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Oilseed Policies in Japan

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Abstract

Japan's oilseed sector is divided into two main components: 1) a large oilseed-crushing industry that produces vegetable oil and oilseed meal, and 2) industries using oilseeds for food, without crushing them for oil. In general, the oilseed-crushing industry is protected by tariffs on vegetable oil at the border, but receives no domestic subsidies. Oilseed production for food, in contrast, generally has no border protection but receives domestic subsidies. Japan's policies support soybean producer incomes by paying the difference between market prices and higher target prices that reflect costs of production in Japan. Farmers who plant soybeans on fields diverted from rice production receive additional subsidies. In recent years, soybean production has grown in response to the large incentives offered by these policies. Tariffs on soy and canola oil favor crushing of oilseeds in Japan, at the expense of vegetable oil consumers. Removal of the tariffs would lead to greater imports of oil and meal into Japan, while imports of oilseeds for crushing would fall.

Keywords: Japan, oilseeds, canola, soybean, rapeseed, peanut, vegetable oils, oilseed meals, policies, domestic support, tariffs, trade, trade liberalization.

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Introduction

Japan is one of the leading agricultural importing nations in the world. This article is one in a series examining Japan's policies that protect and regulate its agricultural markets. These policies are of special interest because they are subject to review in the current round of global trade negotiations conducted by the World Trade Organization (WTO).

Japan's oilseed sector is divided into two main components: a large oilseed-crushing industry that produces vegetable oil and oilseed meal, and industries using oilseeds for food, without crushing them for oil. The crushing industry relies on imported oilseeds. Food uses for oilseeds absorb the entire domestic production in addition to large quantities of imports.

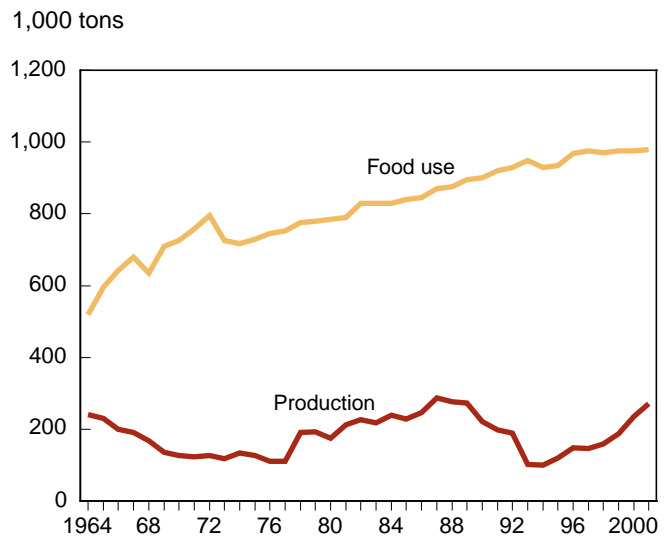
Oilseed crush. Three kinds of vegetable oil dominate Japan's market: canola (or rapeseed), soybean, and palm. All palm oil is imported, and almost all the soy and canola oil is crushed from imported oilseeds by Japanese firms. Consumers usually buy a bottled blend of canola and soy oils, while palm oil is used in many processed foods.

Other oils processed in Japan are corn, rice bran, sesame seed, linseed, coconut, safflower, and cottonseed. Except for rice bran and sesame, these oils are derived entirely from imported feedstock. Fish oil and lard are also produced.

Oilseeds for food and feed uses. Japan produces soy-based foods—tofu, soy sauce, miso bean paste, natto, soymilk, etc.—from about a million tons of beans annually. Domestic production of soybeans for processed soy foods in 2001 was 271,000 tons² (see fig. 1). Another 80,000 tons of soybeans for direct use

² Unless otherwise specified, units are metric: tons, kilograms (kg), and hectares (ha).

Figure 1
Japan: Food use and production of soybeans



Source: PS&D, 5/10/02.

as green or fresh beans were grown on 13,000 hectares (ha) in 2000 (the most recent available data). Over 700,000 tons of soybeans are imported for use in making soy foods. Soybean area for food processing uses has rebounded in recent years, growing from a low of 61,000 ha in 1994 to 144,000 ha in 2001.

Peanut use is about 160,000 tons, of which 25-30,000 tons is produced domestically on about 12,000 ha. Raw peanut imports are 50-60,000 tons, and an additional 75,000 tons of peanuts are imported after some sort of processing, such as roasting. All peanuts are for food use, chiefly as snacks. Cottonseed and soybeans are imported for use as a direct ingredient in feed, as well as for crushing into oil and protein meal.

Domestic Policies

In general, Japan's farm production of oilseeds is not connected to the crushing industry—domestically produced soybeans and peanuts are sold for food use and are not crushed for oil. Policy treatment of the food-use and crushing sectors is quite distinct, as well. The crushing industry receives border protection, but no domestic support. Domestically produced soybeans, which are raised for food uses, receive government domestic support. Except for peanuts, no domestically produced oilseeds receive border protection. The subsidies for food-use oilseeds are estimated by the Organization for Economic Cooperation and Development (OECD) at about 24 billion yen (\$222 million) in 2000, and have increased in recent years (see fig. 2). See [How Japan notifies its domestic policies on oilseeds to the WTO](#) for the status of these subsidies in terms of the WTO's amber and green boxes.

Deficiency payments for soybeans. Until 2000, soybeans were covered by a deficiency payment policy. If market prices fell below a fixed target level (standard price), the Government would pay the difference between market and target prices to farmers. In 1999, the standard price was 14,011 yen/60 kg, or about \$2.05/kg (\$55.91/bushel). In 2000, the deficiency payments were replaced by a new Soybean Subsidy Program, as well as by an income stabilization pro-

gram that compensates for market price drops. Expenditures under the Soybean Subsidy Program in 2001 were budgeted to be 15.731 billion yen (up from 10.481 billion yen spent on the deficiency payment program in 1999).³

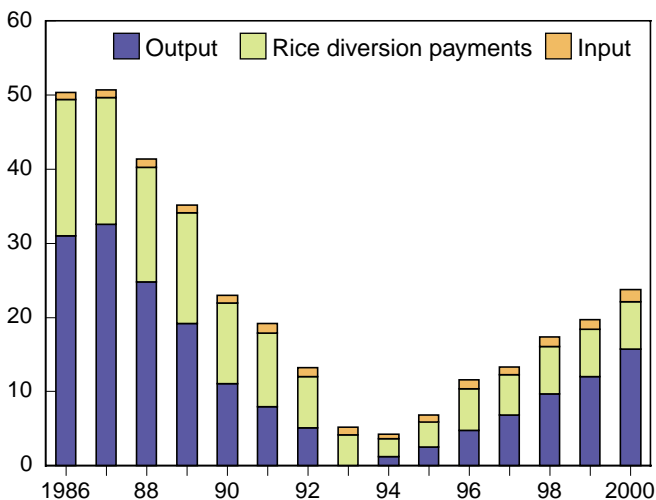
The Soybean Subsidy Program is based on a May 2000 revision of the Soybean and Rapeseed Subsidy and Price Stabilization Law. Like a deficiency payment, the Soybean Subsidy Program does not change market prices. The program compares market prices to a production cost estimate, and subsidizes farmers with the difference between the two. If prices rise above a certain level, there is no subsidy. If they fall below the cost estimate, a fixed subsidy is given. The program encourages soybean production by raising the farmer's return. There is no limit to the amount subsidized. The subsidy is given to farmers who participate in the income stabilization fund program (see below) through local agricultural cooperatives. Farmers who grow soybeans independent from local agricultural cooperatives are not eligible for the subsidy. In 2002, the system had these key parameters (see fig. 3):

- The “standard production cost” announced by the government, was 13,901 yen/60 kg (\$1.92/kg, \$52.14/bu.).
- If the average price received by farmers in the marketplace was at any level below the standard production cost, farmers received a fixed payment of 8,280 yen/60 kg (\$1.14/kg, \$31.06/bu.).
- If average market prices received by farmers were below the sum of the standard production cost and the fixed payment, but still above the standard production cost, farmers received the difference between the price received in the market and the sum of the standard production cost and the fixed payment. The sum of the production cost and the fixed payment was 22,181 yen/60 kg (equal to \$3.06/kg or \$83.20/bu., using a 2001 exchange rate). Thus, for market prices between 13,901 and 22,181 yen/60 kg, farmers received a portion of the 8,280 yen subsidy.
- If market prices received by farmers exceeded 22,181 yen/60 kg, farmers received no subsidy.

Figure 2

Japan: Production subsidies for oilseeds

Bil. yen, nominal



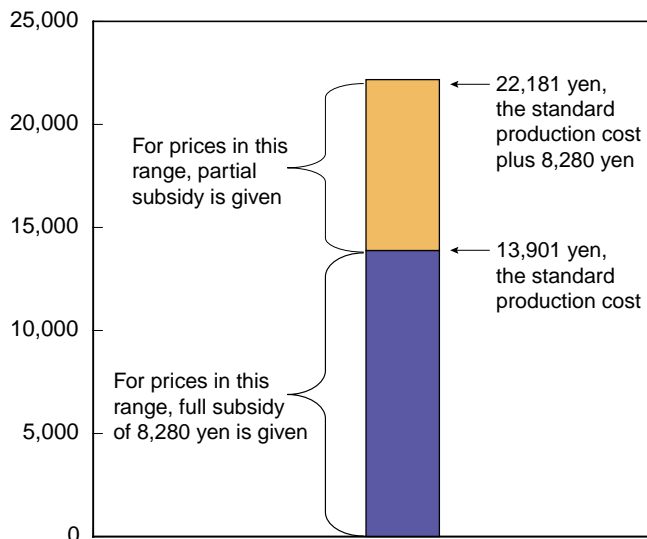
Source: OECD.

³ Ministry of Agriculture, Forestry and Fisheries, Statistical Yearbook, 1999-2000, p. 741.

Figure 3

Soybean subsidy program, 2002

Prices received by farmers, in yen/60 kg



Source: FAS/Tokyo.

Both the payment and the standard production cost are reviewed each year.

For the crop harvested in 2001, the average monthly price received by farmers was 3,800 to 4,300 yen/60kg. This implies that most eligible farmers received the maximum subsidy of 8,280 yen/60 kg.

Income stabilization for soybean producers. An income stabilization policy was introduced in 2000 that compensates participating farmers with 80 percent of the difference between the observed seasonal average market price and a new standard price which is the average of the market prices of the previous 3 years. Participating farmers pay 3 percent of the standard price into a Soybean Farming Income Stabilization Fund for each kilogram of soybeans harvested, and the government pays in 9 percent of the standard price, per kilogram. The Fund then pays out compensation, depending on whether or not the market price falls below the standard price.

The income stabilization program has no floor price. Each year, the 3-year moving average of market prices could be lower, and the farmers just receive a portion of the difference between the current-year price and the moving average. However, the new production subsidy program outlined above is likely to overshadow

the income stabilization program and keep producer returns from actually falling much.

A similar program exists for Japan's very small rapeseed production (less than 1,000 tons). Peanut production, however, does not receive income stabilization support.

Rice diversion subsidies. Subsidies are paid per hectare of soybean or rapeseed planted on paddies that have been diverted away from rice production. The subsidy amounts are determined each year, and had a maximum value of 830,000 yen/ha (\$2,778/acre) for soybeans in 2001. The level of payments depends on several factors (see fig. 4). A basic payment of 400,000 yen is given to all farmers who divert from rice to soybeans. For production in the 2001 crop year only, a special subsidy of 100,000 yen/ha was added as an incentive to encourage additional diversion. Another 200,000 yen/ha is contingent on participation in a mutual fund that is jointly financed by rice farmers and the government.⁴ A payment of 30,000 yen/ha can be added if the rice diversion area of which a farm is part meets its diversion target. Payment of a further 100,000 yen/ha is only for those farmers who double-crop the paddy field (called "high-use" farming). Many farmers do not plant two crops per year, some do not join the mutual fund, and some areas fail to reach their rice diversion target. Thus, 2001 payments for some farmers could have been as low as 400,000 yen/ha (\$1,339/acre), the basic payment.

These payments, together with the Soybean Subsidy Program, appear to be the major factor supporting the strong growth in soybean planted area since the conclusion of the Uruguay Round (1995). The Ministry of Agriculture Forestry and Fisheries' (MAFF's) target for soybean production of 250,000 tons in 2010 was already exceeded in 2001. Soybean production subsidies (and subsidies to any other crop) under the rice diversion program are notified to the World Trade Organization as "green box" payments, with the rationale that they contribute to environmentally sound use of farmland.

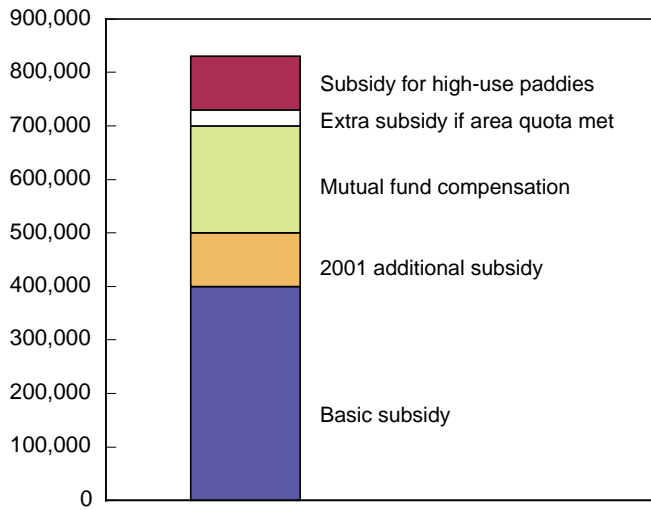
Subsidies for diverting rice area to rapeseed were lower than for soybeans in 2001, but still substantial: a maximum of 430,000 yen/ha.

⁴ Rice farmers contribute 4,000 yen per 10 ares of rice area that is not diverted. Ten ares are one-tenth of a hectare.

Figure 4

Payments for diverting from rice to soybean, 2001

Yen/hectare



Source: FAS/Tokyo.

Food security stocks. The Soybean Supply Stabilization Association has a government mandate to maintain an emergency soybean stockpile for food use of about 50,000 tons, equivalent to 5 percent of annual demand for food-use soybeans. In 2002, this stock consisted entirely of imported soybeans.

Insurance. Soybeans are eligible for a government-supported hazard insurance plan. The plan has a deductible of at least 20 percent of a standard yield determined for each farm. The government contributes 55 percent of the insurance premium for each soybean farmer. There is no national government insurance subsidy for peanut production.⁵

⁵ National Agricultural Insurance Association, pp. 22-26.

How Japan Notifies Its Domestic Policies On Oilseeds To The WTO

Policy	Box	Justification
Production, processing, and marketing subsidies	Green	<p>Infrastructural services for market facilities: provision or construction of market facilities.</p> <p>Agricultural loans for structural adjustment: interest concessions.</p>
Deficiency payments ¹	Amber	Price-related direct payment.
Soybean subsidy program	Not yet notified	Not yet notified
Soybean income stabilization program	Not yet notified	Not yet notified
Rice diversion payments	Green	Environmental payments: for maintaining paddy fields in environmentally good condition through growing any plants other than rice.
Disaster insurance subsidies	Green and amber ²	<p>Green: payments for relief from natural disasters: subsidies on premiums of agricultural insurance for production losses of more than 30% of average levels.</p> <p>Amber: subsidies on premiums of agricultural insurance for production losses of less than 30% of average levels.</p>

¹ Deficiency payments were 9.8 billion yen in 1999. The program ended in 2000.

² Premium payments for insurance coverage for losses of less than 30 percent for all commodities (not just oilseeds) were 22.2 billion yen (\$195 million) in 1999, which was 0.2 percent of the value of Japan's total agricultural output, and thus considered *de minimis* and not counted as part of Japan's Aggregate Measurement of Support because the payments were less than 5 percent of the value of production.

Source: Notification concerning domestic support commitments reported by the Government of Japan to the WTO for fiscal year 1999. G/AG/N/JPN/72, Feb.19, 2002.

Border Policies

There is no border protection for soybeans or other oilseeds (except peanuts), either for crushing or for food use. The tariff rate is permanently set (bound) at zero.

Tariffs on soy-based foods include a 7.2-percent tariff on soy sauce and a tariff of 10.6 percent that applies to tofu and other soy protein foods.

In April 2001, mandatory labeling of genetically modified (GM) organisms was instituted for some soy-based food products:

- If such products are made from soybeans that are genetically modified (i.e., containing more than 5 percent of GM soybeans), or if it is not known whether the soybeans are genetically modified, the labels must indicate that soybeans represent GM and non-GM types.
- If the soybeans have been segregated and are non-GM (containing less than 5 percent of GM soybeans), the labels may state this fact or omit any mention of GM status.

The labeling requirements apply to all foods in which soybeans or soybean protein are the main ingredient, but not to soy oil or soy meal. Thus, tofu, soy sauce, natto, soy milk, and many other soy-based foods are affected. In recent years, Japan's food industry shifted some of its purchases of soybeans for food use to regions of the world in which GM soybeans are not grown (or are not legally present), which indicates some initial caution about GM products. Since no GM soybeans are grown in Japan, the labeling requirements in practice apply only to imports.

Border protection for oilseed crushing. Oilseed and oilseed meal imports face no restrictions, with a tariff bound at zero. However, imports of most vegetable oils face significant tariffs.⁶ Refined soy oil—or crude oil with an acid level below 0.6—is taxed by a tariff of 13.2 yen/kg. Crude soy oil with an acid value exceeding 0.6 faces a tariff of 10.9 yen/kg. The tariff on refined soy oil was equivalent to \$109.13 per metric ton in 2001 (at an exchange rate of 121 yen/US\$), and

the tariff on crude oil was equivalent to \$90.12/ton. Compared with average import values of oils imported by nearby Korea, which is a good proxy for Japan's potential soy oil trade (see *Korea's experience with lower vegetable oil tariffs*), the percentage value of the tariff was 16 percent on refined oil in 2001, while the value of the crude oil tariff was 26 percent.

The soy oil tariff effectively protects Japan's soy crushers by allowing them to raise the profit margin they realize when crushing soybeans. That margin is the difference between the revenues derived from selling soy meal and soy oil and the costs of producing those products, which is the cost of importing soybeans and crushing them. The soy oil tariff allows crushers to sell refined oil inside Japan at about \$100/ton more than they could if soy oil could be imported freely, and helps boost their revenues (see *Vegetable oil tariffs influence Japan's oilseed imports*).

Canola produces an oil that is a close substitute for soy oil, and is heavily used in Japan. Canola oil faces the same tariffs as soy oil: 13.2 yen/kg for refined, and 10.9 yen/kg for crude oil. Other oils that are crushed in Japan also receive tariff protection (see table 1). However, oils that are not crushed in Japan and are not close substitutes for oils crushed in Japan receive zero tariffs. Such oils include: olive oil, palm oil,⁷ tung oil, and jojoba oil. All meals produced from vegetable oil crushing, and all oilseeds for crushing, can be imported at a zero tariff (see table 1).

Tariff-rate quota for peanuts. Japan replaced a quota on peanuts with a tariff-rate quota (TRQ) in 1995, as part of the Uruguay Round (UR). Imports outside the quota were allowed, with Japan's previous level of protection replaced by a tariff equivalent, calculated as the difference between an internal price and the import unit value for the years 1986-88. An internal wholesale price was estimated by adding shipping, preparation, and a wholesale margin to existing farmgate prices. The difference between this internal price and the import price was 726 yen/kg, which was made the

⁶ All tariffs presented here are bound levels. Applied tariffs are at the bound levels. Tariff bindings on most vegetable oils were lowered by 36-50 percent over the period 1995-2000, as part of the Uruguay Round agreement.

⁷ Almost all Japan's palm oil imports come from Malaysia and Indonesia. Because they are developing countries, the tariff on imports of palm oil from them is zero. Palm oil from developed countries faces a tariff of 3.5 percent, or 2.5 percent in the case of stearin.

Table 1—Japan: oilseed sector tariffs

	Oilseed		Meal	Oil	
	Specific	Ad valorem	Ad valorem	Specific	Ad valorem
	<i>Yen/kg</i>	<i>Percent</i>	<i>Percent</i>	<i>Yen/kg</i>	<i>Percent</i>
Soybean		0	0	13.2 ²	
Rapeseed		0	0	13.2 ²	
Palm		NA	NA		3.5 ³
Sesameseed		0	0	10.4 ⁴	
Olive		NA	NA		0
Peanut	617 ¹	10 ¹	0	10.4 ⁴	
Cottonseed		0	0	8.5 ⁵	
Palm kernel		0	0		4
Coconut		0	0	5 ⁶	4.5 ⁶
Safflowerseed		0	0	10.4 ⁴	
Sunflowerseed		0	0	10.4 ⁴	
Castor		0	0		4.5
Linseed		0	0	5.5 ⁶	5 ⁶
Rice bran		0	NA	10.4 ^{4 7}	
Jojoba		0	0		0
Tung		0	0		0
Corn		0	0	10.4 ⁸	

NA = not applicable.

This is not an authoritative source for Japan's tariffs. For that, refer to Customs Tariff Schedules of Japan.

All tariff rates are bound.

Listed in order of import value, 2001.

¹ Peanuts for crushing enter duty-free and are not subject to the quota; peanuts for other uses are constrained by a tariff-rate quota.

The tariff is 10 percent within the quota and 617 yen/kg outside the quota.

² For crude oil with an acid value exceeding 0.6, the tariff is 10.9 yen/kg.

³ Palm stearin has a tariff of 2.5 percent. For palm oil and palm stearin, imports from developing countries (the main suppliers) have a zero tariff.

⁴ For crude oil with an acid value exceeding 0.6, the tariff is 8.5 yen/kg.

⁵ There is no tariff on cottonseed oil used for canning fish/shellfish for export.

⁶ Imports are charged the higher of the specific or ad valorem tariff.

⁷ Rice bran oil imports from least-developed countries enter duty-free; from developing countries the a tariff is 5 yen/kg. This applies only for crude oil with acid value exceeding 0.6.

⁸ For crude oil with an acid value exceeding 0.6, the tariff is 5 yen/kg.

Source: Customs Tariff Schedules of Japan, 2002.

basis of the over-quota tariff. Japan applied a 15-percent reduction to this tariff, resulting in a specific tariff of 617 yen/kg (equivalent to 532 percent in 2001, on a shelled basis), which has been used since 1995.

Imports within the TRQ face a 10-percent tariff. The size of the quota is 75,000 tons. Imports have hovered at about 44,000 tons (60,000 tons on an in-shell basis) since 1995, which may indicate that the TRQ is not binding. Japan designated peanuts (except for crushing) as eligible for protection against import surges by special safeguard mechanisms outlined in the UR Agreement on Agriculture. This protection has not been used to date.

Prepared and preserved peanuts, such as roasted peanuts, are not subject to the quota. Tariff rates on prepared and preserved peanuts are 21.3 or 23.8 percent, with the higher tariff applied if the product contains added sugar. The tariff on peanut butter is 10 percent (12 percent, if it contains added sugar). Special safeguard tariffs cannot be used for prepared/preserved peanut imports. In recent years, peanut butter imports have been about 5,000 tons, and imports of other prepared/preserved peanuts, on an in-shell basis, about 75,000 tons.

Korea's Experience With Lower Vegetable Oil Tariffs

South Korea, like Japan, has a large soybean crushing industry that depends completely on imported soybeans as the feedstock for crushing. As in Japan, tariffs affect vegetable oils, and do not restrain imports of oilseed meals or oilseeds for crushing.

Transportation costs (for oilseeds, meals, and oils) are likely to be similar to those faced by Japan.

Therefore, examination of Korea's experience with reducing tariffs, especially on soy oil, is a useful point of reference when considering what would happen if Japan lowered its vegetable oil tariffs. Korea's tariffs and trade are presented in the table below.

Korea liberalized imports of soy oil in 1991 with a 13-percent tariff. Adverse reaction by the crushing industry resulted in imposition of a tariff-rate quota

from the second half of 1991 through 1994. After the quota was lifted, Korea's crushing industry secured an agreement with feed mills to purchase soymeal crushed in Korea on a preferential basis. The purchases buffered the crushing margins in Korea until 1997, when the agreement lapsed.

Korea's soy oil imports grew quickly after 1997, and in 2001 comprised over 46 percent of soy oil supply. If Japan's current substantial tariffs on soy oil (in 2001, they were equivalent to 16 percent on refined and 26 percent on crude oil) were reduced or eliminated, Japan's soy oil imports could follow the Korean pattern and the increase in potential trade could be significant.

South Korea: Soy oil tariffs and soy-complex imports

	Soy oil tariff		Calendar-year imports of		
	Over-quota		Soy oil	Soy meal	Soybeans
	Percent				
1991	13	25	56	497	1,052
1992	11	25	13	627	1,289
1993	9	25	10	679	1,088
1994	8	20	34	629	1,228
1995	8	NA	44	1,015	1,468
1996	8	NA	52	1,113	1,465
1997	7.92	NA	58	731	1,568
1998	7.56	NA	64	930	1,413
1999	7.20	NA	138	1,144	1,441
2000	6.84	NA	135	1,141	1,492
2001	6.48	NA	170	1,437	1,355
2002	6.12	NA			
2003	5.76	NA			
2004	5.40	NA			

NA = Not applicable.

Note: Korea's soy oil imports were freed from nontariff restraints at the beginning of 1991, with a tariff of 13 percent. When imports surged in the first half of 1991, Korea's government imposed a tariff-rate quota (TRQ) for the second half of 1991 of 10,000 tons, with a 25-percent over-quota tariff. The TRQ was maintained in 1992-94 and abandoned at the beginning of 1995.

Sources: FAS GAIN reports from Seoul and Korea Customs Service.

Vegetable Oil Tariffs Influence Japan's Oilseed Imports

Japan is the world's third-largest importer of soybeans and canola seeds for crushing into vegetable oils. Within Japan, soy oil and canola oil can be substituted for each other easily. Japan has no tariffs on oilseeds for crushing or on vegetable oilseed meals produced by crushing. However, a substantial tariff, 13.2 yen/kg (equivalent to \$106 per ton in 2001) is applied to imports of refined soy oil and canola oil. This tariff provides an incentive to manufacturers in Japan to import soybeans and canola seeds and crush them into oil and meal in Japan, because they can sell the vegetable oil for up to 13.2 yen/kg more than the world price.

The tariff affects the relative amounts of soybean and canola seed imported into Japan.¹ Soybeans contain about 18 percent oil, by weight, while canola seeds contain about 41 percent oil. In other words, import-

ing a ton of soybeans yields 180 kg of oil, and a ton of canola yields about 410 kg of canola oil. Assuming that each kilogram of vegetable oil can be sold at a premium of 13.2 yen/kg to the world price, the value of the premium for oil contained in a ton of canola imports will be greater than the value of the premium for oil in a ton of soybeans. Numerically, this can be seen by multiplying the weight of the oil times 13.2 yen/kg for each oil:

$$\text{Soybean: } 13.2 \text{ yen/kg} \times 180 \text{ kg} = 2,376 \text{ yen}$$

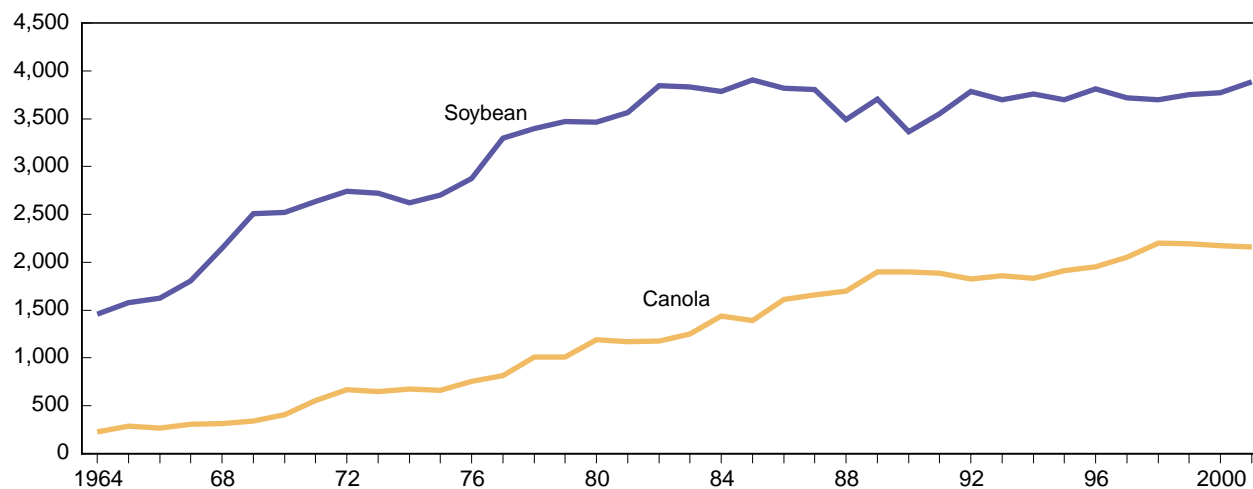
$$\text{Canola: } 13.2 \text{ yen/kg} \times 410 \text{ kg} = 5,412 \text{ yen}$$

In this example, a crusher in Japan can obtain an extra 3,036 yen (=5,412-2,376) when importing a ton of canola seed. Other factors are important in determining which oilseed is imported, but the additional value accruing to the relatively oil-rich canola is likely to have boosted the canola share of Japan's oilseed imports (see fig. 5).

¹ This analysis follows that of Carter and Mooney, pp. 308-9.

Figure 5
Oilseed crush in Japan

1,000 metric tons



Source: PS&D, 5/10/02.

Policy Implications

Prices. Japan's policies affect prices in different ways, depending on the end use of the oilseed. For food-use soybeans, market and consumer prices should not be affected by government policies, because there is no border barrier and market prices of domestically produced soybeans are determined without government intervention. Nevertheless, the market price received by Japan's farmers is high. The average monthly price (market price) received by farmers for soybeans after the 2001 harvest was \$14–\$16 per bushel (3,800 – 4,300 yen/60 kg). This is much higher than the market price for soybeans in the United States (2001/02) of \$4.55 per bushel. The unit value of imports of food-use soybeans by neighboring South Korea was \$219 per ton in 2001, equivalent to about \$6 per bushel. Part of the difference in prices is the result of comparing soybeans that differ from each other in certain characteristics: Japan's domestic soybeans are for food use only, and may also receive a premium in the marketplace because they are produced in Japan. Farm returns for growing soybeans are high because of the government interventions outlined above.

For domestically produced peanuts used only for food, prices received by Japan's growers are about four times the average import value of raw peanuts (in shell). In the marketplace, however, raw peanuts produced in Japan must compete with peanuts imported within the quota at a 10-percent tariff and with simply processed peanut imports. The tariff on prepared and preserved peanuts (e.g., roasted peanuts) is 21.3 percent, with no quota. Users can import raw or prepared peanuts at the world price plus these tariffs, resulting in downward pressure on prices buyers pay for domestic raw peanuts.

The price margin between the price a farmer receives for raw peanuts and the retail price for fried and seasoned peanuts in Tokyo is about 900 yen/kg. If that same price margin (assumed to cover the costs of wholesaling, processing, packaging, marketing, etc.) is added to the import unit value of raw peanuts instead of to the domestic producer price, Japan's retail peanut price would be one-third lower.

Vegetable oil prices are affected by the tariff on imports. For commodities such as palm oil, which has a zero tariff, government policies do not affect the

price.⁸ However, soy and canola oil prices are higher than they would be if imports of these oils did not face a tariff equivalent to \$90-\$106/ton.

Gains and losses. All consumers who buy bottles of vegetable oil, as well as food processors who use soy, canola, corn, and other non-tropical oils, pay higher prices as a result of the tariffs. Oilseed crushers, on the other hand, benefit from these higher prices when they produce and sell oil and, receiving a higher return on crushing, are likely to crush more seeds as a result of the policies. Higher prices for peanuts and vegetable oils reduce consumption, at the margin, and contribute to higher food expenditures for consumers who buy the products. Farmers gain from higher prices for their food-use soybeans and peanuts.

If Japan were to eliminate its domestic support for food-use soybeans (deficiency-type payments, rice diversion payments, and the income stabilization program), production would fall and imports would rise to replace the lost production. China, Canada, and the United States are the largest suppliers of food-use soybeans. Greater imports by Japan would have a small but positive impact on world prices.

To see where gains and losses from Japan's oilseed sector tariffs occur, it is useful to speculate about reducing the tariffs to zero. Eliminating the vegetable oil tariffs would make crushing oilseeds in Japan less profitable, and tend to reduce the level of crushing and of oil seed imports. The tariff on vegetable oil imports has favored importation of canola seeds, because they have a higher oil content than soybeans (see *Vegetable oil tariffs influence Japan's oilseed imports*). With the removal of the tariff, the share of soy oil consumed in Japan could grow. More imports of soy and canola oil, and lower imports of canola seeds, are likely outcomes of an elimination of the tariffs.

Whether more or fewer soybeans would be crushed depends on how much oilseed crushing (of all kinds of oilseeds) in Japan would decline as it becomes less profitable. If the decline were moderate, soybean imports for crushing might be steady or even rise, at the expense of canola seeds. However, the sum of the two oilseeds used for crushing in Japan would fall in

⁸ See footnote 6.

any case. Canada is the main supplier of canola to Japan, and would see exports of canola to Japan fall, while exports of canola oil would tend to rise. The United States, followed by Brazil, is the main supplier of soybeans for crushing. Oilseed crushers in the United States, Canada, Brazil, and Argentina would gain if Japan's industry retrenched, as Japan's imports of oil and meal rise.

Two quantitative analyses of potential liberalization of Japan's support for oilseeds both show a decrease in crushing in Japan. Modeling by the Australian Bureau of Agricultural and Resource Economics (ABARE) (2001) follows a scenario of a 50-percent reduction in domestic and border support by all countries, including Japan, with the implementation occurring over 2005-2010. The ABARE results indicate a 1.1-percent decrease in oilseed crushing in Japan. Oilseed production would fall by 13.5 percent, and imports of oilseeds would rise by 6.2 percent—presumably for food uses. Imports of oils would rise by 7.1 percent.

Modeling done for this study using the ERS partial equilibrium world trade model follows a scenario of complete elimination of domestic and border support for all commodities by Japan only.⁹ A significant shift

⁹ Preliminary documentation of the model can be found at <http://coldfusion.aers.psu.edu/wto/>.

in oilseed crushing from Japan to oilseed producing countries would take place. Vegetable oil imports would rise by 43.5 percent, with an additional 62,000 tons of soyoil imports and 157,000 additional tons of canola oil imports. Consumption of soy oil would rise by 0.7 percent, and of canola oil by 0.4 percent. Lower prices in Japan for soy and canola oils would reduce the market share of palm oil (palm oil prices change very little, while soy and canola oil prices fall), and tropical oil imports (chiefly palm oil) would fall by 32,000 tons. Oilseed imports would fall as the elimination of the vegetable oil tariff reduced crushing margins and lower livestock production reduced demand for oilseed meal in feed. Soybean imports would fall by 6.4 percent and canola imports by almost 18 percent. Japanese production of soybeans would fall by 43 percent, and of peanuts by 35 percent. The world price of soybeans would rise by 0.2 percent, and of soy oil by 0.8 percent.

Current negotiations about a new multilateral agreement on agricultural trade in the WTO are likely to focus on tariffs and TRQs and on domestic support, and may lead to significant changes in Japan's oilseed policy regime. The modeling results above suggest that changes could bring important benefits to Japan's vegetable oil consumers and modest benefits to processors and producers elsewhere in the world.

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