Food Security and Free Trade

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Price matters

- Price changes always equalize supply and demand.
- Food is sufficient for the world population. **Obesity and waste** in developed countries but, in contrast, **hunger and loss** in developing countries.
- The poor in developing countries **cannot afford to buy food at world prices**. The prices are too high for them. “Food security” is used in this sense in the FAO.
What does food security consist of?

- Food security consists of food **affordability** and **accessibility**.
- Some nations lack both.

1. Some people in developing countries **cannot afford** to buy food. A food crisis occurs when food prices soar as in 2008.

2. Some people in developing countries **have no access** to food due to the lack of transportation or distribution infrastructure, even when food is delivered at ports.

- **Economic growth and/or building infrastructure** is essential for overcoming a food crisis.
Two scenarios of high food prices

- A hike in food prices exacerbates food insecurity in two cases.
  - In the long run, food supply may be insufficient for the growing world population. On average, prices might be too high for the poor.
  - In the short run, the issue is volatility. Occasionally, food prices soar as in 2008, while they are low on average.
Chronic Food Shortage Ahead?

- Increased demand for farm products
  ① population will grow to 9 billion in 2050.
  ② economic growth will lead people to demand more grain for meat and dairy products.
  ③ demand for ethanol production

- As regards supply, there are opposite views. Some say that soil erosion and whatnot will make world agriculture less sustainable, and some say that agricultural production can expand both by the expansion of farmland in Brazil (150 million hectares more except in the Amazon area) and by the increase of the yield per hectare by technological progress.
So far, the increases in productivity outpacing growth in demand have resulted in a downward trend in the real price of grain. The current grain price is lower than it was in the ’60s or ’70s in real terms.

Arable land has slightly increased. The increase in productivity is mainly attributed to an increased yield per hectare. Investment and innovative technologies are indispensable in this regard.
Even if a long term trend of food surplus prevails in the international market, there can be times of food crisis or food shortage during the period of food surplus.

Food productivity depends on climate and other natural conditions that we cannot fully control. Only 15 percent of world grain production is traded. Faced with a crisis, each country’s priority is to feed its own people. These combine to let a small decrease of supply trigger a great hike in world price, just as in 1973 when grain prices tripled or quadrupled although world productivity was reduced only 3%.
Trade policies make food prices more volatile

- In the period of **food surplus**, a country tries to stop inexpensive imports and isolate its domestic market from the international market by **tariffs** in order to protect agriculture. This diminishes the demand in the international market with the result that **world prices** may further fall.

- In the period of a **food shortage**, on the other hand, a country tries not to export either by **export tax** or **export restriction**. This decreases supply in the international market with the result that **world prices may further rise**. But in real life?
Who are exporters and importers?

- In developing countries with high population growth, the demand for food has increased. In developed countries, it has stabilized.
- In developed countries, farm technology has greatly improved, while in developing countries it has been stagnant.
- Thus, generally speaking, developing countries import grain from developed countries.
Major exporters of wheat

Production and Export of Wheat by Major Countries

Source: USDA, Production, Supply and Distribution database
Major exporters of soybeans

Production and Export of Soybeans by Major Countries

Source: USDA, Production, Supply and Distribution database
Why is Argentina’s soybean export volume so small?

- Like the US and Brazil, Argentina does not consume most of the soybeans and its products which it produce. It produces soybeans mainly for export.

- Argentina imposes an export tax on soybeans so that its soybean oil producers can acquire soybeans at below the world price.

- This export tax functions as an export subsidy for soybean oil producers.
Should we eliminate export tax and export quantity restrictions?

- Major grain exporters such as Australia and the US will not restrict exports when world prices soar. It creates nothing but golden opportunities for exporters. The consumers in the developed exporting countries can afford to buy food.

- Can such a discipline be enforced on a developing country when the very poor cannot afford to buy food at the same high prices as in the world market and will face starvation? In 2008, India introduced an export ban. But it is not responsible for the high world grain price. Note that the share of exporters resorting to export bans in 2008 in the world exports in 2011 is 9% for wheat and 0% for soybeans.
The blunders by the US

- Embargo on soybeans in 1973
  Japan helped Brazil create a great amount of farmland in Campo Cerrado for soybeans. Brazil’s soybean production has remarkably increased since then. Sooner or later, Brazil will surpass the US in soybean exports.

- Embargo on grain for the USSR in 1980
  The USSR imports grain from Argentina. It was one of the causes of the depressed US farm business in the early ’80s.
What is needed for food security

- Food storage saved for a rainy day or expansion of world food production is a better way to manage the situation. The maintenance of agricultural resources such as water and land serves the purpose of food security in the world.
Improvements for the Food Supply

- Now, only a few countries are exporters. More and more countries are dependent on them.
- Some exporting countries, however, suffer from production negative externalities such as soil erosion, salinization, or depletion of groundwater. Soil and water in exporting countries are international commons in the interdependent world.
- Without internalizing those negative externalities or properly managing resources, agriculture might not be sustainable and the food security of importers would be jeopardized. Water and soil (land) should be properly priced and conserved.
Soil erosion
Salinization
Japan can afford to buy food

International Cereal Price Index and Domestic Food CPI

Source: FAO "Food Outlook", Ministry of Public Management
Notes: Indexation using price in 2001 as 100
Ratio of Agricultural and Marine Products in Final Expenditures of Foods and Drinks

Source: Ministry of Agriculture, Forestry and Fisheries
Accessibility matters for importing countries

- There is, however, the case when Japan cannot gain access to food even with plentiful monetary resources.
- This situation can be caused by the physical disruption of imports such as strikes at the ports of exporting countries or by closure of sea-lanes by military offensives. This can happen not only to Japan but to any other importing country.
Free Trade damages Food Security?

- We would have no other way to expand our food production in such a crisis. This, however, needs **agricultural resources** for production.
- The increase of imports may reduce those resources. This is why Japan has used “food security” as a pretext for maintenance of high tariffs and resisted tariff cuts.
- On the other hand, Japan’s **set-aside program** of rice production in order to peg a high price has resulted in the **loss of 30 percent of the paddy fields** in the last 40 years.
Price support higher than an international price decreases demand for its own agricultural industry. Thus, Japan’s farmland indispensable for food security severely declined from 6.1 million hectares to 4.5 million hectares from 1960 to 2005.

Direct payments to farmers do not distort the market. They will directly address and target the real needs, such as the farmer’s income and food security.
## Comparison of agricultural policies

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<tr>
<th>Country</th>
<th>Japan</th>
<th>US</th>
<th>EU</th>
</tr>
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<tbody>
<tr>
<td>Decoupled direct payments</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Environmental direct payments</td>
<td>Partial</td>
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<td>Yes</td>
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<tr>
<td>Direct payments for less favourable regions</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Production restriction programme for price maintenance</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
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</tbody>
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| Tariffs* over 1000%              | 1 (tubers of konnyaku) | None | None |
| Tariffs of 500-1000%             | 2 (rice, peanuts)      | None | None |
| Tariffs 300-500%                 | 2 (butter, pork)       | None | None |
| Tariffs of 200-300%              | 6 (wheat, barley, skim milk powder, starch, beans and raw milk) | None | None |

* Specific tariffs are applied to tariffed products in Japan and the EU. Here, these specific tariffs are estimated as their equivalents of ad valorem tariff rates, taking into account international prices.
The Japanese population is aging and decreasing. The domestic market for Japanese agriculture protected by high tariffs will be shrinking.

In order to survive, Japanese agriculture has to create overseas market. Free trade agreements which eliminate tariffs on Japanese farm products are indispensable for Japanese agriculture.
Price gap is narrowing
Japanese rice is highly evaluated

Japanese Koshihikari: 380 yen
California Koshihikari: 240 yen
Chinese Koshihikari: 150 yen
Chinese japonica rice: 100 yen

Rice Price in Hong Kong (/kg)
The desirable policy change

I have long proposed getting rid of the set-aside programme and introduce a direct payment scheme only for the full-time farmers.

The decrease in rice price will drive inefficient small-scale rice farmers out of the business. This will enable full-time farmers to expand their farm size.

The elimination of the set-aside policy will increase rice yields per hectare. These will lead to lower production costs.

They can compete in the international market. Japan will no longer resist requests of tariff elimination.
Free Trade helps Food Security

- The elimination of the set-aside programme or price support coupled with the introduction of direct payments will lead to lower prices.
- Japan will no longer need tariffs. It will export rice while importing wheat or beef under free trade. This will keep our farmland from deteriorating or vanishing.
- Fully making use of resources will expand Japan’s agricultural production. This will increase world supply and contribute to the food security of the world.
Free Trade is a basis for Food Security

- In case of a food crisis wherein Japan can no longer import wheat and beef due to the disrupted transportation, Japan will stop exporting rice and rather start consuming it in order to survive.

- Free trade does not help an importing country during such a crisis, but exporting some products in normal times under free trade maintains agricultural resources in case of need.

- Free trade is indeed a basis of food security.