

Perception Gaps

It was with keen interest that I read the "Close-up" article "Recovery and the Free Market Economy" in the July/August 1983 issue. The promise implicit in the disclaimers that Dr. Campbell and Mr. Amaya were expressing their own personal opinions were fully justified by the article's content. Both of these men hold positions of significant political influence and they could not have expressed their thoughts so candidly if the format had been a press conference where they were expected to voice the views of their governments.

One of the issues discussed by Dr. Campbell and Mr. Amaya was the problem of international misunderstanding. In my opinion, there are two sorts of "misunderstanding." The term "misunderstanding," or, in more recent terminology, the "perception gap," is often used as either a defensive or an offensive ploy. That is to say, a perception gap can be posited to justify certain policies, and this kind of perception gap, which one might call a "tactical perception gap" or "perception gap of convenience," should be clearly distinguished from genuine misunderstanding.

Whether rhetorical or real, perception gaps are undesirable and should be cleared up as soon as possible. However, it would hardly be easy to have someone confess that his alleged perception gap was a tactical ruse to serve a certain political aim. Such a confession would be all the more unimaginable if the admission were contained in a public statement by an official representing a politically influential organization.

I hope the *JOURNAL OF JAPANESE TRADE & INDUSTRY* will continue to provide a forum where influential leaders in international trade and politics can candidly express their personal views and opinions free of the leash of their respective official commitments. History is full of instances in which perception gaps, whether fact or feigned, have triggered tragic wars and widespread human misery. The torch of wisdom, intelligence, and a reasonable dose of idealism must continue to burn.

Eiji Furuyama
Dusseldorf
Federal Republic of Germany

Japanese System Analogous to ICs

The September/October issue of the *JOURNAL OF JAPANESE TRADE & INDUSTRY* continued the *JOURNAL*'s tradition of admirably explaining the key aspects of Japan's current industrial and trade activities. That issue, which focused on the theme of Japanese education and industry, touched upon one of the distinguishing features of the Japanese way of doing business: the close integration of education, research and development (R&D), and product sales.

For example, in the first feature article, Keiichi Oshima pointed out how Japan's earliest engineering colleges offered courses of study directly related to practical engineering needs. In the second feature article, Kenji Okuda described how cooperation among engineers, operators, and even robots on the factory floor leads to both better products and more efficient production.

The Japanese industrial and business world may perhaps best be symbolized by the modern integrated circuit. Each component of the circuit depends on the others, each is arranged in close proximity to the other, and the total system functions very smoothly and efficiently.

Foreign businesses attempting to penetrate the Japanese market might cite this very "integration" as an exclusionist non-tariff barrier to the Japanese market. That is to say, since the Japanese system is already tightly integrated, it finds it difficult to accept any new component, such as a particular foreign business, into the circuit.

To continue the analogy of the integrated circuit, however, foreign businessmen must learn, as their Japanese counterparts already know, that many new elements can in fact be introduced into the system as long as their introduction is compatible with the system's overall design. This means that foreign companies interested in establishing a meaningful presence in the Japanese market must first study how Japanese companies function and then take the trouble to develop for themselves the network of contacts which will facilitate their acceptance into the already well-

functioning integrated circuit.

Too often foreign businesses, used to the more fragmented competition of Europe and the United States, try to enter the Japanese marketplace in the same manner they would approach a new venture in the West. But the highly individualistic and aggressive Western approach more often than not turns out to be counterproductive in Japan.

What the September/October issue of the *JOURNAL* pointed out rather clearly was that this concept of close integration as a precondition for smooth functioning was not designed by the Japanese as a way to exclude foreign competition but is rather a basic part of the Japanese mindset and a principle which operates throughout Japanese society, be it business, education, or what have you.

The Japanese have not invented a totally new way of doing business, nor are they attempting to change the relative roles of education, R&D, and product development. As the charts accompanying Oshima's article show, Japanese place as much importance on education and R&D for business as American and European businessmen do. But clearly, the Japanese are demanding a closer working relationship among these elements. The results of this integration so far have been impressive indeed.

Dr. Ronald Suleski
Former visiting professor of
Sophia University
Tokyo

Letters to the editor, with the writer's name and address, should be sent to: the Editor, Japan Economic Foundation, 11th Floor, Fukoku Seimei Bldg., 2-2 Uchisaiwai-cho 2-chome, Chiyoda-ku, Tokyo, 100 Japan. Letters may be edited for reasons of space and clarity.

CURRENT TOPICS

Japanese Market Access Promotion Mission

The Market Access Promotion Mission, headed by Toshikuni Yahiro, president of Mitsui & Co., Ltd., visited the United States for 12 days in September.

The mission was composed of top executives of leading *sogo shosha* (general trading firms) and distribution companies. It was sent by the Japanese government in an effort to increase Japanese imports from the United States.

The mission visited New York, Chicago, Washington, D.C., and Los Angeles. Mission members engaged in vigorous discussions with leading American businessmen everywhere they went. In Washington, D.C., they met with President Ronald Reagan, U.S. Trade Representative William Brock, Secretary of Commerce Malcolm Baldrige and other Cabinet ministers as well as with Senators John C. Danforth, Robert J. Dole, and Charles H. Percy, and Representatives Sam Gibbons, Walter Jones and Richard T. Schulze.

The purpose of the mission was to explain in specific terms the unique aspects of Japanese consumer needs and to detail effective ways to approach the Japanese market. Another purpose was to listen to American businessmen's views and complaints about the Japanese market and distribution system.

Commenting on the two days of meetings with top U.S. government officials and congressmen, Yahiro told a Washington press conference that American dissatisfaction with Japan over beef, orange and tobacco imports is so strong that Japan-U.S. trade has become a political issue. Noting that American criticism that the Japanese market is closed to imports was much stronger than he had expected, he said the visit had left him with a feeling of crisis. If nothing is done about the trade issue between the two countries, Yahiro concluded, the consequences could be disastrous for Japan.

The mission leader disclosed that he would meet Prime Minister Yasuhiro Nakasone upon his return and advise him that gradual steps to liberalize beef and orange imports are unavoidable in order to preserve the free trade system.

At the same time, Yahiro and other members said that in order to export more to Japan, U.S. companies must become more export-oriented and try to manufacture products that will satisfy the tastes and needs of Japanese consumers. Declared Yahiro: "With the right strategy and techniques, American businessmen would not find it as difficult to enter the Japanese market as they commonly believe."

Yahiro said Japan would endeavor to rectify the imbalance in its bilateral trade with the U.S. by increasing imports from America.

Yahiro's words are backed by the performance of Mitsui & Company (U.S.A.) Inc. (headquartered in New York), an American subsidiary of his company. Mitsui & Co. (U.S.A.) contributes far more than do native American corporations to promoting American exports. According to Mitsui & Co. in Tokyo, Mitsui & Co. (U.S.A.)'s exports from the U.S. to Japan and other countries totaled \$4,312 million in 1982. Among American manufacturers, only General Motors (GM) did better. GM ranked first in *Fortune* magazine's export ranking of U.S. manufacturers. General Electric (GE) was second with \$3,921 million in exports, considerably less than the export trade handled by Mitsui & Co. (U.S.A.).

Mitsubishi International Corporation, an American subsidiary of Mitsubishi Corporation, a leading Japanese *sogo shosha* that ranks alongside Mitsui, exported \$3,000 million worth of goods from the U.S. in 1982.

Japan's nine big *sogo shosha* all have U.S. subsidiaries. Their combined exports from America not only to Japan but to third countries totaled \$22,700 million in 1981, accounting for 9.7% of total American exports. In bilateral trade with Japan, the nine subsidiaries' combined exports amounted to \$13 billion, \$4 billion more than the Japanese goods they imported into the U.S.

Another member of the import promotion mission, Isao Nakauchi, chairman of major Japanese supermarket chain Daiei, Inc., found some faults with U.S. products from a retailer's standpoint.

"Daiei once imported Alaskan salmon," Nakauchi said. "I had tried to explain to Alaskan fishermen that the price of their salmon catch will go up in Japan if they take pains not to damage the fish, because Japanese give whole salmon as gifts. A salmon without its head and tail is worthless."

"In Japan, we use polyester tubes for mayonnaise, while American manufacturers bottle theirs. Bottled mayonnaise is inconvenient for Japanese because people have to put down their chopsticks and pick up a spoon each time they want to get some from the bottle. Polyester tubes are popular because they eliminate the bother of changing from chopsticks to spoon and back again during a meal."

Jiro Yanase, president of Yanase & Co., Ltd., Japan's biggest foreign car importer, noted that Japan's imports of foreign cars rose following the liberalization of foreign car imports in 1965, but decreased sharply after the second oil crisis. He offered an optimistic forecast for foreign car imports, however.

Said Yanase: "I think sales of U.S. and other foreign cars in Japan will start picking up next year. This is because U.S. car makers have introduced high-quality, small-sized 1984 models that will satisfy the Japanese market, and also because of the relaxation of the Japanese inspection system and other import procedures is expected to produce tangible results."

Ministerial Meetings Held with South Korea And China

Japan's cooperative relationships with South Korea and China have taken a great step forward as a result of regular ministerial talks in late August and early September.

The Japan-South Korea ministerial meeting, held in Tokyo August 29-30, was marked by a friendly atmosphere for the duration of the talks. That was in sharp contrast with the previous session, which saw angry exchanges over how much economic cooperation Japan should extend to Seoul.

The amicable tone of the latest ministerial session, the 12th since the two countries normalized diplomatic relations in 1965, apparently owed much to the spade-work done by the leaders of the two countries. Japanese Prime Minister Yasuhiro Nakasone's visit to Seoul in January for talks with South Korean President Chun Doo Hwan greatly contributed to solidifying the cooperative relationship between



Mitsui & Co., Ltd. President Toshikuni Yahiro, head of the Market Access Promotion Mission



Mission member Isao Nakauchi, chairman of Daiei, Inc.



Mission member Jiro Yanase, president of Yanase & Co., Ltd.

the two countries. It paved the way for an eventual agreement, after years of negotiation, on a yen loan equivalent to \$4 billion to South Korea.

Present at the two-day meeting were Foreign Minister Shintaro Abe, Minister of International Trade and Industry Sosuke Uno and three other ministers on the Japanese side, and Foreign Minister Lee Bum Suk, Trade Minister Kim Dong Whie and six other ministers on the South Korean side.

The two sides agreed to promote cooperation not only in political and economic fields but also at the private level, particularly exchanges of young people. The ministers agreed that the harsh international environment surrounding the Korean peninsula requires the two countries to work hard to bring peace and stability to the region.

Based on their discussions, the ministers issued a joint press statement at the end of the conference which called for the two countries to:

—Strengthen their relationship of mutual cooperation and equality, grounded on public support in both nations.

—Push efforts to achieve peace and stability on the Korean peninsula, both of which are vital to the peace and stability of the Far East including Japan.

—Hold working-level meetings to discuss transferring Japanese industrial technology to South Korea, rectifying the bilateral trade imbalance now heavily in Japan's favor, and improving the climate in South Korea for direct Japanese investment.

—Study ways to commemorate the 20th anniversary of the establishment of relations, to be observed in 1985, at both government and private levels.

The next Japan-South Korea ministerial conference will be held in Seoul next year.

Meanwhile, the third Japan-China ministerial conference, which took place in Beijing Sept. 4-6, also helped boost economic cooperation.

Abe and Uno were among the six ministers participating from Japan. Seven key Chinese ministers took part, including Foreign Minister Wu Xuequan and External Trade Minister Chenmu Hua.

The Chinese side asked for increased Japanese financial and technological cooperation, most notably the extension of a second yen loan from the Japan Export and Import Bank for natural resources development. The Chinese also sought additional Japanese purchases of their products.

The Japanese side stopped short of giving exact figures for aid in view of Tokyo's worsening budget deficit. Instead, Japan proposed working-level talks on these issues, to which the Chinese side agreed.

The two sides also agreed to promote technological cooperation, particularly in

agriculture. As a first step, Japan will dispatch a survey mission to agricultural development projects in Heilongjian in Northeast China.

On the final day, Abe and Wu signed a tax agreement for the prevention of double taxation and tax evasion.

At a joint press conference following the three-day meeting, Wu said China is grateful for Japan's friendly cooperation with its economic plans, as seen in the proposed extension of a new yen loan and the signing of the tax agreement. He said there are many fields in which Japan and China can work together, including energy, transportation, technological innovation and joint ventures.

Abe told the press conference that economic cooperation between the two countries on a governmental basis is progressing smoothly and that Tokyo will continue to help China build up its basic industrial infrastructure. He expressed confidence that Japan's positive cooperation with China's modernization plans will contribute to the country's stable development and to peace in Asia.

Abe said a Japanese mission will be dispatched to China in December for feasibility studies on projects to be covered by the new yen loan, adding that depending on the mission's report, the loan could go ahead next year.

The next Japan-China ministerial meeting will be held in Tokyo in 1984.

First International Design Festival Held in Osaka

The International Design Festival, Japan's first attempt to promote international exchange through design, closed its month-long run in Osaka on Nov. 9.

The Festival will be held once every two years in Osaka. It aims to introduce Japan's culture to the world now that the country's economic and industrial activities are widely known through such products as electric appliances and automobiles.

The biannual festival, which also seeks to establish Japan as a world design center, had three major events this year, the International Design Competition, the International Design Awards, and the International Design Exhibit. An International Design Symposium was also held on Oct. 12, followed by Design Forum '83 on Nov. 1.

The guiding theme of the International Design Competition is "Design for Every Being." This year's sub-theme of "Shu" (mass) attracted 1,367 entries from around the world. After the August screening, the ¥10 million Grand Prix was awarded to a group of 24 students led by



Prof. Charles Owen of the Illinois Institute of Technology



"House of the Future," the winning entry in the International Design Festival

Charles L. Owen, a professor with the Illinois Institute of Technology Product Design Course, as well as by three other professors. The group's entry was "House of the Future."

Other prize winning works (¥2 million each) included "Hiroshima 1945," a poster series by Jutaro Ito and his design group, the "Foldable Urban Motorcycle" by Armando M. Villalobos and Antonio O. Certucha of Mexico, "Time of the Earth" by Osamu Akiyama, "Public Chair Proto Type 1" by Toshiro Ikegami, and "Solar Screen" by Tadahide Okuno and three others.

The prizes were awarded at the festival's opening ceremony on Oct. 7. At the same time, it was announced that the theme of the 1985 International Design Competition would be "Ko" (cross) and that entries would be accepted beginning in April 1984.

The International Design Awards, another major festival event, are conferred on professional designers selected by a panel of five Japanese judges from among nominees who have made outstanding contributions to the promotion of design.

This year the International Design Awards went to Chemayeff & Geismar Associates, an American graphic design office; Maria Benktzon & Sven-Eric Juhlin, Swedish designers who have been developing goods for the physically-handicapped and the aged; Paola Navone of Italy, a pioneer of radical design; and Pentagram, a British design office.

British Prime Minister Margaret Thatcher was presented an honorary award for her dedication to the promotion of a design policy emphasizing the importance of design in society and industry. Thatcher has explained in *Design* magazine and its sister publication *Engineering* her intense interest in design and the kind of policy the British government should pursue to promote activities in the field.

The International Design Exhibit was held from Oct. 22 to Nov. 9. The show featured all the award-winning works and a special exhibit entitled "The Past Present and Future of Design."

Japan, U.S. & EC Agree To Fight Protectionism

—MITI Head Uno Holds Intensive Talks With U.S., EC Officials—

The world's three largest non-communist trading blocs—Japan, North America and the European Community (EC)—have agreed in principle to fight the growing tide of protectionism. The agreement came at a meeting of trade ministers from Japan, the United States, Canada and the EC held in Ottawa, Canada, Sept. 26–27.

Photo: WWP



MITI Minister Sosuke Uno (right) with Wilhelm Haferkamp of the EC (left), Gerald Regan, Uno's Canadian counterpart and William Brock, U.S. Trade Representative, in Quebec, Canada

Representing Japan at the meeting—the fourth this year following those in Tokyo, Brussels and London—was Sosuke Uno, Minister of International Trade and Industry. The other participants were U.S. Trade Representative William Brock, Canadian International Trade Minister Gerald Regan and EC Commission Vice President Wilhelm Haferkamp. Uno also held intensive talks with U.S. government and congressional leaders later in Washington on trade issues.

Topics at the sixth Quadrilateral Trade Ministers' Conference included trade protectionism, assistance to poor countries and safeguards or emergency import controls. Brock insisted that it was time to act to dispel protectionist sentiment and produce something specific. Brock said prior to the start of the meeting that there had been no substance in past talks among the major trading partners, despite their pledge at the Williamsburg Summit to promote free trade for sustained global economic expansion.

Uno echoed Brock's assessment of the previous four-year meetings, saying they had often degenerated into generalities without tangible results. But Uno and the other trade ministers would not go into details of the latest meeting, apparently fearing that to disclose their discussions—which covered controversial subjects whose success depended on secrecy—could undermine their determination to battle protectionism.

Uno told a news conference after the meeting that the participants succeeded in their original intentions, adding that the outcome of the discussions would be reflected in future trade liberalization

talks. He also said the four trading partners made progress on the question of economic assistance to less developed countries and the safeguard issue. In this connection, he said the Japanese government would consider relaxing import duties on four jute products, coming mainly from Bangladesh, one of the world's poorest nations.

Uno said the other participants did not specifically seek Japanese action to redress trade imbalances with them but implicitly expressed their dissatisfaction. "They believe Japan will certainly take measures to reduce its trade surpluses," Uno said, adding that the Japanese government is now exploring possible measures to expand imports.

The Japanese minister met separately with Brock in Ottawa after the conference. In this discussion, frank views were exchanged on the current state of the U.S. automobile industry and the effectiveness of Japan's voluntary restraints on exports to the U.S.

It was agreed that further discussions would be held in the future in order to arrive at a final conclusion.

While the U.S. side did not request an extension of voluntary restraints for the fourth year, it made clear that protectionist movements remain strong in the U.S. Congress. Brock was quoted as saying that the export restraint was finally in 1983 having a favorable effect, in contrast to the first two years of the agreement in fiscal 1981–82.

In Washington, Uno conferred with Commerce Secretary Malcolm Baldrige, Presidential Counselor Edwin Meese III, Under Secretary Allen Wallis of the State

Department and Senate Majority Leader Robert Byrd from West Virginia as well as Brock.

At a meeting with Baldrige Sept. 28, the Commerce Secretary urged Uno to consider importing coal as one "specific and quickly effective" measure to open the Japanese market wider to foreign products and correct the bilateral trade imbalance. Baldrige also sought more foreign procurements by the state-run Nippon Telegraph and Telephone Public Corporation (NTT). While hailing the Japanese government's previous market-opening measures, the U.S. official warned of moves in Congress to seek more concrete results in the form of increased imports into Japan. Uno was non-committal on the coal issue, saying Japan "would like to consider it from a medium- and long-term perspective" in view of slack domestic demand for coal. Uno and Baldrige agreed that the two countries would continue discussions about industrial policy to avoid misunderstanding. They also hailed efforts by the Japan-U.S. High Technology Working Group, which is expected soon to announce recommendations on semiconductor trade and other issues.

In talks with other U.S. officials Sept. 29, Uno expressed the hope that outstanding bilateral issues will be solved before President Ronald Reagan visits Tokyo in November. The officials welcomed the decision by Japan Air Lines (JAL) to purchase Boeing 767 jetliners, saying it will help rectify the trade imbalance and improve bilateral trade relations. Presidential Counselor Meese told Uno the U.S. Supreme Court may exclude foreign companies with operations in the United States from its earlier ruling that found the unitary tax constitutional. He made the remark following Uno's warning that

the unitary tax, imposed on profits of parent companies outside a state as well as on those of subsidiaries in that state, would be tantamount to double taxation and would discourage Japanese investment in the United States.

Job Prospects for Next Spring's Graduates

In Japan, students graduate from university or senior high school in March and usually start working for a company in April.

On September 10, Japanese corporations officially announced their recruiting targets for next spring and posted notices at state, public and private universities throughout Japan. Students who are graduating next March have already started job-hunting.

Prospective job-seekers started calling on companies in early October to get information on which to base their selection of the companies to which they want to apply. Early this month, companies began giving entrance examinations to weed out applicants.

About 370,000 university students and 170,000 junior college students are expected to graduate next spring. Most wish to find jobs after graduation. Another 1,480,000 students will graduate from senior high school next spring, of whom nearly 40% of the boys and 41-42% of the girls will seek employment instead of advancing to four-year universities or two-year junior colleges. Thus, roughly 1,100,000 youths will be in the job market next spring.

According to the "Labor Economy Trend Survey" conducted by the Ministry of Labor this September, many firms plan to recruit more male engineering grad-

uates next spring than they did this spring. But this is an exception. Many more companies will curb hiring to keep personnel expenses down.

At the time of the survey, most firms had not yet decided on their hiring policy for female university graduates, but it seems that employment opportunities for girls graduating from four-year universities have also declined.

The Japanese economy finally bottomed out in February this year and is on the way to recovery. But the upturn is still weak, and this is affecting the job market for next spring's graduates.

The Labor Ministry's survey covered some 3,400 firms in the manufacturing, wholesale and retail industries. According to the survey, 24% of the firms intend to recruit fewer male senior high school graduates than they did this spring, while 23% plan to hire more. Twenty-five percent of the companies intend to hire fewer female senior high school graduates, while 19% intend to hire more. Twenty-six percent of the companies plan to recruit more male engineering graduates, against only 10% which intend to reduce recruitment in this category.

For administrative posts, the firms are almost equally divided between those increasing and those decreasing recruitment.

The employment outlook for girls graduating from four-year universities next spring was far from certain, with 56% of the firms still undecided. Of those that had made up their minds, 26% planned to hire the same number as this year and 14% fewer. Only 4% said they would employ more female university graduates than they did this year.

According to the "Popularity Ranking of Companies among University Students" released by the Japan Recruit Center Sept. 6, banks and insurance companies remained the most sought after places of employment among liberal arts students as they have been for the past few years. The attractiveness of *sogo shosha* (general trading firms), once the job market pacesetters, appears to have waned.

Electronics-related firms monopolized the top positions among university science majors, while the popularity of high-tech-companies has soared.

The survey covered an estimated 12,000 youths scheduled to graduate from four-year universities next year.

Among liberal arts students, Tokyo Marine and Fire Insurance Co., Ltd., Mitsubishi Corp., and Suntory Ltd. were the three most popular firms. Suntory rose to third place from fourth last year. Nine banks and five insurance companies were among the top 30 choices of liberal arts students. The only *sogo shosha* to maintain last year's rank was Mitsubishi Corp. while Sumitomo Corp. and Mitsui & Co., Ltd. both slid down the ratings.



College-graduates-to-be earnestly take notes during a briefing session held at Tokio Marine and Fire Insurance Co., one of the most popular companies among job-hunting students.

NEC (Nippon Electric Co., Ltd.) proved the most popular firm among science and engineering students for the third consecutive year, while electric appliance manufacturers like Hitachi Ltd. and Sony Corp. swept the top seven positions. Toray Industries Inc. rose from 32nd to 23rd place this year, while Suwa Seikosha Co., Ltd., which began marketing wristwatch televisions this year, leaped from 90th to 25th. Clearly, science students care about a company's technological capabilities.

Toyota Motor Corp. advanced from 17th to 10th place, but both Mitsubishi Heavy Industries, Ltd. and Nippon Steel Corp. fell in this year's popularity ranking.

CATV: from Relay Service to Independent System

Since early 1983, hardly a single day has passed without the word CATV (cable television) appearing in Japanese newspapers.

The reports give the impression that numerous companies are interested in CATV, and that the whole nation is anxiously following its development. Will CATV really take root in Japan?

There were 31,000 CATV systems in Japan at the end of 1981, and 3,330,000 subscribers. This is about 10% of the 30 million families in Japan with television sets. It is by no means a high percentage, compared with America's CATV diffusion rate of 30%, but it is not at all low by world standards.

However, the attraction of CATV to business circles does not lie in expanding its current functions. Rather, they envisage building media entirely different from the CATV of today.

The average number of subscribers per CATV system comes to only 100 families. And according to the Posts and Telecommunications Ministry, under whose jurisdiction CATV falls, only 350 systems have more than 500 subscribers each. Considering that a typical American CATV system has more than 10,000 subscribers, the Japanese systems are extremely small in scale.

Another special feature of Japanese CATV systems is that 85% of them are used only for simultaneous retransmission, according to the Ministry. This is a service which receives TV radio waves with a giant antenna and transmits them to the homes of subscribers.

But now business circles hope to change all this, by establishing a large-scale cable television system to broadcast numerous independent programs that each CATV system will produce exclusively for its subscribers. Broadcasting independent programs, instead of distributing the pro-



Will CATV really take root in Japan?

grams of established TV stations, was the biggest reason CATV spread so quickly and extensively in the United States. Each of the groups that applied from the end of 1982 through the summer of 1983 to the Posts and Telecommunications Ministry for a CATV license aims to obtain at least 20,000 to 30,000 subscribers, and hopes that 20 to 30 channels will be made available. Because there are seven regular TV stations using seven channels in the Tokyo area today, this would mean an additional 13 to 23 channels for broadcasting programs produced independently by CATV stations. All the groups applying for licenses are optimistic about the business feasibility, because their analysis of the market shows that the public wants access to a great variety of information.

Encouraged by the prosperity of the CATV business in the United States, all applicants for licenses have concluded that there is sufficient demand to sustain 10-20 channels for independent programs.

The scarcity of independently produced programs in Japan has been blamed for reducing CATV to a system merely to cope with poor TV reception. So its future development will depend on the extent to which it can provide independent programs. However, it is not commercially feasible to present a great number of independent programs when the number of subscribers is 20,000 to 30,000 at best.

The key to success and development of CATV in Japan, therefore, is whether stations throughout Japan will be able to organize a network so that they may share independent programs, or whether they will be able to form a network to exchange independent programs. The technical standards for establishing such networks have not yet been established. There is a

mounting desire among those seeking a CATV license to use a communication satellite to establish their networks, because it would be more efficient for the stations to utilize the satellite than for homes to receive programs directly from the satellite.

One of the special features in Japan is that railway companies are enthusiastic about advancing into the field of CATV service. Most Japanese railway companies have department stores and many of them even have a real estate division. These companies would gain a great deal if they could distribute information on department store sales to CATV subscribers, and offer CATV programs to owners of houses developed by the railway companies along the railways lines.

Retailers, too, intend to move into the CATV business with the next-generation two-way CATV in mind. The Posts and Telecommunications Ministry is considering authorizing two-way CATV, which would make TV shopping possible.

Financial institutions, too, are interested in two-way CATV in view of the coming age of electronic banking or home banking.

The *sogo shosha* (general trading firms) are also trying to enter the CATV field. They hope to provide in a package everything from hardware for use in CATV stations and in the home, to actual independent programs, as well as software. The *sogo shosha* along with railway and distribution companies, also intend to provide initial capital.

The Japanese version of Videotex will start service in the autumn of 1984. CATV, along with Videotex, will soon become a test of how demand for information in Japan has really become diversified.