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JAPAN REPORT

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POLITICAL AND SOCIOLOGICAL

TANAKA FACTION ACTIVITIES IN COMMUNICATIONS AREA EXAMINED

Tokyo SENTAKU in Japanese Jan 84 pp 40-41

[Text] The high-technology information telecommunications network is being viewed as a potential 100-trillion-yen industry of the future, and not only are the government segments concerned but industrial circles involved are rushing to try to get in on the ground floor. This "new look" industry has also attracted the "glinty eye of politics."

Various developmental directions and approaches are already being undertaken for the new media, which holds a prominent position in the advanced technology industry. Cable television (CATV), a means of coping with visual and aural obstacles and interference, was first to arrive on the scene; then came the launching of telecommunications and broadcast satellites to broaden the area and coverage of the information network, and the "Captain System" which incorporated television, telephones, and computers; then the multiword broadcasting technique that NHK has nurtured to the brink of practical application.

Ever since the Ministry of Posts and Telecommunications initially suggested that all "new media" related investments should be concentrated in a specified geographical model area, a "teletopia concept" (a futuristic communications model metropolic), the "new media" boom has really taken off. Taking the lead from the Ministry of Posts and Telecommunications and MITI, the Ministry of Construction got moving, as did the electonic industries and financial organs. Recently, the national railroads and electric power industries have also joined into the "new media" plans.

Prime Minister Nakasone, witnessing these fetal movements in the industrial body, proposed at the peak of the recent general election campaign that an informal, private investigative organ be established as a "discussion group on high-tech information society related matters." It is a concept that is easy to associate with Nakasone, who likes new things and ideas. At the government level, it is known that moves have been made to link our country's "teletopic concept" with a plan allegedly being considered for New York State for a "teleport" (a site for a system to supply businesses with information obtained through the utilization of telecommunications satellites.) Such actions, however preliminary in nature, are attracting avid attention to Japan and the United States, two of the world's advanced nations.

Seizing Prior Rights and Interests in Giant Market

There is an unsavory side to these developments. Whose eye did this potential bonanza catch? None other than that of the Liberal Democratic Party's [LDP] Tanaka faction! Although in the confused environment immediately preceding the announcement of the general election, it made little noise, a group of people gathered together and formed the "Organizers for LDP Members of Parliament To Promote the New Media." About 25 Diet members showed up. What made some concerned people gasp in astonishment was its membership, almost all were Tanaka faction Diet members. As soon as the meeting was called to order, it became known that this party organ was by prearrangement to be headed by Shin Kanemaru, with Moriyoshi Sato as administrative chief--both Tanaka faction stalwarts.

Through the benevolent influence of its guardian angel, Kakuei [Tanaka], the Ministry of Posts and Telecommunications has traditionally been loaded with Tanaka people: Shigeshiro Komiyayama and Kei Sato, past minister and past parliamentary vice minister, plus a whole list of those who were on telecommunications committees and in the party's telecommunications section. Only Takayoshi Edo and Toyohiko Mizuhira of the Nakasone faction, Noboru Fukita of the Fukuda faction and Toshihide Mori, Tetsuo Kondo, and Tokuo Tamashita of the Kawamoto faction were outsiders. One of those from the Kawamoto faction was heard to mutter that "it was like a caucus of the Tanaka faction!" Regardless of the LDP leadership's downplaying of the Tanaka faction, the lineup of this legislative group was out of the ordinary. It was natural that even those who were not directly concerned felt that "something was up."

Some analysts see Moriyoshi Sato as having done all of the groundwork to form this legislative group, with Kanemaru as being only the front man. But it is broadly rumored that the real wirepullers were in Mejiro (headquarters of the Fukuda faction.)

In the past, Tanaka exerted a great deal of administrative guidance in behalf of opening up television stations to newspapers. His residual influence in upper echelons of the various television stations accruing from that effort is still very strong. It is the "Tanaka pulse" which exerts great hidden power. Tanaka's stubbornness in retaining his seat even after he was found guilty in the Lockheed trial severely pressured the mass communications media's political philosophy, but it is still fresh in our memory that Tanaka brazenly bragged that "the press and television are mine for free!"

Tanaka has, either for good or evil, excellent foresight on matters affecting interests and rights. He operates under the political philosophy that he who has information, wins. Currently Tanaka is clearly focusing on the future of electronics and high-tech telecommunications. In the light of this, the creation of the new media legislative group was not motivated solely as an expression of interest in its development per se, but as strategy for personal survival.

Persons concerned have indicated that those who have material interests in the "new media" will be able to exert great and broad powers.

One current target is CATV, which has 34,000 installations and 3.66 million subscribers. CATV, which had been severely regulated by the cable television broadcast laws and the cable electronic telecommunication laws, is undergoing liberalization. The doors are being opened to the public with the easing of rules governing independent broadcasting. New applications for CATV number 39 in the Kanto area, 21 in the Tohoku area, and 13 in the Tikai area. Unquestionably CATV, tied in with broadcast satellites of the future, is an industry of major proportions. The telecommunications section of the LDP is leaning toward deregulating CATV, and there is no mistaking the fact that the Tanaka faction is doing the pushing. What is it after?

First, there is the problem of license standards. Should an areal disagreement arise in the course of establishing standards, there is always some hidden political pressure behind it.

Even in the course of proposing a plan, approval of the concerned government organs has to be obtained for putting in cable supporting poles and towers. use of roadways, fording waterways, using railway installations and right of ways. One does not have to be a seer to foretell that beginning with the Ministry of Posts and Telecommunications, which will insist on exercising its claim to authority over the construction of telecommunications-related installations, the Ministries of Constructions, International Trade and Industry, and Transport will all--individually and as a group--exert their influence over matters that fall into their areas of jurisdiction. It should not tax the imagination to see that where there is an area of potential power struggle among the public and private sectors, politicians will sniff it out and get into the act.

Classic Model of Tanaka Politics

There is also plenty of room for political activity in satellite broadcasting, the plans for which, following CATV, are reaching the point of practical application.

Telecommunications satellite CS-2a, launched in February 1983, is being followed up the launching of a broadcast satellite, BS-2a, in February 1984. Sixty percent of the launching cost of BS-2a is being underwritten by the Japan Broadcasting Company [NHK], which will use both the satellite's channels. The expected life of this one is 5 years, and on its termination, the era of BS-3 will begin. BS-3 will have four channels, including channels for the general public. It should not be necessary to point out that fierce competition for the acquisition of channels will ensue.

According to investigations made into the utilization of the broadcast satellite consigned to Dentsu by the electronic emission control through the Ministry of Posts and Telecommunications, by coordinating both pay broadcasting and commercial advertising broadcasting, satellite broadcasting can be made to pay. This has given impetus to the "channel acquisition

war." Already, there have been 13 applications for participation in the broadcast satellite; 8 mass communications organizations; 2 private railroad companies; 1 CATV firm; 1 commercial and 1 financial firm; and 1 other institution. Each of these are making approaches to political circles through their respective pipelines.

The "Captain System" that will make "home banking" and "home shopping" possible is pushing its research and testing program through its 2,000 monitoring households within Tokyo and expects to enter into the practical application phase shortly. This project is a joint undertaking of three components: the source organization which supplies the information; Nippon Telegraph and Telephone Public Corporation [NTT] that supplies the system; and the maker and vender of terminal equipment. What should not be overlooked, however, is that the troika described above is dominated by NTT, which, in accordance with the investigative hearings, is going public, and it should be perfectly clear that as the increase in the public's interest grows and spreads, it plays right into the hands of the Tanaka faction.

Establishing a Diet members new media association and then filling it with Tanaka faction Diet representatives has caused this new media's growth to be accompanied by an odor peculiar to that which is identified with new political machinations.

However, as penetrating as this smell is, this is not all. One of the original LDP organizers admitted: "In all honesty, there isn't enough preliminary technical knowledge among them to call it a 'new media' experts' group. One gets the feeling that it is ahead of its time."

It is another classic example of Tanaka politics: "Overwhelm them with numbers first, and rationale will come tagging along later."

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ECONOMIC

SOVIET INTERVIEWER ON JAPANESE COMPUTER DEVELOPMENT, TRADE POLICY, DEFENSE

Moscow LITERATURNAYA GAZETA in Russian No 5, 1 Feb 84 p 14

[Interview by political columnist Fedor Burlatskiy in "International Life" section: "Japan: Today and Tomorrow. Paradoxes of the Technological Revolution"; name of interviewee, date and place not specified]

[Text] In December 1983 this author spent two weeks in Japan. It was my second visit, and it created an even greater impression than the first, which took place three years ago. What probably struck me most was the technological upheaval, of which Japan is one of the pioneers.

What are the basic features of this upheaval, what are its driving forces, and what is its impact on Japan's position in the modern world and on the spiritual life, culture, and way of life of its people? I discussed these questions with my Japanese journalist counterparts, scientists, and also managers--executives of major enterprises. It would be difficult to reproduce all those interviews within the limits of a newspaper article, all the more so as the names of many of my interviewees would mean nothing to the reader. For that reason I decided to reduce their statements to a common denominator. Thus, I will call my interviewee Japanese-san, or Mr. Japanese. He is representative of a fairly typical type of Japanese intellectual.

So here he is sitting before me, this shortish man, with a round, crew-cut head, attentive, slightly sly eyes, the invariable polite Japanese smile on his face, and wearing his standard light-blue suit, pale-blue shirt and narrow black tie.

And so, we begin.

[Question] Columnist: Esteemed Japanese-san! I must confess that I would very much like to penetrate the mystery of modern Japan. Having visited your country I have found here cities whose architecture is like that of Western industrial centers, especially American, but they are at the same time different. There are the low rectangular buildings typical of average American cities, but these modern buildings are surrounded by hundreds of square, typically Japanese houses, small as peas, which cluster around these buildings like Lilliputs around Gulliver. There are roads, causeways and viaducts, just

like in Europe. But alongside there are the traditional Japanese parks with their asymmetry of rocks and small ponds populated by carps of the most incredible colors, and the small, tiny plots of farmers. There are the cars, trains, airplanes, tape recorders, computers and other wares typical of industrial countries. But alongside there are tens of thousands of wares crafted by Japanese artisans from porcelain, ceramics and bone which lend a unique look to city store windows.

But this isn't really the main thing. I, like many in my country, am intrigued by the secret of the industrial leap which Japan has made in the past thirty years, from a patriarchal, semifeudal state to the second industrial power of the capitalist world. We know that the culimination of the so-called Japanese "economic miracle" has already receded into the fairly distant past. In 1981 Japan was overcome by an economic recession from which it is barely beginning to emerge as it sheds, like a snake its skin, unprofitable branches of the economy, such as the aluminum or petrochemical industries.

However, if I understand correctly, Japan is now concentrating not so much on the overall global growth of industrial output as on what has been called the new technological upheaval. It is in this sphere that Japan expects to challenge all modern civilized nations and, perhaps, attain the most advanced frontiers by the beginning of the next millennium. Thus, I would first of all like to unravel the secret of your national character and understand the forces that motivate the Japanese in their advance along the road of technological progress. I also wonder whether the Japanese foresee any negative consequences of this process in the sphere of social relations, in the field of morals, in the loss of cultural values?

[Answer] Japanese-san: Very well! Only you probably should not use the word "secret", because Japanese don't like when others pry into their inner world, still less into the world of new technology. As soon as we hear the word "secret" we want to hide, like a pearl in its shell.

[Question] Columnist: Indeed, I have noticed this trait of the Japanese character. It combines opportunely with a tremendous inquisitiveness towards the secrets of others. The Japanese are probably the world's greatest travellers. In every airplane I have ever flown all over the world there are almost invariably Japanese passengers. Inquisitiveness has become perhaps one of the most distinctive traits of the modern Japanese. Inquisitiveness in the sphere of the latest achievements in science, technology, medicine and the drive for longevity. I had expected that here I would find courtesy repaid with courtesy. However, this did not happen, and despite all my efforts I was unable to visit the most modern Japanese enterprises. I was told that this is perhaps one of Japan's most cherished secrets. I would therefore like to fill this omission with the help of this interview.

[Answer] Japanese-san: I'm at your disposal.

[Question] Columnist: Let us start with the general picture. How would you define what is currently called the technological upheaval, or computer revolution?

[Answer] Japanese-san: We Japanese don't like such bombastic words. Although in your country you suspect that we borrow everything from the Americans, that is not quite so. We are restrained in our words and terminology. However, we do try to do something concrete.

[Question] Columnist: What is this "something"? Could you describe it for our readers?

[Answer] Japanese-san: I'll try. Just a little bit. The main thing today in technological progress is, probably, the new level in computer, robotics and microprocessor production. You are well aware that computers are already widely used in Japan, the United States, and in other countries as well. But what will be tomorrow, or more precisely, in 10 or 20 years, surpasses any science-fiction.

We are now building fifth-generation computers. Among them are the so-called supercomputers, which are capable of performing several hundred million operations per second. Twenty-four Japanese projects for the creation of fifth-generation computers devote primary attention to artificial intelligence. There, apparently, lies the core of what you call the new computer revolution.

[Question] Columnist: Descartes once made a remark which became historic: "I think, therefore I exist." This has become the most generally accepted definition of what distinguishes homo sapiens, that is man, from other creatures. Can we consider that today, when artificial intelligence has been created and is being perfected, this formula is becoming obsolete? That machines, too, are starting to think?

[Answer] Japanese-san: I think that to some degree this has already happened. As for tomorrow, it will simply become commonplace. What can artificial intelligence already do today?

Computers diagnose diseases, moreover with such accuracy that in eighty percent of the cases the doctors rely on their results. Computers are used in geology and help effectively in exploring for oil and other minerals. A kind of "bionic nose" has been built which is capable of distinguishing between the slightest shades of fragrances. This invention is bound to contribute to major changes in the cosmetics, food, and wine and liquor industries. Computers already "read" printed matter with the help of an optical device. In the process they select key words and phrases and concentrate attention on them.

We have especially developed robotics. Japan is already ahead in number of robots: some 32,000 as compared with only 6,300 in the United States.

[Question] Columnist: I have also heard other numbers.

[Answer] Japanese-san: But the proportion remains the same: simply people sometimes are not sure what to classify as robots. Whereas other branches of Japan's industry are marking time, the robot industry in 1983 grew by some 30 percentage points. What do robots do?

In Japan robot lumberjacks are used extensively. They spiral up a tree by means of a wheel system and on the way saw off branches with a chain saw. The firm Hitachi has recently unveiled a portable robot. This is a small metal gentleman which moves along a short treadway. It can come to work on its own and is small enough to enter into places that can't be reached by other robots. It can move over huge steel ship frames and weld elements together. It can hold and handle an object weighing up to 5.5 pounds. Its sensors can determine the points to be welded. The Sujumo firm is marketing a robot equipped with mechanical arms and grippers which is used for making Japanese rice cakes. It can make 1,200 cakes an hour, three times more than the most experienced baker. The Sayyu company installs robot porters which carry goods from warehouses. Toshiba has built a robot equipped with a manipulator seven feet joints and resembles an elephant's trunk. It is intended for inspecting hazardous places in nuclear power plants.

Robots can respond to external stimuli, make judgements, communicate with operators and process data. Very soon a machine will be built that will be capable of seeing, hearing, smelling, feeling, recognizing spoken commands, and responding to them in a language all can understand. And there also seems to be no doubt that sometime before the end of the century systems will be created that will be able to give legal, medical or financial advice, forecast the weather, design buildings, create spreadsheets, teach children, and control complex production processes. In short, our long-term research program in state-of-the-art computers provides for the development of entirely new machines with artificial intelligence and supercomputers operating a thousand times faster than modern machines.

[Question] Columnist: I admire the somewhat childish enthusiasm with which the Japanese speak about robotics and the computer revolution. I wonder, however, whether in capitalist society this revolution doesn't forebode new dangers similar to what happened with nuclear power? Couldn't there be lurking in the wings some new wave in the military field, say the militarization of outer space?

[Answer] Japanese-san: We don't seem to think of this. Though, of course, one must concede that laser weapons, about which much is being said in the United States, depend wholly on improvements in supercomputers.

[Question] Columnist: Does all this mean that whoever is the first to learn to build the best computers will be able to lay claim to a new, perhaps dominant, role in the world economy?

[Answer] Japanese-san: We don't think of this, either. We are simply busy building, especially in state-of-the-art industries.

[Question] Columnist: The Americans, however, are not only thinking but also rather loudly and irritably discussing this problem. Not long ago the Pentagon requested more than a billion dollars over the next five years to develop superfast computers and artificial intelligence. Not least of the military department's arguments in favor of this were references to accelerated develop-

ment of Japanese computer technology. They say that this is a struggle to the death in which victory will come to the side which is able to create the most compact microcomponents. the latest word in American technology--the Cray-1 supercomputer--contains 250,000 memory and logic chips.

[Answer] Japanese-san: Japanese developments are progressing in the same direction. I think we have been at least as successful.

[Question] Columnist: But how can this affect the development of economic relations between the United States and Japan? One leading American economist remarked to me that in its trade with Japan the US plays the part of an underdeveloped country, with farm produce, raw materials and fossil fuels accounting for two-thirds of its exports to Japan. At the same time, 90 percent of Japan's exports to the United States are industrial goods and equipment. Japan's positive trade balance with the United States is steadily increasing and has reached 21 billion dollars.

[Answer] Japanese-san: There is nothing dramatic in all of this. Japan, in turn, has a large deficit in trade with Canada and Australia. The one overlaps the other. We, a nation of 119 million, have virtually no resources of our own. We import about 100 percent of our oil and 50 percent of our food from abroad. Furthermore there is no justification to rumors that Japan lives mainly off exports to other countries. In actual fact we export only 13 percent of our national product, whereas Great Britain exports 20.5 percent, West Germany 26.7 percent, and Canada 29 percent. Only the US exports less than we do.

[Question] Columnist: Much is written in the West about so-called nontariff barriers. People also speak of import quotas, of laws to buy national goods, of administrative tariffs. But most of all they speak of some kind of subtle barriers which reflect the Japanese people's culture and psychology. Out of patriotic sentiment the Japanese buy Japanese goods, and only in the most exceptional cases foreign goods. Is that really so?

[Answer] Japanese-san: I don't know; there may be some truth in this. We Japanese, on our small islands, must stick together. The Chinese giant with its billion people is 380 miles away. The powerful Soviet Union is 155 miles away, while our friends and competitors in the economic struggle are beyond distant frontiers across the ocean. We cannot hold our own if we don't act like a unified nation.

[Question] Columnist: I am not at all sure that this is possible in such a class-divided society as Japan. But here, I think, we have approached a question of special interest to me: What really is the secret of this incredible Japanese ability to merge into modern technological civilization?

I have often heard opinions expressed in the West that Japan successfully combines feudalism with the most contemporary capitalism. This alliance has produced a formidable machine. In this respect many see adherence to hierarchy, submission to authority, loyalty and diffidence, readiness to carry out orders at work, within companies and firms, and the Japanese traditional indus-

triousness and unpretentiousness as "advantages" of feudalism. All this is multiplied, in the opinion of experts, by remarkable individual mobility and activity and mixed on typical Japanese patriotism, which formerly found expression in military expansionism and now in economic expansionism. What can you say of this?

[Answer] Japanese-san: I don't know. In Russia they say that you can see better from afar. But the West exaggerates our mysteriousness. There are some fairly simple explanations of the peculiarities of our economic system and the character of the Japanese as a worker. I will mention only some of these specific features--not necessarily in order of significance, because it's hard for me to give preference to one factor or another. The problem isn't always clear even to us.

The first reason is historical. You, of course, know that we had our revolution back in the eighteen-sixties. That was just when Japan came out isolation. It faced the rest of the world. The first thing it did was to borrow Western technology, Western industry, and the Western educational system.

The Japanese have always been disposed to borrowing in the spiritual sphere. Buddhism came to us from India, Confucianism from China. We adopted all those teachings and "Japanized" them in our own way. The same began towards the end of the last century in the spheres of technology, science and education. Today at school contests Japanese boys and girls almost always place first, ahead of their contemporaries from the United States and Western Europe, precisely in the natural and technical sciences. We were, I think, ahead of others in achieving universal secondary education combined with access to state-of-the-art science and technology.

But education is not regarded as the decisive factor for a person's career. Most important is activity, inventiveness, and loyalty. Every company and firm hiring a person, even with the best university education, conducts an interview or examination and puts him at the very lowest position, with the opportunity to display himself as an inventive engineer, a capable salesman, or a manager. His advance depends solely on his business abilities. I think you know that in Japan almost all companies and firms hire workers for life. The applicant makes his choice once and for all. He makes a commitment with regard to the firm, which in turn makes a commitment with regard to his personal fate.

[Question] Columnist: This is perhaps one of the institutions which is most reminiscent of feudal ways: a lifelong contract is something like a marriage vow, with the important difference that the parties do not share equal rights and obligations. The firm, the company, its executives enjoy the totality of power with regard to the worker: they determine his workplace, his salary, his advancement on the job, while the worker must respond to this with extremely devoted, intense and selfless work. In Marxist terminology this is called greater exploitation and intensification of labor.

[Answer] Japanese-san: Perhaps you are right. Modern enterprises, companies and firms are something like patriarchal estates where each person has his role

and place. However, in our opinion the worker also has much to gain from this system.

[Question] Columnist: What?

[Answer] Japanese-san: First of all, he is effectually guaranteed from losing his job.

[Question] Columnist: Why, in that case, does Japan have a fairly large army of unemployed? As far as I know, unemployment is currently at its highest level--1.6 million people, or 2.72 percent of the labor force. It is not accidental that strike action by Japanese workers is on the rise. Lately Japanese trade unions have been coming out more and more vocally against "technological" unemployment. Of course, so far no one is wrecking robots like the workers who destroyed machines in the 18th century. But competition in the "man-robot" system is becoming a fact of life in capitalist society. Besides, there is the view that the actual number of unemployed is concealed in Japan. It would be interesting to know what you do with shirkers? Are they simply kept on the job?

[Answer] Japanese-san: Life-term employment up to 55 or 60 years is one of the main factors of our economic success, of this I am convinced. It ensures the loyalty of every worker to his enterprise. Of course, such a system has its negative aspects. Japan has become the "oldest" society in number of pensioners. Or take another problem: We have the expression, "Madogivajoku." It means "employee sitting near a window." The question is of excess manpower, very often among the most highly paid workers. As for the question about the source of growing unemployment, in my opinion it is due to the problem of finding jobs for young people and formerly nonworking family members, mainly women. Lately many enterprises have begun to abandon the system of lifelong hiring as being out of step with the current requirements of our development.

[Question] Columnist: Don't you think that a worker who is virtually denied the opportunity of choice--both within and outside a given enterprise--is something like, if not a slave, then a vassal or feudal tenant farmer harnessed to his means of production?

[Answer] Japanese-san: This is compensated by higher wages for length of service. A worker who has worked 20 years at the same enterprise frequently gets double his workmate who just came on the job. In addition there is the system of pensions and other benefits.

[Question] Columnist: And you think that this factor plays a decisive role in the Japanese worker's labor mobility?

[Answer] Japanese-san: If you ask what forces them to move so fast, most Japanese would probably reply with one word: Competition. I don't know of another country in the world today where competition is so acute and waged in such harsh forms as here.

[Question] Columnist: But this is what characterizes any capitalist system.

[Answer] Japanese-san: Ours especially. There are very many competing companies and firms in Japan, much more than in any Western country. In electronics, for instance, there are 580 companies. The competition there is especially sharp. In the U.S. there are only four large automobile companies, in Japan there are nine. Here is one more aspect: 70 percent of all of Japan's output is produced by small enterprises, while in the U.S. only 40 percent. Competition here is especially fierce. In 1982, for example, 17,000 firms went bankrupt in Japan, and there was a nationwide surge of individual and family suicides.

[Question] Columnist: Probably there is another social problem behind this. The owners of small enterprises (and often large ones, too) manufacturing the most modern wares try to save on elementary safety means, which frequently results in the death of people, for example in mine explosions, disease and early aging of workers.

[Answer] Japanese-san: Indeed, competition is merciless. And external competition is as sharp, if not more so. As a young industrial power, Japan finds it especially difficult. Its only ace is lower prices. Using this as a pass, we were able to penetrate the markets of developing countries as well as of such powerful competitors as the United States and West European countries.

Competition, with its cruel, merciless laws, is probably the prime mover of our progress.

[Question] Columnist: People in the West say that to this should be added the economic policy of the government. Many even think that this is just what distinguishes the Japanese economy from that of other capitalist countries: The internal economic policies pursued for thirty years by the Liberal-Democratic Party, direct minions of big and medium capital. Protectionist trade policies are regarded as being of prime importance for the Japanese economy.

[Answer] Japanese-san: Indeed, the government interferes actively in economic relations. And here, too, there are specific features. Whereas in the West the state strives to support weak or even unprofitable industries, such as the coal industry in Britain, in Japan the reverse is true, and favorable conditions are created only for flourishing, state-of-the-art industries.

[Question] Columnist: I would now like to speak of spiritual, and especially moral, problems. Japan has become the second industrial power of the non-socialist world. More, in per-capita output it has reached, and some say passed, the United States' level. Japanese goods are flooding many countries like a tropical downpour. But here is a question which everyone who visits Japan invariably asks: What moral values does this Japanese civilization offer humanity? Does it, in fact, offer any new values at all?

To this day Japan itself is a target of extensive Americanization. The way of life, behavior and moral precepts of Japanese youth are increasingly reminiscent of the American 50s. I have seen in Tokyo's parks dozens of groups of boys and girls with powerful blaring Japanese tape recorders dancing rock 'n' roll for

hours on end. Crowds of young people roam the night streets of Japan, filling cafes, huge video arcades, movies showing American films, sleazy shows presenting live sex on stage, love hotels offering cheap rooms for so-many hours in complete confidentiality. Is Japan destined to experience the moral sufferings of the generation of the 60s and 70s in the United States? In short, can one speak at all of any specific values of Japanese civilization?

[Answer] Japanese-san: This is a very difficult question. Perhaps the most difficult confronting Japanese society.

We have made the leap from a patriarchic to a modern industrial culture. We have also spared no effort to preserve our best traditions in the spiritual domain. I don't know how much we have succeeded nor what has remained and what eroded by Americanization. The kimono has virtually disappeared, and today you can see it only in the theater and at home. However, we have preserved Japanese prosody, which is virtually without an analog. Our advertisements, with their elongated oblongs, colored lanterns and diversity of colors, are reminiscent of older art. We have preserved and expanded the artisan culture which today produces hundreds of thousands of typically Japanese wares. Our motion picture industry has adopted much from the West, but it is also acquiring national features.

Can we offer this to the whole world? Hardly. Nor do the Japanese have such claims. While it has thrown its doors open to industrial civilization, Japan still remains a closed and fairly homogeneous society, at least culturally, as well as in way of life and traditions. And I think that Japan will continue for many decades to offer the universal human market only her technical innovations, not any new ideas or spiritual values. This, perhaps, is not all that bad, since such an approach is alien to messianism or hegemonism, which, we must concede, are all too common in the United States.

[Question] Columnist: Lastly now: About Japan's new global objectives. The offensive of Japanese technology on Western markets and, in fact, the whole world market, has already substantially changed the existing world market. The "Pax Americana" which had formed after World War II rested firmly on overwhelming American domination in the economic sphere. Two forces have undermined that order: the Common Market in Western Europe, and Japan.

Many in the West are pondering the consequences this may have for the whole system of international relations. In other words, what are Japan's pretensions, what place does she seek in the world?

[Answer] Japanese-san: This question is a topic of struggle and debate among Japanese, and not only at the government level or within parties, but in public opinion, as well. Prime Minister Nakasone offered Japan his alternative. He promised President Reagan to increase Japan's contribution to armaments in exchange for agreement to let Japan play a new role on the Asian continent.

But the overwhelming majority of Japanese are convinced that the new Japanese nationalism is a recurrence of the traditional nationalism which brought Japan to catastrophe in the Second World War.

[Question] Columnist: President Reagan is constantly pressuring Japan to spend more and more on armaments. It is conceivable that he is pursuing not only political aims but economic ones as well. Americans have been complaining that up till now Japan has been spending about one percent of its national product on defense, whereas West European countries spend three to five percent. This is what people in the West see as one of Japan's economic advantages and they, of course, dream of depriving her of that advantage.

The military burden is especially great for the American economy. Hence the efforts to draw Japan into the arms race and weaken it as a competitor. True, this cuts two ways. The Americans themselves should know what would happen if Japan repudiated its self-imposed principles (not to produce, possess, or stockpile nuclear weapons in its territory) and joined the nuclear race.

[Answer] Japanese-san: Of course, such a problem exists, but I don't think it is a problem of today or tomorrow. The government party was delivered a stunning defeat at the elections. It will now have to maneuver and find more flexible solutions to political problems.

[Question] Columnist: We can, perhaps, conclude with this forecast of a Japanese intellectual.

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ECONOMIC

EFFECTS OF CHANGES IN YEN RATE ON TRADE SURVEYED

Tokyo KIKAN GENDAI KEIZAI in Japanese Winter 1983 pp 78-89

[Article by Takuo Tanaka: "The Float of the Yen and Changes in Japan's Trade"]

[Text] The Nixon Shock of 15 August 1971, threw Japan's economy into great confusion, but the previous day, 14 August, was a day which made no less of an impression. Simulations with the international model we developed had verified that the structural imbalance of world trade would continue to worsen, and that we already had been pushed into a situation in which fine adjustments in exchange rates would do nothing whatsoever to solve the problem.[3] Since the preceding spring, we had been continuing, from time to time, to warn of the inevitability of drastic American economic measures, and this finally was reported in the major dailies on the 14th. However, because of the character of the authorities, who commissioned the work, only the validity of the results of our measurements was recognized, but no mention was made of any implications for government policy.

At present, Japan's trade balance seems once again to be piling up a large-scale surplus, but this structural trade imbalance is worsening trade frictions, and does it not seem the case that the regulating function of the change in the yen rate (the strong yen) is having virtually no effect? We have been pointing out since last year the necessity for adjustment of the yen's rate, and for an increase in domestic consumption, but it appears that at present, the situation is moving more and more in the direction of increasing imbalance (Tanaka, Kumai[9].

This paper attempts to show how Japan's trade has moved in response to the float system, and especially to analyze the relationship with fluctuations in the yen

rate. The shift to the float system in the early 1970's is first examined, in conjunction with the relative decline in America's international competitive strength; then rate fluctuations after the shift to the float system, and movements in Japan's trade as well as current revenues, are surveyed. There is a mechanism of mutual influence at work between exchange rates and trade.

This paper explains long-term shifts in exchange rates in terms of the state of current revenues, then takes up the issue of influence that fluctuations in the exchange rate have on Japan's trade. Statistical examination uses data from the 1970's, with a persistent focus on long-term, statistical aspects of trade and exchange rates.

I. The Structural Imbalance in World Trade and the Rush to the Float System

The Change in the World Economic Structure During the 1960's

After World War II, the American economy, a pillar of the IMF structure, maintained a trade surplus with its strong competitive export strength. At the beginning of the 1960's, there was still a trade surplus of approximately $4 billion, but from 1968 to 1969 it fell to $600 million. This change in the balance of America's trade was not a temporary phenomenon, but can be viewed as an immediate consequence of a structural shift in world trade. After the war, American products, which had demonstrated overwhelmingly strong competitive power in world markets, were driven out by West German and Japanese products, which were once again appearing, and it inevitably came to pass that the relative American market share retreated, both in Third World markets and even domestically. Looking at the rate of increase of American exports, one can see that in the 1960's, with the exception of 1964 and 1966, it remained at the single digit level. In contrast, during the 1960's Japan posted an extremely high average export growth rate of 16.7 percent.

Again, from 1965 to 1969, America's rate of import growth reached the unprecedented level of 15.5 percent, and this was approximately twice the growth rate for exports for the same period, indicating just how much America's income from trade had been reduced. The rise to prominence of Japanese as well as EEC products now makes the structural weakening in the international competitiveness of American industry obvious.

Elsewhere during the 1960's, American manufacturing industry rapidly increased direct investment in Europe, and the flow of capital out of America continued. Due to the increase in capital revenue deficits, America's international balance of payments continued to be in a basic state of deficit, and the flow of dollars to foreign countries led to an increase in international liquidity. During this period, President Johnson introduced measures to defend the dollar, but as the trade surplus which supported

deficits in capital revenues shrank, as noted above, the deficit in the international balance of payments increased further, and faith in the dollar began to be questioned. Moving into the 1970's, the increasing uneasiness with regard to the dollar touched off a continuing escape of large amounts of capital to West Germany and Switzerland, and expectations of an increase in the yen also brought an increase in the flow of short-term capital to Japan.

The Nixon Shocks and the Shift to the Float System

The relative retreat of the American economy, which was central to the IMF structure of support for the rebuilding and development of the world economy after the war, made a shift to a new situation unavoidable. On 15 August 1971, President Nixon introduced new economic measures, and ended the ability to convert the dollar into gold. Because of the confusion resulting from the Nixon Shock, the markets were closed, but with their reopening, the currencies of the major nations had shifted to a temporary float. At the December meeting of the finance ministers of 10 nations, multinational adjustments of par values were planned, and as the Smithsonian agreement, shifted to a new par value structure of 308 yen to the dollar (a 16.88 percent revaluation). However, even by 1972, America's imports continued to increase at the high rate of 22 percent, and consequently the trade balance worsened further, resulting in a trade deficit of $6 billion. Japan's trade surplus further increased by 15 percent, growing to $9 billion, and in West Germany, an increase of 28 percent with respect to the previous year was seen. The new par value adjustments were not as successful in rectifying the world trade balance as had been expected.

As a result, America was forced to devalue the dollar again in February 1973, and in order to avoid confusion, the major nations shifted to a fluctuating market system. The yen, its rate floating, made a real gain of 10 percent, moving to about 270 yen to the dollar, but the overheated market brought a 70 percent increase in imports, and the balance of trade for 1973 dropped $4 billion from the previous year, to 3.7 billion.

The Trade Model

Looking at the particulars of the shift to a floating market system, it becomes clear that a close relationship exists with the process of imbalancing in the world trade structure, whose central position is clearly occupied by the United States. Structural changes in world trade make repeated adjustments in the rates of exchange between many countries inevitable, and it may be said that this is the basic factor in the shift to a float system.

From this point of view, the measurements of the world trade model, which employs a trade matrix, led us beforehand to the conclusion that America's 1971 struggle to effect a large-scale adjustment in the world trade structure, and the drastic adjustments in the exchange rates, were inevitable, and further, that the new par system resulting from the Smithsonian agreement would be insufficient to adjust structurally the trade

imbalances, and that there would be a great need for a further adjustment at some point in the near future.[2] Further, the confusion in the world economy and movements in exchange rates from 1971-73 precisely followed the indications of our structural analysis. In preparation for the following verifications, let us first deal with the model.

The trade matrix shows the flow of trade between each of the countries of the world. By adding the amount of export and import with each partner, the export and import total for that country is obtained. By dividing total exports for each country by the world total, the share for that country can be obtained. Changes in this share may be thought of as changes in each country's international competitive strength (changes in revealed comparative advantage), but in concrete terms, this is determined for the most party by the relative strength of that country's, and the world's, export levels. Adjustments in exchange rates between numerous countries definitely invite changes in the relative position of each country's export competitiveness in the world market. Once a new par value system based on the dollar has been introduced, the size of each country's new international market share can easily be found by using the intersection price elasticity with regard to each country's export share (using American import levels in the denominator) of the international market (relative to America's share).

The flow of trade between Japan and a given country (say, America) is determined by the following three factors: the movements in the importing country's, America's, total imports (lateral effect), the movement in the exporting country's, Japan's, international market share (vertical effect), and, in addition to the above factors, the changes in locational and spatial links. These three effects determine the new trade value for each element in the trade matrix (e.g., the trade flow from Japan to America). When the new share is determined on the basis of the new par value system, the percentage increase in imports is next found from each country's export function, and the new export matrix is estimated. Because trade is broken down in the matrix by product (using differing price and income elasticity by product), by adding total imports and exports by product, each country's trade income by trading partner, as well as with respect to the world, can be inferred. In Section IV, the elasticity calculated for the seventies is the value of the price and income elasticity developed above.

Verification of Structural Imbalances and the Smithsonian Multinational Adjustments

Using the above trade model, a simulation was carried out. According to the results, in terms of 1968 price levels, it was estimated that without an adjustment in exchange rates, the North American balance of trade would go from a surplus of $3.4 billion in 1968 to a deficit of $17.7 billion in 1980--a real decrease of $26.8 billion. In contrast, an estimate of an $18.2 billion surplus was made for Japan, but this estimate of a $28.1 billion increase in export levels over 1968 was based on a rate of 360 yen to the dollar. Among the above-mentioned changes in the world trade structure during the 1960's, it is possible for such a numerically large imbalance to arise, in view of the relative competitive strengths of Japan and the United States

with respect to each other as reflected in the trade flow. This led to the conclusion that a large-scale, structural adjustment brought by a fall in the value of the dollar, rather than more fine adjustments in the yen rate, was inevitable.[3]

Furthermore, if the new exchange rates of the Smithsonian agreement are assigned to each nation, international competitive strength and market shares change, and the new trade balance is estimated. On the basis of the Smithsonian agreement's new par value system, it is not possible to expect much in the way of an improvement in America's trade balance. Japan's exports can be reduced by a rise in the yen rate, but this does not so much rebound to an enlargement of American exports, as it is absorbed by a corresponding relative European improvement. Therefore, the simulation showed that, in an interrelated international community, a large-scale increase in the value of the yen, of perhaps more than 25 percent, is necessary to ameliorate the imbalance in Japan's balance of trade. As stated above, on top of a Smithsonian revaluation of 16.88 percent, the yen rate moved upward 10 percent under the float system.

It is clear, from the simple introduction above, that the international trade imbalance caused by changes in relative international competitive strength, has in reality brought about quite a large-scale adjustment in exchange rates.

II. Post-Oil-Shock Movements in the Yen Rate and Current Revenues

After the shift to a system of changing rate quotations of the seventies and in the period between two oil shocks, Japan's trade and the yen rate repeatedly made large fluctuations. For a 3-year period beginning in 1973, current revenues fell into a deficit, and yen quotations once again fell below the 300 yen level. In 1976, in response to America's economic recovery, Japan's exports recovered to a high rate of 20 percent, and this pace was sustained for 3 years, until 1978. As a result, current revenues returned to a surplus, reaching the high level of $10.9 billion in 1978. Meanwhile, the yen rate during this period recovered and began moving in the direction of a strong yen, overheating to a level of 176 yen to the dollar at the end of October 1978. In 1979, the situation once again reversed itself, with exports growing a mere 5.9 percent, while imports grew 39.9 percent, and with the addition of a second oil shock, Japan's current revenues fell into a deficit. The current revenue deficit reached as much as $10.7 billion in 1980. Reflecting this movement, the yen rate fell as far as the 260 yen level in April 1980, but began to recover in the direction of a strong yen during 1981. Current revenues for 1981 returned to a surplus due to the rapid drop in import growth (3.8 percent increase) but in 1982 the depressed condition of the world economy deepened further, and the rate of increase in exports itself showed a large drop for the first time since the early 1950's.

Meanwhile, as a result of a large drop in imports over the previous year, second only to the drop in 1975, current revenues continued to remain in the black. However, in addition to a long-term capital deficit of $15 billion, because of a short-term capital deficit through 1981 of $960 million,

consolidated revenues were $5 billion in the red. Though there was a pattern of either deficits or surpluses in both current revenues and overall revenues during the seventies, through 1981 and 1982, a pattern of surpluses in current revenues and deficits in overall revenues began to appear. In 1982, notwithstanding a surplus in current revenues, the yen rate moved in the direction of a weak yen.

III. Determination of the Yen Rate

It may be thought that changes in the yen rate and movements in trade exercise a mutual influence on each other. Below, the question of how the actual, primary factors of trade are reflected in movements in the yen rate will be analyzed, and the influence exercised on trade by changes in the yen rate will be examined.

Concerning the determination of the yen rate, the time frame used to examine it is extremely important. It is clear that arguments concerning the determination of the yen rate will differ, depending upon whether attention is focused on monthly movements in the yen rate, or upon average rate trends for each year. This paper will devote itself to attemtping to clarify the relationship between exchange rates and trade in terms of long-term, structural aspects. Including short-term movements, attempts to carry out econometric analyses of this relationship have been made by Shirakawa, Ueda, Fukao, Nagaoka, and Ishiyama, and extremely interesting results have been obtained.[4]

In general, differences in real interest rates in the United States and Japan, as well as accumulated current revenues, or risk premiums, can be cited as primary factors influencing determination of exchange rates. According to Ueda's report, by using monthly data, movements in the exchange rate can be meaningfully explained in terms of differences in real interest rates, while current revenue indexes are not significant. Conversely, however, movements in the exchange rate based on quarterly data are exactly explained by variations in current revenue. Fukao uses quarterly data for nearly the same period as Ueda, but posits a statistically significant function of exchange rates to real interest rates. Differences in both short- and long-term interest rates, for both Japan and West Germany, act, in nearly the same fashion, meaningfully to explain the determination of exchange rate levels. The risk premium variable, which comprises levels of accumulated current revenues for many countries, is significant for both Japan and West Germany.

On the basis of monthly data from March 1975 to April 1983, Nagaoka reported that long-term interest rate differences, as well as Japanese current revenues, are significant explanatory variables in the determination of exchange rate levels. The risk premium variable, which comprises levels of accumulated current revenues for many countries, is significant for both Japan and West Germany.

On the basis of monthly data from March 1975 to April 1983, Nagaoka reported that long-term interest rate differences, as well as Japanese current

revenues, are significant explanatory variables in the determination of the exchange rate.

These models, whose bases are formed by the respective measurements, differ. In particular, the content of the variables connected with current revenues differs. Differences in interest rates are an extremely effective explanatory variable over the short term, but problems appear to remain for explanation of longer term exchange rate trends. With regard to this, the importance of current revenues as a fundamental factor in the determination of the rate has become a settled conviction.

Current Revenue Indexes and Changes in the Exchange Rate

According to the 1983 Commerce white paper,[5] the accumulated difference in current revenues between Japan and the United States, and the yen rate, clearly displayed the same sort of tendency until 1979; however, after 1980, the movements of both became reciprocal. The white paper points out that the cause of the weak yen after 1981 was the large-scale outflow of long-term capital triggered by high American interest rates.

Now, let us statistically check the above secular rate changes and their connection with current revenues.[6] Theoretically, if complete subrogation between foreign and domestic assets is not recognized, the possibility of risk premium arises. As an indicator of the amount of foreign holdings, the size of accumulated current revenues is then included in the formula for defining the exchange rate. If the increment of change in the rate is now considered, the increment of change in accumulated current revenues, that is, the size of current revenues for the current period becomes an issue. Thus, the degree to which changes in the yen rate can be explained by current revenues for each period was measured. Here, in order to see the long-term trend of the yen rate, annual data from 1973 to 1982 were assembled, and the size of current revenues was normalized with respect to trade levels (exports plus imports) for the same period.

First, looking at Japan, the explanatory power of the current revenue index with respect to rate changes differs considerably depending upon whether data for 1982 is included or not (see Figure 1).

1973-81 (% change in the yen rate) = -0.0156 (current revenue index)+ 0.995
(-6.27) (74.9)

$\tilde{R}$= 0.919, F=39.2, DW= 1.42

1974-82 (% change in the yen rate)= -0.0145 (current revenue index)+ 1.013
(-2.98) (40.9)

$\tilde{R}$= 0.704, F= 8.86, DW= 1.21

This verifies that when current revenues are in the red, the yen rate changes in the direction of a weak yen; when they are in the black, it changes in the direction of a strong yen.

$$1974\text{-}82\ (\%\ \text{change in the DM rate}) = \underset{(-2.864)}{-0.250}\ (\text{current revenue index})_{-1} \quad \underset{(35.0)}{+1.027}$$

$\tilde{R} = 0.688$, F=8.21, DW= 1.72

In refereence to the Deutsche mark, the trend of current revenues in the preceding period is reflected in the rate of change in the rate for the current period. Correlations with current revenues for the current period are not significant. It is of deep interest that such a disparity should be visible between Japan and West Germany; why it should be reflected in the exchange rate a year late is something that must be investigated further in the future.

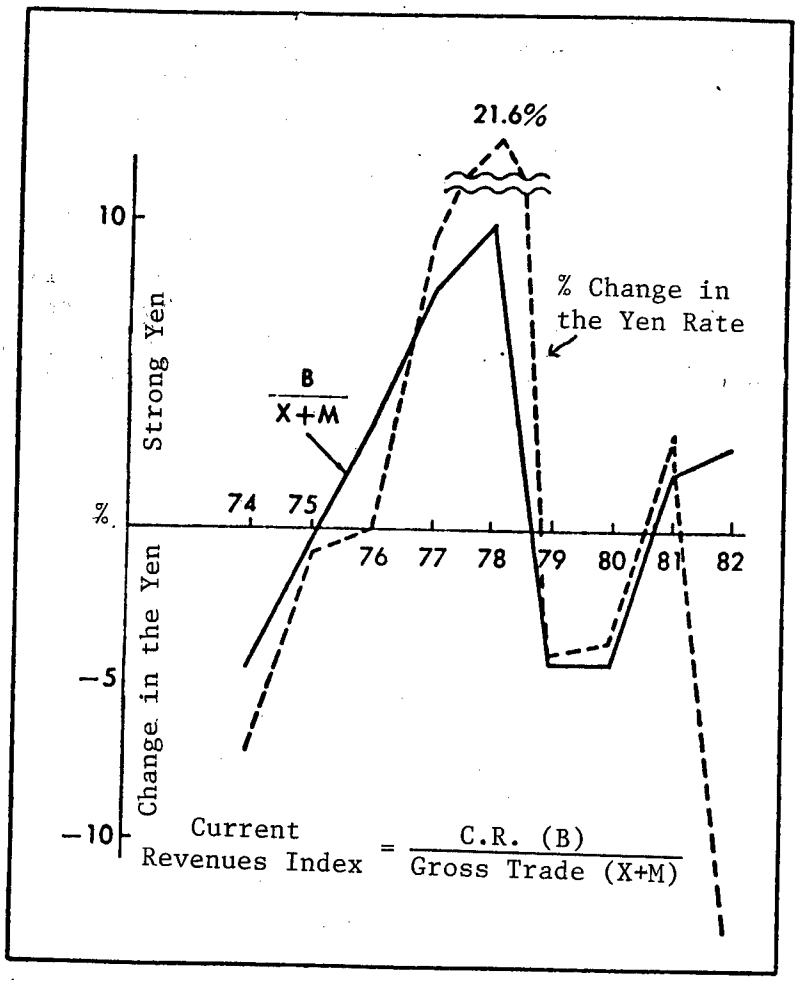

Figure 1. Changes in Current Revenue and the Yen Rate

On the premise that changes in the yen rate in the seventies, after the first oil shock, are consistently explained by the current revenue index, how should the weak yen of 1982 be judged? Looking at the difference between the actual values and the estimated values obtained from the above estimated formulas, the unusually high yen rate of 1978 overshot, by about 15 yen, the rate which the situation of considerable surplus in current revenues would explain (225 yen). The real and estimated values for 1981 are nearly the same. Now let us try to estimate the yen rate for 1982. If the estimated formula for the period up to 1981 is extrapolated to current revenue revenues for 1982, a yen rate of 210 yen is obtained. That is, a large-scale trend toward a strong yen, 39 yen higher than the actual rate, is obtained. In this connection, if all of the estimated formulas for the period up to 1982 are extrapolated to the current revenue index for 1982, a rate of 214 yen is obtained; a tilt in the direction of a strong yen, by 35 yen, is visible. On the basis of these results, changes in the rate up to 1981 can almost be explained by the size of the current revenue index, but looking at the trend for 1982, an inclination toward a strong yen, of as much as 25 to 40 yen, appears. The outflow of capital triggered by America's unusually high interest rates has led the yen rate, which should have moved to around 210 yen, in the direction of a greatly weakened yen.

Current revenues are a powerful explanatory variable for the determination of the rate, but differences in both countries' GNP growth rates can further be cited as a factor which indirectly causes changes in the rate through its influence on current revenues. Real economic growth rates are one indicator for judging both countries' fundamental economic strength, and are a variable which exerts a direct effect on movements in the exchange market, but it may be considered that in the main, it invites changes in trade which bring about changes in current revenues, which in turn give rise to fluctuations in the rate. So if, instead of using the current revenue index, we go one step further and use differences in rate of growth of GNP, the following relationships are obtained:

1975-82 (% change in the rate) = 0.036 (Rate of Difference in Japan-
(2.674)
U.S. Growth)+ 0.908
(22.96)

$\tilde{R}$= 0.684, F= 7.15, DW= 2.52

The values for differences in Japanese-U.S. growth rates were obtained by subtracting Japan's real GNP growth rate from that of America, but when differences in growth rate based solely on domestic demand are looked at, this explanation is less plausible. To the extent that Japan's economic growth rate exceeds that of America's, the trend toward a weak yen is confirmed. Japan's greater rate of growth not only invites the growth of imports, but hastens the reduction of export pressure and of current revenue surpluses. The reliability of the coefficients is somewhat less than when the current revenue index is used as a direct explanatory variable, but is significant to a 97.5 percent level.

When this estimated formula is used to find the estimated value of the rate for 1982, 227 yen is obtained, indicating that the actual rate is about 22 yen in the direction of a weak yen. In 1983, the possibility arises that with the rapid U.S. economic recovery, the differences in the rates of economic growth for both countries will turn in the direction of a minus. Subsequently, if it is assumed that the trend of the latter half of the seventies is structurally maintained, a movement in the direction of a considerably strong yen can be posited. If the actual low value of the yen further continues, this is an indication that the exchange market, which by nature ought to be moving in the direction of a strong yen, is being diverted from that direction by a very strong force. If this is explained by differences in economic growth rates, rather than current revenue indexes, then, even if the yen rate level is hypothesized as being lower (214 yen and 227 yen), if one judges from the course of America's rapid economic recovery, and the rapidly mounting Japanese current revenue surpluses that have accompanied it, then a considerable force toward a shift to a strong yen is gathering in the market. For this reason, if the short-term factor of America's high interest rates weakens its grip, then a sharp turn back toward a strong yen can be anticipated. For the short term, even if further movements in interest rates are followed by movements in the exchange rate, the trend which supports such movements will probably become structurally no longer capable of supporting the present low yen value.

It is not clear when the time will come when those who hold dollar assets will begin to pay more attention to long-term differences in economic growth rates of the two countries, as well as movements in current revenue differences they give rise to, but it can be considered that to the extent that that time is put off, imbalances in the world trade structure will accumulate, and a larger scale exchange adjustment will become inevitable. Thus, let us next examine the mechanism of distorted exchange rates giving rise to imbalances in the structure of trade.

IV. The Float of the Yen Rate and Movements in Trade

Let us perform a substantiating analysis of how Japan's trade has fluctuated under the float system, focusing on the relationship with fluctuations in the exchange rate. In order to elucidate the movements in Japan's trade, we will follow the trade model already touched upon in Section I, separately verifying export share and import demand. However, this time we will not go into trade by product, nor will quantitative analysis on the composition of the new flow of world trade be carried out. The task here is to aim at a combined explanation of the way in which exports and imports are determined, and of fluctuations in the rate.

The Determination of Export Competitive Strength

The trade model first explains changes in export shares in terms of each country's competitive strength as well as changes in the exchange rate. In order to view Japan's exports, we turn to changes in the export share relative to America's exports, and find the correlating function of the changes in the countries' relative competitive strength.

$$\frac{\text{Japan's Exports}}{\text{America's Exports}} = f\left(\frac{\text{Japan's Competitive Strength}}{\text{America's Competitive Strength}}\right)$$

For competitive strength, a dollar-based comparison of both countries' export totals was used, but breaking Japan's dollar-based export totals down further, into yen-based totals and the exchange rate, the influence exerted on Japanese-American export shares by the change in each country's national-currency-based export totals (which may be thought to be linked to comparative domestic production costs), and on the exchange rate, will be investigated. With respect to the estimate, using instances of correlation with each variable's logarithmic value (coefficients are elasticity of intersecting values), as well as the difference between the index of change in Japan's share of exports and that of America as a covering explanation, cases of the difference between the index of change in Japan's share of exports and that of America's as an explanatory variable are reviewed.

Looking at Table 1 [following page], the change in Japan's and America's market shares is well explained by the movements in the relative export levels of both countries. Furthermore, even if this is broken down into competitive strength of export levels based on that country's currency, and the exchange rate, these movements are exerting influence on the changes in respective market shares. With regard to West Germany, in exactly the same fashion, the relative movement in the export shares of West Germany and America are well explained by the factors of export totals and the exchange rate. When the Japanese-West German and the Japanese-American intersecting price elasticity are compared, the Japanese-American is far larger. The relative drop in Japan's export cost is more sensitively connected with the enlargement of Japan's relative export share. Japan's export products tend toward standardized, mass-produced articles, and the aspect of price competitiveness is all the more important.[8] The Japanese efforts to lower costs in the seventies continued the competition between Japan and the United States with more price-sensitive products, against the background of a rapid catch-up with American exports.

Elsewhere, with regard to the influence exerted by changes in the exchange rate, findings bore out the expectation that a cheap yen would lead to an enlargement of Japan's share, but even with the same 1 percent price change, in contrast to the influence of a large drop in Japan's export cost, because West Germany's elasticity of drop in export cost is small, the change in the Deutsche mark rate rebounds more sensitively to changes in export share. The statistical reliability of elasticity with regard to the exchange rate is higher for West Germany than for Japan, and in Japan's case, is controlled more strongly by the influence of the export cost.

Also with the estimated formula used to find the rate of change, the gap betweesss between Japan and the United States, with regard to export share, can be explained by the difference in export prices. Especially for West Germany, in contrast to the relative strength of the correlation with the change in the exchange rate, in Japan's case, the reliability of the coefficients is indeed rather low.

Table 1. Determining Formula for Export Share, and Import Function

(I)	Export Share Formula (#)		$\frac{P_X}{P_{Xus}}$ ($)	$\frac{P_X}{P_{Xus}}$ (Yen)	RATE		$\bar{R}$	F	DW
	X_J/X_{US}	(1)	−0.847 (3.144)				0.668	9.88	1.33
		(2)		−0.868 (3.588)	0.583 (2.041)		0.744	7.83	1.82
	X_G/X_{US}	(3)	−0.337 (2.930)				0.639	8.59	1.12
		(4)		−0.258 (2.667)	0.443 (4.570)		0.804	11.07	1.67
	Rate of Change		$\dot{P}_X-\dot{P}_{Xus}$ ($)	$\dot{P}_X-\dot{P}_{Xus}$ (Yen-$)	(RATE)	$\dot{Y}-\dot{Y}_{US}$	$\bar{R}$	F	DW
	X_J-X_{US}	(5)	−0.408 (1.968)				0.472	3.87	2.43
		(6)		0.141 (0.400)	0.507 (1.622)		0.271	1.40	2.14
		(7)			0.631 (2.338)	−1.666 (1.907)	0.592	3.69	2.25
	X_G-X_{US}	(8)	−0.473 (2.972)						
		(9)			0.508 (3.215)		0.695	10.34	2.24
(II)	Import Function (#)		$\frac{P_m}{P_D}$(Yen)	$\frac{P_m}{P_D}$($)	RATE	Y	$\bar{R}$	F	DW
	M_J	(1)	−0.304 (2.411)			0.659 (4.070)	0.727	8.30	2.15
		(2)		−0.013 (0.116)	−0.468 (2.537)		0.720	5.85	2.13
	M_{US}	(3)	−0.390 (2.097)			1.792 (7.629)	0.946	39.17	1.71
	M_G	(4)	−0.275 (2.000)			1.856 (18.93)	0.992	267.1	1.57
	Rate of Change				(RATE)	$\dot{Y}$	$\bar{R}$	F	DW
	M_J	(5)			−0.104 (0.512)	2.685 (4.519)	0.860	15.23	2.41
	M_{US}	(6)				2.792 (8.311)	0.934	69.07	2.97
	M_G	(7)			0.011 (0.113)	1.679 (4.441)	0.847	13.74	1.98

Note: (1) Period of Estimate: 1971-82. Growth Rate: 1972-82. Others estimated logarithmically.
(2) Subscripts: J = Japan; U.S. = America; G = West Germany; No subscript = estimated country value.
(3) Key: Px = Export price; Pm = Import price; Pd = Wholesale price; X = Export volume; M = Import volume; RATE = Yen, DM rate; Y = Domestic Demand; · indicates growth rate.
(4) Numbers in parentheses are [t] value.

Furthermore, with regard to how the income factor of both countries influences the relative change in export share, if the change in the yen rate is made positive and added anew, the tendency appears that if Japan's growth rate becomes relatively high, America's export share becomes larger.

In Japan's case, the strength of the influence exerted by changes in the yen rate on the export share was not necessarily highly reliable statistically. This is because, at the same time that the mechanism of the rate's influence on exports is working, there is also, working in other areas, a mechanism of an increase in export share leading to increase in exports, leading to surplus in current revenues, leading to an increase in the yen rate.

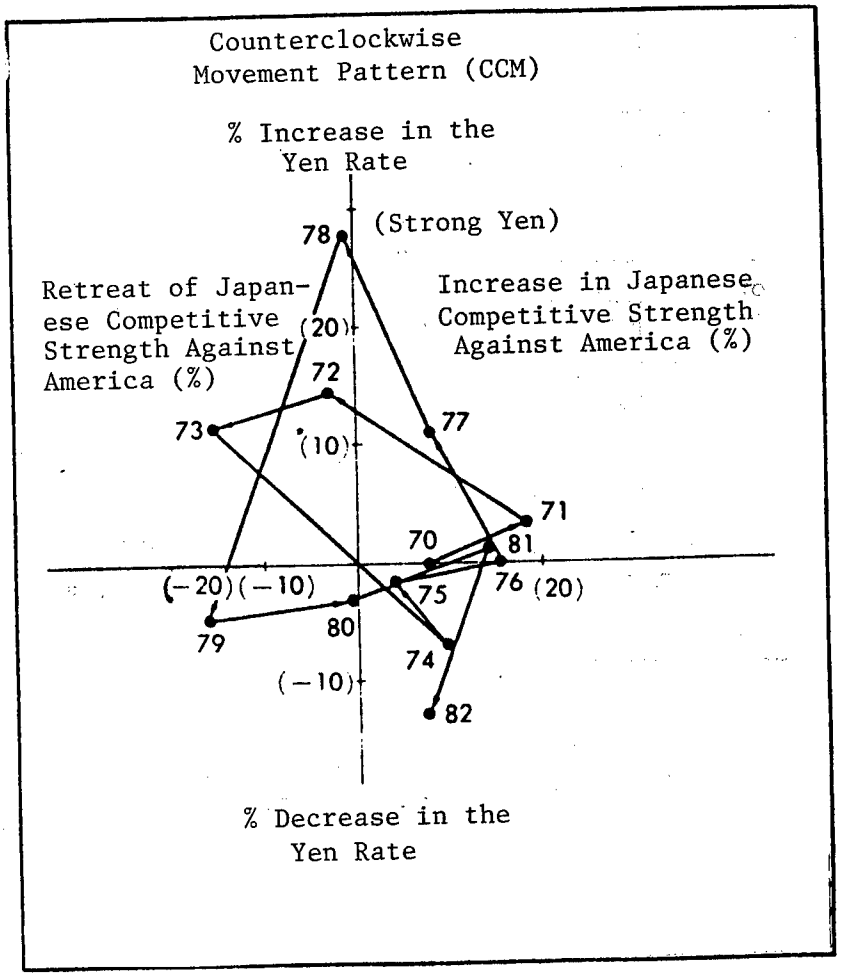

Figure 2. Rate of Change in the Yen Rate and Changes in Japan-U.S. Export Shares, 1970-82

Figure 2 is a plot of percentage change in the yen rate against the difference in changes for Japanese-American export shares in the 1970's.[9] Beginning in the 1st quadrant in the seventies, the relationship between them describes two leftward moving cycles. That is to say, the relative enlargement in Japan's share (to the right) triggers a movement toward a strong yen (upwards) in the next period; the movement toward a drop in relative share (to the left) brought about by the rise in the yen rate continues, and as a result, gives rise to a movement toward a weak yen. A weak yen strengthens (to the right) the competitive strength of Japan's exports. In this way, between the rate of change in the yen rate and the difference in the rates of change of Japan and America's export shares, a counterclockwise movement can be verified. From looking at this cycle, the disturbance of trade in 1974-75 by the confusion following the oil shock, as well as the rise of 1978's unusually high yen rate, can be inferred, and furthermore, it is clear that the cycle, which should be moving in the direction of a second strengthening of Japan's exports, leading to a strong yen, has been diverted in the direction of an unusually low yen rate. For a return to the true upward cycle, there must be a relative enlargement of export share in 1983, along with a simultaneous beginning of movement toward a considerable rise in the value of the yen. If the yen rate is viewed as fundamental between Japan and the United States, these facts also make it clear that the present yen rate is unusually low.

Determination of Imports

Movements in imports in the seventies can be explained by income factors as well as price factors. The price elasticity of imports is not all that high, being less than 0.4 for Japan, America and West Germany. In addition, if relative price (yen-denominated import prices divided by yen-denominated domestic wholesale prices) are broken down into the exchange rate and (dollar-denominated import prices divided by yen-denominated domestic wholesale prices), for Japan, the exchange rate reaches a level of significance for the estimated formula without including income levels. For West Germany, changes in the exchange rate function more strongly on the export side than on the import side. Compared with income elasticity, in contrast to 1.8 for America and West Germany, Japan's is a mere 0.7, less than half. The income variable includes domestic demand, and in Japan's case, it becomes clear that the increase in domestic demand in the seventies was not necessarily followed by a sufficient enlargement in imports.

Also as to imports, taking the index of change for each variable, looking at the relationship between prices as well as the index of change in the yen rate with the index of change in income, fluctuations in the exchange rate are also not a significant variable for Japan. Thus, the influence exerted on imports by the exchange rate may not be as strong as the income factor.

However, there is a high probability that fluctuations in the exchange rate, especially the effect the strong yen has on promoting Japanese imports, will become stronger from now on. Priority of manufactured goods for export is rising, and as for those consumer goods among them, it may be thought that the drop in price of imported goods due to a strong yen will stimulate consumer purchasing desire. From Quantification II of our consumer survey,

the following interesting results were obtained. From a sample of approximately 1,000 people, taking the correlation between purchase frequency of imported goods from advanced countries, and price assessment as well as quality assessment, (Quantification II), the strength of the relationship with a drop in purchase frequency due to high price, or an increase in purchase frequency due to high quality, in terms of weighted coefficients of correlation, the following values were obtained: for foodstuffs, price assessment was 0.131; quality assessment, 0.176; for personal items and cosmetics, 0.187 and 0.243; stationary and toys, 0.360 and 0.279; clothing, 0.089 and 0.181; electrical goods, 0.171 and 0.071. Of the two, the level of quality assessment is more closely connected with consumer purchase of imported goods, but even so, the relationship between the view that imported goods are expensive, and the fact that purchases do not increase, was statistically verified. Furthermore, with regard to imported foodstuffs, which are already being purchased in considerable quantity at supermarkets and the like, to the extent that there are people possessing information about imported goods, the view that imported goods are relatively expensive will decrease (correlation between amount of information and appraisal: 0.120), and as a result, one can see a tendency for purchases of imported goods to increase that much more. Thus, if information concerning imported manufactured goods grows from now on, more attention will surely give rise to an environment in which purchases will be more strongly promoted. Of course, a change for the better in which the drop in prices due to a strong yen is not absorbed and vitiated by a long circulation process, is necessary.

Movements in imports are fundamentally dominated, not so much by adjustments in the rate during the seventies, as by movements in domestic demand. As we have already seen, Japan's domestic demand elasticity for imports was considerably low, compared with that of West Germany and America. If movements in domestic demand and movements in imports are more closely examined (Figure 3), a unique pattern between the two can be verified. That is, if the rate of growth of domestic demand suddenly rises, the rate of growth of imports follows, showing high growth (1971-72, 1976, 1978-79); if growth of domestic demand is low, imports can only increase at that rate or lower. If the rate of enlargement of domestic demand rises, imports are pulled along in order to adjust inventories, and follows at a higher rate. If this sort of pattern repeats itself from now on, then employing the phenomenon of import follow-along for the short term and the speedup in the enlargement of domestic demand will play a great role in reducing trade imbalances.

Import Movements and Export Movements (Determination of Trade Revenue)

Finally, let us examine the relative connection between exports and imports, and results concerning the trade revenue index (Table 2). Taking the ratio of exports to imports, and correlating with the ratio of export price to import price, as well as with the exchange rate, then, for Japan in 1971-82, and for America and West Germany in 1973-82, a significant minus value is verified between the quantified export/import ratio and the export/import price ratio. Furthermore, if this is related to fluctuations in the exchange rate, it is significant for West Germany, but the reliability of the coefficients for Japan is low. However, that a drop in the rate of the yen (the weak yen) or

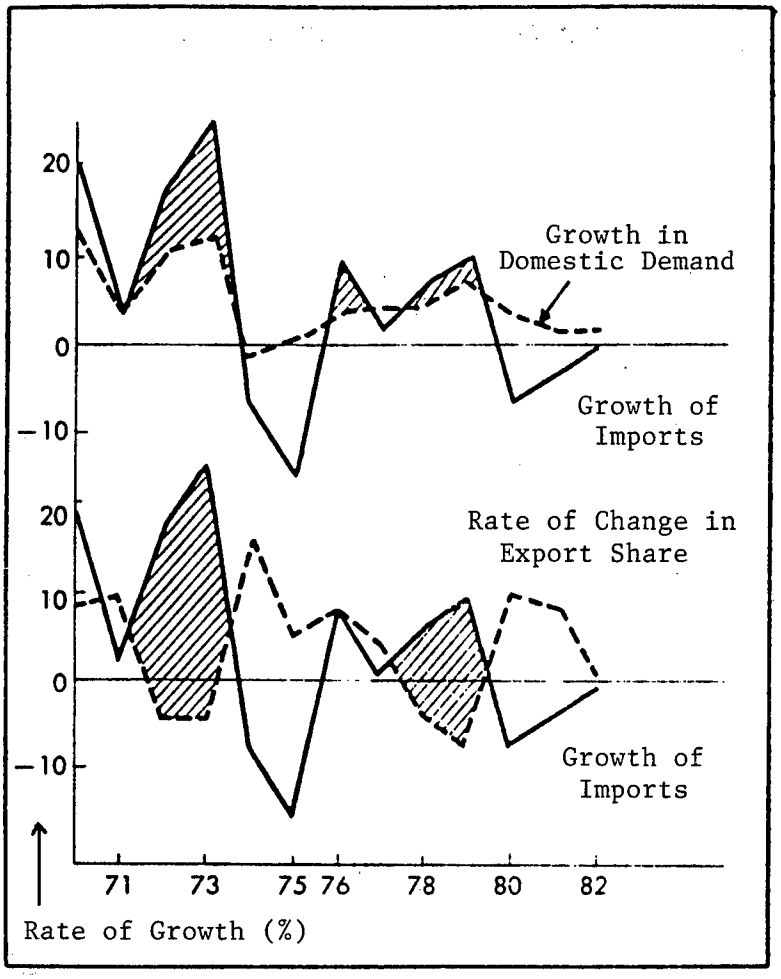

Figure 3. Growth of Domestic Demand, Exports, and Imports

Table 2. Determination of Export/Import Ratio

	(#)	$\frac{Px}{Pm}$ ($)	$\frac{Px}{Pm}$ (Yen) ($)	RATE	$\bar{R}$	F	DW
M_J/M_{US}	(1)	−0.987 (5.136)			0.859	26.37	1.39
	(2)		−0.941 (4.282)	0.659 (1.577)	0.847	12.43	1.20
X_G/M_{US} (1973–82)	(3)	−0.729 (3.230)			0.679	10.43	1.27
X_J/M_{US}	(4)			0.241 (2.000)	0.500	4.00	1.98
(1973–82)	(5)	−0.561 (2.341)			0.538	5.48	1.05
Rate of Change		$\dot{P}x-\dot{P}m$		$(\dot{RATE})$			

$\dot{X}_J - \dot{M}_{US}$	(6)	−0.440 (1.794)		0.426	3.22	2.35
	(7)		0.577 (1.318)	0.262	1.74	2.56
$\dot{X}_G - \dot{M}_{US}$	(8)	−0.929 (3.164)		0.688	10.01	1.25

Note: (1) Those not marked (1973-82) are for estimated period 1971-82.
(2) For notation, refer to Table 1.

of the mark accelerates the growth of exports more than imports is a correct signal.

Figure 3 showed the connection between movements in exports and imports. From the rate of change in Japan's market share and the rate of growth in Japan's export demand, one can see that, in contrast to instances when domestic demand increases, import growth rises, and, on the contrary, the share in the world market retreats, conversely, in instances when the growth in domestic demand dulls and import growth becomes small, the export share increases rapidly. Japan's exports are pushed out by the inclination of demand in the domestic market. When domestic demand does not grow, the pressure to advance into foreign markets becomes stronger, and when domestic demand grows, this pressure becomes weaker. As a result, trade income fluctuates more in response to the process of fluctuation in business conditions. Furthermore, through fluctuations in current revenues, greater fluctuations in the yen rate are brought about.

In Conclusion

This paper has examined the relationship between long-term trade and yen rates in the 1970's. Changes in trade bring about fluctuations in the yen rate through the current revenue index, and changes in the yen rate exert a large influence on competitive strength, especially on the export side. Movements in trade are greatly influenced not only by price competition but also by income; with regard to imports, the effect a rise in the growth of domestic demand has in pulling up imports, or, with regard to exports, the effect of a push into foreign markets caused by a retreat in domestic demand. As a result, when there is a lag in the international economic circulation process, large changes in current revenues are invited, and large-scale fluctuations in the exchange rates are brought about.

Fundamentally, it was shown that based on the float system, the relationship between long-term trade and the yen rate is closely connected, but this pattern of linkage breaks down after 1982. A weak yen continues in the midst of a current revenue surplus, exerting mounting pressure on American exports, and causing accumulations in the imbalance of trade. Month-by-month short-term rate fluctuations are indeed linked with movements in U.S. interest rates, but the essence of the problem is how the imbalance in the structure of trade originating with the float system is to be adjusted. If the

worsening of trade frictions and the world trend toward protectionism is to be ameliorated by even a small amount, greater attention must be paid to the adjusting action of the exchange rate. Simply assigning blame for the current international economic difficulties to high American interest rates, and being mesmerized by interest rate fluctuations and the month-to-month movements in the yen rate, is it not the case that in the very near future, the danger will emerge that the fact that a large-scale adjustment is becoming inevitable, will again be overlooked?

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ECONOMIC

JOINT INTERVENTION ON STABILIZATION OF YEN

Tokyo FAINANSU in Japanese Oct 83 pp 44-50

[Article by Norimichi Ikawa: "The Significance of Joint Intervention and the Stabilization of Yen Exchange Rate"]

[Text] On the afternoon of Monday, 1 August, (about 1:30 pm; Tuesday, 2 August, Japan time), the yen and the Deutsche mark depreciated considerably at the New York foreign exchange market. Accordingly, the Federal Reserve Bank of New York approached Japanese and FRG monetary authorities to ask if they would come together and intervene. The Ministry of Finance, which received the message through the Bank of Japan, expressed its willingness to accept the proposal of the Federal Reserve Bank [FRB] of New York. On the evening of the same day (1 August) the U.S. Treasury Department, in concert with the monetary authorities of Japan and the FRG launched a joint intervention. Moreover, it announced that the volume involved was not just nominal but instead was a "goodly amount."

At the New York foreign exchange market, on 2 August, the yen's value at closing time was 244.20 yen; however, at the Tokyo market, which opened for the first time since the U.S. Treasury Department made the announcement on 2 August, the exchange rate was 2.00 yen stronger at 242.20 yen. From then on intervention in the market was kept up and as a result, the dollar's soaring value was halted.

The current joint intervention was the first serious one since the Reagan administration took office. It was undertaken along the lines of the agreements reached at the Seven-Nation Finance Ministers' Conference, held at the end of April (this year) and at the summit meeting held at the end of May. This joint intervention attracted a great deal of interest both here and abroad.

This paper focuses on the topics surrounding the joint intervention, and at the same time, attempts to touch on peripheral questions.

What Is Joint Intervention?

Although there is no clear definition, joint intervention generally means a coordinated action in which concerned monetary authorities are in close

conjunction with one another, and each intervenes in the same direction, based on its own account. For example, when our monetary authorities, in order to prevent the yen from slumping, step in and buy yen and sell dollars, the U.S. or another country's monetary authorities also intervene to help strengthen the yen. (In the case of the United States, it buys yen in exchange for the dollar, and in the case of Switzerland, it buys yen in exchange for the Swiss franc.) Through the coordinated actions of these multilateral monetary authorities, an effort is made to bring about the stabilization of the exchange rates. An action of this nature is joint intervention.

There are two types of joint intervention. In a narrower sense it means to share the burden of a particular monetary authority's intervention. In a broader sense, it means each authority intervenes in the same direction simultaneously at its own home market and with its own account. (At times, under the commission of our monetary authority, the Federal Reserve Bank of New York undertakes the yen-dollar exchange equalization operation at the New York market. The cost of this operation is strictly assumed by our monetary authority's account. Therefore, this is different from joint intervention.)

Was Joint Intervention Effective?

Even after the current joint intervention went into effect, on 12 August the prime rate of the leading banks of the United States rose from 10.5 percent to 11 percent. The rising trend of the dollar continued in anticipation of a rise in the interest rate of the U.S. dollar. At the Tokyo foreign exchange market, on 12 August, the exchange rate of yen reached 247.35 yen, the lowest level this year. But, after the middle of August, the expansion of the money supply in the United States began to slow down, and a number of U.S. economic indicators began to reflect some stability. Accordingly, the dollar has weakened, and the yen has slowly started to recover. (The closing volume of the Tokyo foreign exchange market on 30 September was 236.10 yen.) Thus, the soaring dollar was not stopped upon the launching of the joint intervention; however, the quarterly report of the Federal Reserve Bank of New York, issued in the first part of September, commented on the Japan-U.S.-FRG joint intervention: "The intervention not only had a calming effect on the foreign exchange markets, but also was instrumental in restoring order to the market at that juncture."

The dollar defense policy of November 1978 and the yen policy of March 1980 can be cited as examples of large-scale intervention with the inclusion of yen. In these episodes the joint intervention proved to be instrumental in bringing about the stability of the exchange rate.

Dollar Defense Policy for 1978

In the dollar defense policy of November 1978, a multilateral joint intervention by Japan, the United States, the FRG, and Switzerland was launched to deal with the overall weakening trend of the dollar, the basic currency. Reflecting the overall slump of the dollar in the second half of

1978, the exchange rate of yen has begun to show signs of overshooting, along with the Swiss franc. The exchange rate of the yen has become strong since the beginning of 1977, following a slump after the first oil shock. On 1 November 1978, the United States announced its dollar defense policy. The mainstays of this policy were the withdrawal of the IMF tranche; the sale of the SDR (Special Drawing Rights); a massive intervention in the foreign exchange market, whose sources of funds come from the expansion of the swap network with the central bank of Japan, the FRG and Switzerland; and an increase in the official rate by 1 percent (from 8.5 percent to 9.5 percent). In response to such actions, on the same day, our finance minister and the governor of the Bank of Japan issued a joint communique, whereby they expressed their firm belief that a strong joint intervention would greatly contribute to the stability of the international monetary situation. As a result of the joint intervention by the United States, the FRG, and Switzerland, on 20 November, the exchange rate of the yen at the Tokyo market slipped sharply back at once from 178.80 yen of the previous day to as much as 186.00 yen. At the end of November, it was 197.80 yen.

Yen Policy for 1980

According to the yen policy of March 1980, the joint intervention was launched primarily by Japan and the United States. Beginning in 1979, the exchange rate of the yen began to show a progressively weak trend, triggered by the deterioration of the basic conditions of our country's current account balance as a result of the sharp increase in the crude oil price. In 1980, the yen was further weakened as a result of the overall strength of the dollar in relation to other principal currencies. The dollar's strength was due to a rapid rise in the interest rate of the dollar since February. At the end of February, the yen fell as low as 249.80 yen and showed a strong sign of overshooting.

As for the yen policy which was unveiled on 2 March in coordination with our currency authority's active intervention, Japan and the United States announced simultaneously that U.S. currency authorities would intervene in support of the yen price at the New York market on their own account. Moreover, the Japan-U.S. joint intervention was to be undertaken in close coordination with the currency authorities of the FRG and Switzerland. Accordingly, the swap agreements of 2.5 billion marks between our country and the FRG and 200 billion yen with Switzerland were concluded. At the same time, the capital inflow promotion policy was put into effect. It consists of four items which include the liberalization of the free yen interest rates of the foreign central banks, and the recognition of middle and long-term impact loans for the Japanese banks. Also, in the financial field, on 19 March, the official rate was pushed up to 9 percent, the highest level.

On 2 March, during the 1st month since the announcement of the yen policy, the closing quotation of the yen exchange rate of the Tokyo foreign exchange market was held to a narrow range of 2.65 yen, from 247.15 yen to 249.80 yen. During March, the rates of German mark and Swiss franc against the dollar fell 8.5 percent and 7.5 percent, respectively. But, it was noted that,

the rate of yen against the dollar was held to a drop of 0.7 percent. Then the rate of the yen sprang back quickly after the middle of April, following the temporary fall to 260 yen. But, as a stop-gap measure, coupled with other policy measures, the positive intervention undertaken with the cooperation of the United States is believed to have contributed a great deal to the stability of the yen rate. The March yen policy was unveiled at a good time, when our basic financial conditions began to show signs of improvement, as shown in the current account balance. As a stop-gap measure, it seemed to have helped improve the effect of intervention.

Is Intervention Effective?

Conference Report

So, is intervention usually effective? There are varied views on the effects of intervention. The Conference Report of the Operation Department on the Rate Intervention, which was issued in May of this year by the experts of the Finance Ministry and the central banks of the participating nations of the summit conference (hereafter, this is referred to as the Conference Report of the Operation Department), contains the details of their discussions at the meeting. Since the contents of the report have already been introduced on various occasions (see FAINANSU, June of this year) this paper avoids the details. The following report is the summary of the effects of the intervention:

(1) Intervention is an effective means to achieve a specific exchange rate, especially when it aims to influence the fluctuations of a short-term exchange rate.

(2) The financial effects of intervention are greater in the case of non-sterilized intervention than in the case of sterilized intervention. Nonsterilized intervention is intervention which does not offset the financial effects as a result of the buying and selling of the home currency at the foreign exchange market, by means of other financial measures.)

(3) Sterilized intervention does not generally have sustained effects, but intervention which is undertaken in response to the changes of the domestic policies can have a more sustained impact.

(4) Pursuing an exchange rate which is incompatible with the basic financial conditions, solely by means of intervention, does much more harm than good.

Process of Intervention Effects

It is generally believed that intervention influences the foreign exchange market through the following two processes. First, it has a direct effect on the supply and demand of foreign currency. For instance, when the currency authorities launch an intervention in the sale of foreign currency, the foreign currency held by the people involved in the market increases proportionately. As a result, a proportionate excess supply of the foreign currency and a proportionate excess demand for the home currency develops.

Consequently, the rate of the home currency rises, or the falling rate slows down proportionately. The measures by which authorities can directly influence the supply and demand of the foreign exchange include the following interventions: Intervention against the estrangement of the offerers and receivers at the foreign exchange market; intervention against the short-term fluctuations of the exchange rate; or the intervention to offset trading involving huge amounts, or to level off the seasonal fluctuations of the foreign exchange transactions. As has been pointed out in the Conference Report of the Operation Department, the interventions with a short-term objective are perhaps generally effective; however, with such an intervention, the general market participants do not realize its launching by the authorities. In consequence, by virtue of intervention it is highly probable that the curved lines (graph) of the supply and demand of foreign currencies will not shift in the direction of weakening the effects of intervention. But, for instance, even if the intervention in dollar sales at the Tokyo market should ever be ended without any initial effect, as a result of absorption either by the additional forward dollar buying by the importers in the country, or by dollar buying orders from abroad to create a speculative dollar buying position in defiance of the intervention, it might strengthen the yen effects at a later date. This could occur because of the improved supply and demand for foreign currency with the advance from import settlement, or because of the time lag created by the unwinding of the dollar buying position of the overseas speculators.

Secondly, the intervention sometimes has some psychological effects. It changes future outlook of those involved in the foreign exchange market. In addition to the effects on the supply and demand of foreign currency, the intervention functions to shift the supply and demand of the foreign currency toward the stabilization of the exchange rate. Especially when the expectations and the perceptions for the foreign exchange markets are leaning too much to one side in disregard of the basic market principles, interventions restores a calmness to the market and calls upon those market participants to pay attention to the basic principles of the market. In such cases, the foreign exchange market participants often discover the currency authorities' intervention by seeing the change in the trend of the exchange rate, or in the orders which connect the exchange bank and the brokers. Ordinarily, the currency authorities themselves never make their intervention known. (Note: In the FRG when the foreign exchange trading firms were fixing rates, the amount of intervention by the Bundesbank became known; however, the amount of intervention at the open market was not made known to those involved in the market.)

Announcement Effects

Currency authorities involved in each of these classes--the dollar defense policy of November 1978, the yen policy of March 1980, and the previous Japan-U.S.-FRG joint intervention--made the announcement of the intervention. It was intended to counter the excess of market psychology, and was because they came to the conclusion that making the joint intervention known would be more effective. The Conference Report of the Operation Department also pointed out that "on the basis of previous experiences it was agreed that the joint intervention could possibly have a great impact on market psychology."

Is Nonintervention Justified?

U.S. Intervention Posture

But until recently, since March 1980, a serious intervention has never been put into effect. This was due to the change of the U.S. stance toward the intervention since the spring of 1981.

In early April of 1981, 3 months after the Reagan administration took office, the U.S. Treasury Department announced its policy regarding the future operation of the exchange policy. It would stress an approach based on the fundamentals of the market and it would intervene only in exceptional cases. According to the rule in article 4 of the IMF agreement, for the promotion of a stable exchange market, each country needs to take appropriate measures to deal with the market's disorderly condition. But it failed to define clearly what sort of conditions constitute a "disorderly" condition. The traditional U.S. position was that the "disorderly condition of the market" was limited to such cases as the disorder brought about in the wake of the shooting of President Reagan in March 1981. Thus, the United States interpreted the rule very strictly. (See note)

(Note: It, however, does not suggest that the United States has never intervened since that time. As far as the interventions announced by the United States go, there was one at the time of the confusion of the foreign exchange market on 14 June, following the EMS adjustment of 12 June 1982. There was also one at the time of rapid rise in the dollar, between 4 August and 6 August.)

Grounds for Nonintervention

The position that the United States has maintained perhaps reflects the emphasis it has placed on the money supply, rather than on the money rates in accordance with the operation guidelines of the U.S. monetary policy since October 1978. According to the monetarists model, the supply and demand of the home currency-denominated assets and the foreign-denominated assets must be taken hold of not only by the foreign exchange market in a narrower sense, but also by the entire monetary market. Accordingly, even if the currency authorities intervene in the sale of foreign currencies in the foreign exchange market, the money supply will remain the same if the home currency is again supplied to the market (sterilized intervention) by starting buying operations to counterbalance the portion of the home currency purchased at the market. Ultimately, the balance ratio of the home currency-denominated assets and the foreign currency-denominated assets would not be changed. Intervention on the exchange rate would be ineffective, except for a short-term impact. On the other hand, if the intervention is effective, it is because of a change in the money supply (nonsterilized intervention), not because of the effectiveness of the intervention itself.

Also, as to the psychological impact of the intervention on the foreign exchange market, the position of noninterventionists is generally skeptical. That is to say, "the intervention by the currency authorities cannot be

justified unless they have a better understanding and a clearer perspective of the exchange market participants. Even if the currency authorities should ever believe that the exchange rate has become excessive, the real situation might be that the country concerned is really in that economic condition or it might be a part of the necessary structural adjustment process. In such cases, the intervention would not only be unable to produce a sustained effect, but instead, could also be rather harmful. Also, in such a case, "the intervention by the authorities arouses speculations about the intervention, and attracts speculative ventures. At the same time, the intervention hampers normal speculative activities that help stabilize the exchange rate and injures normal market function."

As for the effectiveness of the intervention, in addition to the problems mentioned earlier, the position of nonintervention places an excessive trust "in the efficiency of the market" in the belief that the market possesses a sufficient amount of information on rate formulation, and tries to judge overshooting very strictly. (In the light of basic principle, the exchange rate is very far removed from a level which is considered proper.) Herein lies the special trait of the noninterventionist.

Necessity of Intervention

If a strong argument for the position of noninterventionism is advanced, it would be said that the only measure necessary for the stabilization of the exchange rate is stabilizing the money supply and maintaining the sound basic principles of the market. Nevertheless, trying to maintain the sound basics of the market does not necessarily guarantee a stable exchange rate. As far as the trend of the yen is concerned, until 1980, it had shown a strong relationship between the differences in purchasing power and the current account balance, but since 1981, the yen exchange rate has shown that it has been estranged from the market basics for a long period of time. Also, the management of the money supply might have caused an instability in the fluctuations of the exchange rate. Especially in the case of the United States, since 1981, whenever the money supply which was announced every Friday, exceeded the target of the FRB and became disaffected (M1... cash plus current deposits), the anxiety about the tight money policy of the federal bank increased, and the interest rate of the U.S. dollar rose. Such conditions brought about the U.S. dollar's overall rise and displayed erratic fluctuations vis-a-vis the principal currencies. There was an episode in Switzerland, during the Swiss franc's rise until September 1978. There was a widespread view that the Swiss central bank restricted its intervention in consideration of the target rate of the money supply in the market. In consequence, the Swiss franc became the object of buying speculation.

Using intervention to achieve the short-term goals is generally believed to have been good. Yet, there are other views on the sustained effects of intervention. However, it is widely recognized that in the foreign exchange market, occasionally overshooting occurs as a result of the market participants' failure in giving due consideration to the important factors of the market fundamentals, or as a result of an overly one-sided market

perception. It is well known that the adjustment process of the intermediate and long-term exchange rate at times fails to move smoothly, and often there is danger that the exchange rate might go too far. Massive interventions have often been effective as stop-gap measures until the market condition has improved. This was in cases where the market participants failed to make full appraisal of the market basics, or when the reaction of the foreign exchange market to the change of the fundamentals of the market was slow.

When it is floating, the rate formation at the foreign exchange market is basically decided by the supply and demand of the market. It is extremely difficult to maintain an exchange rate on a certain specific level for a long period of time (see note), or to steer the exchange rate in a specific direction.

(Note: The fact that the currency authorities were unable to maintain a specific rate for a considerable period was seen in the United Kingdom in 1977. By resisting the pressure to raise the value of the pound for about 6 months, the United Kingdom held down the effective rate of the pound at a specific level to maintain its export competitiveness. However, this was only possible by lowering the interest rate several times and by the large-scale investments which were made in the same direction. Eventually, this policy of holding down was abandoned because it came into conflict with the goal of the domestic control of the money supply.

Yen Exchange Rate

Twenty-Four-Hour System

Today, foreign exchange trading has spread worldwide, and it continues from Monday morning through Friday evening. The first foreign exchange market to open the first of the week is the Tokyo market which opens at 9:00 o'clock every Monday. About an hour later, the foreign exchange trading begins at the Hong Kong and Singapore markets. Also, an active trading with Tokyo takes place. In this way the large Asian market takes shape.

The Tokyo foreign exchange market is unique among the world markets. The trading hours of the interbank markets are set, and the afternoon market is closed at 3:30 in the afternoon. Toward closing time, around 3 o'clock, the banks of Europe (from 7 o'clock their time) commence their trading with the Asian markets. (Accordingly, there are times during the last 30-40 minutes toward the closing time when the yen fluctuates very erratically.) Around 5 o'clock in the afternoon, after the closing of the Tokyo market, which is 8 o'clock in the morning in the United Kingdom, trading at the London market begins. Noon in London is 8 o'clock in the morning in New York. From this hour on, a giant market, comprised of the European and New York markets takes shape. Noon in New York is about closing time at the London market. Two hours after the New York market closes its trading (around 5 o'clock), it is 9 o'clock in the morning in Tokyo, and trading again begins there. Accordingly, the yen rate is fluctuating at other world markets at varying times, even after the Tokyo market hours, which opens at 9 o'clock in the morning and closes at 3:30 in the afternoon. This means the yen rate is constantly changing at all hours of the day and night.

Intervention at New York and Tokyo

At which of the markets does the yen rate fluctuate the most? The daily fluctuations of the recent yen rate are analyzed by the Tokyo market (closing quotations of New York--closing quotations of Tokyo), the London market (closing quotations of London--closing quotations of New York). When these quotations are put together every month, it seems to indicate that the fluctuations of yen rate are greater at the overseas markets, especially at the New York market. (See note and Table 1)

Table 1. Trend of Yen Rate at Tokyo, London and New York Markets (Closing Quotation)

(第1表) 東京，ロンドン，ニューヨーク市場での円相場の動き（終値） (10)

(単位：円)

	(1) 58年1月	(2) 2月	(3) 3月	(4) 4月	(5) 5月	(6) 6月	(7) 7月	(8) 8月	(9) 計
(11) 値動き	△6.33	+1.33	+0.65	+1.10	△1.55	+0.10	△3.78	△2.72	△11.20
(12) 東京市場	△3.37	△0.73	+0.57	+0.76	△1.15	△0.21	△1.19	+0.62	△4.70
(13) ロンドン市場	+2.27	+4.85	+1.40	△0.59	△0.20	+0.70	+2.90	△0.75	+10.58
(14) ニューヨーク市場	△5.23	△2.79	△1.32	+0.93	△0.20	△0.39	△5.49	△2.59	△17.08
(15) 海外市場小計	△2.96	+2.06	+0.08	+0.34	△0.40	+0.31	△2.59	△3.34	△6.50

Key:

1. January 1983
2. February
3. March
4. April
5. May
6. June
7. July
8. August
9. Total
10. Unit: Yen
11. Price Fluctuation
12. Tokyo Market
13. London Market
14. New York Market
15. Overseas Market Subtotal

(Note: The rate fluctuations at the New York market are the same as the rate fluctuations which occur from the time the London market closes, to the time the New York market closes. More precisely speaking, it is the fluctuations in the afternoon at the New York market. At New York's afternoon trading, following the closing of the London market, the dollar fluctuates greatly at times because of the position adjustment of the speculators during light trading. Also, the announcement on the Friday money supply (M1), which is made usually after 4 o'clock, is a contributing factor to the great fluctuations of the dollar in the afternoon trading in New York.)

The trend of the yen rate since 1981 has reflected the strength of the dollar more than the weakness of the yen. In a sense, this may be a natural phenomenon since the relationship between the dollar and other currencies has changed a lot. Factors contributing to such change include the U.S. economic indicator, which is announced after the opening of the New York market; the federal bank's buying and selling operations, which are usually conducted before noon in New York; and the trend of the money rate in the United States.

When equalization operations are undertaken, currency authorities not only pay attention to the trend of the ordinary exchange rate, but also make decisions on the intervention rate and the scale of intervention in response to the constantly changing market trend. They also check market psychology constantly by keeping in close touch with market participants. In that sense, the main aspect of the intervention is the home country's operation at the foreign exchange market. But, often the erratic fluctuations of the yen and dollar rates at the New York market cannot be overlooked. Whenever a need arises, our country has adopted a commissioned intervention through the New York federal bank to counter the erratic fluctuations of the rate. But, generally, the commissioned intervention is often viewed as having merely supplementary effects in the home market. In connection with the joint intervention, the Conference Report of the Operation Department stated that "since the closely coordinated action sends a signal to the market that the authorities are pursuing common objectives, this joint intervention sometimes is more effective than an intervention by a single central bank." But when the yen policy was announced in March 1980, the currency authorities of the United States launched a yen-dollar exchange equalization operation based on its own account. This operation gives a signal to the market that an intervention with serious intention to stabilize the yen at the New York market is possible. In this sense also, it had a considerable psychological impact. Also, as in the case of the present joint intervention, the demonstration effect on the market that the positive intervention against the excess strength of the dollar at New York, Tokyo, Frankfurt, and Zurich could be conducted within the framework of the 24-hour system seems to be very great.

Moreover, in the cases of non-yen European currencies such as the mark and the Swiss franc, the afternoon trading of each currency's mother market, and the morning trading of the New York market are overlapped. Therefore, it seems that a continuity between the intervention in the foreign exchange market in its own country and the intervention at the New York market can be easily maintained. But in the case of the yen, since the New York market is open from midnight to the early morning hours our time, it is inconvenient to have such a time difference, unlike the European countries.

Increase of Yen Trading

Speaking of the effectiveness of intervention, as Sprinkel, undersecretary of treasury, testified at the Ways and Means Committee of the U.S. House of Representatives in October 1982 (see note), it is important to understand the entire magnitude of the foreign exchange market, particularly the rapid increase in the yen exchange transactions at the foreign exchange markets both in and out of the country.

(Note: Undersecretary Sprinkel stated that "at the Tokyo market, exchange transactions of about $3.5 billion-$4.0 billion (tradings in futures and swap tradings included) are conducted per day, and $40 billion-$50 billion transactions at the New York market, and $100 billion transactions are taking place worldwide." He went on to say that "the transactions of this magnitude mean that the market's potential growing power is far beyond the ability of the government to skillfully control or operate, even if the government knows the proper rate or is believed to know it.")

The interbank spot trading per day at the Tokyo foreign exchange market was about $200-$300 million in 1977, but it has increased to about $1.4 billion in 1982. (The total of the spot, future, and swap trading is about $5 billion per day.) As a background to the expansion of trading in the foreign exchange market, unlike before, when the exchange bank merely channeled the cover of the customer tradings with the interbank, the Japanese central bank maintains a definite position and conducts the selling and buying operations of the dollar at more opportune moments. The more basic reason for the expansion in foreign exchange trading lies in the considerable increase in foreign exchange tradings of the customers in capital transactions, which have become active both in and out of the country. Another basic reason is the increase in the direct orders for the buying and selling of yen to the exchange bank (see Table 2).

Table 2. Total Transactions of Tokyo Foreign Exchange Market ($100 millions)

(第2表) 東京外国為替市場出来高

(億ドル)

		(1) 本邦銀行間取引		(2) 国内対顧客取引			(3) 海外取引
		直物 (4)	先物・スワップ (5)	直物 (6)	うち貿易関連 (7)	その他 (8)	
(9)	51年	350	635	1,412	1,063	349	1,695
(10)	52年	623	850	1,611	1,191	420	2,902
(11)	53年	1,179	1,636	1,977	1,349	628	6,069
(12)	54年	1,722	2,728	2,628	1,661	967	9,506
(13)	55年	2,118	3,674	3,499	2,112	1,387	13,253
(14)	56年	2,964	6,056	5,137	2,238	2,899	18,728
(15)	57年	3,653	8,483	9,018	N.A.	N.A.	26,778

Key:

1. Japanese Interbank Trading
2. Domestic Customer Trading
3. Overseas Trading
4. Spot Trading
5. Futures Swap
6. Spot Trading
7. Trade Related
8. Other
9. 1976
10. 1977
11. 1978
12. 1979
13. 1980
14. 1981
15. 1982

Furthermore, the position of the yen at the overseas foreign exchange markets has risen dramatically, and the yen is almost equal in value with the mark. According to a survey of foreign exchange transactions on 119 financial institutions in the United States, which was recently issued by the federal bank in New York (April 1983), as of March 1980, the yen had occupied the 4th place share (10.2 percent) following the mark, the pound, and the Canadian dollar. However, as of April 1983, the yen occupies the second place share (22 percent), following the mark. (see Table 3)

Table 3. Shares of Foreign Exchange Handling at the U.S. Market
(From the Quarterly Report of the Federal Bank in New York)

(第3表) 米国市場における外為取扱高シェア
(N.Y.連銀四季報による) (1) (2) (%)

	77年	80年	83年	(3)
(4) マルク	27.3	31.7	32.5	
(5) 円	5.3	10.2	22.0	
(6) ポンド	17.0	22.8	16.6	
(7) スイス・フラン	13.8	10.1	12.2	
(8) カナダ・ドル	19.2	12.3	7.5	
(9) 仏・フラン	6.3	6.8	4.4	

Key:

1. 1977
2. 1980
3. 1983
4. Mark
5. Yen
6. Pound
7. Swiss Franc
8. Canadian Dollar
9. French Franc

(Note: The spot transactions of the yen, conducted by the 119 financial institutions, include $980 million as a result of direct daily trading with other U.S. banks, and $2.04 billion transactions per day through brokers. The daily total amounts to about $3 billion, but the former includes the overlapping sums of buying and selling, and a good portion of the latter comes from transactions with overseas banks. It appears that the portion comparable to our country's interbank spot transactions is around $1.5 billion-$2.0 billion per day.)

Such an increase in yen exchange transactions overseas is attributable to the progress of the yen's internationalization, such as the active foreign and domestic capital trading, the increase of the demand for yen by the overseas importers due to the expansion of the yen-denominated export, and along with this, the utilization of the yen-denominated usance through

the Euro-yen. Also, as the actual consumption transactions of the yen increase overseas, the yen becomes in a sense a sort of currency of an authorized brand, and as an object of speculation beyond the actual consumption, the yen has been sold short or bought short. Especially, at the New York market, the proportion of transactions with no basis on the actual consumption is overwhelmingly big, unlike at the Tokyo market which is regarded as the center of actual consumption.

The yen, which had once been merely a local currency, has become an important currency, occupying one-fifth of the share at the U.S. market, following the mark. This implies that the yen far more easily reflects the trend of the basic currency, the dollar, than before. For instance, when the dollar is strong, market participants must sell some currency in order to create the overbought position of the dollar; however, so long as there is no especially strong yen factor, it cannot but help to sell the yen, the second most weighty currency after the mark.

Also, the increase in the yen transactions at the overseas foreign exchange markets expand the scale of the leads and lags overseas in a broader sense. Besides the leads and lags which are backed by the actual consumption such as the utilization of the usance of the yen-denominated imports for Japan, at times, there occurs a massive change in positions of overseas banks or speculators. Since such a trend is moving in the opposite direction from the intervention, a conflict may occur.

(Note: Since the yen-denominated import ratio is held at 2-3 percent while one-third of our country's export is yen-denominated, even if the imports and exports are balanced, the foreign currency will always be in short supply if we look at the Tokyo foreign exchange market only. The shortage of foreign currencies in Tokyo is supplemented by the dollar from the foreign banks which handle the demand for yen and the sale of the dollar abroad for the settlement of the yen-denominated imports for Japan at the Tokyo market. Accordingly, depending upon the change in perception of the foreign banks on the yen-dollar rate, the total supply and demand of the dollar at the Tokyo foreign exchange market is often greatly affected.)

Even if our country is to intervene appropriately and independently at an opportune moment against the erratic fluctuations of the exchange rate, it appears that under the circumstances described above, whenever a need arises for the stability of the yen, the importance of joint action with other principal countries such as the United States and the FRG becomes increasingly apparent. The United States interventions have so far been nominal and confined to very limited cases, but the joint Japan-U.S.-FRG intervention launched recently would contribute a great deal to the stability of the exchange rate in the future.

(Author: aid to the Section Chief, Short-Term Fund Section, International Financial Bureau)

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