



INSTITUTE OF SOUTHEAST ASIAN STUDIES

# **JAPAN AS NUMBER ONE Revisited**

Ezra F. Vogel

# **JAPAN AS NUMBER ONE**

## **Revisited**

*A seminar  
organized by the*

Institute of Southeast Asian Studies

17 July 1985

**Ezra F. Vogel**

*Harvard Center for International Affairs*

INSTITUTE OF SOUTHEAST ASIAN STUDIES

Published by  
Institute of Southeast Asian Studies  
Heng Mui Keng Terrace  
Pasir Panjang  
Singapore 0511

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the Institute of Southeast Asian Studies.

© 1986 Institute of Southeast Asian Studies

*The responsibility for facts and opinions expressed in this publication rests exclusively with the author, and his interpretations do not necessarily reflect the views or the policy of the Institute or its supporters.*

---

#### Cataloguing in Publication Data

---

Vogel, Ezra F.

Japan as number one: revisited.

1. Japan — Social conditions — 1945—
2. Japan — Economic conditions — 1945—
3. Japan — Politics and government — 1945—
  - I. Institute of Southeast Asian Studies.
  - II. Title.

HN723.5 V871 1986

ISBN 9971-988-60-7

---

Printed in Singapore by Kim Hup Lee Printing Co. Pte. Ltd.

# Introduction

*K.S. Sandhu*

*Director*

*Institute of Southeast Asian Studies*

Ladies and Gentlemen

We have the privilege of welcoming Professor Ezra F. Vogel to lead the discussion on "Japan As Number One: Revisited". *Japan As Number One* as you know, was the title of Professor Vogel's book published in 1979. And we thought it was the appropriate thing to do to get Professor Vogel's reflections on the topic after a lapse of some years and especially as he himself has recently published his sequel, *Comeback: Case by Case Building the Resurgence of American Business*. As details of Professor Vogel's curriculum vitae indicate, his work on Japan over the last five years has overshadowed his research on China of which he is as astute an observer as any besides being a fluent speaker of Mandarin. All the same, it is Japan with which his name has become almost synonymous. Here Professor Vogel has not been an uncritical admirer of Japan but rather as a thoughtful American keen to pass his knowledge on to his countrymen in the hope that this might lead them on to becoming more competitive. In the same vein when people in Southeast Asia talk about learning from Japan they are not for one moment suggesting that our countries are all becoming little Japans. Far from it, that will not only be unrealistic but also in a way silly. On the other hand, not to learn from the experiences of other countries would be equally foolhardy if not akin to Nero fiddling while Rome burnt. So it was in this context that we thought that it will be worthwhile to reflect on what possibilities there might be for us with the experiences of Japan and other countries like Japan. And it gives me great pleasure now to invite Professor Vogel to address us.

# Contents

Introduction <i>K.S. Sandhu</i>	vii
Japan as Number One: Revisited <i>Ezra F. Vogel</i>	1
Question and Answer Session	11

## Japan as Number One: Revisited

When I began lecturing on the topic of Japan as Number One in the United States, shortly before my book came out, of course, I was invited mostly to address intellectual audiences. I was not invited to General Motor's labour unions to discuss the topic. The general reaction of audiences was, "that's very fascinating and amusing." The implication clearly was that the professor had spent a little too much time in the Orient and that it had affected his mind, for he vastly overestimated what was going on in Japan. That was the dominant reaction in 1978-79 when one tried to talk about the extraordinary successes of Japan. Of course, an author who writes a book that becomes well-known likes to believe that it was his own brilliance that caused the book to receive such attention. I must be candid and objective in recognizing that there are many more brilliant books written by other people which have received a lot less attention. The reason this book received such attention is that it came out just as the world was beginning to be aware of Japan's success and it became a kind of symbol of Japan's importance to the world. I hadn't originally intended it to be such a symbol. I had simply tried to do my part to wake up my own countrymen to the challenge of what was going on in East Asia. The book's title seemed bold and attracted attention only because the world had been slow to recognize Japan's success. The striking thing to me is not how much attention Japan has received in the last few years for its successes, but how slow the world continues to be in acknowledging the depth of Japanese successes.

There are many reasons why the world's response to Japan has lagged behind reality. In North America and Western Europe, an area that has enjoyed such dominance around the world, it was hard to believe that an Asian nation was doing so well. After all, visitors from Japan had been coming to North America, and to Western Europe, asking how to do things. They came as our students and it was hard to believe they were already able to teach us a few things. The crux of the problem was, of course, the arrogance of Westerners accustomed to dominating the world. We, Westerners, did not have our antennae out observing and admiring the successes in Japan and other parts of East Asia.

In Japan people were slow to recognize their own success partly because they had become so accustomed to look for areas where they might learn from the West. The basic way of thinking about the rest of the world, the way of collecting statistics, of writing articles and books was always to point to some areas where Japan was still behind, as a way to spur on greater efforts. People focused

not on what Japan was doing well but on what Japan had yet to learn. In addition there had been a natural Japanese modesty, a willingness to take the same low posture taken by Japanese towards others within their own society. Even the political leaders of the dominant political party, the Liberal Democratic Party, found it more effective to adopt a low posture towards the opposition. Similarly in the outside world the Japanese have found that they accomplish more in relations with others not by touting their own successes but by pointing out their difficulties and their inadequacies. In the 1960s they talked of their doubts about their ability to keep up with the giants of the world with the coming opening of their markets. In the 1970s after the oil shock many Japanese said, "How can we possibly keep up? We are so dependent on energy and now our energy prices are so much higher." Now the Japanese are saying, "Our population is aging, we have new social difficulties, we have a more rapidly aging population than any country in the world. How can we possibly keep up?" So there is both a natural reaction and a strategy within Japan that makes for a slow recognition of their successes.

But I believe that there is an even deeper factor that has made the world slow to recognize Japanese success and that is our conception of the basis of world power for Japan's success challenges our very assumption about the basis of world power. We are still accustomed to thinking of world power as based on geopolitical power. Countries with a strong base of natural resources, with a large geographical area that is strategically located are believed to possess the basis for becoming a world power. This view still penetrates the textbooks of international power and the way many leaders of the world think about world politics. The world has been slow to recognize the extraordinary change in the basis of world power. The powerful countries of the world are no longer those with large territories, abundant natural resources, and strategic locations. In our new era of global trade, power is accruing to those nations with superior human resources and organizations that have been able to manufacture goods at competitive prices, collect and analyse relevant information, and meet the competition in international markets. Our inability to realize this fundamental change in the basis of world power has prevented us from seeing the full force of Japanese success.

As slow as the world is to see the scope and depth of Japanese success, in the last few years, Japanese success has stirred tremendous interest in every corner of the globe. It is interesting to observe how the peculiar cultural background and sense of problem in each country has led them to become interested in different aspects of Japan. American management circles, for example, were interested in calling attention to how hard the Japanese were working. It was a vehicle not only for spurring on managers but of getting greater flexibility and greater efforts from their workers. American management is under pressure to show results each quarter and they are looking for techniques that will have a short-range payoff. They selected several areas of Japanese success where they thought they could make progress. First of all was quality control. They realized that in areas like television sets and automobiles — what was hurting the United

States was superior Japanese quality. There are strange ironies. What we were then studying as "Japanese quality control" was very much like what Japanese firms had imported two decades earlier as "American quality control". Another area of interest was, of course, productivity increase. My friends in the Harvard Business School who had been distressed at the lack of interest in their field of production management were delighted. They could say: "Look, we have been giving too much attention to finance and marketing. We haven't been giving attention to manufacturing." Concern with Japanese production management was a new opportunity for them to gain an audience for what they had been doing all along with only slight modifications.

In the last two or three years American managers have become interested in Japanese management of inventory and warehousing. This topic came to the fore after concern with quality control and productivity but is perhaps the greatest topic of interest to managers in the mid-1980s. Why should inventory management become so important? It is because the whole concept of how you manage inventory is changing in the United States as a response to the increased cost of capital and competitive pressures. Earlier the dominant view of inventory management was designed to ensure consistent production lines that were uninterrupted. America was a big country with plenty of space, plenty of capital and spare parts. With all kinds of spare parts located in nearby warehouses, the production line could flow smoothly without interruption. Now, however, with the cost of capital very high it becomes a big financial burden to maintain warehouses with such a huge number of spare parts.

Meanwhile, Japan which had been chronically short of space and capital had devised tighter systems of inventory control which permitted uninterrupted production with far smaller inventory. The best known such system is Toyota's just-in-time system. In this system spare parts are delivered by suppliers within twenty-four hours before they are needed on the assembly line. This system not only reduces costs but has a side effect, the more rapid identification of difficulties in production. Where there are plenty of spare parts that can be brought to the assembly line at any point, there is not much tension in the system. But when you bring in only parts that will be used within twenty-four hours, there are no back-up parts and this forces managers to discover defects and problems right away. This system of tight control, therefore, further raises productivity.

I have more about American managers because I am more familiar with their efforts, but these efforts of American managers to import Japanese systems have been duplicated in Western Europe and Canada.

The success of Japan and the "four little dragons" (Taiwan, South Korea, Hong Kong, Singapore) have had an impact even in Beijing and Moscow. In Moscow, for example, it was easy to explain that Western Europe and the United States were more advanced technologically and economically for that was always true historically. But when countries came from behind as Japan and other East Asian countries were doing and began to surpass Moscow in technology and industrial capacity, the very factors that Moscow considers terribly important — their very economic basis of power — this is something



that gains the attention of Moscow's leaders. Having visited Moscow several times in recent years, I believe it is not easy for Moscow's leaders to talk about the virtues of the American capitalist system but it is not so difficult to talk about ways in which Japan does better than the United States and the success of Japan has been a shock, the meaning of which is understood in the Academies even if not yet responded to by political leaders.

In Beijing there have been similar reactions. When China began opening up in 1977 and 1978, leaders were shocked to see how far China had fallen behind countries like Japan, Taiwan, South Korea, Hong Kong and Singapore. This blow to their pride and their subsequent study of the world and the "four little dragons" provided a powerful stimulus for the reforms they are now undertaking.

In Korea, the interest in Japan has always been very strong. Koreans have been studying Japan for a long time, but quietly. To put it in a personal way, I was not invited to give large public lectures in Korea on Japanese success the way I have been in some other places. In Japanese public opinion polls, among the countries least liked, Russia and Korea always rank high. Koreans reciprocate those feelings towards Japan. Korean animosity towards the Japanese and the resulting rivalry prevents them from talking publicly about Japan's marvellous successes.

In Taiwan, it was more possible to discuss Japanese successes openly. In Taiwan, discussing Japanese successes has complicated overtones because once the KMT (Kuomintang) came there in 1949, talking about Japanese success was a way for local Taiwanese to criticize indirectly the KMT. But by now, 25-30 years later, it is possible to talk about Japanese successes more objectively. Younger Taiwanese recognize that the older generation, which had learnt Japanese during the Japanese colonial period up to 1945, could deal with Japan, but in the 1980s they were suddenly confronted with a new situation where the older generation was nearing retirement without training a younger generation able to deal with Japan. The renewed interest in Japan's success thus led Taiwan to confront the necessity of building a new infrastructure and training a new generation able to deal with Japan.

In Hong Kong, some businessmen began to follow what was going on in Japan in areas like textiles, shipping, and financial services. Just as the Singapore Government is quick to pick up on and guide other developments, so it was quick to respond to growing awareness of Japanese successes and launch and guide a movement to learn from the Japanese. The movement was used to help strengthen a co-operative workforce, increase productivity, and improve relationships with local police. It was quite a clever use of "Japanese lessons" to promote what leaders considered desirable for Singapore.

In every country, efforts to learn from Japan encountered some reactions. Just as some people found it in their interest to learn from Japan and to make use of "Japanese lessons" so other groups in these countries found reasons to resist these lessons. In America, of course, as soon as one academic fad like studying from Japan begins, one can be sure there is going to be a counter-fad. Books praising Japan were followed by another group of books calling attention

to the darker sides of Japanese success, the shadows, the trade war tactics, the seamy sides of personnel relations. American workers and middle-level management who were tired of bosses telling them to follow the Japanese and work harder argued for finding American solutions to problems. These movements against learning from Japan were quickly followed by their counterparts in other parts of the world. There are people in Moscow who do not want the system to be shaken up by capitalist experiments and there are low-level cadres in China who share the same views. I am sure there are people in Singapore and Malaysia who believe that studying Japan and looking East have gone too far. But these reactions have by no means ended the study of Japan and, in my view, the study is likely to continue because Japanese successes are likely to continue.

Let me indicate several areas where Japanese successes are likely to continue and where, therefore, people in other countries are likely to continue to study Japan. In manufacturing, Japanese productivity has already gone up very rapidly. You may have seen the figures indicating that Japan has been able to produce a sub-compact car for perhaps US\$1,500 or maybe US\$2,000 cheaper than the United States. General Motors and other companies are, of course, moving vigorously to try to bridge this gap. Although America may reduce or eliminate gaps in some areas, the Japanese are likely, in my view, to move on the average, faster in applying electronic controls over manufacturing. Electronic control of manufacturing is now opening up an entirely new era. Having spent a lot of time visiting factories in Japan which are using electronic controls, I am prepared to believe that, in fact, it will lead to, as some people call it, a new industrial revolution. First of all, it will be possible to achieve much greater flexibility. In some cases, it will be possible to produce "small batches" of products with the same efficiencies that were formerly possible only with mass production. Formerly if one wanted to make a certain product that required a large investment of heavy machinery, it required different machinery to make different products simply by pushing a few buttons. There is something called an automatic tool changer, which stores many different tools, any one of which can be used or replaced by a push of a button. Thus electronic control gives greatly enhanced flexibility. Furthermore, instead of an old assembly line in which products went down the line from machine A to B to C, they can now be moved, for example, from machine A to machine C, and then back to machine B by electronic control. Carts carrying the work in progress permit much greater flexibility, again by computer control. The bottom line is that production is much more flexible.

Other countries will introduce the same technology. Why is Japan likely to do so more rapidly? Let me spell out some of the reasons. First, with very low unemployment and with a permanent employment system, Japanese workers are more willing to accept technological changes than workers in most parts of the world. A Japanese worker at aged 25-30 years, for example, expects to be with the company until he retires. He believes that if his company does well and adopts new machinery, that it will look after him, find new jobs, and it

will engage in retraining. In the United States, the company is less willing to undertake retraining because it is expensive and the person often leaves. In Japan, with a permanent employment system, workers are more eager to accept new kinds of technology more easily.

Another reason Japan is so fast in accepting new technology is that large numbers of electronic engineers are working in production, right on the assembly line. As you may know, Japan is now turning out 50 per cent more engineers than the United States in absolute numbers, even though the United States has twice the population of Japan. Per capita, therefore, Japan is turning out three times as many electrical engineers as in the United States. The introduction of electronic control to manufacturing requires very large numbers of electronic engineers. To introduce a new continuous casting steel plant, it takes roughly 500 electrical engineers three years full-time to put in electronic controls. Comparable numbers are required for other large manufacturing plants.

In the United States with fewer electronic engineers, most of whom went to join high-tech companies, we have few applicants for work in manufacturing. Even if they join a manufacturing company, American electronic engineers prefer to work just on design, not on assembly line work. In Japan, with many more electronic engineers, firms are able to get them at a lower cost than in the United States. Japanese engineers are also much more willing to go down to work on the production line. It is not basically a question of inventiveness, although it does require a certain creativity to adapt.

A substantial amount of new technology that has been used on the Japanese assembly line was first invented in the United States, in Britain or in other parts of Europe. However, Japan is more rapid in applying this new technology. Japan is not only producing about half the world's robots, it is also using about half the world's robots and this trend seems likely to continue. In more complicated electronic controls and the so-called flexible manufacturing system or smaller cells (or modules), Japan has a comparable lead. According to some estimates the United States has something like 50-100 flexible manufacturing systems (in which two or more machine tools are linked by computer controls) whereas Japan is approaching 400 in place. In polls of companies planning to install this new kind of technology, again Japanese companies are moving more rapidly.

Electronic controls make possible not only flexible production but also the use of machinery at all hours of the night and weekends. Even a small machine tool shop can introduce certain robots which can run unattended during the night and on weekends. With new kinds of automation, when a tool breaks it can be replaced automatically. This new technology, not possible before recent microprocessor technology was developed, makes possible vast increases in production. Because Japan is applying this technology much more rapidly than other countries, we can expect the Japanese advantage in manufacturing to increase.

In addition to manufacturing, a second area where Japan is going to do well is in the service sector. Here again, the world underestimates Japanese potential. Of course, Japan is beginning to introduce into offices the same kind

of technology as elsewhere: the word processor, the facsimile machine, the copy machine, the computer and new systems of telecommunications. But in Japan this represents a greater change in technology than for western countries which used alphabets for until now, the Japanese have not had a typewriter that could be used in offices by ordinary people in anything like the way they have been used in the West. The Western alphabet made possible a simpler typewriter, even before the word processor, but the Japanese language (like the Chinese) with over 2,000 characters in common use, required a giant typewriter with a specialist operator that could not be used cheaply and easily like a typewriter in the West. Now, with new electronic controls they can input *kana* (Japanese syllables) and by pushing three or four strokes get an output in character. If with the same pronunciation there are several possible characters, the alternate characters appear on the screen and by pushing one more key, the correct word can be chosen. In short, with about the same number of strokes, an ordinary Japanese using a word processor can type a word in Japanese character as easily as a Westerner using the alphabet.

This new technological breakthrough gives the Japanese an opportunity to reorganize their offices in a fundamental way. The rest of the world now is also moving rapidly in the same direction. However, Japan as a large late developer ever since the Meiji Restoration has learnt that everytime a new technology changes by observing the experiences of the West, the change can be introduced in a well-organized fashion. As a late developer, Japan has had the advantage of introducing new technology in a more systematic fashion. The Japanese are now undertaking the same kind of systematic study of the electronic office area that they once undertook in manufacturing. They are now sending people all over the world to find the most useful procedures, to estimate the costs and the best way to organize things. One can expect that they will develop in office procedures the same kinds of overall systems, with the same thoroughness and vigour that they introduced into manufacturing twenty to thirty years ago.

The Japanese, because of their success in trade, now have an extraordinary amount of capital which they can use in their expansion of service organizations. Already, depending on ways of measuring, the largest bank in the world may now no longer be an American bank, but the Daichi Kangyo Bank. You may have seen announcements that out of the first twenty-five banks in the world in terms of assets, something in the order of ten are Japanese while four are American. You may have seen figures that show, in terms of total assets of large banks in the world, Japanese banks are already catching up with the American banks. Already as of this year America is now a debtor-nation while Japan is becoming the world's largest creditor-nation. The availability of capital linked with new office procedures will permit Japanese expansion in service sectors around the world, in consulting fashion, publications, art, music, drama, television, tourism and supermarkets but above all in financial services and insurance. In the service sector, we are going to see a tremendous expansion of Japanese efforts over the years ahead.

A third area where we are going to see tremendous Japanese expansion,

not yet recognized around the world, is in research and development. It is customary for self-satisfied Westerners to say that we have a great deal of creativity. Look, we say, at the Nobel prizes. It is too bad, we say, that the poor Japanese don't seem to have this creativity. They don't seem to be able to make new inventions. Look, we say, only four Japanese Nobel prize winners compared to hundreds in the United States. Westerners who believe that the Japanese lack creativity will have an opportunity to be surprised in the same way that people were surprised when they found that the Japanese could make competitive automobiles, or even before that, that they could make competitive television sets, or even before that, that they could make competitive radios, cameras, and watches.

The policy of a catch-up country is, of course, to make use of somebody else's better technology. There is no point in spending a lot of money to re-invent the wheel when somebody has a perfectly good wheel which you could borrow a licence or make on your own without even paying any licence fees. During the period of catch-up it made a great deal of sense for Japan to borrow technology, to pay licence fees or engage in "reverse engineering" (which means you take something apart and then try to build a similar product in such a way that it hopefully won't invade licence or patents but is, in fact, basically a copy of a Western invention).

Now, Japan has decided to invest more heavily in research and development, to move from being just an imitator to become an investor and a creative country. In 1970, less than one per cent of Japanese GNP went for research and development. As you may know, now about 2.5–2.6 per cent of Japanese GNP goes for research and development. The Japanese were planning by 1990 to spend three per cent of their GNP for research and development. Recently they changed their plan from 3 per cent to 3.5 per cent. The United States in the meantime, spends about 2.6 per cent of its GNP on research and development and this is fairly stable.

Not only are Japanese spending a higher proportion of GNP on research and development but the spending is concentrated in areas where it is commercially applicable. In the United States a very high proportion of research and development is for military purposes. There is some spin-off from military to civilian purposes, but if one is looking at a competitive strategy for developing industry that will have the maximum impact in commercial competitiveness, one would not take the Star Wars route to develop commercially useful technology. The Japanese have concentrated research and development much more on commercially promising areas.

In the United States there is a lot more basic research in medicine, in health, and other basic sciences, but Japan has concentrated a higher proportion of their research in areas like ceramics, computers, telecommunications, and biotechnology, where there is likely to be the greatest commercial payoff. In short, in the years, Japan is going to have a tremendous role in research and development around the world.

How will Japan with all these successes relate to the rest of the world? Here

I am afraid the fundamental problem comes, where I expect unfortunately that we will have a great deal of difficulty. Until now, Japan has been quite successful in its relations with the rest of the world. There have been occasions of irritation, but Japan as a whole has found a hospitable climate for its exports and its businessmen. The problem now is that Japan has become so strong and the balance of international trade so much in Japan's favour that habits developed in Japan in the 1950s and 1960s when Japan was very concerned about promoting exports, and dampening down imports will not be tolerated by the rest of the world. Yet they are not being dismantled rapidly enough to satisfy trading partners. We are, therefore, likely to see unfortunately increasing friction between Japan and the outside world. It is unfortunate for Japan that it is having such difficulties getting internal consensus to open its markets more broadly. The Japanese will argue that their markets are much more open than foreigners acknowledge and I think that there is considerable truth to that. But if one gets into specifics, in area after area there are still very serious problems for foreign goods. In agricultural goods it is well known that there are certain agricultural products that Japan does not openly admit. In areas like tobacco Japan has serious barriers. In petrochemicals, Singapore recently discovered that in refined oil Japan has, in fact, serious barriers. In areas like lumber products, telecommunication equipment, in medical equipment, in pharmaceuticals, in depressed sectors, there are serious barriers.

Several years ago Japan passed a depressed sector law. If one examines the ten industries that were affected by the depressed sector law, one notices that in aluminium, Japanese aluminium imports have increased very greatly since that law was passed. But in nearly every other area, even all those that were very depressed and Japan acknowledged that it was no longer competitive, Japan has basically succeeded in preventing imports from flowing into Japan.

If Japan were not doing so well, this would not be a problem. Unfortunately the internal political process and business process make it very difficult for Japan to open their markets more widely, even though, as the world's most competitive nation, it is in their interest to do so. Japan lacks the strong leadership group found, for example, in Singapore. Lacking strong central leaderships, Japan makes accommodations to internal pressures from producer groups and therefore has not been able to respond to the pressures of foreign countries. There is no question that it would be in Japan's overall interest at this point to open up its markets much more broadly. It is so competitive that if its markets were completely open, Japan would still enjoy great success. Japan's inability to make its testing procedure more transparent and to curb sectoral associations that find ways to curb competitive foreign products ensure that foreign antagonism towards Japan and world protectionism will increase.

The protectionist sentiment reflected in the United States is also very strong in Europe and elsewhere. Japan by its lack of transparency and reluctance to purchase foreign products is fueling the mood of protectionism. Yet despite the growing antagonism to Japan, it is likely to find ways to export despite protectionism.

Those of us on the outside will do well to become familiar with the Japanese language, to make sure that our countries train people who have very fluent command of Japanese and can follow their progress in technology and organization. I am not arguing that other countries should give in to all Japanese demands or that we should give up our demands that Japan opens its markets further. But at the same time we have to be prepared to understand the extent of Japanese successes to be able to respond appropriately in our own countries and to deal with the Japanese who are going to be a growing power in the world scene.

## Question and Answer Session

### *Question*

Japan is now facing a serious trade problem with the United States or European countries. Some people say that Japanese people strongly hope the government will take a strong initiative in protecting the consumer's interest. But I think that in the United States, consumers themselves have the responsibility to decide whether or not a certain commodity is good or not. Do you think that in order to resolve the world trade friction Japanese mental change is necessary?

### *Professor Vogel*

Unfortunately, I think at this stage of development, the Japanese consumer interest groups are much weaker than producer goods. Since 1945 in the revival of Japan, trade associations including groups of farmers and industrial associations have been very strong and have played a very progressive role in the expansion and modernization of Japanese industry. These groups are now extremely well-organized and extremely strong with a strong political as well as commercial base. They far outweigh the power of the Japanese consumer movement. I don't think we can expect the consumer movement in Japan to become as strong as these producer groups. The Japanese would get much cheaper beef, citrus fruits, and a number of items. But it would not be such a huge difference to the average Japanese consumer that they are prepared to go engage in an all-out battle with the government. I believe the Japanese public still does not realize how closed Japan's closed markets are and how serious anti-Japanese sentiment is abroad. The Japanese press still does not adequately convey the problems foreigners have in getting goods into Japan. The only hope of having a big change in Japanese openness comes not from consumer groups but from much broader public awareness of how closed the market is and how serious international repercussions are likely to be.

### *Question*

In America, concerning the adoption of robots, is there any consensus? Who takes care of workers for retraining in order to give them adaptability to move into other fields?

### *Professor Vogel*

Regarding the use of robots there is not a consensus. We don't have a national strategy and workers are really quite worried. Even if a management in a given



company says, "Look, all the people who are displaced by robots this time will be provided with retraining and new jobs", many workers would fear that two years later there will be a different group of managers and that they may not have a job. Americans do not have full confidence in the long-range commitment of company leaders to workers. The resulting anxiety makes it very difficult for American workers to be enthusiastic about accepting robots.

### *Question*

Do you think that there is a serious problem in Japanese attitudes to the world? If all Japanese producers withdrew their opposition to opening markets, would Japanese consumers still resist buying foreign goods because of the upbringing of the Japanese, because of their having been isolated from the world?

### *Professor Vogel*

My own view is that the Japanese consumer resistance to foreign goods is not nearly so great. In certain areas like foreign fashions or foreign fast-foods or foreign whisky, or foreign movies and foreign books Japanese are eager to buy these products. Part of the problem is that images of quality tends to be overly generalized and to lag several years behind actual facts. In the 1950s when Japanese products began coming into the United States we considered the Japanese products junk goods. At that time they were junk goods, they would break and fall apart easily. To change the image the Japanese Government began to require that goods leaving Japan meet certain standards. They began producing goods of better quality, but images among foreigners did not change that quickly. For several years even after many Japanese goods were good quality, foreigners still believed Japanese goods were bad quality, and they did not begin to buy them. But by the late 1960s Americans were convinced that most Japanese goods were of good quality. Japanese cars in the late 1960s were not yet high quality, but Japanese goods in general had a much better image. And now, around the world, Japanese goods have an image of high quality. Within Japan this image is even stronger. In the early 1950s, many Japanese were eager for foreign products, including automobiles. The Japanese Government made it very difficult, charging very high import duties on foreign goods, yet Japanese consumers fought to get those goods.

The fact is that Japan produces high quality goods in most areas, but several problems remain. One is that although foreign goods often are of high quality, the Japanese view is that Japan does everything better, making it difficult even for high quality foreign products. Foreign products coming into Japan now confront not only the image problem. A foreign company must show not only that they have a good product but that there are sufficient service facilities in Japan, that the product will be repaired and that the foreign company is sufficiently committed to Japan that parts will be there several years later. In foreign owned companies like Japan IBM with a clear commitment to the Japanese market and clear awareness of the high quality of the foreign product, foreign products