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JPRS-JAR-84-004

13 March 1984

Japan Report

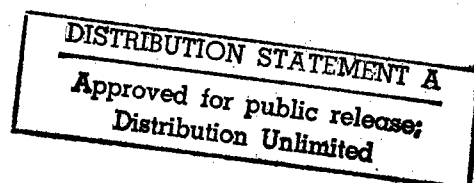
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13 March 1984

JAPAN REPORT

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POLITICAL AND SOCIOLOGICAL

NAKASONE STATES LDP POLICY GUIDELINES

Tokyo GEKKAN JIYUMINSHU in Japanese Oct 83 pp 26-31

[Lecture by Prime Minister Yasuhiro Nakasone at LDP Karuizawa Seminar:
"Prospects and Orientation of Japan as an 'International State'"]

[Text] The special session of the Diet called on 8 September will be the historic 100th postwar session. Japan has now become an important mover of the world economy. We are at a time of total assessment of postwar politics. Now we ought to get out of the "catch up with the West" mode and begin a step as "Japan--an international state" relied upon by the world.

Put the Postwar Era Behind Us and Emerge as an International State

I was appointed to the Liberal Democratic Party (LDP) leadership in November of last year to become the Prime Minister and have been in charge of the administration since that time. I have been saying that the time has come to "close the balance book on postwar politics."

Meanwhile, a segment of the Opposition has characterized this year as the "1983 political playoff." Although the difference between "assessment" [kessan] and "playoff" [kessen] is not clear, as I look back at Japanese history since we lost the war in 1945, I believe that Japan is now facing a period of major change. Based on this premise, and considering the events that led up to the present, and also [considering] the future, I have used the term "total assessment" [sokessan].

I entered national politics in 1947. A year previous to that, the new Constitution was promulgated. The first Diet session under the new Constitution was called in May 1947. Thirty-six years later, the special session of the Diet in September will be the historic 100th session. The Imperial Diet which began in the year 23 of the Meiji [Era] and lasted for 56 years, until 1946, convened 92 times. In contrast, these past 36 postwar years have seen 100 Diet sessions, attesting to the liveliness of Japanese democratism.

During this time, I have sat in the Diet from its initial (postwar) session to the present, and I think I have been a part of the Japanese experience, both good and bad.

Frequently, political commentators say: "The politicians who emerged under the Occupation in the 1945-55 decade and those who came out after the rapid growth period of 1955-65 have different flavors." I, too, belong to that whirlpool, but the question is not that one group is good and the other is bad. I think it natural that differences in life experiences beget different human characters.

Reflecting on these past 36 years and considering the steps Japan took after the Meiji Restoration, I believe that we are currently standing at the crossroads of history. Bearing this in mind, I believe that the "time" is ripe for deciding what we ought to be doing and in what direction we ought to be going. It is within this context that I am using the term "total assessment."

What then is the content of this "total assessment?" One is adjustment of international relations. During the postwar years, Japan developed into a strong, internationally heralded economic state. I think that the time has come for her to advance further, to play a political and cultural role.

Above all, we must act as a strong member of the Western free world, whose core is the United States, and promote a political and cultural liaison with other participating countries. Economically, we are about to enter a difficult phase. This is all the more reason why Japan ought to take one more step in the direction of becoming an "international state." I consciously acted on this belief at the Summit Conference, and I believe that this policy is surfacing clearly as the new course for Japan to take in the future.

Since the Japanese people belong to a single race, share a common language and customs, and have grown up in an island nation surrounded on all four sides by sea, they have had little contact with foreigners. As a result, it is said that even when they go abroad, they tend to cluster together and do not mingle with the local populace. If this results in creating the impression that we are economic animals and "aliens," it is most unfortunate. This is becoming an issue in Japanese economic development in various foreign countries.

It appears to me that the problems categorized under economic friction are rooted in such Japanese racial traits and lifestyle--and it is even more of a factor than the advantage and disadvantages of the trade balance. Moreover, it gives foreign states the false impression of our economic preponderance. I feel strongly that these circumstances necessitate that we promote political and cultural liaison.

Clear Perspective and Direction in Executing Reform

The second question is with regard to domestic policies--symbollically put, the "execution of administrative reform." As everyone is well aware, because of the great efforts by Mr Tsuchimitsu the administration has received the report of the Special Factfinding Committee on Administrative Management,

and through successive cabinet decisions, the wheels of reform have already started to move. The current special session of the Diet is a very important session for promoting this reform. The intent of administrative reform needs no repeating. From the Meiji Era to this day, Japan--as a developing nation--has been constantly trying to catch up with the Western developed states. In order to accomplish this goal, there has been a need to consolidate our total national energy.

Inevitably, [Japan] became a centralized, authoritarian state. The Imperial State University was built and the bureaucratic elite filled various governmental departments to promote this goal. The government and the governmental organs became progressively bigger, and the "catch-up" policy was implemented through administrative actions centering around licensing. And now, that "catch-up" goal has been replaced by the "surpass" ideal.

As a result, Japan has matured economically and socially to today's level. But now, the rules and regulations heretofore in force have become hinderances, so great has become the power of the civilian sector. Now is the time for removal of these rules and regulations to enable free and active demonstration of civilian vitality, so that we may begin marching toward new development--new growth, qualitatively different from before.

The response of the Special Factfinding Committee was based on the preceding basic "stance." I have asked that the former thinking be modified in economic policymaking as well, so as to enable the creation of a new medium to long range economic program along the lines laid down by the Special Committee. Up until now, economic plans were based on the rather Keynesian concept of a "five-year planning" schedule. It was an economic policy based on a given model with quantitative specifications.

That has become somewhat incompatible with the current state of things. And in view of the fact that such a policy is becoming an impediment to civilian vitality--large losses, economic stagnation--I sometime ago asked the Economic Planning Agency to delete the term "planning" and replace it with "prospects and orientation." That is, I have asked for a long-range prospectus based on a qualitative orientation, and not one with a quantitative character.

Of course, Japan still has developing state elements within [the nation]. From the perspective of ("stocks"), even her sewage system has much need for reevaluation. Such tasks cannot be accomplished without the leadership of the state. I am well aware of it. But with regard to the pivotal force for economic activity, it is more effective to release fully the swelling civilian economic vitality.

For example, rather than disperse funds through public financing and operate businesses via government organs, it is far more effective to circulate money creatively and freely through the use of life insurance, insurance against loss, and other structures. I think that this is true also for urban renewal as well as land utilization and housing programs.

The aforementioned medium- to long-range economic prospects and orientation were thus formulated. They were based on the reform concept and the Special Factfinding Committee's report. On 18 May, I detailed the idea behind this move at the Japanese Journalists' Club in a speech entitled: "The Five Guiding Principles of Economic Operations in the Future."

This administrative reform, the Special Fact Finding Committee's response, economic prospects and orientation require a concurrent fiscal plan. In this fiscal plan, we have created a goal for which to strive, and that is to get rid of deficit national debt in 8 years.

In addition, there are other quantitative aims such as a 4 percent economic growth rate and a 2 percent unemployment rate. Concurring with them, the Finance Ministry is determining the fiscal ideals and policies and these will carry the Japanese economy's move forward.

Effective Use of National Assets Following Civilian Examples

As I have stated before, the central point of all of this is the release of civilian vitality. Financial conditions are constrained at present, and it is difficult to suddenly mobilize the big weapon of national finance. The government's thinking, therefore, is to make good use of civilian energy. In addition, the aim is also to offer government assets to the populace--that is, to "restore administrative authority over the national assets" to the people where possible, and to let them utilize these creatively and ingeniously.

A good portion of national assets is in the form of land held by the National Railways. Currently, we are starting with (Kinshicho's) 50,000-square-meter property. In Osaka, there is the area south of Umeda. Aside from these, many others--Shinjuku, Shiodome, Sugamo--can also be considered. We will start with one or two of these, and once they are set in motion, nationally held lands in Sapporo, Sendai, Hiroshima, Fukuoka, and so on can also be so channeled. We are striving to create a precedent for a new pattern, starting with the (Kinshicho) project.

The government can then become the landlord. The other alternative is that the government-owned land may be sold. With regard to such properties, the government, big business, planning agencies and/or small businesses may form a consortium. In some instances, competitive bidding will be alternative, with the winning bidder developing the land. The current concept is that, with regard to environmental questions and negotiations involving metropolitan, city, and ward districts, the [national] government will act as the midwife and the overseer of transactions.

There are some gigantic public employee housing projects in the three major metropolitan area suburbs. They are usually five-story structures; there is an extensive amount of land attached to them. It would seem to me that the civilian sector could readily remodel them to 30-story units. Many suggest: Why not do just that? With this in mind, the Financial Management Bureau is playing a central role in examining the status of public employee

housing. We are starting to move toward an all-inclusive park/high-rise/housing concept.

The preceding are just a few examples; but once these get underway, these programs would generate several trillion yen in 3 to 5 years--far surpassing a 300-500 billion yen increase in jobs through public works funding. I believe that they can become the generating force in maintaining a favorable business climate in the low growth/stable growth era. I seek your support in tackling this long-range task and bringing it to fruition.

The immediate questions--the economy, the yen rate, the interest rate, and so on--are many and difficult. These will be investigated by each government office while viewing them in a comprehensive manner, and if necessary we will deal with them through political decisionmaking.

With respect to the question of the official rate that the Bank of Japan is implementing exclusively, I think it would be better if we do not meddle. But economic policies as a whole are a governmental responsibility. We will examine the measures--including resolution of economic friction--in earnest; if and when needed, we will disclose our findings and seek the cooperation of the people.

Politics and Culture Founded on a World Perspective

I have used the term "total assessment of postwar politics." The current period is an extremely difficult and delicate era worldwide and in terms of world history as well. I think we can claim that we have entered an era of cultural rivalry, so to speak.

The takeover of the American Embassy in Iran can in one sense be seen as a clash between the Moslem culture and the Christian culture. The Christian culture--in particular, Puritanism--begot capitalism and capitalism developed petroleum and supported Emperor Pahlavi and caused extensive petroleum-rooted havoc. As a result, the Moslem culture, represented by Khomeini, rose to contest it, bringing about the hostage incident. This train of thought is a plausible cultural, historical interpretation.

In the relationship involving Lebanon and Israel, it is plausible that the underlying struggle between the Moslem culture and Christianity and Judaism, spanning 2000 years, is still aflame.

As for Japan, we are about to attempt political and cultural liaison as an international state. Moreover, the pending administrative reform is finally getting underway and is becoming the mainstream force.

At the Special Session of the Diet which will be called in September, many important reform ideas will be presented: a proposal for unified annuity regulations (which has already been published), unified regulations governing the Prime Minister's Office and the Administrative Management Agency, consolidation of such agencies' delegated duties and licensing operations, and so forth. With regard to the National Railway reconstruction, we are

waiting for the reform proposals being prepared by its Board of Directors. We are working on reform of the Japan Telephone and Telegraph Corporation and the Monopoly Bureau with a view to presenting the proposals at the next ordinary session of the Diet.

As for fiscal policy reconstruction, we have been operating along the lines of a zero ceiling budget for the past 3 years. Last year, we formulated a minus 5 percent ceiling FY 1983 budget, and for the next fiscal year we are striving for an effective budget with a goal of a minus 10 percent ceiling.

We would not have been able to accomplish all these tasks without the (provisional adjustment). The strength of the people is propelling the sweeping reform. We hope that this popular energy will continue to be vital, so that we can think in terms of medium to long range "lasting reform"; with an indomitable spirit, we need to persevere in our task. Reform is a big project that takes 3, 5, 10 years. I would like the cooperation of the members of the opposition parties in this regard.

People are beginning to realize the difference in thinking both internationally and domestically, and the choices among the different directions are becoming clearer.

An interesting thing about public opinion surveys since the installment of the Nakasone government is that there has been an increase in the number of supporters as well as of those who oppose it, and a marked decrease in the number of undecided or don't knows. I think it is a fine thing for democracy to have the pro and con lines clearly delineated. It means that the people's interest in politics has been heightened, and it is a great step forward for democracy.

Presentation of Materials at the Diet So That People Can Choose

When the special session of the Diet is convened, both domestic and foreign policies will be further clarified before the people.

In the foreign policy category, we ought to subscribe to a program for maintaining peace based on the free world concept. I think that a realistic approach to the security question is to base our policies on the fundamental philosophy of "checks" and "balances," and to proceed in cooperation with the United States and the free world. In opposition is the "demilitarized neutrality" view, which calls for treatment of Communist Bloc countries on equal footing with the free world, thereby maintaining Japan's safety and demilitarized neutrality.

Which is preferable? A socialistic economy, or the current medium- to long-range economic operating ideas based on prospects and orientation? This, too, will emerge as a subject on which the citizens must decide. When we consider the question of consolidation of annuities, the subject of welfare will come up. The welfare question, too, will eventually become a subject of debate.

In the past, the slogan of "high welfare, high liability" was shouted and became the focal point of consensus. But what of its outcome? In countries such as Sweden and England, over 50 percent of one's income is given over to taxes and social security. The citizens found this liability unbearable. They lost their will to work, and the economic vitality of those countries declined. They suffered from the "developed nation disease."

An attempt to reform this situation has been made by British Prime Minister Thatcher and West German Chancellor Kohl. U.S. President Reagan's efforts, too, may be seen in this light.

How should we choose our course in view of the realities we are seeing? Some consider that high welfare, high liability is tied to increased taxation. But when we consider "financial reconstruction without increased taxation," we can raise the question of whether or not the high welfare, high liability concept of Western Europe--especially the Scandinavian states--ought to be adopted without modification. Then, perhaps the alternative idea of basic welfare, selective liability will come forth. With regard to annuities, the concept of a basic annuity has already emerged, and we have already been presented with the argument for injecting selectivity, such as differentiated cost for hospital beds.

Is basic welfare/selective liability the correct alternative to high welfare/high liability? This requires detailed analysis. In any event, such questions are already being raised.

When I think about these varied issues, whether they be financial programs, diplomatic policies, or welfare and education policies, in order for the citizens to recognize and decide the issues, it is important in democratic politics to present the issues deliberately--through Diet debates and so on. I believe that in the case of "total assessment of postwar politics," it would take the form of presenting to the people the data on the various projects we have tackled, and asking for their decision. I am not, however, saying that the Diet ought to be dissolved and a decision by the people sought immediately. I have said before, and I continue to firmly believe, that the "expiration of the term will be time enough." I have given my own interpretation of the meaning of "total assessment of postwar politics," and I would like to state clearly that that and dissolution are separate issues.

I have presented a portion of my thinking for your information. I would like your comments and criticisms, and I ask that you continue to support the Liberal Democratic Party.

With respect to your opinions and views, I would be most grateful if you would freely address them to me at this seminar or by mail.

(LDP Karuizawa Seminar Speech Outline)

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CSO: 4105/026

ECONOMIC

VIEWS ON 16 INDUSTRIES IN 1990'S REPORTED

Tokyo SHUKAN DAIYAMONDO in Japanese 13-20 Aug 83 pp 20-29

[Text] Challenge of Materials Industry

Aluminum's Comeback?

The destinies of the agriculture, forestry, fisheries and materials industries are the most talked-about issue at the moment, and their importance will remain unchanged in the 1990's as well.

These industries themselves are undergoing voluntary transformation so as to be able to fulfill their new roles.

Hence, in taking a view of the industries in the nineties, let us begin with these basic industries.

In the field of agriculture, forestry and fisheries, the United States has made maximum utilization of its scientific and technological achievements scored between the two world wars. In Japan, too, progress has been achieved recently in the following areas: creation of new breeds by new technological means such as genetic recombination or cell fusion, cultivation control through detection of physiological information, energy-saving agriculture through effective utilization of industrial waste heat or solar energy, production and use of protein and sugar through utilization of agricultural and forest waste or feed grass, development and use of pollution-free agricultural chemicals, and control of agricultural machinery and equipment by means of microcomputers.

These technologies are being actively put to practical use by agricultural managers and those industries that suffer from the high cost and unstable supply of raw food materials--industries such as the food industry, the food service industry, the restaurant and hotel industry, and they contribute to the easing of Japan's food crisis.

In the field of fisheries, Japan rates high in areas such as detection of schools of fish, utilization of the data from the oceanographic survey satellite, advancement in the bottom-fish fishing method and pisciculture. In the 1990's we are likely to see the breeding of big fish such as tuna in the open sea by the use of large steel-made sink-and-float fish preserves. In the longer

term, it is also likely that marine stock farming technology will be put to practical use through such means as the use of electronics and the domestication of dolphins.

In the field of mining, the 1990's will probably see the blossoming of technology for onsite leaching and bacterial leaching of waste and tailings at the heap yard. Expansion of the now successful exploration and mining of uranium ore in West Africa can also be expected.

The mining of manganese nodules from the Pacific seabed in cooperation with other commercial sectors such as shipbuilding, heavy equipment and nonferrous mining and the extraction of dissolved minerals (uranium, lithium, etc.) from seawater in cooperation with shipbuilding, heavy equipment, chemical and construction companies will probably become commercialized.

In progress at present are the development and accumulation of experience in mineral resources survey technology by means of remote sensing from the resources survey satellite and physical prospecting from the land and sea surface. When Japan's own survey satellite is orbited in the first half of the 1990's, its survey service will be welcomed by the Asian countries and will eventually lead to Japan's extension of aid for the development of the needed mineral resources and importation of the minerals so developed. Currently, Japanese mines are pushing ahead with mechanization and robotization of the pit opening, ore drilling and hauling-out processes, and it is expected that such technologies will become exportable in the 1990's.

In the field of metallurgy, DR (direct reduction) technology in the iron and steel industry is likely to be increasingly exported to the developing nations in general and especially to those which produce oil.

Not only in integrated technology for the making of pig iron but in other fields such as recovery of waste energy, power generation, water processing, bulk handling, and the designing, production and installation of various large steel structures, Japan is strengthening its capability of exporting technology and equipment to the entire world.

In the area of products, Japan has the technological capability to handle refining, rolling and processing of the medium- and high-grade metallic structural materials of the ferrous and nonferrous families to meet the sophistication of the needs of the user industries in items such as high-strength and ultra high-strength steel, nonmagnetic steel, saltwater-resisting steel, ultra heatproof alloy and corrosion-resisting alloy. It is likely that Japan will have a worldwide reputation for its ability to develop and produce easy-to-process high-tension sheet metal and plating sheet steel that can meet the needs for improved energy conservation, weight reduction, safety and corrosion resistance in automobiles, household electric appliances and construction materials. Also, full manifestation of Japan's ability in the development, production and application of highly sophisticated materials such as amorphous electromagnetic sheet metal is just beginning to be noted. Considerable progress is expected in the move to revitalize coal chemistry and to reestablish Japan's position as a supplier of chemical raw materials.

In the field of nonferrous metals, Japan's aluminum technology is especially high, and the practical application of electricity-saving refining methods such as the blast furnace method could very well lead to the restoration of competitiveness for Japanese aluminum ore. Japan will also grow strong in the area involving the aerospace-grade rolled aluminum alloy materials. When it comes to titanium, Japan has the possibility of becoming strong in alloy materials for aerospace use.

It is anticipated that refining and processing of nickel, cobalt, various rare-earth minerals and rare metals, all of which are increasingly important as high-grade heatproof materials, corrosion-resistant materials and electronics materials, will be expanded. It is also expected that more emphasis will be placed on the refining of uranium metals and on the refining and processing of spent nuclear fuel.

Post-silicon technology in the field of semiconducting compound will come into full bloom. The technology of refining or smelting nickel, cobalt, molybdenum, copper and other metals from manganese nodules available on the ocean bottom, and technology for producing from seawater materials such as lithium that are indispensable for nuclear fusion energy are expected to become very active during the 1990's. There will be increasing use of optical fibers in areas such as shape-memory alloys and communications wire or cable.

Counterattack by Textiles Through Diversification

In the field of chemical industries, the hard work of more than 10 years following the oil shocks has come to fruition and the prospects are fairly-good for the revival and restoration of these industries.

In the products sector, a diversified development of high value-added products will be planned, and in the manufacturing process, utilization of low-grade raw materials and efficient application of the approach which emphasizes more variety and less production will be pushed. To accommodate the needs of powerful sectors such as electronics, medical and health care, automobiles, aerospace and others, diversified development of technology-intensive products will be pushed ahead to a considerable degree.

In the field of medical and pharmaceutical products, as a result of advanced development in the structural analysis of substances and simulation through the use of computers and in analytical chemistry, chemical synthesizing and semisynthesizing of extremely complicated medicines will go forward.

An important role will be played in the future by the systems for evaluating the effectiveness and side effects of drugs and the safe production system for drugs, both of which are based on the GLP [Good Laboratory Practice] and GMP [Good Manufacturing Practices] systems which Japan recently began to initiate following the example of the United States.

In the field of genetic engineering, there is a view that Japan is somewhat lagging behind in basic research, and it is quite possible that only a few among the many companies involved in this field may actually succeed. Nevertheless, chances are better than ever that Japan's pharmaceutical industry is headed in the right direction.

In the field of research and development of the manufacturing process in the so-called space lab, where production, separation and refining of high-grade pharmaceuticals can be done much more effectively than on earth, what remains to be seen is to what extent Japan will be able to catch up with the United States and the Soviet Union.

As for Japan's technology for the decomposition and refining of low-grade raw materials such as various types of heavy-grade oil, even the oil-producing countries rate it high, and it will prove to be a powerful bargaining chip for Japan, a resource poor country, in its conduct of trade involving fuel resources and products. Viewed from the same standpoint, there may very well be a need to preserve coal liquefaction and gasification technologies as technology assets. The technologies for the production of cheap hydrogen and methanol and for the production of ethyl alcohol from biomass may not turn out to be the technologies at the forefront in the 1990's, but it will be necessary to maintain them as technology assets.

In terms of raw materials and manufactured goods in the textile industry, efforts are continuing at present to develop new products of high quality with high added value, which cannot easily be duplicated by developing or semi-advanced countries, and to upgrade existing products. New products have come out and are doing well on the market--products such as sportswear, water-proof but moisture-permeable clothing, and artificial leather and synthetic furs of a distinct genre different from their natural counterparts and which are made from such materials as high-efficiency heat-insulating fiber, modified cross-sectional yard with superior luster and in good taste and ultrafine fiber. Such efforts will probably continue in the 1990's.

Fiber produced by grafting and polymerizing a natural fiber with a synthetic fiber in such a way as to retain the characteristics of both; industrial-use fiber designed to meet the needs of ever advancing and diversifying industries; carbon fiber, the demand for which is on the rise in sports goods and in the aerospace sector; and the high-strength, aromatic polyamide fiber--these will continue to grow in importance as industrial fibers of sophisticated functions.

Labor is being daringly reduced in the manufacturing and processing of fibers as well as in the designing and production processes of apparel. At the same time, progress continues in the development of technology to satisfy the ever growing demand of consumers for more varieties and less production.

A technology is being developed to upgrade the quality of coloring, designing, cutting and sewing by systematizing the roles of computer, sensor, robot, the color and form design technique, and the laser and instrumentation technology. This developmental project, which was launched late last year, attracted the attention of such a world-renowned synthetic textile maker as Britain's Courtzuld, who even proposed to participate in it.

(産業技術経済研究所調べ)(22)

	資 源 (1)	材 料 (2)	加 工 (3)	組 立 (4)	ソフトウェア、エンジニアリング・システム (5)
(6) 製品		電子材料、スーパーアロイ、高融点金属、ファインセラミックス、高機能膜、複合材料、人工酵素 (9)	超高精密加工機械、NC機械の高度化、多様化、調理機械 (10)	多様化、高度化した産業機械、モジュール・プラント (11)	
(7) プロセス	海水溶存資源回収、海底資源採取、超深度鉱物資源採取、石油の二次回収、バクテリアリーチング、中低級排熱利用、自然エネルギー利用技術 (12)	超高純度物質生産、超高压利用システム、高真空利用システム、海底資源精錬技術、アモルファス材料生産技術、複合材料生産技術、宇宙工場（無重力状態利用） (13)	超高压利用（セラミックス、粉末冶金）超精密金型、半導体加工（印守加工、イオン打込み、エビタキシャル成長など） (14)	ロボットによる組立混流組立ライン高度化、超精密組立（顕微鏡下組立など）、遠隔組立（原子炉、海中、宇宙など）、水中溶接、建設ロボット、造船ロボット (15)	CAD/CAM/CAEの高度化 (16)
(8) ソフトウェアエンジニアリング	データの自動収集、処理システム 資源探索ソフト " サービス (17)	データの自動収集、処理システム 材料試験ソフト " サービス (18)	データベースシステムの多様化、高度化 (19)	DIYの多様化、高度化、マクロエンジニアリング（宇宙、海洋、極地、都市開発など）試験検査ソフト " サービス (20)	ソフトウェア自動生産システム、自動翻訳システム、意思決定支援システムの多様化、高度化 (21)

Figure 2. Leading Industrial Technologies of the 1990's

Key:

1. Resources
2. Materials
3. Processing
4. Fabrication/Assembling
5. Software engineering system
6. Products
7. Processes
8. Software engineering
9. Electronics materials, super alloys, high-melting-point metals, fine ceramics, high-function membranes, compound materials, synthetic enzymes
10. Ultraprecision processing machinery, advancement and diversification of NC [numerical control] machinery, cooking machinery
11. Diversified and advanced industrial machinery, module plant
12. Recover of resources dissolved in seawater, collection of resources from ocean bottom, mining of mineral resources from ultra depth, recycling of petroleum, bacterial leaching, utilization of medium- and low-class waste heat, natural energy utilization technology
13. Production of ultra-pure substances, ultra-high pressure utilization system, high-vacuum utilization system, seabed resources refining technology, amorphous materials production technology, compound materials production technology, space lab (utilization of the weightless condition)
14. Utilization of ultra-high pressure (ceramics, powder metallurgy), ultra-precision metallic pattern, semiconductor processing ([copy] processing, ion[thrusting], epitaxial growth, etc.)

15. Advancement of mixed-flow assembly line by use of robot, ultraprecision assembling (assembling under microscope, etc.), remote assembling (e.g., nuclear reactor, under the ocean, in space), underwater welding, construction robot, shipbuilding robot
16. Advancement of CAD/CAM/CAE
17. Automatic data collection and processing system, resources survey software, resources survey service
18. Automatic data collection and processing system, materials testing software, materials testing service
19. Diversification and advancement of data-base system
20. Diversification and advancement of DIY [Do it yourself], macroengineering (development of space, ocean, remote areas, cities, etc.), testing and inspection software, testing and inspection service
21. Diversification and advancement of automated production system for software, automatic translation system, and decision-making support system
22. (Survey by Industrial Technology and Economy Research Institute)

The major products of diversification efforts in fields other than textiles, include the following: plant engineering for textile manufacture and installation of sewing machines; high-function materials such as fine ceramics and engineering resin; materials compatible with the living body such as high-function membrane, artificial organs and artificial blood vessels, all of which are made of the high-function materials mentioned above; and amino acid, pharmaceuticals and enzyme reagent produced by means of chemical synthesis or bioreactor.

The textile makers have a large reservoir of process-control technology and mechanical know-how. By taking advantage of such reserve capabilities, many textile makers are branching into such fields as laboratory automation equipment, laser printers for computer use, aircraft parts processing and medical appliances. Recently, some of them have begun marketing, and exporting technology related to advanced metal processing machinery like the NC punch press.

High-tech Ceramics, Paper and Pulp

In the cement sector of the ceramics industry, in addition to the exportation of such energy-saving manufacturing technology as the NSP [New Suspension Preheater Kiln] method, recently the following high value-added products are being developed: manufacturing and processing of fine ceramics, static demolition agent for concrete structures, soft-ground improving agent, special high-function cement and the GRC (glassfiber-reinforced concrete) products.

In the glass industry, commercial application of large-scale processes such as the float-glass process has now been perfected, and the current emphasis is on the development and commercialization of various fine ceramics and

diversification of GRC products. Especially in ceramics, wide-ranging research is being conducted on semiconductor baseplates and packages, high-function electronics ceramics, and heat-resisting and fireproof structural materials. At one place there is even research on trial manufacture of a ceramic engine. These products will constitute part of the mainstay merchandise in the 1990's.

In the ceramic ware industry, in order to open up a new field with high added value, an active effort is being made to develop the technology related to fine ceramics for use in semiconductors, engines and electronics parts, utilizing the industry's cumulative know-how gained from the calcination technology applied to high-class ceramic ware. One company, working in tandem with an automobile maker, is moving ahead with research on trial manufacture of the ceramic engine, and another is drawing attention for its research and development work on zirconia ceramics, the only kind of ceramics with [partially stabilized high tenacity].

The fireproofing materials industry, which has supported Japan's iron and steel industry, is engaged in development of various types of ceramic fiber and high-strength ceramic filament that show promise as the insulating and fireproofing materials for high-temperature kilns, the thermomotors and nuclear reactors. While these new products will continue to grow in the future, the traditional fireproofing materials are likely to be exported--both as products and as technology--to the developing and semi-advanced countries as these countries build their metallurgical industrial facilities.

The paper and pulp industry, seeking to increase the rate of pulp recovery from material wood and chips, is attempting to improve the cooking method and compound chemicals and is also engaged in research and development of the process technology involving the use of special catalytic agents. Progress is being achieved in eliminating environmental pollution, in recovering and reutilizing the used chemicals, in recovering and making the maximum use of lignin waste and unutilized cellulose, and in the production technology for various chemical raw materials, ethanol, yeast and sugar. In the area of resource recycling, Japan ranks first in the world in the technology of recycling used paper.

Also in progress is the research aimed at developing through various methods used in biotechnology, fast-growing and healthy pulp trees that are high in cellulose content and low in lignin.

In terms of products worth watching are technologies related to the development and production, first of all, of the paper for the information industry--specifically for office machines, computers and facsimile machines, the demand for all of which will continue to rise as the society becomes increasingly information-oriented and the trend toward OA [office automation] accelerates, and of electronics parts, construction materials, ceramic ware, and the high value-added paper for various industrial uses.

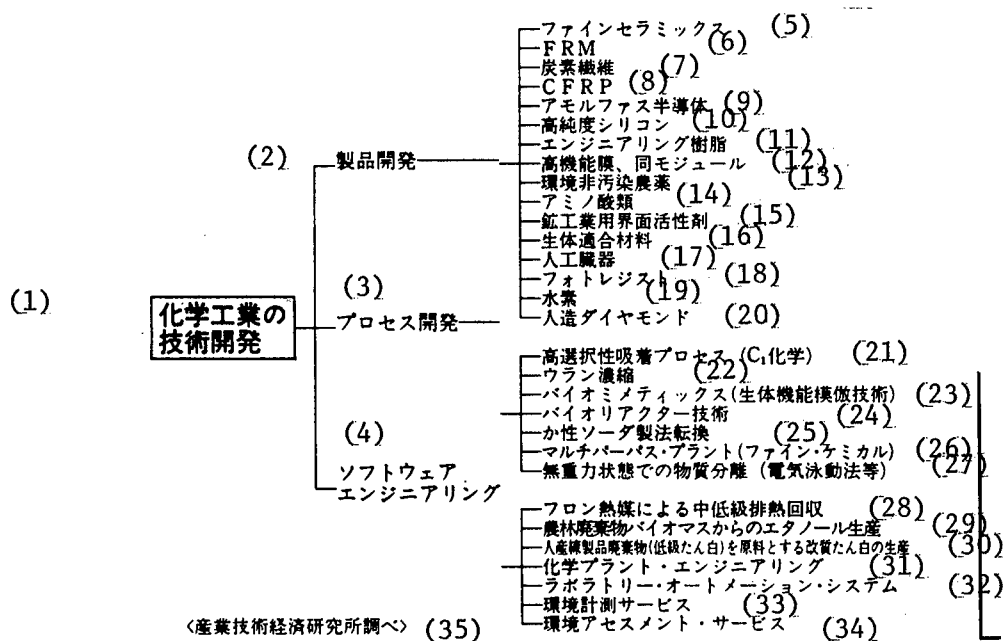


Figure 3. Technology Development in the Chemical Industry

Key:

1. Technology Development in the Chemical Industry
2. Products development
3. Processes development
4. Software engineering
5. Fine ceramics
6. FRM
7. Carbon fiber
8. Carbon-fiber reinforced plastics
9. Amorphous semiconductor
10. High-purity silicon
11. Engineering resin
12. High-function membrane and module
13. Nonpolluting agricultural chemicals
14. Amino acid family
15. Surface active agent for mining and industrial uses
16. Living-body-compatible materials
17. Artificial organs
18. Photoresist
19. Hydrogen
20. Artificial diamonds
21. High-selectivity absorption process (C₁ chemistry)
22. Uranium enrichment
23. Biomimetics (technology to mimic functions of living body)
24. Bioreactor technology
25. Caustic soda production method conversion
26. Multipurpose plant (fine chemicals)

27. Chemical separation of substance under weightless condition (electrophoresis method, etc.)
28. Recovery of middle- and low-class waste heat by use of freon heat carrier
29. Production of ethanol from agricultural and forestry waste biomass
30. Production of improved-quality protein using man-made [Renseihin] waste (low-quality protein)
31. Chemical plant engineering
32. Laboratory automation system
33. Environment measuring service
34. Environment assessment service
35. (Survey by Industrial Technology and Economy Research Institute)

Home Industry Gambles on Era of Maturity

Easy-Drive Car Era

For the automobile and automotive parts industries, in view of the expected increase in the number of female and elderly drivers in the future, the importance of the so-called "easy-drive" cars will increase as time goes on--the cars that are made easy to drive by a wide-ranging application of car electronics such as torque converters, sophisticated microcomputers, LSI [large-scale integration] and display.

Furthermore, such features of the car must be packaged in a well-balanced manner to give the user a feeling of psychological satisfaction, and the price must be reasonable as well. Therefore, what is important is the manufacturing process technology governing designing, processing and assembling. In this regard, the Japanese automotive industry has developed the well-known mixed-flow-line formula for production of more variety but in less quantity.

Development of such technology and the effort toward its practical application continue amid the tapering off of the market demand for cars in the developed countries and the worldwide automotive war that is intensifying. These efforts have an impact on the international community including developing and semi-advanced nations where motorization is progressing.

It is a source of much strength for the Japanese automotive industry that there is in place the kind of industrial structure that can supply, in a timely manner and at reasonable prices, machine tools and other equipment as well as parts and materials such as easy-to-process high-tension sheet steel, small high-efficiency turbochargers, synchronized ball joints for FF [Frontwheel Drive] purposes, various types of microcomputers, LSI, display and wire harnesses. Conversely, various technological methods developed and strict requirements generated by the automotive industry will have a significant salutary effect on the improvement of the technical standards of Japan's industrial sector.

Aimed at Female Sex

A constant effort is being made to develop and improve technology related to household equipment, such as home electric appliances, electronic appliances, kitchen equipment and airconditioning and heating equipment in areas such

as low-temperature storage, cleaning and washing, information and air control to insure full and economical performance of their intended functions. At the same time, efforts will continue ceaselessly to develop technology to make these household appliances better in terms of user satisfaction derived from possession and use, ease of handling and safety.

In this regard, the Japanese household appliances industry has been steadily and boldly incorporating into its products such items as transistors, LSI, microcomputers, sensors and servo mechanism. A heater with thermostatic control to prevent the temperature from rising above a certain level, a household roaster with a built-in catalyzer to instantly eliminate bad-smelling gases, an open range that gives detailed voice instructions on how to cook scores of different dishes, etc.--these and other household appliances have appeared on the market recently at reasonable prices.

Toymakers are marketing at reasonable prices such home recreational devices as videogames and liquid-crystal games. A liquid-crystal boxing game, which has an eight-word voice recognition and response capability, is selling at a cheap price of less than 10,000 yen; a home computer which can be used for playing a variety of games by simply changing the LSI memory cubes and which can also be used by housewives and children for calculations and simple data retrieval is being sold in the price range of between 20,000 yen (8-bit) and 30,000-40,000 yen (16-bit). These personal computers are intended to serve as the base for future home automation.

In the household appliances sector, constant attention must be paid to domestic and foreign materials, processing techniques, electronics and other technical aspects, and the clincher is a spirit of pioneering--a readiness to grasp the consumer desire and move boldly with development and trial manufacture and to supply reasonably priced products.

In the food industry, many hard-driving businesses equipped with advanced technologies will be responding to the complex demand of the consumers. As a matter of fact, in order to improve the freshness and longevity of food without using additives such as preservatives and anti-oxidants, some companies are handling their product processing, filling and packaging in a "clean room" (a room free of germs and dust). The LL (long-life) cow milk and soya milk can stay fresh at least for 60 days under normal temperature. The cold-flow system does not hurt the taste, but the chilled (freezing temperature circulation) chain method, which is technically more difficult, will continue to expand.

Among the restaurant chains that have shown a rapid and high growth in recent years, one with a central kitchen, the scale of which ranks first or second in the world, and ultramodern facilities, plus a colorful menu offering "chef's taste" at reasonable prices, is the one which is now beginning to lead the others. Also, as a result of the rising tide of health-consciousness, items such as butter, cream, cheese and hamburger, all made of vegetable materials devoid of animal fat and cholesterol--the so-called "analogous food"--

have pushed their way into the market in an impressive manner. The GLP and GMP procedures which, as mentioned earlier, have recently begun to be implemented in the pharmaceutical industry will gradually find their way into the food industry as well.

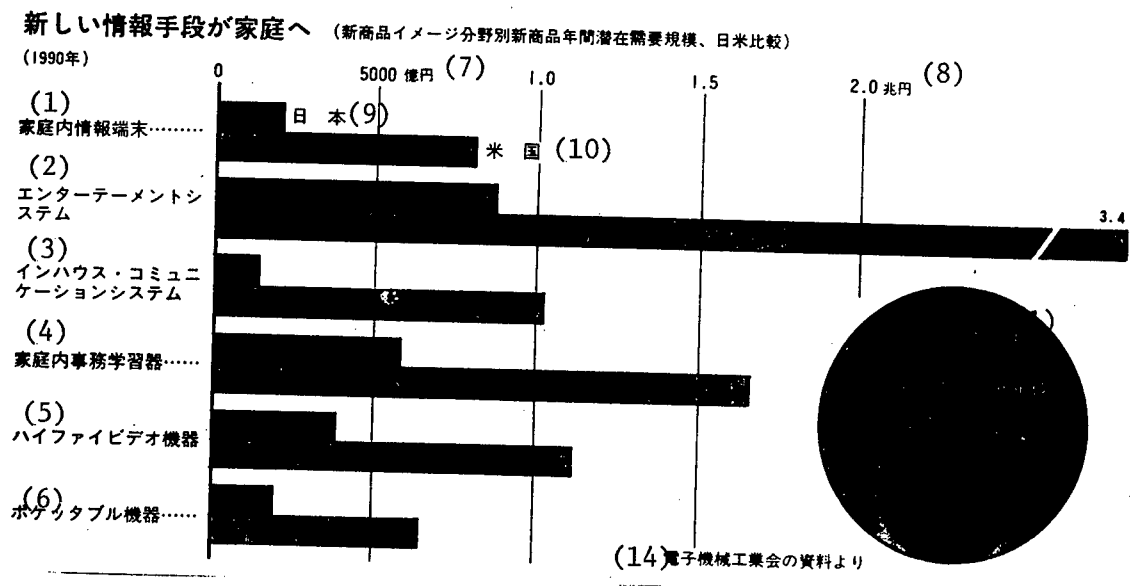


Figure 4. Invasion of Homes by New Information Devices (Japan-U.S. Comparison of Scope of Latent Annual Demand for New Products by Product Category--A Projection for 1990)

Key:

- | | |
|-----------------------------------|---|
| 1. Home information terminal | 9. Japan |
| 2. Entertainment system | 10. United States |
| 3. In-house communications system | 11. Sum total |
| 4. Home office and study devices | 12. U.S.-8.8153 trillion yen |
| 5. HiFi video machine | 13. Japan-2.4301 trillion yen |
| 6. "Pocketable" devices | 14. Based on data of Electronic Industries Association of Japan |
| 7. Hundred million yen | |
| 8. Trillion yen | |

Capital Goods Industry Going "Soft"

Debut of Japanese-Model Reactor

Except for those related to weapons, Japan's industrial machine industry can continue to develop and supply all types of high-efficiency machinery--machines that are superior in such qualities as precision, automation and care-free handling. Some machines, such as the large-model three-dimensional transfer press and the cutoff machine used for the processing of semiconductor materials, are being developed for the first time in Japan. In addition, Japanese makers hold an overwhelming share of the market in quite a few other machines. For

example, for the manufacture of the disks for CD (compact disk) and video disks it is necessary to mold a plastic disk of 15-20 cm in diameter with hundreds of millions of holes with a degree of precision in the micron range, and the super-precision metallic pattern and the super-precision injection molding machine required for that operation are at present being supplied exclusively by Japanese makers.

In the nuclear power generation equipment using a light-water reactor, after long and bitter experience with imported technology from the United States, finally a reactor more compact in structure, less trouble-prone and easier to maintain--the so-called Japanese-model reactor--is now nearing completion, and this development is being watched closely by advanced Western nations.

In other areas, too, such as robotics, FMS (flexible manufacturing system), metal processing and parts manufacturing, Japan is drawing international attention.

But Japan still has a lot to learn in the field of manufacturing, processing machinery and installations related to aerospace and nuclear energy. Even in the field of robotics, U.S. and European countries are bound to make an allout effort from here on to develop high-performance models of their own, which means that Japan cannot afford to relax its serious effort.

Also in the industrial machinery sector the matter of how to make production processes more flexible will continue to be researched in the days ahead.

The Japanese industrial machine industry got wise relatively early to the industry-wide needs to make products more discriminately and to produce more varieties in less quantity. In order to satisfy such needs at as low a cost as possible, processing machinery and lines were systematized and computerized at an accelerated pace. On the one hand, machine tools and processing machines were put to exclusive use, clustered or converted to the NC [numerical control] mode. On the other hand, they were grouped into units and cells. Conveyance systems such as the chain conveyor were improved; computers and sensors for sequence control were introduced to a maximum level; and even robots were employed at a fairly early stage. A wide variety of products were put together on one production line, and a system was developed that allowed flexibility in changing products. This is the highly evaluated world-renowned mixed-flow production line.

From now and through the 1990's, a vigorous effort will be undertaken by the entire industrial machine sector to achieve automation and unmanned operation of a variety of manufacturing and processing processes, covering from the designing phase through the products shipping, by the use of the CAD/CAM (computer-aided design and manufacturing) system. In this instance, the movement is drawing a great deal of strength from the fact that even smaller businesses are positively responding to the changing trend and are making the same effort to rationalize their production processes.

In the machine industry, what is no less important than the hardware is the software know-how. The so-called QC [quality control] concept goes far beyond the framework of statistical quality management; it has evolved into TQC [total quality control]--a concept that encompasses wide-ranging factors deeply embedded in human science, behavioral science and structural science; also incorporated in this concept is a management experience which is uniquely Japanese in character. Considering the prospect that people's values will become increasingly multidimensional and information-oriented and that this will be the megatrend in the near future, such qualitative evolution and development in the industry and in individual businesses will play a major role in the days ahead.

Impressive Activities Abroad

In the field of engineering industry, the oil refining, chemical and petrochemical sectors have recorded a considerable amount of exports to the Southeast Asian countries and Middle and Near Eastern oil-producing nations in the face of competition from powerful businesses of the advanced nations. In the future, too, if steps are taken now to establish within and outside the country a collection network of information concerning business operations, materials and equipment, research and development and financing, Japan should be able to catch on to the capital investment waves of the 1990's not only in the resource-rich countries but also in the developing countries as well as in the semi-advanced countries.

Recently, an increasing number of businesses have been putting their resources into social development projects such as hospitals, disaster prevention, new urban-area transportation, regional development and research laboratories, and also into such advanced-technology industrial projects as bioindustry. These areas are likely to become major undertakings not only on the domestic scene but also in overseas areas as well. Environmental control engineering is another field that will gain importance in overseas areas.

In the construction industry, the development as well as importation of energy-saving technologies made progress during the construction-boom era.

More recently, not only various types of advanced energy-saving construction equipment but even construction robots have begun to be used. The prefabricated construction method, in which much of the building bodyframe is factory produced, is also making progress. By handling the construction of* advanced energy-saving buildings, OA buildings and unmanned plants, the industry is learning the technology and software involved in sophisticated planning, work execution and equipment installation. These factors have formed the basis for the move among Japan's major general contractors toward becoming engineering contractors.

* Such advanced plants as precision machine factories, semiconductor plants and atomic power plants.

In the future, domestic orders for the construction of such fine buildings with high added value will increase; overseas, too, Japanese contractors will be receiving orders to handle the sophisticated portions of the industrial construction and urban development projects in the oil-producing countries and in the developing countries.

Next-Generation-Oriented Communications Industry

The Fifth Generation Battle

In the C & C [Communications and Computer] industry, the microcomputer has made a marked advance. It has now reached a point where several microprocessors are liberally incorporated into one machine. As a result, the decentralized processing capability of the computer can now be utilized everywhere, easily and cheaply, and this has led to a quantum improvement in the efficiency and equality of administrative work as well as in the efficiency, quality and safety of production and transportation machinery. Further advances are likely in the 1990's.

In the general purpose computer field, working on the concept different from Neuman's law of the past, progress is being achieved in the development of fifth generation computers capable of handling such information functions as association, deduction, translation, voice and image that come close to the functions of the human brain.

The fifth generation computer will also serve as the control computer for the INS (an advanced information communications system) which Nippon Telegraph and Telephone Public Corporation is planning to build before the end of this century. The INS, scheduled to be built before the end of the current century, is intended to handle all forms of information including image, data and voice, using the digital formula, which is high in transmission efficiency, speed and quality, and means for high capacity transmission such as optical fiber cable, millimetric and semimillimetric waves, and communications satellites, but only the foundation and framework are included in this planning. When the additional equipment, systems and services are put in place to make full utilization possible, the resulting information system based on the INS will have immense economic effects as well as an immeasurable social, technological and cultural impact.

In the fifth generation computer sector, last year Japan formed a government-academia-civilian joint research group and launched a 10-year R & D project at the cost of over 100 billion yen. The United States, too, has begun a fierce R & D effort with the establishment of MCC, funded jointly by the federal government, IBM and other makers, and the Texas state government. The Japanese proposal for a tie-up with MCC was turned down by the U.S. side on the grounds that no foreign tie-ups were acceptable.

For the construction and development of such advanced information processing and communications systems, a vast amount of software preparation becomes necessary. As for the applied software preparation, an automated production system using computers may be developed in the near future, but the preparation

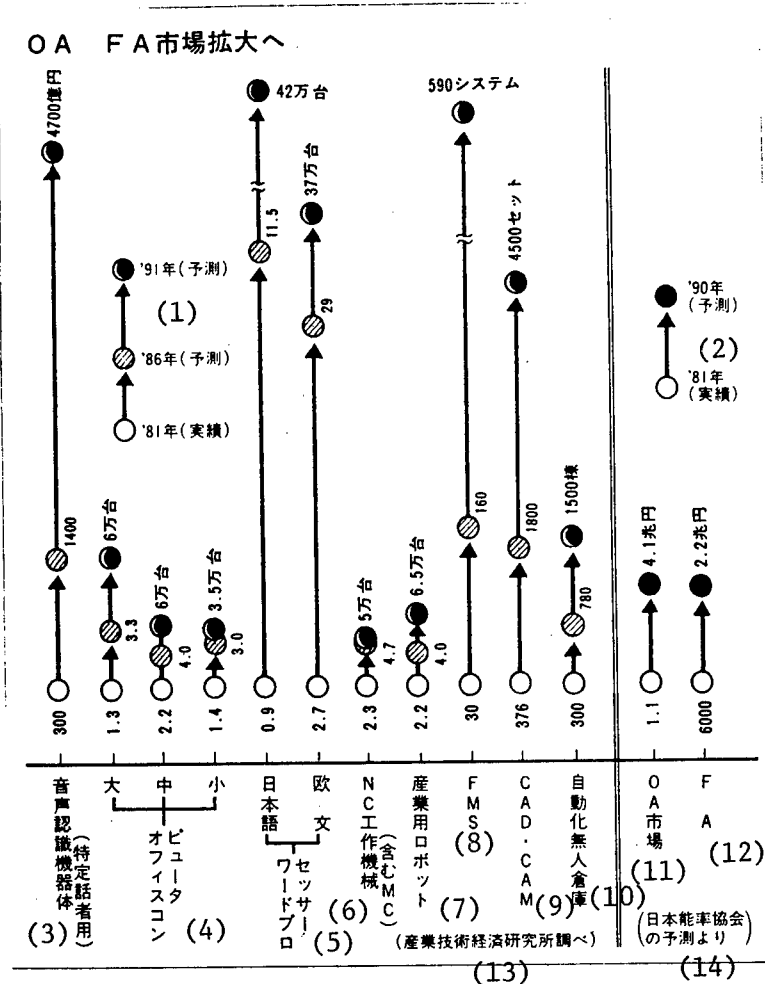


Figure 5. Expansion Trend in Office and Factory Automation Market

Key:

1. 1981 (actual), 1986 (projection), 1991 (projection)
2. 1981 (actual), 1990 (projection)
3. Voice-recognition equipment (for designated speakers), in 100 million yen
4. Office computers, in 10,000's
 - a. Large
 - b. Medium
 - c. Small
5. Word processors, in 10,000's
 - d. Japanese
 - e. European languages
6. NC machine tools (including MC), in 10,000's
7. Industrial robots, in 10,000's
8. FMS, in numbers of system
9. CAD/CAM, in sets
10. Automated unmanned warehouses, in numbers of structures
11. OA market, in trillion yen
12. FA, in trillion yen [the 1981 actual value given as "6000" is probably meant "0.6" trillion yen]
13. (Survey by Industrial Technology and Economy Research Institute)
14. (Based on projections by Japan Efficiency Association)

of basic software such as OS (operation system) is another matter. Considering the fact that the United States has an edge of a day or two in software such as LISP [list processing] language and UNIX, both of which are used for human intelligence research, Japan's C & C industry, too, will have to devote a major effort to the development of advanced software as the industry approaches the 1990's.

One additional factor is that, in the United States, IBM and AT&T have their own satellite communications capability through their affiliate companies and are moving steadily toward formation of a global data communications network, whereas the Japanese C&C industry still has some distance to go to reach that stage. What to do about this situation is a major issue ahead.

Challenge to the United States

In the first E sector of the E&E industry (electronics and electrical equipment industry), efforts are continuing to develop and produce a diverse array of electronics-applied machinery and tools such as electronics parts and elements, ultrasonic waves, X-ray, electronics and electric measuring instruments and ME (medical electronics) equipment.

The 64KB-Super LSI requires ultra-minute processing, and the decisive factor in the competitive strength of this high-tech product is its yield rate--i.e., the percentage of the product meeting the specifications. Improvement of the yield rate is determined by the collective strength of various ultraprecision technologies such as ultraclean space called "a clean room," "ultrapure water," ultrahigh-performance sensitizer and optical printing machine. The yield rate of the Japanese 64KB-Super LSI is much higher than that of the U.S.-made, and this is regarded as the reason for its competitive edge.

Such Japanese superiority, it is believed, will remain unshaken in 256KB, which is soon to be tested on the market, and in 1MB and others that are scheduled for marketing in the 1990's.

Nevertheless, the United States is said to be ahead in the development and designing of completely new circuits and also in super LSI used under severe conditions such as in space or under radiation and these are the areas Japan will be working on during the 1990's.

As the elements for use in super computers to follow the fifth generation computers, materials such as HEMT (ultrahigh speed silicon), compound semiconductors, or the J.J. (Josephson Junction) elements, which utilize superconducting phenomenon other than semiconductors, will be used. Over these element materials, major computermakers of Japan and the United States will be locked in for a continuing war of research and development all over the world.

The second E of the E&E denotes electricity and electrical power. In this sector, it can be said that of late Japan has become able to get by almost entirely by its own domestic technology.

During the 1990's, there may be a growing need for small power plants which can be located near or in the interior of the power-consuming area. Ideal for such power-generating requirements is the fuel cell power plant, which

is pollution free (low) and high in thermal efficiency, good in the rate of investment return even on a small scale, and is also high in mobility. For these reasons, the fuel cell power plant could become popular as a community power plant or as a private residential power plant within a large metropolitan area.

The fuel cell power generator was originally researched in the United States for use aboard large manmade satellites; later, its development continued for the surface wave and demonstration purposes within the Apollo Project. Thus, presumably the U.S. side has had much more experience. Lately, however, considerable progress is being achieved in the Japanese research effort, the future development of which merits attention.

In the area of such new power transmission technologies as 1 million-volt or higher alternating current transmission, direct current transmission, or ultra-low temperature transmission, all of which may possibly become a practical reality during the 1990's, there may be some aspects which Japan should learn from the United States and North European countries.

Before closing, taking a look at the aerospace and the shipbuilding heavy machinery industries, Japan lags considerably behind not only the United States and the Soviet Union but also the West European countries as well. The need to develop the aerospace industry up to a level corresponding to the overall standards of Japan's industrial economy and technology lies, as stressed by Yukitoshi Nonaka, director of the Industrial Technology and Economy Research Institute, "not so much in the question of national pride for a 'major economic power' but rather in the significant ripple-effect benefits to technology and also in its importance to the charting of the overall direction and structure of industrial technology over the period from the latter half of the 1990's through the early part of the 21st century."

It will be necessary to plug the gap, even slightly, by developing the areas unique to Japan. For instance, Japan could do well, subject to the extent of efforts it will devote in the future, in items such as STOL's (short takeoff and landing aircraft), small and large seaplanes in which Japan's development standard is already high in relative terms, and CCV's (control-configured vehicle: advanced steering-function aircraft). Also, in the space sector, Japan is likely to be able to build its own technological structure capable of orbiting securely a 2-ton geostationary satellite. A success in that endeavor will have a wide-ranging effect on Japan's acquisition of highly advanced technology.

Japan's shipbuilding industry, once the world strongest competitor, is now losing to countries such as the ROK and Spain in the building of ordinary freighters and oil tankers. At times Japan even loses out on the bids for ships of fairly high added value like container ships, and often the ROK comes out as the winner in the battle over plant modules and onboard plants as well. In the future, Japanese shipbuilders will have no alternatives but to shift their sights to areas requiring ever higher levels of technology--e.g., LNG tankers, frozen-sea tankers, seabed oil drilling rigs for frozen-sea regions, etc. By the same token, in the plant engineering and social development engineering fields, too, Japan will have to choose and tackle those areas of fairly high degrees of technical difficulty to insure a competitive victory against the groups of semi-advanced nations.

ECONOMIC

BACKGROUND, AIMS, EFFECTS OF TRADE POLICY REVIEWED

Tokyo KIKAN GENDAI KEIZAI in Japanese Autumn 1983 pp 110-127

[Article by Yoko Sazanami: "Japan's Trade Policy"]

[Text] Foreword

"A free trade structure is an absolute requirement for a resources-poor, densely populated nation such as ours to retain its integrity" (Trade White Paper, 1983, page 356). The voluntary export restraints to the United States began with textiles and steel, expanded by the late 1970's to include a variety of commodities such as television sets, automobiles and manufacturing equipment. Once accepted, the "restrictions" appear to become permanent. The advent of import restriction mechanisms such as the trigger price system (United States, 1978), the import inspection system (EC, 1981), and the local content law (United States, 1982) have successively reduced the area of applicability of free trade practices. This sort of crisis of the free trade structure, which shakes the very foundation of trade-dependent countries, is now common knowledge throughout Japan.

In April 1983, the EC Committee, on the basis of GATT Article 23, Chapter 2, proposed discussions using the excuse that Japan's import inspection regulations and approval system, the industries grouping system and the line system of distribution channels were all exclusionary barriers. While the directors did postpone a decision, the intent of GATT Article 23 is that of an adjusting mechanism to remedy cases wherein a trade partner suffers losses or has no profits due to nonperformance on the part of a partner. (Note 1)

In July 1983 the office of the U.S. Trade Representative followed with its proposal, under the same GATT regulations, aimed at the 13 remaining restricted agricultural items. For Japan, which relies on the free trade structure for its very existence, to be reminded of its GATT responsibilities is strange when one thinks about it. However, there is a basic contradiction for the EC and the United States to bring action against Japan in the name of attempting to establish free trade, when they themselves are establishing bilateral trade relationships one after the other and imperiling the GATT structure. And what is the Japanese Government's response to such actions? In January 1982 the import inspection procedures were revised, and in November

of the same year the decision was reached to reduce the customs duties on 215 items, including agricultural products. Furthermore, in 1983 new market liberalization measures were announced, such as revision of the basic certification system, government lead in import procurements, and reduction of customs duties on durable goods, which comprise most of the imports (8 June, NIHON KEIZAI SHIMBUN). With the recovery of the U.S. economy, leading to expanded exports, and the reduction of crude oil prices, for the 1983 current accounts a large \$24 billion surplus was estimated (30 July, NIHON KEIZAI SHIMBUN), which acted to spur the government's import expansion measures.

(Note 1) GATT Article 23, Section 1 states that when two countries cannot adjust matters through bilateral discussion, the matter is to be consigned to a third country under provisions of Section 3, and if GATT infractions are found, appropriate countermeasures are to be taken. GATT-related treaties (Rules of Trade in the 1980's), Nihon Keizai Shimbunsha, 1978.

Using imbalances in current accounts and in bilateral trade as a backdrop, strong representations for market liberalization or institution of voluntary restraints continue to come from the advanced countries of Europe and the United States. On occasion, even if such demands are unjustifiable academically or, as in many cases, unfair, Japan, in the interest of lessening trade friction and to prevent the spread of protectionism, accepts their demands, albeit with some feeling of being a victim of persecution. This sort of pattern of trade policy response was repeated on many occasions in the 1970's. (Note 2) Many reasons can be listed as to why trade measures took on the pattern of response to economic friction in the 1970's.

(Note 2) With respect to individual government responses to cases of economic friction, many excellent research papers have been published. For instance, to list a few: in the summer 1980 issue of this journal, "Special Report: Socioeconomic Study of Economic Friction"; in the summer 1982 issue, "Special Report: International Economic Friction"; in the spring 1983 issue, "Special Report: Protectionism--Japanese/European/American Competition and Response"; article by Yasutomi Shoda and Sueo Sekiguchi, "Study of Japan-U.S. Economic Friction", Japan Economic Research Center, 1983; article by Saburo Okita and Takazo Sato, "Trade Friction", selections from Yuhikaku, 1983; and I.M. Destler and H. Sato, "Coping with U.S.-Japanese Economic Conflicts", 1982, Heath and Company.

Up to the end of the 1960's there was a clearly defined national consensus regarding our trade policy, which was to achieve high economic growth, and to this end, the objective was to amass as much foreign exchange as possible. However, that role ended and it was replaced by the next objective, which was to make the economy more efficient and to raise the quality of life under a free trade system. (Note 3) However, it cannot be said that the reasoning behind this policy change and the burdens placed upon the public nor the people's understanding appear to have completely permeated all levels of society. For this reason, domestic acceptance of the importance of free

trade has been found only in a general sense. In more specific areas, such as the liberalization of trade in agricultural products, public support for the goal of self-reliance has remained strong. (Note 4) As a result, general trade liberalization could not be accomplished. The difficulty in protecting free trade lies in the fact that in contrast to the concepts that the beneficiaries of free trade are a nebulous "people in general" and raising the quality of life rests with the "consumer," the distribution of goods through free trade results in management difficulties and job transfers, with all the attendant costs having to be borne by specific groups. Only when the nation as a whole understands and accepts the thesis that the benefits gained overall are in fact greater than the costs borne by these special groups or individuals will there be general support for the implementation of market liberalization policies. It is difficult to say that there has been adequate understanding and approval of freedom of trade, and Japan's progress in this regard has been primarily due to measures in response to economic friction.

(Note 3) Section 3 of the 1971 "Trade White Paper," "The Problems and Our Responses to International Trade Measures Newly Confronting Our Government," raises the issue of import policies to contribute to the stabilization of prices, raise the quality of life and make the economy more efficient.

(Note 4) Author Kenzo Henmi in "The Problem of Adjustment in Agriculture" and Sueo Sekiguchi in "Adjustment of Japan's Industry," NIHON KEIZAI SHIMBUN, 1981, page 25, Table 3-15, show that in 1978 the Japanese consumer had very strong feelings about self-reliance in regard to food.

In the 1970's, when Japan's trade policies aimed at realizing free trade, the meaning of or criteria for "free trade" changed as a result of protectionist measures which hindered "free trade." Up to 1960, Japanese domestic industry was protected by volume restrictions and imposition of duties, so the GATT negotiations designed to liberalize trade were limited to the abolition of volume restrictions and reduction of duties. (Note 5) However, the reduction of duties brought about a structural change involving an increase in worldwide trade and the mutual reliance of various countries on each other. The protectionist measures taken by various governments in areas other than customs duties were also revealed in detail. Another characteristic of the new protectionism of the 1970's was the increased area of applicability of trade-related measures. According to Balassa, the establishment of cartels to rationalize industry assisted by government policies to aid industry and worldwide market sharing are facets of the new protectionism. Furthermore, if as Singer says, the "new protectionism is different from the old protectionism in that it includes government intervention in all aspects of activity which affect trade," then the parameters for free trade extend to preposterous limits. (Note 6) In fact, in the past, "liberalization" was understood as "liberalization of trade transactions," but in the 1970's the "liberalization of the distribution structure" as a prerequisite to "liberalization of trade" and "liberalization of finances" has come to be included in the interpretation. Japan has its hands full.

(Note 5) Of the six occasions up to the end of the 1960's in which the GATT conducted negotiations on general tariffs, the fifth, known as the Kennedy Round, was the first in which, in addition to tariffs, questions on agriculture, nontariff barriers and issues of developing countries were taken up. However, in terms of actual accomplishments, the imposition of a "dumping code" is about all that remains. Refer to "Overview of the Tokyo Round," the Tokyo Round Research Association, 1980, Japan Customs Association, Chapter 1.

(Note 6) Refer to: B. Balassa, "The 'New Protectionism' and the International Economy" in "The Newly Industrializing Countries in the World Economy," Pergamon Press, 1981, and H. Singer, R. Ballance and J. Ansati, "The International Economy and Industrial Development," Whearshaeaf Books, 1982, pp 70-71.

Furthermore, liberalization under the new guidelines, that is, the exposure of nontariff barriers, is much more difficult to quantify than the reduction of tariffs and restrictions on volume. Therefore, even if liberalization is undertaken, it can be judged that since actual proof of policy effectiveness is unavailable, the barriers will continue to remain in place. Despite the many market liberalization steps instituted by Japan in the 1970's, in an analysis of their effectiveness, there were no spectacular changes visible in any of the indicators attributable to these reductions in trade barriers to show a narrowing of overseas and domestic price differentials, or increases in market penetration or in the import ratios of manufactured products. This factor was among the many on the basis of which the Europeans and Americans pressed Japan to undertake additional liberalization measures.

In the 1970's, Japan, which was abiding by its responsibilities as an advanced nation to remove its trade barriers, came to stand on the side of the under-industrialized nations, which since the latter half of the 1960's had been closing the gap between themselves and the industrialized nations at the fastest pace in history. This type of two-way characteristic of the Japanese economy brought about an ambivalent response in trade policy unique to Japan wherein it carried out both trade liberalization and export controls at the same time through voluntary restraints.

In this manuscript I want to analyze the characteristics of the foregoing Japanese trade measures in detail. In the first section, the period between 1971 and 1983 will be reviewed to determine the policy objectives and why the government responded as it did. The second section will take up the reasons for the low import ratio and market penetration said to be the result of nontariff barriers. Taken up next will be the question of continued domestic and overseas price differentials for agricultural commodities and their position in the liberalization picture, as well as the resulting problems. The third section will clarify the unique characteristics of the export structure which became one of the reasons for the institution of voluntary export restraints as part of Japan's export policy response. And finally, several of the problems noted in the government's responses heretofore will be used to form the conclusion of this paper or left posed as topics for the future.

I. Development of Trade Policy 1971-1983

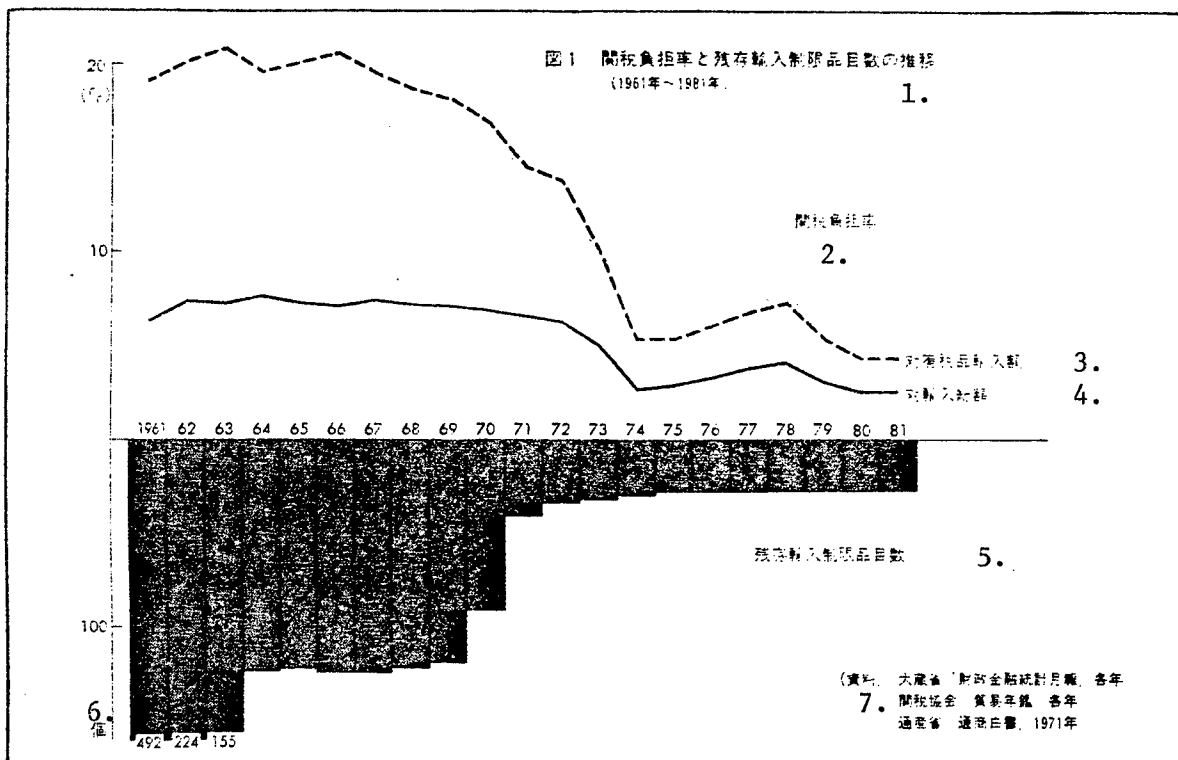
In the 1970's Japan was on the threshold of major changes in trade policies. Its domestic heavy and chemical industries had registered a degree of success, and internationally its steel and electrical equipment industries had been conspicuously strengthened. Hence the protectionist tariff policies which had protected its domestic industries were about to complete their role. On the other hand, the economic position of the United States, which has been at the forefront of promoting free trade, was clearly beginning to deteriorate. Not only was the deterioration of its current accounts and the outflow of dollars contributing to international financial instability, but the U.S. Government was unable to put a lid on the growing forces of protectionism within its own borders. The call for voluntary restraints in the export of textiles to the United States in 1969, which was followed by a variety of bilateral trade friction problems, may well be termed the preliminary skirmish. However, what frightened Japan most was the temporary halt to convertibility between gold and the dollar by President Nixon, and the announcement in August 1971 of a new economic policy calling for the imposition of a 10 percent surtax on imports. At that time Japan's trade with the United States had realized advances in steel and machinery in addition to textiles, and it reached a \$3.8 billion surplus in 1970. Japan was pressed to quickly even out this bilateral trade imbalance through adjustments with other countries. So Japan, which had hesitated heretofore in matters of free trade, in November 1971 at the GATT general meeting called for a new international round designed to expand world trade. (Note 7)

(Note 7) With the advent of the new protectionism, the parameters of trade policy became very unclear. This manuscript will limit its scope to basic trade transactions which by their occurrence affect trade policy. Therefore, it has not taken into account other policy objectives the institution of which affect trade--for instance, government support for education and research designed to raise the level of the export structure or employment policies with respect to small and medium-size enterprises which may slow the increase of imports. This is not because the author decided these policies did not have a strong impact on trade, but because of space limitations and because other experts in these respective fields are scheduled to present their dissertations in this series.

After 1968, Japan's current account balance continued to increase, and by 1971 it was about to pass the \$5-billion level, so the question of raising the value of the yen had become impossible to avoid. But the attitude in Japan's industrial sector was strong against yen revaluation. Therefore, in June, as one of eight countermeasures to deal with the yen problem, wide-ranging reductions were made in tariffs covering 1,923 commodities, and 20 critical products including grapefruits were liberalized. Notwithstanding the monetary adjustments of the Smithsonian Agreements at the end of 1971, the rapid growth of Japanese exports continued into 1972. The reason the impact of yen revaluation was less than anticipated and exports increased was because of the increase in U.S. income due to economic recovery and the

shifting by manufacturers of product destinations to areas other than the United States. When it was predicted that the current accounts balances would rise to record highs, the arguments for yen revaluation surfaced again. At that point, in November, the government moved to reduce import tariffs on 45 percent of all imports, a 20 percent reduction on 80 percent of all taxable imports.

Figure 1 shows that the tariff burden ratio (tariff revenues/import volume x 100) and the commodities still under import restrictions remained practically unchanged between 1963 and 1969, when Japan became one of the 11 GATT countries. The tariff burden ratio gradually declined after 1968, to 17 percent in 1970 and to 5.3 percent in 1974, a rapid 12 percent decline in just 4 years. As the tariff burden declined there was a concurrent liberalization of the remaining items under import restrictions, from 90 items in 1970 to 29 items in 1974. With the liberalization in 1975 of electronic calculators and related parts, all commodities which had been restricted with the objective of nurturing our industries were removed from import restrictions. (Note 8)



Key:

1. Figure 1. Trend of tariff burden ratio and number of items remaining under import restriction.
2. Tariff burden ratio
3. Imports of taxable commodities
4. Total imports
5. Number of import restricted items
6. Number
7. (Data) Ministry of Finance: "Financial Statistics Monthly," annual
Customs Association: "Trade Annual," annual
MITI: "Trade White Paper," 1971

(Note 8) Of the remaining restricted import items there are 27 agricultural items and 5 other items including coal, leather and leather goods.

If the 2.7 percent tariff burden ratio of 1974 is compared to that of other advanced countries, in the same year it was 3.1 percent in the United States, 4.2 percent in West Germany and 2.6 percent in France, so we can see that the level was generally similar. At the end of 1975 the number of items still under import restrictions in Japan, 27, was greater than that in the United States, but compared with France's 74 items, West Germany's 39 items, and Great Britain's 25 items, it definitely cannot be called excessive. (Note 9) Up to 1974 Japan liberalized rapidly, at a rate that was no less aggressive than that of other advanced nations, but beginning in 1976 a great chorus of criticism led by the United States and European nations rose against Japan's restrictiveness.

(Note 9) If internal EEC trade is included, the tariff burden of West Germany is 2.0 percent and that of France, 1.5 percent. The figures in the tariff burden ratios are from the "Monthly Statistics of Finances," No 317, and the list of remaining restricted items is from the "Trade Annual" Customs Association, 1975 issue.

Criticism of Japan by the EC concentrated on the Keidanren mission in the fall of 1976. The EC demanded export self-discipline in shipbuilding, steel and autos, as well as market liberalization in general. However, Japan's trade accounts with the EC still increased in 1977, so at the March 1978 Japan-EC trade meeting, the joint statement included calls for the elimination of Japan's imbalance with respect to the EC, the liberalization of markets and for making Japanese import increases a form of assistance to developing countries. On the other hand, the U.S. demands for Japan to open its markets became more specific and covered a wider area. (Note 10) At the center were agricultural products, an area in which the United States is in a relatively advantageous position, and the procurement process of the Nippon Telegraph and Telephone Corporation. In view of this strong U.S. demand for liberalization of Japan's markets, needless to say, since 1975 the U.S. current account with Japan has continued to deteriorate.

(Note 10) Refer to the first Jones Report, "U.S.-Japan Trade," 2 January 1979, pp 19-31, and the second Jones Report, Japan Trade Promotion Association, 1980, Chapters III and IV, for details of U.S. demands regarding the Japanese market.

The trend toward the United States demanding that Japan liberalize its markets can also be seen in the bilateral trade imbalances that developed in the 1971-1972 period. However, the change in the criticism after 1976 lay in the fact that it centered on the complex Japanese distribution system, the import applications procedures and the industrial products specification. These were all very specific demands for removal of impediments that had nothing to do with tariffs. In addition, there have been complaints touching on structural issues charging that Japan protects designated domestic industries until they are able to replace imports and so they can enter the international

marketplace after they have perfected their international competitive position and wage scale base, and that it causes a sudden disruption of the market by the rapid growth of exports. (Note 11)

(Note 11) The specific document linking Japan's industrial protection and rapid export growth is the Joint Economic Committee's "Internal Competition in Advanced Industrial Sectors: Trade and Development in Semiconductor Industry," 18 February 1982, p 148.

Japan's standard response to the demands by the advanced European nations and the United States for it to liberalize its markets was generally of the following nature: (1) as can be seen by the low tariff rates, Japan's market is already well liberalized compared to that of other advanced countries, and the fact that imports do not increase is because there is a lack of marketing effort on the part of the exporters; (2) Japan is extremely short of natural resources; because we need to import raw materials on a large scale, the ratio of manufactured goods is necessarily smaller; (3) bilateral imbalance in trade accounts exist between the United States and the EC and, at the same time, Japan is burdened with a tremendous deficit with respect to energy-rich countries; (4) Japan's export expansion is due basically to increases in its labor productivity which strengthens its international competitiveness. These defenses can be subscribed to on the basis of economic theory, and there are many actual detailed analyses which support these arguments. (Note 12) However, some residual questions remain concerning the following points.

(Note 12) For instance, refer to the "Trade White Paper," 1981, Section 3, Chapter IV; 1982, Section 2, Chapter IV and Section 3, Chapter II; and 1983, Section 3.

There is no doubt that up to 1974 Japan's tariffs were reduced to the level of the other advanced countries. But beginning with the Tokyo Round, in the 1970's the market liberalization spotlight shifted to nontariff barriers. If imports do not increase even when tariffs are lowered, then it must mean that nontariff barriers are preventing such growth. Since it is difficult to come up with figures and volumes regarding nontariff barriers, the way to determine whether policies have been effective or have been instituted at all is to use indicators on domestic and overseas price differentials, market positions and product import ratios. In this case the price indicator most often cited to show the domestic and foreign price differential is that of beef, in which Japan's 100 for 1980 compares to 23.6 for the United States and 42.0 for Great Britain; with regard to milk, that for the United States is 35.8 and for Great Britain, 52.7. (Note 13) The manufactured goods import ratio in 1975 was 19.9 percent, and in 1980 it was only slightly higher, 21.0 percent. This compared with 52.7 percent for the United States and 55.8 percent for West Germany, a great disparity. (Note 14)

(Note 13) From Tables 2, 3, and 18 (Trade White Paper) 1982, p 254.

(Note 14) The manufactured goods import ratio is the total ratio (%) of SITC 5, 6, 7 and 8 types of total imports.

Next, if we look at Japan's argument that its import structure reflects the heavy dependence on natural resources, West Germany's reliance on imported raw materials with the exception of coal and natural gas is about the same as Japan's. Furthermore, as indicated earlier, West Germany's import of manufactured goods is more than twice that of Japan's. This gives rise to the criticism that "Japan, under an overall trade policy, is promoting the import of semifinished goods rather than completed products in order to give its labor force the opportunity to provide added value employment."

(Note 15) In this instance, the argument that the lack of natural resources forces us to be a manufacturing nation is not very convincing. Rather, a counterargument as to why we have not imported manufactured goods should have been prepared.

(Note 15) See "The Gibbons Report, a Trade Analysis by the U.S. Congress," Japan Trade Promotion Association, 1982, p 27.

It is difficult to say that the Japanese responses to the European and U.S. demand for market liberalization convinced the other side, but they were easily supportable domestically. With respect to Japan's lack of natural resources, the 1973 oil crisis had just provided ample experience of that fact. And the extreme increase in payments for oil led to record high deficits in 1973 and 1974. This caused the hopes of balancing Japan's international accounts, expressed at the beginning of the 1970's, to fade. By 1977, when the demand for Japan to liberalize its markets had become sharp, its current accounts and basic accounts had shed their deficits, but in contrast to 1971 and 1972, there was no motivation domestically to liberalize the markets. It was the end of 1977 before market liberalization policies could be revived, and it was 1978 when they were actually put into operation.

During the period 1974-1978 when this liberalization policy was in limbo, the tariff burden ratio rose slightly. After the resumption of liberalization policies, other nontariff barriers such as trade application procedures were simplified, the Foreign Exchange Controls Law was revised with the objective of basically freeing international exchange, and the import inspection system was rationalized. After calling for the Tokyo Round talks at the beginning of the 1970's, the Japanese effort to liberalize markets finally moved into high gear in 1978 with the attempt to remove the remaining nontariff barriers. However, during this period, bilateral trade friction spread from that with the United States alone to that with European countries. The situation now is that Japan, while conducting a policy of market liberalization, is also undertaking a policy of restraining exports as a concurrent response to the demands made on it. Next, as shown in Table 1, let us examine why the market liberalization policies of the 1970's did not produce any significant results to increase the ratio of manufactured goods imports, increase market penetration or reduce domestic and foreign price differentials.

Table 1. Major Market Liberalization and Export Protection Measures
1971-1983

表1 1971年～1983年までの主要な市場開放および輸出抑制策 1.		
市場開放策2.		輸出抑制策3.
1971年 4. ケネディラウンド締上げ実施 対象 1923品目 円対第8項目実施 クレープフルーツ等20品目 生活関連物資関税引下げ 特恵品を定める	5. 対米繊維自由規制	
1972年 6. 第3次円対策による関税率一律20%引下げ 対象 1,865品目 有税品の80%をカバー	7. 日米繊維協定調印 対EC針織輸出規制 対米針織自主規制3年延長 輸出秩序対策委設置	*日本
1973年 8. 高級電卓・電子会計機・素子数200未満のIC自由化 特恵品 5割拡大		
1974年 9. IC全面自由化 (生産・組製品輸入割当制実施)	10. 針織輸出急増、通産省は配慮ある輸出を要望 対ベネネクス民生用電子機器輸出自主規制	*日本
1975年 11. 関税改正による引下げ 40品目にとどまる	12. 英国テレビ・ブラウン管輸入監視制度導入 対英自動車輸出自主規制	*英国
1976年 13. 関税改正による引下げ 10品目にとどまる	14. 対米特殊鋼輸入制限措置 日米特殊鋼交渉妥結	
1977年 15. 日米通商円滑化委員会設置 12月に東京府と日米貿易関係に関する協議会を定める	16. 対米カラーテレビ輸出規制(年間175万台)決着	
1978年 17. 東京ラウンド前の関税前倒し、乗用車100%はしめ125品目の関税率を平均23%引下げる 日米貿易交渉決着 輸入品価格調査チームを通産省内に設置	18. 対米工作機械輸出規制 米国トリカー価格制導入 輸出監視委員会を設置	*米国 *日本
1979年 19. 東京ラウンド実質的な終結へ(関税引下げ、補助金・相殺措置、政府調達、特恵基準、関税評価・民間航空機、貿易枠組の改善等が決まる)		
1980年 20. 外資経営及び貿易管理法改正施行、対外取引は「原則自由」へ、貿易手続の簡便化	21. EC、日本の自動車輸出自主規制要請	*EC
1981年 22. 東京ラウンド関連関税引下げ2年度一括引下げ(対象1,521品目) 輸入検査手続等運用の適正化	23. 対米自動車輸出自主規制 対EC工作機械輸出規制 EC外相理事会、EC委員会に対日輸入監視報告を要請	*EC
1982年 24. 農産物17品目、工業品198品目につき関税引下げ農産物輸入枠拡大、関連開放問題管理処理推進本部の設置 輸入品の流通に関する独禁法の厳格な運用を決める。	25. EC、対日輸入監視制度対象品目の拡大決定 (VTR、軽乗用車、自動車2輪車を追加)	EC*
1983年(6月現在) 26. 農産物47品目、工業品28品目(タバコ・チョコレート・ビスケット等)の関税引下げ、輸入制限の緩和 基準・認証制度等の検討のための連絡調整本部の設置 認証手続における内外無差別の法制度的確保	27. EC、対日輸入監視制度の対象品目を10品目追加 (フォークリフト、HFI機器、クォーツ時計等) EC*	EC*

(1) *は政策を採用した国を示す。特に示していない場合は日本の対象国向け規制措置
(2) 貿易政策は実際に施行されたものを中心に並び政策施行の年次に記入した。

資料:「財政金融統計月報」、「関税政策の概要」249号、293号、317号、341号、および365号
通商白書: 1981年、1982年、1983年 通産省「通商産業政策年表」より作成

28.

Key:

1. Table 1. Major Market Liberalization and Export Protection Measures 1971-1983
2. Market liberalization measures
3. Export control measures
4. Kennedy Round postponement of 1,923 commodities
Yen countermeasures on 8 items; tariff reduction on 20 household items including grapefruit
Decision on preferential treatment
5. Free control of U.S. textiles
6. 20 percent tariff reductions as part of third yen countermeasures on 1,865 items; covers 80 percent of taxable items
7. Signing of Japan-U.S. textiles agreement
Control of steel exports to EC
3-year extension of voluntary restraints on steel exports to United States
Formation of the Order Exports Countermeasures Council *Japan
8. High-quality desk calculators, electronic calculators, liberalization of IC's with under 200 elements, 50 percent increase in preferential treatment
9. All IC's liberalized (silk and silk product imports placed under quotas)
10. Rapid increase in steel exports, MITI calls for reasonable exports
Consumer electronics exports to Venezuela placed under voluntary restraints *Japan
11. Reduction due to revision of tariff law, 40 items
12. Great Britain adopts import surveillance of TV sets, picture tubes; trend toward self-discipline in auto exports to Great Britain
13. Reduction due to revision of tariff law, 10 items
14. U.S. restriction against specialty steels
Japan-U.S. specialty steels negotiations over
15. Japan-U.S. Trade Harmony Committee established
Reduction of surplus and tariff reduction as market liberalization measures decided on in December
16. Export control of color TV sets to U.S. (1.75 million sets per year) decided
17. As prelude to Tokyo Round, 125 items, including 100 percent of autos, have reduced tariffs averaging 23 percent
Japan-U.S. agricultural negotiations over
Import items price investigation team established within MITI
18. Manufacturing machinery exports to United States controlled
U.S. trigger price system instituted *U.S.
Exports movement surveillance committee established *Japan
19. Tokyo Round concludes (tariff reductions, subsidies-offset measures, government procurement, qualifications standards, tariff valuation, civilian aircraft, revision of trade framework, etc., decided)
20. Foreign exchange and trade control laws revised; foreign exchanges "basically free"
Simplification of trade procedures
21. EC asks Japan for self-discipline in auto exports
22. 2 years of Tokyo Round related tariffs reduced at one time on 1,521 items
Rationalization of import inspection procedures

23. Voluntary restraint on auto exports to United States
Control of exports of production machinery to EC
EC foreign ministers meeting requests EC Executive Council for
report on surveillance of Japanese imports
24. Tariffs on 17 agricultural items, and 198 industrial items reduced
Establishment of office to handle complaints related to market
liberalization problems; decision on strict administration of
Fair Trade Law with respect to distribution of imported products
25. EC increases area of surveillance of Japanese imports
(VTR, light commercial vehicles, and two-wheeled automatic vehicles
added) *EC
26. (as of June)
Relaxation of import restrictions on 47 agricultural items,
28 industrial products (tobacco, chocolate, biscuits, etc.)
and tariff reductions
Establishment of liaison office to review standards and approval
systems
Confirmation of system of nondiscrimination in domestic and foreign
goods approval procedures
27. 10 items added by EC to surveillance list of Japanese imports
(forklifts, hi-fi equipment, quartz watches, etc.) *EC
28. (1) * denotes country originating action; where no indication given,
denotes Japanese unilateral measures
(2) Trade policy is for actual policy instituted and for years shown
Data: "Financial Statistics Monthly"
"Outline of Financial Policy," numbers 249, 293, 317, 341 and
365
"Trade White Paper" 1981, 1982, 1983, MITI "Trade/Industry
Policy Annual"

II. Market Liberalization and Nontariff Barriers

1. Factors in Increase of Manufactured Goods Imports

The low ratio of manufactured goods imports by Japan up to the 1970's is the result of its having opted for the policy of self-sufficiency in industrial products because of the meagerness of its natural resources and its need to apply foreign exchange to the importation of raw materials. The increase in provision for its own industrial products also provided employment opportunities for its workers. However, as the end of the 1960's approached, Japan was under pressure to change its policies because of the increasing trade accounts surpluses and the increase in labor demands from developing countries and the advanced nations of Europe and America to liberalize its markets. The result, a decrease in tariff rates for taxable items and the reduction of nontariff barriers, can be seen in Figure 1. Trade liberalization resulted in an increase in imports of manufactured goods. The ratio rose from 22.5 percent in 1965 to 30.1 percent in 1973, a 7.6-percent growth in a period of 8 years. However, due to the high cost of crude oil in the same years, the ratio of manufactured goods imports dropped to 19.9 percent in 1975. In the next 6 years, up to 1981, despite strong demand from the EC and other countries to increase the import of manufactured goods, there was only a 1.6 percent growth, less than the levels prior to the oil crisis.

The share of crude oil among all Japanese imports immediately prior to the 1972 oil crisis was 16 percent, more than twice the 7.4-percent average of the OECD member nations. Although energy conservation moves subsequently lowered the volume level, it was not enough to offset the two major oil price increases, and in 1982 crude oil payments came to 35.1 percent of those of all imports. (Note 16) If crude oil imports are excluded, there has been a gradual increase in imports of manufactured goods since 1975. This is particularly true in terms of the shift from the import of raw materials to that of semifinished textiles, nonferrous metals, wood and paper products, causing an increase in the index of imported product materials and a decrease in the import of raw materials. (Note 17) However, the tempo of increase in this type of imported products is extremely slow and is not sufficient to raise the ratio of market share to the point of convincing our counterparts that are clamoring for market liberalization.

(Note 16) For additional information on energy and oil conservation, refer to "Trade White Paper," 1983, Figures 3-3-9 and 3-3-18.

(Note 17) For details see Yoko Sazanami, "Japanese Trade after the Oil Crisis--A Structural Approach," in JOURNAL OF JAPANESE TRADE AND INDUSTRY, May/June 1983.

Various types of detailed information such as domestic price and income flexibility at established levels and long-range domestic production flexibility must be available in order to analyze the effectiveness of market liberalization. But here let us examine why the import of 11 manufactured items increased so slowly between 1970 and 1980. We will consider two factors: 1) increase in domestic demand, and 2) changes in market penetration.

[see Table 2, next page]

Table 2. Analysis of Reasons for Changes in Volume of Import Items (1970-1980)

表2 製品輸入の増加要因分析 (1970年～1980年)

1.

(単位: 100万トル)

製品輸入増加 3.		対 世 界 4.		対 米 5.			対 E C 6.		
7. (各年累計)	増 加 額 8. (1)	国内需要 拡大要因 (2) 9.	市場浸透 率変化要 因 (3) 10.	増 加 額 (1) 11.	国内需要 拡大要因 (2) 12.	市場浸透 率変化要 因 (3) 13.	増 加 額 (1) 14.	国内需要 拡大要因 (2) 15.	市場浸透 率変化要 因 (3) 16.
I. 1970年～1974年総計	12,766	9,016	3,750	3,744	2,865	879	2,238	1,305	932
17. 1. 食料・飲料	5,548	4,021	1,527	1,793	1,219	574	287	157	129
2. 織 維	1,514	558	956	101	48	53	350	97	253
3. 化 学	1,668	1,214	453	616	462	154	601	395	206
4. 非金属性鉱物	333	312	21	65	47	18	50	64	△14
5. 鉄 鋼	124	135	△11	△0.1	12	△12	23	9	14
6. 非鉄金属	1,092	840	252	115	99	16	82	38	44
7. 金属製品	157	100	57	—	—	—	44	27	17
8. 一般機械	1,060	1,031	28	412	518	△106	483	349	134
9. 電気機械	649	398	251	284	241	43	147	68	79
10. 輸送用機械	351	205	146	263	134	129	97	52	45
11. 精密機械	270	202	68	95	85	10	74	49	25
II. 1974年～1978年総計	7,755	12,861	△5,106	1,857	3,929	△2,072	1,721	2,006	△285
18. 1. 食料・飲料	3,281	6,355	△3,074	959	1,861	△902	280	319	△39
2. 織 維	902	946	△44	4	45	△41	99	176	△77
3. 化 学	1,095	1,759	△664	391	675	△284	291	536	△245
4. 非金属性鉱物	532	444	88	39	58	△19	163	111	52
5. 鉄 鋼	△1	159	△160	16	16	△0.3	△15	9	△24
6. 非鉄金属	318	599	△281	△29	30	△59	44	36	8
7. 金属製品	56	118	△62	19	38	△19	22	34	△12
8. 一般機械	167	762	△595	134	392	△258	45	253	△208
9. 電気機械	670	859	△189	340	438	△98	147	169	△22
10. 輸送用機械	616	748	△132	△39	335	△374	592	331	261
11. 精密機械	119	112	7	23	41	△18	53	32	21
III. 1978年～1980年総計	12,586	5,991	6,595	5,625	2,035	3,591	1,472	1,027	445
19. 1. 食料・飲料	3,263	1,095	2,168	1,606	367	1,239	226	67	159
2. 織 維	449	3	446	87	△2	89	188	△6	194
3. 化 学	2,439	1,478	962	1,128	597	531	470	409	61
4. 非金属性鉱物	152	190	△38	30	25	5	34	47	△13
5. 鉄 鋼	495	175	320	19	11	8	5	7	△2
6. 非鉄金属	2,125	1,382	742	683	221	462	56	65	△9
7. 金属製品	139	46	93	65	16	49	35	13	22
8. 一般機械	1,300	495	805	794	257	538	221	155	66
9. 電気機械	995	527	468	524	286	238	112	88	24
10. 輸送用機械	752	268	484	482	138	344	△11	84	△95
11. 精密機械	477	332	145	207	119	88	136	96	38

注(1) 輸入M、輸出E、生産Xとすれば国内需要は $D = X - E + M$; 市場浸透率は $\frac{M}{D}$; t期の輸入は $M_t = \frac{M_t}{D_t} \cdot D_t$; t-1期の輸入

20. は $M_{t-1} = \frac{M_{t-1}}{D_{t-1}} \cdot D_{t-1}$ である。 $M'_{t-1} = \frac{M_t}{D_t} \cdot D_{t-1}$ とすれば、t-1期からt期への輸入増加は次のように国内需要拡大要因と市場浸透率変化要因に分けることができる。

輸入増加 1) 国内需要拡大要因 2) 市場浸透率変化要因 3)

$$M_t - M_{t-1} = (M_t - M'_{t-1}) + (M'_{t-1} - M_{t-1}) = \frac{M_t}{D_t} (D_t - D_{t-1}) + D_{t-1} \left(\frac{M_t}{D_t} - \frac{M_{t-1}}{D_{t-1}} \right)$$

(2) 各期間(例えば1970～1974年)の輸入増加額は各年の対前年輸入増加額の累計である。従って、国内需要拡大要因及び市場浸透率変化要因は各年ごとの増加額(或は減少額)を累計したものである。——即ち、初年次と最終年次の差ではない点に注意——
なお、紙面上の制約から各年の値を合計した。

(3) △はマイナスを示す。

資料: 「工業統計表」と「日本貿易月表」の各年、為替レートには各年の年平均レートをもちいた。

Key:

1. Table 2. Analysis of Reasons for Changes in Volume of Import Items (1970-1980)
2. Unit: million dollars
3. Change in volume of import items
4. In regard to the world
5. In regard to the United States
6. In regard to the EC
7. (Annual difference)
8. Amount of change
9. Due to change in domestic demand
10. Due to change in market penetration
11. Amount of change
12. Due to change in domestic demand
13. Due to change in market penetration
14. Amount of change
15. Due to change in domestic demand
16. Due to change in market penetration
17. 1970 - 1980 Grand Total

1. Food, beverages
2. Textiles
3. Chemicals
4. Nonferrous metal ore
5. Steel
6. Nonferrous metal
7. Metal products
8. General machinery
9. Electrical machinery
10. Transport machinery
11. Precision machinery

18. 1974 - 1978 Grand Total [1. through 11. same as No 17]
19. 1978 - 1980 Grand Total [1. through 11. same as No 17]
20. Note (1) Assuming that imports are M, exports E, and production X, then domestic demand is $D = X - E + M$; market penetration ratio is

$\frac{M}{D}$, imports during t period are: $M_t = \frac{M_t}{D_t} \cdot D_t$; imports in t-1 period are $M_{t-1} = \frac{M_{t-1}}{D_{t-1}} \cdot D_{t-1}$. If $\frac{M_{t-1}}{D_{t-1}} = \frac{M_t}{D_t} \cdot D_{t-1}$, then the

increase from t-1 period to t period, then the position due to change in domestic demand and the position due to market penetration ratio change can be divided as in the following:

Import change (1) $M_t - M_{t-1} = (M_t - M_{t-1}) + (M_{t-1} - M_{t-1}) = \frac{M_t}{D_t} (D_t - D_{t-1}) + D_{t-1}$	Due to change in domestic demand (2)	Due to market penetration ratio change (3) $\left(\frac{M_t}{D_t} - \frac{M_{t-1}}{D_{t-1}} \right)$
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[No 20 continued on next page]

[No 20, continued]

(2) The amount of import change in each period (i.e., 1970-1974) is the annual difference compared to the previous year. Therefore, the reason for market penetration change ratios is the difference in increases (or decreases) for each year. In other words, it is not the difference between the first and last year. Also, due to space limitations, only totals for years are shown.

(3) negative

Data: "Industrial Statistics Chart" and "Japan Trade Monthly" for each year. The exchange rates are the average for each year concerned.

Table 2 seeks to determine, with respect to 11 commodities, the increase (or decrease) in annual import ratios between 1970 and 1980, and as explained in Note (1) of Table 2, the factors causing a change in domestic demand and the factors deriving from changes in market penetration ratios were separated. Next, the annual differences in three periods--1970 through 1974, 1974 through 1978 and 1978 through 1980--were sought and shown by areas. These areas were: in regard to the world, in regard to the United States, and in regard to the EC. (Note 18) Very clear differences can be seen in the factors causing the increase in manufactured goods in these three periods. First, with respect to the world, we can see that during 1970-1974, with the exception of steel, the increase in market penetration was the reason for import increases. But the factors for market penetration changed in the period 1974-1978, with the exception of nonferrous metals, metal ores and precision equipment, and they all led to minus growth. In fact they acted to reduce imports. In the 1978-1980 period, the market penetration ratio again increased, and with the exception of nonmetallic ores, all 10 commodities contributed to increasing imports. When the 1970-1974 period and the 1978-1980 period are compared, in the former period the changes in market penetration account for only 30 percent of the increases in imports, while the remaining 70 percent increase is due to domestic demand increase. However, in the latter period, 45 percent of the increased imports is due to increased domestic demand, making the causal factor for change in market penetration ratio a large 55 percent.

(Note 18) In addition to these three areas, the author also sought similar indices with respect to manufactured goods imports from developing nations. But because analysis was not possible on all 11 commodities, analysis such as that shown in Table 2 was not possible and so has not been included. The author will defer such analysis to another time.

Looking at the results in Table 2 of the analysis of reasons for the expansion of the import of manufactured goods, it becomes apparent that the thinking that Japan's manufactured goods imports do not affect changes in market liberalization--Figure 1 and Table 1--is in error. In the years between 1970 and 1974 which include 1971 and 1972, the years when rapid import liberalization took place, an increase in market penetration can be

seen in practically all sectors, and this was the reason for the increase in domestic demand as well as the increase in imports. But following the next oil shock, due to the recession and deficits in current accounts, all market liberalization policies were put on hold and tariff ratios, which had been either flat or in some cases a little lower, climbed a little. During the 1974-1978 period, there was concentration on U.S. imports, but most showed a decrease in levels. (Note 19) It was not until after 1978, with the advance tariff reductions preceding the Tokyo Round, the solution of the U.S.-Japan agricultural negotiations and the dispatch of the import promotion mission, that market penetration ratios again rose and contributed to expansion of the import of manufactured goods. However, the increase in domestic demand was small, reflecting the low growth rate of the economy. This was particularly true with respect to textiles, steel and metal products.

(Note 19) The low yen exchange rate that continued from 1974 through 1977 can also be considered as having been a cause of the declining market penetration ratio by controlling the import of manufactured goods. Analysis in greater detail on this point is probably needed.

An analysis of the reasons for the change in imports from the United States presents in microcosm the pattern for the world. From 1970 to 1974 the amount of the total annual increase in imports was \$3.7 billion. Of this amount, \$2.8 billion was due to the increase in Japanese domestic demand. In the subsequent period, from 1974 to 1978, the market penetration ratio change was a minus, and as a result the amount of U.S. imports was considerably lower, \$1.85 billion, than in the previous period. However, in the period from 1978 to 1980, all sectors of the import market contributed to changing the market penetration ratio. Of the total increase of \$5.6 billion, \$3.59 billion or 60 percent was attributable to the change in the market penetration ratio. The greatest changes were in food and drink. In other words, 68 percent of the difference in increased imports was due to the increase in domestic demand, but in the 1978 to 1980 period 77 percent of the change was due to the change in market penetration ratio.

Viewed in terms of the foregoing analysis, the reason for the slow increases in the 1970's, compared to the period from the late 1960's to 1973, is found in the following: after the full effects of the import liberalization of the 1971-1972 period had taken place, in the 1974-1978 period almost no additional market liberalization measures were undertaken. Rather, the world food crisis and the oil price rise which began in 1973 spotlighted for the Japanese the fragile nature of their economy's dependence on foreign sources and heightened the feeling of need for domestic self-sufficiency. As a result, the trend of the market penetration ratio, which had been rising up to 1973, was reversed and controls were instituted on the import of manufactured goods imports. Subsequently, with the resumption of market liberalization, the issues still pending such as nontariff barriers and agricultural products liberalization began to be addressed. Looking only at the change from 1978 to 1980, the measures to increase market penetration ratios appear to have been successful. The importance of increased domestic demand in bringing about a change in the import structure through increasing the amount of manufactured goods is shown in Table 2.

Increasing domestic demand through increasing imports is small when comparing the 1978-80 period with the 1970-74 period and points up the difficulty of achieving structural change under the condition of low growth as compared to that of high growth.

2. Position of Agricultural Liberalization

The liberalization of the import of agricultural products was a major element of the market liberalization demands made upon Japan in the 1970's. In response to the demand, the liberalization of agricultural imports proceeded in parallel with that of industrial goods. As shown in Figure 1, from 1970, when the remaining import restrictions began to decrease, to 1973, 42 agricultural items were liberalized.

Up to the 1960's, the basic premise of the policies chosen to protect agricultural products was the same as the measures taken to protect industrial products.

In other words, the protection level was lower for domestic raw materials where the situation was neither severe nor competitive, while processed food products, which ranked high in Japan's processing industries, had high tariffs applied under a tariff escalation system. (Note 20) The result was, for instance, that the pork and egg industries, which were able to maintain self-sufficiency due to large-scale imports of grain for feed, along with the food processing industry, which was the intermediate supplier, were able to maintain domestic production levels. The only difference when compared to industrial products is that there is a limit to the amount of real estate that can be conserved in agricultural production, so at each juncture of processing the protective measures unavoidably became greater, and in the end the food price differentials were always very large. In the 1970's, however, when the demand for market liberalization also began to include agricultural products, the protective structure gradually eroded.

(Note 20) Even now, the effective protection ratio of foodstuffs is a high 67.5 percent, the highest among manufactured goods. Refer to Y. Shoda, "Effective Rates of Protection in Japan," NIHON KEIZAI KENKYU, March 1982.

Table 3 provides a comparison of the major agricultural products liberalized (left column) with the 22 items still restricted (right column). A comparison of the two columns shows that in this process of liberalization, raw materials were liberalized and processed foods were protected. This is a basic change from the past approach. Beef was not liberalized, but by 1972 processed foods such as sausage, ham and bacon were freed. Grape sugar and wheat flour remained on the restricted list, but cake mixes, macaroni, chocolate, candy, biscuits and cookies, which are processed foods, were freed. There are many instances in which it is difficult to understand what standards were applied to establish liberalization. For instance, why were frozen pineapples, tomato puree and tomato paste freed, while canned pineapples, tomato ketchup and tomato sauce remained restricted. (Note 21)

Table 3. Agricultural Products Liberalization and Remaining Restricted Items

表3 農産物自由化と残存輸入制限 1.			
1971～74年までに自由化された主な農産物 ⁽¹⁾ と実行関税率 ⁽²⁾			残存輸入制限農産物、1975～83年 ⁽³⁾
CCCN番号 品目 4.	自由化 5.	実行関税率 6.	22品目 7.
畜産物 8.	年、月	(1972年 → 1976年 → 1983年)	10.
16.01 ソーセージ	1971.6	25%	02.01 牛肉
01.06 ハム・ベーコン	1972.4	差別プライス・関税4、一先価格以上 10%	04.01 ミルクおよびクリーム
			04.04 プロセスチーズ
水産物			16.02 牛肉および豚肉のかん詰等
16.05 かん製の帆立貝		かん製 15%→7.5%→6%、その他 20%→15%→12%	13.
23.01 魚乾、魚のす	1971.10	関税割当：120円/kg → 17円/kg → 17円/kg	03.01 近海魚およびたらこ(生鮮等)
14.05 非食用海藻および変性なつめや	1973.11	無税、5%	03.02 (塩蔵等)
やしの実			03.03 帆立貝、貝柱およびいか(生鮮、塩蔵等)
果実と菜			12.08 食用海藻
08.04 ぶどう	1971.1	生のもの 20%→20%→13%、かん詰ひん類 10%→10%→6%	16.
08.02 グレープフルーツ	1971.6	6月～11月 20%、12月～5月 40%	08.02 オレンジおよびタンジェリン(生鮮)
08.06 リンゴ	1971.6	20%→10%→8.8%	08.11 一時貯蔵のオレンジおよびタンジェリン
09.10 冷凍パイナップル(無糖)	1971.6	20%→35%→15%	20.05 フルーツピューレーおよびフルーツペースト
09.02 柑橘	1971.6	30%→25%→20%	20.06 パイナップルかん詰、フルーツバルブ
20.03 冷凍パイナップル(加糖)	1971.6	35%→35%→28%	20.07 果汁およびトマトジュース
20.07 アルコールを含まない飲料のもと	1971.6	砂糖の割合の多いもの 35%→35%→25%、その他 27.5%→27.5%→17.2%	21.04 トマトケチャップおよびトマトソース
22.02 レモネード等(ネクターをのぞく)	1971.6	砂糖を加えたもの 35%→35%→28%	
22.01 ネクター	1971.10	その他 25%→25%→20%	
20.01 トマトピューレ・トマトペースト	1972.4	25%→25%→12%	
油と油脂			19.
12.01 搾油用落花生等	1971.6	無税	07.05 あずき、せら豆、えんどう等
15.07 大豆油等植物油	1971.6	大豆油：25円/kg→23円/kg→23円/kg	12.01 落花生(搾油用を除く)
23.04 大豆油もす		無税	12.02 こんにゃくいも
穀類・穀類			21.07 調整食品(加糖、ミルク、海藻、小麦等のもの)
19.02 ケーキミックス	1971.1	砂糖を加えたもの 30%→30%→24%、その他 20%→20%→16%	22.
19.03 マカロニ類	1971.1	50円/kg→40円/kg→40円/kg	11.06 せん粉およびスターリン
19.05 パフドライス・コーンフレーク	1971.1	30%→30%→24%	17.02 ぶどう糖等
10.07 コーリアン・グリーンソルガム	1971.6	無税	11.01 小麦粉、米粉等
07.06 カッサバいも等	1971.10	15%→15%→5.6%	11.02 ひき割りした小麦、みき割りした米等
11.06 カッサバいも等の粉及びミール	1971.10	25%→25%→20%	
20.01 ニラム・コレロール	1971.10	関税割当、50円/kg→50円/kg→40円/kg、70円/kg→70円/kg→56円/kg	
17.01 雑穀類	1972.4	65円/kg → 62.50円/kg → 62.50円/kg	
23.07 配合飼料	1972.4	15% 60円/kg	
11.01 麦芽	1974.10	輸入数量制限・関税割当：15%→15%	
菓子・食品			24.
17.03 糖みつ	1971.10	35%、27円/kg	
17.04 キャンディ・キャラメル等	1971.10	35%→35%→30%	
17.05 香味料を入れた糖類	1971.10	65.50円/kg、35%	
12.06 チョコレート菓子等	1971.10	35%→35%→20%	
19.08 ビスケット・クッキー・クラッカー	1971.10	砂糖を加えたもの 40%→40%→24%、その他 35%→35%→20%	
20.02 マリネ・ポテト・ポテトフレーク	1971.10	20%→20%→9.5%	
21.07 スイートコーンの缶詰	1971.10	砂糖を加えたもの 35%→35%→25%、その他 27.5%→27.5%→20%	
25.			

(1)農産物はCCCN第1類から第24類迄のCCCN4桁分類による。(2)実行関税率は1972年から1976年と1983年への変化を示す。一のない場合は1983年迄に変化なし。(3)①は一部自由化。④1kgにつき基準輸入価格に1.5を乗じたものと課税価格に0.6を乗じたものの差。資料 通産産業調査会「現行輸入制度一覧」各年 日本関税協会「貿易年鑑」各年

Key:

1. Table 3. Agricultural Products Liberalization and Remaining Restricted Items
2. Major agricultural items liberalized 1971 - 74 (1) and actual tariff rates (2)
3. Remaining restricted items, 1975 - 83
4. CCCN [Expansion unknown]
5. Liberalized
6. Actual tariff rate
7. 22 Items
8. Livestock Products
 - 16.01 Sausage
 - 02.06 Ham, Bacon
9. 1972 - 1978 - 1983
 - 25%
 - Differential sliding tariff (4): above a certain price 10%
10. 02.01 Beef
 - 04.01 Milk and cream
 - 04.04 Processed cheese
11. Marine Products
 - 16.05 Smoked shellfish, scallops and squid
 - 23.01 Fishmeal and fish pieces
 - 14.05 Nonedible seaweed and degerated nuts and dates
12. Smoked 15% - 7.5% - 6%, other 20% - 15% - 12%
 - Tariff apportionment: 20 yen/kg - 17 yen/kg - 17 yen/kg
 - Duty free 5%
13. 16.02 Beef and canned beef
 - 03.01 Shallow water fish and roe (fresh)
 - 03.02 Shallow water fish and roe (salted)
 - 03.03 Scallops and squid (fresh and salted)
 - 12.08 Edible seaweed
14. Fruits/Vegetables
 - 08.04 Grapes
 - 08.02 Grapefruit
 - 08.06 Apples
 - 08.10 Unsweetened frozen pineapple
 - 09.02 Black tea
 - 20.03 Sweetened frozen pineapple
 - 21.07 Nonalcoholic beverage bases
 - 22.02 Lemonade
 - 22.02 Nectar
 - 22.02 Tomato puree, tomato paste
15. Fresh 20% - 20% - 13%, canned and bottled 10% - 10% - 6%
 - June - November 20% December - May 40%
 - 20% - 10% - 8.8%
 - 20% - 35% - 15%
 - 30% - 25% - 20%
 - 35% - 35% - 28%
 - Items with relative high added sugar 35% - 35% - 25%
 - Other 27.5% - 27.5% - 17.2%
 - Items with added sugar 35% - 35% - 28%
 - Other 25% - 25% - 20%
 - 25% - 25% - 12%

16. 08.02 Oranges and tangerines (fresh)
 - 08.11 Temporary storage oranges and tangerines
 - 20.05 Fruit puree and fruit paste
 - 20.06 Canned pineapple and fruit pulp
 - 20.07 Fruit juice and tomato juice
 - 21.04 Tomato ketchup and tomato sauce
17. Regional Products
 - 12.01 Peanuts for squeezing
 - 15.07 Vegetable oil such as soy bean oil
 - 23.04 Soy oil residue
18. Duty free
 - Soy oil, 25 yen/kg - 23 yen/kg - 23 yen/kg
 - Duty free
19. 07.05 Red beans, bread beans, green peas, etc.
 - 12.01 Peanuts (excluding those for oil)
 - 12.08 KONJAK
 - 21.07 Processed foods (using sugar, milk, seaweed, flour, etc.)
20. Starches - Grains
 - 19.02 Cake mixes
 - 19.03 Macaronis
 - 19.05 Puffed rice, cornflakes
 - 10.07 Kaoliang, green sorghum
 - 11.06 Flour and meal from cassava
 - 22.08 Ethyl alcohol
 - 17.01 Refined sugar, etc.
 - 23.07 Mixed feed
 - 11.07 Malt
21. Sugar added items 30% - 30% - 24% other 20% - 20% - 16%
 - 50 yen/kg - 40 yen/kg - 40 yen/kg
 - 30% - 30% - 24%
 - duty free
 - 15% - 15% - 5.6%
 - 25% - 25% - 20%
 - Apportioned tariff 50% - 50% - 40\$ 70 yen/l - 70 yen/l - 56 yen/l
 - 69 yen/kg - 63.50 yen/kg - 63.50 yen/kg
 - 15% 60/kg
 - Import volume limitation - apportioned tariff 15% - 15%
22. 11.08 Starch and insulin
 - 17.02 Grape sugar
 - 11.01 Wheat and rice flour
 - 11.02 Ground wheat flour and cracked rice, etc.
23. Candy - Food
 - 17.03 Honey
 - 17.04 Candy, caramel, etc.
 - 17.05 Sugars with added flavors
 - 18.05 Chocolate candy
 - 19.08 Biscuits, cookies, crackers
 - 20.02 Mashed potatoes, potato flakes
 - 21.07 Canned sweet corn

24. 35% 27 yen/kg
 35% - 35% - 30%
 65.50 yen/kg 35%
 With sugar added 40% - 40% - 24% Other 35% - 35% - 20%
 20% - 20% - 9.5%
 With sugar added 35% - 35% - 25% Other 27.5% - 27.5% - 20%
25. (1) Agricultural items are CCCN 4 column categories from types 1 through 24.
 (2) Actual tariff ratios are for changes between 1972 and 1978, and to 1983.
 Where there are no indicates no change
 (3) indicates partial liberalization.
 (4) The difference between some items with some items multiplied by 1.5 and others .6 times the import price.
- Data: Trade Industry Research Association, "Import System at a Glance," annual; Japan Customs Association, "Trade Annual," annual

(Note 21) In this author's experience, these products have high interchangeability.

The fact that in the process of liberalization it was possible to free processed foods while keeping intermediate raw materials on the restricted list is an indication of the rather large-scale protection accorded to liberalization efforts, and this is why it was possible to maintain the process through the 1970's. In Table 3, the actual customs collected in 1972, 1978 and 1983 are shown. The actual tariff rates applied against major agricultural products from 1971 through 1974 were a relatively high 30 percent to 35 percent (frozen pineapples, chocolate, honey, candy, caramel, biscuits, etc.), while ham and bacon were subject to a differential scale tariff, and fishmeal and malt were protected by tariff apportionment. And in addition to a scaled reduction of tariffs on smoked shellfish, black tea and soy bean oil, action on the major tariff reductions was delayed until after 1978. In 1982 tariffs were reduced on 17 agricultural products, and in 1983 tariffs were reduced on 47 other items. The result was the reduction of tariffs to 20 percent for chocolate and candy, to 24 percent for sugar-added biscuits and cookies, and to 24 percent for sugar-added cake mixes. If the price of intermediate agricultural products remains high domestically, domestic processed food production will be adversely affected by the reduction in import duties and there will be a reduction in domestic agricultural demand. The lowering of trade barriers on processed foods, which are the ultimate product, requires an adjustment in the protection mechanism with regard to intermediate agricultural products. As an indication of the pervasiveness of Japan's agricultural products protection, the differential in overseas and domestic food prices is still very high. According to the October 1981 worldwide survey of major food items, eggs and cabbage are about the only major food items which are cheaper in Japan than in the United States, West Germany or Great Britain.

(Note 22) High food costs put pressure on household budgets and damage "consumer benefits." If we look at the progress of Japan's liberalization of agricultural products, the ad hoc type responses to trade friction

problems may have caused damage to the integrity of the measures. A recent "Price Report" (Note 23), using the example of canned fruit, showed that if the prices of imported products fall, so do those of competing domestic products. If consumption is increased by lower prices, it does not necessarily cause a decrease in the market share for competitive domestic commodities. How much "profit for the consumer" will accrue in the future as a result of lower food prices? For this, we have come to the point in time where bottom line discussions and agreements have to be made as to whether or not apportioning adjusted costs will "benefit the consumer."

(Note 22) "Trade White Paper," 1983, Figure 3-3-14.

(Note 23) "Products Price Report," June 1983, Economic Planning Agency.

III. Market Disruption and Self-Restraint in Exports

For Japan's export growth to be controlled by demands for self-restraint from its trading partners did not begin in the 1970's. By 1957, in opposition to the growth of cotton goods imports from Japan, the call for self-restraint by the U.S. Congress had heightened, forcing Japan to take voluntary restraint measures. (Note 24) A great many more examples can be cited after the beginning of the 1960's, such as baseball gloves, mitts, and metal table flatware to the United States, ceramic mosaic tile to West Germany, and fishing reels to Great Britain. (Note 25) However, these items which were targets of self-restraint were all relatively high labor-intensive commodities, and if textiles are excluded, the total monetary volume was not very great. After the 1970's, when such import control measures as self-restraint and trigger price controls were imposed on textiles, steel, TV sets and automobiles, 40.3 percent of the total 1981 Japanese exports to the United States were under some form of control. (Note 26) And, as is shown in Table 1, another characteristic of the 1970's was that the items placed under export controls to the United States also came to be controlled in exports to Europe.

(Note 24) For additional information on textiles trade and market disruptions, refer to D. Keesing and M. Wolf, "Textile Quotas Against Developing Countries," Trade Policy Research Center, 1980.

(Note 25) Kotaro Komiya, Akihiro Amano, "International Economics," Chapter 10, Iwanami Books, 1972.

(Note 26) Sueo Sekiguchi, Yasutomi Shoda, "The Economics of Japan-U.S. Trade Friction," KIKAN GENDAI KEIZAI, 1983, spring issue, p 37, Table 2.

The bilateral trade control mechanisms implemented by the United States and the European advanced countries in the 1970's were not limited to Japan. The annual report of the International Monetary Fund (Note 27) lists the major controls instituted or relaxed during each year. The bilateral controls most prevalent among those imposed by the advanced countries are on steel and textiles as well as on labor-intensive consumer goods such as shoes.

The targets are primarily Japan and the newly industrializing countries such as South Korea, Taiwan and Hong Kong. What is unique with respect to Japan is that in addition to the aforementioned items, a wide spectrum including automobiles and items of manufacturing equipment are controlled, and also the fact that we are a mature, advanced country that became one of the 11 GATT countries in 1963. Therefore, in terms of liberalizing our markets, we have committed ourselves to the GATT principles and at the same time we are imposing self-restraint on exports, a unique two-way characteristic.

(Note 27) Refer to IMF, "Report on Exchange Arrangements and Exchange Restrictions.

The 1961 "short-term agreement on cotton goods trade" was the first case in which bilateral treaties were implemented as a form of import control. In the subsequent "international long-term agreement on cotton goods trade," the factor of actual recognition of "market disruption" was included as a condition. In the "multinational textile agreement" which was finally agreed to at the end of 1973, the fear of "market confusion" due to imports is included as a bilateral safeguard prompter. The 1974 U.S. commercial code also provides for the raising of tariffs and the holding of negotiations in order to reach agreement to bring order into the marketplace at times when the domestic industry suffers greatly because of increased imports. However, the following basic difficulties are inherent in "market confusion" and "recognition of damage due to rapid imports increases". In the case of textiles, in which the "market confusion" factor was first used to institute import controls, greater unemployment was caused by the industry's attempt to rationalize in order to compete against the flow of cheap imports rather than by the domestic industry shrinking in size because of increase imports. (Note 28) Even if we were to say that rationalization was caused by the increase in imports, it would be very difficult to pinpoint how much of the "market confusion" was the direct result of increased imports.

(Note 28) See D. Keesing and M. Wolf of the previous note, p 36.

A rapid growth in Japanese exports to the United States has in almost every instance preceded the institution of export controls to the EC. (Note 29) However, it would be an error to say that these export increases were all contributory to "market confusion" and "recognizable damage." For instance, in November 1980, the U.S. Federal Trade Commission determined that the recession in the U.S. automobile Industry was not caused by the increased importation of automobiles from Japan. Nevertheless, since May 1981, as we all know, voluntary restraints on automobile exports to the United States have been in effect. Therefore, the 1970's call for export restraints based on "the presence or absence of market confusion" can be seen more or less as a type of reaction to the appearance of a relative structural change in some designated industrial sector. This point can be seen clearly in various countries of Europe where Japan's exports have expanded in earnest since the 1970's. An explanation of this is provided in the following words: "Japan's product incursions in the marketplace occurred at a pace never experienced in history by other industrial countries...

Through its exports Japan is playing an important role, compared to other countries, in bringing about changes in technology and products in a wide segment of manufacturing industry. The hidden benefits that this will impart to the rest of the world is clear. The basic problem of Japan's challenge is that it is too rapid for social acceptance by many occidental nations in that it requires structural changes. (Note 30)

(Note 29) For example, rapid growth in exports to the United States occurred in steel in 1968 and 1969, color TV sets in 1976, and automobiles in 1980. In the following years voluntary restraints and trigger price controls were instituted. Rapid growth in exports of production machinery to the EC occurred in the period 1977 to 1980, and in 1981 controls were imposed. See "Trade White Paper," 1982, Figure 3-1-9.

(Note 30) J. Shepherd, "The Japanese Challenge to Western Europe's New Crisis Industries", THE WORLD ECONOMY, Vol 4, No 4, 1981 p 386.

Once bilateral import control measures are instituted, the effectiveness of America's control of Japanese TV imports is offset by the increased imports of South Korean TV sets, so it becomes necessary to impose controls against the South Koreans as well because of the regional ripple effect. Also, what may be imposed as an emergency measure for short-term effect is likely to end up as a long-term policy, as evidenced by the case of textiles and steel. Therefore, for Japan to avoid voluntary export controls, the following various responses can be considered. One is to avoid the specific sectors where changes in relative positions occur and diversify the structure of exports. Another is to drastically liberalize the market in areas where sufficient competitiveness exists and press for import promotion. As for export industries, two-way trade expansion should be encouraged where items similar to the export products are imported. The reason Japanese exports expand rapidly is because the domestic market is kept closed until the internal industry is sufficiently competitive, and once the domestic market is completely dominated, there is a shift to exports. In order to counter this sort of criticism, it is necessary to allow imports into the domestic market.

We cannot deny that the Japanese import structure heretofore has been such that it has been easy to institute voluntary export controls. For instance, if we look at the situation of designated industries with their relative positions of advantage and their changes, we can see clearly that throughout the 1970's there was a tendency for Japan's export structure to concentrate on designated products. If, for example, we look at the items in the SITC 3 column category, the top 15 in value to Japan of the major export items, the ratio they command of total exports was 55.7 percent in 1967, 65.5 percent in 1972, 70.6 percent in 1978, and 78 percent in 1980. If the same statistics are taken for other advanced countries in 1978, the figures are 55.6 percent for the United States, 54.3 percent for West Germany, and 50.7 percent for Great Britain, or roughly half of total exports. The country where there is concentration on designated products is South Korea, where 68.3 percent of the major top 15 items of all exports

were in the designated items category in 1978. However, the market share of Japan and South Korea in the major export items is quite disparate. Specifically, the largest share of the world market held by the South Koreans in 1978 was in the area of travel items and handbags, for a total of 15.5 percent, whereas Japan held 41.9 percent of the musical instruments, recording and voice playback equipment. (Note 31)

(Note 31) Figures on market shares of major export items of total exports are from UNCTAD, "Handbook of International Trade and Development Statistics," Supplement, 1981, Table 4-3D.

Now let us examine the point made that the reason Japan's exports push into the designated industries field and exports increase so rapidly is because it amply protects the domestic market until internal demand is adequately met, then it enters the international market only when it has reserve strength. (Note 32) Table 4 shows Japan's share of SITC 3 column category export items, all 13 of which ranked among the top 15 in 1967 and also in 1978, and the trend of actual tariffs during the period 1967-1983. If the 7.26 percent for shipping is excluded, the actual tax rate for major exports in 1967 is distributed between 10 percent for organic chemicals and 27.7 percent for passenger and cargo vehicles. Compared to the tariff burden rate for other taxable items of 19.5 percent, the tariff rate for most of the designated export items was slightly lower. TV sets, steel plate, musical instruments and recorders were products with ample competitive strength, having garnered more than 20 percent of the world market share by 1967, but no specifically lower tariff rates were applied; the only protection given was a slightly lower tariff advantage. The trend in reduction of tariff rates up to 1983 was generally the same as for the tariff burden rates of other taxable items. In the 5-year period up to 1972, about 50 percent reduction was effected on almost all items, with even further reductions on some items during the period 1978 to 1983, and now, with the exception of woven goods, it has come down to about the 4-6 percent level.

(Note 32) For example, the Joint Economic Committee, "International Competition in Advanced Industrial Sectors," op. cit. II, Policy for Trade and Development, and the testimony given by Commerce Secretary Baldrige on 19 June 1981 before the Joint Economic Committee quoted below are representative examples.

"Japan concentrates its targetting on designated industries and protects them during high-growth periods with high tariffs, and furthermore, with government subsidies, it nurtures them into powerful industries. When these have come to fruition they are let loose upon the world. If it thus proclaims free trade everywhere, we must address ourselves effectively to this problem in a manner matching the times" ("Gibbons Report," prepublication, p 36)

During this period the 13 items of Table 4, with the exception of textiles, all greatly increased their share in the world market. Of these, automobiles, cargo vehicles, pumps, fabricating equipment, office equipment, generators,

and electric motors all increased their share of the world market by more than twofold during a 10-year period. Except for automobiles, the 1967 actual tariff rate for these items was not particularly high. That is not to say that subsequent to 1967 there was any particularly rapid decrease in tax rates for these items either. The only exception is automobiles, which were totally liberalized in 1968. If we look at Table 4, it appears that we cannot say that Japan has consciously protected its high-growth export products with high tariffs. However, around 1967, with regard to items for which Japan's share of the world market was over 20 percent and which were adequately competitive, there was no positive effort to reduce tariffs and increase two-way trade in like items, either. Therefore, since Japan had maintained a relatively high level of tariffs until the late 1960's, the actual result was that major export industries were able to fill a high portion of the domestic demand and thus to strengthen Japan's international competitiveness while adding to its capacity to provide more to the market.

Table 4. Actual Tariff Ratios for Japan's Competitively Advantaged Industries

表4 日本の比較優位産業の実行関税率 (1967年~1983年) 1. (%)							
SITC	品 目 (1) 2.	世界市場に占める日本製品のシェア 3.		実 行 関 税 率 2) 4.			
		1967年	1978年	1967年	1972年	1978年	1983年
732 5.	乗用および貨物用自動車 (乗用車)	5.20	19.22	27.70 (35.0)	9.70 (8.0)	2.0 (0)	0 (0)
735	船 舶	33.51	37.13	7.26	5.00	2.50	1.17
724	テレビジョン放送用受像機	23.24	28.47	13.50	5.00	4.00	0
674	鉄 鋼 の 板	21.14	26.16	15.00	7.50	5.57	5.13
653	織 物 類	22.15	16.40	20.00	11.85	10.73	10.63
719	ポンプ、加工機械、変速機	3.97	9.49	15.75	7.50	6.00	4.49
891	楽器、録音機、音声再生機	27.94	41.93	17.75	8.17	6.57	4.59
861	光学、写真用、映画用医療用機器	14.25	23.64	18.20	7.57	5.93	4.51
729	発電機、熱電子管	8.00	11.35	17.78	8.90	7.50	4.92
678	鉄 鋼 の 管	16.68	28.38	15.00	9.75	7.80	6.50
512	有機化合物	7.50	8.84	10.18	8.39	7.88	6.06
714	事務用機械	3.28	9.70	16.15	13.36	10.58	4.49
722	発電機、電動機その他	5.91	13.27	17.00	8.75	6.22	5.71

6. (1) 1967年の総輸出のうちSITC 3桁の金額の大きいものから上位15までの品目のうち1978年にも上位15迄にランクされた主力輸出品13品目である。SITC分類は旧分類による。
 (2) SITC各品目に対応するBTN分類に含まれる品目の実行関税率の平均値
 資料 通商産業調査会「現行輸入制度一覧」各年, UNCTAD, "Handbook of International Trade and Development Statistics" Supplement, 1981。

[Key on next page]

Key:

1. Table 4. Actual Tariff Ratios for Japan's Competitively Advantaged Industries.
2. Item
3. Japanese products share of the world market
4. Actual tariff ratios
5. 732 Automobiles and cargo vehicles (passenger cars)
735 Shipping
724 TV sets, broadcast receivers
674 Steel plate
653 Woven goods
719 Pumps, fabricating machinery, transformers
891 Musical instruments, recorders, tape players
861 Optical photo and movie medical equipment
729 Generators, electron tubes
512 Organic chemicals
714 Office equipment
722 Generators, electric motors, etc.
6. (1) Top 15 ranked export items in 1967 (in dollar value) of SITC 3 column items which were also in the top 15 in 1978 export rankings. SITC categories are the old categories.
(2) The average value of actual tariff rates of items included in BTN breakdowns responding to SITC breakdowns.
Data: Trade/Industry Research Association, "Import System at a Glance," annual. UNCTAD, "Handbook of International Trade and Development Statistics," Supplement, 1981.

In the process of implementing trade policies, there is no indication of an intention to liberalize only the items for which industrial protection was no longer needed. However, if an increase in the products permitted over a long period between two countries lessens bilateral trade friction and is considered necessary to control the upsurge of protectionism, the 100 percent liberalization of automobiles undertaken by Japan is a clear indicator of its intention to liberalize its markets. In bilateral relations, the protection of one industry through voluntary restraints definitely does not contribute to industrial revival. Rather, the ripple effect is felt by other industries, and there is some feeling of fear among Europeans and Americans that it will cause a retrogression of their economies. The realization that America's protection of its steel industry has caused the retention of high price levels domestically and the loss of international competitiveness by the auto industry, which is an intermediate user, as a result of the high prices, is an example. (Note 33) Within the countries that approach Japan with demands for voluntary restraints, there are elements that will benefit as well as some that will suffer, and the same can be said for Japan. Japan's avoidance of voluntary restraints gives the excuse to the protectionist forces among our trading partners that the Japanese market remains restrictive, so we must exert efforts to eliminate such a perception.

(Note 33) See Jack Baranson, "The Japanese Challenge to U.S. Industry," Lexington Books, 1981, pp 212-213. G. Shepherd, The Japanese Challenge..., op. cit. p 388.

IV. Japan's Export Expansion Continued on the Basis of America's Economic Recovery

The coincident bullishness of overseas demand, within the milieu of surplus current accounts and the increasing trade imbalances, has resulted in a series of market liberalization measures being adopted. The 1983 pattern of policy responses is similar to the case of 1972. In the past 10 years export structures have been made more sophisticated and resource conservation measures have been instituted, but Japan has concentrated its efforts on exports of designated industries and has in fact increased such efforts. On the other hand, despite the various market liberalization measures instituted, the ratio of manufactured goods to overall imports decreased. Despite the two oil shocks and the confusion they caused, the pattern of Japan's policy responses do not appear to have changed much, and the question of when a world economy and a harmonious trade structure will be created remains remote. However, if a more detailed study is made, as pointed out in the first three sections of this paper, some progress can be seen in terms of new policy responses. Japan's trade structure is in a way responding to these policy measures. The issue for the future is for Japan to accumulate new policy responses and by such action stimulate changes in its trade structure.

As a new policy move to advance market liberalization measures, Japan moved toward breaking down nontariff barriers through the implementation of measures designed to change its trade structure from one of priority for the manufacturing trade to actively increasing imports of manufactured goods. The increase in the import of manufactured goods, including processed foods, is something that cannot be ignored when an attempt is being made to maintain amicable economic relations with close neighboring countries in which the expansion of industrial products trade is the centerpiece of their development strategy. Also, in terms of trade with advanced countries, it is necessary to increase imports of industrial goods over current levels since they impinge on the employment problem. As we moved into the 1980's such basic steps as rationalization of the import inspection system, review of the standards certification system and simplification of trade procedures to hasten the change in the import structure took over in place of the emergency import of raw materials or one-time import promotion missions to reduce surplus funds. In this instance, it is important to hold adequate, convincing discussions and obtain the public's understanding of why it is necessary for Japan to increase imports.

Within the trade in manufactured goods, regarding the import of food, which is closest to the livelihood of consumers, there is the question that the consumer may have concerns about the health aspects of foods with which they are not familiar. In 1983 the Ministry of Health and Welfare newly approved some 11 items as food additives, centered on items requested by

the United States. The fact that this sort of emergency increase based on foreign pressure was considered as slighting the "safety of the public's food" has caused various consumer groups to indicate their opposition to the relaxation of regulations. (Note 34)

(Note 34) ASAHI SHIMBUN, 18 May 1983, 11 June 1983, and 30 July 1983; NIKKEI SHIMBUN, 30 June 1983--all morning editions.

The selection of food health standards is normally a matter that falls in the category of domestic policy. However, it is true that while many types of trade obstacles have been removed, Japan's unique food additives administration has been criticized as a form of nontariff barrier. Therefore, it would be preferable for this problem, too, like the problem of inspection standards, to follow the path of establishment of universal standards developed by experts in the field. The increase in the import of consumer materials reduces the price of competitive domestic goods, so Japan's food prices, considered high by world standards, will be remedied and the consumer will benefit. To seek this road which benefits the consumer and at the same time creates a food health standard recognized worldwide is considered the proper response to the consumer.

In the 1970's Japan was forced to institute bilateral voluntary export restraints in a multitude of sectors. Due to the fact that many bilateral voluntary export restraints are in existence outside the GATT framework, all nations at the tripartite trade conference held in June this year agreed to inform GATT of the bilateral agreements to which they are party. (NIKKEI SHIMBUN, 18 June 1983). The report to GATT will serve as ex post facto recognition of these bilateral voluntary export restraints and will leave for future resolution the question of how GATT will deal with its basic philosophy of nondiscrimination. However, this is far better than the current situation of not even having any basic information as to what types of restraints are in place in which areas. This report will undoubtedly also serve in good stead in the future in strengthening and modernizing the GATT structure.

Japan's responses to voluntary export restraints have varied from industry to industry. In the case of TV sets, the manufacturers turned to producing TV sets in the United States, and in the case of steel and textiles, which were controlled in terms of volume, prices were raised and product shifts were made to higher quality items. In the case of semiconductors, which have undergone rapid export increases to the United States in recent years, there has been a rapid lowering of tariffs and a shortening of the timetable for commencing production in the United States. Since April 1982, Japan's tariff on semiconductors has been lowered to 4.2 percent, the same rate as that of the United States. At a recent Japan-U.S. trade subcommittee meeting, the United States proposed joint abolition of tariffs on semiconductors. "In addition to the overt purpose of 'free trade' the question has been raised as to whether this is an attempt by the United States to make it easier for its companies that have overseas facilities to bring their own products into the United States" (NIKKEI SHIMBUN, 13 June 1983). If this supposition is correct, it indicates that the "benefits" and

"detriments" of "free trade" are very closely interlinked in a complex manner between companies, regions and industries in the United States (and perhaps in Japan). If "free trade is indispensable to the existence of our country," then the removal of the remaining barriers must be the central response of our policy, since they provide the protectionist elements among our trading partners with the opportunity to institute import controls. (Note 35) On this basis, those designated groups that suffer a short-term adverse effect in the process of market liberalization should be allowed adjustment costs, to be borne by the public as a whole. This is the policy response issue for the future.

(Note 35) With respect to the policy-forming processes of the U.S. administration and Congress aimed at promoting exports to Japan and increasing benefits in order to restrain domestic protectionist demands and concurrently to prevent those dissatisfied with regard to the Japanese market and export penetration from joining forces with factions calling for Japanese import controls, refer to Hideo Sato, "Political, Economic Studies of Trade Protection," KIKAN GENDAI KEIZAI, 1983, spring issue; Raymond Vernon, "U.S. Trade Policy in the 1980's"; Saburo Okita, Takazo Sato editors, "Trade Friction," 1983 Yuhikaku.

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