

Japanese Agricultural Policy

By Yasuhiko Yuize

Security considerations

Japanese self-sufficiency

Japanese food consumption is currently about 2,600 kilocalories per person per day. Of this, imports supply approximately 1,200 kcal and domestic production the remaining 1,400 kcal. This domestic production figure of 1,400 kcal is the minimum requirement for someone at rest—meaning that Japan would theoretically be put in a state of suspended animation if imports were cut off.

In 1973, with the global acreage cut-backs and abnormal weather conditions, international agricultural product prices doubled and even tripled in a single year. Unprepared for this turn of events, the United States slapped an embargo on exports of soybeans and other important crops. Although this was only a three-month embargo on 50% of the amounts contracted, it caused such an uproar in Japan that speculative demand pulled in more soybean imports than in a normal year.

Japan has good reason to consider crisis management in its everyday food policy and to want to prevent panic, whether there is actually a crisis or not (Fig. 1).

Emergency food supplies

Driven by fears that Japan would be unable to feed its people in the face of a major food crisis worldwide, the protectionists clamor for raising Japan's self-sufficiency. By contrast, the free traders reply that there is no danger of such a global food crisis and that it is in Japan's best interests to buy its food as cheaply as possible. Thus the argument boils down to whether or not the world is likely to have a food crisis—an argument that is impossible to resolve any further, and one that simply gets in the way of the search for judicious policies.



Food security, inefficient price supports and land use policies and a declining farm population are important considerations for revising agricultural policies.

Not only would it take vast sums of money to be self-sufficient with today's extravagant dietary habits, there is considerable question as to whether or not this would be technically feasible, even if the money could be found. The surface numbers themselves are meaningless. For example, being self-sufficient in livestock would mean nothing unless Japan was also self-sufficient in feedstocks.

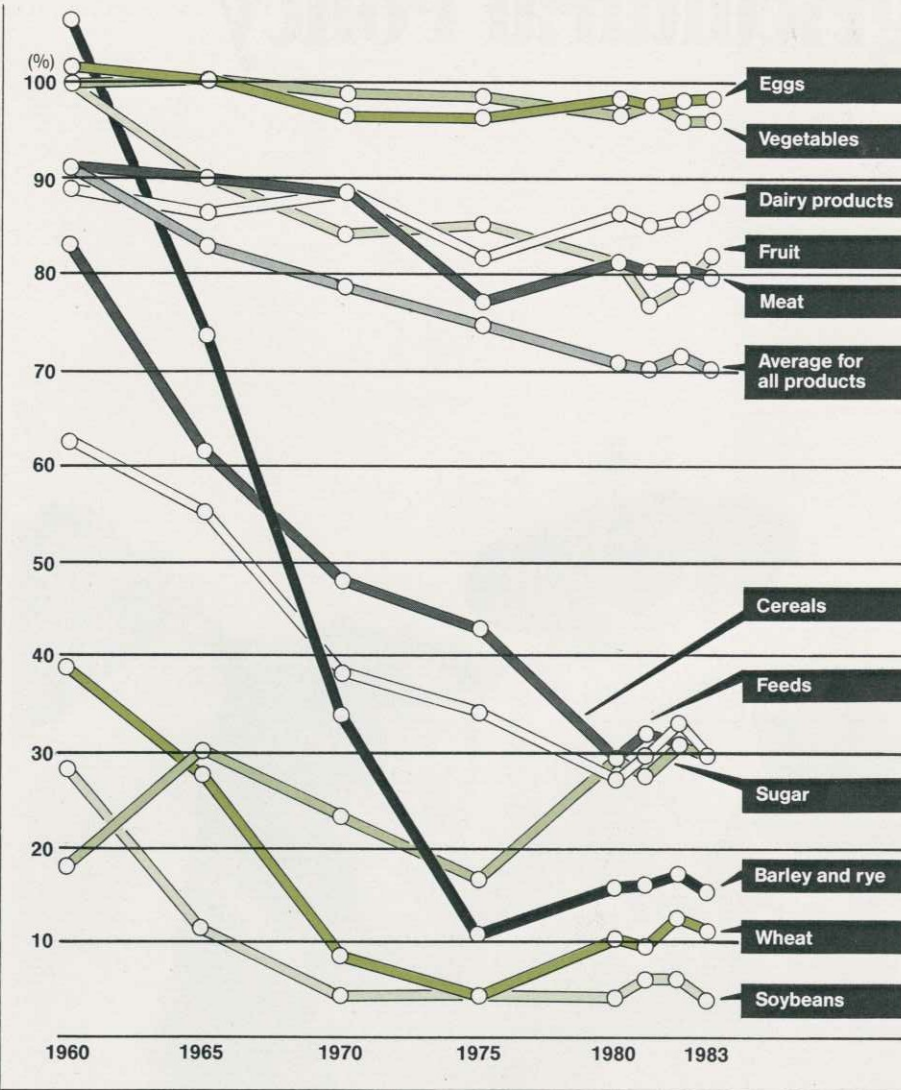
Were Japan unable to import any food, the people would have to live on what they could produce locally. This would mean reverting to the traditional Japanese diet of rice, beans, vegetables and

coastal fishery products to provide 2,300 kcal per person per day. This is the same caloric value that people got in 1935 or even in 1955, so it should not seem like that much of a comedown to older Japanese. Rather than seeking to be self-sufficient at present levels, the more important, more practical alternative would be to adjust our dietary habits so that Japan could weather a crisis.

The main thing is to be prepared with both the production capability to meet minimum needs in time of emergency and the necessary food reserves to tide the country over until the emergency pro-

Yasuhiko Yuize is a professor at Chiba University who specializes in econometrics and food economy. He has authored various books on economic analysis and won the 1972 Best Book Award from the Nihon Keizai Shimbun.

Fig. 1 Self-sufficiency in Major Food Products



Source: Ministry of Agriculture, Forestry and Fisheries

Fig. 2 Number of Items Subject to Residual Import Quotas

	Agricultural products	Nonagricultural products	Total
Benelux	2	3	5
Canada	4	1	5
Denmark	5	0	5
France	19	27	46
Italy	3	5	8
Japan	22	5	27
Norway	48	1	49
Sweden	5	1	6
United Kingdom	1	2	3
United States	1	6	7
West Germany	3	1	4

Note: Agricultural products are defined as those falling under Customs Cooperation Council Nomenclature (CCCN) categories 01 through 24.

Source: Adapted from Ministry of Foreign Affairs data

duction system can be activated. If these things can be done, there is no danger to a low self-sufficiency ratio in ordinary, noncrisis times.

A rice policy with a future

Sound management

While it is unrealistic to seek 100% self-sufficiency in all things, it is just as unrealistic to rely upon imports for all of Japan's nonemergency foodstuffs. If Japan can meet part of its food needs from domestic production at internationally competitive prices, and if that production capacity can be the basis for meeting emergency needs as well, then Japan's food situation will be stable, and it will be possible to meet the calls for security and for liberalization.

Because land is the primary factor of production in agriculture, any discussion of farm policy immediately raises questions of land policy. At present, residential and industrial land sites account for 4% of the nation's area, and farmland 14%. Thus, diverting only 1% of the nation's land from agriculture to residential and industrial uses would increase the supply of residential and industrial land by 25% while decreasing the supply of farmland by only 7%.

This is not too much shrinkage in farm land, since technological advances should be able to yield 7% better productivity. Nor is it so great an increase in residential and industrial land as to trigger a collapse in land prices and the resultant financial panic (since much financing is premised upon the assumption of high land prices). There is thus no conflict between the need to reform agriculture and the need to normalize land prices, and land prices will probably come down gradually with the advances being made in agricultural technology.

The farmland problem is not that there is too much or too little land under cultivation but that it is too widely dispersed. The average Japanese rice farmer has less than one hectare under cultivation, and this means not only high production costs but that farmers cannot earn a living from rice farming alone, despite the price supports. In addition, the need to take part-time nonfarm work has led to an overreliance on agrochemicals and heavy investment in farm machinery. It is thus imperative that operational scale be expanded for sounder management and more productive rice farming.

Sharply declining farm population

Halving production costs will require that every rice-producing farm average 15

hectares. At this average size, 150,000 farms would suffice to produce the same amount of rice as currently grown. This would mean eliminating 2.45 million of the existing 2.6 million rice farms. Yet with the devastating effects of the yen's appreciation on the Japanese industry and the drying up the part-time job market, it will be very difficult to effect this kind of a reduction anytime soon.

Nevertheless, the farming population should drop to one-eighth of what it is at present by the early 21st century. Even if the reduction is not as drastic as the National Land Agency predicts (down to 300,000 core farmers age 65 or younger), it is clear that Japan's farming population will sharply decrease in the near future.

In the first half of the rapid-growth era, there was an annual outflow of 500,000 young people from countryside to city, and in the second half, about eight million core farmers decided they had to or wanted to take income-supplementing part-time jobs. As a result, older people came to dominate rural populations. Over the last 20 years, only about 2% to 4% of all farm children completing junior high or high school have elected to stay on the farm. Although people are returning to the farm, most of the returnees are old people, such that natural attrition will probably mean a sharp decline in the farm population soon.

While this will spell depopulation for many areas, it will also open the door to expanded scale for many farms. This is an opportunity farmers will have to take, since Japanese farming will die out unless farm scale is expanded. Because expanded scale will make it possible to trim production costs, these larger farms will be internationally competitive. And if paddy size can be expanded, it will be possible to stop relying on the single crop of rice and to grow rice plus soybeans or rice plus vegetables in a crop mix designed to take advantage of market trends. Some farmers may want to grow feed rice and raise livestock. If scale can be expanded, there will be room for ingenuity.

Two-step reform of the food control system

Given this outlook, it is clear that partial deregulation is possible, even if full-blown liberalization is not feasible. Since it is not realistic to try to both lower rice prices to international price levels and at the same time eliminate the deficit in the food control budget, I proposed last year that the food control system be reformed in a two-step process with deficit elimination the first step and trade liberalization the second.

High-grade rice sold through the

Nokyo (agricultural cooperatives) already makes up about 45% of the rice sold through the government's food control system. In addition, there are about two million tons of "free-market" rice sold outside of the government system. Discounting the premium charged for the better grades, these two kinds of rice sell at virtually the same prices as the government-controlled rice. Thus it should be possible to deregulate rice domestically and still maintain the same distribution and sales volume. If the government would get out of the market and restrict itself to regulating trade and managing stockpiles, it should be possible to eliminate the deficit in the food control system.

The main issue in this first stage is the question of who would enforce production and coordination. Because Nokyo has agreed to voluntarily adjust inventories to smooth market movements, one possibility would be to leave distribution to a Nokyo monopoly. Yet free-market principles dictate that this would be better left to market mechanisms and competition among wholesalers. This being the case, there is a need to institutionalize pre-harvest contracts between farmers and dealers and to create a futures market in rice.

There will probably be a rush to expand farm size in this first stage. In the era of rapid economic growth, citizens were willing to put up with high rice prices to help stabilize rural life and ensure that agriculture had the supply of labor it needed. Yet things are different in today's era of slower growth. Because rice prices are likely to be held down, farmers seeking to maintain their income levels will have to cut production costs. And because expanding acreage is a major means of reducing production costs, cooperative farming will be increasingly important.

Because the second stage of my proposed reforms calls for liberalizing imports, it is imperative that Japanese farming be internationally competitive. Here, there are many other crops that could well be liberalized in advance of rice, and rice should be the last crop to be liberalized. Still, there is a considerable difference between limited imports and total liberalization. While there have already been some rice imports, there could well be more depending upon the political dynamics.

Small international market

Is rice an international commodity?

Annual world rice production is about

470 million tons and wheat production about 500 million tons. Yet on the average only 17 million tons of rice are traded internationally, as opposed to 90 million tons of wheat. Even though total production is about the same, nearly six times as much wheat is traded as rice. Inventories are also strikingly different; rice inventories run about 7% and wheat inventories, with the glut, about 29%.

While wheat is a staple food in the Euro-American industrialized countries, over 90% of rice is produced in Asia. Asia's largely rural nature may account for the fact that so little rice is traded. Although a rice commodity market was opened in New Orleans several years ago, it was subsequently closed for lack of trading. Unlike the wheat, corn and soybeans traded on the Chicago Commodity Market, rice may not be viable as an international commodity.

Because there is so little demand for international trade in rice, even minor changes in supply set off wild price fluctuations. In 1980, the export price of Thai rice was \$400 per ton. Last year, with good harvests everywhere, it fell nearly 60% to \$170 per ton. During the same period, wheat prices fell only 30%.

Conversely, there was a very poor harvest in Thailand in 1973, and the next year saw the Thai rice export price soar to \$600 per ton at one point. Converting this at ¥300/\$, which is about what the rate was then, it comes out to ¥180,000 per ton. At the time, the Japanese producer's price of rice was ¥170,000 per ton, slightly below the international price. It is clearly dangerous to assume that the international price of rice will always be at its present low level.

Abrupt liberalization destabilizing

The world trade in polished rice is currently about 11 million tons, approximately the same as the average annual Japanese consumption. At the risk of hyperbole, if Japan were to rely upon imports to meet its total rice demand, it would end up taking the world's total export crop. This would obviously not happen, but it is clear that disorderly liberalization could generate worldwide shortages and drive the price of rice up sharply.

Because rice accounts for slightly over 2% of Japanese household expenditures, consumption would probably not go up very much even if prices came down. Thus an abrupt liberalization and price collapse would be traumatic for rice farmers, agricultural equipment suppliers and communities that depend upon rice for their livelihoods. Not only that, the

shake-out loss of paddies would probably wreak changes in the environment.

And if the price of imported rice went up, liberalization would clearly not be to Japan's benefit. At the same time, the developing countries that currently import rice would be disadvantaged by an increase in rice prices.

Of course, an increase in the international price of rice would probably trigger an increase in rice production. Thailand, the world's largest rice exporter, would switch from relying on natural rainfall to enhanced irrigation to increase production. The United States, the second largest exporter, is also anxious to expand production, even though there are limits to how much the underground water can be tapped.

It is also important to consider the trading patterns in the rice-consuming countries. If rice prices were high, they might export their rice and consume other cereals.

Thus, while abrupt liberalization on Japan's part would push international prices up, rice prices would later come down in response to expanded production. This process would also affect other cereals and grains, altering their patterns of supply and demand. While it is impossible to tell what the final outcome would be, it is clear that the world grain market would be quite chaotic for some time. Abrupt and complete liberalization is clearly not in anyone's best interests.

Demands from America

Appearing on NHK, a public television network, U.S. Agriculture Secretary Richard Lyng said that the American demands for a more open Japanese market are not aimed at putting Japanese rice farmers out of work. The implication was that the United States does not intend to press for immediate liberalization. In fact, Japan has received an exemption from the General Agreement on Tariffs and Trade (under Article 17 paragraph 4 items a) on rice, wheats and dairy products (excluding cheese). Because the United States and the European Community have more exempted products than Japan does, demanding that Japan liberalize rice would clearly be a double-edged argument that could easily be turned against the United States as well.

Elaborating, Secretary Lyng said that he finds it odd that Japan buys no U.S. rice at all, even though America has all this cheap rice. Thus the United States is pressing not so much for liberalization as for token imports. America is currently groaning under the weight of rice surpluses, and it has even instituted an ex-

port subsidy in an effort to move these inventories. But this export surplus has been sharply criticized by Thailand, and the United States is desperate to have Japan import some of its surplus rice.

On this side of the Pacific, Japanese rice farmers are reeling from the impact of surplus production plus the yen's appreciation. Imports of American rice are now on the political agenda.

Thus my proposal is that, since Nokyo does not want to see imports of American rice, it should cooperate in getting rid of the U.S. surplus by making its experience available and helping the United States mount a campaign to promote rice consumption. The American Heart Association has already come out against the overconsumption of meat and urged Americans to cut their meat intake by one-third. If Americans would eat rice in place of that of their meat, they would be able to stave off the pangs of hunger in a nonfattening way (since boiled rice is two-thirds water).

Even without the rice issue, the United States has a good case for the elimination of residual quotas. There are 22 items subject to residual import quotas in Japan. Norway is the only industrialized country that has more (Fig. 2). Yet except for beef and oranges, they are marginal items, and liberalizing their imports would have no appreciable impact on Japanese food security. If liberalization could be meshed with domestic farm policies, it might even be to Japan's advantage. This should come first.

Future of Japanese farms

More efficient farm management

Because scientific and technological developments, capital formation and price-fixing are all done under government auspices, Japanese farm management responds more to social pressures than to price considerations. As seen in the food control system, the presence of influential special interest groups means that cost-effectiveness and rationality are secondary.

Farm management would be much more sensitive to the need for efficiency if the government would return decision making to the farmers and enable them to operate in a price-sensitive environment. But first the farming population must decline to an appropriate level, and technology must be made available to enable agricultural production to respond to price changes.

Modern technology has largely standardized farming in Japan. At the same time, new crop strains have been develop-

ed that make it possible to stagger harvests for fruits and vegetables. Seasonal differences are not very important in meat or dairy cattle either. At the same time, production of hogs, chickens, flowers and other products has been speeded up to the point of approaching factory-like efficiency.

As it became possible for farmers to move from intensive specialization in one crop to expanding production scale while still reducing their labor requirements, most of the redundant labor in rice farming drifted into part-time jobs elsewhere.

Enabling farmers to respond to price fluctuations means letting them pursue economic efficiency, and this in turn makes liberalization possible. It was with this in mind that I proposed gradually easing the restrictions on beef and orange imports and improving the food control system in 1982. Nor would it be amiss to begin considering when wheat and dairy products could be removed from the list of government-controlled items and be liberalized.

Revitalizing Japanese agriculture

There are many people who fear that the pursuit of economic efficiency on the farm will bring out the worst in agriculture and result in more pollution. However, pollution is inevitable as long as we rely on present agricultural technologies—even without the pursuit of management efficiency.

Thus we need to make greater use of biotechnology and other frontier technologies to create agriculture that produces greater yields with less input. Given the high educational level and the ready availability of information, there is no reason why Japanese agriculture should not be among the world's most advanced. Even so, the government will have to regulate farm pollution the same way it does industrial pollution.

At the same time, so long as there are good and bad years in world farming and an instable world situation, the government will also have to be responsible for seeing that overall food security concerns are met. Within this governmental framework, agriculture should pursue maximum efficiency. Japan is not so rich in resources that it can afford to be wasteful. Agriculture has to become economically efficient, and the government must ensure sound ecological practices and food security. This said, I hope that Japan can develop a strong domestic agricultural industry, compete successfully internationally, and show the way to a better future for billions of people around the globe. ●