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THE ANATOMY OF JAPAN'S POSTWAR ECONOMIC DEVELOPMENT

by

Hsiung Yuan Tsao
September, 1997

Thesis Advisor:

Edward A. Olsen

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Hsiung Yuan Tsao
Lt. Col., R.O.C. Military Police
B.A., Chinese Military Academy, 1983

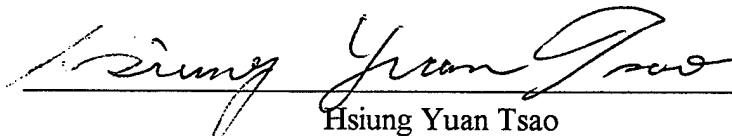
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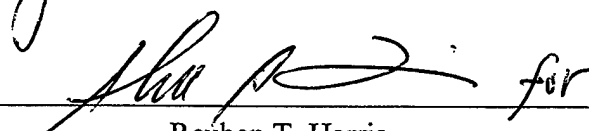
Author:


Hsiung Yuan Tsao

Approved by:


Edward A. Olsen, Thesis Advisor


Roger D. Evered, Second Reader


Reuben T. Harris
Department of System Management

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ABSTRACT

This thesis examines the anatomy of postwar Japanese economic development. It is illustrated by the reform and reconstruction era (1945-52) and those factors which caused the Japanese economy to grow during the 1953-73 period. Furthermore, on the basis of Japanese economic successes, the role of the Japanese in world affairs again became important. However, due to the world experiencing economic inflation and an oil shock after 1974, the Japanese economy also experienced slower growth. Discussed in detail are those factors that made the Japanese economy slow down in this period. This thesis stresses the three decades of Japanese economic development after World War II. Evaluation of the Japanese economy is necessary to analyze its weaknesses and strengths which will shape its future development and competitiveness.

In particular, the end of Cold War brought new kinds of thinking and concern about what type of problems Japan might face in the next century. Of course those issues include regionalism, economic strategy shifts after the end of Cold War, and intricate major power relations among Japan, China and the United States. In reality the post-Cold War challenges are also a turning point for Japan compelling it to deal with new problems and to decide what kind of roles it is going to play.

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EXECUTIVE SUMMARY

This thesis addresses postwar Japanese economic development. To assess the anatomy of Japan's economy, I will review the prewar Japanese economy in order to further analyze the postwar Japanese economy. First of all, Japan poured all its resources into the war since the outbreak of war with China. The best labor was conscripted into the military service to develop its armament industry. The Japanese military staged a coup on February 26, 1936 and by the end of World War II almost brought about Japan's collapse. Japanese international payments already were on the verge of bankruptcy, and a large number of people were on the brink of starvation. In addition, after the American atomic bombing the country can be described as in the trash can. Against this background my motivation is to study how the postwar Japanese economic recovery and reconstruction produced a modern country in just three decades after World War II.

From 1947-52, during the Occupation period, Japan with support from the United States adopted a series of reforms that made the coming two decades an economic success. Those reforms included the breakup of the Zaibatsu, land reform, and labor democratization, and constructing and stabilizing the postwar economy under the Occupation authority's guidance. In order to push forward its development the Japanese government also played an active role to support corporate reconstruction to make their operations normal. Furthermore, it set up reconstruction bank funds for financial and industrial rehabilitation, and set up emergency financial measures to reduce inflation. I also will point out that - with the assistance of the United States - Japan ended the Occupation faster than was imagined at first.

Furthermore, in this thesis I also examine which factors made the rapid growth possible during the 1953-73 period. The internal factors consisted of aggressive behavior by firms, advances in technology, the labor force, capital stock, and government policies. The external factors were the role of Korean War and the establishment of the International Monetary Fund (IMF). After two decades of economic growth the Japanese economy also faced problems created by the worldwide recession and oil shock. Here I will examine what factors caused the Japanese economic growth slow down. Those factors can be summarized as follows, slow capital formation, ending the technological catch-up, high energy costs, diversification of social goals, sluggish world economic development, a changing labor market, and slower productivity growth.

After inspecting the processes of Japanese economic development after World War II, I will evaluate the Japanese economy in several fields including the appreciation of the Japanese Yen, strengths of the Japanese economy, weaknesses of the Japanese economy, and then I shall make a brief summary. As the collapse of Soviet power ended the global bilateral confrontation, the transformation of the Japanese role in the world became more important. By the end of Cold War, Japan had become an economic power surpassing any European country in economic authority and rivaling the United States for economic influence. As one of the economic leaders of a changing world, Japan was seriously concerned about the emergence of regionalism, restructuring the triangular relationship with China and United States, and seeking its new role in the post-Cold War era in order to protect Japanese interests either regionally or internationally.

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I. INTRODUCTION

From the outbreak of the war with China on July 7 in 1937 to the Japanese defeat in August 1945, Japan poured all its resources into the war. Direct economic controls were seriously imposed by Tokyo at the beginning of the war in China. Supporting this tendency in the industrial structure it was necessary to swell the military production sector, and the subsistence commodities sector was squeezed to the utmost in order to conquer China (Ohkawa and Rosovsky, 1973).

Therefore, the best labor power was conscripted into the military service to develop its armament industry. Based on its superior technology at the beginning of the war Japan got a great deal of benefit from China. However, as the war proceeded, the economic situation became worse. By the end of the war it almost brought about Japan's collapse. When talking about the Japanese postwar economy first we need to go over the prewar influence of the Army, as we know the Japanese military took over by a coup on February 26, 1936. Since the Japanese military assumed power, in the government no one was strong enough to disagree with, or stand against, the Army. The Army tried to complete its Five-year Plan for key industries, which gave priority to basic industries such as steel, coal, and synthetic petroleum. The puppet cabinet had no other choice under the inhuman requests of the Army's Production Capacity Expansion Plan.

Under these circumstances, Japanese international payments already were on the verge of bankruptcy. The situation worsened year by year. By the time of its defeat large numbers of people were on the brink of starvation. Securing the most minimal food supply for the population had become a more urgent issue for the government than the military's

production. In 1945 most of the major cities of Japan had collapsed and its power to prevent the Allies from landing was nearly incapable of resisting.

In August 1945 the Japanese Emperor announced an unconditional surrender after the American atomic bombs. At that moment the country can be described as in the ash can. This situation was an obvious contrast to modern Japan. This also led to my motivation to study the successful story of the Japanese postwar economy.

The beginning of the postwar crippled situation may be summarized as follows. First, the population of those who died in the battles or from disease contracted at the front lines is estimated at 1.65 million for the Army, including 27,000 civilians in military service, and 470,000 for the Navy. There were 300,000 who died during the air raids, and 90,000 civilians who died in the battle for Okinawa. Altogether the casualties added up to more than 2.5 million, including the wounded and missing. If the total number included the internees in Siberia and colonists in Manchuria it would reach 3 million. On the other hand, the material losses was up to 64.3 billion Japanese yen. These losses amounted to a quarter of the remaining national wealth of 188.9 billion Japanese yen. This amount was nearly equal to the total value of Japan's national wealth in 1935. Thus, the national strength of the ten years from 1935 to 1945 was wiped out at a stroke (Nakamura, 1995, pp. 15-16).

Fortunately, some legacies of war were conducive to the postwar Japanese economic development. They will be stated as follows. The engineers who possessed a mastery of their technologies could shift their skills to new fields since the policy changed. For example, factories that produced machine guns turned to making sewing machines;

optical weapons factories began making cameras and binoculars. Thus the facilities, technologies, and skills acquired during the war exerted a huge influence on the subsequent direction of the economy (Nakamura 1995, pp. 17-18). Furthermore, the emergence of the subcontracting system, which spread so widely in the postwar era, was also a war time distinguished phenomenon.

Additionally, the "System of Financial Institutions Authorized to Finance Munitions Companies" formerly backed the authorized institutions so they would not lack funds. In the postwar reconstruction period these relationships were to reappear and become entrenched in the form of the powerful financial groupings known as Keiretsu. The Keiretsu were composed of not only the industrial combines (Zaibatsu) like Mitsui and Mitsubishi, but also of major banks like the Industrial Bank of Japan, Fuji, Sanwa, and Dai-ichi Kangyo (Nakamura, 1995, pp. 18). They were all formed during this period.

Besides those factors, the strong administrative leadership which the Ministry of International Trade and Industry (MITI) and the Ministry of Transportation came to exercise over industry can also be dated back to the wartime Commerce and Industry Ministry's and Munitions Ministry's experience with control which was transformed during the postwar period. The characteristics of postwar labor-management relations can also be found in the war time era (Nakamura, 1995, pp. 19). And the seniority wage system, the lifetime employment system, and health insurance system developed into the postwar social system as prominent factors to stabilize the Japanese postwar economy.

The establishment of the Food Administration System in 1941 also played a crucial role to stabilize the rice price and increase its production. Simultaneously, it guaranteed

the transition of land reform going smoothly after the war. All those legacies changed a large proportion of the Japanese people's life style customs, technologies, social and economic systems. This change contributed directly to the Japanese postwar economy.

Following the defeat the Japanese economy faced a lot of staggering problems. When the military forces were demobilized the number of troops reached to 7 million; the collapse of military-related production laid off about 4 million people; and about 1.5 million people were repatriated from abroad. This brought the jobless total to about 13.1 million (Nakamura, 1995, pp. 23). Faced with the desperate economic conditions of the early postwar years, it also encouraged centralized planning for the economy, which gave the Japanese government a greater capacity to guide industry than most other countries have ever had, including those that boast a fully planned economy (Reischauer, 1990, pp. 226).

The next concerns were the grave shortages of energy and food. Japan's major energy was based on coal and hydroelectric power. Due to the defeat the laborers who were from Korea and China refused to continue to work in coal mines, therefore the volume of production dropped from 3 to 4 million tons to barely a million monthly. The food issue was important at that time. The rice crop was only one third of average annual output in 1945 (Nakamura, 1995, pp. 24). Concerned about the starving people, the Japanese government asked the Occupation Army for help.

Because of unemployment, and a shortage of food and energy, inflation was unavoidable and gradually became a serious problem in the postwar Japanese society. In order to alleviate the people's unrest during the wartime air raid period the government

released funds onto the market. Besides, directly after the defeat a large volume of funds for provisional military expenses flowed into circulation from the salaries of demobilized troops, payments for completed orders of military goods, advance payments, compensation for losses, and so on. As a result, a rapid inflation developed (Nakamura, 1995, pp. 24). This adverse effect from the war was a tough challenge to the postwar Japanese government. Fortunately, the American policy was stern but constructive. It was based on the realization that a program of revenge and retribution would breed lasting hatred and unrest and that only through enlightened reform was Japan likely to change from a disturber to a supporter of world peace (Reischauer, 1990, pp. 189).

In my thesis Chapter II, I will examine the reform and reconstruction, and how the Japanese made their economic democratization through several processes. These include the break up of the Zaibatsu, land reform and labor democratization, and reconstructing and stabilizing the postwar economy under the Occupation authority's guidance. To push forward development the government played an active role to support corporate reconstruction to make their operations normal. Furthermore, it set up reconstruction bank funds for financial and industrial rehabilitation, and adopted Emergency Financial and Economic Measures to reduce inflation. Regarding the United States' contributions, I also will point out that with the assistance of the United States - Japan ended the Occupation faster than was imagined at first.

In Chapter III, the rapid economic growth period, I will focus on two areas. First, I will analyze the domestic conditions that made the Japanese economy succeed through several factors. Those factors include aggressive behavior by firms, advances in

technology, the labor force, capital stock, and government policies. Next, I would like to point out the external factors that pushed the Japanese economy forward. Those factors include the establishment of the IMF in 1944, and the role of the Korean War.

In Chapter IV, I will view what factors caused the Japanese economic growth slowdown. Those factors can be summarized as follows, slow capital formation, end of technological catch-up, high energy costs, diversification of social goals, sluggish world economic development, a changing labor market, and slower productivity growth.

In Chapter V, I will evaluate the Japanese economy within several fields which include appreciation of the Japanese yen, strengths of the Japanese economy, weaknesses of the Japanese economy, and I will make a short summary of its economy.

In Chapter VI, Japan in the post-Cold War era, I will assess the emergence of regionalism and the Japanese global economic view. I will emphasize certain areas, including the European Community (EC), North American Free Trade Agreement (NAFTA), and Asia Pacific Economic Cooperation (APEC). Those regionalisms may cause a great concern for Japanese global economic interests. At the same time I shall assess its new role in the international community. Second, I will examine the Japanese shift of capital to the Asian countries, emphasizing Japan as a capital supplier, a technology provider, or as an absorber of the regional product. Third, because the world situation changed since the Soviet Union collapsed, the relations among Japan, China, and U.S. became crucial and intricate. I will examine Japan's role among them. Finally, I will predict that Japan is seeking a global role through joining the UN-PKO, and becoming a permanent member of the U.N. Security Council. If those two wishes come true, I will

examine what Japan will do? Will it be merely an economic power or will it go beyond that limit to become a superpower?

In Chapter VII, Conclusion, I will make some final comments.

II. REFORM AND RECONSTRUCTION

The Japanese economy recovered from wearing rags after World War II. There were many factors to denote its development. Different schools had different typologies. No matter what viewpoints were used, they saw Japanese economic development. Two fundamental factors played a critical role in the Japanese postwar economic development. One was economic democratization which included the breakup the Zaibatsu, land reform, and labor democratization. Another was the reconstruction and stabilization.

A. ECONOMIC DEMOCRATIZATION

Soon after General Douglas MacArthur arrived in Japan as head of the Allied Occupation Force, he introduced several measures aimed at democratizing Japan politically and economically. Three major reforms imposed during the Occupation - the break up of the Zaibatsu, land reform, and labor democratization affected the post Japanese economy significantly and are credited with promoting a higher rate of economic growth (Ito, 1993, pp. 54).

1. The Breakup of the Zaibatsu

There were four main reasons for the growth of Japan's Zaibatsu. First, they had large initial capital resources. Second, the holding company system itself gave them ready access to financial resources (banks), raw materials (mines), and direct lines for foreign trade. Third, they were led by able individuals who were entrepreneurs and who actively secured new managerial talent. Fourth, they were family-based organizations that applied the concept of the household to the new business environment (Setsuko, Suzuki, ed., pp. 136). Based on those reasons the Zaibatsu formed a strong basis for cohesion of the

Japanese economy. On the other hand, the Japanese economy also was under the control of a few great financial and industrial combines (Zaibatsu).

Following World War II the Zaibatsu were dissolved by Occupation authorities. Its purpose was to destroy the military power both psychologically and institutionally. Moreover, Japan's industries had been under the control of Zaibatsu and enjoying much more advantageous treatment from the Japanese government. To control the Zaibatsu promoted the end of a semi-feudal relationship, helped the development of labor unions and wages, elevated the creation of firms by independent entrepreneurs, and helped assure the rise of the middle class would take place gradually.

Whether or not the Zaibatsu can be said to have been the advance guard of imperialism is also problematic. The principal source of great wealth of Mitsui and Mitsubishi was trade. They were affiliated with overseas firms and hoped for cooperation with England and America. However, it is also true that the Zaibatsu exerted their privileged powers to control the Japanese economy. Thus it is not surprising that American economists in the 1930s focused on the Zaibatsu as the source of evil (Nakamura, 1995, pp. 26). Under the Occupation era there were some measures to dissolve the Zaibatsu.

a. Breakup the Holding Companies

The prewar Zaibatsu were groups of large companies across different industries controlled by family-owned holding companies. At the end of the war, major Zaibatsu groups held about 40 percent of equity (paid-in capital). The Occupation force

required the auctioning off the shares owned by their holding companies (Ito, 1993, pp. 54).

Thus, the first steps in the dissolution of the Zaibatsu was to break up the holding companies, which were the core of Zaibatsu control, and to sell their stock to the public. The holding companies possessed 167 million of shares in 1946, having a value of 8.1 billion Japanese yen. Since the total number of shares in all companies in the country was 443 million, this meant that the holding companies owned all but 40 percent of the total. As a result of a series of dissolution measures, 165 million shares, valued at 7.57 billion Japanese yen, had been settled by 1951. The Zaibatsu leaders, included members active in the financial world. The unrelenting nature of the Zaibatsu dissolution, even to the extent of taking measures against founding family members, was contrary to the general principles of a modern democratic society (Nakamura, 1995, pp. 26).

b. Set up the laws

In 1947 the Occupation force introduced a measure (called the Elimination of Excessive Concentration of Economic Power) intend to break up monopolistic companies. To maintain competition they also introduced the Anti-Monopoly Law (Ito, 1993, pp. 54). Even though this legislation was in practice very leniently applied, Table 1 shows that, with the exception of such firms as those in textiles, where there were many consolidations during the war, and highly oligopolistic aluminum and beer industries, the concentration ratios for the top three producers and top ten producers in most industries were lower after the war than they had been prior to it - particularly those for the top three producers. Once again the stock held by large corporations in affiliated companies was

sold to the public and controlling relations were severed. These measures set the stage for the fierce competition which was characteristic of postwar industry in Japan. The plant and equipment expansions and technological advances increased the pressure of competition and made the economic growth greater (Nakamura, 1995, pp. 27).

Those policies exerted great influence over the entire postwar economy. It was an economy characterized by intense competition in all industries. There were some industries, such as steel and automobiles, in which the nature of the industry led to competition among a handful of oligopolistic firms, and others, like textiles, in which a large number of firms competed, but the basic trend after the war was toward a dead heat in a field of little guys, with no Gullivers in the race. This produced good market mechanisms and was a powerful factor in economic growth. Therein lay the effectiveness of the deconcentration law - good examples of the kind of economic policies whose results were startling to those who drafted them. Furthermore, those policies made many markets more competitive, promoted vigorous investment demand, and enhanced consumer welfare (Ito, 1993, pp. 54).

2. Land Reform

In 1945, Kenzo Matsumura, Minister of Agriculture and Forestry in the Shidehara Cabinet, proposed a reform plan: (1) To change the tenant's rent payment in kind to payment in money. (2) To strengthen measures to increase land-owning, self-cultivating farmers. (3) To democratize the organization of the Agricultural Land Committees in each region (Tsuru, 1993, pp. 20).

Table 1. Concentration Ratios for Leading Producers

	1937, Top 3 & Top 10 firms		1950, Top 3 & Top 10 firms		1962, Top 3 & Top 10 firms	
Pig iron	97.8	-	88.7	93.0	27.7	38.4
Ferro-alloys	51.2	60.0	48.8	81.2	34.6	69.3
Hot rolled steel	56.2	81.3	49.6	77.1	49.8	78.9
Galvanized iron sheet	19.9	85.5	32.8	70.3	37.6	73.6
Electric-furnace steel	74.9	100.0	73.4	100.0	65.3	100.0
Aluminum	91.8	100.0	100.0	-	100.0	-
Bearings	100.0	-	76.3	95.4	68.7	92.6
Steel ships	67.5	96.7	39.1	94.1	37.7	75.5
Ammonium sulphate	60.6	93.5	41.2	87.3	32.7	78.2
Super phosphate of lime	46.6	80.6	47.3	89.7	32.0	72.5
Caustic soda	55.1	86.5	33.8	71.1	23.5	59.8
Synthetic dyes	56.3	70.1	75.2	92.7	64.8	88.8
Sheet celluloid	77.7	91.2	69.2	89.2	80.6	95.0
Rayon filament	36.5	76.1	70.8	100.0	60.5	100.0
Cotton yarn	33.9	59.1	35.1	88.1	16.6	48.2
Cotton textiles	16.5	30.6	18.6	44.2	6.6	17.2
Pulp	65.2	85.3	39.5	73.0	30.5	60.6
Paper	83.1	99.3	57.0	80.3	39.9	65.9
Soy sauce	20.1	28.2	16.7	23.7	25.3	30.3
Cement	40.1	78.5	55.9	91.3	47.1	82.0
Coal	35.4	60.6	35.9	59.6	31.0	55.8
Foreign trade*	35.1	51.7	13.0	30.5	24.8	50.5
Banking	25.8	61.1	21.8	59.6	19.9	54.5
Marine transport	29.8	46.8	18.1	33.1	22.8	56.6
Life insurance	41.4	81.6	47.2	83.7	43.5	85.1
Warehousing	37.8	61.4	25.2	37.4	20.6	31.2

* Prewar figures for foreign trade are average for the years 1937-43, while postwar figure shown are for 1951 and 1957 instead of for 1960 and 1962.

Source: From Fair Trade Commission, Nihon no Sangyo Shuchu (Japan's Industrial Concentration), Data Table 1

On the other hand, the Ministry of Agriculture and Forestry also submitted to the Diet a draft of a land reform program which would have allowed landlords to retain 5 cho (1 cho = 2.45 acres) of land and obligated them to transfer anything above that amount to

the cultivators. But while this bill was being debated, the Occupation forces issued a memorandum on land reform and the bill, though passed by the Diet, was never implemented. Eventually, a second draft was prepared under the direction of GHQ, and its content was far more severe than the Agriculture Ministry's proposal. The program which was agreed upon after discussions between the occupation authorities and Japanese officials was a thorough-going reform stipulating that all the land of absentee landlords, and all but one cho (approximately one hectare) of the land belonging to landlords residing in the rural villages, would be bought up by the government for redistribution to the tenant farmers (Nakamura, 1995, pp. 28-29).

Of all the reform programs that followed World War II, the land reform of 1946 was perhaps the most successful in bringing about basic and whole scope changes in Japan. A sweeping redistribution of land largely eliminated tenancy by 1949 and resulted in about 90 percent of cultivated land being farmed by owners. The results of land reform are shown in Table 2. The proportion of total agricultural land area worked by tenant farmers was reduced from nearly 50 percent to about 10 percent. The diminishment was particularly notable in the Tohoku region and in Hokkaido. Also important is the fact that this stringent reform had the effect of rapidly increasing the productive capacity of rice-growing land in such areas as Hokkaido, Tokoku, and Tozan- generally the northeast portion of Japan - where large landlords had been especially powerful (see Table 3). After the transfer of property rights, land improvements were carried out on a large scale and combined with the introduction of new rice-growing technology to raise the level of agricultural productivity (Nakamura, 1995, pp. 29).

In addition, the increasingly prosperous countryside was able simultaneously to help expand the postwar domestic consumer market, which played such an important part in Japan's economic miracle. The Occupation land reform was a key achievement of the period. It assured the tranquillity of the countryside for decades to come (Cohen, 1987, pp. 178).

Table 2. Changes in the Proportion of Tenant Farmers

Region	Total farmland area 1000 Cho*	Proportion of total worked by tenant farmers (%)	
		November 1946	August 1950
Hokkaido	726	48.7	6.7
Tohoku	813	48.2	8.4
Kanto	874	50.6	12.5
Hokuriku	426	49	9.1
Tozan	298	43.4	10.3
Tokai	343	50.5	12.4
Kinki	352	44.9	13.6
Chugoku	398	40.3	10.2
Shikoku	220	43.5	10
Kyushu	706	41	10.3
Total	5,156	45.9	10.1
Total excluding Hokkaido	4,430	45.5	10.7

* 1 Cho=2.54 acres

Source: Kayo Nobufumi, Nihon Nogyo Tokei (Basic Statistics on Japanese Agriculture)
(Norin Suisangyo Seisansei Kojo Kaigi, 1958)

Table 3. Prefectures with Highest and the Lowest Rates of Rice Crop Increase per Tan in 1950-55*

Rank order of prefectures with highest percentage increases	Increase over 1930-34	Increase over 1939-43	Rank order of prefectures with lowest percentage increases	Increase over 1930-34	Increase over 1939-43
Hokkaido	74	32	Osaka	-11	-10
Aomori	57	27	Shizuoka	-10	-13
Iwate	31	22	Nara	-11	3
Akita	29	11	Hiroshima	-10	-10
Yamagata	28	10	Kochi	-8	7
Miyagi	27	15	Wakayama	-7	-7
Fukushima	26	10	Aichi	-6	10
Nigata	23	5	Hyogo	-6	-1
Nagano	19	6	Kagawa	-4	6
Kagoshima	15	21	Yamanashi	-3	-11

* 1 tan=.245 acres

Source: Same as for Table2

3. Labor Democratization

Japanese labor unions had a half-century of history, from their beginnings in the rikisha men's strike of 1883 and the organization of the Shueisha printers' Union in 1884 to their forced dissolution and replacement in 1938 by a completely government-controlled labor front (Sampo-Roho) modeled after the Nazi patriotic Labor Front. They reached their prewar high point in 1936 with 420,000 members. Although that 1936 figure meant only 7 percent of the nonagricultural work force (10 percent, if only men are included) was organized, the situation was not much different from that of the United States (Cohen, 1987, pp. 191).

The occupation force also encouraged the organization of labor unions. Standards for the working environment and for compensation were established in the Labor

Relations Adjustment Act of 1946 and the Labor Standards Law of 1947, respectively. As a result of these changes, labor unions spread quickly in every sector of the Japanese economy. The percentage of unionized workers jumped from 3.2 percent in 1945 to 41.5 percent in 1946, and then to 53.0 percent in 1948. In the midst of three-digit inflation and food shortages, unions and management clashed often. The labor unions planned a general strike for February 1, 1947; the occupation force, seeing that the labor movement was not moving along the course envisioned for it, banned that strike. Even after the occupation force withdrew its active support for labor unions, the number of strikes and labor-management conflicts continued to increase. In 1948 there were 913 strikes, involving more than 2.6 million workers. It was not until the 1960s that the cooperative labor-management relationship often cited in Japanese management literature emerged nationwide (Ito, 1993, pp. 55).

During this process, Japan's union movement was growing strong roots and making rapid gains. The unrest at its center notwithstanding, the movement played an important role in improving working conditions. Early improvements in real wages were spectacular (see Figure 1), and such results could not have been dreamed of without labor union bargaining power. About this time the unions began to insist on improved working conditions in return for vows of loyalty to the company and compelled management to accept the life time employment system with its restrictions on dismissing employees. Such policies gained management's tacit approval in the face of repeated strikes for better working conditions and in opposition to firings and rationalization drives in the 1950s. For example, the coal miner's strike, the Nissan, Amagasaki Steel, and Oji Paper strikes, and

fiercest of all, the Mitsui Miike strike. Whichever side was the technical winner, if a strike were prolonged it would ultimately drive the company into bankruptcy, which meant that both management and labor were losers. As both sides wanted to avoid such an outcome, the Japanese style of labor - management relations became entrenched, with lifetime employment, the seniority wage systems, and unions organized by each enterprise as its three main tenets. The union's practice of channeling their energies almost exclusively into an annual spring wage offensive date from the latter half of the 1950s (Nakamura, 1995, pp. 31).

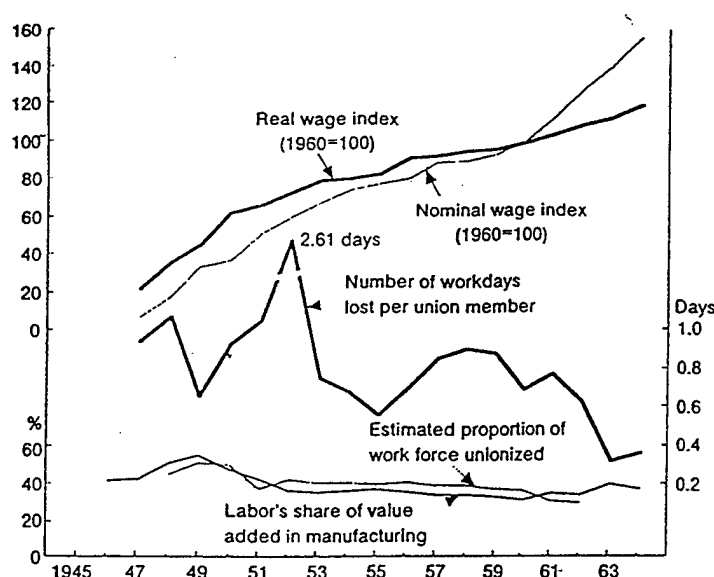


Figure 1. Impact of labor democratization, 1945-64

- 1) Estimated proportion of work force unionized no. of unionmembers/no. of employees
- 2) Number of workdays lost per union member= no. of workdays lost due to strikes/no. of union members

Source: Ministry of Labor, Sengo Rodo Keizaishi (History of the Postwar Labor Economy), data section.

From the macroeconomics point of view, the improved conditions, particularly the higher wages, achieved by the labor unions expanded domestic consumption markets and, in combination with increased farm incomes, made a great contribution to the development of the economy. Although the managers individually chafed at them, the wage increases were highly significant for the economy itself, preparing the way for subsequent growth. In addition to the above three major reforms, General Headquarters also imposed a variety of other changes on the Japanese economic system. For example, the purge of business leaders hastened the succession of young managers to senior positions. The accumulated effects of all these changes became the foundation of the present day Japanese economy (Nakamura, 1995, pp. 32).

B. RECONSTRUCTION AND STABILIZATION

At the time of Japan's defeat, the Allies took the position that they bore no responsibility for the reconstruction for the Japanese economy. That job was incumbent upon the Japanese people themselves. During that period the Japanese not only were to deal with the domestic problems but also were faced with the exaction of reparations by the Allies. The Pauley Reparations Mission that came to Japan in the autumn of 1945 proposed a stern program (see Table 4). All the aircraft, light metal, and arsenals were removed, along with about half of the equipment in shipbuilding yards, steam-powered electric generating plants, and steel production capacity would be reduced to 2.5 million tons. Japan's industrial level would be setback to the level of 1926-30 (Nakamura, 1995, pp. 33).

Table 4. Changes in Reparations Proposals: Value of Facilities to be Removed
(Japanese Yen, 1939 prices)

	Industry Facilities	Military facilities	Total
Nov. 1946 Pauley Report	990	1,476	2,466
March 1948 Strike report	172	1,476	1,648
April 1948 Johnstone (Draper) Report	102	560	662

Source: article by Hayashi Yujiro in *Ekonomisuto*,
April 15, 1955, p. 72 Cited in Hayashi Yujiro and Miyazaki Isamu,
Nihon no Keizai Keikaku (Japan's Economic Plans) (Toyo Keizai Shimposha, 1957), p. 38.

From 1946 to 1948 the Japanese government was trying to achieve two opposing goals: accelerating the recovery of productive capacity in major industries and taming inflation. On the inflation front, the government tried direct controls on prices and resource allocations. To rebuild productive capacity, the government pursued more traditional forms of fiscal and monetary policies. Furthermore, the Japanese government directly planned the growth of the coal and steel industries. Its plan called for reallocating domestically produced coal and imported coal preferentially to the steel industry, and domestically produced steel to the coal industry. The priority production was very socialistic. The government also froze many consumer prices and rationed necessities such as rice (Ito, 1993, pp. 58).

Expansionary fiscal and monetary policies were adopted. The Reconstruction Bank, established in January 1947, became the primary machine for fiscal stimulation. The Reconstruction Bank issued bond and used the proceeds to subsidize key industries such as coal, fertilizers, electric power, and iron and machinery. The subsidies were used to keep the producer prices higher than the consumer prices. The Reconstruction Bank also made loans to public corporations (Ito, 1993, pp. 58).

At the same time, the rehabilitation of industry via the priority production system brought about an expansion of the Reconstruction Bank's funds supply pipeline. Although the aim was to increase production, the immediate result was to accelerate inflation. The supply of goods was increased by the expanded production, but until supply and demand equilibrium was established, the money supply overhang stimulated price, which were then repressed by the Emergency Financial Measures. The consumer price index (including the black market) soared about 40 percent every three months in 1947, and even heading into 1948 it still continued to rise at a stiff 15 percent quarterly (see Figure 2). It was not solved until 1949. Luckily, as production began to increase in the latter half of 1948, inflation had waned considerably (Nakamura, 1995, pp. 35-36).

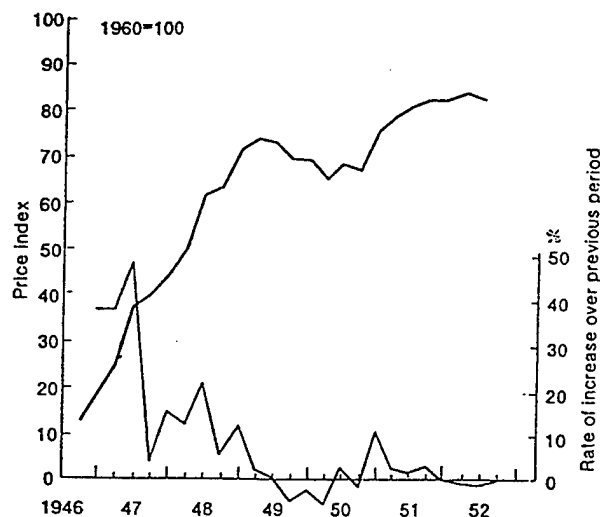


Figure 2. The Consumer Price Index and its rates of increase, 1946-52 (1960=100)

1) This index includes black market prices

Source: Statistics Bureau, Office of the Prime Minister, Consumer Price Index.

The black market was a major problem in the years right after the defeat. The ratio of black market to official prices was as high as 7.2 in 1946, and 5.3 in 1947. Even after the enactment of the Emergency Financial Measures, the new yen issue accumulated in the farm villages or in the pockets of black market traders, since people's highest priority was obtaining food. Eliminating the black market economy, conquering inflation, and reviving production were major tasks confronting the Katayama Cabinet, which was formed by a coalition of the Socialist Party and the Democratic Party in the May of 1947 (Nakamura, 1995, pp. 36).

The Emergency Economic Measures this Cabinet adopted in July of 1947 were a wide-ranging, comprehensive set of prices which, in conjunction with the revival of production via the priority production system, aimed at revising the official price structure and containing inflation. The official prices of basic materials (the so-called stabilization goods-steel, coal, fertilizer, soda, gas, electric power, etc.) in particular were held below production costs, and the government was to provide price-difference subsidies to make up for the resulting deficits. In this way, it would be possible to set official prices for other goods which used these stabilized materials as their raw inputs, and supposedly this would help to check inflation. The goals of these policies, which assumed that labor productivity was declining relative to what it had been before the war, were to hold down and stabilize prices at 65 times, and wages at 28 times, their respective prewar levels. They proposed to accept a large-scale drop in the real wages and a restore supply and demand equilibrium in the economy at this low standard of living. Since the salaries of government employees were set as the standard, the private businesses became helpful (Nakamura, 1995, pp. 37).

At the time inflation continued unchecked, however. By June of 1948 the official price structure could no longer be maintained, and a revision had to be carried out. Prices and wages during this time respectively were at 110 and 57 times their prewar levels. Such was the policy designed to check inflation and revive production. However, when it was pursued, the fiscal burden imposed by the price-difference subsidies for key materials was enormous. Moreover, since the subsidy amounts calculated on the basis of June 1947 costs could not catch up with the increases in the prices and wages, deficits in coal mining and other industries mounted and had to be temporarily covered by loans from such institutions as the Reconstruction Bank (Nakamura, 1995, pp. 37). (In the end, the government made up these deficits with grant bonds and saw to it that funds from the Reconstruction Bank were repaid).

C. THE AMERICAN CONTRIBUTIONS DURING THE OCCUPATION PERIOD

The period of U.S. occupation of Japan was like a guidepost for its future development. And the most important thing was shaping the Japanese development policies. The relations between the United States and Japan not only emphasized defense but also focused on the economic relationship. Under these circumstance Japan gained benefits from the United States. The American contributions may be listed as follows:

1. Breakup the Monopoly

As early as January 1946 the Corwin Edwards Mission was sent by the United States to formulate concrete policies for the dissolution of the Zaibatsu. Upon arrival in Japan, Edwards emphasized in particular that: (1) The aim of Zaibatsu dissolution is

destroy Japan's militaristic power both psychologically and as a system. (2) To enable Japanese workers, who had been exploited by the Zaibatsu in the past, to obtain higher wages and salaries, thus expanding the domestic market (Tsuru, 1993, pp. 19).

The Americans realized that Japan needed a thorough going economic and social transformation in order to strengthen the foundation for these democratic reforms. Regarding its economy, there was a significant reform called for in the Initial Post Surrender Policy, namely the dissolution of the Zaibatsu combines. They were singled out on the questionable Marxist reasoning that great concentrations of commercial and industrial wealth were the root source of Japanese militarism and imperialist expansion. The central holding companies of the Zaibatsu were dissolved. The Zaibatsu families and their high executives were purged, the bulk of their assets were taken over by government for future disposal (Reischauer, 1990, pp.194).

The Zaibatsu were dissolved into their various component companies, and at first it was planned to further break up more than 300 of them in an operation reminiscent of "trust-busting" efforts in the United States. This program proved both difficult and inadvisable in the face of continuing economic stagnation in Japan and by 1949 was scaled down to effect less than a score of companies. Because of the failure to break up most of the component corporations in the Zaibatsu combines, it is frequently asserted that the Zaibatsu system has been restored in Japan. Fortunately, the integration of Japan's postwar business and industry is quite different from the prewar system, with the old Zaibatsu groupings playing only a peripheral role. The Zaibatsu combines may have a closer relationship with one another than with other companies, but far more important are the

associations of firms in a certain line of enterprise, such as steel, electric power, or banking, and the overreaching Federation of Economic Organizations, or Keidanren, which has founded in 1946 and grew to be a major guiding force in the development of big business and the whole Japanese economy (Reischauer, 1990, pp. 194).

2. Wake the Labor and Peasant's Consciousness

In order to balance the Zaibatsu there was a need to to awaken the industrial labor and peasantry's political consciousness. Labor legislation was revised to conform to the most advanced concepts of Europe and the United States, and veteran Japanese labor leaders from the twenties, with the active encouragement of the occupation, built up a rapidly burgeoning and often violently assertive labor movement. By 1949 more than 6.5 million workers had joined labor unions. From the start, the movement started to differ from that of the United States in that the communists controlled a large share of the unions for a while and a high percentage of the organized workers were government employees - teachers, white collar workers in government offices, or laborers in the national railways or in other nationalized industries. As a result, the occupation authorities soon discovered, to their distress, that organized labor often showed less interest in bargaining with management than in political agitation, which seemed to them a more direct way to affect government wage scales or achieve communist goals (Reischauer, 1990, pp. 194).

3. Assist the Land Redistribution

The most sweeping and successful of all the occupation reforms was aimed at improving the lot of tenant farmers and awakening their political consciousness. This was

the land reform program. It was largely carried out between 1947 and 1949.

Tenant-operated farms, which had remained at about 45 percent since early in the century, were reduced to less than 10 percent by banning all absentee landowners and permitting the ownership of only a small amount of agricultural land beyond the area cultivated by a farm family itself. Generous credit terms and a runaway inflation made it easy for the tenant cultivators to acquire the land and reduced the recompense to the former owners to only a penny on the dollar in real terms. However socially salutary the results may have been, this was the kind of reform that could never have been carried through democratic procedures; external power was necessary. It left the average Japanese farm a mere 2.5 acres in size, which in later more prosperous times was a serious handicap, but it established a stable, egalitarian, and satisfied farming population, determined to retain its rights in the new democratic age (Reischauer, 1990, pp. 194-195).

4. Provide a Peaceful and Stable Environment

Under the United States's protection and instruction Japan did not worry about the external world's problems. At the same time, following those reforms provided Japan with a stable surroundings to carry out those projects without hesitating. We can say that without the occupation period under the assistance of the United States, Japan may have spent a longer time to seek its identity and role. Because the United States and its allies provided political stability, economic development can follow the track and turn out successfully.

D. END OF THE OCCUPATION

As we know in the beginning of the Occupation era, the United States proposed some stringent measures. However, in accordance with the changing situation outside of Japan, the policies shifted. In October of 1948, the Chinese Communist Army tookover power in China, and the Cold War between the United States and Soviet Union intensified. The Japanese significant role emerged in the coming Cold War. The United States National Security Council adopted Resolution 13/2 concerning Japan. This resolution formalized the major turn in American's basic policy toward Japan, removing many restrictions that had been previously imposed and decreeing that Japanese economic recovery would be expedited (Nakamura, 1995, pp. 40).

In line with this new policy, the United States not only pursued a more favorable economic policy in Japan, but also initiated a move to end the Occupation. Initially, the United States faced objections from its allies, but finally succeeded in convincing them to come to the peace conference. Under the United States' auspices, the San Francisco Peace Conference was held in September 1951, and in April of the following year, the occupation of Japan formally ended. This shift would be to the advantage of rehabilitating Japanese sovereignty and conducive to its domestic and international framework in the postwar period.

III. THE RAPID ECONOMIC GROWTH PERIOD

At the end of the Allied Occupation in 1952, Japan ranked as a less-developed country, its per capita rate of consumption was merely one-fifth that of the United States. During the period 1953-73, the economic growth was remarkable. Its average growth was 8.0% per annum overall and 10.6% during the 1960s. This unprecedented growth also made Japan the first less-developed country in the postwar era to achieve developed status (Kodansha International Ltd., 1995, pp. 108). However, which factors drove the Japanese economy forward, and sustained its high growth for two decades (1953-73) is my thesis concern.

Those factors will be divided into two parts, one deals with the internal factors, another deals with the external factors. Firstly, the internal factors may be summarized as follows: 1) aggressive behavior by firms, 2) advances in technology, 3) the labor force, 4) capital stock, and 5) government policies. Secondly, the external factors entail: 1) the role of Korean War, and 2) the establishment of the International Monetary Fund (IMF).

A. THE INTERNAL FACTORS

1. Aggressive Behavior by Firms

With the boom occasioned by the Korean War, the business firms made an opportunity from the blow of the Zaibatsu dissolution, the elimination of the concentration of production in giant companies, the purge of major firms' top management, and the industrial reorganization, which was forced on them by the postwar "democratization." Important changes began to take place within the firms themselves at this time (Nakamura,

1995, pp. 68). There are some characteristics developed in this period. They will be discussed in detail in the next sections.

a. Acceleration Toward Professional Managers

First of all, there was a complete change of managers. Ever since the Meiji era the trend had been away from owner-managers toward hired professional managers. This trend was accelerated by the dramatic changes during and after the war: many of the remaining owner-managers, who were leaders of the *zaikai* (financial world) were either purged or lost economic power due to inflation, the burdensome assets tax, and so on. The *obanto* (chief managers) of the *zaibatsu* also lost their positions and were replaced by a new and much younger generation of ordinary directors, factory or branch managers, and section chiefs (Nakamura, 1995, pp. 68-69). This new trend made these managers bear a great responsibility for the postwar Japanese recovery and reconstruction, and directly influenced the Japanese economic growth.

For example, the Mitsui group of firms had at one time been considered the property of the Mitsui family and had come to be managed along conservative lines with emphasis on reality and soundness. Despite the fact that they had been expanding, profit-making concerns from the first, after the war these companies were streamlined into an organization of independent firms oriented toward expansion and high profits, and the young "professional managers" endeavored to achieve these objectives. These men lacked the dignity and authority of their more conservative predecessors, but they aggressively took up the challenge of meeting these new goals, and in many cases they succeeded. Furthermore, when the time came to transfer technology from abroad this also provided

these aggressive young managers a good opportunity to compete (Nakamura, 1995, pp. 69-70).

b. Developed "Product-Monopoly Busting"

Consideration of production and sales increases, and advancement into new fields, were planned unceasingly. As a result, a "product-monopoly busting" approach developed. Among steelmakers this centered on producing special items monopolized by other companies. Besides fierce competition also developed in the auto industry, where each firm produced a full line of large, medium, and compact cars to market against its opponents. In particular in the petrochemical industry, when MITI tried to combine the smaller companies by announcing that they must have a minimum ethylene production capacity of 300,000 tons in order to continue to do business, the companies all announced they would build plants to meet the target, and MITI's efforts ended in failure (Nakamura, 1995, pp. 70).

Therefore the Japanese government's thinking began to change. Government seemed to intervene less and become more respective to guide the future development. Trade and direct foreign investment were liberalized, tariff and nontariff trade barriers were lowered (Dolan and Worden, ed., 1990, pp. 207).

c. Make Profits Based on Bold Business Expansion

Because the firms suffered setbacks during the war, to some extent the recovery was delayed. Moreover, since the proportion of debentures and borrowed funds rose and more burdensome interest payments were unavoidable, there was a great necessity for bold expansion to increase profits. At that time it was strongly asserted that

improving the equity capital ratio was the key to improving the operating base. However, if the ratio was improved by using only equity capital for plant and equipment investment, rapid expansion would be impossible, profit increases would be limited, and firms would fall behind other companies in the industry. In the end, firms abandoned the concept of equity capital ratios and instead expanded plant and equipment investment on the basis of borrowed funds, debentures, and other debt capital (Nakamura, 1995, pp. 71-72).

Japan has few natural resources and depends on massive imports of raw materials. It must export to pay for its imports, and manufacturing and the sales of its services, such as banking and finance, were its principal means of doing so. For these reasons, the careful development of the producing sector was a key concern of both government and business leaders (Dolan and Worden, 1990, pp. 207). Furthermore, the government also executed some measures to help the firms, such as cartel formation, tax reduction or exemption, and industry-wide plant and equipment capacity expansion agreements. Thus the government's industrial policies functioned as a safety valve so that firms could boldly pursue aggressive programs within a secure environment. This aggressive pattern of cooperative behavior was successful, and it was repeated without suffering a major rupture during this period.

2. Advances in Technology

There is no doubt technology played an important role for the contemporary Japanese economy. As a matter of fact, a great deal of technology was developed for military use during World War II. Though the Japanese possessed some advanced technology, either Japan needed some technologies that they did not have or those

technologies had been developed a much broader spectrum. For example, electrical technology and nuclear energy are the best-known. In addition, the technology innovations such as nylon and continuous rolling equipment in the steel industry, which had been used in Europe and U.S. before the war, had not yet been introduced into Japan. After about 1950, when the introduction of foreign technology began, this prewar and wartime technology began to flow into Japan (Nakamura, 1995, pp. 76-77).

In some instances industrial technology was imported in the form of highly sophisticated machinery. A substantial component of foreign technology has been readily available in technical and professional journals, in American graduate schools that Japanese have attained, and similar "costless" sources of information. Much has also come through technology license arrangements between Japanese and foreign firms. Japanese firms have been extremely efficient in learning, commercializing, and improving upon foreign technology. Most Japanese R&D is carried out and financed by private firms, and much is complementary to the foreign technology they have purchased (Patrick and Rosovsky, 1976, pp. 20).

In accordance with these efforts technological R&D gave an impetus to the subsequent economic development. But seeing these developments from another angle, the application of technology in the heavy and chemical industries caused serious pollution and damage to the environment as well. This lesson from Japanese economic development may be a good example to those latecomers.

On the other hand, the Americans also provided the Japanese with useful technology. Private companies who sold obsolescent technology to Japanese firms at a

small profit regarded this as an unexpected windfall and never considered that the sharing of this technology might someday come back to haunt them. In this way the Japanese were able to narrow the technological gap. With their new industrial plant and their often superior business organization and marketing techniques, they developed quickly into formidable economic competitors (Reischauer, pp. 317)

3. The Labor Force

The labor force was one of the most important factors in Japan's economic growth. It has owned an ample supply of well-trained, well-motivated, hard working labor (Patrick and Rosovsky, pp. 15). Owing to its successful economy that can simultaneously reallocate labor away from low-productivity work in agriculture, growth and rising incomes also allowed for economies of scale in production. Some features of the postwar labor force are:

a. High Education of Labor Force

In 1950 Japan had a labor force comparable to that of Western Europe in quality (measured in average years of workers' education). Japan was not far behind the United States in average years of schooling for males (8.15 versus 9.68 in 1950) and for females (7.22 versus 10.01) (Denison, 1967, pp. 107). This high educational level is one reason why the contribution of further increases in education to productivity improvement is less important in Japan than in many industrialized countries (Patrick and Rosovsky, pp. 15).

b. Decreased the Labor Force in Low-Productivity Positions

With the economic boom, workers have to move readily into more productive, higher paying jobs. The aggregate reallocation of labor among different sectors of the economy has been phenomenal as shown in Table 5. There is a considerably changed labor structure. The most prominent differences were the new workers entering sectors and occupations different from those of the older generations, and the high proportion of the children of farmers who have entered nonagricultural occupations (Patrick and Rosovsky, 1967, pp. 16). In addition, agriculture accounted for almost 40 per cent of the labor force in 1953-5; its 1971-3 share was below 15 per cent. The proportion of self-employed and unpaid family workers fell from 58 per cent to 32 per cent. It is true that in both percentage and absolute terms, falls in these two, partly overlapping, segments of the labor force were actually at their peak in the years 1969-72, with average annual decreases of 600,000 in the numbers in each category (Boltho, 1975, pp. 113).

4. Capital Stock

The growth of labor productivity, and the absorption of workers into higher productivity jobs, would not have been possible without a high rate of investment in plant and equipment and other directly productive capacities (Patrick and Rosovsky, pp. 17). Japan is a market economy; capital stock lies mostly in the hands of the private sector, and economic decisions about production, prices, and investments are motivated by a desire to earn profits. Based on this reason the source of money supply played a locomotive role for the economic development. There are two motivations to drive the capital into the industrial investment, they are summarized as follows:

a. Business and Managerial Skill Optimize the Economic Growth

Complying with the increased profits and the improved technology, the larger firms also were encouraged to expand their market share under these trends. While Japanese corporate investment strategy could lead to devastatingly excess capacity for a single firm or industry, if it will be out of line with overall demand, such behavior was so widespread that sufficient additional demand was generated for virtually all products, with only temporary periods of excess capacity. Business optimism was thus self-fulfilling. Simultaneously, the large firms appeared to be interested more in long-run than short-run profit maximization and profit growth maximization as consistent and mutually reinforcing over the long run (Patrick and Rosovsky, 1967, pp. 18).

b. High and Rising Savings Rate

Another important cause of Japan's rapid investment rate has been its high and rising savings rate. In aggregate, all of Japan's domestic investment has been financed by domestic savings, though of course some individual firms borrow from abroad. Not surprisingly, the corporate sector plows back the major share of its after tax-profits-about 85 percent for the corporate sector as a whole. Even so, firms have to rely heavily on external finances because of their high investment demand. Individual saving rates in Japan, which were low in the early 1950s, have risen tremendously. For example, urban workers now save about 20 percent of their disposable income-about triple the rate of American workers. Personal saving accounts for only about a third of gross domestic saving and of increases in savings rates, as shown in Table 6. Business depreciation allowances have been equally important. This is primarily due to the business investment

boom and the use of the standard declining balance method of depreciation. Despite high retention rates, corporate profits account for less than a sixth of gross saving. The government too is a substantial saver, mainly for investment in government building, social overhead, and the like (Patrick and Rosovsky, pp. 19).

On the other hand, in the postwar period government savings increased because: (1) There was a steady increase in government revenue as a result of the high rate of economic growth, and (2) military expenditures were minimal. Besides, government investment has also increased rapidly since the latter half of 1960s. This is because the Japanese government has emphasized capital formation more than consumption. The rapid capital formation by the government and private sector has stimulated economic growth by creating effective demand and expanding productive capacity (Minami, 1986, pp. 209).

It was truly fortunate that Japan could match a relatively high saving rate with a strong demand for domestic investment. Without its high saving rate, Japan would have had to borrow from abroad to maintain its high investment and its rapid growth (Ito, 1993, pp. 63).

5. Government Policies

The main impetus to growth has come from the private sector (Patrick and Rosovsky, 1967, pp. 20). However this is not say that economic policy played no role in the process. It is true that the economic policy-making underestimated growth capacity in the beginning, but it is also a fact that once growth had begun, they made every effort to sustain it and strove to remove the barriers. Thus a series of policies for the protection and

fostering of industry had been established before economic growth began (Nakamura, 1995, pp. 87-89).

Table 5. Japan's Gross Domestic Product and Labor Force, by Sector, 1956 and 1971

Sector	<u>1956</u>		<u>1971</u>		<u>Average annual growth(a)</u>	
	Gross domestic product	Labor force	Gross domestic product	Labor force	National sectoral output	sectoral labor force
Primary	17.4	41.9	5.8	17.4	6.8	-4.2
Agriculture	12.5	39.3	4	15.90	6.6	-4.3
Forestry	3.2	1	0.7	0.4	3.7	-4.3
Fishing	1.7	1.6	1.1	1	12	-1.5
Secondary	34.5	23.9	41.1	35.5	15.3	4.3
Mining	2.2	1.5	0.7	0.4	6.2	-6.8
Manufacturing	27.8	17.7	33.3	27.2	15.3	4.6
Construction	4.5	4.7	7.1	7.9	17.6	5.2
Tertiary	48.1	34.1	53.2	47.2	15.9	3.8
Electricity, gas, water	2.1	0.7	1.9	0.6	13.8	0.4
Wholesale and retail trade	16.5	13.7	17.1	19.2	16.1	3.9
Transport and communication	8.5	4.6	7.1	6.4	13.4	3.9
Banking and Insurance	3.8		4.8		16.6	
Real estate	3.8		6		18.1	
Services	9.8	10.7	13	14.7	16.9	3.8
Public administration	3.7	2.7	3.3	3.3	14.2	3

Source: Gross domestic product, Economic Planning Agency, Annual Report on National Income Statistics, 1972, pp. 282-83. Labor force, Bureau of Statistics, Office of the Prime Minister, 1956 Employment Status Survey Summary, p.26, table I-3; and *ibid.*, 1971, pp.142-45.

a. Estimated from beginning and end-year data.

Table 6. Gross Saving in Japan, by Components, 1952-54 and 1970-72

Component	<u>1952-54(a)</u>		<u>1970-72(a)</u>		
	Percent of gross national product	Percent of saving	Percent of gross national product	Percent of saving	Percent of increase in saving rate
Depreciation	8.1	33.3	14.2	35.8	35.9
Corporate retained earnings	3.3	13.5	5.7	14.4	14.4
Personal	6	24.6	13.1	33	33.5
Government	5.7	23.4	7.4	18.7	18.4
Statistical discrepancy	1.3	5.2	-0.7	-1.9	-2.3
Gross Saving	24.3	100	39.6	100	100

Source: Computed from Economic Planning Agency, Revised Report on National Income Statistics, 1951-67, pp. 3, 11; EPA, Annual Report on National Income Statistics, 1974, pp.2, 10.

a. Arithmetic average of three years.

Although Japan's economic development was primarily the product of private entrepreneurship, the government has directly contributed to the nation's prosperity. Its actions have helped initiate new industries, cushion the effects of economic depression, create a sound economic infrastructure, and protect the living standards of the citizenry. Indeed, so pervasive has government influence in the economy seemed that many foreign observers have popularized the term "Japan Incorporated" to describe the alliance of business and government interests (Dolan and Worden, 1990, pp. 204).

B. EXTERNAL FACTORS

1. The Role of Korean War

The influence of the Korean War was nothing short of prodigious. The year 1949 was one of worldwide recession, but this state of affairs shifted a full 180 degrees the following year as war sparked a worldwide search for strategic goods (Nakamura, 1995,

pp. 43). On June 25, North Korea invaded South Korea, and in a matter of days the U.S. Army was turning to Japan to provide all kinds of military support supplies, from galvanized iron sheets and cotton duck to prefabricated buildings and chemicals. Suddenly Japanese makers were besieged with orders for rush shipments. The price was secondary. Japan was the closest and fastest available supplier. Within only a month, the visible effect was startling. In the single month of August 1950, U.S. procurement officers signed contracts with Japanese suppliers for \$60 million in goods and services. Particularly, in the second half of 1950, receipts from "invisible exports" which is where the proceeds of military procurement in Japan were listed tripled, and during 1951 they reached almost \$ 1 billion. This was three quarters as much as all other Japanese foreign exchange receipts for the year from the whole world.

The war was a disaster to Koreans, but to Japan was a good chance to recover its economy. The outbreak of the Korean war was a godsend to the Japanese economy. The United States suddenly required the services of Japanese manufacturers and construction companies. Material for the Eighth Army and Fifth Air Force brought in valuable dollars. American special procurement paid for half of Japan's imports in 1952. The Korean war-boom permitted the economy to take off at the same time as the country regained its independence. Fortune certainly had favored Japan. The Japanese made the most of their good luck. Their production, employment, and business profits all rose rapidly as the economy surged forward into a boom. Therefore expansion continued. From 1953 onwards the managers of the Japanese economy were in unfamiliar territory, since the old benchmarks had been passed.

After World War II, the devastating situation either in Europe or in Asia was nearing collapse. The need for reconstruction was imminent. No doubt the United States was the only country that could take this responsibility, therefore the assistance unfolded. The United States distributed dollar funds on a massive scale under the Marshall Plan. However, a Marshall Plan for Asia never materialized (Nakamura, 1995, pp. 60). But because of the United States' involvement in the Korean War, Japan became a supply base for United States and United Nations troops. This increased the demand for Japanese-manufactured goods and parts, and the economy grew quickly (Ito, 1993, pp. 60).

The economic growth brought about by this special procurement also led to a huge volume of dollars for special procurement. This had an impact in the Asian region, particularly in Japan the economic growth brought about by this special procurement led to an increase in household wealth and a conspicuous rise in the level of consumption. The common hope, particularly of city dwellers during this time, was to recover the standard of living they had enjoyed in the prewar period, represented by the years 1934-36. As their incomes increased, the first items people purchased were the prewar consumer goods like Japanese-style clothing rice, miso, and soy sauce. This trend was reflected in the fact that consumption of all these traditional consumer goods peaked in the early 1950s. Their lifestyle recovered along with the standard of living. The recovery was completed by the mid-1950s, after which living standards continued to rise but were accompanied by a move away from the prewar lifestyle and toward a more western style of living.

2. The Establishment of the International Monetary Fund

Technological progress and industrial development were of course responsible for the high rate of growth in the world economy. But underlying them was the establishment of the International Monetary Fund (IMF) system for infrastructural support for this progress, as well as the worldwide spread of full employment policies. The IMF in 1944 conceived the Bretton Woods system, a global arrangement for the management of foreign exchange in place of the international gold standard which had been in use up until that time (Yoshitomi, 1977).

The IMF's main feature was, in place of gold, which was chronically in short supply, a key currency with convertibility into gold was to be established. The American dollar was not to be convertible within the United States, but conversion by both domestic and foreign authorities was to be authorized at the rate of \$35/ounce. Since the middle of World War II the U.S. had been commonly acknowledged to possess economic strength surpassing that of any other country in the world, and the American dollar was selected as the key currency over objections by John Maynard Keynes that a non-national currency should be established instead. This choice presupposed that, as the key currency country, the United States would contribute to the support of a global monetary system and to the achievement of global full employment- a responsibility which the U.S. did subsequently strive to fulfill. A second feature of the IMF was to establish a fixed exchange rate between the key currency and the currency of each member country, with a very narrow band within which each of these rates could fluctuate. These fixed rates were not to be changed except when fundamental disequilibrium in the international balance of payments

arose. In this context, a fundamental disequilibrium meant that the country was burdened with chronic unemployment, regardless of whether domestic business conditions were prosperous or slack, with the implication that an accompanying chronic payment deficit was due to an overvalued currency. Thus, less than ten years after Keynes published his *General Theory of Employment, Money, and Interest* (1936), full employment had been acknowledged as a common policy goal, as was symbolized by the fact that Keynes represented Britain at the 1944 Bretton Woods conference (Nakamura, 1995, pp. 59).

Japan re-entered the world economy in 1949, and from the time the Japanese yen 360/US \$1 rate was established until the upward yen revaluation in 1971 this rate was consistently maintained. With the 360 Japanese yen rate as the standard, Japan's objective during this period was to strengthen its international competitiveness. That this goal was achieved is clear from a comparison of national export price indexes (see Table 7). Comparing these figures with the U.S. domestic price index adjusted by the exchange rate vis-a-vis the dollar (shown in the table in parentheses), one can observe the process whereby Japan gradually gained an advantage over the other advanced industrial nations. This is how the growth rate gradually rose and is the reason that it was possible to firmly secure a balance of payments surplus by the latter half of the 1960s (Nakamura, 1995, pp. 60-61).

For 25 years after World War II, the international monetary system, known as the Bretton Woods system, was based on stable and convertible exchange rate, with occasional devaluations of individual currencies to correct "fundamental" disequilibria in the balance of payments. This system had several strengths, but it also had flaws that were

to prove fatal. Mounting pressures in the 1960s culminated in the collapse of Bretton Woods Systems in 1971. However, the influence of IMF exerted over Japan was extremely important for the Japanese economic growth in that period (Root, 1994, pp. 456).

Table 7. International Comparison of Export Price Indices, 1950-77
(1958=100)

Year	Japan	U.S.A.	U.K.	W. Germany	France	Italy	World
1950	102.2	81	73	72	61	110	
1955	109.3	92	89	91	71	111	99
1960	95.9	99	96	94	95	102	100
1965	100.8	104	104	102	105	102	103
				(107)			
1970	109.5	121	131	104	126	110	113
			(112)	(119)	(112)		
1975	151.6	213	260	137	197	225	241
	(183.9)		(206)	(219)	(217)	(206)	
1977	160.3	242	370	142	236	324	268
	(217)		(228)	(257)	(240)	(231)	

Figures in parentheses were calculated by multiplying in index for that year by the American dollar exchange rate (base year =1963).

Source: Calculated from Bank of Japan, *Nihon Keizai o Chusin to suru Kokusai Hikaku Tokei* [International Comparative Statistics Focusing on Japan]

In 1968 Japan officially celebrated the centennial of the Meiji Restoration. There was a sense of accomplishment and pride. In the one hundred years, Japan had accomplished the overriding national goal of catching up with the West. The Japanese moved into the 1970s riding the crest of an unprecedented prosperity. Their single-minded pursuit of economic growth and industrial expansion, however, had left them with some very serious social and economic imbalances, notably in the areas of social security, social

overhead capital, and environmental safety. Furthermore, the oil crisis of 1973 brought home a valuable lesson - the futility and danger of building an economic supermachine relying almost exclusively on imported resources. By the mid-1970s, a new national consensus began to emerge. The new orientation promises a more moderate and balanced growth. This shift also made its economic growth slowdown (Haitani, 1976, pp. 8).

IV. THE SLOWDOWN IN GROWTH

As I mentioned above, Japan enjoyed much more benefits during the high growth period. But there are two questions I would like to raise about its slower growth decade: why has Japan grown so much more slowly than it did before 1974?; and why has its performance relative to other industrial nations also dropped? This disruption and confusion of 1973-74 was so strong in Japan that it is tempting to blame the oil crisis for everything. But the country did not return to its former high rates of expansion even after the effects of the oil shock should have dissipated. Since oil again rose in price in 1979, one could argue that Japan suffered through a prolonged adjustment to both episodes, so that by the mid-1980s a renewal of higher growth rates would occur, especially when oil prices began dropping. Higher oil prices are clearly one element in explaining what happened, but this element is not the most important one (Lincoln, 1988, pp. 41). Those factors which caused the slower growth may be listed as follows: 1) slower capital formation, 2) end of technological catch-up, 3) higher energy costs, 4) diversification of social goals, 5) sluggish world economic development, 6) a changing labor market, and 7) slower productivity growth.

A. SLOWER CAPITAL FORMATION

From 1956 to 1973 real fixed nonresidential capital investment grew at a 16 percent real annual rate, though with some unevenness (Table 8). From 1974 to 1985, however, investment growth dropped to only 3.9 percent annually. The reduction was heavily affected by average annual real declines of -1.0 percent from 1974 to 1978. This drop can be attributed to the one-time shock of the 1973 oil crisis and a temporary

deceleration effect as the economy slowed. Corporations had invested in expectation of continued high growth and now found they had more capacity than needed, so investment temporarily dropped while output caught up with installed capacity. After this temporary adjustment, investment grew at a 7.6 percent real annual rate, but even this was far below the growth before 1973 (Lincoln, 1988, pp. 43-44).

Japan's economic performance can be explained by various factors. However, during the 1970s she lagged far behind other countries in the provision of social security, and it was, therefore, left to individual families to make provisions against illness, unemployment or old age. And later on cost of education was also a crucial factor that increased the government burdens and caused the investment to decline (Allen, 1981, pp. 98-99).

Table 8. Growth of Private Fixed Nonresidential Capital Investment, Selected Periods, 1956-85

Period	Average annual real growth
1956-1960(a)	2.2
1961-1965(a)	10.8
1966-1970	21.7
1971-1973	4.7
1974-1978	-1
1979-1985	7.6
1956-1973	16
1974-1985	3.9

Source: Economic Planning Agency, Annual Report on National Accounts, 1987, pp. 118-21; 1970, pp. 86-87; and Bank of Japan, Economic Statistics Annual, 1971 p. 289

a. 1956-65 average annual real growth is in 1065 prices. Other periods are based on 1980 prices.

B. END OF TECHNOLOGICAL CATCH-UP

The end of the technological gap between Japan and other developed countries was critical for the slower growth of both capital formation and productivity in Japan. The impact of technological equality on capital formation was straightforward. Because rapid increases in productivity based on imported technology were no longer possible, corporations could no longer expect the high levels of profit from new investments to which they had become accustomed. With lower expectations, investment decelerated. What had once been a powerful incentive soon evaporated in the mid-1970s (Nishimizu and Jorgenson, 1977, Discussion Paper, pp. 556).

Moreover, it is impossible to think that Japan finally did catch up with the United States and Western European countries technologically at some point in the mid 1970s. Since it is harder to develop a country's own new technology than to merely obtain licenses, Japan's growth rate then had to fall (Ito, 1993, pp. 72).

The end of the catch-up process also meant the cost of acquiring new, more productive technology was higher. While importing technology is by no means inexpensive, research and development expenditures are far lower than when technology is entirely developed at home. The change in Japan's position is clear from increases in research and development expenditures. By 1982 these expenditures (exclusive of social science research) were 2.20 percent of GNP, up from 1.70 percent in 1973 and 1.27 percent in 1965 (U.S. expenditures were 2.61 percent of GNP in 1982) (Tokyo: MOF, 1984).

On the other hands, Japan could not have developed as she did, if she had not been able to advance to the forefront of technical accomplishment. It is, therefore, rather surprising at first sight to learn that her expenditure on industrial research and development (R and D) has been quite modest. In 1978 it amounted to only 2.15 percent of the national income compared with 2.29 percent for Britain, 2.46 percent for the United States, and 2.64 percent for West Germany (Foreign Press Center, Tokyo, October 1979).

By the mid-1980s Japan had become the acknowledged world technological leader in a number of fields (including iron and steel, dynamic random-access memory chips, and automobiles). But no matter how successful it is at generating its own technology (or even continuing to adapt advances from other countries), the profit incentive from investment in corporations using these new technologies remains smaller than when it lagged behind and was catching up. With a smaller profit incentive, corporate investment grew at a slower pace. Reduced growth of investment as a result of closing the technology gap thus becomes important in explaining reduced productivity growth due to technological change and economies of scale because these are closely linked to capital formation (Lincoln, 1988, pp. 44-45).

C. HIGHER ENERGY COSTS

By 1985 the wholesale price index for imported oil, coal, and natural gas was more than eight times higher than in 1970 (Table 9). The big increase came in the oil shock years, with a 193 percent gain in 1974 and a 73 percent gain in 1980. As in other countries, the trend in energy costs was uneven, with declines in some of the years after the oil shocks. These increases far exceeded the overall inflation rate in the economy

represented by the GDP deflator. The changes were more important for Japan than most other industrialized countries since it depended on imports for such a large portion of its total energy needs (83 percent in 1984). Among energy sources, Japan is most dependent on petroleum. In 1973 it relied on oil for 76 percent of its total energy needs; even as late as 1985 oil accounted for 57 percent of total needs (compared with 42 percent for the United States in 1984). And because Japan produces almost no crude oil itself, its import dependency is virtually 100 percent. It was especially dependent on Middle Eastern crude oil in the early 1970s for more than 80 percent of its petroleum needs. By 1985, it was still 69 percent (Keizai Koho Center, Japan 1986).

The rising price of oil seriously affected the economy during the oil shock. First, like other importing countries, Japan suffered a loss of income to OPEC members. As Table 9 shows, its terms of trade worsened (meaning that the unit price of imports rose relative to the price of exports) in the immediate aftermath of the 1973 and 1979 oil shocks. With 1980 as 100, the terms of trade deteriorated from 203.3 in 1973 to 137.0 in 1976 and from 133.3 in 1979 to 95.9 in 1982. In the long run, again like other oil-importing countries, Japan also faced adjustment costs in coping with the relatively higher price of oil, but its problems were more serious than other countries. Its petroleum, petrochemical, aluminum refining, synthetic textile, and other industries were dependent on petroleum or petroleum-derived inputs that became relatively more expensive than in other industrialized countries. And in some other industries Japan relied on petroleum-dependent industries which lost their competitiveness. Government policy may have exacerbated these problems. Import barriers erected in the 1950s and in the 1960s

encouraged investment in some countries that, even before the oil shocks, had little chance becoming competitive (Lincoln, 1988, pp. 46).

The aluminum industry provides the outstanding example of this adjustment problem. Smelting aluminum requires a great deal of electric energy, and aluminum smelters are usually located near sources of cheap hydro-electric power. In Japan the industry depended on oil-fired electric power plants. Because of import protection and new plants incorporating state-of-the-art technology, investment was attracted to aluminum refining during the 1960s. By 1979, though, under the combined impact of the two oil price hikes, the industry could not longer compete against imports. Despite efforts to smooth and slow the process of decline (a euphemism for providing protection from the cold winds of international competition), companies went out of business or shut down capacity at a very rapid rate, so that by 1984 imports accounted for 71 percent of domestic consumption of aluminum in Japan (compared with 7 percent in 1965) (Japan Statistical Yearbook, 1986, pp. 228).

Moreover, Japan's lack of domestic energy sources had always been a fact of life. Especially, suffered the first and second oil crises, Japanese to realize how crucial energy was. Also became aware of the limits of world's natural resources and of Japan's vulnerability as importer of raw materials (Ito, 1993, pp. 73).

Table 9. Impact of Changes in Cost of Imported Energy, 1970-85

Year	Import price index for energy (1980=100)a	percent change from previous year	Percent change in GDP deflator	Terms of trade (1980=100)b
1970	12.4	0.8	7.7	224.5
1971	14.3	15.3	5.6	221.3
1972	13.8	-3.5	5.6	223.6
1973	14.9	8	12.9	203.3
1974	43.7	193.3	20.8	162.3
1975	52.3	19.7	7.7	145.1
1976	56.1	7.3	7.2	137
1977	53.9	-3.9	5.8	136.7
1978	43.7	-18.9	4.8	154.7
1979	57.8	32.3	3	133.3
1980	100	73	3.8	100
1981	109.7	9.7	3.2	99.6
1982	121.3	10.6	1.9	95.9
1983	107	-11.8	0.8	97.8
1984	101.8	-4.9	1.2	101.8
1985	102.1	0.3	1.5	102.9

Source: Bank of Japan, Economic Statistics Annual, 1985, pp. 311-12; and Economic Planning Agency, Annual Report on National Accounts, 1987, pp. 166-69.

a. Includes imported petroleum, coal, and natural gas.

b. Ratio of the unit price of exports to the unit price of imports.

D. DIVERSIFICATION OF SOCIAL GOALS

During the 1950s the Japanese shared a rather broad consensus on the desirability of rapid economic growth. However, the disintegration of this broad public consensus in the late 1960s was most visible and dramatic on issues relating to pollution. In Minamata, mercury poisoned hundreds of people and deformed their offspring. In Yokkaichi, smoke and fumes from a new complex of petrochemical plants create an upsurge in asthma and other serious respiratory conditions. In various parts of country severe cadmium poisoning

were caused by dumping wastes from lead and zinc smelting operations into the rivers (Lincoln, 1988, pp. 48). People suffered acute incidents from air and water pollution. Criticism was highly increasing.

As public pressure mounted, the government reacted with new legislation and administrative action. In 1970 the Diet passed pollution control legislation. From 1970 and 1973 the central government's pollution control budget more than tripled, and if investments in related organizations for pollution control are added, expenditures almost quadrupled to 430 Japanese yen (\$1.6 billion at the 1973 exchange rate). Furthermore, regional and local government spending in these same years rose more than 2.5 times to 954 billion Japanese yen (more than \$3.5 billion). Although by fiscal 1984 the central government's environmental spending (again including transfers to other organizations) was up to 1.15 trillion Japanese yen (approximately \$4 billion), an enormous increase and reached their limit. Government budget deficits had forced reductions of 2.5 percent in environmental expenditures between fiscal 1983 and fiscal 1984 (Environmental Agency, Kankyo Hakusho, 1976) .

Increased government spending for pollution control was matched by rapid increases in expenditures by private industry. In the iron and steel industry, spending for pollution control as a ratio to sales rose from 0.9 percent in 1970 to 1.8 percent in 1974. The paper and pulp industry ratio went from 1.1 percent to 3.0 percent, while in chemicals it rose from 0.4 percent to 1.3 percent. Total private-sector investment in pollution abatement was roughly double expenditures by the central government and almost equal to those of local government (Environmental Agency, Kankyo Hakusho, 1976). These

investments brought about a significant and visible improvement in environment quality. The major cities look and feel cleaner than in the early 1970s.

On the other hand, while less dramatic than pollution issues, the gap in social amenities also received increased government attention in the 1970s and improvements in social infrastructure and social welfare confirm that the politicians' speeches were backed up by substantial increases in public investment. The mileage of roads newly paved in 1980, for instance, exceeded that of side walks. It doubled between 1970 and 1975, and almost doubled again in 1981. Investment in paved roads and sidewalks represented a general improvement in quality and safety, contributing to a dramatic drop in traffic fatalities. From 13.3 traffic deaths per million vehicle-kilometers in 1970, fatalities dropped to 3.5 per million in 1980 (the comparable figure for the United States is 2.0 per million vehicle-kilometers) (Lincoln, "Infrastructural Deficiencies, Budget Policy, and Capital Flows," pp. 171). Besides those improvements the Japanese government also focused on the sewage treatment system, telephone, local parks and housing to improve the quality of life.

In 1970 only 20 percent of the population of Japan lived in districts served by public sewage treatment system, a figure that rose to 32.5 percent by 1984. The situation is better than it appears. As Table 10 shows, 58 percent of Japanese dwellings had flush toilets in 1983, up from 9.3 percent in 1963, with most of the expansion taking place after the late 1960s. A significant share of the improvement during the 1970s came from the private investment in septic tanks, since the percentage of dwellings equipped with flush toilets expanded so much faster than the percentage of population living in sewage

treatment districts. Nevertheless, one is left wondering whether it is the improvement over time or the continued high percentage of houses with primitive facilities that is the more striking. By 1983, 74.3 percent of U.S. dwelling units were connected to public sewer systems, and only 2.4 percent of occupied dwellings lacked some or all plumbing facilities (Statistical Abstract of the United States, 1987, pp. 710).

Next, the total area of local parks doubled from 1970 to 1981. The percentage of households with telephone service between 1970 and 1980 tripled from 25 percent to 77 percent (Lincoln, "Infrastructural Deficiencies," pp. 159-61). (Since Nippon Telegraph and Telephone was a government-owned corporation, this change was also closely related to government policy decisions, which had favored business phone installations in the 1950s).

Table 10. Dwellings with Flush Toilets and Percentage of Population Living in Districts with Sewage Treatment System, Selected Years, 1968-83

Year	Total dwellings (millions)	Dwellings with flush toilets (millions)	Percent with toilets	Percent of population in districts with sewage treatment system
1963	20.4	1.9	9.3	-
1968	24.2	4.1	16.9	-
1970	-	-	-	19.6
1973	28.7	9	31.4	-
1975	-	-	-	24.7
1978	32.2	14.8	46	-
1980	-	-	-	28
1982	-	-	-	30
1983	34.7	20.2	58.2	-
1984	-	-	-	32.5

Source: management and Coordination Agency, Japan Statistical Yearbook, 1986 (Tokyo: Statistics Bureau, 1986) pp.24-25, 516-17, 619.

The share of government funds in Fiscal Investment and Loan Program (FILP) directed toward housing rose from 11 percent in 1965 to 25 percent by 1980, while the share of FLIP funds for the Japan Development Bank and the Eximbank (both of which lend exclusively to the corporate sector) dropped from 19 percent to 8 percent. These figures nicely demonstrate the government's movement from promoting industrial growth to encouraging a broader improvement of living conditions. But the picture is ambiguous because, although greater resources were channeled into housing in the 1970s, the average dwelling remained significantly smaller than in the United States in the 1980s (Lincoln, 1988, pp. 51).

Compared with the income level increase, the amount of space per person in Japanese houses rose as well. From approximately 14.5 square meters per household member in 1958, the figure rose rather steadily to 25.6 square meters by 1983. There are no indications of any acceleration of change in the 1970s; in fact, the average annual growth in space per person was 2.6 percent from 1959 to 1968 and 2.1 percent in the 1970s. But if one focuses on the increase in dwelling size, the picture changes. The average size of newly constructed dwelling units increased 1.4 percent annually in the 1960s and 3.3 percent annually in 1970s, despite slower growth of personal incomes in the latter period (Japan Statistical Yearbook, 1985, pp. 268). The contrast with the space per person data comes from a stabilization in the number of family members per dwelling . Still, the increase in living space left the Japanese with dwellings just over half the size of American ones. In 1982 the total amount of heated space (excluding basements and attics, amenities that do not exist in Japanese houses) per household member in the United States

was 49.5 square meters, almost double the 25.6 square meter value for Japan in 1983 (Statistical Abstract of the United States, 1984, pp. 47, 756). The changes in investment patterns represented movement away from the single minded pursuit of economic growth to a broader set of social goals.

Japanese social spending was remarkable by international comparison. According to data published by the organization for Economic Cooperation and Development, Japan's ranking among OECD members on the ratio of government spending to GDP has slipped over time. Among the twenty-two nations with data available, Japan's rank dropped from nineteenth in 1960 to twentieth in 1982 (Paris: OECD, 1985, pp. 29).

E. SLUGGISH WORLD ECONOMIC ENVIRONMENT

When the oil embargo imposed by the OPEC countries was announced in October 1973, inflation took off. Inflationary expectations made the situation worse. "Wild inflation" reached 30 percent in 1974. Wages increased more than 20 percent in that year, since prices were also rising, but in turn the increase in wages fueled inflation, resulting in classic example of a price-wage spiral. It took at least several years for Japan to reallocate resources from unconditionally growth-oriented sectors to energy-conservation and pollution-control sectors (Ito, 1993, pp. 70).

From 1975 to 1985 the volume index for Japanese exports rose at a 6.9 percent annual rate, compared with 17.9 percent from 1961 to 1970 and 12.7 percent from 1971 to 1974. The slowdown in export growth can be attributed to slower economic growth in the rest of the world, but this is a dimension as well. When Japan was economically a small force in the 1950s, its exports could expand rapidly without making much difference in

world markets. But by the 1970s its exporting industries were important enough to represent a significant factor to world markets. This success created two reasons for export growth to drop. In economic terms the rapid gains of exports could be limited either because of market saturation or because the significant size of Japanese penetration provoked more successful counter strategies by foreign competitors. In political terms Japan's success meant that attempts to rapidly expand exports of particular products would engender threats of protection from trade partners or real protectionist actions (Lincoln, 1988, pp. 56).

F. A CHANGING LABOR MARKET

In the 1970s and 1980s labor input in the Japanese economy grew somewhat more slowly than before because of slower population growth, a decrease in hours worked, and fewer gains from increased education. Partially offsetting these factors was a modest reversal of the earlier downward trend in the labor force participation rates for women. During the very early postwar period Japan experienced a baby boom similar to that in the United States. Children born between 1947 and 1951 outnumbered the next younger five-year group (1952-56) by 37 percent and the next older five-year group (1942-46) by 23 percent (Japan Statistical Yearbook, 1986, pp. 24). Since the early 1950s the birthrate has almost continuously declined. Therefore, even if the boom is considered to have lasted until as late as 1955, that generation was in the labor force by 1975 (Lincoln, 1988, pp. 56-57).

The slowdown since the early 1950s is clearly visible in both population and labor force data. The number of people aged fifteen years and older grew at average annual rate

of 1.8 percent from 1956 to 1973 but at only a 1.2 percent rate from 1974 to 1985. Labor force participation rates, the percentage of people fifteen years and older with jobs or actively seeking employment, declined steadily from 70.8 percent in 1955 to 64.6 percent in 1973, primarily because of the shift of workers out of agriculture led to falling participation rates for women. However, from 1974 to 1985 participation rates stabilized; the rate was 63.0 percent in 1985, down only slightly from the 1973 level (Japan Statistical Yearbook, 1973-74, pp. 49).

Table 11 shows the effects of population growth and participation rates on the labor force. From 1951 to 1960 the annual growth rate of the labor force was a high 2.2 percent. From 1961 to 1973 the rate of increase slowed to 1.3 percent, and from 1974 to 1985 dropped a bit further to 1.2 percent. In addition, after unemployment had dropped from a peak of 2.5 percent in 1955 to a stable 1.2 to 1.4 percent in the 1960s, it rose again from 1.3 percent in 1973 to a new peak of 2.6 percent in 1985 (Lincoln, 1988, pp. 57-58).

Table 11. Labor Force Participation and Unemployment Rate, Selected Years, 1950-85

Year	Population aged 15 and older (million)	Labor force	Labor force participation rate (percent)	Unemployment rate (percent)
1950	55.2	36.3	65.6	1.2
1955	59.3	41.9	70.8	2.5
1960	65.2	45.1	69.2	1.7
1965	72.9	47.9	65.7	1.2
1970	78.9	51.5	65.4	1.2
1973	82.1	53	64.6	1.3
1975	84.4	53.2	63	1.9
1980	89.3	56.5	63.3	2
1985	94.7	59.6	63	2.6

Source: Management and Coordination Agency, Japan statistical Yearbook, 1986, pp. 70-71; 1973-74, p. 49; 1960, p.42.

The labor force continued to be characterized by increases in the number of years of education in the 1970s and 1980s, but this too was changing more slowly. From 1960 to 1970 the percentage of the population aged fifteen years and older that had graduated from high school increased from 22.2 percent to 30.1 percent; from 1970 to 1980 it increased to 38 percent. Thus the portion of adults with high school diplomas rose by 36 percent in the 1960s and 26 percent in the 1970s. People with diplomas from all forms of educational institutions beyond high school increased from 5.2 percent of the population fifteen years and older in 1960 to 8.4 percent in 1970 and 13.7 percent in 1980, roughly equal rates of growth in each decade (Japan Statistical Yearbook, 1986, pp. 44).

In the 1980s the percentage of each cohort completing high school appears to have stabilized at just over 50 percent, although the data on the rising educational level of those fifteen years and older indicate primarily that the generations educated before the reforms initiated during the occupation were declining as proportion of the local adult population. These trends in education suggest that gains in the quality of the labor force continued during 1970s, but contributed less to economic growth than they had before. Any precise estimate of the contribution of changes in education ought to be viewed with a certain amount of suspicion - years of education are only crudely related to workers' productivity (Lincoln, 1988, pp. 58).

Growth of labor input was also limited in the 1970s and 1980s by decreases in hours worked. The average monthly hours per worker in all industries declined from almost 203 in 1960 to 182 in 1973. For manufacturing only the decline was from 207

hours to 182, an almost identical change (Table 12) (Statistical Abstract of the United States, 1987, pp. 394; and Monthly Statistics of Japan, March 1987, pp. 19).

This slow drift downward became a sharp drop as demand fell in a recession following the oil shock. For all industries, hours dropped to 172 by 1975, and to 168 for manufacturing. One contributor to the decline may have been the so-called lifetime employment system in Japan. With a portion of the work force covered by an implicit job guarantee until the mandatory retirement age, corporations tend to rely on overtime work to put flexibility into their labor costs. Large corporations are more constrained than their American counterparts in reducing employment when a recession hits, but they cut over-time work heavily. Once the recession-related drop was over, hours worked in manufacturing recovered to almost 180 a month by 1985, and more moderately to 176 for all industries. This difference is probably due to limited opportunity for overtime in sectors other than manufacturing. As a result of these changes, shifts in hours worked were actually less important to labor input after 1973 than before. The average annual decline in hours worked in 1961-73 was 0.8 percent, while 1974-85 it was only 0.3 percent (concentrated in the recession-related drop of 1974-75) (Lincoln , 1988, pp. 58-59).

Table 12. Average Monthly Hours Worked, Selected Years, 1960-85

Year	All industry	Manufacturing
1960	202.7	207
1965	192.9	191.8
1970	186.6	187.4
1973	182	182
1974	175.5	173.2
1975	172	167.8
1980	175.7	178.2
1985	175.8	179.7

Source: Management and Coordination Agency, Japan Statistical Yearbook, 1986 p. 110; and Bank of Japan, Economic Statistics Annual, 1977, p.281.

To some degree offsetting the effect of the decline in hours worked on total labor input, more women entered the labor force in the 1970s and 1980s. For all women 15 years and older participation rates dropped until 1975, then increased modestly to almost 49 percent by 1985 (Table 13). Considered the age group, the data indicate some weakening of the traditional expectation that women should leave their jobs when they get married (or at the least when they have their first child). This tradition did not apply to work on family farms or in small enterprises, so that well over 40 percent of women beyond their mid-20s had always remained in the labor force. Following the first oil shock, though, more women chose to stay on the job or to return to work outside the home more quickly after having children. For the group aged 25 to 34 participation rates rose from 43.2 percent in 1975 to 52.2 percent in 1985, and for those aged 35 to 44 (who have presumably finished having children) rates rose from 56.9 percent to 63.7 percent (Lincoln, 1988, pp. 60).

Table 13. Female Labor Force Participation, by Age Group, Selected Years, 1960-85

Year	<u>Age group</u>							
	Total	15-19	20-24	25-29a	30-39b	40-54c	55-64	65 and over
1960	54.5*	49	70.8	54.5	57.8	59	46.4	25.6
1965	50.6	35.8	70.2	49	55.4	60.2	44.8	21.6
1970	49.9	33.6	70.6	45.5	52.9	61.8	44.4	17.9
1973	48.3	27.9	67.1	44.5	51.4	61.3	44.5	16.9
1975	45.7	21.7	66.2	43.2	56.9	59.8	43.7	15.3
1980	47.6	18.5	70	48.7	60.9	62	45.3	15.5
1984	48.9	18.5	72.4	52.1	63.7	64.1	45	15.9
1985	48.7	16.6	71.9	52.2	63.7	64.6	45.3	15.5

Source: Management and Coordination Agency, Japan Statistical Yearbook, 1986 P. 71; 1978, p.49; 1973-74, p.49

a. Includes ages 25-34 after 1973.

b. Includes ages 35-44 after 1973.

c. Includes ages 45-54, only after 1973.

* All number represented by percent.

Although Japan benefited from having more women choosing either to stay in, or to return to, the labor force, in a growth-accounting framework, had both a positive and negative effect. Had women not chosen to work, the labor force would have grown even more slowly than it did. However, because women are paid less than men, a higher share of women in the work force implies less growth in the measured value of output attributable to labor. Males made up 62.7 percent of the labor force in 1975 but 60.3 percent by 1985 (Japan Statistical Yearbook, 1986, pp. 70).

Taken together these factors imply that labor's contribution to the Japanese economy grew somewhat less rapidly after 1973 than before. As labor force growth decelerated, creating a tight labor market, the continued rapid economic expansion of the late 1960s and early 1970s enabled unions to negotiate the very large wage increases of

1973 and 1974 mentioned earlier. This wage pressure was even more significant than implied by the wage settlements, since the strong seniority element in Japanese wage structures combined with the aging of the labor force implied rising wages even without annual overall increases (Japan Statistical Yearbook, 1986, pp. 97).

After the recession of 1974, though, the situation changed. Slower economic growth and the long-term effort of corporations to replace labor with capital moved Japan away from the tight labor market conditions. Growth in employment, in fact, was so slow that the employment levels rose (see Table 11). Reduction in the growth of labor supply in Japan should not be considered a major cause of slower labor expansion. It needs not be a problem if capital or technological change can be substituted. Second, the slowdown in labor supply was relatively mild, accounting for less than 1 percentage point of the reduction of economic growth in the growth-accounting framework. Finally, the expansion of unemployment implies that the demographic changes slowing the expansion of the labor force were not a constraining factor in Japan's growth performance. Constraints lay instead in the slower growth of the capital stock and smaller increases in productivity (Lincoln, 1988, pp. 61).

G. SLOWER PRODUCTIVITY GROWTH

Endowed with the intellectual and social capacity to efficiently absorb and adapt foreign technology, Japan was able to achieve great leaps in productivity as the private sector continually discovered new investment opportunities using imported technologies in the 1950s and in the 1960s. But by the 1970s this situation was coming to its logical end.

Productivity increases due to implementation of new technologies slowed because the changes in technology became more incremental (Lincoln, 1988, pp. 61-62).

Of course, the three major factors in the end of the postwar Japanese miracle - the oil crisis, the decrease in investment, and the slowdown in technological progress (Kosai and Ogino, 1984, pp. 41) - were not independent of one another. The oil crisis, which drew attention to Japan's heavy dependence on nonrenewable resources, gave many people a pessimistic outlook and caused downward shifts in expectations of future growth as well as in current growth potential. Japanese producers and investors suddenly became aware of the limits of the world's natural resources and of Japan's vulnerability as an important raw materials. Since expected future earnings fell, investment demand also fell. The decline in investment lowered current aggregate demand as well as future capacity, and slowed the adoption of advanced technology (Ito, 1993, pp. 71-72).

Productivity change in the growth-accounting framework includes all sources of change, not just increases due to the new technologies. Virtually every Japanese industry was starting from a small production base, so that economies of scale were achieved easily as output grew and larger production facilities were constructed. This effect was compounded in new industries, including most consumer durables, because domestic demand for their product proved highly income-elastic. Further economies were available as industries reached productivity levels high enough to be competitive world markets. But by the mid-1970s these gains were largely realized, and economies of scale could no longer be expected to contribute more to growth than they did in other industrialized economies. In addition, the slower pace of investment in new plant and equipment reduced

the speed with which new, larger, more efficient production facilities replaced older facilities. Therefore, even if economies of scale could be realized, they would be realized more slowly (Lincoln, 1988, pp. 62).

And at last, there were fewer gains to be realized from the transfer of labor from low-productivity agriculture to other, more productive employment. The movement out of agricultural labor was an important source of productivity growth between 1955 and 1973 because the shift took place so quickly. As Table 14 shows, the proportion of employment in agriculture, forestry, and fishing dropped from 51.6 percent in 1950 to only 13.4 percent in 1973. This represented an absolute drop of 11.4 million engaged in the primary sector. However, from 1973 to 1985 only 1.9 million people moved out, bringing the sector's proportion of total employment down to 8.8 percent. While the movement of workers did not come to a complete halt, it slowed from an average of 496,000 a year in the early period to 162,000 a year in the more recent period. Part of this absolute drop may not represent a movement of workers to other sectors as much as it does retiring workers not offset by new entrants: the population engaged in agriculture is older on average than the total labor force and aging more rapidly. Future migration may be further limited because few farmers are engaged full time in agriculture. At what point Japanese statistics move a worker from one sector to another is unclear, but only 14 percent of farm households in 1985 were considered to be engaged full time in farming, and nonagricultural income accounted for more than half of all farm household income (Ibid., pp. 149, 171). This tendency brought a slower productivity gains because so much farm household activity was already off the farm behind the mid-1980s.

Table 14. Employment, by Sector, Selected Years, 1950-85 (percent of total unless otherwise specified)

Year	Total employment*	<u>Sector</u>		
		Primary(a)	Secondary(b)	Tertiary(c)
1950	35.7	51.6	21.7	28.6
1955	40.9	37.6	24.4	38.1
1960	44.4	30.2	28	41.8
1965	47.3	23.5	31.9	44.6
1970	50.9	17.4	35.2	47.3
1973	52.3	13.4	36.6	49.8
1975	52.2	12.7	35.2	51.9
1980	55.4	10.4	34.8	54.5
1985	58.1	8.8	34.3	56.5

Source: Management and Coordination Agency, Japan Statistical Yearbook, 1986, pp. 72-73; 1973-74, pp. 50-51; 1960, pp.44-45.

a. Includes agriculture, forestry, and fishing.

b. Includes construction, mining, and manufacturing.

c. Includes services and government.

* millions.

V. AN EVALUATION OF THE JAPANESE ECONOMY

From its economic performance since the end of World War II, Japan is a shining star in the world economic field. However, at present it faces a dilemma that can not lead Japan to economic development as good as usual. Japan is now in a state of flux as a consequence of the speculative asset price bubble of the late 1980s that burst in such dramatic style. As with all such bubbles, the valuations of assets and equities lost touch with reality and, when this confidence was questioned at the end of 1989, the bubble burst with dire consequences for the real estate, construction and financial sectors. The resulting hangover continues to be a drag on the economy as the banks are overwhelmed by bad debts and property collateral which is now worth considerably less than book value. Bank bad debts are currently estimated to be over 40 trillion Japanese yen. This is equivalent to about 10 percent of GDP, and works out at approximately 60 per cent of the market capitalization for the entire banking sector as of May 1995 (Birkett and Gifford, 1995, pp. 410-11).

Moreover, the Japanese economy developed a number of problems in the early 1990s. An economic slowdown was driven by reconstructing in the corporate sector as a result of declining productivity and international competitiveness associated with an appreciation in the value of the yen relative to other currencies. Japanese direct investment abroad declined from \$ 67.5 billion in 1989 to \$34.1 billion in 1992 (OECD Economic Survey, Japan (Paris:OECD, 1994, pp. 21)). In particular, land values declined by one-third of their peak values in 1991, and Japanese banks, which had much of their assets tied up in land, lost money. Japanese business firms began to lose their international

competitive position as a result of increasing labor costs and companies for the first time in years had to lay off workers (Schnitzer, 1997, pp. 143). I will evaluate the Japanese economy through the following aspects: 1) appreciation of the Japanese yen, 2) Japanese economic indicators, 3) strength of the Japanese economy, 4) weakness of the Japanese economy, and 5) summary.

A. APPRECIATION OF THE JAPANESE YEN

Any trade disequilibrium cannot be maintained for too long under flexible exchanges rates. Up to 1985, Japan had maintained an undervalued currency, i.e. an exchange rate below a level sufficient to eliminate the trade surplus. In 1985, for instance, the Japanese currency stood at 250 yen to a dollar, but at the Plaza Accord (Sep. 1985), Japan acceded to the demands of other industrialized countries to let the yen/dollar exchange rate reflect the trade balance between the two countries. Indeed, since then, the yen has appreciated dramatically, trading at 132 yen to a dollar in the first half of 1992. Yet, in spite of the substantial yen appreciation, between 1985 and 1988, Japan's trade surplus continue to grow (Mourdoukoutas, 1993. pp. 148).

The appreciation of the yen against other world currencies, but particularly against the U.S. dollar, has had a major impact on the Japanese economy. Table 15 presents a comparison of the yen-dollar exchange rate for the selected time periods. As the table indicates, the yen has gained in value against the dollar. The increased value of the yen has increased labor and materials costs in Japan, thus increasing the cost of the Japanese exports. On the other hand, foreign producers were able to increase their share of the domestic markets as the cost of imports in Japan decreased (Schnitzer, 1997, pp. 143).

Table 15. A Comparison of the U.S. Dollar and Japanese Yen Exchange Rates (yen per U.S. dollar)

Period	Yen
1969	358.36
1975	296.78
1980	226.63
1985	238.47
1990	145
1991	134.59
1992	126.78
1993	111.08
1994	102.18
1995 (April)	88.22
1995 (October)	99.04
1996 (May)	104.7

Source: Economic Report of the President 1996 (Washington, D.C.: U.S. government Printing Office, 1996), 400; Wall Street Journal, May 9, 1996, C17.

B. JAPANESE ECONOMIC INDICATORS

Table 16 presents key economic indicators for Japan and the United States.

Japanese GDP is second only to that of the United States. Unlike the United States, it has a positive balance of its merchandise trade and current accounts (Schnitzer, 1997, pp. 143) and a deficit in its service account. Its real rate of economic growth, although erratic in the 1990s, was the highest for all major industrial countries during the 1980s. The rate of inflation as measured by the consumer price index (CPI) has been the lowest for all industrial countries, and the unemployment rate for 1995 was just over one-half of the U.S. unemployment rate and one-third of the unemployment rate in the United Kingdom (Schnitzer, 1997, pp. 144).

Table 16. A Comparison of Key Economic Indicator for Japan and the United States, 1994 and 1995*

	Japan	United States
Real GDP, 1994 (\$ billions)	2,668.80	6,749.50
Real GDP growth, 1985-1994 (percent)	3.2	1.3
Merchandise exports (\$ billions)	372.1	495
Merchandise imports (\$ billions)	224.9	660
Merchandise trade balance (\$ billions)	147.2	-165
Services (\$ billions)	-4	50
Current account (\$ billions)	136	-155.7
Industrial Production (1987=100 percent)	115.8	121.9
Consumer price index (1982-84=100 percent)	119.2	152.4
Unemployment rate, 1995	3.2	5.6

* 1995 data are preliminary

Source: The World Bank, World Bank Atlas 1996 (Washington, D.C.: The World Bank, 1996), 18, 19; Economic Report of the President 1996 (Washington, D.C.: U.S. Government Printing Office, 1996), 398,399,402; OECD Economic Surveys, Japan (Paris: OECD, 1994), 29-45.

C. STRENGTH OF THE JAPANESE ECONOMY

Lester Thurow posed the question of who, in economic terms, would own the twenty-first century- Japan, Europe or America (Thurow). He listed various strengths the Japanese possess that will make them a serious contender. Among these strengths are cohesion and homogeneity, which give Japan an ability to focus its economic might that few other countries possess. Japanese culture is its major strength. Also, Japan is the world's largest creditor nation, with a trade surplus that has been averaging around \$120 billion a year (Schnitzer, 1997, pp. 144). This surplus adds to the amount of Japanese savings that can be used to finance investment to secure future economic success. In head-to-head competition against U.S. and European firms, its companies have proved to be hard to beat. Japanese high school students score well in any international achievement

test, and its ability to train workers in the labor force is unmatched (Schnitzer, 1997, pp. 144). In addition, lifetime employment and seniority-based wage and promotion systems are, of course, the two pillars of corporate efforts to win employees' identification with and loyalty to the company. This is also part of Japanese competitive capability (Haitani, 1981, 87).

Moreover, Japan has the most equal distribution of income of all of the world's high-income economies. There is a far smaller gap between haves and have-nots in Japan than there is in the United States. The Japanese government has undertaken measures to promote more efficiency. Efforts have been made to deregulate the economy to promote competition. Particularly, the inefficient distribution system, which has added as much as 20 percent to the cost of food, is being deregulated (OECD Economic Survey, Japan (Paris: OECD, 1994), 29). To improve access to the Japanese domestic market, active measures have been taken to lower barriers to imports and foreign direct investment. The former will lower food prices and the latter will provide Japan access to new technology (Schnitzer, 1997, pp. 144-45).

D. WEAKNESS OF THE JAPANESE ECONOMY

The 1990s posed crucial challenges for Japan. With its financial institutions weakened, asset prices collapsing, trade frictions persisting, and foreign policy in flux, Japan faces a difficult period. In addition, sharp and sudden changes in the international political economy have transformed the environment within which Japanese policymakers have framed their foreign policy decisions for the last forty years. Especially, the collapse of Japan's asset prices in the late 1980s and early 1990s as the long-postponed but

inevitable return to normalcy of an economy caught in a speculative fever that sustained a high rate of economic growth for five years beginning in 1987 (Alexander, no. 11, March 20, 1992). Deregulation and internationalization of the Japanese economy, particularly its financial system, ensured that the Japanese economy could not continue long in its upward spiral (Unger, 1993, pp. 198).

On March 25, 1995, Mitsubishi Bank and Bank of Tokyo announced a merger that, if consummated, would create the largest bank in the world with assets of \$820 billion (Wall Street Journal, March 29, 1995, 1). The merger reflects the problems that have existed in the Japanese banking system, in particular property loans that turned bad when Japanese real estate values declined by as much as 30 percent in the early 1990s. In 1994 Japan's major banks disclosed that they had lost \$ 134 billion in property loans. However, despite the decline in land value, land still remains an expensive proposition in Japan. Real land prices in Japan have risen by more than 6 percent a year on average during the period 1955-1994, an overall increase of twelve times (OECD, Japan, 73). This has made the distribution of property wealth in Japan more unequal. Table 17 presents an international comparison of housing prices.

Table 17. International Comparison of Housing Prices, 1990 or 1991 (dollars)

Housing	Japan	France	Germany	United Kingdom	United States
Detached house, nationwide					
Price	442,000		262,000	168,800	100,300
Ratio to average earning	15.5		9.8	7.5	3.9
Detached house, capital city					
Price	660,100		436,800	244,100	
Ratio to average earnings	20.6		16.4	10.8	
Apartment, capital city					
Price	457,000	263,000	156,100	140,200	
Ratio to average earnings	13.5	11.4	5.8	6.2	

Source: OECD Economic Surveys, Japan (Paris: OECD, 1994), 80.

The Japanese economy also faces other weaknesses. Demographics is probably its most serious problem. Nowhere in the industrial world is the phenomenon of population aging occurring more rapidly than in Japan. By the year 2025, it is predicted that it will have the oldest population in the world (The Economist, January 27, 1996, Survey, 1-16). This will have a major impact on the Japanese economy in that it will increase the demand for government social services. Financing new and expanding government services will require revisions in the Japanese fiscal system as the number of persons 65 and older is projected to hit 42 percent by the year 2020. The size of the Japanese labor force will decline relative to the number of retirees (Schnitzer, 1997, pp. 146).

E. SUMMARY

At one time, Japan was supposed to be the heir apparent to the United States as the world's leading economic superpower. It had shown faster growth and invested more in future growth than any other country. It became the world's largest creditor nation, with

the world largest trade surplus. Its market share of world exports increase steadily, and its manufacturing firms often dominated competition against American and European firms. But times have changed, and although Japan is still a major economic power, there is little likelihood that it will catch up with the United States. Its success has been driven by an export-led economy, and domestic industries have often been inefficient by world standards. Japan will find it increasingly difficult to use exports as the leading edge for its domestic economy. To grow faster than the rest of the world, Japan's export industries will have to capture larger and larger foreign market share, and this not likely to happen (Schnitzer, 1997, pp. 146).

Furthermore, Japan emerged as the world's largest economy with the most powerful finance, manufacturing, service industries, and strength of corporations ensured a continuing Japanese capacity to exercise influence globally. Also, Japanese economic and technological leadership will continue to afford Japan the means of fashioning a foreign policy based on this strengths (Unger, 1993, pp. 199).

But Japan also has other problems. The use of poison gas by religious extremists in the Tokyo subway system illustrates how vulnerable Japan can be to terrorism. The earthquake that destroyed much of Kobe illustrates another problem, the ever present possibility of natural disasters. Life expectancy in Japan is the highest in the world, which means that the Japanese will live longer and will cost more in terms of the provision of social services. The birthrate has been declining so fewer Japanese will enter the labor force. Japan's strength is its cohesive internal culture based on history, tradition, and

language, but this can also become a weakness. Its culture, which is very difficult to join, may not absorb workers from other societies (Schnitzer, 1997, pp. 146-47).

VI. JAPAN IN THE POST COLD WAR ERA

The collapse of Soviet power ended the bilateral confrontation of the Cold War. The transformation of the Japanese role became more important. By the end of Cold War, Japan had become an economic power surpassing any European country in economic authority and rivaling the United States for economic influence. As one of the world's economic leaders, Japan faced the intricacies of a changing world. It may seriously be concerned over tendencies such as the emergence of regionalism. Japan's postwar economic strategy, and the restructuring of the triangular relationship with China and United States, seeks a new role in the post-Cold War era in order to protect Japanese interests either regionally or internationally.

A. FACING ECONOMIC REGIONALISM

1. European Community (EC)

The emergence of the European Community caused great concern to Japan's global trade strategy. In case this high consuming area would integrate into the European Community (EC) in the near future, the cautious Japanese definitely will take some actions to deal with this major world trade bloc. Whether this issue will become a reality or not, we should examine its history and make a scrupulous inspection.

Actually, the confidence of the European Community was badly shaken by the economic shock of 1970s and early 1980s. High unemployment seemed to be endemic in Europe. The GNP growth, which for countries like France and Germany had been 3-4 percent in the 1960s and 1970s, fell to half that rate by the early 1980s. Meanwhile, Japan, the United States, and the industrializing nations of Asia emerged from the two recessions with strong growth of manufacturing in North America and Asia. Manufacturing is usually

the most dynamic part of a nation's industrial sector, but in Europe its growth slowed to a virtual standstill between 1980 and 1985 even while it surged ahead in the Pacific Basin. Driven by an accelerating pace of innovation and industrial adjustment to international competition, several Pacific nations provided a striking contrast to stagnation in Europe's quaint "museum" for visiting Americans and Asians (Borthwick, 1992, pp. 523).

We know now that Europe's pessimism was only a temporary phenomenon. By the end of the 1980s the EC had begun to reassert its role as a global economic player- so much so that the next century stands as much of a chance of being christened "European" as "Pacific." A major impetus for Europe's newly found resolve was the challenge it recognized in the North American/Western Pacific commercial axis. Private industries in Europe realized that unless action was taken by their governments to create a large, integrated market in the EC, they would be permanently inferior to and dependent upon giant Asian and North American companies. Effective international competition in newer, high technology fields requires vast economies of scale and integrated markets that only an economically unified Europe can provide. Monetary reform, rationalization of technical standards, and market integration promise to rejuvenate the EC. This challenge from Europe, in turn, has further stimulated Pacific Basin interest in regional cooperation (Borthwick, 1992, pp. 523). So far Japan's actions to integrate the Asia-Pacific countries' economies may also hint that EC integration will really take place in the near future.

2. North America Free Trade Agreement (NAFTA)

The emergence of regionalism in Japanese views may use a Chinese saying to describe it "Blessings never come in pairs; misfortunes never come singly." If the NAFTA

is fully realized and excludes Japan, this impact will be more severe than the EC. The reason is not only that the NAFTA is Japan's biggest trading partner, but it also may cause a clash with the United States in trade issues. To the Japanese they may have much more concern about the development of NAFTA and negatively estimate its impact on the Japanese economy.

Since U.S. international competitiveness eroded compared to the past, the idea to protect continental markets has grown more attractive. More people in the United States now believe that U.S. trading partners have not been playing fair. Many people point out that whereas Japanese goods and firms have almost unrestricted access to the U.S. market, it is exceedingly difficult for U.S. goods and firms to penetrate the Japanese economy (Gilpin, 1993, pp. 27). At the same time this gives Americans reason to rethink regionalism.

Undeniably, the United States plays a crucial role to integrate the NAFTA area. Based on its global role, the U.S. will not act to integrate the area globally. Prospects for the future of NAFTA development may not achieve a consensus in the near term. However, the existing initiative to integrate the area's economy may shape the Japanese leaders' perceptions of their vital interest.

3. Asia Pacific Economic Cooperation (APEC)

APEC was inaugurated in November 1989 in Canberra, in response to Australian Prime Minister Bob Hawke's call for a regional ministerial level gathering on economic cooperation. From the beginning, there was no consensus on the pace and scope of cooperation, reflecting the wide diversity of interests in the region. For example, the Bush

administration was skeptical about multilateralism, while ASEAN felt threatened by the creation of a rival institution. As a result, APEC became an informal process for policy coordination and dialogue that worked through consensus and avoided contentious agendas. Even the absence of an institutional appellation in its title reflected its fragility (Purington and Goldman, 1996, pp. 40).

APEC's basic guiding principles were agreed upon at its first meeting: (1) to sustain growth and development in the region in order to improve living standards and the growth of the world economy; (2) to encourage open dialogue and consensus; (3) to pursue a mode of cooperation based on informal exchanges of views and not negotiations; and (4) to strengthen an open multilateral trading system and not to encourage the formation of a trading bloc (Lee, 1994, pp. 3-5). As result, APEC functioned as an informal consultative mechanism and forum aimed at promoting dialogue among its members (Purington and Goldman, 1996, pp 40).

At the second APEC meeting in 1990, hosted by Singapore, working groups were established in order to explore potential avenues for cooperation. At the third APEC meeting hosted by South Korea in 1991, China, Hong Kong, and Taiwan became members, expanding the original membership composed of the ASEAN-6: Australia, Canada, Japan, New Zealand, South Korea, and the United States. At the Fourth meeting, in 1992, hosted by Bangkok, over the objections of some countries, a small secretariat was established in Singapore with a budget of \$ 2 million, reflecting APEC's increasing institutionalization. At the fifth meeting, held in Seattle in 1993, APEC's institutional status was upgraded when Clinton invited state leaders to attend a summit designed to

discuss the future pace and agenda of APEC. APEC membership expanded to include Mexico and Papua New Guinea. Its institutionalization further deepened with the establishment of the committee on trade and investment, but U.S. interest in using APEC as a forum for promoting trade liberalization was opposed by ASEAN, especially Malaysia's Mahathir bin Mohamad, who opposed APEC's increasing institutionalization and did not attend the summit. Japan and China were also increasingly concerned that APEC and the New Pacific Community would become a vehicle for realizing U.S. trade preferences (Purrington and Goldman, 1996, pp 40-41).

Because of the concern of most Asian countries about the U.S. intention to turn APEC into a forum for the negotiation of a Pacific free trade arrangement, it was rejected by most Asian states. However in 1995, the Osaka Action Agenda stated that APEC members would achieve free and open trade and investment by encouraging in concert voluntary liberalization in the region; by supporting and stimulating further momentum toward global liberalization; and by taking collective actions to advance trade liberalization objectives (APEC Economic Leaders' Meeting, Osaka, Japan, November 19, 1995).

There are some issues that members need to achieve a consensus on, particularly, in trade liberalization. Although the members still dispute some issues, to some extent APEC is more institutional than the EC and NAFTA. From its establishment and development it is also more efficient than those two regional organizations. Since it was established in 1989, its participants have grown to 18 states. Prospects for the future of the organization will be developed as more functions and more states will join it under the support by Japan, U.S. and China. And Japan certainly will play a vital role in APEC since

this is the only Asian platform that no country will exclude Japan. At the same time based on its economic capability, that made Japan play a crucial role as well. On the contrary, this is also a big challenge to the Japanese - how to play the leading role and solve the disagreements among those members.

B. THE NEW ECONOMIC STRATEGY SHIFT TO ASIA DURING THE POST COLD WAR ERA

What made Japan shift its investing direction to Asia-Pacific Countries? Generally speaking, there are both internal and external factors to describe this diversity. To some extent, Japan felt that rising regionalism is disadvantageous to its trade-oriented economy. These included such bilateral and regional arrangements as the North America Free Trade Agreement (NAFTA) and the accelerated movement toward European integration. On the other hand, the highly competitive relationship with the United States and the huge trade deficit between both countries may also cause potential conflict in the near future.

Internally, the Japanese yen's bearish depreciation caused Japanese products to become less competitive. This also made Japan adopt a strategy of moving closer to the similar geographical and cultural area- Asia- Pacific countries. Especially, since the region is the most economically booming area, how can Japan ignore the opportunity? The answer is obvious that Japan will not ignore the tendency. Moreover, its role in the region maybe good for shaping its overall policies. The roles of the Japanese in this region can be summarized as follows: 1) Japan as a capital supplier, 2) Japan as a technology provider, and 3) Japan as an absorber.

1. Japan as a Capital Supplier

During the 1980s Japan decisively supplanted the United States as the leading source of manufactured goods, new business investment, technology and economic aid in an area stretching from South Asia to the Pacific Islands (Cronin, 1990). In the late 1980s in response to currency realignments after the Plaza Accord. Japanese companies found themselves confronting production costs at home that were far higher than those of their competitors in the NIEs. In order to remain competitive, they moved rapidly to locate new production off-shore. A major share of their investment went to NIEs and Southeast Asia (Borthwick, 1992, pp. 512-13).

In 1992, Japanese capital flow to developing countries in Asia was over \$10.2 billion, or about 38.6 percent of the total amount going to the region (Paris: Organization for Economic Co-operation and Development, 1994). In terms of Official Development Assistance (ODA), Asia continues to be the largest recipient of Japanese aid. In 1993, the amount of ODA disbursements to Asia was \$4.86 billion, or 59.5 percent of the total aid program. Japan's aid to Asian countries is now more than two-and-half times that of the United States. Of the ASEAN countries, Indonesia, the Philippines and Thailand have consistently been among the top eight recipients of Japanese economic assistance, and Malaysia has also frequently ranked in the top ten. In recent years, Japan's aid programs have focused increasingly on supporting the development efforts of reformist communist states in East Asia: China and Vietnam. One year after the June 1989 Tiananmen crackdown, Japan was the first advanced industrial country to resume its aid to China. In 1991, China became the largest recipient of Japan's ODA after Indonesia. In December

1994, Tokyo announced a three year (1996-98) aid package that will make China the top ranking country for Japanese aid (Smith, 1995, pp. 25-26). After the conclusion of the Cambodian peace agreement in October 1991, Japan urged Vietnam to cooperate with the United States regarding information relevant to American serviceman missing-in-action (Awanohara, 1992, pp.12-13). When U.S.-Vietnamese relations subsequently improved (albeit still short of full normalization) in November 1992, Tokyo quickly ended its freeze on official assistance to Vietnam and extended a commodity loan of about 45.5 billion Japanese yen (\$365 million) to help pay for imports (Mochizuki, 1995, pp.128).

There has also been a change in the nature of Japan's assistance programs to East Asia. Whereas before the primary objective was to promote access to raw materials, Japanese aid programs are now emphasizing the cultivation of export-oriented manufacturing industries through the promotion of joint ventures and technical training as well as infrastructure development. As part of this shift in thinking, Japan announced in August 1986 the New Asian Industries Development Plan (or New AID Plan) for the ASEAN countries which mandated the coordination of private investment trade, and ODA, so that they would become "three sides of one body" (sanmi-ittai). In December 1987, the government announced a \$ 2 billion loan package as part of this initiative (Arase, 1991).

The Asian Development Bank (ADB) also serves as a conduit for supplying Japanese capital to East Asia. In 1991, ADB's loans totaled \$4.89 billion. Japan and the United States are the largest shareholders in this regional development bank with 16.3 percent each. Japan, however, provides 37 percent of the ADB's soft loans compared to

only 17 percent for the United States. To pay for its operations, the bank has tapped heavily into Japanese yen markets. The yen is the ADB's principal borrowing currency and accounts for nearly 40 percent of its gross and outstanding borrowings. Having succeeded in economic development, the East Asian NIEs are no longer borrowers from the bank. Even Thailand has paid its ADB loans without borrowing more. Consequently, the major borrowers from the ADB among the ASEAN Four are now Indonesia, the Philippines, and Malaysia (Rowley, 1992, pp.41-42, 46-49).

Commercial lending is another way in which Japan provides capital. Currently, Japan's commercial banks lend about \$6 billion per year to the rest of Asia, which amounts to roughly 20 percent of their total foreign loans. The total outstanding loans in the region come to about \$51 billion, or 10 percent of Japanese banks' global exposure. Bank of Japan officials have stated that a larger portion of new commercial lending is likely to go to Asia than the United States and Europe. A major reason for this is the fact that given the region's higher growth rate, return on assets tend to be higher and loan default lower (Rowley, 1991, pp. 40).

The most dramatic change in Japanese capital flows to East Asia has taken place in foreign direct investments (FDI). The steep appreciation of the yen after the 1985 Plaza Accord compelled Japanese corporations to shift a large part of their lower-value-added, labor intensive production overseas, especially to the East Asian economies. Japan's annual FDI in the East Asian NIEs soared from \$718 million in 1985 to a peak of \$4.9 billion in 1989. Despite some decline since then, Japanese FDI in these economies totaled \$2.4 billion in 1993. These investments increasingly reflect an interest in developing parts

supplier networks rather than merely building assembly plants. Direct investment to the other ASEAN states have also increased comparably. Japan's annual FDI in the ASEAN four expanded from \$ 596 million in 1985 to a peak of \$ 3.24 billion in 1990. The increase was sharpest for Thailand (from \$48 million in 1985 to \$1.28 billion) and for Malaysia (from \$408 million in 1985 to \$880 million in 1991). In 1990, new Japanese direct investments in the ASEAN states exceeded those of the United States by a four-to-one margin (Grimm, 1992, pp 2,4).

In terms of regional distribution of FDI, the Japanese emphasis in East Asia does not seem to be so striking at first, as Figure 3 shows, despite the relative increase of direct investments targets. But the trend for outward investments in manufacturing is more dramatic. In 1985, 52.0 percent of Japan's foreign manufacturing investments went to North America and 13.7 percent to Europe. Only 19.6 percent of such investments went to Asia. But in 1993, while the proportion of Japan's manufacturing FDI to North America dropped to 37.2 percent and the percentage for Europe was 18.3, the proportion of manufacturing investments in East Asia rose to 32.2 percent. In the near future, East Asia is likely to surpass North America as the foremost geographic target for FDI in manufacturing (Tokyo: Nomura Sogo Kenkyujo, 1994, pp. 14). Japanese firms have found investments in Asia to be much more profitable than those in the United States. Whereas only 20 percent of the direct investments in America showed a profit within two years, 80 percent of those in East Asia did so. Moreover, the higher projected growth rates for the region compared to North America, Latin America and Europe will make

East Asia the most attractive investment target of Japanese firms in the coming decade

(The Economist, November 7, 1992 pp. 87-88).

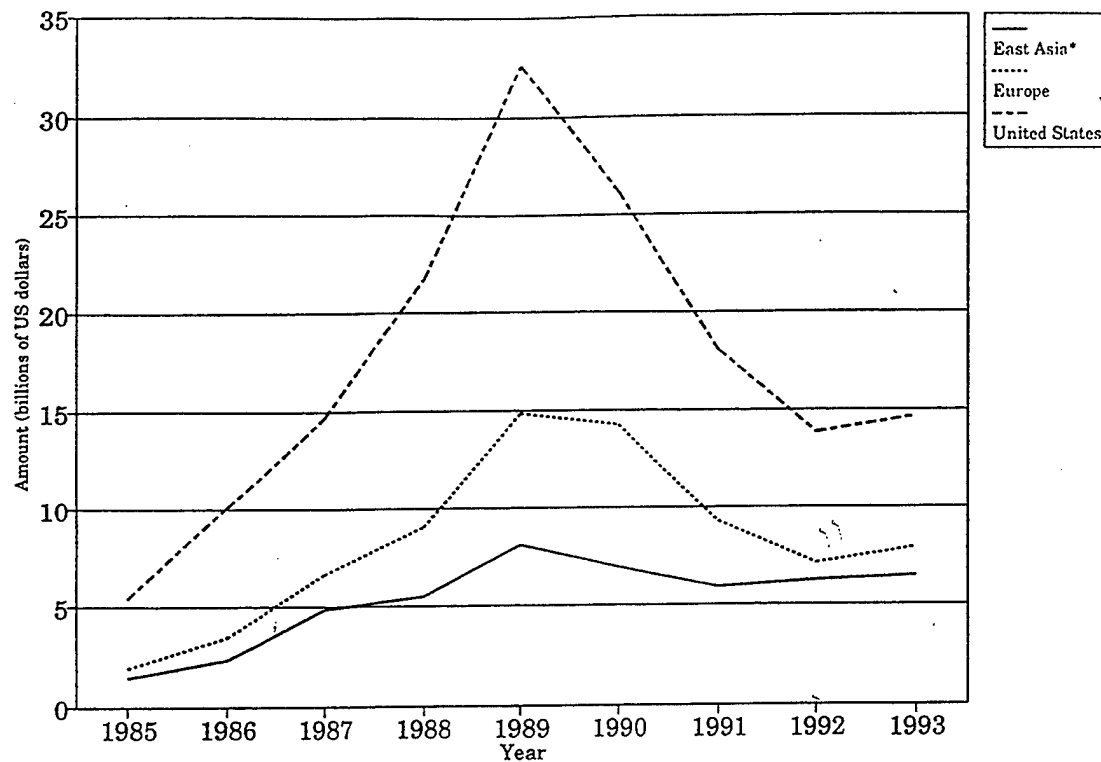


Figure 3. Japan's Foreign Direct Investment

Source: Japanese Ministry of Finance.

*East Asia includes China, Hong Kong, Indonesia, Malaysia, Philippines, Singapore, South Korea, Taiwan, and Thailand.

Russia and North Korea remain low priority countries from the perspective of Japanese capital. Japan articulated the notion of separating politics and economics (*seikei fukabun*) to promote its economics ties with Russia. A bilateral territorial dispute continues to be the major impediment to a large -scale Japanese aid package to Russia. In an attempt to engineer a breakthrough in Soviet-Japanese relations just prior to Soviet President Mikhail Gorbachiv's visit to Tokyo, Ozawa Ichiro (then secretary-general of the ruling Liberal Democratic Party) reportedly worked with the Ministry of International

Trade and Industry (MITI) and business leaders to put together a major aid package of \$26 billion in the spring 1991 as a quid pro quo for meaningful Soviet concessions on the territorial question (Yomiuri Shimbun, 1991 and The Economist, November 7, 1992, pp. 87-88).

However, Gorbachev was no position to make such concessions given the intense domestic pressure that he faced, and the summit between him and Prime Minister Kaifu Toshiki yielded little progress. Although hopes for another breakthrough were raised after the failed Soviet coup and the collapse of the Soviet Union, they were again dashed when Russian President Boris Yeltsin abruptly canceled his scheduled visit to Tokyo in September 1992. Yeltsin finally visited Tokyo to meet with Prime Minister Morihiro Hosokawa in October 1993. Although the summit improved the atmosphere of bilateral relations, it did not lead to much progress on the territorial issue. Despite the impasse in Russo-Japanese relations, joint ventures such as the oil and natural gas project off Sakhalin Island have continued to move forward. Moreover, MITI officials have shown enough interest in Russian economic reform to present a report in May 1992 outlining their policy suggestions to the Russian government (Mochizuki, 1995, pp. 131-32).

Although North Korea remains the main country in Northeast Asia outside the reach of Japanese business, Korean residents in Japan who are aligned with the Pyongyang regime have provided North Korea with large amounts of foreign capital through remittances. Having been largely abandoned in economic terms by its two patrons (China and the Soviet Union), North Korea now faces a severe economic crisis and is under acute pressure to open itself up to foreign investments. The surprise visit to

Pyongyang of LDP leader Kanemaru Shin in October 1990 at first suggested that Japan might relieve some of this pressure by paying reparations and normalizing relations. But Japan's Foreign Ministry successfully reigned in this bold move, using the reservations expressed by Seoul and Washington as well as indications that Pyongyang has been trying to develop nuclear weapons. At this point, Japan has little economic incentive to move ahead of either South Korea or the United States with North Korea. The 1994 nuclear agreement between Pyongyang and Washington, however, could open the way for limited Japanese business involvement in North Korea. Japan is expected to fund a major portion of the light-water nuclear reactors that are to be provided to North Korea as part of this accord (Mochizuki, 1995, pp. 132).

2. Japan as a Technology Provider

One salient feature of recent economic relations between Japan and its Asian partners has been the latter's demand on the former not only for the opening of its market, but for the transfer of technology that will contribute to development of their processing and export industries. The technology transfer question was taken up in the second Japan-ASEAN Economic Ministers' Meeting held in Tokyo in June 1985, where strong expectations were voiced by the ASEAN nations for economic and industrial modernization and transfer of management and business expertise (Masuzoe, 1986, pp. 68).

The Japanese government tends to define this task in terms of education and training. For example, it emphasizes that the leading four ASEAN countries (Indonesia, Malaysia, the Philippines and Thailand) suffer from an acute shortage of technicians and

that this shortage is impeding foreign direct investment. Consequently, official agencies such as the Ministry of International Trade and Industry have recommended the establishment of Industrial Technology Training Centers in the various ASEAN countries (Sho, 1990, pp.99). Although such efforts are welcome, the East Asian economies are much more interested in the technologies belonging to the Japanese private sector. Japanese firms, however, have been generally cautious about transferring technology for fear of aiding potential rivals-especially in the East Asian NIEs (Mochizuki, 1995, pp. 132).

For example, South Koreans have frequently complained that Japanese firms are willing to license only older-generation technology. In the period 1985-90, Japan accounted for 1,829 instances of technology transfer to South Korea out of total of 3,860 instances, or about 47.4 percent. The total licensing costs of these Japanese technology transfers, however, amounted to only about 31.9 percent of the costs of all international technology transfers to South Korea. The average value of Japanese transfers in 1985-90 was \$0.66 million, whereas the average value of U.S. transfers (of which there were 1,116) was \$1.66 million. The relatively lower value of Japanese licensing fees seems to confirm Japan's reluctance to transfer the more advanced technologies. To explain this reluctance, Japanese firms point to South Korea's inadequate protection of intellectual property rights and the inability of Japanese companies to apply for South Korean patents on products as well as processes-a privilege accorded to American and European firms (Saito, 1992, pp. 8-9).

Japanese economies seem to be less hesitant about transferring technology when it is done in the context of developing business partners overseas. For example, in Taiwan, Japanese firms are providing technical assistance to local producers so that they can become suppliers of high-quality parts of Japanese subsidiaries. In this context, Taiwanese firms signed 105 technical assistance contracts with Japanese counterparts in 1990. This figure surpassed the number of contracts concluded with U.S. (50) and European (30) firms (Saito, 1991, pp. 10-11).

Finally, how is Japan doing as an absorber of the productive output of the East Asian economies?

3. Japan as an Absorber?

In large part because of yen appreciation, Japan's imports from the East Asian NIEs increased substantially from about \$9.8 billion in 1985 to over \$26.9 billion in 1993, a jump of 174 percent. Japan's import performance relative to that of the United States has also improved. Whereas Japan imported only 25.2 percent of the amount that the U.S. imported from the East Asian NIEs in 1985, it imported nearly 41.8 percent of the amount of U.S. imports in 1993. Imports from the ASEAN Four have also increased. In 1985, Japan purchased about \$16.7 billion of goods from these developing countries; but in 1993, it bought over \$29 billion- a rise of almost 74 percent. Although the ASEAN Four countries primarily served as raw material suppliers in the past, even these developing states are beginning to export more manufactured goods to Japan (Mochizuki, 1995, pp. 133).

Accompanying this increase in Japan's absorption of East Asian goods, however, has been a sharp expansion of its exports to the region. During the 1985-93 period, Japan's exports to the East Asian NIEs grew by nearly \$58 billion, or almost 257 percent. Consequently, despite yen appreciation, Japan's trade surplus with the East Asian NIEs increased by about \$40.9 billion, or over 323 percent. There also has been a surge in exports to the ASEAN Four, from about \$7.3 billion in 1985 to over \$32.7 billion in 1993 (a jump of over 348 percent). This trend reflects the growing demand for Japanese capital goods as these developing countries promote their manufacturing capabilities.

Consequently, Japan's trade balance with the ASEAN Four has shifted from a deficit of \$9.41 billion in 1985 to a surplus of over \$3.75 billion in 1993. China is the one major country in East Asia that goes against this trend in Japanese trade patterns. Although Japan had a trade surplus with China of almost \$6 billion in 1985, it posted a deficit of about \$3.3 billion in 1993. But this statistic may be somewhat misleading in light of the dramatic increase of Japanese exports to Hong Kong from \$6.5 billion in 1985 to nearly \$22.7 billion in 1993. A significant portion of these Hong Kong directed exports may be ultimately going to mainland China (Mochizuki, 1995, pp. 133-34).

In the aggregate, the East Asian economies now represent a much larger export market for Japan than either the United States or the European Community (see Figure 4). Therefore, even while Japan's imports from the region have increased significantly, the steeper rise in exports to the region have caused Japan's trade surplus with East Asia as a whole to swell from about \$9.2 billion in 1985 to nearly \$54 billion in 1993 (see Figure 5). The U.S. trade pattern is generally a mirror image of Japan's. Although America's export

performance to the East Asia region (excluding Japan) has improved substantially (from \$24.9 billion in 1985 to over 74.9 billion in 1993), imports from the region have grown even more (from about \$51.8 billion in 1985 to over 125.5 billion in 1993). Consequently, the U.S. trade deficit with East Asia (excluding Japan) has ballooned from about \$26.9 billion in 1985 to nearly \$50.6 billion in 1993, (see Figure 6). Although much of this deficit is with China (\$22.8 billion in 1993), the United States also has net deficits with the East Asian NIEs (\$14.5 billion) and the ASEAN Four (\$13.3 billion). While the U.S. deficit with the East Asian NIEs has declined by 31.3 percent from 1985 to 1993, the deficit with the ASEAN has increased by 126.4 percent. Also during the 1985-93 period, the U.S. trade deficit with Japan rose from \$43.5 billion to over \$60.5 billion. In short, as Japan's trade surplus with East Asia has grown, so has America's trade deficit with the region (see Figure 7). Put differently, Japan has a large and growing trade surplus with both the United States and East Asia, while the United States has a large and growing trade with both Japan and East Asia (Mochizuki, 1995, pp. 134).

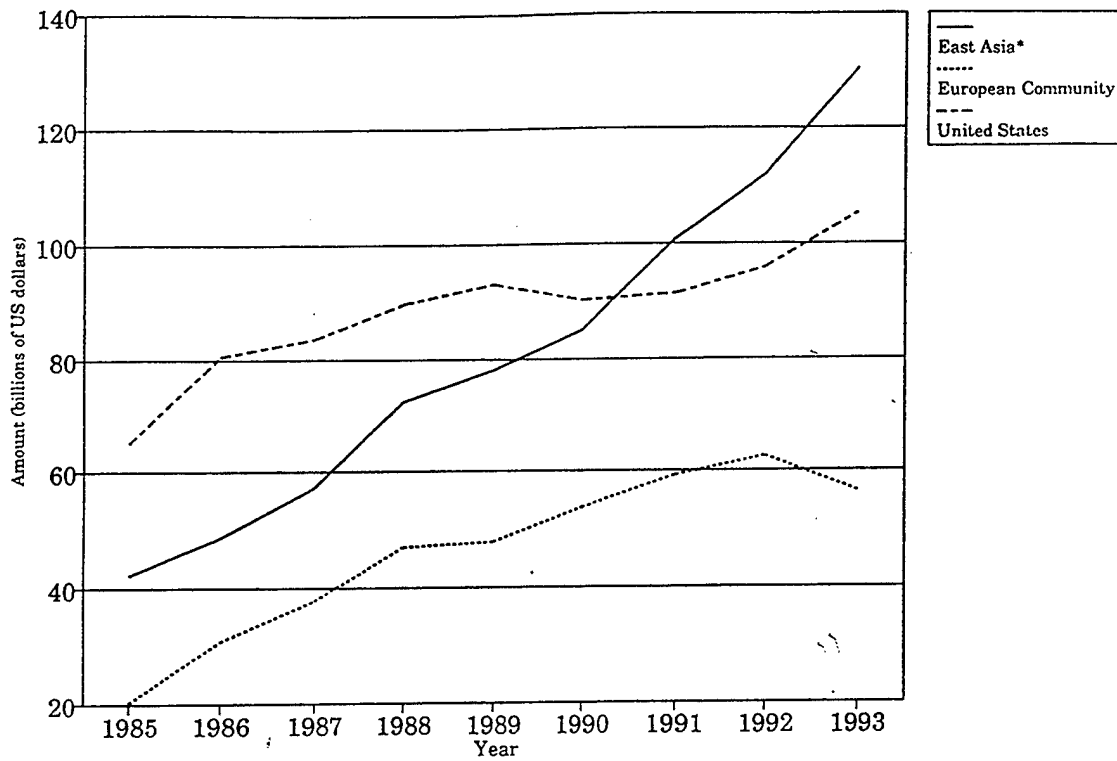


Figure 4. Japan's Direct Export

Source: Japanese Ministry of Finance.

*East Asia= NIEs, ASEAN 4, and China.

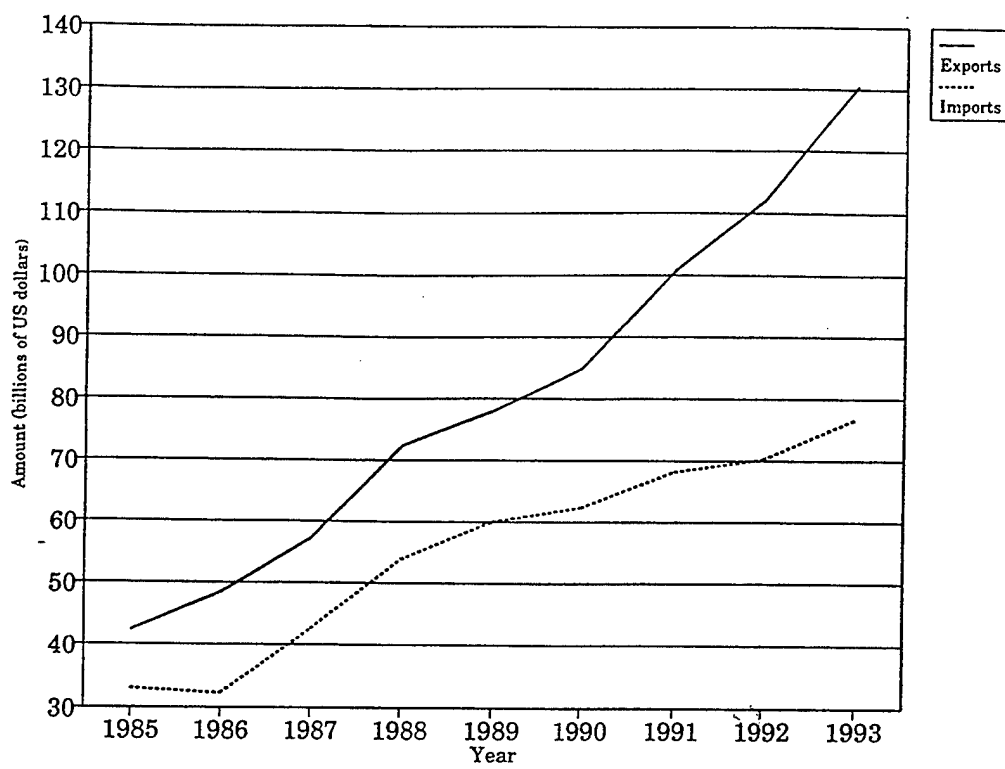


Figure 5. Japan's Trade with East Asia

Source: Japanese Ministry of Finance.

*East Asia=NIEs, ASEAN 4, and China.

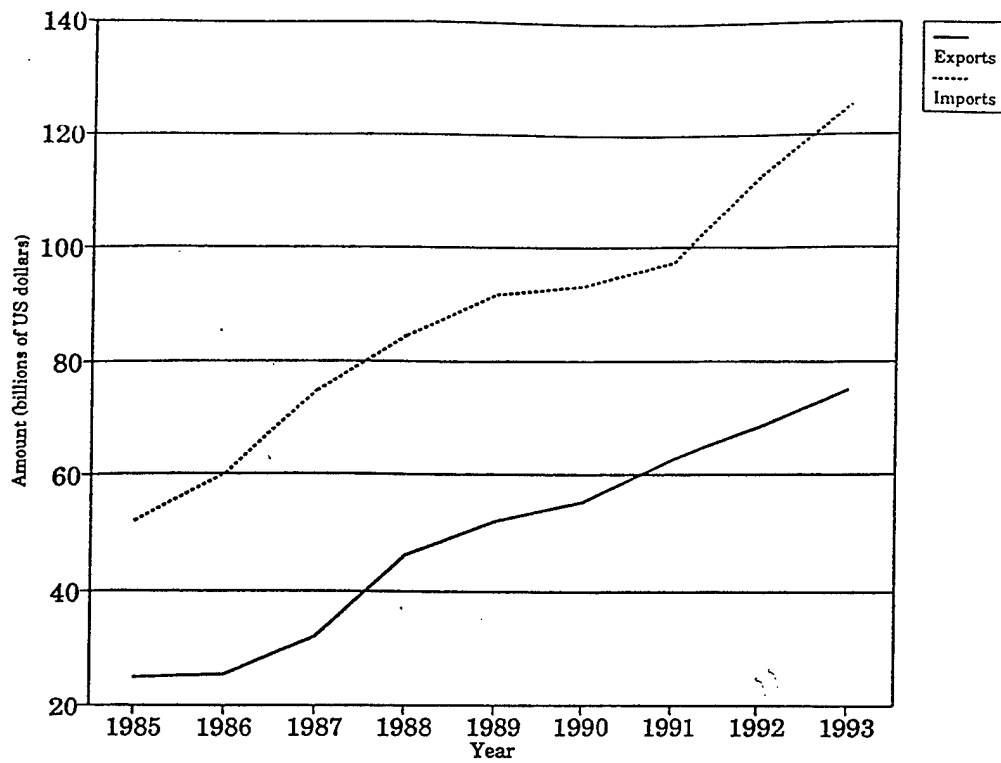


Figure 6. U.S. Trade with East Asia

Source: U.S. Department of Commerce.

*East Asia=NIEs, ASEAN 4, and China.

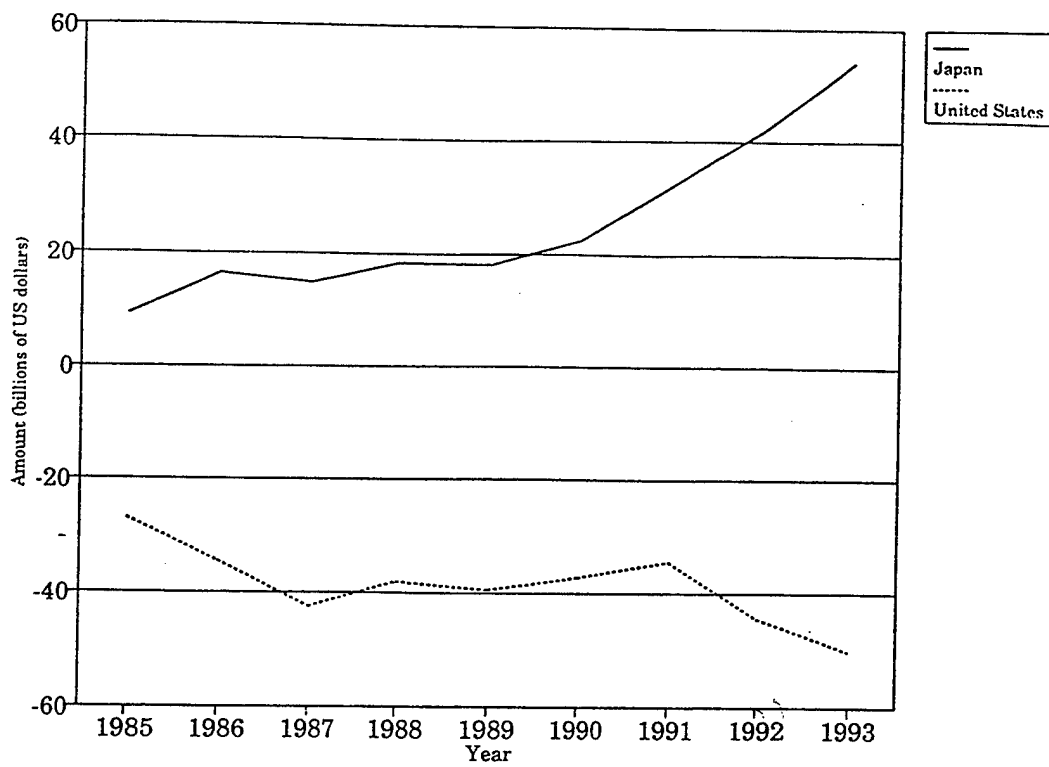


Figure 7. Trade Balance with East Asia

Source: Japanese Ministry of Finance and U.S. Department of Commerce.

*East Asia = NIEs, ASEAN 4, and China.

Despite the tendency for Japan to purchase more of the East Asian output, the United States remains the chief absorber of the region's production. Japan has not expanded its absorption of the output of East Asia's growing productive capacity at the rate necessary to restrain further increases in East Asian exports to the United State. Although it is not evident from the aggregate trade statistics, a significant portion of the expansion of Japan's two-way trade with East Asian NIEs and the ASEAN states seem to be managed by Japanese multinational business networks, or Keiretsu. To overcome high labor costs at home, Japanese corporations are establishing production and marketing subsidiaries in the East Asian countries. In addition to selling and sourcing in the local market, these subsidiaries then export some of their output back to Japan, as well as exporting intermediate goods and higher value-added parts from their affiliates in Japan. In short, Japanese business networks are cultivating a system of "captive" exports and imports between Japan and the rest of East Asia (Grimm, pp. 4-7 and Okazaki, 1992, pp. 69-70).

Such a system works to the advantage of Japanese corporations because they can modulate the trade flows so as to minimize the dislocative effects on affiliate firms back in Japan. But this practice also has two other consequences. It can restrain the expansion of East Asian manufactured exports to Japan, and it can cause a major part of the output of

Japanese subsidiaries in East Asia to be exported to a third market like the United States (Encarnation, 1992, pp. 180-81).

The above analysis shows that Japan's primary role has been to provide the East Asian NIEs and the ASEAN Four with capital, technology, and intermediate goods. Using these inputs, the East Asian NIEs and the ASEAN Four have, in turn, developed their own manufacturing capabilities. As the flow of Japanese capital has increasingly taken the form of direct investments, Japanese corporations have managed to expand their business networks in East Asia through joint ventures with local government and firms and through the establishment of subsidiaries. On the technology transfer front, Japanese firms seem extremely cautious about making technology transfers to actual and potential East Asian competitors. However, they appear more willing to transfer technology if this is done in the context of joint ventures with local entities or with the aim of cultivating local suppliers. As in the case of direct investments, Japanese firms are using technology transfers as an instrument to expand their business network in the region. Although Japan has undeniably increased its imports from the East Asian economies, it is the United States-and not Japan-which still serves as the primary foreign absorber of East Asia's productive output (Takenaka, 1991, pp. 117-24).

By expanding its network capitalism into the East Asian NIEs and ASEAN Four, Japan has both improved and organized the productive capabilities of these economies. But Japan has not adequately assumed the role of importer. Despite the increase in regional economic integration, a self-contained regional economic bloc involving Japan, the East Asian NIEs, and ASEAN is impossible because most of these economies are net

exporters. Until the leading East Asian economies, including Japan, become larger demand absorbers, regional economic harmony will be contingent on access to the U.S. Market (Mochizuki, 1995, pp. 139).

C. THE TRIANGULAR RELATIONSHIP AMONG JAPAN, CHINA, AND THE UNITED STATES

1. Japan and China

Japanese businessman are always keener than the other countries' businessmen. Since China decided to modernize, the Japanese businessmen had already yearned for the potential largest market. In the late 1970s, once it became clear that Deng Xiaoping's reforms were truly underway, Japan accelerated its aid and loans to China. By 1982 China had become Japan's largest aid recipient, displacing Indonesia (Borthwick, 1992, pp. 513). Furthermore, in recent years, Japanese investments indicate a booming interest in China. FDI in China shot up from about \$579 million in 1991 to over \$1.69 billion in 1993. From the economic perspective the relationship seems to be getting better year by year.

Traditionally, Japan always looked up to China. However, since the Meiji Restoration that made Japan become a modern country, the 1895 Sino-Japan war in which Japan defeated China, and imperial policies that gained a great deal of profit from China the situation totally changed. It is worth mentioning that the Japanese fiercely committed numberless atrocities from 1895 to 1945. The historical hatred by the Chinese would never be forgotten. Despite this history, recently, things changed swiftly. Economic reform in China has made its GDP grow four times in the past decade. At the same time a lot of experts predict that China will be the number one economic body in next century.

Facing this situation, Japanese has a problem. As China gets stronger, Japan must deal with this wakening dragon. Nevertheless, this is not a severe problem since Japanese are familiar with Chinese strategic thinking. There are just small disputes over human rights, nuclear tests, and islands between them. The Tienanman Incident disrupted the financial aid and communication with China, but the smart Japanese soon adjusted their policy. They are again intimate with China. Now, both countries emphasize their traditional relations and try to suspend the disputed issues. The reason is that China needs the financial aid and technology from Japan, and Japan needs resources, and asks China to support Japan in becoming a permanent member of the U.N. Security Council.

Japan also has a dilemma over adopting an advanced or a conservative policy with regard to her potential threat from big brother China. In October 1996 Japan decided to give the financial aid to China. This proves that Japan may adopt an advanced policy toward China. Besides the economic relationship Japan is concerned about the modernization of the PLA as well. In July 1996 the deputy defense minister visited China trying to rebuild the communications bridge between both countries. Although Japan is much concerned about the military modernization of China, under the strategy of "Better be a friend than an enemy" Japan will try to satisfy China's request.

Moreover, the Diaoyus island - from a historical and logical standpoint - undoubtedly is part of China. The problem was caused by the Japanese "Rightist Association" which set up a light house that caused large protests from Chinese society. Especially the protesters from Taiwan and Hong Kong were seriously protesting that the Japanese government permitted the Rightists to set up the light house on the island. This

action strongly aroused the pain of Chinese who suffered from Japan's invasion and suppression. Under the restraint of the Taiwan government the situation didn't become worse, but both Taiwan and Hong Kong representatives planted the ROC's and CCP's flag on the island then temporarily ceased the protest.

The motivation of the civilian protesters seems ceaseless in the near future. On the other hand, China in this case played a dumb role and caused a huge criticism. Under the CCP's pressure the pro-protest people were supervised. If China suppressed them more, the pressure will increase. If the Japanese government can't take this issue seriously the confrontation won't stop. If neither China nor Japan seeks a peaceful environment, the relationship between both sides at least will maintain the status quo.

2. Japan and United States

In the postwar era Japan has focused on the United States, and the most important determinant of Japanese international behavior has been its protection by that country. The degree to which the United States influences not only Japanese foreign policy but also the current process of reconstituting national identity should not be underestimated. Japan remains "possessed" by the United States. The United States, with which Japan feels most comfortable, continues to be a powerful, confident, and responsible United States. In its current search for international recognition or a more prominent global role, Japan remains dependent on U.S. ratification (Yomiuri Shimbun, 1991).

Public opinion polls offer a glimpse of Japanese views of the United States. In a poll conducted in November 1991, 77 percent of the Japanese responded that U.S.-Japan relations are important; 59 percent responded that they have favorable feelings toward the

United States, whereas 32 percent do not (Destler and Nacht, 1990/91, pp. 96-97). It should be noted that not having favorable feelings does not imply dislike. In a poll taken in January 1992 - at the height of U.S. negativity toward Japan (economist John Kenneth Galbraith deemed President Bush's trip to Japan "possibly the most disastrous journey since the Fourth Crusade") (Johnson, pp. 4) - when specifically asked to name a country the Japanese dislike, only 6.7 percent named the United States (Jiji, 1992). The United States is the country liked by far the most and disliked the least. This has been true throughout the postwar years, with the exception of the Vietnam War period when Switzerland, a nation with a peaceful image, ranked slightly higher (Sengo, pp. 182-85).

This psychological dependence on the United States is in part a result of World War II. The disaster of defeat impressed upon the Japanese the inherent ugliness of international politics. Thus, Tokyo sought to retreat from international politics and found the United States willing to act as a shield. Throughout the Cold War, the United States had been for Japan the protector and guide in international politics (Tamamoto, 1993, pp. 39).

The relation between both countries really depended on how best to resist the Soviet Union's expansion during the Cold War. Rationally, because the Soviet Union has already gone, the relationship may change, but the facts tell us the relationship between both countries did not change. It is only because the United States strongly supported Japanese security and also assisted Japanese reconstruction, that Japan could renovate itself so fast in a short period after her defeat in 1945. The contributions from the United States were crucial. In particular, in the occupation era the United States shaped Japanese

defense policy to lead Japan away from the militarism. In Article 9 of the constitution Japan forever renounced war and only maintains sufficient military capability to protect her territory.

Under this situation Japan just spends one percent of her GNP on her military expenditures, and concentrates on her economic construction and development. Recently United States reduced her troops in Japan but this does not mean the relations between both sides will go down. Instead the Japanese government has agreed to share the expenditures and expand the military installations for United States troops. All these actions prove that the Japanese government identifies the United States' vital role to Japan not merely on the basis of past cooperative relations but also because of the prospects for future uncertainty around this Asian area.

Despite this, friction has risen on both sides of the trade equation. On the export side, Japan has been accused of dumping textiles, semiconductors, computer games, laptop computer screens and consumer electronic products on the international market at below domestic marketplace prices. It also is accused of industrial targeting, i.e., government promotion of certain products like automobiles, computers and semiconductors. On the import side, Japan has been accused of protecting domestic markets: formal and informal barriers keep foreign products out of the Japanese market. Beef, rice, citrus, lumber and telecommunications satellites, construction, insurance and financial products are some of the products and sectors still under partial protection. Yet under intensive negotiations between Japan and the U.S., many tariff barriers have been

removed and Japan's market is opening to the world, but the trade disputes still exist (Mourdoukoutas, 1993, pp. 126).

Table 18 presents a more detailed description of trade between Japan and the United States from 1960 to 1992. From this table we found before 1964 Japan is a deficit country, and from 1965 to 1992 (except 1967 and 1975) United States became a deficit country. Furthermore, obviously, the deficit was getting larger since 1976, and by 1992 the trade deficit was over \$40 billion. Seemingly, the trade deficit dispute between both sides will not settle down in the short run (Nakamura and Vertinsky, 1994, pp. 9).

Table 18. U.S. Trade with Japan*, 1960-1992 (US\$million)

	Imports from Japan	Exports to Japan
1960	1,102	1,533
1961	1,067	2,096
1962	1,400	1,809
1963	1,507	2,077
1964	1,841	2,336
1965	2,479	2,366
1966	2,969	2,658
1967	3,012	3,212
1968	4,086	3,527
1969	4,958	4,090
1970	5,940	5,560
1971	7,495	4,978
1972	8,848	5,852
1973	9,499	9,269
1974	12,799	12,682
1975	11,149	11,608
1976	15,689	11,809
1977	19,717	12,396
1978	24,914	14,790
1979	26,402	20,431
1980	31,367	24,408
1981	38,609	25,297
1982	36,330	24,179
1983	42,829	24,647
1984	59,937	26,862
1985	65,278	25,793
1986	80,456	29,054
1987	83,580	31,490
1988	89,634	42,037
1989	93,188	48,246
1990	90,322	50,369
1991	91,583	53,317
1992	95,793	52,230

Source: Japanese economic Planning Agency, Summary of Economic Statistics (various years)

* Import figures are based on CIF prices (including the cost of goods, insurance and freight) measured at Japanese ports. Export figures are based on FOB (free-on-board) prices (including the costs of goods and delivery onto a carrier) at the point of shipment.

D. SEEKING A NEW ROLE

The end of Cold War affected Japanese policy tremendously. As the Soviet military threat declined, Japan reduced its budget for arms procurement and delayed procurement programs, although its overall defense budget increased at the rate 3.5 percent or so due to higher personnel costs. Increasingly active on the diplomatic scene, Japan also launched a national debate on what role Japan should play internationally.

Japan's current search for a larger global political role is not a new phenomenon. In 1983, for instance, Prime Minister Yasuhiro Nakasone attempted to increase the Japanese role in international security by taking a stand in support of the United States' deployment of intermediate-range nuclear missiles in Europe to balance the Soviet SS-20 missiles that year. The end of the Cold War, however, further stimulated Tokyo to expand its role in international security issues. In this regard, the government expresses its aspiration to become a permanent member of the U.N. Security Council, and involved in the international issues. Since the Gulf War Japan has moved to share risks with other like-minded nations, such as allowing its Self-Defense Forces to serve overseas under U.N. peace keeping operations. If all those expectations come true, what will be the next goal of the Japanese? Will Japan be merely an economic power or just as Japanese said, will they make more contributions to the world affairs? Is that a hint to become a superpower?

1. U. N. Security Council

Undoubtedly, Japan should play a vital role in world affairs based on her successful economy. Specifically, it should complete the first steps to join the U.N. PKO. The next

step is going further to become a permanent member of the U.N. Security Council. In Japan's Defense Report, page 19, "Reform of the U.N. Security Council", Tokyo also depicted its intention to become a member. Most countries believe that if Japan becomes a member of the U.N. Security Council, it will make a large contribution to the international society. But the obstacles still exist. This also challenges Japan in persuading her big neighbors, Russia and China, in achieving the goal while assuaging the Asian Countries' anxiety.

The Japanese view toward the number of permanent and non-permanent members of the United Nation Security Council has not changed since the nonpermanent member states were expanded in 1965. Although the international situation has changed greatly in the wake of the end of the Cold War and the number of permanent U.N. members has increased to as many as 185, or more than three times the figure at the time of its founding, the number of nonpermanent members has increased to only 10 from six, and made the U.N. lopsided toward Europe.

Under such circumstances, member countries have been discussing the need to review the composition of the Security Council. In 1992, the General Assembly reviewed the situation and agreed to expand the numbers to achieve a balance of regional distribution. Though the proposal is still working, Japan will get a chance to become a permanent member to increase her political influence to equal her economic influence. Japan may play a vital role in world affairs. If this becomes true in the future, Japan will switch her defense strategy dramatically because the Japanese view of the constitution will become flexible.

If Japan wants to be a big player in world affairs, Japan should not just focus on the economy. There are many things Japan should resolve: (1) concede the atrocious behavior, such as the Comfort Woman issue and slaughter of Asian people, (2) apologize for her mistakes and promise to obey the Japanese constitution, and (3) record the history clearly and educate her people in an attempt not to make the same mistakes. If Japan can concede its mistakes, then frankly it should be a real world leader. Otherwise the intention will be to just "count the chickens before they are hatched". Even if she becomes a U.N. Security Council member, Japan will not win the respect from Asian people or increase its influence in that region .

2. U.N.-PKO

The Persian Gulf War gave Japan a very good chance to join the United Nations' affairs in April 1991 under support by the United States. The taboo which prohibited the Self-Defense Forces from engaging in dangerous missions was lifted in June 1992. Therefore, U.N. peace-keeping operations are being conducted in 16 activities with Japanese participation.

Traditionally, U.N. peace-keeping operations are roughly divided into three categories: (1) Peace-keeping forces, (2) Cease-fire observer missions, (3) Election monitoring and other activities. Japan participated in the activities based on the "Law Concerning Cooperation for United Nations Peace-keeping Operations and Other operations" and the "Law to Amend Part of the Law Concerning the Dispatch of Japan Disaster Relief Teams". They provided a statutory framework for Japan to address the task of pursuing activities for international contribution with human resources (Defense of

Japan, 1995, pp. 98). Though Japan participated in U.N. affairs with the support of the United States and the other advanced countries, it aroused suspicions from Asian countries. However, this has a significant impact on Japan's future security role.

It is impossible to stop one of the richest countries from participating in world affairs. After the economic miracle, Japan has become the number one economic body in Asia, especially since the 1990's when she increased her relations with Asian countries. That can help Japan not only in the economic field, but also to get the support from those so called "Flying-Geese" countries in the political field. Japan is also a vital member of some crucial international organizations. In June 1992, after a long and difficult deliberative process, the Japanese Diet enacted a United Nations Peacekeeping Operations Law. The legislation allowed the government to dispatch Self-Defense Forces abroad as part of U.N. peacekeeping if they do not engage in combat operations. Besides this contribution to U.N. security activities, Japan has also become the second largest donor to the United Nations after the United States. This is a pattern that pushed Japanese forward, gradually engaging in world affairs.

3. Merely An Economic Power or A Superpower?

Based on her successful economic strategies in the late seventies, Japan reemerged on the world's economic platform. And in the eighties, her economic capability almost can compete with the United States. To some extent, it is even better than the United States, due to the possession of capital and high technology. Japan, in the economic field, nearly dominated the markets and competition in the world. In particular, in recent years with the end of Cold War and potential problems with U.S.-Japan relations, economic trends make

Japan look more carefully at Asia. For geopolitical reasons Japan has shifted her policy closer to Asia, the most economically booming area.

During the Cold War period, Japan's manufacturing foreign direct investment (FDI) emphasized North America 52.0%, Europe 13.7%, and East Asia 19.6%. However, with the end of the cold war, Japan's manufacturing FDI to North America dropped to 37.2%, in Europe it was 18.3%, and the portion for East Asia rose to 32.2%. Looking to the future, East Asia is likely to surpass North America as the foremost geographic target for FDI manufacturing, since Japanese firms have found investment in Asia to be much more profitable than in the United States. This shift also shows the Japanese economic impetus on the world economy.

No doubt, Japan is an Asia-Pacific power. The Flying-Geese model of regional development distinguishes three sets of economies that can be ordered according to their levels of economic modernization. They are: (1) the East Asian newly industrializing economies or NIEs (South Korea, Taiwan, Hong Kong, and Singapore), (2) the four leading ASEAN countries (Indonesia, Malaysia, the Philippines and Thailand), and (3) the reformist communist states of China and Vietnam (Mochizuki, 1995, pp. 127).

From this point of view Japan is absolutely a leader in the Asia-Pacific. Depending on her strong economic capability Japan can turn into a super power. Being objective, Japan possesses this condition and ability. Nevertheless, based on her record and her bad reputation, there is no country that will be her follower. Moreover, the attitude of China, Russia (particularly in resolving territorial disputes with those two countries), the United States, or the other G-8 countries are also important factors.

A workshop was held at the East-West Center in Honolulu in 1992. The South Korean participants perceived the Japanese threat as more immediate than any others. On the contrary, the Japanese participants believed that Japan is not and could not easily become a threat to the region. The Japanese constitution (Article 9) prohibits the remilitarization of Japan or the use of Japanese forces for anything other than self-defense, so it is obvious that "there are two sides to every question." To different people they have different views. Actually, as the Japanese participants said, the requirements for amending the constitution make any changes to these provisions politically unlikely in the foreseeable future. Much of Japan's quantitatively large military spending goes to burden sharing and expensive systems that do not provide Japan with capabilities much beyond its home land. On the other hand, Japan perceives few threats in the region so there is little need for it to militarize (Kreisberg, Chiu, and Kahan, pp. 13).

VII. CONCLUSION

In a retrospective on postwar Japanese economic development for more than 50 years, its performance may not score perfect, but its achievements absolutely are second to none. Some may say that the Japanese are opportunists, however only "intelligence can consist in recognizing opportunity." This is the bottom line on which the Japanese can outpace the other advanced countries.

"If you standing upright, don't worry if your shadow is crooked," is a wise saying. Since Japan set up a strong foundation for its industry, the future development is optimistic and promising. Nevertheless, a successful outcome is based on numberless conditions. However, to Japan those conditions were paved with its intentions. The small obstacles won't impede its progress toward future development.

The development of Japan, like that of many other countries, has been determined by the operation of internal and external forces working within the setting of its peculiar environment. The basic constants in Japanese history are readily found in the country's insularity and limited resources, the ethnic and cultural homogeneity of its people, and the characteristic values and attitudes that have developed over at least a millennium and a half.

In tracing modern Japan's combined luck and diligent development, it is just more than a century that the Japanese have been able to play a critical role in world affairs. This is based on its successful reforms. On the other hand, it possessed a domestically stable environment. This situation is like the Chinese strategist Sun Tze said: Given a knowledge

of three things - the affairs of man, the seasons of heaven, and the natural advantage of earth - victory will invariably crown your battle.

The reform and reconstruction during the occupation period permit us to say that the United States set up the foundation for Japan's future development. Those symptoms of the war like unemployment, food and energy shortages, inflation and so on were placed under control by the occupation authority's assistance. Meanwhile the United States also took an active role to encourage the Japanese to adopt a series of reforms on the Zaibatsu, land, and labor issues. To shape the Japanese economic democratization, in terms of today's viewpoint, those reforms may be described as a keystone for the coming decades' economic success.

On the basis of successful reforms, from 1953 to 1973 the annual real growth rate of Japan's gross national product (GNP) averaged 10 percent, probably the highest sustained rate of increase that the world has ever seen. Furthermore, the industrialization and modernization that made rapid growth can be traced back to a high literacy rate, advanced technology, and sufficient capital which came from the United States' special procurement due to the Korean War. This rapid economic growth also produced swifter changes in Japan's economy and society.

After the rapid economic growth, owing to worldwide inflation the rapid growth collapsed at the beginning of 1974. Besides the abandonment of the 360-yen-to-the-dollar exchange rate which had been maintained since 1949, and resource limitations as symbolized by the oil crisis of 1973, Japan departed from the path of rapid growth and began to follow a course of so called "stable" growth. Although the growth kept stable

since the first half of the 1980s, it didn't mean that Japan would go smoothly in the future. As a matter of fact, Japan faced a lot of problems from internal and external fields. Its external problem emerged with the U.S. trade deficit, and the emergence of regionalism of the European and North America countries. Internally, in recent years the yen's appreciation caused industry to lose its competitive domination and it moved out to the foreign countries. At the same time because of the bubble of real estate prices, the construction and financial sectors also needed to take some actions to solve those problems. Therefore the Japanese should apply their supremacy and improve their weaknesses to increase their competitive capability.

Particularly, at the end of the Cold War the world gradually formed a unipolar political world. This will make Japan continue to be an important ally of the United States. Furthermore, an open, interdependent global economy Japan will have vastly different implications for Japan's society than a tripolar regionalized world in which economic competition becomes the conductor of war by other means. The ways in which Japan uses its power will significantly affect the resolution of these issues (Gilpin, 1993, pp.35).

Although it will be extraordinarily difficult for Japan to assume a greater global leadership role, it has the power and perhaps even the obligation to make a positive impact on the course of history as these issues are resolved. Failure to assume greater leadership in the effort to maintain an open world economy threatens the triumph of a regionalized world economy. Japan, then, is a major actor at the same time that it is acted upon. It is no longer possible for Japan to view the debate reviewed here as a concerned, albeit nonengaged, spectator. Japan's policies, like those of the other powers, will crucially shape

the political and economic framework within which future Japanese leaders will identify and pursue Japan's national interests (Gilpin, 1993, pp.35).

China emerged as a vital player since in the past fifteen years it has had the highest economic growth in the world. From the vantage point of Japanese political and economic concerns, China, Japan, and United States are the key players shaping integrative economic developments and divisive territorial conflicts. Japanese also sees the need for a cooperative U.S.-Japan relationship to underpin stability in the Pacific region. Recently, the expansion of Japan-U.S. security arrangements also caused China concern. This tendency will lead to positive or negative developments still under observation.

The ceasing of the Cold War did not bring real peace to world affairs. Religious confrontations, ethnic tensions, and border disputes persist. Therefore, Japan can be expected to help manage these conflicts in a variety of ways. Japan can pursue diplomatic efforts - bilateral or multilateral - to prevent armed conflict, ease tensions or secure peaceful settlement of armed conflict. Actually, Japan has been playing this role through the peacekeeping forces to make its contributions, but from a Japanese perspective they might make more contributions if they become a permanent member of the UN Security Council. This might come true in the near future with the support of Russia and China (this hypothesis excludes the veto right). If this hypothesis becomes real, the Japanese economic giant probably will become another superpower in the next century. We might find some clues from the post-Cold War Japanese policies.

In sum, postwar Japanese economic development during the occupation period (1947-1952), under the assistance of the United States, carried out a series of reforms.

Based on those reforms, the Japanese economy recovered from the war's ashes, and proceeded toward the high growth era (1954-1973). Japan became the highest growth country and elevated itself to be an advanced country.

After 1974 due to its internal and external problems, the Japanese economy entered a slower growth period. However, the economic performance of Japan generally is still higher than those of the other advanced countries. Based on an evaluation of its economic strengths and weaknesses, the Japanese economy still retains a lot of supremacies. On the basis of its economic power, during the post-Cold War era Japan may become a vital player economically or politically. This is a trend. However, it is also a big challenge to the Japanese in shaping their policies to regional or international issues. Simultaneously, as Japan copes with that challenge it must also protect its interests.

As Japan adapts to the post-Cold War era, this process will have consequences for its Asian neighbors that will be as important as the economic successes which made Japan a major power once more. Therefore, it is important for those Asian neighbors to pay close attention to Japan's adaptation process.

LIST OF REFERENCES

- Alexander, Arthur, "Japan's Economy: A Transformation?" *Japan Economic Institute Report* no. 11, March 20, 1992.
- Allen, G.C., *The Japanese Economy*, 1981, St. Martin's Press, New York, pp. 98-99.
- "An International Comparison," Discussion Paper 566 (Harvard Institute of Economic Research, August 1977).
- Arase, David, *Asia-Pacific Region in the 1990s*, Tokyo: Foundation for Advanced Information and Research, 1991, pp. 117-24.
- Awanohara, Susumu, "Decent Interval: Japan May Pre-Empt U.S. on Vietnam aid" *Far Eastern Economic Review*, April 30, 1992, pp. 12-13.
- Birkeet, Rod and Gifford Anthony, *The Financial Time: The Global Guide to Invest about Japan*, Part 3 Japan: Fleming Japanese Investment Trust, Morton, James, ed., Pitman Publishing, London, 1995, pp 410-11.
- Boltho, Andrea, *Japan an Economic Survey*, 1975, Oxford University Press, pp. 113.
- Borthwick, Mark, *Pacific Century: The Emergence of Modern Pacific Asia*, 1992, Westview Press, pp. 512-13 , 523.
- Bureau of the Census, *Statistical Abstract of the United States*, 1984, pp. 47, 756.
- Bureau of the Census, *Statistical Abstract of the United States*, 1987, pp. 544, 710.
- Cohen, Theodore, *Remaking Japan* (Chapter 11: Labor Emerges as a National Force and Chapter 23: Imperial Accountant), Passin, Herbert. ed., The Free Press, New York, 1995, pp. 178, 191, 439.

Choy, Jon "Japan's Energy policy: 1986 Update," JEI Report, no. 3A (January 1987), pp.

7.

Defense Agency, *Defense of Japan 1995*.

Denison, Edward F., *Why Growth Rates Differ* (Brookings Institution, 1967), pp. 107.

Destler, I. M. and Nacht Michael, "Beyond Mutual Recrimination," *International Security* (Winter 1990/91): pp. 96-97.

Dolan, Ronald E., Worden, Robert L., ed., *Japan a Country Study*, Library of Congress, 1990, pp. 204, 207.

Encarnation, Dennis J., *Rivals Beyond Trade: America Versus Japan in Global Competition* (Ithaca: Cornell University Press, 1992), pp. 180-81.

Environmental Agency, *Kankyo Hakusho*, 1976: *Shiren to Sentaku no Kankyo Gyosei* (Environmental White Paper, 1976: Environmental Administration's Ordeals and Options) (Tokyo: MOF, 1976), pp. 515.

Environmental Agency, *Kankyo Hakusho*, 1984: *Seijukukasuru Shakai ni okeru Kankyo Mondai e no Arata na Taio* (Environmental White Paper, 1984: New Opposition to Environmental Issues in a Mature Society) (Tokyo: MOF, 1984) pp. 117, 479.

Foreign Press Center, Tokyo, *White Paper on Science and Technology*, 1979, pp. 10-11.

Geographic Distribution of Financial Flows to Developing Countries: Disbursement, Commitments, Economic Indicators 1989/1992 (Paris: Organization for Economic Co-operation and Development, 1994).

Grimm, Margo, "Japan and ASEAN: Aspects of a New Interdependence," *Japan Economic Institute Report No. 12A* (March 27, 1992) pp. 2, 4-7.

- Haitani, Kanji, *The Japanese Economic System*, Lexington Books, 1976, pp. 7-8, 87.
- Harry H. Kendall and Clara Joewono (eds.), *Japan, ASEAN, and the United States* (Berkeley: Institute of East Asian Studies, 1991).
- Ibid. pp. 149, 171.
- Ito, Takatoshi, *The Japanese Economy*, The MIT Press, 1993, pp. 54-55, 58, 60, 63, 70-73.
- Japan Statistical Yearbook, 1973-74, pp. 49.
- Japan Statistical Yearbook, 1985, pp. 268.
- Japan Statistical Yearbook, 1986, pp. 24, 44, 70, 97, 228.
- "Jiji yoron chosa tokuho," (Jiji public opinion special release), February 1, 1992.
- Keizai Koho Center, Japan 1986: *An International Comparison* (Tokyo: KKC 1986, pp. 64, 67.
- Lee, Jeh-Seong, "*The Agenda for the Second APEC Summit*," paper presented at the international Geographic Distribution of Financial Flows to Developing Countries: Disbursements, Commitments, Economic Indicators 1989/1992 (Paris: Organization for Economic Co-operation and Development, 1994).
- Lincoln, Edward J., 1988, *Japan: Facing Economic Maturity*, Brookings Institution, Washington, D.C., pp. 41, 43-46, 51, 56-57, 60-62.
- Lincoln, Edward J., "Infrastructural Deficiencies, Budget Policy, and Capital Flows" in Michele Schmiegelow, ed., *Japan's Response to Crisis and Change in the World Economy* (Armonk, N. Y.: M.E. Sharpe, 1986), pp. 57-59, 159-61, 171.
- Management and Coordination Agency, *Japan Statistical Yearbook*, 1973-74, pp. 49.

- Management and Coordination Agency, *Japan Statistical Yearbook*, 1985, pp. 228, 268, 514-5, 518.
- Management and Coordination Agency, *Japan Statistical Yearbook*, 1986, pp. 24, 44, 70, 97, 228.
- Masuzoe, Yoichi, "Technology and Technical Cooperation in Regional Development," *Economic Development in The Asia-Pacific Region*, Scalapino, Robert A., ed., Institute of East Asian Studies University of California, Berkeley, 1986, pp. 68.
- Mochizuki, Mike M., "Japan as an Asia-Pacific Power," *East Asia in Transition*, Ross, Robert S., ed., East-West Center, 1995, pp. 127-28, 131-34, 139.
- Minami, Ryoshin, *The Economic Development of Japan*, St. Martin's Press, New York, 1986, pp. 209.
- Mourdoukoutos, Panos, *Japan's Turn*, University Press of America, 1993, pp. 126, 148.
- Nakamura, Masao and Vertinsky, Iian, *Japanese Economic Policies and Growth*, The University of Alberta Press, 1994, pp. 9.
- Nakamura, Takafusa, *The Postwar Japanese Economy, 1937-1994*, University of Tokyo Press, 1995, pp. 15-19, 23-29, 31-33, 35-37, 40, 43, 59, 60-61, 68, 70-72, 76-77, 87-89.
- Nishimizu and Jorgenson, "Discussion Paper," 1977, pp. 556.
- Nomura Sogo Kenkyujo and Tokyo Kokusai Kenkyu Kurabu, *Chokusetsu toshi de Ajia wa nobiru* (Tokyo: Nomura Sogo kenkyujo, 1994), pp. 14.
- OECD Economic Survey, *Japan* (Paris: OECD, 1994), 21, 29.

- Ohkawa, Kazushi and Rosovsky, Henry, *Japanese Economic Growth: Trend Acceleration in the Twentieth Century*, Stanford University Press, 1973, pp. 30-31.
- Okazaki, Hisahito, "Ajia cho-daiken' e no shin senryaku" [A New Strategy for an Asian Super Sphere], *This Is Yomiuri*, August 1992, pp. 69-70.
- Organization for Economic Cooperation and Development, *Energy Balances of OECD Countries, 1973-75* (Paris: OECD, 1977), pp. 48.
- Patrick, Hugh and Rosovsky, Henry, ed., *Asia's New Giant: How the Japanese Economy Works*, Brookings Institution 1976, pp. 15, 17-20.
- Purrington, Courtney and Goldman Charles A. "Forces Shaping the New Pacific Community in the 1990s", *The New Pacific Community in the 1990s*, ed., Kim, Young Jeh, (M.E. Sharpe, Inc.), pp. 40-41.
- Reischauer, Edward O., *Japan: The Story of a Nation* (Alfred A. Knopf, Inc.) (Fourth Edition), 1990, pp. 189, 194-95, 226.
- Root, Franklin R., *International Trade and Investment*, South-Western Publishing Co., 1994, pp. 456.
- Rowley, Anthony, "Nice to Be Needed: ADB Treads a Careful Path Through a Jungle of Ideologies," *Far Eastern Economic Review*, May 7, 1992, pp. 12-13.
- Rowley, Anthony, "In Their Own Backyard: Japanese Foreign Ventures to Tap Asian Capital Markets," *Far Eastern Economic Review*, March 19, 1991, pp. 40.
- Saito, Tadashi, "New Strains in Japan-South Korea Economic Relations," *Japan Economic Institute Report No. 27A* (July 17, 1992), pp. 8-11.

- Schnitzer, Martin, *Comparative Economic System*, South-Western College Publishing, Cincinnati, Ohio, (7th Edition), 1997, pp. 143-47.
- Science and Technology Agency, *Kagaku Gijutsu Hakusho, 1984:21 Seiki: no Arata na Gijitsu no Soshutsu o Mezashite* (Science and Technology White Paper, 1984: Aiming for New Technological Development in the 21st Century) (Tokyo: MOF, 1984), pp. 336-7, 339.
- Sengo yoron-shi*, pp. 182-85.
- Setsuko, Suzuki, ed., *Japan: Profile of a Nation*, Kodansha International Ltd., 1995, pp. 136.
- Sho, Tsusho Sangyo (ed.), *90 nendai tsusan seisaku bijon* (Tokyo, 1990), pp. 99.
- Smith, Charles, "Eager to Please: Tokyo Sets Aside Own Rules in China Aid Package" *Far Eastern Economic Review*, January 26, 1995, pp. 25-26.
- Solomon, Richard, "The Promise of Pacific Cooperation, " *Current Policy*, no. 1208 (Washington D.C.: U.S. Department of State, October 1989)
- Statistical Abstract of the United States, 1987, pp. 47, 394, 710, 756.
- Takenaka, Heizo, "The Macroeconomics Management of the Asia-Pacific region: The Growing Significance of Japan's Role," in FAIR Conference (the Second Asia-Pacific Conference), *The Asia-Pacific Region in the 1990s-Cooperation for Sustainable Development and the New World Order*, vol. 1 (Tokyo: Foundation for Advanced Information and Research, 1991), pp. 117-24.

- Tamamoto, Masuru, "The Japan That Wants to Be Liked: Society and International Participation," *Japan's Emerging Global Role*, Unger, Danny and Blackburn, Paul, ed., Lynne Reinner Publisher, 1993, pp. 39.
- "The Economics of Aging," *The Economist*, January 27, 1996, Survey, 1-16.
- The Economist, "Japan, Gorbachev and Price of Peace," March 30, 1991, pp. 33.
- "The Second Wave; Japanese Investment in Asia," *The Economist*, November 7, 1992, pp. 87-88.
- Thurow, Lester, *Head to Head: The Coming Economic Battle Among Japan, Europe, and America* (New York: Morrow, 1992).
- Tsuru, Shigeto, *Japan's Capitalism*, Cambridge University Press, 1993, pp. 19-20.
- Unger, Danny, "What Next," *Japan's Emerging Global Role*, Unger, Danny and Blackburn, Paul, ed., Lynne Reinner Publisher, 1993, pp. 198-99.
- Wall Street Journal*, March 29, 1995, 1.
- Wolf, Charles et al., "Long-term Economic and Military Trends, 1950-2010," Report N-2757-USDP, Under Secretary of Defense for Policy, The Rand Corporation, April 1989, pp. 7.
- Yomiuri, Shimbun, March 21, 1991.
- Yoshitomi, Masaru,, *Gendai Nihon Keizai Ron-Sekai Keizai no Henbo to Nihon* (Toyo Keizai Shimposha, 1977).

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