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# Pork Policies in Japan

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## Abstract

Japan's policies in the pork sector attempt to support producers' incomes while keeping market prices stable. Regional pork production funds provide deficiency payments to farmers according to rules that vary by prefecture. Funding comes from producer check-off payments and from regional and national governments. The national government also subsidizes disaster insurance premiums. At the border, imports confront the gate price system, which imposes a minimum import price on pork shipments. For shipments valued below the minimum price, importers must pay the difference between the shipment's value and the minimum price. The system taxes the importation of lower-valued pork cuts. Pork can only be imported from countries that are free of foot-and-mouth and certain other diseases. Pork producer prices in Japan are roughly twice the U.S. level, partly because of the gate price system. Consumer prices are also significantly higher than in the United States.

**Keywords:** Japan, pork, policies, domestic support, trade, trade liberalization, sanitary regulations.

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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 is the world's largest importer of pork in most years, and domestic production, based on imported feedstuffs, is also important. Consumption of pork has been stable in recent years, but production has been declining gradually since 1989, leading to increasing imports (fig. 1).

Pork, the leading meat consumed in Japan, competes with beef and with other protein sources for consumer attention. In recent years, consumption has been relatively stable at about 2.2 million tons (carcass-weight equivalent), or 10.2 kg per person annually (boneless weight—about 22.5 lb). Fresh or chilled pork is purchased by Japanese households for cooking at home. This kind of consumption has been declining as consumers have increasingly turned to buying food away from home, or to buying processed products that offer convenience in preparation. The restaurant sector is a major consumer of frozen and chilled pork for use in entrees. A large industry also manufactures hams and

other processed products, using frozen pork as the raw material.

In 2000, the value of Japan's domestic hog output was estimated at over 465 billion yen (\$4.34 billion, a little over 5 percent of total agricultural output). This value declined during the 1990s from an output value of over 640 billion yen in 1991.<sup>2</sup> Over the same period, the volume of domestic pork produced fell by over 13 percent. The decline was interrupted in 1997, as the sudden withdrawal of exports from Taiwan, formerly Japan's leading foreign source of pork, allowed domestic prices to rise and stimulated production.<sup>3</sup> However, by 2001, production was again below the level of 1996, and further declines can be expected, since Japan's pork sector is handicapped in competition against pork imports by the cost of transporting imported feedstuffs, relatively high labor costs, and problems in finding sites for large hog farms and large processing plants that could achieve economies of size. In 2001, imports represented 44 percent of the total quantity marketed in Japan.<sup>4</sup>

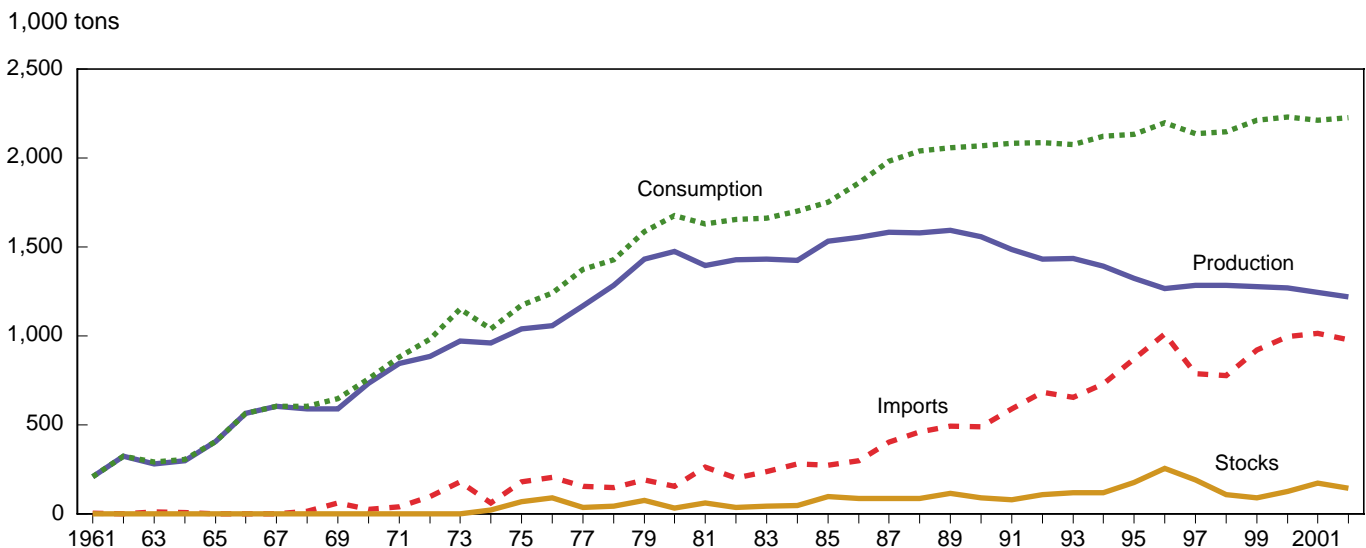
<sup>2</sup> Ministry of Agriculture, Forestry and Fisheries. *Statistical Yearbook, 1999-2000*, p. 555.

<sup>3</sup> Taiwan's exports ceased after a serious outbreak of foot-and-mouth disease.

<sup>4</sup> Agriculture & Livestock Industries Corporation, Sept. 2002, p. 15.

Figure 1

### Japan: Pork production, supply, and demand



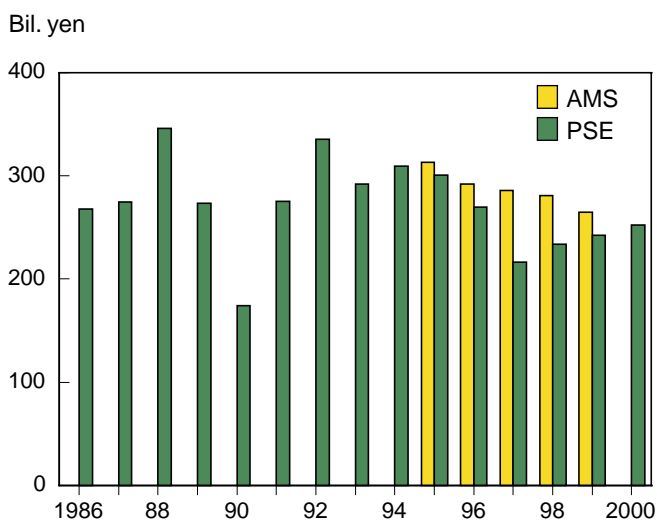
Source: USDA, PS&D.

## High Levels of Support for Pork Reflect Border Protection and Domestic Policies

The Aggregate Measurement of Support (AMS) and the Producer Support Estimate (PSE) are two measurements of the overall support received by farmers as a result of government actions. Each year, Japan's Government calculates the AMS as part of its report to the WTO on domestic support for agriculture (see box [How Japan Notifies Its Domestic Policies on Pork to the WTO](#)). Japan's Government support for agriculture is also estimated by the Organization for Economic Cooperation and Development (OECD) each year as it calculates the PSE (fig. 2). For 1999, the last year available, Japan calculated the pork AMS as 265 billion yen (\$2.33 billion). Constituting 35 percent of the total AMS, this was the largest commodity subsidy reported by Japan in 1999. The OECD estimated the PSE at 236 billion yen in 1999 (\$2.08 billion) and 252 billion yen (\$2.35 billion) in 2000. What do these large numbers measure?

These estimates of support for pork use different methods, but both are based on the concept of support for market prices. Market price support involves government intervention that raises prices in a marketplace, affecting both buyers and sellers. Japan annually sets a standard stabilization price for pork (authorized by the Law Concerning Stabilization of Livestock Prices)

Figure 2  
**Japan: PSE and AMS for pork**



Sources: WTO and OECD.

(appendix table 1). When market prices fall below the standard stabilization price, the government is authorized to take actions which would raise the market price. These have included purchasing pork (in order to reduce supply and thus raise prices), subsidizing the disposal of breeding sows, and subsidizing the storage of frozen pork. In practice, such actions are not common. The main government domestic policy support to hog farmers appears to come through the Regional Pork Production Stabilization Fund (see below), which supports producer returns, but does not directly affect the market price for pork. Nevertheless, because Japan does have an administered market price (the standard stabilization price) for pork, and sometimes acts to support it, both Japan and the OECD base their estimates of support on this price.

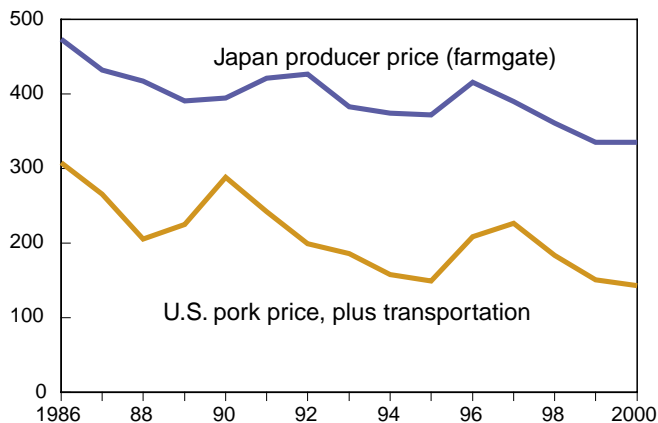
Japan calculates market price support in the AMS as the difference between the standard stabilization price (365 yen/kg in Japanese fiscal year 2001) and a fixed historical international reference price—an internal European Union price of pork in 1986-88. This price difference is multiplied times total Japanese pork production to arrive at a measurement of market price support, which constitutes the AMS. The OECD calculates market price support in the PSE as the difference between the standard stabilization price and a current international reference price—the U.S. pork cut-out price plus an estimate of transportation cost from the United States to Japan (fig. 3).

Thus, both the AMS and the PSE use a price wedge between an internal Japanese price and an international price to calculate market price support (fig. 4). These estimates indicate that prices in Japan are much higher than in the world marketplace. However, the estimates of the value of market price support are not closely related to government expenditures to support prices, which are much lower. Part of the roughly \$2 billion annual market price support for pork in Japan is caused by border measures that tend to raise the market price, rather than stemming from support provided by domestic policies. Actual government expenditures to support pork production are considerably less than \$2 billion. The following sections discuss domestic policies, paid for by taxes, and then border measures, which are paid for by consumers.

Figure 3

**Japan: Producer and reference prices for pork**

1,000 yen per metric ton

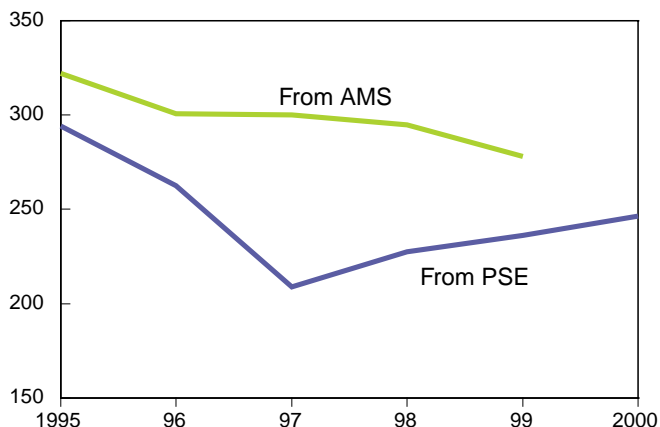


Source: OECD.

Figure 4

**Japan: Market price support for pork**

Bil. yen



Sources: WTO and OECD.

**How Japan Notifies Its Domestic Policies on Pork to the WTO**

Policy	Box	Justification
Animal health control	Green	Benefits to agriculture, not involving direct payments to farmers or price support.
General services including infrastructural services; extension and advisory services on technologies; information services for promotion of livestock products	Green	Benefits to agriculture, not involving direct payments to farmers or price support.
Payments for slaughtering sows	Green	To avoid overproduction of pork.
Production, processing, and marketing subsidies	Green	Infrastructural services for market facilities: provision or construction of market facilities. Agricultural loans for structural adjustment: interest concessions.
Market price support	Amber	Price stabilization.
Disaster insurance subsidies	Green and amber <sup>1</sup>	<b>Green:</b> Payments for relief from natural disasters: subsidies on premiums of agricultural insurance for production loss more than 30 percent of average levels. <b>Amber:</b> Subsidies on premiums of agricultural insurance for production loss less than 30 percent of average levels.

<sup>1</sup>Premium payments for insurance coverage for losses less than 30 percent for all commodities (not just pork) were 22.2 billion yen (\$195 million) in 1999, which was .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 AMS 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.

## Domestic Policies

**Compensation to producers for price declines.** The Regional Pork Production Stabilization Fund is a regional program run voluntarily by pork fund associations in major pork-producing prefectures. The two primary sources of funds are farmers' check-off payments per animal and a prefectural farm sector promotion budget from the local government's general account. The amount paid per hog by a farmer (the check-off) and the local government contribution differ by prefecture. The program is actually a deficiency payment plan run at the prefectural level, with voluntary participation. A farmer can sign up any number of hogs for coverage, not necessarily the whole herd.

Each prefecture sets a guaranteed price (the support price) for the fiscal year.<sup>5</sup> The support price levels differ by prefecture. When the monthly average wholesale pork carcass transaction prices traded in each prefecture fall below the prefectural guaranteed price level, compensation is paid to eligible hog farmers from the prefectural fund. The difference between the guaranteed price and the market average price differs by prefecture, and the extent to which the difference is covered by the program also varies by prefecture. A hog farmer can be paid a portion or the full difference of the deficiency coverage depending on the prefectural association to which he belongs. For example, the guaranteed price could be 380 yen/kg in one prefecture and 450 yen/kg in another. One prefecture may issue a fixed amount of disbursement, say up to 25 yen/kg. Another prefecture may pay the full amount of the difference between the prefectural guaranteed price and the average market price, with no limit.

At the national level, the Ministry of Agriculture, Forestry and Fisheries (MAFF) has a Regional Pig Production Stabilization Fund Project to supplement the prefectural funds when they are exhausted. The MAFF fund uses a budget allocated for a 3-year period. Large disbursements from the national fund

<sup>5</sup> Japan's fiscal year is April-March.

become necessary when the market prices of pork carcasses are depressed severely for a prolonged period of time. Such disbursements were made in the past, mostly during months in the fall and winter seasons when domestic pork production peaks.

A total of 5 billion yen (\$41 million) is earmarked for this MAFF project for the 3 fiscal years, 2001-2003. National criteria trigger the ability to draw on the fund. MAFF uses the nationally set standard price (the national floor) as a criterion to support the prefectural funds. The fund was not used during Japan fiscal year 2001 (JFY2001), but its use would have been allowed if the combined monthly average of Tokyo and Osaka wholesale carcass prices fell below the national standard price of 400 yen/kg for the standard carcass weight of 75 kg.

**Insurance.** Swine are eligible for a government-supported hazard insurance plan that applies to death on the farm, disease, and injuries. Farmers choose the level of coverage for losses, with the maximum level 80 percent of the value of the loss, and the minimum level ranging from 20 to 40 percent of loss, depending on the local government. The national government pays 40 percent of the premium for the insurance policy, and farmers pay the remaining 60 percent. Local associations or municipal governments pay out the indemnities. The liability of these associations/municipalities is covered by reinsurance that is shared 50 percent by the national government, 30 percent by a prefectural federation of insurance associations, and 20 percent by the local association or municipality. In case of an extraordinary event, such as a disease epidemic, the national government assumes the indemnities that the local groups cannot pay.

In 1998, the national government paid 965 million yen (\$7.37 million) in insurance premium subsidies for hogs and boars. Farmers were indemnified for about 115,000 dead or disabled hogs and boars and for about 40,000 injured or diseased boars in that year, with a total indemnity value of 2.146 billion yen (\$16 million).

## Border Measures

**Tariffs.** The tariff on fresh, chilled, or frozen meat of swine is 4.3 percent. Tariffs on offals are 8.5 percent, and tariffs on pork preparations range from 0 to 21.3 percent (table 1). Thus, tariffs alone are not prohibitive, and pork tariffs are lower than those for beef and poultry meat.<sup>6</sup>

**Gate price system.** The gate price system is the main barrier to pork imports. The gate price system began in 1995 as a mechanism negotiated in the Uruguay Round (UR) to replace Japan's previous variable levy

system for pork.<sup>7</sup> However, its operation still strongly resembles a variable levy. If pork imports, priced at entry into Japan, are valued at or above the gate price, then they pay only the simple tariff (4.3 percent in the case of fresh, chilled, or frozen meat). If their value is lower than the gate price, the importer must pay the difference between the import value and the gate price as a duty, in addition to the tariff applied at the gate price value. In practice, the gate price is compared with the average value of the invoice on a shipment of pork, which is usually one or more containers of pork.

<sup>6</sup> The tariff on beef is 38.5 percent. Tariffs on poultry meat range between 8.5 and 11.9 percent, depending on which cut is imported.

<sup>7</sup> For an analysis of the variable levy system, see Bredahl et al.

**Table 1—Japan: Pork tariffs and gate prices, 2002**

HS tariff lines	Product	Tariff	Note	
0203	<b>Meat of swine: Fresh, chilled, or frozen</b>	4.3	GP	
	<b>Offal</b>			
0206.30.091	Internal organs of swine, fresh or chilled	8.5		
0206.30.093	Other edible offal of swine, fresh or chilled	4.3	GP	
0206.41.090	Frozen swine livers	8.5		
0206.49.091	Internal organs of swine, frozen	8.5		
0206.49.093, .092, .094	Other edible offal of swine, fresh or chilled	4.3	GP	
	<b>Salted, dried, or smoked meat</b>			
0210.11	Salted, dried, or smoked hams and shoulders and cuts thereof, with bone in	8.5	GP	
0210.12	Salted, dried, or smoked bellies and cuts thereof	8.5	GP	
0210.19	Other salted, dried, or smoked meat of swine	8.5	GP	
0210.90.011, .019	Other salted, dried, or smoked products of swine	8.5	GP	
1601.00	<b>Sausages</b>	10		
	<b>Other prepared or preserved meat, offal, or blood</b>			
1602.10	Homogenized preparations	21.3		
1602.20	Livers	21.3		
1602.41.011, .019	Hams and cuts thereof	8.5	GP	
1602.41.090	Hams and cuts thereof	20		
1602.42.011, .019	Shoulders and cuts thereof, sterilized	8.5	GP	
1602.42.090	Shoulders and cuts thereof, sterilized	20		
1602.49.100	Boiled guts, bladders, or stomachs	0		
<b>Gate prices</b>		<i>Yen/kg</i>	<i>US\$/kg<sup>1</sup></i>	<i>US\$/lb<sup>1</sup></i>
	Carcasses and half carcasses	393	3.25	1.47
	Cuts with bone in	524	4.33	1.97
	Boneless cuts	524	4.33	1.97
	Edible offal, except fresh/chilled internal organs and frozen livers	524	4.33	1.97
	Hams and cuts thereof	897.59	7.42	3.37
	Shoulders and cuts thereof	897.59	7.42	3.37

Notes: This is not an authoritative source for Japan's tariffs. For that, refer to Customs Tariff Schedules of Japan. GP indicates that the tariff lines in that row are subject to the gate price system. HS stands for Harmonized System.

<sup>1</sup> Converted from yen/kg using the average 2001 exchange rate of 120.96 yen/US\$.

Sources: Japan Tariff Association, Customs Tariff Schedules of Japan, 2002. Japan Uruguay Round Country Schedule, 1995.

Applying the gate price to a shipment allows traders to mix pork cuts so that no levy is assessed except the 4.3-percent tariff. For example, low-priced bellies can be mixed with high-priced loins until the average value of the shipment is equal to the gate price.

Under the old variable levy system, the gate price for imports was linked to the standard stabilization price for domestic carcasses (appendix table 1). Since 1995, there has been no formal linkage. Gate price levels were negotiated in the UR and reductions made from a starting level (table 2). The final UR reductions were made April 1, 2000, and the gate price will remain at that level in the future, unless there is a safeguard action (see below) or a new international agreement to change the level, or the gate price system, is reached. For carcasses, the gate price is 393 yen/kg (\$1.47/lb in 2001) (table 1). For unprocessed cuts and offals, the gate price is 524 yen/kg (\$1.97/lb), and for hams, the gate price is 897.59 yen/kg (\$3.37/lb).

The standard import price (SIP) is defined as the value of a kilogram of pork imported at the gate price, including the tariff (currently 4.3 percent). It is calculated as the gate price multiplied by 1.043, so that the normal value (with no safeguards) stands at 547 yen/kg (\$2.05/lb in 2001) for pork cuts and certain types of offals (table 2).

Sausages, livers and certain other offals, and some pork preparations are not subject to the gate price system (table 1).

**Safeguards.** In the case of pork, Japan's Government has access to three different WTO measures that allow it to temporarily increase barriers to imports. One mechanism is contained in the UR Agreement on Safeguards,<sup>8</sup> which Japan has not used for pork. A second mechanism is the provision on special safeguards in the Agreement on Agriculture (article 5).<sup>9</sup> It was used in 1997. A third mechanism is defined in a 1995 bilateral agreement between the United States and Japan which became part of the overall UR agreement, and applies equally to all WTO members exporting pork to Japan. It was used in 1995, 1996, 1997, 2001, and 2002 and is specific to pork imports (table 2 and appendix table 2).

The UR Agreement on Agriculture (URAA) allowed any member country the one-time opportunity to designate individual tariff lines as eligible for special safeguards, if the commodity involved was previously subject to a nontariff barrier which was being converted to

<sup>8</sup> The Agreement on Safeguards is available at the WTO website: [http://www.wto.org/english/docs\\_e/legal\\_e/25-safeg.pdf](http://www.wto.org/english/docs_e/legal_e/25-safeg.pdf)

<sup>9</sup> Article 5 can be read at the WTO website, in the Agreement on Agriculture: [http://www.wto.org/english/docs\\_e/legal\\_e/14-ag.pdf](http://www.wto.org/english/docs_e/legal_e/14-ag.pdf)

**Table 2—Japan's gate price system and tariff for imported pork cuts under the Uruguay Round Agreement**

	Unit	Japan fiscal year (April - March)									
		1994	1995	1996	1997	1998	1999	2000	2001	2002	
With no safeguard in effect:											
Gate price	yen/kg	596.83	584.49	572.55	560.42	548.28	536.14	524.00	524.00	524.00	
Standard import price	yen/kg	626.67	613.34	600.03	586.76	572.95	559.73	546.53	546.53	546.53	
Tariff	percent	5.0	4.9	4.8	4.7 <sup>1</sup>	4.5	4.4	4.3	4.3	4.3	
With gate-price safeguard (SG) in effect:											
Gate price	yen/kg		723.83	709.67	695.50	681.33	667.17	653.00	653.00	653.00	
Standard import price	yen/kg		759.30	743.73	728.19	711.99	696.53	681.08	681.08	681.08	
Tariff	percent		4.9	4.8	4.7	4.5	4.4	4.3	4.3	4.3	
With special safeguard (SSG) in effect:											
Gate price	yen/kg		584.49	572.55	560.42	548.28	536.14	524.00	524.00	524.00	
Standard import price	yen/kg		662.69	609.19	595.73	581.18	567.77	553.87	553.87	553.87	
Tariff	percent		6.5	6.4	6.3	6.0	5.9	5.7	5.7	5.7	
With both SG and SSG in effect:											
Gate price	yen/kg		723.83	709.67	695.50	681.33	667.17	653.00	653.00	653.00	
Standard import price	yen/kg		770.88	755.09	739.32	722.21	706.53	690.22	690.22	690.22	
Tariff	percent		6.5	6.4	6.3	6.0	5.9	5.7	5.7	5.7	

Notes: The 6-year Uruguay Round implementation period ended in 2000. All parameters after JFY 2000 remain the same as levels set in JFY 2000. The standard import price is calculated as (gate price)\*(1+(tariff/100)).

<sup>1</sup> The tariff was suspended for August 1997 because of high pork prices in Japan (FAS GAIN report JA7026, 7/29/97).

Source: MAFF.

an ordinary tariff status during the UR. The conversion of pork from the variable levy system in place before 1995 to the gate price system in place after 1995 was interpreted as such a conversion, and all tariff lines covered by the [gate price system](#) were also designated as subject to special safeguard protection.

The URAA special safeguard allows a country to raise its tariffs if the volume of imports in a given period exceeds 105 percent of the average volume recorded in the same period over the previous 3 years, or if the import price falls by more than 10 percent below the 1986-88 average reference price for the product. In the case of volume surges, the tariff may be raised by up to one-third above the tariff applied before the safeguard takes effect. The tariff increase is then maintained for the rest of the fiscal year, and is removed at the beginning of the next fiscal year. If a price drop triggers the safeguard, the tariff increase is related to the extent of the price drop. Based on increased volume, Japan invoked the special safeguard for the period Jan. 1-March 31, 1997, and raised the tariff on pork imports by 1.7 percentage points, to 6.5 percent. In some subsequent years, imports exceeded the trigger level, but did so late in the fiscal year and tariff increases were not imposed.

Raising Japan's small ordinary tariff on pork (4.3 percent), as allowed under the special safeguard provision, is less serious than the action permitted under the UR procedure applied only to Japan, the third kind of mechanism to temporarily increase the import barrier:

“...if at the end of any of the first three quarters of a JFY [Japan Fiscal Year], the quantity of imports from the beginning of the JFY up to the end of the relevant quarter of such products exceeds 119 percent of the average quantity of imports during the corresponding period in the three preceding years for which data are available, the Government of Japan may, for the remainder of the JFY, apply”... a higher gate price.<sup>10</sup>

The gate price was raised in November 1995 using this authority, when imports at the end of the first half (April-September) of JFY1995 rose more than 19 percent over the average for the previous 3 years. At the end of JFY1995 (March 31, 1996), the increase was removed and the gate price fell to the level agreed in the UR. However, pork imports in the first quarter of JFY1996

rose above the trigger, as imports that had been held back (to await the lower gate price in effect on April 1, 1996) were added to normal flows, and as importers anxious to avoid a future reimposition of the increase sought to bring in imports earlier than they would have otherwise. As a result, the gate price was raised again July 1, 1996, for the remainder of JFY1996. The strategy used by importers—to ship as much frozen pork as possible during quarters when the gate price was at normal levels—had the perverse effect of making import volume in such quarters trigger the gate price increase for the rest of the fiscal year. Despite the higher gate price, import volume was so strong that imports for the full fiscal year 1996 exceeded the trigger, and the increased gate price was therefore also applied to the first quarter of JFY1997. Unlike the URAA special safeguard, if imports in a full year exceed the trigger level, the gate price is raised in the first quarter of the next fiscal year.

Japan appeared to be in a near-permanent state of safeguard boosts to the gate price when the situation was changed by an unforeseen external shock: Taiwan, the largest exporter to Japan, suddenly had to end all exports in March 1997 because of an outbreak of foot-and-mouth disease. Import volume was not again strong enough to trigger the increases until July 2001. Then, large imports in the first quarter of JFY2001 triggered higher gate prices through March 31, 2002.<sup>11</sup> After the gate price increase was lifted on April 1, 2002, imports again exceeded the first-quarter trigger level, and the gate price increase was reimposed on August 1, 2002 (appendix table 2). Like the earlier instances in 1995 and 1996, the gate price, and therefore the standard import price, was raised by about 25 percent as a result of the measures (fig. 5).

**Sanitary rules.** Japan became free of foot-and-mouth disease (FMD) in 1907, and maintained that status until a small outbreak occurred in Kyushu in 2000. To prevent infection, Japan prohibits imports from countries which have FMD and from those which vaccinate against it. This prohibition blocks imports from nearby Asian countries and effectively limits pork imports to those from North America, Oceania, or selected parts of Europe. Taiwan lost its ability to export to Japan in 1997, and South Korea in 2000, because of FMD outbreaks. Japan also controls for other diseases, including African swine fever and hog cholera.

<sup>10</sup> Unpublished notification to Mr. Craig Thorn, U.S. agricultural counselor in Geneva, from Japan's Mission to International Organizations in Geneva, on Dec. 27, 1994. Page 3.

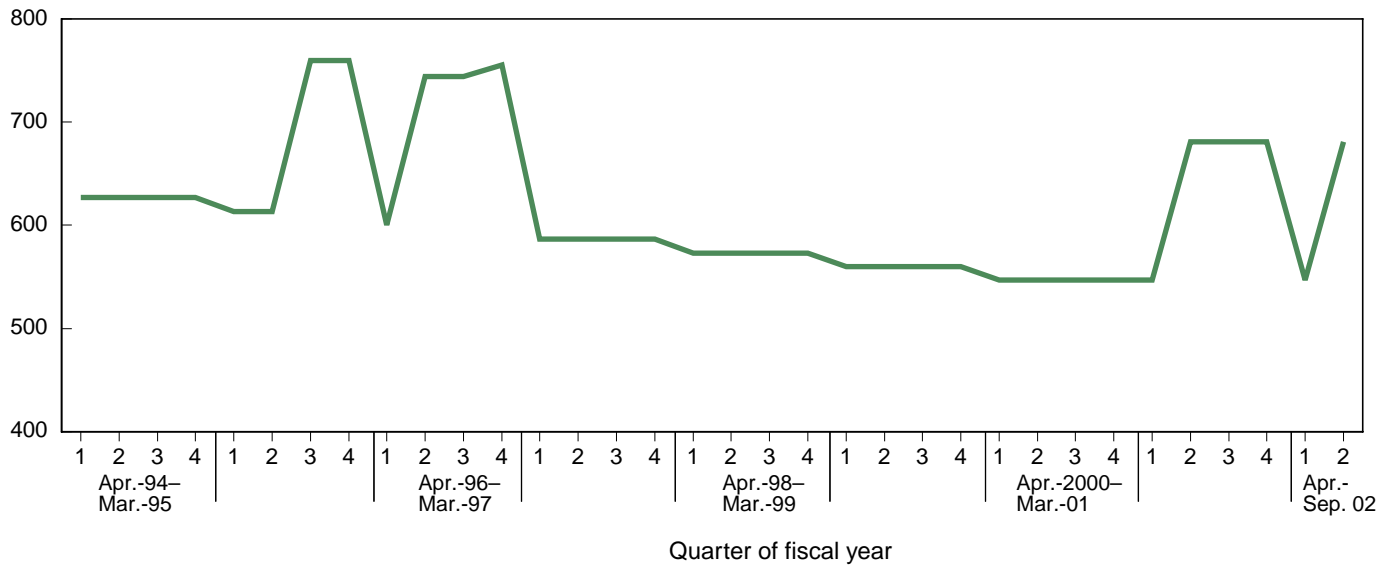
<sup>11</sup> See Foreign Agricultural Service, USDA, International Agricultural Trade Report, July 18, 2001, for more detailed analysis of this use of the safeguard. <http://www.fas.usda.gov/dlp/highlights/2001/japansafeguard.pdf>



Figure 5

**Standard import price, April 1, 1994-September 1, 2002, including safeguard duties**

Yen/kg



Source: FAS/Tokyo.

## Policy Implications

**Producer prices.** The ratio of farmgate hog prices in Japan to those in the United States is roughly 2:1—the farm price of a hog is twice as high in Japan as in the United States.<sup>12</sup> This implies that, with free competition from imported pork, Japan’s farmers would be pressured to reduce their costs below current levels.

Several factors make producer prices for pork in Japan higher than in the United States. Because Japan does not produce grains or oilseeds that can provide animal feed, it must import virtually all feedstuffs. Farmers must pay the cost of transporting feed, usually across the Pacific from North America. The added cost of imported feedstuffs implies that animal production will be at a higher cost in Japan than in those parts of the world where livestock feed is locally abundant. In addition, Japan’s labor costs are high relative to other parts of the world. Nonagricultural industries and the service sector compete with agriculture for labor, and Japan’s restrictive immigration policies mean that farm and meatpacking labor in general cannot be recruited from nearby countries that have much lower wages. Japan’s limited land base and dense population make it difficult to raise large numbers of hogs in any given area, and this makes the development of large-scale slaughter and packing plants more difficult.

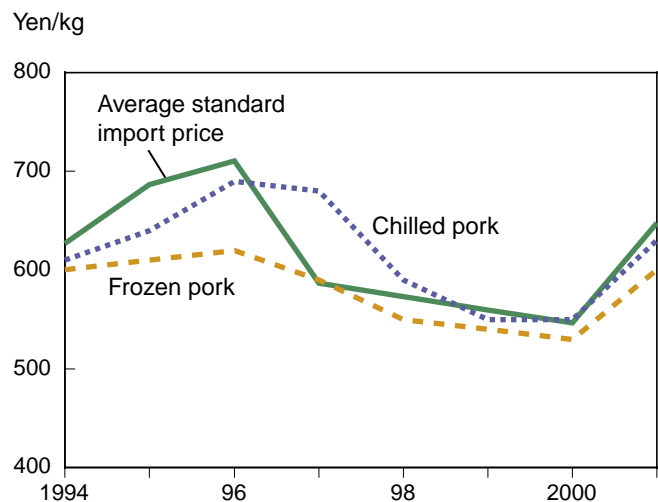
Government policies have limited competition in Japan’s market and led to prices being higher than they would have been otherwise. Occasional government programs to remove pork supplies from the market (such as subsidizing frozen pork storage in 2001) have, at the margin, led to higher market prices. More serious impacts come from the gate price system. By setting a minimum price for imports within Japan’s market, the system forces pork prices up. Since trade is in cuts of pork, rather than in carcasses, the gate price affects the relative prices of cuts in Japan.

<sup>12</sup> Comparison across countries of farm prices for hogs is difficult, because data are gathered differently. The 2:1 ratio compares the average price received by farmers in Japan, in yen/10 kg, live weight (Ministry of Agriculture, Forestry and Fisheries, Monthly Statistics), with the U.S. gross farm value of hogs per pound (Economic Research Service), converted from a retail equivalent weight basis. The OECD PSE market price support comparison (fig. 3) shows that the average farmgate value of Japan’s pork production is twice as high as a U.S. wholesale price, plus transportation to Japan. This implies that Japanese farm values of pork are more than twice as high as U.S. farm values.

Lower-priced cuts are particularly affected. For instance, hog bellies are usually priced below the gate price on international markets. The domestic belly price is higher in Japan as a result of the gate price system, because imported bellies face the costs imposed by the gate price system. Some higher-priced cuts are sometimes priced high enough in the world market that they exceed the gate price. This depends on world prices, on the exchange rate for the yen, and whether or not the safeguard mechanisms are in use. For example, in 2001, the gate price was equivalent to \$1.97/lb for cuts, as opposed to \$2.21/lb in 2000, with the difference solely due to the depreciation of the yen between the 2 years.

The average value of pork imports coming into Japan, before any duties are applied, has been close to the standard import price (SIP) level (fig. 6). Importers balance containers of pork with various cuts to have an average value equal to the SIP, and thus avoid paying a duty (except the 4.3 percent tariff). Both frozen and chilled pork trade have import values close to the SIP. However, this creates a situation unusual in world trade. In the international market chilled (or fresh) meat typically receives a higher unit value than frozen meat. Japan itself offers an example of a more normal situation—the average import value of chilled beef is significantly higher than the average import value of frozen beef (fig. 7). Beef faces a simple tariff, without a gate price system.

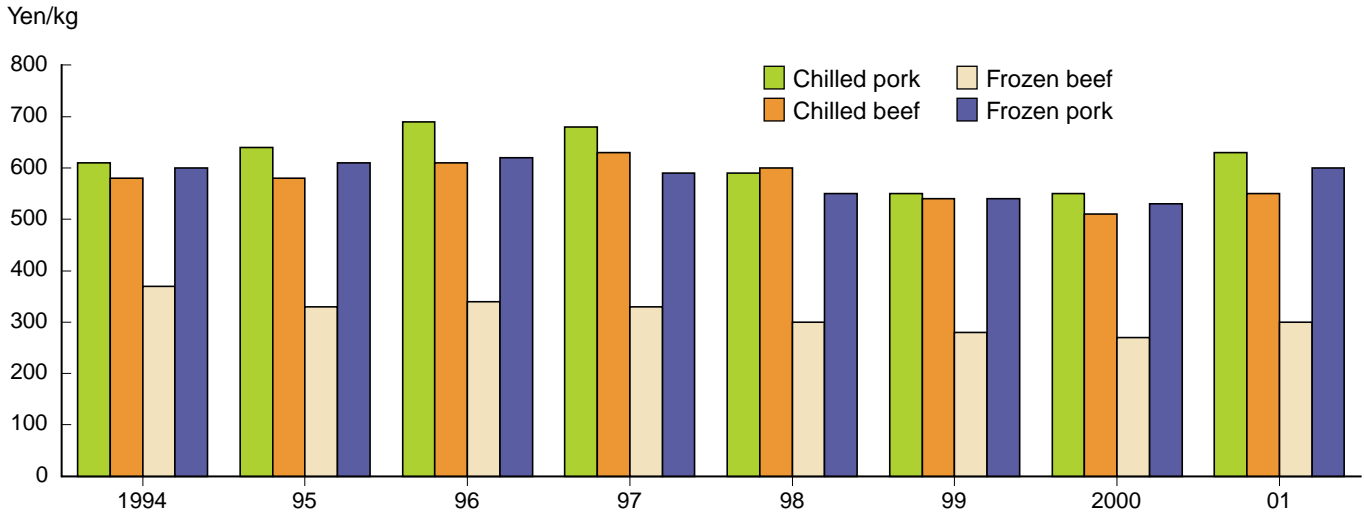
Figure 6  
**Japan: Import unit values for pork**



Source: Japan trade statistics.

Figure 7

**Japan: Import unit values for meats**



Source: Japan trade statistics.

The gate price system for pork may skew the cuts or qualities shipped as frozen imports. Importers able to bring in frozen pork cuts that are priced lower in the world market than Japan’s gate price have no incentive to actually import a container load of the meat. After clearing customs and paying the extra duty on the low-valued frozen cuts, the lower-valued pork would have the same cost to the firm as it sold the meat into Japan’s market as higher-valued frozen cuts. They could gain by importing higher-priced frozen pork cuts. The higher-valued pork would likely get a better price within Japan than the lower-valued pork, giving the import firm an incentive to choose frozen cuts that were priced close to the SIP level.

**Consumer prices.** Japan collects national average retail prices for three cuts of pork from domestic animals: the shoulder, the loin, and the leg. The ratio of pork cut prices in Japan (for domestic meat) to the U.S. average retail price of all cuts varies from about 2:1 for the shoulder cut to about 3.5:1 for the loin cut. While not precise, the price comparison shows that even the lowest-priced cut, the shoulder, in Japan is twice as expensive as the average price in the United States. The ratio of Japan’s domestic loin price to the U.S. price for center-cut pork chops has varied between 2.5:1 and 3:1 in recent years.<sup>13</sup>

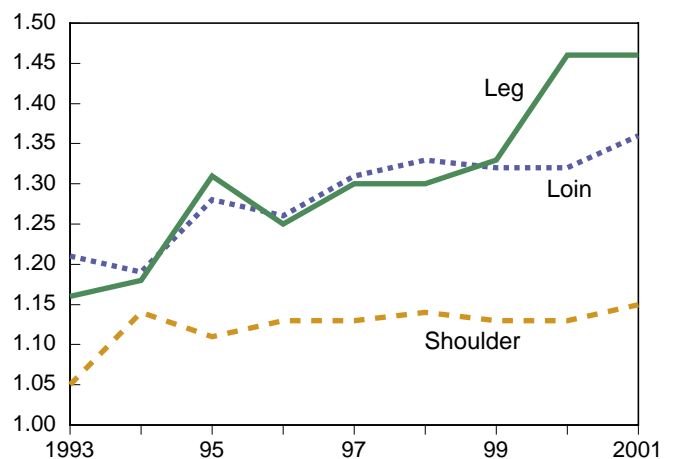
<sup>13</sup> Japanese price data are from the Agriculture & Livestock Industries Corporation. U.S. data are from the Economic Research Service.

Japan also calculates national average prices for the same three cuts of imported pork sold at retail in Japan. The imported meat prices incorporate the costs of transport from foreign sources to Japan, and also the effects of the gate price system, which theoretically raises the prices of lower-valued imported cuts. The ratio of domestic to imported prices for the same cuts (fig. 8) shows that domestic shoulder cuts are sold at about a 12-percent premium to imported shoulder cuts; and that domestic loins and legs have sold for about 28 percent more than imports over the last 8 years. These premiums may reflect quality differences or consumers’ preferences for domestic pork.

Figure 8

**Price ratios: Domestic vs. imported retail prices**

Ratio--imported price=1



Source: ALIC.

**Gains and losses.** Higher prices for pork reduce consumption, at the margin, and contribute to higher food expenditures for consumers who do buy pork. On the other hand, farmers gain from higher prices for pork, and Japan's slaughter industry owes its existence to domestic production of hogs.

If Japan were to eliminate its government support for pork production, production would fall and imports would rise to replace the lost production. Denmark, the United States, and Canada are the principal pork exporters to Japan. Greater imports by Japan would have a small but positive impact on world prices. Reduction of pork production in Japan would reduce the use of corn and oilseed meal, and the imports that supply them. However, feeding hogs for export to Japan in supplying countries would increase the use of feedstuffs in those countries that export.

Some analyses have used global models to explore what might happen to Japan's pork market if government support for domestic production were reduced. A major problem in such exercises is that the gate price system makes it difficult to quantify Japan's border barriers facing imports. Pork is typically traded in the form of specific cuts, and, within Japan and other countries, pork prices vary substantially by cut. The gate price system results in imports paying a 4.3-percent tariff. However, the impact of the gate price system on cuts is not just to raise their prices by 4.3 percent. Lower-valued cuts are imported into Japan together with higher-valued ones, in order that the average value be the gate price. Presumably, some of the cuts would not be imported (at least at the same time) if they weren't needed to balance the load. This imposes an implicit cost on importers that is very hard to measure. The effective tariff on lower-valued cuts is higher than 4.3 percent. The lack of transparency caused by the gate price system makes modeling the barriers hard. Using a 4.3-percent tariff understates Japan's protection. Using a higher, effective tariff involves making assumptions that may not be valid.

A recent modeling exercise by the Australian Bureau of Agricultural and Resource Economics (ABARE) examines Japan's imports of pork and poultry meat (combined) in the wake of a global liberalization by means of a 50-percent cut in both border barriers and domestic support in all countries, carried out over a 5-year period. The value of the imports rises by 20 percent, mostly because of a 16-percent rise in import

volume.<sup>14</sup> Aggregating poultry meat with pork, as ABARE did, however, obscures the impact on pork.

An ERS model simulated the response after a few years of adjustment if Japan were to eliminate all its border protection and its trade-distorting domestic support for all commodities (but with the rest of the world keeping current policies).<sup>15</sup> The gate price system, as explained above, makes it very hard to estimate an average rate of protection for pork. Therefore, the ERS model used a range of tariffs instead of directly modeling the gate price. Tariffs substituted for the gate price (and the current 4.3-percent tariff) were 15 percent and 25 percent.

If it is assumed that the impact of the gate price is equivalent to a 15-percent tariff, the model showed that reducing the tariff to 0 (and eliminating the regional pork price stabilization program) would have led to an 11-percent reduction in pork production and would have left consumption almost unchanged (table 3). The reason for the lack of consumer increase in response to the pork price drop was that the beef price dropped by considerably more, and consumers purchased beef instead of pork. Using the assumption of a 25-percent tariff equivalent, and reducing it to zero, pork production fell by 17 percent, and consumption rose by nearly 2 percent. The net pork trade effects of the various scenarios were a rise in Japan's import

<sup>14</sup> Australian Bureau of Agricultural and Resource Economics, 2001.

<sup>15</sup> Documentation of the model can be found at <http://coldfusion.aers.psu.edu/wto/>.

**Table 3—Simulating removal of pork subsidies in Japan**

	Tariff equivalent of the present gate price system:	
	<i>Percent</i>	
	15	25
Change if the tariff equivalent falls to 0:		
	<i>Percent</i>	
Production	-11.1	-16.9
Consumption	-0.6	1.7
Import volume	13.2	26.3
World price	0.5	0.8
Import value	13.6	27.3

Source: ERS/Penn State Modeling Project.

value by \$420 million in the 15-percent scenario and a rise in value by \$840 million in the 25-percent scenario. In both scenarios, the primary factor increasing trade was declining production in Japan.

Both the ABARE and ERS model results show that Japan's support to pork has a large impact on world pork trade, as well as on consumer prices and domestic production in Japan. Japan's own calculation of its Aggregate Measurement of Support shows pork with

higher trade-distorting "amber-box" support than any other commodity. Yet, the precision of these estimates suffers from the lack of transparency imposed by the gate price system. Current negotiations in the WTO about a new multilateral agreement on agricultural trade may lead to changes in Japan's import regime, with lower and more transparent trade barriers, and to new disciplines on domestic support to hog farmers. Such changes are likely to benefit Japan's consumers and foreign pork producers.

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**Appendix table 1—Japanese average pork carcass prices**

	JFY 1995	JFY 1996	JFY 1997	JFY 1998	JFY 1999	JFY 2000	JFY 2001
	<i>Yen per kilogram</i>						
<b>Japan fiscal year (Apr. - Mar.)</b>							
Stabilization Price							
Upper Price	525	515	510	505	495	485	480
Lower Price	400	390	385	380	370	365	365
<b>Tokyo market</b>							
Excellent Grade	474	485	482	454	442	439	
Medium Grade	442	453	446	419	393	389	
Average Grade	400	408	406	378	346	335	
<b>Osaka market</b>							
Excellent Grade	477	498	492	454	457	436	
Medium Grade	452	467	465	428	424	409	
Average Grade	388	395	413	364	354	345	

Source: Agriculture and Livestock Industries Corporation (ALIC).

**Appendix table 2—Japanese pork safeguard trigger levels and results for JFY 1995 - JFY 2002**

Metric tons				
JFY 1995	Trigger Levels	Qtr. Total	Cum. Total	Amount above or below trigger
I (Apr. - June)	146,965	142,727	142,727	-4,238
I - II (Apr. - Sep.)	286,215	158,424	301,151	14,936
SG triggered for Nov. 1, 1995 - Mar. 31, 1996				
I - III (Apr. - Dec.)	440,494	168,540	469,691	
I - IV (Apr. - Mar.)	567,029	66,856	536,547	-30,482
SSG	516,674		536,560	19,873
Note: SSG trigger level includes live pigs and pork meat.				
JFY 1996	Trigger Levels	Qtr. Total	Cum. Total	Amount above or below trigger
I (Apr. - June)	152,488	373,184	373,184	220,696
SG triggered for July 1, 1996 - Mar. 31, 1997				
II (Apr. - Sep.)	311,736	97,842	471,026	
III (Apr. - Dec.)	482,268	117,182	588,208	
IV (Apr. - Mar.)	594,000	77,388	665,596	71,596
Annual SG triggered for Apr. 1, 1996 - June 30, 1997				
SSG	537,199		665,635	128,436
SSG in effect from Jan. 1 - Mar. 31, 1997				
Note: Imports for April - May in 1996 surged as the SG in place since November 1, 1995 was lifted March 31, 1996.				
JFY 1997	Trigger Levels	Qtr. Total	Cum. Total	Amount above or below trigger
I (Apr. - June)	254,431	94,698	94,698	-159,733
I - II (Apr. - Sep.)	407,643	240,733	335,431	-72,212
I - III (Apr. - Dec.)	575,268	100,951	436,382	-138,886
I - IV (Apr. - Mar.)	677,074	83,593	519,975	-157,099
SSG	626,576		543,437	-83,139
Note: Largely owing to import ban imposed on Taiwan pork due to FMD outbreak in the spring, no SG triggered during July - Sept. 1997.				
JFY 1998	Trigger Levels	Qtr. Total	Cum. Total	Amount above or below trigger
I (Apr. - June)	242,209	131,498	131,498	-110,711
I - II (Apr. - Sep.)	439,345	138,937	270,435	-168,910
I - III (Apr. - Dec.)	592,726	153,000	423,435	-169,291
I - IV (Apr. - Mar.)	683,104	124,693	548,128	-134,976
SSG	612,854		548,167	-64,687
JFY 1999	Trigger Levels	Qtr. Total	Cum. Total	Amount above or below trigger
I (Apr. - June)	237,754	183,694	183,694	-54,060
I - II (Apr. - Sep.)	427,168	147,952	331,646	-95,522
I - III (Apr. - Dec.)	574,385	146,149	477,795	-96,590
I - IV (Apr. - Mar.)	687,703	178,033	655,828	-31,875
SSG	591,350		665,870	74,520
JFY 2000	Trigger Levels	Qtr. Total	Cum. Total	Amount above or below trigger
I (Apr. - June)	162,590	148,296	148,296	-14,294
I - II (Apr. - Sep.)	371,880	162,007	310,303	-61,577
I - III (Apr. - Dec.)	530,586	166,054	476,357	-54,229
I - IV (Apr. - Mar.)	683,826	177,997	654,354	-29,472
SSG	605,207		654,362	49,155
Note: Imports of Korean pork were terminated in early 2000 due to FMD outbreak.				
JFY 2001	Trigger Levels	Qtr. Total	Cum. Total	Amount above or below trigger
I (Apr. - June)	183,850	189,955	189,955	6,105
Pork SG triggered for Aug. 1, 2001 - Mar. 31, 2002				
I - II (Apr. - Sep.)	361,914	160,077	350,032	
I - III (Apr. - Dec.)	546,449	183,907	533,939	
I - IV (Apr. - Mar.)	737,133	185,621	719,560	-17,573
SSG	636,373		709,308	72,935
Note: Imports of pork from several EU countries were terminated early 2001 due to FMD outbreak.				
JFY 2002	Trigger Levels	Qtr. Total	Cum. Total	Amount above or below trigger
I (Apr. - June)	207,038	218,151	218,151	11,113
Pork SG triggered for Aug. 1, 2002 - Mar. 31, 2003				
I - II (Apr. - Sep.)	393,487	204,067	422,218	
I - III (Apr. - Dec.)	590,281	NA	NA	NA
I - IV (Apr. - Mar.)	801,163	NA	NA	NA
SSG	715,971			NA

Notes: SG = safeguard provided for in side letter to the Uruguay Round Agreement on Agriculture (applies only to gate price).

SSG = special safeguard provided for in article 5 of the Uruguay Round Agreement on Agriculture (applies only to the tariff).

JFY = Japan fiscal year, from April 1 through the next March 31. For example, JFY 2002 is April 1, 2002-March 31, 2003.

FMD = foot-and-mouth disease.

NA = not available.

Source: Ministry of Finance.