JAPAN

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Summary

The Japanese economy seems to be bottoming out of its long recession. It is expected to move gradually toward a moderate recovery concentrating on private demand. The deflationary cycle is also expected to end but it depends very much on the world economy, especially the recovery of the U.S. economy.

The consumer price index for food products has been falling since 1998, while domestic wholesale prices have been more or less flat. Food product prices have continued to fall since fiscal 1999, while the real food consumption expenditure of non-farming households in fiscal 2001 fell for the fifth consecutive year since 1997.

Food consumption in Japan in recent years has not changed much in terms of volume, but it has changed qualitatively with the increasing orientation towards diversity, health, and safety. The dependence of the Japanese diet on forms of catering outside the home has increased over the long term.

Japanese gross agricultural output in 2001 had declined 24% from the peak in 1984. The decline in gross agricultural output in recent years is largely due to successive falls in agricultural product prices. The consumption of beef fell dramatically, but it had recovered to the previous year's level in 2002. Beef prices have also been in recovery since March 2002.

Due to the severe economic situation and deflation, the market sales turnover in the restaurant industry has been shrinking since 1998. On the other hand, the market scale for intermediary foods such as lunchboxes, rice balls, and side dishes is increasing.

Concern about food safety has increased dramatically since BSE-infected cows were first found in September 2001.

To appropriately address today's diverse food safety problems, the government made a major structural change by abolishing the Food Agency and setting up a new Agency for Food Safety. The Japanese government is also planning to embark on a major shift in policies on paddy field agriculture after drawing up the "Framework for Rice Policy Reform" on December 3, 2002.

The Japanese population will peak in 2006, and an aging population will have profound effects on food and agriculture in the 21st century. Japan will be the first country in the PECC region to face a population that is declining and aging quickly at the same time.

Consumption of vegetables, fruits, fish, and pulses will grow. The traditional Japanese diet will be partially revived. Demand for food in general will continue to be stable but gradually decline overall as the population decreases. Vegetable and fruit imports are expected to increase while grains and livestock products would decline.

The demographic effects on the agricultural production sector will be very serious with the most important agricultural production resource, the labor force, shrinking while cultivated land dwindles.

Macroeconomic Situation and Outlook

With the Japanese economy recovering from a long recession, it is expected to gradually show a moderate recovery concentrating on private demand. But whether this expectation will prove to be accurate depends very much on the yen currency exchange rate. The yen is currently moving toward a stronger yen, thus weakening the confidence of business people in the economic recovery.

According to the calculation performed by Cabinet Office in September, the growth rate of the real GDP is projected to be a little over 2% with a nominal GDP growth rate of a little over 0%. The main assumptions are 1) an exchange rate of 117.6 yen/U.S. dollar, 2) crude oil prices at US$28.3/barrel, and 3) a continuation of current economic and fiscal policies.

Private consumption will grow at the slower rate of 0.8% than in the previous fiscal year, when the growth rate was1.4%, as severe employment and income conditions continue as a result of unavoidable short-term consequence of structural reforms. Residential investment will show -0.8% below the previous fiscal year level as a result of the continuing severe conditions surrounding employment and income and the continued sluggishness of real estate prices. At 8.5%, non-residential investment will move toward recovery due to the support of tax incentives for investment as well as a pick-up in production and an improvement in corporate earnings. Public expenditure will be down 0.2% from the previous fiscal year. This is because insurance payments for the elderly will rise, while public investment will decline under the government's continued commitment to fiscal discipline in its "Budget Committed to Reform."

Net exports will slightly increase along with the gradual recovery of the world economy. Net exports will contribute approximately 0.1% to real GDP growth.

The unemployment rate will be 5.4%, the same as the previous year's level due to the continuation of severe employment and income challenges, as the structural reforms proceed. Industrial production will continue to pick up, reaching 1.9% gradually because of the increase in exports and the improvement of business confidence.

While prices will continue to fall, the rate of decline will be reduced by an improvement in oversupply conditions. Domestic Corporate Goods Prices will decline by approximately 0.8% compared to the previous fiscal year, and consumer prices will be down by approximately 0.3%.

According to the official Economic Outlook of January 24, 2003, the current account balance will remain roughly flat because imports as well as exports will increase and the current account surplus will reach approximately 2.7% of GDP.

Food Prices and Consumption

In Japan, consumer prices have fallen for four consecutive years since

1999. This kind of situation, in which prices are in sustained decline, is called deflation. The Japanese economy is still in a deflationary phase. When falling consumer prices are divided into products (goods) and services (including eating outlets), the price declines in recent years have been greater in products than in services. Amid this trend, the consumer price index for food products has been falling since 1998, while domestic wholesale prices have been more or less flat. On the other hand, prices for agricultural products at the producer stage have continued to decline since 1993, falling particularly hard between 1998 and 2000. Furthermore, the difference between the consumer price index for food products and the price index for agricultural products has been tending to widen in recent years. In this way, the declining consumer prices for food products are having a major impact on agricultural production.

Food product prices have fallen since fiscal 1999, a trend that affected nearly all commodities by fiscal 2001 (in which they fell by 1.4% overall from the previous fiscal year). Meanwhile, real food consumption expenditure (food spending) per household member of non-farming households in fiscal 2001 fell for the fifth straight year since 1997 (down by 0.5% from 2000), though the rate of decrease eased somewhat. However, while food product prices continued to fall (down by 0.1%) in the last three quarters of 2002 (April-December), real food spending increased (up by 1.1%). In purchasing behavior for food products, consumers generally compare the quality and prices of products. This is because there is a certain breadth in purchase prices even for the same product, due to differences in quality and other factors such as bargain sales. In such cases, when there is breadth in the prices of products, a tendency can be seen for consumers to choose and purchase those with lower prices. This situation is clear when comparing the consumer price index and purchase prices in surveys of household economy. The consumer price index often tends to be higher than those in surveys of household economy, that is, the prices at which consumers actually purchase foods are not taken into account because the surveys do not cover discount shops, bargain sale prices, and so on.

According to the Public Opinion Survey on National Life, there were slight increases in respondents who said that compared to the previous year, their lives were "improving" or "about the same," giving hope for 2002.

Against this background, the real spending on food consumption per household member, which had decreased for five years in succession up to fiscal 2001, increased in 2002. The situation should be monitored to see if this increasing trend will continue.

A questionnaire survey comparing Japanese eating habits in 2001 and 2002 showed that, while there was hardly any change in breakfast habits, there was a decline in eating out for lunch, with a concomitant increase in home lunches and the purchase of lunch packs and precooked meals. For evening meals, there was a slight increase in meals taken at home.

Food consumption in Japan has changed greatly in terms of volume, based on improved incomes. In recent years, moreover, it has changed qualitatively, too, with the increasing orientation towards diversity, health, and safety. In this context, consumer needs have diversified in line with lifestyle and other changes, and forms of food consumption and purchasing have consequently changed. As a result, the dependence of the Japanese diet on forms of catering outside the home has increased over the long term.

Although food consumption and diet have changed greatly in both quantitative and qualitative terms, nutritional problems have also arisen in the process, namely, a disturbed balance of nutrient intake and over- or under-nourishment. Maintaining good health requires a well-balanced intake of the required nutrients based on an appropriate combination of diverse foods.

Food Processing and Marketing

The food industry, consisting of agriculture, the foodstuff industry, and others that supply foods vital to the national way of life, is a so-called 10% industry accounting for 10.1% of total GDP in fiscal 2000. It is also important for regional economies. In terms of employment, 20% of all workers are involved in the provision of food, and the food industry is an important arena for employment in regional areas.

Due to the severe economic situation and deflation, the market sales turnover of the restaurant industry has been shrinking since 1998. On the other hand, the market scale for intermediary foods such as lunchboxes, rice balls, and side dishes is increasing.

The annual food sales values of supermarkets and convenience stores are increasing, while conventional specialized grocery stores and stores mainly handling food products are decreasing. There is a trend to seek shorter food distribution channels such as direct delivery from producers by consumer cooperatives, agricultural cooperatives, and so on; direct transactions between producers and large users; and transactions using the Internet.

At present, about 80 percent of vegetables and about 70 percent of fishery products are handled via wholesale markets, so wholesale markets still play important roles. But the food products handled via wholesale markets are showing a gradual long-term decline.

Food safety concerns have increased dramatically since BSE-infected cows were first found in September 2001.

To appropriately address today's diverse food safety problems, and to ensure that the health of the nation is protected, there is a focus on the risk inherent in food. The Ministry of Agriculture, Forestry, and Fisheries submitted a bill to the regular session of the Diet in 2003 with the aim of creating a system whereby individual information on cattle throughout all processes—from production to consumption—would be recorded and transmitted.

In July and August 2002, there was a series of incidents in which suppliers were arrested for selling unregistered agricultural chemicals. Evidence of the sale and purchase of unregistered agricultural chemicals was discovered in 44 prefectures. The Agricultural Chemicals Regulation Law, which failed to prohibit the import and use of unregistered agricultural chemicals, was amended in December 2002. The amended law prohibits the manufacture, import, and use of such chemicals.

Since January 2002, there have been numerous reports nationwide of illegal food labeling on meat, such as the falsification of the place of origin. As a result, consumer trust in food labeling has fallen sharply. In order to provide information to consumers and ensure the efficacy of legislation, the government made an amendment to the Law Concerning Standardization and Proper Labeling of Agricultural and Forestry Products (the JAS Law) in June 2002. Under the amendment, the names and other details of suppliers who break the law will be published promptly, while penal provisions have also been strengthened.

To guarantee food safety, individual businesses need to respect the law on the basic principle of consumer priority, in addition to guidance, supervision, and so on, from the administration to businesses. Everyone involved in the food industry needs to take such steps to restore and regain the trust of consumers.

Agricultural Production and Trade

Japanese gross agricultural output in 2001 was around 8.9 trillion yen, a fall of about 2.9 trillion yen or 24% from its 1984 peak. The agricultural producer price index has fallen by about 20% over the last 10 years, and the decline in gross agricultural output in recent years is largely due to successive falls in agricultural product prices.

In 2001, agricultural production volumes for fruit, pulses, and wheat increased, but those for rice, vegetables, and livestock products decreased, falling by 1.7% overall compared to 2000. Agricultural producer prices increased for vegetables and livestock products, but fell for other commodities, declining by 0.2% overall. Agricultural production material prices rose for feed and power requirements, increasing by 0.4% overall.

The trading conditions index for agriculture has been in continuous decline, falling by 1.6 points compared to the previous year. To improve trading conditions from the viewpoint of material supply, it will be necessary to rationalize the distribution of agricultural production materials and reduce costs. In particular, efforts by agricultural cooperative groups, which handle the majority of distribution, will be important.

CROP PRODUCTION

The supply and demand for rice has been easing dramatically in recent years. The scale of the production adjustment area in fiscal 2002 was the same as in 2001, which was the largest ever. The use of rice in the restaurant industry is increasing, as is the consumption of processed rice (such as rice that requires no washing, aseptically packaged rice, and frozen rice). Increasing the consumption of rice will help to achieve healthy diets and improve food self-sufficiency. Enhancing food education and increasing opportunities for rice-based school meals will help pass on traditional food culture to children.

The production of wheat and soybeans is expanding. However, sharp production increases without a qualitative enhancement is causing a growing mismatch between supply and demand. Steps should be taken to produce crops that correspond to user needs, as well as improve and stabilize quality. In terms of consumption, meanwhile, it is important to promote efforts aimed at local consumption of locally produced agricultural products.

HORTICULTURE

Although vegetables occupy an important position in agricultural production, production volumes in recent years have been declining. Meanwhile, imports of vegetables are increasing, though they were smaller in volume in 2002 than in the previous year. To enable producers to supply domestically produced vegetables at the quality and price levels favored by consumers and users, and help them cope with international competition, structural reform needs to be promoted both in production and distribution.

In 2001, the production of fruit as a whole was higher than in the previous year. Meanwhile, yields of Unshu mandarins and apples were more or less according to expectations, thanks to an adjustment of production volume.

Although fruit consumption has been more or less level in recent years, it is declining particularly among the younger generation, which prefers to seek convenience.

LIVESTOCK AND FEED PRODUCTION

Immediately after the discovery of the first BSE-infected cow in September 2001, the consumption of beef fell dramatically. After the establishment of a system to inspect all cattle at abattoirs, both the production volume and market shipments of domestic produce had recovered to the previous year's level in 2002. With a recovery in consumption, beef prices have also been in a recovery mode since March 2002.

The profitability of livestock products sold in fiscal 2001 deteriorated for beef cattle fattening and breeding farms.

In July 2002, a BSE Special Countermeasures Law was enacted to help beef farmers and businesses seriously affected by BSE.

The cropping area for feed crops in 2002 was on a par with the previous year but the feed crop yield fell slightly. As a result, the production volume of feed for self-supply is forecast to decrease (by 1.5% compared to 2001.

The larger-scale dairy farms are showing a willingness to reinforce their feed production infrastructure. The cropping area of rice fermentation roughage, which can be produced in wet fields and contributes to the effective use of paddy fields, has been increasing in recent years (the forecast for 2002 is 3,308 ha). Such collaboration between crop cultivation farms and livestock farms will continue to be important.

TRADE

Among Japanese imports of agricultural products, in terms of value, the proportion of unprocessed agricultural products has gradually declined due to the diversification and greater sophistication of the diet accompanying increased national incomes, while the proportion of processed and semi-processed goods, which have high added value or high unit prices, has increased. In recent years, the proportion of fresh products has increased, due to both the expanding needs of the

foodstuff industry for lower-priced raw materials and advances in transportation technology.

In this way, the dependence on unprocessed agricultural products such as wheat, maize, and soybeans, for which the United States is the biggest exporter to Japan, is decreasing in relative terms, while the dependence on fresh products is increasing in relative terms. This means that the dependence on China, the biggest exporter of fresh vegetables to Japan, is growing. Japan, as the largest net importer of agricultural products, depends greatly on overseas farmland and water resources.

In fiscal 2001, food consumption of rice and meat decreased, while that of fish and shellfish increased. Domestic production volumes of soybeans, fruit, and wheat increased, while those of vegetables, meat, fish, and shellfish decreased. As a result, overall food self-sufficiency on a calorie basis has been 40% for four successive years since fiscal 1998, the lowest level of any leading industrial nation.

Recently, the enhancement of relationships for regional economic cooperation has become the worldwide trend through the comprehensive Economic Partnership Agreement (EPA) and Free Trade Agreement (FTA), especially after the failure of WTO multilateral negotiation. In January 2002, Japan signed the "Agreement between Japan and the Republic of Singapore for a New-Age Economic Partnership." Currently, the Japanese government is negotiating an economic partnership with Mexico and considering negotiations with Korea and some of the ASEAN countries.

Food and Agricultural Policy

Japanese paddy field agriculture has long been in confusion. In addition to the declining incomes of rice farmers due to lower rice consumption and stagnant prices, there is an increasing sense of a state of impasse and unfairness over the production adjustments that have been implemented in the last 30 years or so.

The Ministry of Agriculture, Forestry, and Fisheries drew up a "Framework for Rice Policy Reform" on December 3, 2002, for the future of paddy field agriculture. The government is expected to embark on a major shift in policies on paddy field agriculture and rice.

This reform of rice policies has the basic principle of accountable, efficient policies with guaranteed transparency of all processes in decisions and operations. The actual content of the reforms has the following four characteristics. The first is that there will be a "soft landing" to the Ideal Format of Rice Production System, by establishing a preparatory period and verifying the progress of implementation for each fiscal year. The second is that the content of needed reform will clearly define the production structure, supply-demand adjustments, and distribution system for the target years .The third is that, when implementing reform, steps will be taken to prepare the groundwork so that creative input based on the judgment of farmers, farmers' organizations, and distributors may be put to good use. And the fourth is that these policies will be implemented as a whole package, as the whole will be incomplete if reform is lacking in any of the areas of supply-demand adjustment, distribution, structural or management policies, and production measures.

While Japanese citizens are enjoying a variety of diets, they depend for most of their food on imports, and food self-sufficiency ratios are the lowest among major developed countries. Food self-sufficiency ratios show a long-term downturn, with the rate dropping dramatically from 73 percent to 40 percent during the period from FY1965 to FY2001 in Japan. Many Japanese citizens feel anxious about the situation of low food self-sufficiency.

The Chairman of the Special Session of the WTO Committee on Agriculture presented a first draft of modalities to the Members in February 2003. This first draft was difficult for Japan to accept in its entirety, since the flexibility, continuity, and balances needed to establish realistic modalities had not been secured.

On February 14-16, 2003, a WTO informal ministerial meeting was held in Tokyo and attended by ministers from 22 countries and regions plus the WTO Director-General. Agriculture was one of the important topics at the meeting, and the first draft of modalities was positioned as a catalyst for proceeding with negotiations.

In March, a revised version of the first draft of modalities was presented. However, the revised version was, like the first draft, difficult for Japan to accept in its entirety, since it not only failed to address non-trade concerns appropriately and ensure equal burden sharing among Members, but also, as a whole, was too advantageous to certain exporting countries. On the other hand, the United States and the Cairns group repeated their position that the revised text was inadequate and that drastic and more significant cuts in tariffs, for example, were needed.

The Japanese government, while continuing to align itself with the EU and the other friendly countries, made tenacious efforts to demonstrate the Japanese position for other countries to gain a greater understanding, and exerted every effort to ensure that a sufficiently balanced, realistic consensus based on the coexistence of various types of agriculture would be reached.

Although it is not permitted to completely exclude major sectors in free trade agreements, full attention needs to be paid to the impacts on the structural reform of domestic agriculture, the perspective of guaranteeing Japanese food security, and the possibility of arousing new trade friction with existing exporting countries.

Based on the fact that support for developing countries has been cited as an important issue in G8 summits and elsewhere in recent years, Japan, in its tariff revision in fiscal 2003, plans to vastly amplify preferential tariff measures for agricultural products.

Effects of demographic change on food sector

Japan will face a dramatic demographic change in the 21st century in which its population will move from increasing to declining along with an overall aging of the population structure..

The National Institute of Population & Social Security Research published new population projections for Japan in January 2002.

Based on the medium variant of the projection, the Japanese population is expected to peak at 127.74 million in 2006, starting from 126.93 million in base year 2000, and then enter an ongoing depopulation process. The population is expected to drop to the current size by 2013 and then decrease to about 100.6 million (21% less than the current population) in 2050. The projections show that Japan will soon enter into an era of population decline, bringing the trend of population increase to an end. The fertility rate has been far below the level required to maintain the stationary population.

The number of births declined from 2.09 million in 1973 to 1.19 million in 2000. Consequently, the population of children under15 decreased from 27 million in the beginning of the 1980s to 18.5 million (14.6% of the total population) in 2000. According to the medium variant projection, the children's population will fall below 16 million in 2016, and then enter a slow, ongoing depopulation process. Eventually, in 2050, the population is expected to be 10.84 million (10.8% of total population).

The population of working-age Japanese (ages 15 to 64) consistently increased during the postwar years, peaking in 1995 at 87.17 million. It subsequently entered a decreasing phase, and that segment of the population had diminished to 86.38 million (68.1% of total population) by 2000. According to the medium variant projection, the working age population is expected to fall below 70 million in 2030, and eventually drop to 53.89 million (53.6% of total population) in 2050.

Contrary to the decline in the populations of the children's and working-age groups, the medium variant projection shows that the aged group (65 years and over) will continue its fast-paced increase, growing from the current size of about 22 million (17.4%of total population), peaking in 2043 when the second baby-boom generation enters the aged group, and then declining to about 35.86 million (35.7% of the total population) in 2050.

Dietary trends in Japan under economic growth showed that the country has been moving closer to Western dietary patterns for a long time. But the changing trend seems to be reaching a saturation point since the total calorie intake per capita peaked in 1996. It is not only reflects the effects of deflationary recession but also the effects of demographic change, that is, the population's slowing growth and aging structure.

Various survey results show that different age groups have distinct food consumption preferences. Consumption of rice doesn't appear different among age groups but wheat consumption is less in the older age groups. Consumption of fruits, vegetables, pulses, nuts, potatoes, sugar, fish, and milk and dairy products increases among older age groups, while the consumption of fats and oil, soft drinks, meats, eggs, and other foods decreases with the older age groups.

In these days, trends of nutritional imbalances such as excessive intake of fat and insufficient intake of iron and calcium are becoming a problem. Health concerns to prevent lifestyle-related diseases have become common, and "Japanese dishes" are viewed as nutritious, well balanced, and healthy worldwide. People are urged to reduce "food loss" at various stages from production to consumption. The Japanese government has already published "dietary guidelines" for improving nutritional balance. Recent movements to revive the consumption of traditional Japanese food reflect such public concerns and feelings.

If we combine the demographic change and survey results of food consumption by age group, we can guess general trends in the long run. The past trends toward a Western-style diet will slow down further, and consumption of vegetables, fruits, fish, and pulses will grow. The traditional Japanese diet will be partially revived. Demand for food in general will continue to be stable but gradually begin an overall decline in response to the population decline.

The demographic change is also likely to have big effects on trade. The increasing import of vegetables and fruits with occasional disruption is expected while grains and livestock products would decline.

In the processing and distribution sector, the fast structural demographic change toward an aging population is expected to further strengthen the health-conscious trend, and the demand for less volume and safer and higher quality food at reasonable prices will grow.

The demographic effects on the agricultural production sector will be very serious as the most important agricultural production resource, the labor force, is decaying and cultivated land is dwindling.

The share of people aged 65 years or more in the total agricultural labor force has decreased from 19.5% in 1960 to 53.3% in 2002 while the cultivated land has declined 22% from 6.07 million ha to 4.76 million ha in 2002.

Population movement in Japan has continued to flow from rural areas to the three major conurbations.

Thus, in recent years, there has been a growing trend for population concentration in these three conurbations, particularly Tokyo, while, on the other hand, the population in rural areas continues to decline.

Household members aged 24 or less have decreased dramatically while elderly household members aged 65 or over account for 28.6% (2000) of rural populations. Population has declined in all regions, excluding urban areas. In mountainous agricultural areas, the lower the local population, the higher the ratio of persons aged 75 or older who move away.

With the number of agricultural settlements continuing to decline, the number of settlements in which many farmers live has decreased dramatically. The stagnation of settlement activity is a matter of serious concern, in that the greater the decrease in population in hilly and mountainous areas, the more likely settlements will neglect water channel management. Also, the smaller the farmer population of a settlement, the fewer meetings are held per year.

In rural areas, just as in the cities, the full unemployment ratio has virtually doubled in the last 10 years. In recent years, there has been a pronounced decline in the ratio of job offers to applications by senior high school graduates in rural areas.

JAPAN

	Units	1998	1999	2000	2001	2002	2003E	2004E
FOOD CONSUMPTION PATTERNS *a*								
Per capita caloric intake	Cal/day	2,602	2,620	2,642	2,619	2,630	2,630	2,630
From animal products	Cal/day	566	568	597	570	580	580	580
From vegetable products	Cal/day	2,036	2,051	2,498	2,050	2,050	2,050	2,050
Protein (% of calories)	%	13.2	13.1	13.1	13.2	13.2	13.2	13.2
Fat (% of calories)	%	28.4	28.6	28.7	28.8	28.8	28.8	28.8
Carbohydrates (% of calories)	%	58.5	58.4	58.2	58.0	58.0	58.0	58.0
Income and Food Prices *b*								
Per capita income	US$/capita	23,334	26,465	27,114	23,739	23,452	23686	24041
% of disposable income spent on food	%	16.2	16.1	16.0	15.9	16.0	15.9	15.9
% spent eating out	%	2.9	2.7	2.7	2.8	2.9	2.9	2.9
Food price index	1995=100	102.9	101.7	100.3	99.3	99.3	100.3	100.3
General price index (CPI)	1995=100	102.5	101.9	101.4	100.5	99.9	99.6	100.1
POPULATION								
Total population *b*	Million	126.4	126.7	126.9	127.2	127.4	127.5	127.6
Urban *c*	Million	na	na	na	na	na	na	na
Nonurban *c*	Million	na	na	na	na	na	na	na
Share of population in the following age groups *c*								
0-14 years	%	15.1	14.8	14.6	14.4	14.2	14.1	14
15-64 years	%	68.7	68.5	68.1	67.6	67.3	66.9	66.7
65 years and over	%	16.2	16.7	17.4	18.0	18.5	19.0	19.4
Female labor force participation *b*	%	50.1	49.6	49.3	49.1	48.9	48.8	48.8
LIFE EXPECTANCY *d*								
Males	Years	77.2	77.1	77.7	77.8	77.9	78.0	78.0
Females	Years	84.0	84.0	84.6	84.7	84.8	85.0	85.1
FOOD INFRASTRUCTURE								
Trade capacity								
Grain exports *e*	1,000 tons	876	141	462	603	250	150	40
Grain imports *e*	1,000 tons	28,338	28,250	27,640	27,241	27,000	27,000	27,000
Total food and agricultural trade *e*	Million US$	55,111	59,073	61,239	58,985	58,000	59,000	59,000
Total food and agricultural exports *e*	Million US$	2,797	2,994	2,921	2,851	3,000	2,900	2,900
Fishery exports	Million US$	1,162	1,246	1,285	1,140	1,200	1,200	1,200
Total food and agricultural imports *e*	Million US$	57,908	62,067	64,160	63,520	62,000	63,000	63,000
Fishery imports	Million US$	13,337	15,332	16,086	16,540	16,000	16,000	16,000
Road access *f*	1,000 kms	1,150	1,155	1,158	1,161	1,164	1,167	1,167
Rail access *f*	Kms	27,453	27,600	27,500	27,400	27,400	27,400	27,400
Telecommunications *g*	1,000 subscribers	58,559	55,547	52,528	51,000	49,000	48,000	48,000
Power generation *h*	Gigawatts	934	957	980	985	990	990	990
Percent of population with refrigerators *h*	%	98.1	99.2	99.4	99.6	99.7	99.7	99.7
FOREIGN INVESTMENT IN THE FOOD SECTOR *i*								
Inward FDI in the food sector, total	Million US$	201	13	18	20	20	20	20
Outward FDI in the food sector, total	Million US$	1,268	14,905	1,850	1,500	1,500	1,500	1,500
ROLE OF AGRICULTURE AND TRADE IN THE ECONOMY *e*								
Agriculture as a share of GDP	%	1.2	1.1	1.1	1.1	1.0	1.0	1.0
Self sufficiency in grains	%	27.0	27.0	28.0	28.0	28.0	28.0	28.0
POLICY TRANSFERS *j*								
Consumer subsidy equivalents	%	-45.0	-43.0	-42.0	-41.0	-40.0	-39.0	-38.0
Consumer support estimate	%	-52.0	-50.0	-49.0	-48.0	-47.0	-46.0	-45.0
Total transfers (subsidy/tax)	Million US$	na	na	na	na	na	na	na
Total transfers (subsidy/tax, from 1998)	Million US$	66,544	69,681	73,269	65,000	64,000	63,000	62,000
Total transfers per capita	US$/capita	na	na	na	na	na	na	na
Total transfers per capita (subsidy/tax, from 1998)	US$/capita	526	550	578	540	545	550	555
MACROECONOMICS INDICATORS *b*								
GDP growth (real)	%	-1.9	0.6	1.7	-1.0	1.6	2.1	2.1
Interest rate	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Exchange rate	Yen/US$	115.20	102.08	110.50	122.20	123.00	117.90	110.00

*na = not available E = estimate F = forecast * = fiscal year.*
Sources:
a. MAFF, Food Balance Sheet, supplied calorie base
b. Ministry of Public Management, Home Affairs, Posts and Telecommunication, Pocket Statistical Information
c. Ministry of Public Management, Home Affairs, Posts and Telecommunication, Population Census
d. Ministry of Health, Labor, and Welfare, Life Table
e. MAFF estimate
f. Ministry of Land, Infrastructure, and Transport
g. Ministry of Public Management, Home Affairs, Post and Telecommunications
h. Agency of Natural Resources and Energy
i. JETRO, Agrotrade Handbook
*j. OECD, Monitoring Report (*from 1998, the index "Consumer Subsidy Equivalents" changed its name to "Consumers Support Estimate," as well as the way of calculation)*