

JAPAN'S BEHAVIOR IN FOREIGN RESOURCE
INVESTMENTS IN THE POST SECOND WORLD WAR PERIOD

by

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ABSTRACT

This thesis seeks to explore Japanese foreign investment criteria in resource industries, in order to determine what factors may influence the Japanese investment behavior in upstream investments. Japan's behavior for obtaining resources is becoming increasingly important in the world resource market because it requires substantial amounts of raw materials.

Five criteria were hypothesized to analyze Japanese investment behavior in resource industries in the post-Second World War period. These criteria may only be applicable to Japanese resource industries.

Japanese foreign investments were under tight government control until the end of the 1960's, and very few sizable resource investments were undertaken. Although resource investments have been increasing over the past few years, Japan's resource investments and investment policies are still in transition.

Based on the country's own criteria and past behavior, an attempt was made to determine Japan's future behavior under the expected resources demand-supply conditions, expected economic conditions and political changes in the world.

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CHAPTER ONE

INTRODUCTION

Japan absorbs large amounts of foreign resources and its dependence on these resources is considerable. The country's total imports increased from \$2.4 billion in 1953, to \$5.8 billion in 1961, \$15 billion in 1969, \$18.8 billion in 1970¹, and of these amounts more than two-thirds comprise raw resources.

Japan's dependency on foreign resources has been documented and data on this aspect of Japan's economic status are presented in Appendix B. From that appendix we observe that it is predicted that by 1975 more than 83% of major resources, except lead, zinc and natural gas, will have to be imported from other countries.

Japan's resource obtaining methods in the postwar period, judging from the results of today, were quite successful. Despite heavy foreign dependency, the needy raw materials were fed into the Japanese economy and Japan achieved its economic goals.

Objectives of the Study

The paper will study Japanese foreign investment

¹ The data on imports came from Business JAPAN, November, 1971, and the data on import composition are contained in Appendix A.

motives and behavior with respect to resource industries in the post-World War II period. Five hypotheses are proposed to explain Japan's activities in their economic, political and cultural aspects. It will be argued that the cost-benefit considerations are only a part of the group of factors that the Japanese consider regarding investments in resource industries.

The postwar period is divided into three sub-periods covering 1) from 1945 to 1950, in which no foreign investments were permitted, 2) from 1951 to around 1970, in which open market resource purchases were the most common way Japanese firms acquired raw materials, and 3) from around 1970 to the present, September, 1972, in which direct investments in resource industries have rapidly been increased.

An attempt will be made to reach a position regarding future behavior, based on past behavior and economic and political developments, both in Japan and in the rest of the world.

Organization of the Study

The study is divided into three major parts: the proposition of hypotheses as devices to analyze behavior, an analysis of Japan's behavior in resource industries since the end of the war in 1945, to date, and a prediction for

the future based on the two previous parts. The first part is discussed in Chapter II, the second part in Chapter III, followed by the possible future in Chapter IV. Chapter V summarizes the whole work.

Characteristics of Resource Industries

Investments in resource industries can be divided into two aspects. One deals with actual development of resources, including the preliminary geological and geographical studies and mine valuation, feasibility studies, and actual production of resources. It requires a lengthy period in preliminary studies and a substantial amount of capital investments for actual development of resources. Sometimes it requires investments in infrastructures, such as railroads, roads, port facilities, schools, hospitals and others. The other aspect includes smelting, extraction and processing of natural resources produced domestically and purchased overseas. The former is called upstream resource industries, while the latter is called downstream.

The general characteristics of Japanese resource investments are that they are heavily concentrated downstream, and that huge quantities of resources produced by foreign upstream have been purchased in the open markets and fed into Japanese industrial downstream. In this study,

resource investments indicate Japan's foreign investments in upstream industries.

Japanese Attitude for Resource Investments

A fundamental Japanese resource policy was the preferential use of domestic resources². Resources were purchased overseas to compensate for those not produced in Japan, and for shortages. They were brought back to Japan as raw as possible. The reason for this could be based on four situations. First, smelting industries and other processing facilities are in any case necessary in Japan for full utilization of domestic resources. Raw resources from abroad can be fed into these industries. Second, the scale of these industries must be enlarged to such proportions that they are competitive in the world market. Third, any profit earned in the course of resources processing is earned by the Japanese. In addition, the development of raw material-saving technology not only increases the efficiency of resources, but also minimizes the drain on Japan's foreign reserves. And finally, the quantity of ore purchased by the Japanese from any particular country has been too small to justify setting up smelting and concentration operations in any foreign country.

² Masami Tamaki, "Hitetsu Kinzoku Shigen Kaihatsu no Seiji Keizaigaku (Political Economy in Non-Ferrous Metal Resources Development)," Keizai Hyoron, Vol.20, No.5, May, 1971, p.44.

Until quite recently, Japan did little more than purchase resources in the open market. This included long-term purchase agreements and spot purchases. This approach to the acquisition of resources required limited or no capital investment, and this was suitable to Japanese industries, which had little financial capability and were under tight government control concerning the use of foreign reserves.

Only for the past few years have independent resource investments upstream by Japanese industries been promoted for the reasons to be discussed in the next chapter.

CHAPTER TWO

JAPAN'S INVESTMENT MOTIVES

Overview

There are three objectives in this Chapter. The first is to clarify the reasons why Japan invested heavily downstream. The second is to explain why cost-benefit relationships are poor criteria to evaluate investment proposals. And the third is to propose reasons for Japan's investment upstream, and to incorporate five hypotheses to analyze Japan's past and expected future behavior in the next chapters.

Inhibited Investment Upstream

Japan has a very limited amount of resources and had little opportunity to experience sizable investments upstream. There are three reasons for Japan's investment downstream of resource industries. First, Japanese industries had to establish themselves out of the war destruction, and had to catch up to their Western counterparts in a short time. Their major source of financing has been debt financing, and investments upstream were obviously a less attractive alternative, because they require a lengthy lead time and a large amount of funds,

but with a very small probability of success³. Japanese industries had not grown sufficiently to undertake resource investments both financially and technologically, comparing with their Western counterparts. Also, it is top priority for the Japanese management to avert risky investments to protect its external reputation⁴. Furthermore, Japan's needy resources were available in the market. Therefore, management did not have to choose risky resource investments.

Second, Japanese resource industries did not have enough human resources to undertake investments in different political, economic and cultural environments. The recruitment of personnel in Japan is usually made directly from schools into industries, and they are trained within the industries. Since resources were readily available in the market, there was little incentive for resource industries to train personnel who were capable of managing foreign investments. Under these conditions, they put priority on competition with their Western firms downstream in the resource industry.

Third, Japan's postwar international balance of

³ For instance, approximately 30 companies have been engaged in oil development. Only two of them have succeeded so far. Cf. Nihon Keizai Shimbun, June 10, 1972.

⁴ J. Q. Harty, Management Decision in the Japanese Factory, (trans. ed.), Diamond Publishing Co., Tokyo, 1961, pp.61-62.

payments was in constant deficit until 1964⁵. In order to save hard currencies, Japan's foreign investments were strictly regulated until 1969, and each investment had to be licensed by the Ministry of International Trade and Industry, and approved by the Ministry of Finance. Therefore, the government's tight foreign investment control restricted resource investments, which require extensive amounts of foreign currencies.

Validity of Cost-Benefit Relationships

An investment's incentives are the benefits which are expected to be brought to the investor. They can be of any type of subjective values, monetary or otherwise. In Japan, the investment criteria may not necessarily be the same as those of other countries. Generally speaking, evaluation of investment proposals using cost-benefit relationships are less meaningful when applied to Japanese industries. Their criteria are based frequently on nationalistic objectives rather than on the company's own policies, as pointed out in Fortune:

Traditionally, profits have been given a relatively low priority as goal of Japanese businessmen. What counted most for them--and for the professional managers who have

⁵ The balance of payments will be explained extensively in Hypothesis IV.

taken their place--was building up the business and "contributing to the national economy."⁶

This is the reason that Japanese industries coordinate business efforts to achieve their activities to promote the national economy.

Reasons for Investments Upstream

For various reasons, Japan's resource industries had increasingly been required to enter actively into upstream investments since the latter part of the 1960's. The most important factor was the expanded Japanese economic scale, which ranks third following the U.S. and the U.S.S.R. A large quantity of resources must be fed into Japan's economy. However, the purchases of huge amounts of resources in the market are becoming increasingly difficult, and it is necessary that Japan have its own resource supply sources to ensure that it will have the required resources.

Heavy foreign dependency for the supply of resources is not only shameful to Japan, as one of the economic superstates, but may also endanger Japan's economic and political autonomy. The possession of its own supply sources upstream, however, will bring about a secure resources flow and a desirable international reputation.

⁶ Robert Luber, "The Japanese Giant That Wouldn't Stay Dead," Fortune, Vol.LXX, No.5, November, 1964, p.274.

Japan's economic success increased expectations of other countries that Japan could share in more responsibilities in international affairs, including those in the economic and political spheres. Especially under the existing international monetary system, Japan's staggering foreign reserves increase requires certain measures to curb their accumulation. Resource investments are an ideal alternative, among others, to utilize reserves, unloading sizable amounts of them.

All of these reasons are incorporated into five hypotheses to analyze Japan's investment behavior.

I: Stable Resources Flow Hypothesis

Japanese industries had to increase their production capabilities rapidly to meet special procurements created by the Korean War, in addition to the postwar shortages for domestic consumption. Furthermore, the technological gap between Japan and the Western world was wide. In the brisk market conditions, the manufacturers had to increase their production capabilities with heavy capital investment in a short time to catch up to their Western counterparts. The most fundamental role of Japanese economic activity is to convert raw materials through land, labor, management, technology and capital processes into finished products. Fixed costs in Japanese industry are different from, and

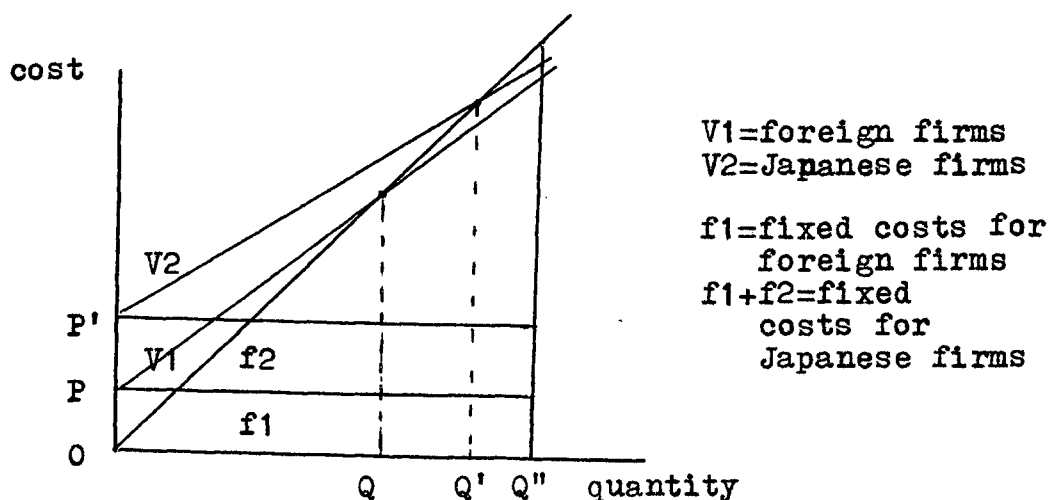
higher than, their Western counterparts and two reasons can be considered.

First, Japanese employment customs are such that there are practically no lay-offs in the life-time employment system. Employment is increased in anticipation of increases in operations and production, and those employed are built into the industry's personnel forces, which cannot be reduced if and when the level of operations is trimmed. Hence, increased labor costs do not have downward flexibility as variable costs. This inflexibility requires industry to treat labor costs as fixed.

Second, debt capital financing has been a commonly and extensively used method⁷ of financing purchases of technology and production equipment, and the debt servicing requirements are a significant fixed annual claim on receipts.

Figure I is presented to help show the necessity of a stable resources inflow. Since Japanese labor costs can be considered as a part of fixed costs, the marginal cost in Japan is smaller than in foreign firms, which treat them as variable costs.

⁷ Debt financing provides several advantages: interest on debts is tax deductible, equity financing takes time to raise, and frequently trying to raise capital for each new investment is too uncertain, especially when most of industry requires capital equally desperately.

Figure I

Assume that Japanese and foreign firms have the same production capacity, Q'' , and the same factor costs, except for the high cost of capital to the Japanese firm. OP and $V1$ represent the foreign firm with lower capital costs, treating labor costs as variable costs. OP' and $V2$ include labor costs and high capital costs in fixed costs. Since the marginal cost of the foreign firm is higher than that of the Japanese, because of labor and capital costs, the slope of $V1$ is steeper than that of $V2$ ⁸. The smaller

⁸ The cost functions for the foreign and Japanese firms are expressed by:

$$y_1 = f + (L + M)x$$

$$y_2 = f' + Mx$$

where

f = fixed costs, such as plant, equipment, etc.

f' = f plus labor cost (L) and interest above that of the foreign firm

L = labor costs

M = materials required for production

marginal cost of the Japanese firm indicates that it has no downward flexibility: it requires high and fixed cash flow commitments for wage and debt servicing. To produce revenues to meet these requirements, it is important for a Japanese firm to obtain raw materials to maintain its high level of operation.

There are two alternative methods to obtain a stable natural resources flow: one is to purchase resources in the open market, and the other, to make a foreign investment upstream in resource industries. These alternatives will be examined.

A stable inflow of resources can be attained by purchasing them in the open market under conditions of excess. An example is crude oil in the 1960's, the supply capability of which greatly exceeded the demand⁹. The condition of oversupply prevailed throughout this decade, simultaneously increasing oil reserves from 116.5 billion barrels in 1960 to 526.8 billion barrels in 1969¹⁰. Under

y_1 = foreign firms
 y_2 = Japanese firms

Then take the first derivative to obtain the slope of these functions. $y_1' = L + M$; $y_2' = M$. Therefore, the slope of y_1 is steeper than that of y_2 .

⁹ The world oil production capability was 29 million barrels per day in 1961. This amount was the estimated demand at the end of 1965, assuming the demand increased at a rate of 5% annually. Cf. World Oil, Vol.153, No.3, August, 1961, pp.71-72.

¹⁰ _____, Vol.171, No.2, August, 1970, p.70.

this market condition, resources were readily available and supply stability was maintained.

However, the fulfillment of stability of resources inflow may be very difficult under certain market conditions. The production of the world's key resources is dominated by a few international enterprises. For example, 67% of oil is produced by seven companies, 71% of copper by ten companies, 67% of aluminum by six companies, and 85% of nickel by only three companies!¹¹.

Investments by the Japanese is an alternative toward a stable resources inflow, to subordination to the market and to oligopolists. Two methods have been used. One is investments in the form of loans simultaneously concluding long-term purchase agreements of part or all of produced resources for a specified period. This system is mutually beneficial. The resource developing party can obtain financing and the guarantee of a market. The major advantage to the Japanese is that Japan can obtain a stipulated quantity of resources for a specified period.

The other is to make a direct investment or establish a joint venture with the local government or industries, or industries from a third country. A joint venture may not only be a good device to avert such pressures as government

¹¹ Takeshi Hirahara, "Shigen Gaiko no Tembo (Scope of Resources Diplomacy)," Keizai to Gaiko, No.590, July, 1970, pp.5-7.

regulations, but it may also facilitate entry into a country¹². A direct investment reduces or eliminates the quantity of resources required to be purchased in the market, and enables Japanese industry to obtain resources by backward integration. A direct investment will require a larger sum of capital than will financing the resource developing industry, but the total profit from the investment will be increased by the amount saved in obtaining resources otherwise, assuming the sales price of the final goods is the same. Under this condition, it would be the same as if the new investment yielded the same profit which the resource developer would have earned from selling the resources. The resources supply schedule can easily be adjusted, depending entirely on Japan's demand schedule. The possession of supply sources, therefore, reduces the effect of changes in external prices and available quantities.

In short, this hypothesis has proposed that a stable inflow of resources is necessary for Japanese industry because of high and fixed cash commitments. Investments are motivated by the search for stability, and usually take two forms: loans, and direct investments for resources exploration, including establishment of joint ventures.

¹² Raymond Vernon, Manager in the International Economy, Prentice Hall, Englewood Cliff, N.J., 1968, pp.207-208.

II: Low Supply Price Hypothesis

The cost structure of manufacturers is determined by the aggregate costs of such production factors as land, labor, capital, technology, and raw materials. An increase in one of them, the others remaining constant, increases the total cost of production.

In the Japanese economy, the royalties on technology significantly increased from a prewar 1% to around 10% of sales in the postwar period¹³. However, there is no noticeable evidence of royalty fluctuation. Industries were invited to build plants in industrial sites developed by local governments, providing industries with favorable terms of purchase and better facilities required for industrial operations.

Capital costs were relatively stable throughout the years¹⁴. Labor costs have been increasing in Japan, especially in the 1960's. The actual wage index increased from its base year of 1960 (1960=100) approximately 10 points every two years until 1966, and it has rapidly

¹³ Hiroshi Okumura, Gaikoku Shihon: Nihon ni Okeru Kodo to Riron (Foreign Capital: Theory and Behavior in Japan), Oriental Economist Press, Tokyo, 1969, pp.83-94.

¹⁴ The average interest rate on loans of all banks between 1956 and 1962 was from 8.00% to 8.50%; since then up to 1971 it has dropped to 7.50% and 8.00%. Cf. Bureau of Statistics, Office of the Prime Minister, Monthly Statistics of Japan, July, 1971, p.114.

increased since then, up to 164.6 in 1968¹⁵. The speed was accelerated in the following years to 180.9 in 1969, 196.6 in 1970¹⁶. There are many causes for the rapid wage increases. In the annual spring labor offensive and semi-annual bonus negotiations, labor's demands for wage and bonus hikes have been intensified. This is brought about, in addition to increasing productivity, by decreases in the birth rate and the high entrance rate into institutions of higher education, reducing new labor forces in the expanding economy. The short supply to the excessive labor demand¹⁷ pushed up the youth wage level, bringing about an overall labor cost hike, since in the seniority wage system of Japan, an increase in a portion of the system requires simultaneous adjustments to the rest of the system. An increase in the labor forces is not expected in the future. Under these circumstances, further labor shortages and cost hikes are expected.

¹⁵ Keizai to Gaiko, No.581, October, 1970, p.78.

¹⁶ *Op cit.*, p.82.

¹⁷ The demand for secondary school graduates was 3.7 times greater than the supply in 1965, and reached 4.9 times more in 1969. The rate of supplement personnel required in industry dropped from 24.7% in 1965 to 19.1% in 1969. The demand for high school graduates increased from 3.5 times to 5.8 times, and the rate of supplement personnel dropped from 24.9% to 15.5% respectively during the same period. Cf. Keizai to Gaiko, No.597, August, 1970, or labor statistics by Ministry of Labor.

The fast increasing labor costs require industry to search for ways to partially offset or slow down the increase in total costs. The lower cost of natural resources is an alternative, among others, including the development of labor- and raw material-saving technologies.

Another reason is that a significant portion of the Japanese economy is affected by resource prices. The costs of resources in the iron, steel and aluminum industries are 30% to 40% of the total production costs, but they are 70% to more than 90% in the oil, nickel, copper and uranium industries¹⁸. The obtaining of resources at lower prices is crucial to the existence of the latter industries to compete with their counterparts in the internationalized economic sphere. Japan's possession of resource supply sources eliminates oligopolistic profits included in the resource prices, assuming the technology and other mine conditions to be the same. The possession of a cheaper resource supply reduces the average cost of resources for the industry, even when a portion of the resource must be purchased in the open market.

In investments, long-term purchase agreements with loans are undertaken with the expectation of buying resources at lower prices than in the open market, in return

¹⁸ Economist, Vol.48, No.42, October 6, 1970, p.17.

for the financing of the resource development. Unless there are advantages in price, stability in supply, or both, there is no merit to undertaking this form of investment.

Direct investments upstream provide Japanese industries with control on supply price and quantity, depending on the magnitude of capital invested. As shown in the previous hypothesis, at a given sales price, the investment increases the aggregate profit of the manufacturers by the amount of the developer's profit and intermediate purchase agent's commission. If the mine reserves are sufficiently large, the long-run costs can be stabilized at low range by total control of the investments by the Japanese.

In brief, this hypothesis proposed that lower resource prices are an alternative to partially offset or slow down the cost increase because of the rapid rise in labor costs. Investments will be undertaken to obtain resources at low prices.

III: National Prestige Hypothesis

Japan is a country that has a very strong social system which identifies relations with others by rank, such as superior-subordinate, senior-junior, rich-poor. Internationally, Japan is concerned about its relations

with other countries by the magnitude of its Gross National Product¹⁹. Also, honor is the constant goal of the Japanese²⁰. Respect from others is essential.

Japan achieved a major success in the GNP race in 1968, earning \$142 billion to rank third following the U.S. and the U.S.S.R. This means that Japan has become an economic superstate and has the capability to undertake independent resource development upstream. However, Japan's major resources obtaining method had been purchases in the open market. A demerit of this method became quite clear in the so-called "oil war" in 1970, which was a severe confrontation between the Organization of Petroleum Exporting Countries and major international oil companies²¹ over the crude oil tax hike²². Japan is one of the major consumers

¹⁹ M. Kimura, "Keizai Taikoku no Genso (An Illusion of the Economic Superstate)," Keizai to Gaiko, No.584, January, 1971, pp.15-18.

²⁰ Ruth Benedict, The Chrysanthemum and the Sword, Houghton Mittlin Co., Boston, 1946, p.171.

²¹ The former includes Saudi Arabia, Iraq, Kuwait, Iran, Venezuela, Qatar and Lebanon; the latter, Standard Oil New Jersey, Mobil Oil, Gulf, Texaco, Standard Oil California, British Petroleum and Royal Dutch Shell.

²² Oil was considered to be a surplus resource. But the demand-supply conditions were gradually changing in the late 1960's as a result of the increased energy demand throughout the world. This tendency increased when the U.S. and the U.S.S.R. changed their oil policies. The U.S. is expected to increase its oil import quota to meet its demand, more than 320 million tons in 1971 alone, while the U.S.S.R. is expected to cut substantially its oil export to the free world from the current annual 100 million ton level. Cf.

of Middle East oil, importing approximately 20% of Middle East oil production (88% of Japan's import)²³, but it could not raise any voice as a consumer in oil price negotiations. The OPEC won the oil tax hike, and Japan was given the burden of the tax as the total price increase by the oil companies.

The impact of the oil price hike on the Japanese economy will be significant, because 70.3% of the country's primary energy source is dependent on oil, more than 99.5% of which is imported from foreign countries²⁴. It also affects many other industries, such as chemical, petrochemical, iron, steel, and so on. The result could be a sharp general price increase.

The lesson of the oil war was that heavy foreign dependency in the supply of resources endangers Japan's economic activities. Now that Japan has become the third largest economic power in the world, it is shameful for Japan to depend heavily on others in resource supply, and be directly vulnerable to external influences.

Yuichiro Noguchi, "Sekiyu Senso: Korega Nihon no Haiinda (Oil War: These are the Causes of Japan's Defeat)," Chuo Koron, Vol.10, No.2, June, 1971, pp.202-212.

²³ Ibid.

²⁴ Nihon Keizai Shimbun, June 6, 1972.

Realizing that Japan's economic future depends greatly upon a stable inflow of resources, resource industries, government agencies, and mass-media increasingly emphasized autonomous resource development as the solution to foreign dependency²⁵.

The Ministry of International Trade and Industry emphasized autonomous investment in resources by private industries, but it urged that the government should provide industries with funds until the investment became self-sufficient, and thus free potentially unsuccessful prospectors from risk²⁶. The argument for government subsidies is that resource industries are dominated by a few large international enterprises and new entry by Japanese industries is extremely difficult, both financially and technologically. Therefore, the government can motivate resource industries to undertake investments as national projects without endangering their business and financial activities.

In short, this hypothesis argues that the Japanese are highly concerned about their rank in the international economic sphere. They seek an appropriate position and

²⁵ Kenzo Ikusawa, "Nihon Keizai no Kukusaika to Shigen Mondai (Internationalization of the Japanese Economy and Resource Problem)," Keizai Hyoron, Vol.20, No.5, May, 1971, p.8.

²⁶ Ibid, p.9.

pattern of obtaining resources, for their honor and dignity in comparison with others, in the magnitude of their GNP. Japan's entry into upstream resource industries eliminates its vulnerability to external resource supply conditions. Since Japanese resource industries are latecomers in upstream industry, the government provides funds and risk absolvment to help them achieve successful entry.

IV: Increased Foreign Reserves Hypothesis

Japan abandoned its multiple exchange rate used in foreign trade since 1947, and set the value of its currency in 1949 to 360 yen to the dollar. The Foreign Exchange Law was established in 1949 as a device to support Japan's currency par value, to promote foreign trade and to improve its balance of payments position. Japan's balance of payments strain continued until 1964, as shown in Appendix C. Since then its balance of payments has been in a steady surplus except for 1967, and foreign reserves have increased steadily. But the government, regarding the balance of payments and increasing reserves as temporary, did not make serious considerations until spring, 1971²⁷.

Japan quickly formed an 8-point yen measure in June,

²⁷ Nihon Keizai Shimbun, June 18, 1972.

1971²⁸, to unload reserves and thus alleviate pressure on the yen in the staggering monthly reserve leap, as shown in Appendix D. Before the results of these policies appeared, the U.S. took drastic measures in August, 1971, toward international monetary realignment to improve its economic difficulties²⁹. The imposition of a 10% surtax was such a draconian measure to press Japan for revaluation of the yen and for trade concessions. In trade, among others, the U.S. demanded that Japan cut its textile exports to the U.S., which account for only 2 to 3% of the U.S. textile market, threatening to use the Trade with the Enemy Act for quota imposition, and also the possibility of delay of reversion

²⁸ They include reduction of import restrictions, tariffs, and other barriers, capital decontrol of investments into Japan, preferential treatment of imports from less developed countries, and expansion of foreign economic cooperation.

²⁹ The U.S. balance of payments was extremely deteriorated, as a result of inflationary economic policies since the Kennedy Administration and the war in Viet Nam. Fiscal and monetary policies for the past years resulted in stagflation--inflation under stagnation. In addition, the U.S. gold reserves were decreasing near to \$10 billion. These were the urgent reasons why the U.S. took drastic measures. Cf. Kiyoshi Tsuchiya, "Kiriage Fukyo ga Yatsute Kuru (The Upward Revaluation Depression is Coming)," Bungei Shinjyu, Vol.49, No.13, October, 1971, pp.92-94.

of Okinawa to Japanese control³⁰. Bowing to the pressure, in addition to some trade concessions, including those in textiles, Japan floated the yen, then revalued it for the first time since 1949, 16.88% upward to 308 yen to the dollar, in December, 1971.

However, as shown in Appendix D, by early 1972, Japan's reserves have not shown any sign of decreasing³¹. Facing this situation, the government reconstructed another 7-point yen measure in June, 1972, to avert another upward currency revaluation, but the effectiveness of these measures is regarded as being minimal³².

³⁰ Time, October 25, 1971, p.43. The reversion of Okinawa to Japanese administrative control has been the pathetic wish of the Japanese. Japan's then prime minister Sato declared that he stakes his political life on Okinawa reversion, adding "Without Okinawa reversion, there will come no end to the Second World War." Cf. Mainichi Shimbun, August 19, 1965.

³¹ Japan's reserves decreased slightly for the first time since July, 1970, in April, 1972. A major reason, according to the Ministry of Finance, is that April is usually the month with a slow increase in exports. In addition, the government deposited \$200 million in exchange banks and made other exchange procedure changes. These measures, however, will not solve the issue of increasing reserves unless a fundamental solution is taken to normalize the balance of payments. Cf. Asahi Shimbun, April 26, 1972.

³² These new measures were almost the same as those announced a year ago, except for the reduction of interests on personal savings by 0.5% in order to reduce general interest on bank loans. However, these patch-up measures are expected to be of little value for curbing the reserves increase. Cf. Nihon Keizai Shimbun, June 11, 1972.

Japan's foreign investments are an alternative, among others, such as export restrictions and taxes, to reduce its accumulating reserves. In resource industries, the government efforts to motivate resource investments went further than low interest development loans, as it set up a \$1 billion fund to absolve unsuccessful prospectors of any risk³³. The government is also working out details for increasing foreign exchange reserves from \$5 billion to \$9 billion for making long-term loans for Japanese investments in foreign countries³⁴.

Foreign investments, especially resource investments, require long lead times, and the effectiveness of various government investment promotion policies has not yet been established.

In short, investments in resource industries are an alternative, among others, to unload staggeringly accumulating foreign reserves, especially since 1971. The foreign reserves unloading policies, contrary to the past foreign exchange drain controls, were counter measures to avert pressure on the yen, and severe external demands for capital and trade liberalization. Japan was forced

³³ Time, March 15, 1971, pp.60-61.

³⁴ Time, May 15, 1972, p.70.

to revalue its currency 16.88% upward before its policies had a chance to work. The second unsuccessful phase of reserves unloading policies was established, but another currency revaluation is imminent, unless Japan takes some specific measures to curb further reserves accumulation.

V: Assisting the Development of Less Developed Countries Hypothesis

The economic structure of the world can be divided into two groups: one is the highly industrialized countries in the Northern hemisphere, and the other is the less developed countries (LDC's)³⁵ such as Asia, Africa and Latin American countries in the Southern hemisphere.

LDC's are characterized by their low per capita income, low educational level, low capital formation, high rate of population engaged in agriculture, and high dependence on the export of primary products³⁶.

The major difficulties built into the economy of LDC's can be improved by such government and private economic assistance from developed countries as:

³⁵ LDC's cover 75% of UN members, and 49% of the total world population, while they earn only 14% of the total world GNP. MITI, Keizai Kyoryoku no Genjo to Mondaiten (Current Position and Problems of Economic Cooperation), Tokyo, 1970, p.5.

³⁶ Raymond Vernon, Manager in the International Economy, Prentice Hall, Englewood Cliffs, N.J., 1968, pp.142-165.

- 1) capital assistance, such as grants, loans, investments and export credit over one year, to provide capital and exchange needs,
- 2) technological assistance to narrow technological gaps, and
- 3) trade expansion assistance, for example, by means of preferential treatment of imports from LDC's to help earn needy foreign exchange and to promote industrialization³⁷.

The United Nations Conference on Trade and Development was established in 1964 to improve economic relations between developed and less developed countries. Through the past meetings held in 1964, 1968 and 1972, LDC's increasingly intensified their demands for preferential treatment of their exports, and for increased capital and technological aid. These are devices to promote industrialization to earn foreign exchanges, and to offset the worsening of LDC's terms of trade³⁸.

³⁷ MITI, op cit, p.5.

³⁸ Appendix E shows the terms of trade of advanced countries and LDC's. Deterioration in terms of trade is brought about by price increases of manufactured goods imported from advanced countries that rise faster than do the prices of their primary products. The competition of primary products in the market tends to reflect the competition among LDC's. Furthermore, the formulation of synthetic products and technological innovations for raw material saving slows down the increase in demand for their resources.

Economic assistance to LDC's is explained as the responsibility of the developed nations for the peace and welfare of the world³⁹. However, aid has been used as a tool of political strategy rather than being a philanthropic act. For example, U.S. aid was used to achieve the country's political strategies, such as an important measure of the compartmentalization of China, and to reduce domestic surplus goods, while aid from the communist bloc was used as a vehicle of political propaganda⁴⁰.

Japan tripled its net amount of aid since 1966, and increased the rate against the GNP, as shown in Appendix F, seeking LDCs' well-being, and also three merits. Japan's so-called white paper on economic assistance, issued by the Ministry of International Trade and Industry, pointed out three merits and necessities of economic assistance for LDC's. They are:

1. to secure the inflow of Japan's necessary resources,
2. to promote Japan's exports and to strengthen the bases of the Japanese economy in the international

³⁹ MITI, op cit.

⁴⁰ Shizuo Maruyama, Tonan Asia to Nippon (South-east Asia and Japan), Asia Economic Research Center, Tokyo, 1968, pp.12-13.

sphere, and

3. to establish Japan's political ground in Asia by contributing to Asian peace⁴¹.

Since the second and third issues are not related to a resource investment, only the first one will be examined.

Japan requires a huge volume of imported resources to support its enlarged economic activities. However, it is becoming increasingly difficult to obtain resources in advanced countries and from existing supply sources⁴².

Investments into resources holding LDC's diversify not only the supply sources but also the methods of obtaining resources by changing the conventional heavy purchases in the market.

Japan's investments not only supplement LDCs' exchange and capital needs, but also help their economic development through the introduction of technology and increase in exports. Japan's giving economic assistance in the form of investments, thus, is not altruistic to the recipient, nor does it constitute plundering of resources by the Japanese. It seems to be mutually beneficial.

Japanese investments will become extremely effective by combining with government aid, such as grants.

⁴¹ MITI, op cit.

⁴² Ibid.

Government aid can be used for improvement of infrastructures, such as roads, railroads, and port and harbor facilities where resource investments are to be undertaken. This eliminates some of the investments that must be done by resource developing industries. In this case, government aid to LDC's works simultaneously as a subsidy to the Japanese investors. For these reasons, Japan's economic assistance paves an avenue to resource investments.

In recapitulation, this hypothesis proposed that investments are being undertaken as a part of economic assistance to LDC's. Investments, as such, are far from being philanthropic, but bring benefits to Japan and LDC's alike, because Japan can obtain resources while LDC's can undergo economic development.

CHAPTER THREE

JAPAN'S INVESTMENT BEHAVIOR

Overview

The postwar period is divided into three major periods to examine Japanese investment behavior. The first covers from immediately after the War to the beginning of the Korean War in 1950, the second, 1951 throughout the 1960's, and the third, from around 1970 to September, 1972. The distinction between the second and third periods is not definite, but it is generally agreed that Japan's new behavior toward independent investments began from the confrontation between the Organization of Petroleum Exporting Countries and major oil companies⁴³. The third period is, of course, in transition, and the nation's policies in resource industries have not yet been definitely established. Thus, Japan is still in search of future direction.

(I) First Period (1945 to 1950)

This period is characterized by the destruction of the

⁴³ For example, the then Foreign Minister Takeo Fukuda commented that Japan's new measures for secured resources flow at a reasonable price were being studied, taking the lesson of the last oil war into consideration. Cf. Takeo Fukuda, "Shigen Mondai Tokushyu ni Yosete (Contributing to Special Issue on Resource Problems)," Keizai to Gaiko, No.590, July, 1971, pp.2-3.

war economy and the following confusion, as new economic activities had not been established. The beginning of industrial activities and the cessation of postwar inflation were the initial problems to be dealt with.

The government's reconstruction policies, emphasizing the production of iron and coal by fully utilizing domestic resources, were started in the latter part of 1946⁴⁴. These policies were augmented from 1948 by the U.S. Economic Rehabilitation in Occupation Area Fund, which supplied Japan with iron, coal and other key reconstruction materials⁴⁵. The results of these reconstruction activities were clear in the recovery of the mining and manufacturing index, which hit a low of 12 in the 1934-1936 average, reached 50 in 1948, and returned to the prewar average in 1950⁴⁶.

The slowing-down of inflation and rapid economic recovery enabled the replacement of multiple exchange rates, which were used in trades started in 1947 under government control. A single exchange rate of 360 yen to the dollar was set in 1949. The scarcity of foreign exchange

⁴⁴ Yasuzo Horie, Nihon Keizaishi Dokuhon (Reading in Japanese Economic History), Oriental Economist Press, Tokyo, 1968, pp.250-258.

⁴⁵ Ibid.

⁴⁶ Economic Planning Agency, Economic White Paper, 1952, Tokyo, p.12.

necessitated strict government control to maintain this rate. Exporting capabilities were low because of war damage, and import demands were high. During this period, imports were under tight control and foreign exchange for importing necessary raw materials was allocated primarily to the manufacturers; trading companies represented manufacturers as purchasing agents, using the allocated foreign exchange⁴⁷. Direct government import control was replaced by the newly established Foreign Exchange Law in 1949, which is the exchange and trade control law.

Foreign capital investments by Japanese industries were not permitted during this period. The reasons could have been insufficient industrial capabilities and an extremely low level of foreign currencies reserves. In addition to resources supplied by the U.S. Economic Rehabilitation in Occupation Area Fund, readily available natural resources in the world market did not require Japan to invest in foreign countries for natural resources.

A significant political event which occurred during this period was the creation of the East-West confrontation, initiated by the "iron curtain" address made by Sir Winston Churchill in Missouri in March, 1946; this led to

⁴⁷ Katsutoshi Uchida, Shosha Hakusho (White Paper on Trading Companies), Kodansha, Tokyo, 1967, pp.68-69.

swift European economic reconstruction with Marshall Aid under the fear of communism⁴⁸. The cold war affected decisions in Japanese economic policies and later activities in the following periods.

In short, the Japanese economy started its activities for reconstruction from war destruction. Foreign investment was not permitted; even if it should have been allowed, the industries had not the capabilities nor need for investment in resource industries. Mining and manufacturing activities scraped through the war damage. During the rehabilitation stage, natural resources were supplied domestically, by the U.S., and by purchases in the market.

(II) Second Period (1959 throughout the 1960's)

Overview

This period is characterized by various aspects. Domestically, the Korean War brought about changes in the U.S. occupation policies, especially in economic policies, as discussed in the next section. Japan's reconstruction

⁴⁸ Churchill formulated his strategy to use the U.S., setting the stage for the cold war, and used a logic of absolutes: friend and enemy, good and evil. He must have used this policy for his objectives, but he himself actually did not believe it at all. Cf. Masaharu Ito, "Kokusai Tsuka Kiki no Ura Omote (Inside and Out of the International Monetary Crises)," Asahi Journal, Vol.14, No.1, January 7, 1972, pp.138-144.

was accelerated by an economic boom brought about by special procurements from the Korean War. These poured billions of dollars into the Japanese economy⁴⁹, which established a basis for the great economic growth of the following decades. The annual economic growth between 1958 and 1965 averaged 9.4%; the pace was increased during the 1960's, when annual growth averaged 11.4%⁵⁰.

The industrial structure shifted rapidly from light industries to heavy and chemical industries in the 1960's; the rate of the latter in the manufacturing and mining industries reached 67.9% in 1965 and 70.2% in 1970⁵¹. The export structure changed accordingly. The export rate of heavy and chemical industrial products reached 62.0% and 74.6% in the total value of exports of \$8.5 billion and \$25 billion, respectively, for the same year⁵².

Foreign investments by the Japanese were permitted in 1951 under tight control for exchange reasons. Before the effects of automatic investment approval of up to \$200,000 appeared in 1969, the total Japanese investments

⁴⁹ Four billion dollars was received as special procurements, which helped Japan's balance of payments and the building up of foreign exchange reserves. Cf. J. Cohen, Japan's Postwar Economy, Indiana University Press, Bloomington, 1958, p.18.

⁵⁰ The Bank of Japan, Economic Statistics Monthly, No.302, May, 1972, p.8.

⁵¹ Mainichi Shimbun, June 19, 1972.

⁵² Ibid.

in resource industries by March, 1969, was \$599.7 million, of which 36.2% was invested in 1967 and 1968⁵³.

Large scale import liberalization, Japan's move to become an International Monetary Fund, Article VIII country, and the Kennedy Round was agreed upon during this period, and a step-up in a capital decontrol was also carried out.

Internationally, the U.S. balance of payment deficit continued almost throughout the period, and especially the escalation of the war in Indo-China since 1965 aggravated its economy. Frequently monetary crises were experienced among IMF member countries⁵⁴. Another significant event was the upsurging nationalism in less developed countries. They intensified their demands for economic assistance and trade

⁵³ The investment was \$58.6 million in 1967 and \$158.7 million in 1968. Cf. MITI, Keizai Kyoryoku no Genjo to Mondaiten (The Current Condition and Problems of Economic Cooperation), Tokyo, 1969, pp.128-130 and pp.480-481.

⁵⁴ As a result, major currencies were revalued. The French franc was devalued three times, 16.7%, 17.55% and 11.1%, respectively, in 1957, 1958 and 1969. The German mark was revalued upward twice, 5% and 9.29% in 1961 and 1969. The British pound was devalued 14.3% in 1967. Cf. Mainichi Shimbun, June 24, 1972. The convertibility of the dollar into gold was also in question throughout the 1960's, and speculation over dollar devaluation pushed the price of gold up to more than \$40 per ounce as early as the fall of 1960. As a result of frequent gold rushes, a dual gold price system was adopted in 1968. Cf. Buntaro Tomizuka, "Shihairyoku Ushinatsuta Kijiku: Doru (Dollar: the Loss of Control as the Key Currency)," Asahi Journal, Vol.13, No.28, July 30, 1971, pp.83-90.

concessions from developed countries in the United Nations Conference on Trade and Development, which was established in 1964 and met in 1964, 1968 and 1972. The results from these UNCTAD meetings were increased economic aid from developed countries to LDC's of up to 1% of the donor's GNP by 1975, and provision of preferential treatment of imports from LDC's⁵⁵. Some LDC's went further than that by expropriating and nationalizing foreign owned resource industries operating in their countries. Some examples are the expropriation of Union Emil in the Congo in 1966, and the nationalization of copper mines in Chile in 1969⁵⁶. This tendency strengthened in the 1970's.

The supply conditions of resources in the postwar markets were generally favorable to Japan, since it could obtain resources comparatively easily at relatively stable prices because of the increasingly successful resource developments throughout the world⁵⁷.

These domestic, international and resource supply conditions affected each sector--trading companies,

⁵⁵ Asahi Journal, Vol.14, No.18, May 5, 1972, pp.103-104.

⁵⁶ Ikuro Suga, "Kinzoku Shigen o Meguru Shomondai (Problems in Metallic Resources)," Keizai to Gaiko, No.590, July, 1971, p.60.

⁵⁷ Yasuhiro Masamura, "Rinen ni Kakeru Nihon no Shigen Seisaku (Japanese Resource Policies Without Doctorine)," Economist, Vol.48, No.42, October 6, 1970, pp.21-23.

manufacturers and the government--for their attitude and behavior for resource investments.

(A) Economic Policy Changes

The objectives of the U.S.'s occupation policies underwent a complete change after the beginning of the East-West confrontation, which was followed by the Korean War. The original policy of retaliation and punishment against Japan's war crime at Pearl Harbor was replaced by the country's fast reconstruction to improve its position as a strong anti-communist frontier in Asia⁵⁸. As a result, recommendations for payments of war reparations and modernization of Japan's economic system by deconcentrating industries were retroceded from the original reformation plan.

In reparation payments, the initial Pauley Mission arrived at the amount of ¥2,466 million in 1939 yen⁵⁹, but in the final Johnston Committee recommendation, the amount was reduced to ¥662 million, leaving sufficient capabilities for Japan to implement its economic rehabilitation⁶⁰.

⁵⁸ Kazuto Nagasu, Nihon Keizai Nyumon (Introduction to Japanese Economy), Kobunsha, Tokyo, 1968, p.118.

⁵⁹ The exchange rate was ¥4.112 to the dollar.

⁶⁰ J. Cohen, Japan's Economy in War and Reconstructions, University of Minnesota Press, Minneapolis, 1949, pp.419-425. The difference between the two decisions was about \$450 million.

The original economic modernization plan included zaibatsu dissolutions and elimination of excessive concentrations of industries. After the zaibatsu were dissolved, 325 companies were named to be divided into small companies. But the U.S. retreated from its original objectives, and only 11 companies were ordered to be deconcentrated⁶¹. Thus, a great part of the prewar industrial structure was not only preserved, but also strengthened to meet the U.S. political strategies.

The historical pattern of industrial activities in the Japanese economy was that the financial capability of industrial capital was weak and tended to be controlled by commercial capital throughout the development of capitalism since 1968⁶². The representative example of commercial capital is trading companies, and they were omnipotent in the supply of resources and distribution of goods of affiliated enterprises⁶³.

Trading companies were still indispensable in the supply of resources and channeling of goods in postwar

⁶¹ They were: Mitsubishi Heavy Industries, Japan Iron and Steel, Oji Paper Manufacturing, Mitsubishi Metal Mining, Mitsui Mining and Smelting, Ika Mining Industries, Dainippon Brewery, Toyo Cannery, Teikoku Textiles, Hokkaido Dairy and Taiken Industries. Cf. Hideo Akimoto, Keidanren, Sekkasha, Tokyo, 1968, pp.96-97.

⁶² Industrial capital is capital employed for manufacturing goods, while commercial capital is that used for distribution of goods. Trading companies are typical examples of the latter. Cf. Uchida, *op.cit.*, pp.19-21.

⁶³ *Ibid.*, pp.31-38.

years, because they were ready-made sales forces, distributors and supply agents in remote foreign markets in which manufacturers could not afford to establish their own channels. For instance, almost all imports of raw materials for the iron and steel industries were carried out by general traders⁶⁴.

Thus, an analysis of trading companies and their behavior in resources supply will show the major trends and behavior in the second period.

(B) Trading Companies and Their Behavior

A trading company is defined as a channel of distribution operating extensively in foreign transactions⁶⁵. Although this is true in major large trading companies, their domestic operations are about half of their activities, so they are called general merchants⁶⁶. In this study, the trading companies under consideration are generally the top ten, out of 8,100 existing trading organizations, which play a key role in the Japanese economy,

⁶⁴ Ibid., pp.68-78.

⁶⁵ Ibid.

⁶⁶ For example, the classification of their activities is: domestic, 57.1% and foreign trade, 42.9% of the total sales of the top 12 companies in 1964. Cf. Ibid. The figures are almost similar: 55.9% and 44.1% respectively in 1968, by the Oriental Economist, Vol.38, No.711, p.37. The former top 12 became 10 because of mergers.

and have dealt with 46.7% of exports and 60.4% of imports of the total value in 1960, and 48.2% and 63.1%, respectively, in 1968⁶⁷.

In Japan's postwar economy, the set-back of the U.S. industrial deconcentration plan may have preserved the group allegiance that prevailed within an industrial group in the prewar period. This may have facilitated postwar moves toward a new type of industrial alliance based on financial and business relations, centering on the bank and the trading company.

. . . the bank because capital has been in desperately short supply, and the trading company because manufacturing firms hungry to expand export had to rely on it for experience and knowledge in far-flung markets and could not afford to build up their own marketing organizations⁶⁸.

Trading companies and banks were strong devices to weld industries into particular groups. For instance, the Mitsui group is headed by Mitsui Bank and Mitsui & Co., and other industries closely connected range from mining

⁶⁷ The low percentage in exports is due to such products as home electronics equipment and automobiles being exported by manufacturers for maintenance and servicing reasons. The top ten companies are: Mitsubishi Shoji, Mitsui & Co., Marubeni-Iida, C. Itoh & Co., Nissho-Iwai, Sumitomo Shoji, Toyo Menka, Nichimen, Kanematsu-Gosho, and Ataka & Co. Cf. "Trading House in Japan," Oriental Economist, Vol.38, No.711, January, 1970, pp.37-50.

⁶⁸ Robert Luber, "The Japanese Giant That Wouldn't Stay Dead," Fortune, Vol.LXX, No.5, November, 1964, p.272.

and manufacturing to warehouses and real estate. Mitsubishi, Sumitomo and others have similar connections with at least one of the top ten trading companies in their group⁶⁹.

In domestic activities, one of two important roles of trading companies is to create credit and insure transactions between industries. Payments using promissory notes up to 10-months' sight are quite a common and necessary business practice in Japan, where the financial capabilities of industries are limited, and most industries fall within the small to medium category⁷⁰. Trading companies create credit by accepting notes of other industries and making payments with their high quality notes. Thus, trading companies smooth and ensure business transactions. Default risks of these accepted promissory notes by trading companies are diluted in their gigantic amount of sales, but once these notes should default, all losses must be incurred by the trading companies⁷¹. This

⁶⁹ Oriental Economist Statistics, August, 1966.

⁷⁰ For example, small to medium firms with employees of less than 300 accounted for 99.8% of all enterprises, and 82.4% of the total work forces in 1963. Cf. Kazuji Nagasu, Nihon Keizai Nyumon (Introduction to Japanese Economy), Kobunsha, Tokyo, 1968, p.137.

⁷¹ The total gross income of Japan's top 500 mining and manufacturing industries in 1965 was \$39.6 billion, while the top 12 trading companies' revenue amounted to \$24.6 billion. Mitsui & Co. alone, for example, incurred default losses of \$20 million between September, 1964, and March, 1965, when many industries went bankrupt due to the recession. Cf. Uchida, op cit., pp.101-105 and pp.120-123.

mechanism gives trading companies important roles in credit creation, and guarantees of transactions among industries through them.

The other capability provided is financing by trading companies, using the difference in sights between promissory notes⁷². Trading companies issue short sight notes for their purchases and accept longer sight notes for their sales; the time difference is financed by a trading company.

Trading companies can provide the above functions by their good credit in banks supported by a tremendous amount of sales, and their capabilities to raise working capital from banks, as they are at the core of an industrial group. The rate of loans of the top 10 trading companies in city banks in 1964 was 8.2%⁷³. This indicates the importance of the trading companies in Japan's economy, because banks can also extend their loans to small- and medium-sized companies, using trading companies as buffers to absorb insolvency risks.

In foreign transactions, trading companies are ready-made sales forces, distributors and supply agents with their experience in foreign markets. Their activities are precisely expressed in the following statement.

⁷² Ibid., pp.123-124.

⁷³ Ibid., pp.103-105.

The major role of trading companies is channels of transactions of big businesses. Very few of Japan's top 500 mining and manufacturing industries operate without using them⁷⁴.

In the supply of resources, the quantity and price terms and conditions of Japan's needy resources flow was favorable, as previously mentioned. Therefore, there were no particular reasons for making investments in resource industries to implement the goals of stability and low resource prices as indispensable factors. However, trading companies rapidly increased their foreign investments in resources as an alternative to increase their profitability for survival.

Several reasons are considered causes of their urgent search for survival. First, the devastating conditions of the post-Korean War and 1965 recessions hit many trading companies which had expanded rapidly in the booming Korean War economy. Trading companies which specialized in textiles and many medium- to small companies went bankrupt on both occasions⁷⁵. These lessons urged trading companies, especially specialized in particular commodities such as textiles and steel, to strengthen their business and financial capabilities by becoming general

⁷⁴ Ibid., p.124.

⁷⁵ This prompted the reorganization of trading companies to increase their strength by merger, group alliance and affiliation. Ibid., pp.68-78.

merchants by merger, take-over or affiliation.

Second, the changing Japanese export structure, now centering on heavy and chemical industries, requires strong financial capabilities to provide export credit by deferred payments to win in export competition with others in exporting vessels, plants and other machinery. In importing raw materials, the strength of trading companies was required to provide manufacturers with working capital in the form of postponing payments on imported resources⁷⁶.

Third, manufacturers are gradually taking over some of the functions previously given only to trading companies, by exporting directly to foreign buyers. This direct exporting consisted of 14.0% of the total export value in 1955. It increased rapidly to 25% of the 1965 value; the export value expanded from \$2.0 billion to \$8.5 billion respectively⁷⁷.

Fourth, in domestic transactions, the so-called distribution revolution changed the pattern of commodity distribution, especially for consumer goods. The function of trading companies as distribution channels had been gradually reduced by the rapid increase of self-service and discount stores which eliminated or reduced the value

⁷⁶ Ibid.

⁷⁷ Ibid., p.177.

of middle men. One such store appeared in Japan in 1953, and staggeringly increased in number to 5,327 by October, 1967⁷⁸. Their sales growth was spectacular: the top two of these stores increased their sales by 1,260-fold and 1,200-fold between 1957 and 1967⁷⁹.

Last and most important, the profit of trading companies was diminished for the above reasons. In the big trading companies, with assets of more than ¥10 billion (\$28 million), which includes the top four, the net profit margin decreased from 2.9% in 1960 to 0.4% in 1964; the rest of the top ten from 1.4% to 1.1%, respectively⁸⁰.

Under these adversities, trading companies expanded their domestic activities in the fields of supermarkets, housing development and many other areas. In foreign activities, a resource investment was an alternative to various investments such as manufacturing, commerce and others.

Investments in resources involve risks and require substantial amount of funds. A resource investment by a single trading company may jeopardize its existence because of financial burdens and the risk of failure

⁷⁸ Toshiichi Atsumi, Kourigyo Seicho no Himitsu (Secrets of Growth in Retail Industry), Kawade Shobo, Tokyo, 1967, p.41.

⁷⁹ Ibid., p.17.

⁸⁰ Uchida, op cit. p.195.

in discovery of resources. In the establishment of joint ventures with local enterprises, host governments, Japanese industries or ones from third countries, trading companies reduce financial burdens and spread risks. In addition, a joint venture with a host government and local industries provides protection from direct exposure to hostility which may arise when nationalism should upsurge.

Trading companies had enthusiastically sought joint operations with foreign and domestic partners in the latter part of the 1960's. In resource investments, Mitsui & Co., for example, established joint ventures with American and Australian industries to develop iron and coking coal mines in Australia, and a copper mine with a U.S. industry in Zambia⁸¹. Trading companies have also actively expanded their role as organizers and coordinators of large scale domestic investment groups. In this case, a few trading companies are often in the same investment group. The major reason is that Japanese major industries are gathered into several groups by financial and industrial alliance. When industries from different groups should form an investment group, it is practically impossible to prevent the activities of their trading companies⁸².

⁸¹ "Trading Firms in Japan," Oriental Economist, Vol.38, No.687, January, 1968, pp.62-66.

⁸² "Sogo Shosha (General Merchant)," Economist, Vol.46, No.39, p.37.

Thus, it is more practical to cooperate with other trading companies in forming an investment group. Mitsui & Co. cooperates with Marubeni-Iida in Canada for coking coal development, for example⁸³.

To sum up, the function of trading companies in both domestic and international activities is very important in the Japanese economy. Some of the functions undertaken by them have been replaced by manufacturers and retailers. As a result, their profitability was decreased substantially. Investments in resources were sought as an alternative to curb their deteriorating financial position. They had increasingly invested in resources by establishing joint ventures and organizing investment groups. Although their investments were increased to improve their profitability, the motivation was not solely a search for higher returns, but rather for survival and strengthening their financial capabilities.

(C) Manufacturers and Their Behavior

Japanese manufacturers were still at a heavy disadvantage in machinery and technology in comparison with

⁸³ Ibid.

foreign competitors, although production capabilities were rapidly regained as a result of U.S. aid and special procurements from the off-shore war in Korea. Technological gaps existed in many industries, such as heavy, chemical, electronics, and others. Imports of machinery and technologies were the short cuts taken to fill the gaps, and the Japanese earnestly sought them in foreign countries. The total number of technologies purchased between 1950 and 1965 amounted to 3,534; 2,511 between 1960 and 1965 alone⁸⁴.

The quality of Japanese industries and their structure had been changed completely by the end of the 1960's under aggressive government policies.

The Ministry of International Trade and Industry patiently delayed the import liberalization of promising industries, notwithstanding severe foreign criticisms, until they gained the international competitive power. Simultaneously, the MITI demanded industries to strengthen their industrial capabilities under the threat of import liberalization and permission of foreign investments into Japan⁸⁵.

Industries needed large capital investments for aggressive purchases of foreign machinery and technology to eliminate gaps with their counterparts. As previously

⁸⁴ K. Miyagawa and M. Hirao, Shihon Koryu to Kokusai Kinyu (Capital Flow and International Finance), Ginko Kenshusha, Tokyo, 1965, pp.130-131.

⁸⁵ Nihon Keizai Shimbun, June 18, 1972.

mentioned, the most common way of financing for these purchases was debt financing, and this has been increasing throughout the 1960's. The average rate of equity in total capital of all industries dropped from 39.2% in the first half of 1955, to 19.8% for the same period in 1969⁸⁶.

Investments in resource industries require not only large sums of funds, but also of personnel. Manufacturers were eager to meet the criteria of catching up with their counterparts. Especially in view of the favorable terms under which resources were obtained in the open market, there was little urge to enter upstream resource industries, recruiting personnel within industries; the stable flow hypothesis has little motivated investments. Although labor costs jumped in the latter part of the 1960's, manufacturers absorbed a part of labor cost hikes by achieving scale economy as a result of capital investments in plant expansion⁸⁷; the low cost argument does not appear to have carried weight.

⁸⁶ Morio Okazaki, "Tsuyomaru Kajoseisan Fukyo no Kiki (The Increasing Crisis of Depression by Overproduction)," Economist, Vol.48, No.42, October 6, 1970, pp.112-118.

⁸⁷ For example, the MITI requirement for making an ethylene plant was the production capacity of 100,000 tons per year. But it raised the minimum up to 300,000 tons per year in 1966. Cf. Kan-ichi Kondo, "Kyodaika ga Maneita Hitsuzen Aku (Necessary Evil Caused by Magnification)," Asahi Journal, Vol.14, No.22, June 2, 1971, p.22.

A significant example of an independent resource investment was the establishment of the Arabian Oil Co. in 1958. This investment, however, was a mere acceptance of an investment invitation from the Saudi Arabian government, which wanted to create a competitive power against major Western oil companies⁸⁸. This investment, which was made in an excessive oil market, did not necessarily gain popularity.

In short, the manufacturers' major concern was to become competitive with their Western counterparts by purchasing machinery and technology. They did not have enough financial capabilities and human resources to undertake investments in resources. These were available in the open market, and neither the stability nor low cost hypotheses motivated investments. Capital investments in production facilities were used to offset a part of rising labor costs. Therefore, motivation toward actual investments was very limited.

⁸⁸ The capitalization was \$28 million, with a paid up capital of \$10 million, although many large corporations joined the venture. The financial capabilities of the company were too weak to compete with Western oil companies. Cf. Katsuji Sugimura, "Wagakuni no Keizai Kyoryoku no Genjo to Tembo (Japan's Current Economic Cooperation and Outlook)," Keizai Hyoron, September, 1961, pp.95-96.

(D) Government and its Behavior

Japan regained its national sovereignty, terminating postwar occupation, with the formation of a separate peace treaty with the free world, centering on the U.S., in 1952. Because of this treaty, Japan is still technically at a state of war with such countries as Russia, China and many other communist countries. However, by laborious methods of economy and politics separation, it found a way to establish trade relations with these countries. The growth of this trade is amazing⁸⁹.

Japan retained close relations with the U.S.--politically and economically--throughout the postwar period. Japan itself benefited most by this close tie, obtaining special procurements from the Korean war in the early part of this period, and from the war in Indo-China in the latter part, and obtaining a most promising export market in the U.S., which constantly absorbed approximately one third of Japan's total export value. Trade between the U.S. and Japan increased from \$993.6 million in 1953 to \$11.5 billion in 1970⁹⁰. In these courses of development, Japan's single

⁸⁹ The trade between Japan and China in both directions was \$34.2 million in 1953, increasing to \$822.7 million in 1970. Japan's exports to Russia in 1953 were only \$7,000 with imports of \$2.1 million; the trade in both directions increased to \$821.9 million in 1970. Cf. Business JAPAN, November, 1971.

⁹⁰ Ibid.

important objective was the enlargement of its Gross National Product⁹¹.

For their own purposes, the Japanese were not willing to involve themselves in other than economic interests, as pointed out by a career diplomat:

The prevailing attitude since the war has been "Let's concentrate on rebuilding our own economy, and not become involved too much in others' affairs,"⁹²

The GNP grew by 9.4% annually between 1953 and 1965, and by 11.4% during the 1960's. In the GNP race, Japan ranked third following only the U.S. and Russia. Around that time, the mass-media and the government started claiming that Japan had become an economic superstate. Heated discussion had been appearing in the mass-media, but investment in resources to promote national prestige was not noticed.

The constant balance of payments strain improved in the middle of the 1960's, as shown in Appendix C. The government regarded a surplus in balance of payments and steadily increasing foreign reserves as temporary, and

⁹¹ Kazuto Nagasu, "Nanshin Suru Nihon Shihon Shugi (Japanese Capitalism Marching South)," Economist, Vol.49, No.8, March 2, 1971, p.12.

⁹² Ichiro Kawasaki, Japan Unmasked, Charles E. Tuttle Co., Tokyo, 1968, p.204.

did not make any serious considerations until the 1970's⁹³. Thus neither hypotheses--national prestige nor increased reserves--had significant reasons to induce Japan's investment activities. Japan's method of obtaining natural resources throughout the period had been through purchases in the market, of materials in as raw a state as possible, and bring them back to Japan so that all processes could be done in Japan.

Japan's economic assistance to LDC's has experienced changes. In the early period, Japan had very limited economic capabilities, from which it had to pay war reparations to neighboring Southeast Asian countries, except to China and to those others of split countries belonging to the communist block⁹⁴. The reparations must surely have helped these recipients, but they were war damage settlements, of very different nature to aid.

⁹³ There were heated discussions for relaxation of control of Japan's foreign investments in the middle of the 1960's, in view of its stable foreign reserves level at around \$2 billion for the previous several years. The MITI was relatively interested in doing so, but the Ministry of Finance was reluctant because of a possible balance of payments deficit. It was also explained that reserves were approximately 20% of Japan's total annual import at that time, and were still at a low level in comparison with the 40% to 50% level in Western countries. Cf. Nihon Seisensei Honbu, Kokusai Shihon to Nihon Kigyo (International Capital and Japanese Enterprises), Tokyo, 1967, pp.10-25.

⁹⁴ Major war reparation payments were \$550 million to the Philippines, \$220 million to Indonesia, \$200 million to Burma and \$39 million to South Viet Nam. Cf. Economist, Vol.45, No.44, October 24, 1967, p.52.

Japan's major government aids were yen loans and financing of exports to less developed countries⁹⁵. The former started in 1958, and the latter in 1965 for the financing of plants and equipment exports using government funds.

Thus, the main purpose of government economic assistance to LDC's was to protect Japan's export market in LDC's by means of loans and deferred payments of Japan's exports. Investments in resource industries, which require large sums of funds, were not promoted until toward the end of the 1960's. In the intensified demand from LDC's for more economic aid in the latter part of the 1960's, investment into LDC's were, among others, an alternative form of economic aid. Private funds, including investments and export credit over one year, increased rapidly, as shown in Appendix F. Since the classification "other official funds" includes investment financing by the government, the increase since 1967 is significant. Especially in investment in resources, as mentioned in the overview, 36.2% of the total investments of \$599.7 million by March, 1969, (1968 fiscal year) was invested in 1967 and 1968 alone, before the institution of automatic investment approval of

⁹⁵ Yoshiyuki Hagiwara, "Kiro ni Tatsu Tai Asia Kankei (Japan-Asia Relations at a Turning Point)," Asahi Journal, Vol.13, No.39, October 15, 1971, pp.10-13.

up to \$200,000 in 1969. In this, \$58.6 million, 7.8%, was invested in 1967, and \$158.7 million, 28.4%, in 1968. It is not clear which is the reason for increased resource investments--the government's LDC's assistance, or the trading companies' search for higher profitability for survival, and also whether or not both of these are well harmonized. But considering that at least two thirds⁹⁶ of investments are made in LDC's, it might be considered that the LDC's assistance hypothesis has some value for inducing investments.

In recapitulation, the government held Japan's economic expansion as its major goal. The increased GNP created discussion for the investments, but the actual investments were not yet motivated only for national prestige reasons. Foreign reserves were being accumulated throughout the 1960's, but the government was cautious to use them as a result of suffering a long-term balance of payments strain in postwar years. Economic assistance to LDC's was the device to expand Japan's exports by the middle of the 1960's. But toward the end of the 1960's, Japan's economic assistance to LDC's, in the form of resource investments, was increased rapidly. The reason

⁹⁶ MITI, Keizai Kyoryoku no Genjo to Mondaiten
(Current Position and Problems of Economic Cooperation),
Tokyo, 1970, p.135.

might have been that the government's policy to increase economic assistance to LDC's, under severe pressure from them, coincided with the urge for investments by trading companies, as an alternative for higher profitability.

(III) Third Period (1970 to September, 1972)

Overview

This period covers the past two and a half years since the beginning of 1970. Although very short, it had several important internal and external changes which directly affected Japan's economic, political and diplomatic policies. Japan's investment policies in resource industries experienced changes during this short period in the liquid international political and economic sphere. It is too early to say whether the existing resource policies are stable, but they will give certain bases for a future outlook.

In external influences, first, the U.S. suspension of conversion of its dollar into gold in monetary crises, and the imposition of the 10% surtax for all U.S. imports, were undertaken in August, 1971, under its chronic balance of payments strain. Japan was forced to revalue the yen 16.88% upward in the course of international monetary realignment, agreed upon in December, 1971. In trade, Japan was forced

into concessions, especially in textile exports, in which the U.S. gave an ultimatum to use the Trade with the Enemy Act to restrict U.S. textile imports, and hinted a possible delay of Okinawa reversion.

Only half a year after the world monetary agreement, the British pound faced another crisis for possible devaluation. Although it has not yet been devalued, the future of the pound and the international monetary system itself is still uncertain.

Second, Chinese premier Chou En-lai announced four principles with which to do business with Japanese companies in April, 1970⁹⁷. Industries committed too much in Taiwan and South Korea, Japanese defense contractors and enterprises supplying the U.S. procurements for the war in Indo-China, were completely excluded from China-Japan trade. Thus Japan's major industries that are closely following government policies to support Taiwan, were excluded from China trades unless they were sworn to the "four principles." This caused increasing uneasiness in Japanese industries: they feared that they might be left alone in business when

⁹⁷ Japanese companies cannot undergo any business transactions if they participate in any of the following conditions: (a) manufacturers and trading companies that assist Taiwan's aggression to Mainland China, and that assist in the invasion of North Korea, (b) industries that have invested heavily in Taiwan and South Korea, (c) companies that cooperate in U.S. aggression in Indo-China, and (d) joint ventures with U.S. companies and U.S. subsidiaries in Japan. Cf. Jiyu Kokumin Sha, Gendai Yogo no Kiso Chishiki (Fundamental Knowledge of Current Words), Tokyo, 1971, O.1550.

China and Japan began moving toward rapproachment at a later date.

Third, the U.S. changed its policy against China, from past Chinese compartmentalization to rapproachment in July, 1971, by announcing the U.S. president's expected visit to China by May, 1972. The U.S. president had summit talks with Chinese and Russian leaders in February and May, 1972. Meanwhile China regained its seat in the U.N., ousting Taiwan in the fall of 1971. The results of these rapproachments appeared in U.S. participation in the Canton Trade Fair, for the first time, in May, 1972⁹⁸, and, as proposed, the oil, natural gas and other mineral resource developments in Siberia between the Russian government and U.S. industries⁹⁹.

Fouth, the power of nationalism in LDC's, which increased substantially in the last decade, is still increasing and it had a serious impact on resource consuming countries and their resource industries. Oil, one of the major resources, is a typical example that was seriously affected by the growing nationalism of the OPEC. The organization won a significant oil tax hike¹⁰⁰ in 1971,

⁹⁸ Newsweek, May 15, 1972, p.75.

⁹⁹ The latest proposals for two gas projects alone may require \$10 to \$14 billion. There are also many other opportunities. Cf. Time, August 21, 1972, p.57.

¹⁰⁰ The oil tax rose 35¢ per barrel (a 20% increase), and 2.5% for inflation escalation will be added annually for the next five years. Cf. Chuo Koron, Vol.10, No.2, 1971, pp203-205.

backed up by the ever-increasing oil demand in the world, and the squeezed market conditions by the increased U.S. import quota, together with the decreased Russian sales in the free world¹⁰¹. After the monetary realignment, the OPEC demanded another price hike to make up for the 8.6% dollar devaluation since the oil price is quoted in dollars. In addition, their demand for more participation in ownership was increasing. In June, 1972, Iraq took ownership by nationalizing the Western-owned Iraq Petroleum Co.¹⁰² This Iraqi action may cause further aspirations for more participation and nationalization of foreign-owned oil properties to the OPEC. Also, this trend may cause similar and immeasurable actions in other resources.

Domestically, many important activities were undertaken, many of them closely related with the above international affairs. First, the required resources for Japan's growth are increasing in quantity, and its foreign dependency had also been increasing, as shown in Appendix H.

Second, the staggering increase of its foreign

¹⁰¹ The demand increase for crude oil in the market, as a result of these actions, is estimated to be at least 420 million tons. Ibid.

¹⁰² The IPC is owned primarily by British Petroleum Co., Royal Dutch-Shell, Compagnie Française des Petroles, Mobil Oil Corp. and Standard Oil Co. of New Jersey.

reserves resulted in the unexpected high 16.88% upward yen revaluation in December, 1971. It was hoped that it would curb the increase of reserves and ease foreign pressures on Japan, but the reserves continued to increase throughout the period. Although the reserves decreased slightly in April, 1972, Japan still has more than \$16 billion, as shown in Appendix D. In connection with the British pound crisis, another upward yen revaluation has been discussed in the mass-media since June, 1972. Under the circumstances, the government must face the re-evaluation of its policies, including Japan's investment policies, among others, to cope with this situation.

Third, the unusually high nationwide concern about pollution has been at stake since 1970¹⁰³, and the reduction of pollution became a serious industry-wide problem. This problem not only affects costs, because of the necessary use of new technology, and of different qualities of resources for pollution control, but also the demand-supply conditions of world resources suitable for pollution control.

Fourth, the new prime minister was elected in June, 1972. He showed great interest in normalizing China-Japan relations. After the election, the Chinese premier sent

¹⁰³ Nihon Keizai Shimbun, June 15, 1972.

an invitation to the new prime minister for normalization talks. This has not yet been actualized, but will have significant impact in various aspects.

And fifth, after the humiliations the U.S. made Japan suffer politically and economically in 1971, Japan initiated more independent action by sending economic missions to seek closer relations with Mongolia, North Korea, North Viet Nam and so on¹⁰⁴. Especially on the China issue, many industries expressed their fear of missing the Chinese band wagon, and increasingly sought business ties with China. By the middle of August, 1972, many major industries committed themselves into China, expecting results from its potential.

(A) Trading Companies and Their Behavior

The responsibilities of trading companies as central organizations of industrial groups have been increased in the current liquid internal and external conditions¹⁰⁵. Trading companies continued their zealous activities in resource investments to obtain secured inflows of resources for Japanese industries.

¹⁰⁴ In June, 1972, the Japanese government decided to grant economic aid, principally in the form of a loan, to Mongolia for the development of mineral resources in that country. Cf. Asahi Shimbun, June 20, 1972.

¹⁰⁵ Nihon Keizai Shimbun, June 15, 1972.

It would be quite possible that large manufacturers themselves would invest in resource industries, but in reality they depended on trading companies of their industrial groups for their supply of resources. The implications would be that resource investments in a foreign country involve specific business, economic, and political information, in addition to complete and comprehensive mine information. The investment environment will differ from country to country, and the search for feasible mines requires comprehensive information-gathering through dependable sources. The establishment of information-gathering channels throughout the world by an industry requires huge sums of money and human resources. Trading companies have already established world-wide channels, and it would be more attractive, at least for the time being, for industry to use the trading companies' organization and scarce capitals for alternative investments, such as plants and equipment, to strengthen their competitive position.

Trading companies' behavior took several different forms. First, a trading company started resource developments, such as timber, obtaining acreage. However, investments in mineral and oil resources by a single firm were not suitable because they required tremendous amounts

of capital with high risks. Second, trading companies sought partnerships in the investing country, in their own country and in a third country. Third, the trading company of an industrial group decided to make a large-scale joint investment with its members¹⁰⁶. Fourth, many trading companies, manufacturers and others from different industrial groups formed a large-scale investment syndicate for a large natural resource development project¹⁰⁷.

During this period, all major trading companies made a crucial decision that will affect their future investment activities in resources: the acceptance of the Chinese "four principles" for business relations. The main reason for the decision was that inappropriate behavior of a trading company as a part of the core of an industrial group aggravates the overall competitive power of the group. Thus, a trading company must behave for the benefit of its group. Mitsui & Co. and Mitsubishi Shoji remained in

¹⁰⁶ The 30 companies of the Mitsubishi group agreed in August, 1972, to establish the Mitsubishi Oil Development. The new project will be efficient in fund raising, technology and information gathering. Cf. Nihon Keizai Shimbun, August 19, 1972.

¹⁰⁷ One significant example of a large-scale joint investment is the foundation of North Slope Oil in February, 1970, after only three months preparation, using the full power of the business and financial worlds; it includes 26 major companies from electric power, iron and steel, oil industries, and trading companies. Cf. Economist, Vol.48, No.42, October 10, 1970, pp.21-23.

invulnerable positions in the land-sliding movement of major industries toward China trade, but they finally decided to join the Chinese band wagon in June, 1972¹⁰⁸.

The main interests of these trading companies, as the centers of industrial groups, were in resources, such as oil, natural gas, iron ore and non-ferrous metals¹⁰⁹. The effects of this policy change will take some time to develop.

In brief, trading companies still supplied resources to manufacturers. The investments were actively made by trading companies, forming joint ventures, and organizing investment groups in the same or different industrial groups. A highlight of this period was that even the greatest trading companies could not resist the potentiality involved in China trade, which made them accept the Chinese conditions, thereby pushing ahead of the Japanese government's China policies.

(B) Manufacturers and Their Behavior

Japanese industrial structure had been changed to being centered on heavy and chemical industries by the end of the last period, as mentioned previously. At the same

¹⁰⁸ Nihon Keizai Shimbun, June 15, 1972.

¹⁰⁹ Ibid.

time, industries made capital investments in their plant expansion, based on the premisis that they would export a significant portion of their output¹¹⁰; exporting has been built into the Japanese industrial structure.

Under this industrial structure, three major factors acted against industries. First, the labor shortage remained such throughout the period. For example, the real wage index for all manufacturing industries (1969=100) went up to 109.3 in 1970, and 117.2 in 1971¹¹¹.

Second, industries are required to make investments to control pollution, which also affects the selection of industrial sites, leading to a scarcity and high price of good sites in such a densely populated country. Japan's first official Environmental White Paper estimates that last year \$2.7 billion was spent by major corporations for research and pollution control¹¹². But deaths caused by such pollution as methyl mercury, cadmium, sulphurous acid gas and others are unofficially estimated to be at about 1,000¹¹³. In many recent court battles, industries have been sentenced as liable to pay millions of dollars of compensation to victims. Pollution control requires

¹¹⁰ Mainichi Shimbun, June 29, 1972.

¹¹¹ Statistics Dept., The Bank of Japan, Economic Statistics of Japan, No.302, May, 1972, p.8.

¹¹² Time, July 24, 1972, p.57.

¹¹³ Ibid.

investments in various areas such as research, equipment and facilities, new kinds of resources, and better qualities of resources. These extra costs increased costs of industries. Toho Zinc, one of ten lead, zinc and nickel industries, which had not been making dividend payouts because of required investment in pollution control, decided in July, 1972, to retreat completely from all overseas copper resource investments as one measure to reconstruct and free itself from the business slump¹¹⁴.

Third, the upward currency revaluation had adverse effects on industries. Products of heavy and chemical industries usually contain high added value. Thus, the benefits of resource prices, decreasing relative to Japanese currency, are limited, but the revaluation deteriorates the terms and conditions of the finished exported product. Export decline is a hard blow to Japan's heavily export-oriented industries. Furthermore, import liberalizations and increased capital investments by foreign investors into Japan will increase competition among industries.

Japan's resource industrial structure still remained centered on downstream, which is smelting and concentration, although some resources investments were undertaken.

114 Nihon Keizai Shimbun, July 5, 1972.

This structure brings very limited profit margins to Japanese resource industries because the added values, and hence the opportunity for profit, are low¹¹⁵. Low profitability not only inhibits the opportunities for expansion of the industries, but also may be eradicated by monetary revaluation.

Investments in resource developments were undertaken during this period for a secure stable resources flow and low prices. But it became quite clear that the wall preventing Japan's entry into resource industries was too thick because of Japan's fateful inferior competitive power, both financially and technologically, to that of the existing international resource companies¹¹⁶. In actual example, Indonesian Oil Development, founded jointly by 16 companies, including the Mitsui, Mitsubishi, Sumitomo groups and others, finally succeeded in boring for oil at the end of 1970,

¹¹⁵ High profit is usually realized in upstream, except for bauxite and iron ore. For example, added values of copper and lead in upstream were 71.4% and 66.5% in 1969, while added values in downstream were only 5.6% and 15.1%, respectively, for the same year. Cf. MITI, Shigen Mondai no Tembo, 1971 (The Outlook in Resource Industries, 1971), Tokyo, 1971, p.44.

¹¹⁶ Financially, one major oil company spent an annual average of \$100 million for mine explorations, while the total of Japanese investments reaches this amount, which frequently forces the Japanese to abandon projects because of financial troubles. Technologically, the capability of a Japanese barge is from 100 to 200 meters, while a major company can excavate from 3,000 to 4,000 meters. Therefore, the competition in the resource industries is in money and technology. Cf. Economist, Vol.49, No.25, June 22, 1971, pp.86-87.

but that success came just before it retreated completely from the project. It sold out a half of the original acreage for development that summer to offset expenses accumulated by that time¹¹⁷. There are also other retreats from investments in various parts of the world because of insufficient financial and technological capabilities.

In recapitulation, internal and external conditions surrounding manufacturers had many adverse effects on them. Labor shortages, labor cost increases, required pollution controls and compensation payments, requirements of new and quality resources and the yen revaluation affects were factors Japanese industries had to face in this period. Resource investments were undertaken to enter into upstream, but it became decisive that Japanese resource industries cannot compete with the existing international resource industries.

(C) Government and Its Behavior

Japan's aspirations have had to face several economic-political tests in the period since 1970. The first was the so-called oil war, the confrontation between major oil companies and the Organization of Petroleum Exporting Countries for a crude oil tax hike. Under the disadvantageous position in the oil confrontation, the government

¹¹⁷ Ibid.

campaigned to make industries, financiers, and the general public realize that heavy foreign dependency makes Japan's economy very vulnerable, and that it may enslave Japan to the existing resource supply structure. Japan's mass-media efficiently carried out the campaign¹¹⁸. By the end of the oil war in early 1971, extensive discussions were presented to industries, financiers and the general public through various mass-media.

In addition to the campaign, the Ministry of International Trade and Industry issued its first official white paper on "Prospect of Natural Resources Problems in Japan" in 1971¹¹⁹. It analyzed the current and expected internal and external problems in resource industries, and pointed out that a stable inflow of resources at a reasonable price will become a more important issue than ever in Japan's economic structure. As a proposed solution to resource problems, the report emphasized the need for Japan's

¹¹⁸ Major newspapers and TV stations can efficiently cover the Japanese. There are five major national daily papers: Asahi (circulation 6 million), Yomiuri (cir. 5.8 million), Mainichi (cir. 4.7 million), Sankei (cir. 1.9 million), and Nihon Keizai (cir. 1.4 million): the latest circulation figures from Time, July 17, 1972, pp.20-31. NHK-TV (Japan Broadcasting Corp.) reaches 96% of the population through its 2,000 outlets. TV Guide, May 1, 1971, pp.6-11. A major part of programming of other private stations is sent from key stations in Tokyo.

¹¹⁹ For example, Trade and Industry of Japan, Vol.XXI, No.1, January, 1972, carries the full report.

independent resource developments--Japan invests capital and carries development--so that resources may be obtained independently at a reasonable price.

However, it was not clear in the MITI's paper whether Japan's independent resource developments should be undertaken with a long-run outlook to help resource holding nations to reduce the existing oligopolistic resource controls, or if Japan is to be built into the existing resources supply system as a new-comer, and increase its strength. Soon it became clear that Japan should choose the latter, when some Japanese investors retreated from resource developments in Indonesia, the richest resources deposit in Asia, for such reasons as insufficient technology, too heavy a financial burden for continuation of an investment, and others¹²⁰.

Thus, the MITI recently repainted the wagon from the once bravely encouraged "independent development" to "international cooperative development"(namely cooperation with world oligopolists). The independent development and cooperative development with resource holding nations should be undertaken if there should be an opportunity¹²¹.

¹²⁰ Jyun Nishikawa, "Asia Bundan e Susumu Nichibei Shihon (Japanese and U.S. Capitals Moving Toward a Split in Asia)," Asahi Journal, Vol.14, No.2, January 14, 1972, p.24.

¹²¹ Ibid.

The new policy will give some satisfaction to Japan in identifying itself as a participant in resource developments, joining the international resource enterprises, but it may have some flaws. It is uncertain whether Japan could be accepted into a feasible investment project carried out by existing world resource industries. Even if Japan could participate, a small-scale participation may not produce sufficient merits, in terms of price and quantity stability, as could be necessary to compensate for the business and financial risks that Japan might have to take. And Japan may be inhibited from buying resources elsewhere, at better terms and conditions, than those agreed upon by the international resource enterprises, without jeopardizing business relations with them¹²².

The speed of foreign reserves accumulation accelerated in 1971, and increased the reserves from \$4.4 billion at the beginning of the year to \$15.2 billion¹²³ at the end. This was in spite of the U.S. imposition of an

¹²² Iraq offered crude oil to Japan at a lower price than that supplied by major oil companies after the Iraqi government nationalized the Western-owned Iraq Petroleum Corp. in June, 1972. But it may be unwise for Japan to buy it because of heavy dependence on major oil companies that are threatening to take any possible legal action against Iraq oil buyers. Cf. Nihon Keizai Shimbun, June 14, 1972.

¹²³ As a result of increasing reserves, the Ministry of Finance increased the amount of automatic foreign investment approval to \$1 million per investment in September 1970. This control was lifted in 1971. Cf. JETRO, 1972 Kaigai Shijo Hakusho (White Paper on the Foreign Market), Tokyo, 1972, p.2.

import surcharge and monetary crises throughout the year. The reserves are still being maintained around \$16 billion in the first few months of 1972, even after the large-scale upward yen revaluation. Another British pound crisis occurred in June, 1972, only a half year after the last monetary realignment.

Japan produced a 7-point yen measure to reduce its foreign reserves, but its validity is expected to be minimal. The primary reason is that almost all Japanese industries have been converted into export industries pursuing international competition as their ultimate objectives. In Japan's industrial structure, into which exports are built, domestic economic recessions reduce imports, and both recessions and the upward yen revaluation create a harder export drive, as an alternative countermeasure to the revaluation and recessions. The effectiveness of Japan's current monetary policies for reducing export pressure is limited, unless Japan can make long-run adjustments in its industrial structure¹²⁴. Although resource developments are an alternative to reducing reserves, among others, they still are not the best policy for unloading reserves.

The amount of economic assistance to LDC's has been increased. The ratio against the GNP has also been

¹²⁴ Mainichi Shimbun, June 29, 1972.

increased in Japan's high economic nominal growth average of 15.5% a year, from 1965 to 1971¹²⁵. Although this is so, the rates of government grants and other aid against the GNP are constantly decreasing since 1961, except for 1967. Since Japan decided to increase its economic aid up to 1% of its GNP by 1975, other elements in economic assistance must be increased to meet this goal. Export financing over one year by Japan and yen loans are unfavorable to recipients under the current unstable international monetary system. A country that has obtained yen loans, for example, must incur the loss created by the upward yen revaluation in relation to their currency.

Under the circumstances, investments into LDC's are alternatives to increase the amount of Japan's economic cooperation. Investments in resource industries were an alternative in investments. They are suitable especially when the resource flow is becoming more unstable in the changing world resource demand-supply conditions.

To sum up, the stability of resource flow at a reasonable price became an important issue in the Japanese economy. Japan decided to solve its resource problems by cooperating with existing large international resource industries. Foreign reserves increased staggeringly during

¹²⁵ Economic Statistics Monthly, No.302, May, 1972, p.10.

this period, and continued to do so after a large-scale upward yen revaluation. Large-scale investments in resources were a method to unload some reserves, alleviating pressure on the yen for another upward revaluation. Resource investments were also an alternative in the proposed increase in Japan's economic assistance to LDC's of up to 1% of the GNP, especially when other elements of assistance are uncertain under the current unstable monetary system.

CHAPTER FOUR

JAPAN'S EXPECTED FUTURE BEHAVIOR

Overview

Japan's postwar resource industries in the total economic structure seemed to have reduced their relative importance in the course of economic development, by the advancement of resources-saving technology and by an increase in added values. However, resource problems may become restrictive factors in the Japanese economy in the changing world resource market conditions.

The overall world demand for resources is expected to increase staggeringly.

It has been estimated that more of the earth's minerals were consumed during the past 50 years than during the preceeding history of men. It is also estimated that twice the quantity will be consumed during the next 50 years as in the past 50 years¹²⁶.

Japan's demand for major resources for the 1970's, and the rate of foreign dependency is expected to increase, as will be examined in the next section. The U.S. announced its long-range resources demand for the year 2000. Its current fairly high-self-sufficiency rates are

¹²⁶ Maurice Mawby, "Minerals Extraction at 2000 AD and Management's Requirements," Mining Magazine, Vol.116, No.6, June, 1967, p.405.

expected to decrease substantially¹²⁷.

As is well-known, resources are unequally distributed in the world and many resources holding countries are subject to increasing economic nationalism and political instability. They intensified their demand both independently and jointly, forming transnational organizations, such as the OPEC, for more money for their irreplaceable treasures. They also demanded more participation in the existing foreign-owned resource industries in their countries. For example, 60% of the total world oil deposits are in the Middle East¹²⁸, which is subject to political instability and Arab nationalism.

Under the circumstances, resource supply conditions are becoming increasingly tight. To cope with this, U.S. industries are aggressively seeking participation in oil, natural gas and other metallic resource developments in Russia, especially after the summit talks in May, 1972. This will provide U.S. industries with a quantity of resources and diversification of supply sources. China does not supply resources extensively for the time being, but it still has potentiality. Resources from communist

¹²⁷ The self-sufficiency rates are estimated to decline from 72% in 1969 to 51% in 2000 in copper, 69% to 26% in iron, and 53% to zero in lead. Cf. MITI, Shigen Mondai no Tembo, 1971 (Outlook of Resource Problems: 1971), Tokyo, 1971, p.165.

¹²⁸ Ibid., p.146.

countries, however, may be vulnerable to political elements in the liquid international political structure. Thus, resources problems will increasingly be solved more efficiently in the context of political economy.

(A) Japan's Expected Resource Demand

Japan's Shigen Hakusho (White Paper on Resources), revealed in October, 1971¹²⁹, says that the demand in major resources has increased 10% to 20% annually for the past five years, which well exceeds the annual average growth rate of the GNP, 12.4%, for the same period. The paper pointed out that price and quantity instability has already become a reality in constraining Japan's economy. The preliminary calculation, assuming an annual economic growth of 10% plus, and industrial structure and technological development remains at the same rate as in past years, indicates that Japan will require to import 31% of the world's trade of available major resources by the end of this decade: 39% of raw materials and 24% of fossil fuels.

It is quite unrealistic to assume that Japan alone can obtain and use for its own economic purposes one third

¹²⁹ The major part of this white paper is carried in the Hokkaido Shimbun, October 4, 1971. For the full report, see Trade and Industry of Japan, Vol.XXI, No.1, 1972, pp.34-59.

of the resources available in the world market, without any counter-actions from other countries. Its impact on the world's resource industries will be significant.

Facing increasingly tight resource supply conditions, it is essential for Japan to establish long-range resource policies, incorporating its economic and industrial structures into the estimated world's resources demand-supply conditions.

(B) Japan's Expected Behavior

Japan's resource policies changed from independent resource developments to cooperative development with existing international resource enterprises, as explained in the last chapter. This means that Japan is built-in in the existing resources supply structure, perhaps strengthening it, and that confrontation with economic nationalism of resources producing countries may be intensified by a clash of interests.

Judging from the current tendency of rising nationalism among resources holding countries, imposition of mandatory resources processing in the original country before export, stepping-up of participation, nationalization and expropriation will spur the expected future tight resource supply conditions. This situation may escalate

the current confrontation between host government and investing industries to one between resources holding countries and nations of investing industries. In oil, it is predicted that large oil consuming countries will step up struggles for oil¹³⁰.

Under the expected extreme resource shortage, it is quite possible that many countries will be tempted to use their national power to secure required resources. Existing international resource enterprises could tempt their country into using their national strength, including their military power. There is no guarantee that Japan will not be caught in a trap to step up rearmament, including nuclear power, however small the possibility should be. A secured inflow of resources was the most important factor that carried Japan into the last Pacific War:

. . . the difference in natural resources was linked to the difference in national power, and the right to acquire natural resources would be realized only after obtaining territorial rights . . . ¹³¹

Under the extremely tight resources market conditions, it cannot be completely denied that the specter of militarism

¹³⁰ Nihon Keizai Shimbun, June 9, 1972.

¹³¹ Trade and Industry of Japan, Vol.XX, No.4, 1971, p.40.

will not attract Japan, desperate for resources plunders.

Japan's military power, originally organized as police reserves immediately after the breakout of the Korean War in 1950, has gradually increased, and further expansion is expected. This expected latest expansion is based on a set of U.S. policy changes shown in the Guan Doctrine of July, 1969, in which the U.S. declared it would reduce its military involvement in Asia, and emphasized the self-defense efforts by Asian countries¹³². This was followed by the U.S.-Japan joint communiqué in November, 1969, declaring that the security of Korea and Taiwan is essential for the safety of Japan. Furthermore, the Nixon Doctrine was revealed in February, 1970, requiring the U.S. to share the defense burden with its partners, making it necessary for Japan to stop its free ride on U.S. nuclear defensive power. The U.S. requirement became explicit, especially when the U.S. Secretary of Defense visited Japan in July, 1971, for week-long discussions with Japanese government and military officials, concerning Japan's takeover of a greater share of the U.S.'s defense burden in the Pacific.

¹³² This paragraph is based on articles in the Documentary News of the Month, 1967 through 1972.

Japan's responses against these American pressures became clear in two phases: the disclosure of the Boei Hakusho (White Paper on Defense), and the formulation of a budget for the fourth 5-year defense program to be started in the fiscal year of 1972.

The white paper, a first in Japan's history, issued in October, 1970, carefully formulates the treatment of nuclear weapons. It argues that even though the government takes a negative policy toward possession, production and use of nuclear weapons, it is possible to have nuclear weapons under the present Constitution, if their capabilities are within the limit of minimum requirements for Japan's security and if they should not give any aggressive threat to other countries¹³³.

This statement contains serious shortcomings to restricting Japan's nuclear armament. First, "the minimum requirement" changes with the interpretation of the situation. Second, the aggressive threats felt by others are not necessarily the same as those Japan feels, and it can be ignored as a groundless accusation against Japan. Last and most important, Japan's nuclear armament can be promoted without difficulty, simply by changing the current government policy.

¹³³ Defense Department, Boei Hakusho (White Paper on Defense), Ministry of Finance Printing Office, Tokyo, 1970, p.36.

Neighboring countries reacted quickly against the white paper, expressing their unrest against Japan's possible nuclear armament and aggression as, for example, illustrated in a Korean newspaper, while Japan ruled them out as groundless accusations against Japan¹³⁴.

A more precise fact is clear in the proposed budget for Japan's fourth 5-year defense program to be started in fiscal 1972, in which \$17.7 billion will be spent, nearly three times as much as the third 5-year defense program ended in fiscal 1971, with an expected total spending of \$7.02 billion. This military spending is a substantial amount, in comparison with the magnitude of the economy in many neighboring countries. The facts could be a real threat to those neighboring countries which suffered Japan's aggression before World War II¹³⁵.

¹³⁴ It admits that a military build up, including nuclear weapons, is not widely accepted by the Japanese yet, but it says: "judging from its hidden capability, neighboring countries cannot help becoming nervous against the revival of Japanese militarism, and so condemn it. Whether it is true or not, it reminds us of the Japanese military invasion before World War II." The Korea Daily, October 22, 1970.

¹³⁵ Japan's military spending for fiscal 1970 was 7% of the total national budget, 0.8% against its GNP. The magnitude of the spending, however, was almost as large as the total national budget of Thailand for the same year, and almost double that of the Philippines. Cf. Toshitada Nakae, "Gunji Taikoku Nihon no Imeiji (Military Superstate: Japan's Image)," Chuo Koron, Vol.9, No.4, Winter, 1970, p.153.

The above-mentioned behavior does not convince neighboring countries, even though Japan insists that their expressed unrest are groundless accusations against Japan, and that Japan is a peace-loving nation. Also, it is not unrealistic to them to assume that Japan may use its strength to obtain necessary resources when it becomes desperate, as seen in the course of history up to the last war.

Economically and diplomatically, Japan began to search for new policies, abandoning its vehement pro-Americanism after a series of humiliations from the U.S. during 1971: the U.S. president's announcement of a China visit without consultation, instead of the belief of close U.S.-Japan relationships in China policies, a 10% import surcharge aimed primarily at Japanese exports, the demand for textile export limitations, using the threat of applying the Trade with Enemy Act, and the forced huge upward yen revaluation.

The widening of the U.S.-Japanese credibility gap forced Japan to formulate more independent policies, starting in economic and diplomatic areas. As a step toward promoting independent policies, Japan aggressively started negotiations with Russian leaders, coinciding with the U.S. president's China visit in 1972, on the long overdue peace treaty between the two countries, including the

territorial dispute over the islands north of Japan, and on the possible Japanese participation in the construction of a 4,163-mile trans-Siberian Pipeline from the Tryumen oil fields to Nakhodka, a port on the Sea of Japan¹³⁶.

The fast-dwindling credibility and dependability may urge Japan to re-examine pre-existing postulates, not only in economic and diplomatic areas, but also in the military field, including the development of its own nuclear weapons, for the protection of Japan's national interests, especially in Asia where Japan's interests are concentrated. There is no guarantee here that there is no probability of resurgent nationalism to promote the protection of national interests with power. This precipitates remilitarization and constructs the road to a nuclear nation. Japan's direction toward more independent policies urges it to take certain measures, and they make that country which is blaming Japan for not having achieved its responsibility in Asia as a superstate, to be the very first one to regret the results.

In recapitulation, the supply conditions of the world's resources will become tighter, and may limit

¹³⁶ It is reported that the Japanese finance minister decided on a \$1 billion loan for a Soviet-Japanese oil development in Siberia. Cf. The Vancouver Sun, March 6, 1972.

Japan's future economic activities. Japan's expected demands are significant in their magnitude, and the country will have to face real difficulties for obtaining enough resources. This trend will enforce the resource problems not as economic issues, but as global-scale econo-political issues, mixing them with economic, political and military strengths.

Japan's resource policies changed from vehement independent development to cooperative development with large international resource enterprises. It is quite possible that the strengthening of the existing supply sources will intensify the confrontation between resources producing and investing countries, which may create temptation for Japan to use its national strength, economically or militarily.

Under vehement pro-American policies, Japan has been increasing its military power to share in its responsibilities, but a series of political and economic humiliations forced Japan to take more independent policies, which may cause the nightmare of neighboring countries to come to reality in the remilitarization of Japan.

CHAPTER FIVE

SUMMARY

In this study, various problems existing in Japanese resource industries have been identified. Japan's resource industries were heavily concentrated in downstream activities which depend greatly on the imported resources. Very few sizable investments in upstream activities were undertaken by Japanese industries, until the end of the 1960's. The major reasons for this were the government's investment control for exchange reasons, and industries' financial and technological incapacibilities to carry out investments.

Japan's major resource-obtaining method was purchasing in the market, but the acquisition of substantial amounts of resources by this method is becoming increasingly difficult because of international resource shortages and intensified economic nationalism in resource holding countries.

Resource investments have increased in importance to the Japanese economy. Possible reasons for this were presented in five hypotheses on Japan's foreign investments in resource industries. These hypotheses do not include profit criteria, because the latter are of relatively low priority in Japanese investment objectives.

Japan's investments experienced significant changes from total prohibition until 1950, to conditional permission until 1960, to automatic approval up to \$200,000 later in 1969, up to \$1 million in 1970, and to total liberalization in 1971.

Resource investments have been increasing over the past few years. During this period, the government's investment promotion policies changed from initial autonomous investment to cooperation with existing international resource industries.

Japan's full-scale resource investments are still at the primary stage, and its resource investment policies seem to be still in transition. However, the impact of recent economic and political humiliations, due to U.S. actions, has made Japan seek more independent activities based on its own economic and political objectives. Japan's movement toward independent activities may reinforce increased militarism and rearmament there, and may also result in the realization of neighboring countries' nightmares.

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of the Prime Minister)NewsweekOriental Economist StatisticsOriental EconomistTimeTrade and Industry of JapanWorld Oil

APPENDIX A

JAPAN'S IMPORT STRUCTURE FOR SELECTED YEARS

	1935	1961	1969
Foodstuffs	23	12	14
Textile Materials	30	16	6
Metallic Materials	5	17	13
Other Raw Materials	14	15	17
Fossil Fuels	7	16	20
Chemical Products	4	6	5
Machinery	5	11	11
Others	12	8	13
Total	100%	100%	100%

Source: Keizai Hyoron, Vol.20, No.5, May, 1971.

APPENDIX B

FOREIGN DEPENDENCY OF MAJOR RESOURCES
FOR SELECTED YEARS

	1963	1968	1975*
Copper	59.6%	73.4%	82.9%
Lead	51.1	56.5	55.6
Zinc	32.6	53.8	61.7
Aluminum	100	100	100
Nickel	100	100	100
Iron Ore	76.7	84.7	90.0
Coking Coal	46.9	71.9	85.9
Oil	98.8	99.5	99.7
Natural Gas	0	0	73.6
Uranium	-	100	100

* Estimated demand.

Source: Bank of Tokyo, The Overseas Investment Guidebook,
Tokyo, 1970, p.15.

APPENDIX C

JAPAN'S BALANCE OF PAYMENTS

(In Millions of Dollars)

	1961	1962	1963	1964	1965
Current Balance	-982	- 48	-780	-480	932
Trade Balance	-558	401	-166	377	1,901
Overall Balance	-952	237	-161	-129	405
Gold and Exchange Reserves	1,486	1,841	1,878	1,999	2,107

	1966	1967	1968	1969	1970
Current Balance	1,254	-190	1,048	2,119	2,014
Trade Balance	2,275	1,160	2,529	3,699	4,019
Overall Balance	337	-571	1,102	2,283	1,374
Gold and Exchange Reserves	2,074	2,005	2,891	3,496	4,399

Source: Monthly Statistics of Japan, 1960 - 1971, Bureau of Statistics, Office of the Prime Minister, Tokyo.

APPENDIX D

MONTHLY FOREIGN RESERVES BALANCE

(In Millions of Dollars)

Month	1970	1971	1972
Jan.	\$3,617	\$4,532	\$15,957
Feb.	3,630	4,868	16,478
Mar.	3,868	5,458	16,663
April	3,923	5,777	16,535
May	3,901	6,916	
June	3,769	7,599	
July	3,508	7,927	
August	3,527	12,514	
Sept.	3,556	13,384	
Oct.	3,778	14,098	
Nov.	3,987	14,836	
Dec.	4,399	15,235	

Source: Documentary News of the Month, 1970 - 1972.

APPENDIX E

TERMS OF TRADE* BETWEEN
DEVELOPED AND LESS DEVELOPED COUNTRIES

(1958 = 100)

	1959	1960	1961	1962	1963	1964
Developed Countries	101	102	103	104	104	104
North America	102	102	104	105	103	102
Japan	106	107	105	104	102	98
Developing Countries	101	100	96	94	96	97
Latin America	97	96	94	91	99	104
Africa	100	98	94	90	91	93
Asia	104	101	97	96	94	92

	1965	1966	1967	1968	1969	1970
Developed Countries	104	104	105	105	105	106
North America	104	105	106	107	107	106
Japan	95	95	98	99	104	106
Developing Countries	95	97	96	98	99	98
Latin America	101	104	101	101	107	107
Africa	91	95	95	95	99	94
Asia	93	93	93	94	94	93

* Unit value index of export divided by unit value index of imports (excludes oil).

Source: United Nations Monthly Bulletin of Statistics,
July, 1960 - July 1971.

APPENDIX F

NET FLOW OF FINANCIAL RESOURCES FROM JAPAN TO
LDC'S AND MULTILATERAL AGENCIES 1966 - 1970

(In Millions of Dollars)

	1966	1967	1968	1969	1970*
Official Development Assistance	\$285.3	\$385.3	\$356.2	\$435.6	\$458.0
Other Official Funds**	198.9	215.5	322.1	375.5	693.6
Private Funds ***	140.9	196.8	371.0	451.7	672.3
Total	625.1	797.5	1,049.3	1,262.1	1,824.0
Ratio Against GNP	0.62	0.67	0.74	0.76	0.93

* Estimate

** Include export credits over one year, direct investment finances and finances for international organizations.

*** Include export credits over one year and direct investments.

Source: Kuranosuke Saito, "Aid Expansion Continues to Gain,"
Business JAPAN, Vol.16, No.11, November, 1971, p.81.

APPENDIX G

RESOURCES DEMAND INDEX FOR SELECTED YEARS

	1963	1968	1975*	Average rise 1968-1975
Copper	100.0	186.9	353.5	9.6%
Lead	100.0	131.9	250.3	10.2
Zinc	100.0	191.5	393.3	10.8
Aluminum	100.0	260.6	706.3	15.3
Nickel	100.0	240.0	524.0	11.8
Iron Ore	100.0	224.8	476.9	11.3
Coking Coal	100.0	196.1	389.2	10.3
Oil	100.0	225.8	441.8	10.1
Natural Gas	100.0	117.8	446.0	20.9

* Estimated demand.

Source: Bank of Tokyo, The Overseas Investment Guidebook,
Tokyo, 1970, p.15.

APPENDIX H

ESTIMATED SUPPLY AND DEMAND IN MAJOR
NATURAL RESOURCES

	Fiscal 1970		Fiscal 1975	
	Demand	Dependence on Imports	Demand	Dependence on Imports
a Copper	880	76%	1,420	82%
b Lead	216	55	303	56
c Zinc	681	55	1,149	57
d Aluminum	885	100	2,000	100
e Nickel	91	100	150	100
f Iron Ore	111	88	200	91
g Coking Coal	59.2	79	106	83
h Oil	204.1	99.7	3,230	100
i Natural Gas	3,662	35	9,500	74
j Uranium	0.7	100	3.5	100

a - e = 1,000 tons, f and g = million tons,
h = million kiloliters, i = million cubic meters, and
j = 1,000 short tons

Source: Ministry of International Trade and Industry.
Cf. Trade and Industry of Japan, Vol.XXI, No.1,
1972, p.43.