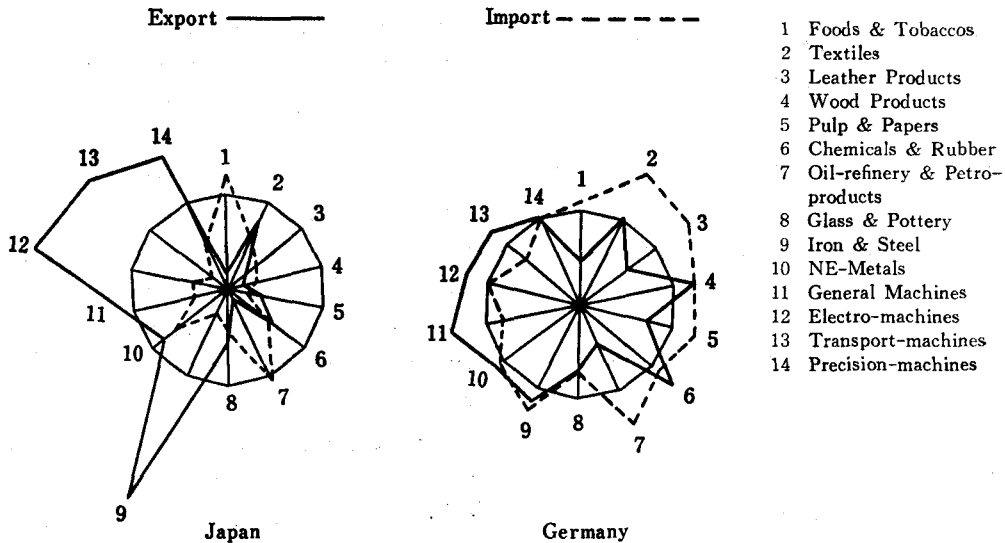
1) We have now in Japan very many articles, analyses and proposals concerning trade frictions between Japan and US, and Japan and Europe. See T. Shimano, "Boueki Masatsu no Haikai, Genjoh oyobi Taisaku" (*Background, Present States and Policy Measures of Trade Frictions*), in: *Gendai Keizai* (Contemporary Economics), Summer 1981, No.39, 22-34 and also Special Issues for trade frictions in *Gendai Keizai*, Summer 1982, No.48. Masaru Yoshitomi, "Boueki Masatsu no makuro Keizaigaku", (*Macro-economics on Trade Frictions*), in: *Toyo Keizai*, No.61, May 27, 1982, 16-27.

Europe and US exceeds an orderly level, they will feel compelled to resort to some form of protectionism in order to check unemployment, slumping business activity, and other domestic problems. Consequently, Western Europe and the US cannot be said to have totally embraced protectionism. They are only asking for time to revamp their industrial structures while keeping short-term confusion (for example, increased unemployment) to a minimum.

How much time will they need to get back on their feet? If, however, antiquated capital facilities in terms of demand and technology will lengthen the time required for Western Europe and the US to realign their industries, then it will unfortunately prolong the trade friction between Japan and the West. If this is true, the only solution for the West is to achieve economic revitalization. To be sure, the protracted recession in the West is expanding the scope and duration of trade friction and hampering industrial realignment. Still, industrial realignment can be achieved through a modern-day version of the "creative destruction" that the economist Joseph Schumpeter asserted all capitalist economies have experienced time after time throughout history.

In order to give a survey on relevant policy measures for trade friction between Japan and other advanced countries, it is necessary to know as to what kind of features Japanese trade structure nowadays has. According to empirical results of Tsusho hakusho (*white paper on trade* for 1981, MITI) Japanese

Fig. 3.1 Export- and Import Specialization Structure of Japan and Germany, 1979



specialization structure¹⁾ of both export and import side shows relatively low levels regarding horizontal division of labour in each industry sector, compared with those levels of US and Germany. The export specialization coefficients of internationally competitive industry sectors (Iron and Steel, Machine tools, Electro machines, Transportation machines including cars) are much larger than average levels of OECD countries, whereas the import specialization coefficients of these industry sectors are much smaller than average levels of OECD countries.

As Figure 3.1 clearly shows, the export- and import specialization structure of Germany are quite similar and well-balanced. They are in the neigh-

bourhood of average levels of OECD countries. This is due to the high weights of intra EC trade for German economy. In other words we can safely say that horizontal division of labour of manufacturing industries in EC region is much in progress. Let us compare now Japanese trade specialization structure of machine tool sector with German structure of same sector. In the case of Germany, the export specialization structure (excluding shipbuilding, aeroplane and watch industry sectors) is far from the average levels of OECD countries, reflected clearly strong competitiveness of these sectors. It is also characteristic for German trade structure that these competitive sectors realised a considerable volume of imports of same items. On the contrary, in the case of Japan, such products as cars, communication instruments, TV-sets and other electro-machines whose export specialization coefficients are higher than the average

1) Export (import) specialization coefficients are calculated by : Share of i_{ik} commodity in Japanese total export (import) is divided by Share of i_{ik} commodity in total export (import) of OECD. The circle in the center in Fig.3.1 shows the average value of OECD.

levels of OECD countries, are showing relatively lower import specialization coefficients. The difference of these intra-industry trade between Japan and Germany would be a sort of background of trade friction between Japan and the West.

3.2.2 Free Trade vs. Fair Trade

What is important in the context of international relations among Japan, Europe, and the United States is not that the images their people hold may be different but that they may be mutually exclusive. Images are products of history, culture, environment, and experience and cannot be expected to conform perfectly. But when exclusionist images emerge in relations between countries, adjustments in international relations become necessary.

What factors lend themselves to conflicting images? First, when those responsible for handling crosscultural communication¹⁾ evolve different codes-- the rabbit-hutch image of the Japanese that not long ago drew much resentment in Japan comes to mind in this regard-- the original message and the message as

others interpret it may be totally different. Codes play a vital role in communications as amalgams of value systems based on each country's language, history, culture, tradition, and attitudes. But certain coded messages, such as that of the Japanese living in rabbit hutches, are liable to provoke powerful feelings of exclusionism.

Second, even when those responsible for communication use the same code, such as today's shared concern for international cooperation and free trade, a sudden increase in Japanese exports, for instance, may constitute a message that goes against Japanese intentions. This can easily lead to feelings in Japan's trading partners of anger, disappointment, and betrayal.

The unfortunate images produced in this way can be remedied to a large extent if it is realized that they result from misunderstood messages. Friction results from misunderstandings based on exclusionist images; hence friction can be resolved by clearing up misunderstandings. In correcting misunderstandings of this type it is necessary for those on each side to change their codes, that is, their value systems. All that is necessary is for the misunderstandings to be corrected as quickly as possible.

Of course not all of our problems can be solved this easily. The frequency of misunderstandings and friction of this sort will probably increase in proportion to the growth of interdependent relations among nations. The typical examples are found in international trade relations. Though problems may be inevitable, it

1) The concept of "crosscultural communication" seems to be understood today by economists to have a slightly wider meaning than its original concept. Such change would attribute to recent researches in political science and sociology. For cultural frictions, see T. Shimano, Tonan Ajia Shokoku ni okeru Bunka Masatsu (*Cultural Conflict—Japan and Southeast Asian Countries* —, Occasional Papers, No.11), Toyo Bunka Kenkyusho (Research Institute for Oriental Cultures), Gakushuin Univ. 1980; Y. Nagai and H. Rosovsky ed. Nichi-Bei Komyunikeishon Gyappu (*Communication Gap between Japan and United States*), Saimal Shuppankai, 1973; Nihon Bunka Kaigi ed. Kokusai Gokai no Kouzoh (*Structure of International Misunderstandings*), PHP Kenkyusho, 1979.

is unwise simply to brush them aside. For if they are left attended, the initially changeable bad images they evince will solidify over time until they become intractable. It is obviously important in terms of Japanese-American-European relations to nip economic friction in the bud. But perhaps it is still more important to strive in the realm of communication to correct the exclusionist images in each country.

The complaints of certain US and European industries about "unfair" Japanese export practices appear to be based partly on mistaken images, and it is necessary to point out once again the unjustness of those images. Most basically, the high volume of Japanese exports flowing into US and European markets results from the freedom of trade in US and European countries and from the superior competitiveness of Japanese products, not from an unfair export drive based on dumping and low wages.

Yet friction over trade remains even when this point is granted because criticism from US and European countries is often simply the complaint that further penetration of imports from Japan cannot be tolerated. Even though Japanese, Americans and Europeans communicate with the same code on matters of trade liberalization, the large volume of imports from Japan seems to have produced unfortunate and mistaken images that are making the problem even more difficult to solve.

If this is the case, there is a need for further discussion on adjustments in the

industries of these countries, dealing more directly with the allocation of the costs of these adjustments in a way relevant countries can accept.

Before going into detail on actual adjustment processes in seventies and in the beginning eighties, it is useful to give differentiated judgements on trade policy between Japan, US and European countries in connection with political management. As background to the recent economic friction around the world, it might be pointed out here that certain differences exist among Japan, the United States, and Western Europe in their respective approaches to trade liberalization. These differences are of extreme importance because of their close relationship with the question of economic security, a relationship that is the basis of orderly trade.

The trade policy of the United States and Europe have evolved in accordance with the foreign policies of these nations. Even without going into the connection between these trade and foreign policies in terms of their historical development, it is clear that considerable differences have separated the United States and Europe in the way trade policies have been coordinated with foreign policies.

In Europe, trade policies have served as an instrument of what might be termed "regional" foreign policies--regional in the sense that by means of trade policies an attempt is made to strengthen relations with trade partners in side Europe while at the same time maintaining stable relations between Europe as a whole and other regions. In the

United States, on the other hand, trade policies are an instrument of "global" foreign policies, the term "global" emphasizing America's foreign policy objective of contributing as a free world leader to the creation of global order.

A Study of the relationship between trade liberalization and these regional and global policies would yield the following observation. Since European trade policies are regionally oriented, trade liberalization is meaningful in political and economic terms only in so far as it reinforces common European security interests. The European commitment to the US global policy of trade liberalization, accordingly, might be described as "active acceptance" rather than "faithful acceptance".

What of Japan's commitment to trade liberalization? For Japan, too, the liberalization of trade under American leadership doubtless reinforced mutual interests in the area of security. Unlike the European countries, however, Japan is heavily dependent on the US economy, and it would be more accurate to say that trade liberalization was passively rather than actively accepted.

Perhaps because of an utter lack of confidence in its economy's ability to become truly competitive internationally, Japan did not "faithfully accept" the call for liberalization. Even after Japan's trade balance began to build a consistent surplus in the second half of the 1960's, many Japanese saw liberalization as unwelcome meddling in their country's economy by foreigners. It can also be said that in return for its passive ac-

ceptance of liberalization, Japan expected the United States to look after Japan's economic security. Unlike the European nations, Japan was in this respect completely in the American camp.

Japan was fortunate in having been able to get along with little need for concern over economic security until the 1973 oil crisis¹⁾. To Westerners such an attitude of unconcern would surely be considered easygoing and perhaps even incredible. And when the oil crisis struck, the Japanese economy was at a total loss as to how to react.

3.3 Harmonized Trade Policy Measures—Beyond Trade Frictions

3.3.1 Trilemma of Japanese Economy

Along with market liberalization, expansion of domestic demand is an effective means of alleviating trade fric-

- 1) People in Japan first became fully aware of the vital importance of economic security only after the 1973 oil crisis. Sudden interest from around that time in potential threats to the economy and ways of achieving security in economic terms led to a spate of research activity. In March 1975 both the Institute for Policy Sciences (Seisaku Kagaku Kenkyusho) and the Mitsubishi Research Institute (Mitsubishi Sougo Kenkyusho) released studies on Japan's economic security, and in December 1977 the Nomura Research Institute (Nomura Sougo kenkyusho) released a report on Japanese responses to new international economic conditions. Before the oil crisis many people were cognizant of the importance of trade to Japan's economy. These people may be said to have possessed an economic security theory insofar as they stressed that autonomous economic development depends on trade. Yet at the time the prices of such vital resources as oil were extremely low, and the opinions were influenced by conditions that allowed free trade a free rein, with the General Agreement on Tariffs and Trade as the main foundation. It cannot be said that people at the time gave sufficient consideration to the issues of economic security and crisis management.

tion, for greater demand means a greater volume of imports. However, the administrative and financial reform¹⁾ on which Prime Minister Suzuki has staked his political life is having deflationary consequences, and the economy is not growing as fast as expected since 1981.

While other advanced countries were now struggling with the dilemma of exacerbating unemployment and accelerating inflation, attention in Japan became increasingly directed toward the trilemma²⁾ of sluggish domestic demand, the deficit in public finance, and external trade friction.

Easy resolution of Japan's difficulties is not possible. Were monetary controls to be relaxed to stimulate the economy, the Yen would depreciate and exports expand, aggravating trade friction. But if the economy were to be stimulated by fiscal means, the national debt would become that much more difficult to service and pay back. And yet without economic stimulation and a pickup in domestic demand, trade friction will remain unresolved. When the budget

proposal for fiscal 1982 (April 1982 to March 1983) was unveiled late last year, it attracted interest particularly in that it revealed the administration's approach to this trilemma—primarily one of restraint in government spending to bring down the level of deficit-financing bond issues.

One cause of the slump in domestic demand is the sluggish state of consumer spending. Despite relative price stability and an average 7.8% increase in wages last year, disposable income has been held down by heavier taxation and larger social insurance payments.

With no cost-of-living adjustment in income tax schedules since January 1977, bracket creep has been at work. The incidence of taxation, which was 18.3% in fiscal 1975, is estimated to rise to as much as 26.5% in fiscal 1982. Consumers have become all the more circumspect in their expenditures for commodities and housing because they foresee no return to the booming growth of the past, when wages rose at a double-digit rate each year. Thus when the Diet went into session in late January, voices were raised for revision of the draft budget to lower the incidence of taxation and go slower on the deficit-trimming plans.

Big business is expected to continue a fairly brisk level of plant and equipment investment. Small businesses, however, show little willingness to invest in the face of the slow pace of consumption. Judging the manufacturing sector overall, we can state that most companies are realizing moderate profits and are not

1) Administrative and financial reform continues to be deliberated by the government-appointed Special Administrative Research Council. In its initial report released in July 1981, and in its final report in July 1982, the council recommended various ways for government to streamline administration and cut back expenditures. In addition to calling for a reduction in budget outlays, the council urged a more rational and efficient organization of the bureaucracy, the various public and semipublic corporations, and local governments.

2) See Y. Kousai, "Shin Toriremma o Dakaisuru Jouken" (*Conditions for Overcoming the New Trilemma*), *Ekonomisuto*, Jan. 5, 1982 and C. Moriguchi, "Keizai Kukyō Dasshitsu no Michi o Saguru" (*On the Methods for Escaping from Economic Difficulties*), *Toyo Keizai*, No. 61, May 27, 1982.

feeling a liquidity pinch but see no need to embark on an aggressive augmentation of their plant and equipment.

Are we to conclude from this that the trilemma cannot be resolved? Perhaps the only solution available at present is to postpone action on the snowballing national debt for two or three years and instead implement a vigorous public works program¹⁾. After all, unless domestic demand is growing strongly, tax revenue will not expand and the possibility of a tax cut will only become more remote.

One controversial provision in the budget proposal is the 7.8% increase in defense-related outlays, far above the increase rates for other budget items. (Funds for social welfare, for example, are to be increased by a meager 2.8%.) This appears to be part of the administration's attempt to follow through on a pledge made by Prime Minister Zenko Suzuki when he met U.S. President Ronald Reagan in May 1981. As written in the joint communiqué released after the meeting, Suzuki stated that Japan "will seek to make even greater efforts for improving its defense capabilities in Japanese territories and in its surround-

ing sea and air space, and for further alleviating the financial burden of U.S. forces in Japan." Apparently the U.S. government is on the whole pleased with this increase in defense allocations, but the tenor of opinion in Japan's leading newspapers is that the spending proposal is excessive and that Japan may proceed too far in the direction of a military buildup.

3.3.2 Reduced Nontariff Barriers

As is evident from the meeting of top U.S., Japanese, European Community, and Canadian trade officials in Key Biscayne, Florida, on January 15-16, 1982, economic problems among the advanced nations are unlikely to be resolved either quickly or smoothly. To be sure, the meeting ended with an agreement on the need to uphold the free trade system, adhere to the General Agreement on Tariffs and Trade, and avoid protectionism, as made public in the final statement of U.S. Trade Representative William Brock, who chaired the meeting. Although this agreement on principles should not be taken lightly, it is to be noted nonetheless that the participants each had somewhat differing ideas on the details of how trade friction was to be reduced and liberalization enhanced.

According to Finance Ministry customs-clearance trade statistics released on January 19, in 1981 Japan registered a 17.2% surge in exports to \$152.1 billion, as compared with a small 1.9% increase in imports to \$143.2 billion. Although both were new records, exports exceeded imports by \$8.9 billion. More to the

1) In Japan, we have now opposite opinions concerning the administrative and financial reform. The one is stressing the importance of fulfilling the reform-proposals of Special Administrative Research Council literally, while the other warns that despite the importance of administrative reform, deflationary effects induced by too much haste in implementing financial reconstruction could cast a shadow over Japan's relations with other countries. See T. Uchida, Split Opinion on the Reform Issue, *Economic Eye*, Vol.3, No.3, June 1982 and C. Moriguchi, Is Administrative Reform Still Timely?, *Economic Eye*, *ibid*.

point, the Japan-U.S. trade balance tilted \$13.4 billion in Japan's favor, while Japan's surplus vis-à-vis the EC was \$10.3 billion.

It is not advisable to attempt to reduce these staggering surpluses by balancing exports and imports on a bilateral basis, for that would run the risk of diminishing total trade. Japan should instead liberalize trade in services, especially banking, securities, insurance, and communications, as requested by the United States; Japan should also work actively to open its market further, a request being made by both the United States and the Common Market.

Japan has been receiving a steady stream of U.S. government officials urging the Japanese government to reduce or eliminate nontariff barriers and enhance access to the Japanese market. For instance, Secretary of Commerce Malcolm Baldrige arrived here in late October, Deputy Trade Representative David MacDonald led a delegation here in December, and Senator John Danforth and other U.S. lawmakers came here in January. To consider the 99 points on which complaints had been voiced, a meeting of the cabinet's economic ministers was held in late January, at which time it was decided to implement prompt measures in response to 67 of the points¹⁾.

As a proponent of free trade, Japan naturally should not be permitted to

1) In reality, steps have been taken to begin to deal with a series of unresolved trade problems which major constraints to trade expansion. Some concrete measures taken in the beginning of the eighties by MITI are hoped to be effective, see Tsusho Hakusho for the year 1982, p. 269.

retain protective policies not found in other advanced countries. But insofar as trade in manufactured products is concerned, in the final analysis it is unlikely that imports will suddenly rise to much higher levels even if Japan removes all nontariff barriers and throws its market wide open. Any dispassionate appraisal will reveal that Japan's manufactured goods are for the most part too competitive to be swept under by a flood of imports. And in many of today's sophisticated technological industries producing electronic products and new materials, Japan is a world leader. Quick resolution of the imbalanced trade of manufactured goods, we are forced to conclude, would be extremely difficult.

On January 30, 1982, the Ministerial Conference for Economic Measures approved a package of measures aimed at reducing nontariff barriers to trade. These were the result of studies by the Liberal Democratic Party's Special Committee for International Economic Measures, headed by LDP Diet member and former International Trade and Industry Minister Masumi Esaki, and the relevant government ministries and agencies in response to the ministerial conference's decision last December to take action to alleviate trade friction. The decision as to which measures to implement was unusually speedy considering the complex interests involved. Extensive behind-the-scenes negotiations would be necessary, it had been thought, to lay the groundwork for a definite plan. This shows how seriously the Japanese government and the LDP view the issue of

trade friction with the West.

Of the 99 items involving import procedures that foreign governments and Japanese importers had indicated as needing improvement, 67 were earmarked for prompt action. Nine additional items were to be given further consideration, with a decision on whether to take action to be reached by the end of March. Fifteen items were deemed to be based on misunderstanding, so trading partners were to be notified and attempts made to resolve such misunderstanding. The remaining eight items were to be left unchanged so as to maintain the safety and health standards of the existing procedures. On March 30 the Ministerial Conference for Economic Measures adopted six of the nine additional items that had been under further consideration and left the remaining three unchanged.

The first 67 items included acceptance of foreign sporting goods under the official approval systems set up by Japanese sports organizations, acceptance of animal test data compiled abroad in respect to medicines and cosmetics, and exemption of tests for such continuously imported products of the same kind as foods and food additives. None of these items require any revision in existing laws, and all could have been implemented much earlier if the authorities had been inclined to do so. This illustrates the Japanese government's tendency toward self-centeredness and procrastination.

3.3.3 The Meaning of "Reciprocity"

The United States and Western Europe have repeatedly demanded that Japan

open its markets to their products. As early as May 1979 the government announced that it would cut tariff rates ahead of the schedule set at the Tokyo round of multilateral trade negotiations with a view to opening Japan's market wider. But with regard to Japan's intricate import inspection and testing procedures, conflicts of interest among government ministries and agencies and the bureaucratic tendency to resist any cutbacks in the authority to issue licenses and approvals prevented any action from being taken until recently. One can say that the hatred and contempt that accompany the West's praise of Japan's high-quality autos and audio products are the byproduct of dissatisfaction and irritation over Japan's self-centeredness.

In late February 1982 Diet member Masumi Esaki led an LDP mission to Washington to discuss Japan-U. S. trade issues. One of this issue's spotlight columns carries part of a magazine interview with Esaki, in which he relates the substance of his talks with U. S. officials and his impression of the trade situation. President Ronald Reagan was reported to have praised the liberalization measures taken by Japan when he met Esaki's group on February 23. The very next day, however, Commerce Secretary Malcolm Baldrige, instead of applauding those measures, told the mission that Japan must take "dramatic" steps to open up its market. The knowledge that 99 items had been considered for liberalization seems to have confirmed Americans in their belief that Japan's market is closed. In this case, better timing would

have allowed Japan to obtain the desired response.

At the third meeting of the Japan-U. S. Trade Subcommittee, held in Tokyo on March 9 and 10, Deputy U. S. Trade Representative David MacDonald contended that opening up its Market will be to Japan's ultimate benefit. Although we do not know the details of the discussion that led MacDonald to make this statement, we agree with his conclusion one hundred percent. Because Japan's prosperity is grounded in the free trade system, clearly the only way that Japan will be able to maintain this prosperity is to open its market despite any pressure or lack of pressure from the West and to actively encourage industrial realignment.

Whatever the case may be, a major issue confronting Prime Minister Zenko Suzuki and his cabinet is the elimination of Japan's gaping current account surplus vis-à-vis the United States and the European Community, thus holding trade friction in check. According to U. S. Commerce Department statistics, the U. S. trade deficit with Japan registered an alltime high of \$18.1 billion in 1981. This was almost half of that nation's overall trade deficit of \$39.7 billion. That this deficit is increasing is making it easier to criticize Japan and turn the issue into a political problem. The government was too optimistic in expecting that the measures it took in January would mitigate trade friction. No effort should be spared in promoting the liberalization of Japan's market to hasten the day when exporters in other

countries will come to feel that Japan's market is truly open.

The term *reciprocity* originally meant reciprocal granting of preferential treatment in commercial matters. Lately, however, the word has taken on a connotation of retaliation against a trading partner by opening one's market only as much as the door to the partner's market is open.

A number of "reciprocity" bills have recently been submitted to the U. S. Congress. All clearly epitomize the "eye for an eye" way of thinking. Such legislation will only be detrimental to Japan-U. S. relations in the future. Expressing American displeasure toward Japan's market-liberalization measures in this manner means that Congress itself may be the one to drop the curtain on free trade.

Similar trade measures vis-à-vis Japan were taken by the European Commission on February 12. They included (1) a plan to file a suit at the General Agreement on Tariffs and Trade against Japan's closed market based on GATT Article 23, (2) the demand that Japan curtail its exports to the EC, after which EC countries will gradually lift the import restrictions they have imposed on Japanese products, and (3) the demand that Japan implement more industrial and technical cooperation. It is regrettable that the first two items strongly resemble American reciprocity measures in character.

4. Conclusion

4.1 International Adjustments prone to be Multifaceted and Multiplex

Just as long as Japan can not help but go ahead along with traderoiented nationbuilding based on manufactured and processing industry, the global trade fundamentals essential to Japan should lie in maintenance and strengthening of free trade system. However, it would be necessary for us to pay attention to the effect that the deepened and expanded interdependent relationships as an outcome of free trade have given rise to the increasing necessity of international cooperations.

The international cooperations rectify, on an international level, a prejudice biased in favor of one's own interests alone. In this sense, the deepening of interdependence and the international cooperations come closer together in causation. The management of interdependent relationships can always be done through the process of acquisition out of experience. Experiences in seventies tell us that any efforts made in creating a new international economic system can not always ensure stability. As an era of absolutism has gone away and an era of relativism or the age of multi-polarization will keep going on in the future, it will be important to establish an economic system enabled to cope with changes in economic environment. Firstly, so important is that in order not to leave with political forces

the solutions of economic conflicts and frictions between advanced countries. Secondly, so indispensable is that in order to make adjustments of interests related to resources-conscious nationalism and the upward trends of prices in primary products. Specifically, as we see that the adjustments of interests to be made with developing countries, under prestrictive conditions of resources, will readily exert influences on the movements of advanced countries, we will have to pay attention to the effect that the adjustments in eighties have been incomparably far more multifaceted and multiplex than ever before.

Therefore, Japanese economy has to manage somehow to raise up the functions of various policy measures to make adjustments on the basis of international cooperations as to disequilibrium coming out of the process of economic communications among advanced countries. In the economic transactions with developing countries, it would be necessary for us to meet as much demands as possible, and, as for the matter of primary products, it would also be necessary for us to seek solution in line with acceleration of long-term economic development.

4.2 Road to trustworthy economy of Japan

For the world economy in eighties, while the well-ordered preparation for international environment which to facilitate further international cooperations is in pressing need, we would have to be ready for many difficulties in selecting the practical ways of so doing.

It may well be said, however, that the more we would come to know of the usefulness of well-ordered preparation for international environment in lessening uncertainties lying before the world economy, the more we would come to find it worthy a task of so fighting against these difficulties. Should a just assessment of Japan's economic strength be carried out, Japan can contribute to the well-ordered preparation on the supply-side of world economy by way of economic cooperations to enhance economic growth, maintenance of free-trade system and communications of personnel. The very promotion of the things like this either through multilateral negotiations or through bilateral negotiations may be regarded as a task imposed on Japanese economy.

For Japan's economy in eighties, the sufficiency of energy would remain unchanged to be all but most important a situation. In this sense, the relaxation of constrains on supply side by means of

alternate energy development is, particularly, in pressing need. For that purpose, with regard to realizability of the alternate energy, scientific, technological and economical assessments should cumulatively be carried on.

Challenging problems to look for the global trade fundamentals are noting but the tasks of how far Japan can help lessen uncertainties emanating from the world economy; how far the rules of international cooperations can be secured by the Japanese commitments, and, should we be allowed to go a step farther, how, in the true sense of a word, Japan can be trusted by every country in the world. These challenging problems will have to bring with them many painful works to do, simply because Japan as an economic power had yet done filling little or no duty at all. However, at the same time, they will be as much of the enjoyable as the efforts to be rewarded.