

Beef in Japan: The Challenge for United States Exports

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Introduction

Japan has emerged as a very important market for U.S. beef and veal products importing over 200,000 metric tons valued at approximately \$1.1 billion dollars in 1988.¹

The Japanese market for beef has come in for intense interest by beef exporting countries. The potential for expansion in exports is highlighted by the low Japanese per capita consumption of beef, preference for highly marbled beef, high and growing income, and a phased relaxation of quotas and other trade constraints for beef. The removal of quotas in 1990, to be replaced with higher tariffs and direct negotiations between Japanese importing companies and exporters, promises easier access to the Japanese market.

However, this is an uncharted area of demand. Will exporters be able to sell from four to ten times as much beef to the Japanese as some are predicting? What will happen to wholesale and retail beef prices in Japan after 1990? Will exporting countries produce the complete range of types of beef desired by

Japanese consumers? Will Japanese retailers change from using carcass beef to boxed beef? Will Japanese consumers change their diets to include substantially more beef? These questions are explored in this paper and several suggestions for action by U.S. beef exporters are presented.

The Japanese Diet

The Japanese people do not have a long history as a meat consuming nation. Fifty years ago the Japanese consumed almost no meat and beef consumption in particular was restricted on religious grounds. However, there has been a gradual change in the past fifty years and meat products (including poultry) have become an important food item in the Japanese diet. The daily intake of all meat products has increased from an average of 12 grams per day in 1955 to 69 grams in 1987 (Table 1). During this same period when meat consumption increased by nearly 700 percent, average daily per capita rice consumption fell from 347 grams to 209. Prior to the 1960s, fluid milk products were not a major item in the Japanese diet, but milk consumption has increased dramatically from 49

grams per day in 1965 to 112 in 1987. This very rapid increase in fluid milk consumption has resulted in a large domestic dairy industry which produces substantial numbers of dairy animals which are fed to heavy weights and in 1988 made up the largest source of beef marketed.

Fish has traditionally been an important protein source in the Japanese diet. Per capita fish consumption increased from 76 grams per day in 1965 to 93 grams in 1972 and thereafter stabilized at this level.

The Japanese diet has shown a remarkable tendency to stay below 2,300 kilo calories per day per person. The 2,053 level of 1987 is in striking contrast to diets of Western countries which often average 50 to 80 percent higher caloric intake. The 2,053 figure also contradicts estimates by several Western experts of more than a decade ago when they were predicting a Japanese diet greater than 3,000 kilo calories per day by 1990.

The plus 3,000 kilo calorie typical diet forecast was based on the mistaken assumption that as per capita incomes of the Japanese people increased, they would move toward Western-style diets. This clearly has not been the situation. One explanation offered is that the Japanese population on average is aging rapidly. Individuals in their older years tend to consume less than they did in their younger days. The mean average age of the Japanese population is expected to increase further during the decade of the 1990s. Therefore, one should not expect much, if any, increase in the total average per capita intake of food.

Even though meat has become an important item in the Japanese diet, it is rarely used as the main course for Japanese meals prepared at home. The Japanese tend to use rice and vegetables to "fill their stomachs." Meats and fish are used as side dishes or as flavorings for other dishes. The Japanese eat western style steaks and hamburgers at restaurants, but these dishes are rarely prepared in the home.

The figures in Table 1 suggest that total per capita intake of meat may have stabilized as long ago as 1972. If this trend continues into the 1990s, increases in the demand for any one meat product may have to be at the expense of a competing meat product. More specifically, if beef consumption is going to increase significantly as a result of trade liberalization, the consumption of other meats will be expected to decline.

The Japanese Meat Supply

Pork is the single largest source of meat in Japan with domestic production and imports totaling nearly two million metric tons of carcass weight in 1987 (Figure 1). Poultry at approximately 1,600,000 metric tons is the second most important meat product followed by beef at nearly 850,000 metric tons. Sheep meat and horse meat are not major items.

Trends in Japanese Imports of Meats

Japanese imports of meat have changed dramatically since 1978 (Figure 2). Pork imports which have not been subject to import quotas increased by 300 percent between 1978 and 1988 and beef by 250 percent or nearly 300 percent if beef offals are included. During this same period sheep meat imports fell by more than 50 percent.

Retail prices of beef in Japan are high relative to prices for other meats because of import quotas. If beef prices fall after trade liberalization in 1991, then one might expect some downward pressure on pork and sheep meat imports.

The Japanese Beef Quota System

Japan has protected its domestic beef industry from lower cost imported beef through tariffs and import quotas. The importation of beef for the most part is administered by the Livestock Industry Promotion Corporation (LIPC), a quasi-government agency. All imports of beef have to go through LIPC approved Japanese trading companies. Currently, the tariff is 25 percent and the annual quota for the Japanese fiscal year ending on March 30, 1988, was 214,000 metric tons. A common complaint by beef exporting countries such as the United States and Australia has been the inability of beef exporting firms to deal directly with Japanese end-users. Eighty percent of the imported beef is directly under the control of the LIPC. Until very recently, the LIPC's principal method for purchasing beef consisted of calling for bids on tender offers. It has been argued, probably with good cause, that the LIPC objective was a balancing act between trying to satisfy Japanese meat buyers, domestic beef producers, and exporting countries, each trying to achieve different goals. The final result has been heavy emphasis on imports of low value cuts in frozen form. This allowed the LIPC to meet the quota requirements with minimum impact on prices received by domestic producers.

JAPAN'S MEAT SUPPLY

1987

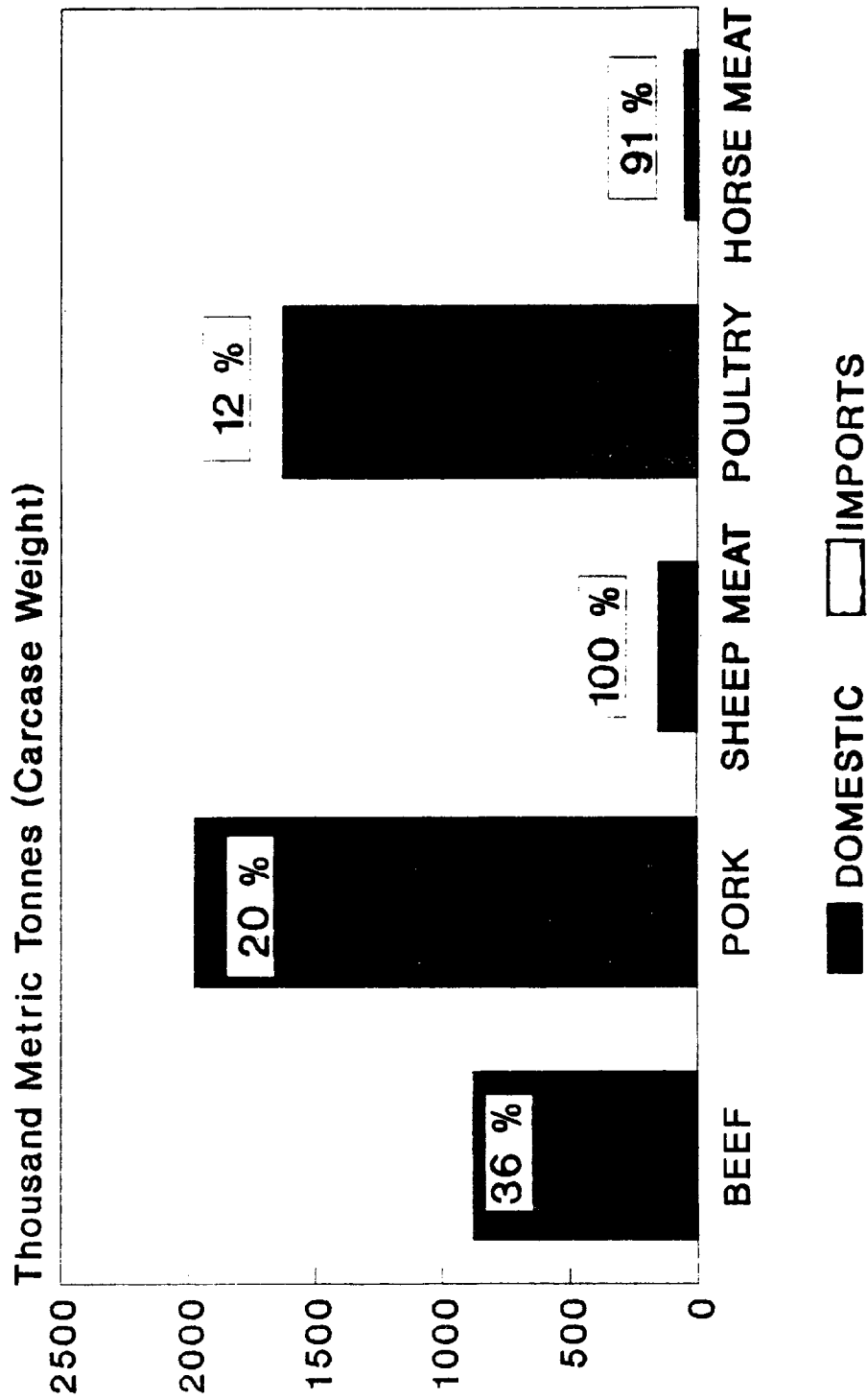


FIGURE 1

JAPANESE IMPORTS OF MEATS

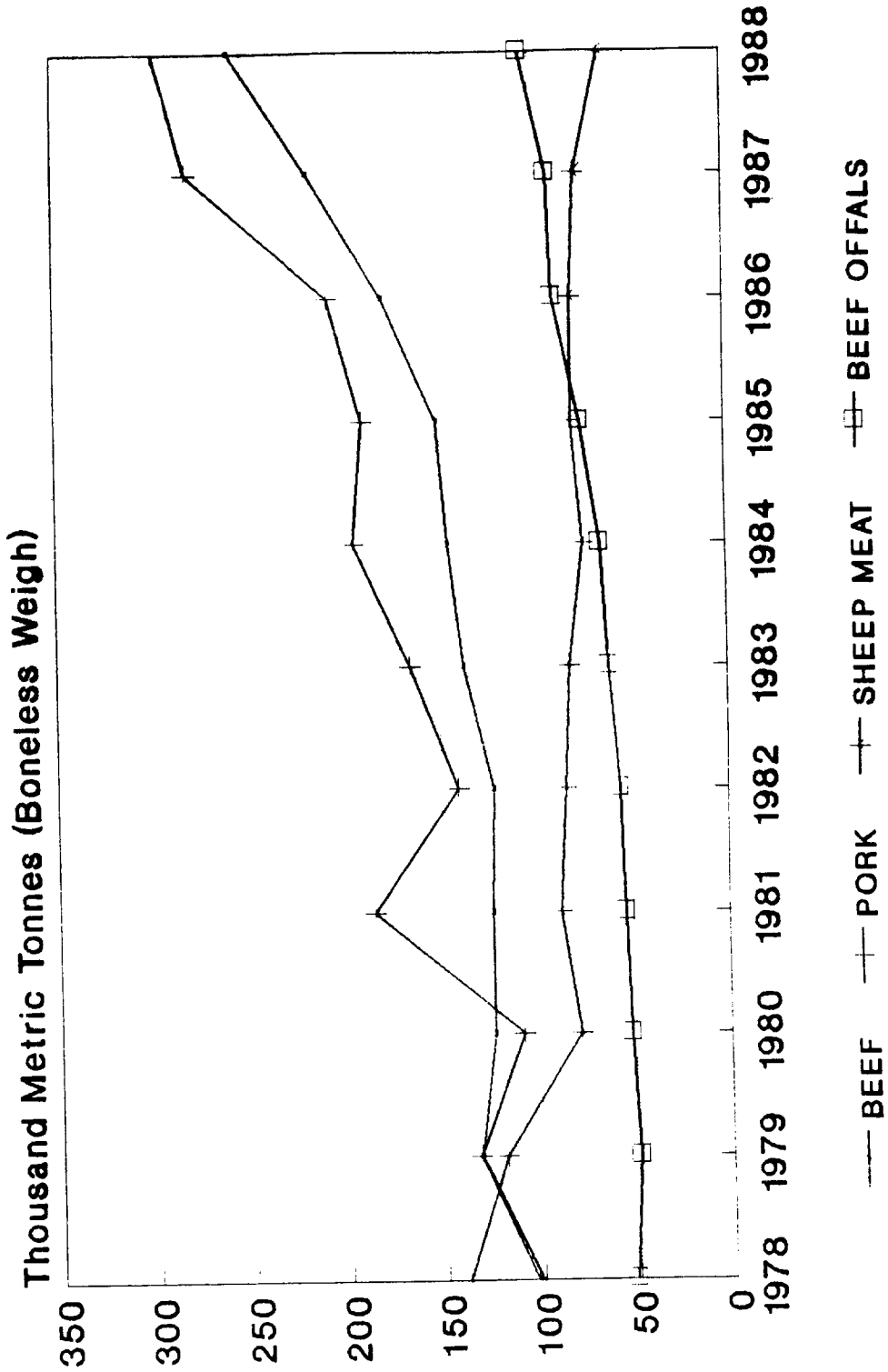


FIGURE 2

Table 1

Daily Food and Caloric Intake
Japan Average, 1955 to 1987

Year	Rice	Fish	Meats	Milk	Dairy products	Fruits	Energy
1955	347	77	12	3	11	57	2,104
1965	350	76	30	49	9	59	2,184
1972	275	93	71	89	7	169	2,279
1980	226	93	68	106	7	155	2,119
1987	209	93	69	112	9	138	2,053

SOURCE: Survey Division, Minister's Secretariat, *Food Balance Sheet*, various issues.

The LIPC kept domestic wholesale beef prices above world market prices by purchasing at world prices, mostly from Australia and North America, and reselling at the higher prices in the Japanese domestic market.

The Special Case for Beef Offals

Specified products from beef animals classified as offals under the Japanese tariff laws are not subject to the quota system and enjoy a lower tariff of 15 percent. Thick skirts, thin skirts from Australia, and hanging tender and outside skirts from the United States are among the important items in this category.

The favorable treatment of beef offals relative to beef cuts classified as beef, even though they are close substitutes for many primal cuts classified as beef under the quota, has given rise to a large trade in beef offals. Japan imported nearly 80,000 metric tons of beef offals in the fiscal year ending on March 30, 1989, with skirt meats sourced in the United States being the major item. The offal trade is nearly 40 percent of the beef trade in volume terms and even greater in dollar value. However, growth in the beef offal trade is constrained by product availability since more than 90 percent of the skirt meat produced in Australia and North America is currently being exported to Japan.

The 1988 Beef Agreements

In August of 1988, Japan announced that new agreements regulating beef imports had been reached with Australia and the United States. Under the new agreements, the tonnage quotas would be abolished starting April 1, 1991. The 25 percent tariff would remain intact until April 1, 1991 and then increased to 70 percent for one year and falling by 10 percent per year until reaching 50 percent for the fiscal year starting April 1, 1993. Other important features of the agreements were an increase of tonnage quotas by 60,000 metric tons annually starting April 1, 1988, an increase in the percentage of beef sold under the Simultaneous Buy-Sell (SBS) system, and the elimination of LIPC involvement in beef imports as of April 1, 1991.

The 1988 beef agreements were historical in terms of their expected impact on beef trade. The 60,000 metric ton annual increase in quotas represented annual growth of about 30 percent in beef imports for the 1988-89 fiscal year. The increase in the SBS allocation greatly facilitates matching of Japanese market requirements with products imported and the eventual elimination of LIPC involvement will allow market forces to allocate imports without government interference.

Japanese Beef Market - 1988

Approximately 60 percent of the nearly 653,000 metric tons of beef offered in the Japanese market in 1988 (primal cut basis) was from domestic animals (Table 2). Domestic dairy

consisting of fed steers and heifers made up the largest segment of the market with nearly 270,000 metric tons, or slightly more than 40 percent of the total. Wagyu, the Japanese domestic beef breed, imports from Australia and beef sources from the United States had significant market shares ranging from 16 percent for the United States to nearly 21 percent for Australia. Domestic production combined with beef sources in Australia and the United States controlled over 97 percent of the total market volume in 1988. The large market shares controlled by Australia and the United States were greatly influenced by the way the quota system was administered. In the future, Australia and the United States will have increased competition for the Japanese market from Canada, New Zealand and other countries meeting the Japanese cattle health standards.

Table 2

Japanese Beef Marketings -
Sources of Supply 1988,
Primal Cut Weights

Source	Metric tons	(%)
Domestic Wagyu	117,060	(17.9)
Domestic Dairy	269,607	(41.3)
Domestic Other	8,922	(1.4)
United States	105,584	(16.2)
Australia	134,147	(20.6)
Other	17,309	(2.7)
Total	652,629	(100.0)

SOURCE: Custom Bureau, Ministry of Finance, Japan, February 1989.

Changes in Market Shares by Importing Countries

Although Australia exported nearly 30,000 more metric tons of beef to Japan in 1988 than did the United States (not counting beef offals), Australia has been losing relative market share (Table 3). Figures in Table 3 do not include beef offals. If beef offals are included, beef sources in the United States exceeded Australia in volume and dollar value in 1988. Beef sources in the

United States increased by nearly 70,000 metric tons between 1983 and 1988 compared to approximately 43,000 sources from Australia. It can probably be safely argued that the relative large growth in U.S. market share was at least partly related to the way the quota system was operated. Most of the increases in the quota tonnages were in the category of beef from cattle fed grain diets and most of this was sourced from the United States. The rapid increase in beef from grain fed cattle sourced from Australia since the signing of the new beef agreement provides strong evidence that trends in market shares derived from past data may not be an accurate indicator of the future.

Table 3

Japanese Beef Imports,
By Country of Origin,
1983 to 1991

Country	1983	1988
	---metric tons ^a ---	
United States	37,312	105,584
Australia	90,874	134,147
Others	8,727	17,309
Total	136,913	257,040

^aBoneless primal cut basis.

SOURCE: Ministry of Agriculture, Forestry and Fisheries (MAFF). *The Meat Statistics in Japan*, Livestock Industry Bureau, various issues.

Estimates of the amount of beef that Japan will import after liberalization varies greatly, ranging from 650,000 to over 1,500,000 metric tons annually. During the last year of the quota system (ending March 31, 1991), Japan has agreed to import up to 394,000 metric tons.

The larger estimates of over 1,000,000 metric tons of imports by the mid to late 1990s are based on assumptions about the demand for beef in Japan that may not be accurate. The estimates are based on the assumption that retail prices of beef in Japan will fall substantially, to possibly 20 percent to 30 percent of their current level, after the quotas are removed. These high estimates also assume that there is a large "pent

up" demand for beef; and that once supplies of imported beef are abundant and prices fall, consumers will purchase more than twice as much beef with all of the increase being imported beef.

Those individuals expecting a large increase in the demand for imported beef also assume that imported beef is similar in quality to domestic beef and as such is a close substitute. This may not be the case. Imported beef from Australia and North America, for the most part, is much lower in quality according to Japanese grading standards than domestic beef and as such may not be a close substitute for domestic beef.

Given the likelihood that Japanese consumers will not rapidly change their diets to include considerably more meat, the substantial difference in quality between import and domestic beef, and the structure of the Japanese beef distribution system, a forecast in the range of 400,000 metric tons of imported beef may be reasonable for the 1991 fiscal year and possibly further into the future.

Japanese Domestic Beef

It might be fair to say that "beef is not beef" in Japan. There is an almost unbelievable wide range in beef quality offered to the Japanese consumer. Beef in Japan is not a uniform product or commodity as it tends to be in North America. This great difference has frequently led to many misconceptions about prices of beef in Japan relative to North America.

Marbling (intramuscular fat deposits) is a very important factor in Japanese beef quality. In general, the greater the amount of marbling, the higher the price. Other factors such as meat texture, flavor, color, and tenderness are also important. The highly marbled beef is favored for use in popular dishes such as *Sukiyaki*, where it is sliced almost paper thin and boiled in water for a very short time period. Lean beef tends to resemble leather when cooked in this fashion, but the highly marbled beef is very tasty and tender.

There are considerable differences between the top Wagyu grade and lower grades of Wagyu in the amount of marbling and often meat texture and color. Texture is important in tenderness and the ability to slice the meat in thin strips as commonly done in retail displays. Color is also an important element in the presentation of the product. Japanese consumers tend to purchase and eat with their "eyes" to a much greater extent than do American consumers.

There also are large differences in quality between domestic dairy steers and the higher grades of Wagyu even though they may be given the same quality grade under the new Japanese meat grading system. Most imported beef is judged by wholesale buyers to be lower in quality than the majority of dairy beef as evidenced by market prices.

Genetic factors and feeding practices probably explain the important differences between domestic Wagyu and dairy beef and between imported and domestic beef. Length of time on high energy grain diets varies widely with most Wagyu cattle being fed for nearly two years as compared to only four to seven months for U.S. Choice grade cattle. Given that Japanese dairy steers are typically fed grain diets for 10-14 months after they have reached a weight of over 500 pounds, it is not surprising that carcasses from domestic dairy cattle carry more marbling than most imported beef that has been produced to meet market specifications in the United States or Australia rather than those in Japan.

Wholesale Price Relationships for Domestic and Imported Beef

Prior to 1987 it was not possible to compare wholesale market prices of imported beef directly to prices of domestic Japanese beef. Most domestic beef is sold in wholesale markets in fresh chilled carcass form. Nearly all beef imported from the United States is frozen primal cuts. Australia shipped both fresh chilled and frozen beef but not fresh chilled carcass beef prior to November 1986.

In November of 1986, the LIPC started purchasing fresh chilled carcass beef in limited quantities from the United States and Australia. This practice continues today. The carcasses are shipped by air and sold in the Japanese wholesale market. This market has grown rapidly from a little more than 500 metric tons in 1986 to over 15,000 metric tons in 1988, or about 5 percent of imported beef.

Most of the fresh chilled carcass beef sources from the United States and Australia are from older animals (30 to 40 months) fed grain diets for 300 or more days. It is not the same beef typically produced for domestic markets in either Australia or the United States. The approach has been to try to source imported beef with quality characteristics as close as possible to domestic Japanese beef.

The relative prices of carcass beef by type (source) and quality grade are shown in Table 4.

It is important to note that these are competitively determined Tokyo Wholesale market prices. They represent prices received by Japanese wholesalers from wholesale, retail, and institutional buyers. These are not LIPC purchase or resale prices. The purpose of this table is to illustrate how the Japanese wholesale market valued the long grain fed imported beef relative to domestic products available in the market in 1987.

Table 4

Weighted Average Wholesale Carcase Prices,
By Type and Quality Grade,
Tokyo 1987

Quality Grade	Wagyu	Dairy	Imported
	steer	steer	
	----(U.S. \$/cwt. ^a)----		
Supreme	942		
Superior	799		
1st	681	510	
2nd	584	400	
U.S. Prime ^b			381
U.S. Choice ^b			366
3rd	484	358	
AUs. Long Grain Fed ^b			326
Utility	338	248	
Average	636	379	

^aExchange rate at 146 yen/dollar.

^bNearly all of the carcasses were from cattle fed on high energy feedlot diets for at least 300 days.

SOURCES: Ministry of Agriculture, Forestry and Fisheries (MAFF), *The Meat Statistics in Japan*, Livestock Industry Bureau, various issues; and personal communications, Meat Division, Livestock Industry Promotion Corporation.

Top grade Wagyu commands extremely high prices but even first grade Wagyu carcass beef sold at prices nearly twice those of North American and Australian long grain fed beef. It is also interesting to note that nearly all dairy beef sold at prices considerably higher than

specially long grain fed imported beef. Data is not available to determine clearly if the price differences by quality grade and source of beef are directly related to physical product differences or partially a function of market institutional factors including a basic preference for domestic beef.

Unfortunately, it is not possible to compare directly wholesale market prices for regular U.S. Choice grade beef from cattle typically fed for 120 to 180 days and Australian Japanese Ox beef with Japanese domestic carcass beef since these quality grades are not offered for sale in carcass form. However, if these grades were offered for sale as carcass beef in the Tokyo wholesale market, the evidence indicates that prices below the \$300 (U.S.) per hundred pounds would prevail.

The relationship between prices of imported and domestic beef is further illustrated in Figure 3. The imported beef price series in Figure 3. The imported beef price series in Figure 3 is a weighted average of fresh chilled and frozen primal cuts from all sources and quality grades converted to a carcass equivalent basis. It is at best a "rough" measure, but it is useful in measuring relative changes over time. Since 1985, Wagyu prices have continued to increase while domestic dairy prices have remained relatively stable and imported beef has fluctuated but generally showed a decline. These price relationships have occurred over a period of time when the volume of imported beef has more than doubled. Despite the large increase in imported beef, Wagyu prices have continued to increase and domestic dairy prices have remained stable.

The logical conclusion to be drawn is that imported beef of the type solicited by LIPC under tender offers in the quota system, in general, is not a close substitute for domestic beef. Grass fed and short grain fed frozen or vacuum-packed beef from Australia, and frozen primal beef from the United States are different products than Wagyu and very highly marbled Japanese dairy beef.

Chilled Beef Imports by Japan

Prior to 1987 most chilled beef imported by Japan was sourced from Australia. Chilled beef imports from Australia in 1986 amounted to slightly more than 44,000 metric tons compared to only slightly more than 2,209 metric tons from the United States (Table 5). Nearly 25 percent of the 1986 total chilled beef sourced from the United States was a result of LIPC beginning to import fresh chilled carcass beef in late

Monthly Average Wholesale Prices, Carcass Basis, Tokyo Area

Yen per Kilogram (in natural log)

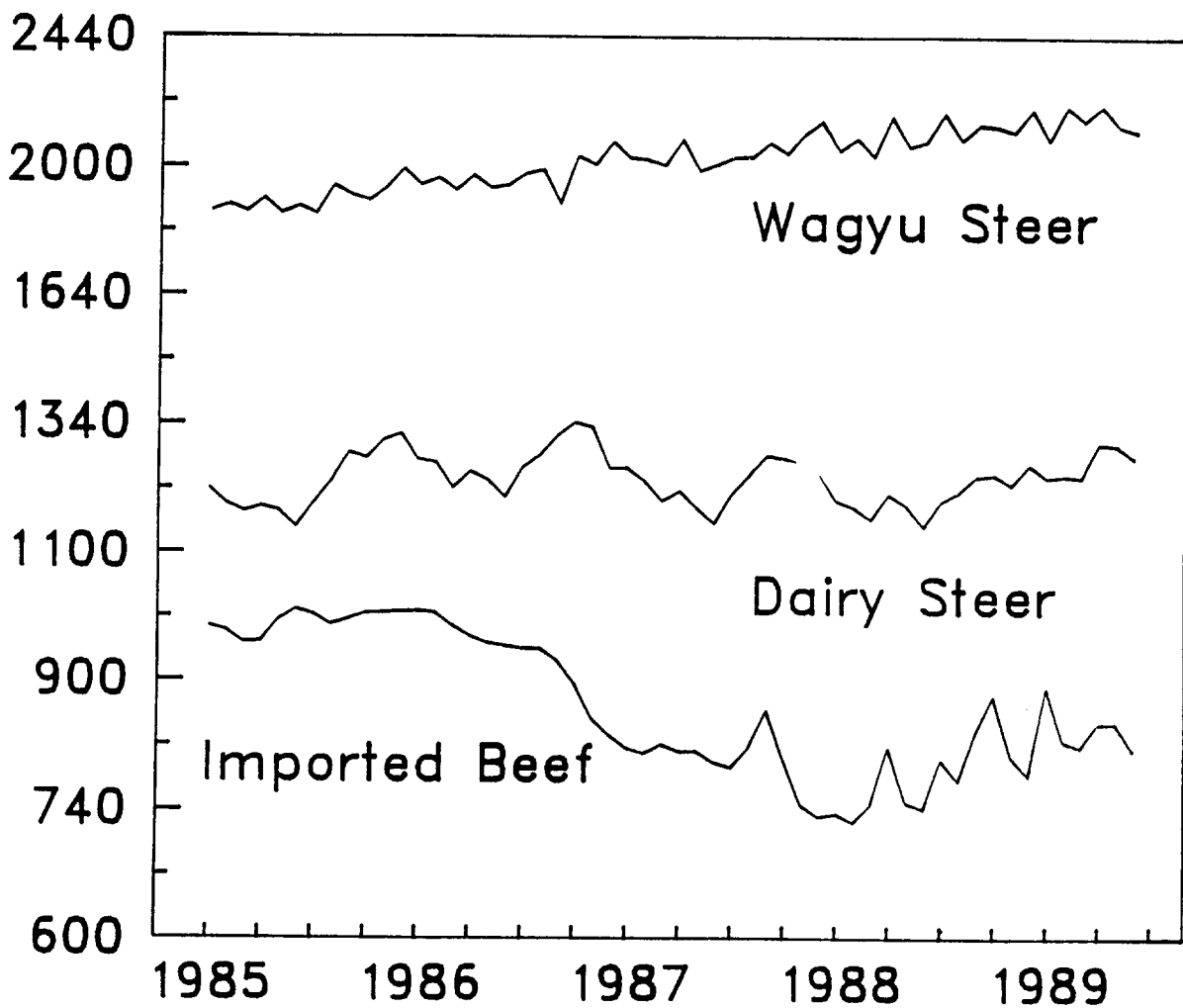


FIGURE 3

November in an attempt to hold down domestic price increases.

Table 5

Japanese Chilled Beef Imports
From the United States and Australia

	Air Freighted		Boneless Boxed	
	Carcass			
	-----metric tons-----			
<u>Jan-Dec</u>	<u>U.S.</u>	<u>Aus.</u>	<u>U.S.</u>	<u>Aus.</u>
1986	476	45	1,737	43,942
1987	4,227	2,455	2,270	49,815
1988	8,410	7,128	4,955	56,859
<u>Jan-May</u>				
1988	3,557	2,310	1,241	18,634
1989	3,618	4,386	3,621	28,662

Australia is still the major supplier of fresh chilled beef to Japan with 64,000 metric tons shipped in 1988. However, the United States has become an important supplier with tonnage shipped increasing from the 2,200 metric tons in 1986 to over 13,000 in 1988.

The majority of the chilled beef sourced in the United States at the current time is carcass beef shipped by air, whereas most of the Australian sourced chilled beef is boxed beef shipped by sea vessel, the major exception being the chilled carcass trade which is nearly all shipped by air.

The Australian meat packing industry has been successful in obtaining more than 60 days of shelf life with chilled boxed beef.² Japanese trade sources complain that the shelf life of the United States product rarely exceeds 30 to 35 days. A 35-day shelf life is generally adequate for the boxed beef trade in the United States where most beef is delivered to retail end-users within seven to ten days of slaughter. A 35-day shelf life may be adequate for the Japanese trade for air freighted beef, but it is not acceptable for shipments by sea which require about 15 days in transit.

The short shelf life of its product is a problem for the United States beef exporting industry

if it expects to remain a major supplier to Japan in the future. The Japanese beef trade prefers the fresh chilled product for most situations. It can be expected that the Japanese will demand a much greater percentage of total beef imports in the fresh chilled form after trade liberalization.

Air freighting may not be an economically viable option for shipping fresh chilled beef after trade liberalization. Air freight rates vary widely depending upon competition and the availability of back haul rates. Rates quoted range from as low as \$.55 per pound to over \$.85. This compares to \$.15 to \$.20 per pound for ocean freight. Air and ocean freight rates to Japan are similar for beef sourced in Australia and North America.

Wholesale imported beef prices in Japan can be expected to be highly competitive after trade liberalization. It is doubtful that air freighted beef can be price competitive with domestic production or ocean freighted beef. The differences in freight rates of at least \$.40 per pound is important, but this difference is greatly magnified by the higher tariff rate (70% in 1991) which is applied to the cost of beef delivered to Japan (including a tariff on the transportation cost). Even after the tariff decreases to 50 percent in 1993, the tariff paid on air freight rates will exceed the total transportation cost by sea.

A Closer Look at the Chilled Carcass Beef Trade

The air freighted chilled carcass trade that started very modestly in November of 1986 has grown rapidly. Nearly all of the 1986 carcasses came from the United States. Australia's market share grew from about 10 percent in 1986 to about 35 percent in 1987 to nearly 50 percent in 1988. If trends evident during the first five months of 1989 continue, Australia will surpass the United States as the major supplier.

This development might be considered surprising for Australia, a country not historically noted for having a large grain feeding industry. Even more noteworthy is the fact that the fresh chilled air freighted carcass beef trade is largely from animals fed for very long periods on high energy grain diets. The typical feeding periods range from 300 to over 360 days, vastly different from the 60- to 100-day grass-fed grain-finishing program common in Australia.

There is practically no available published information on volumes, costs, and prices on the 300- to 360-day grain feedlot programs in Australia or North America. Most of this trade is controlled by either totally owned Japanese

firms operating in Australia and North America, or Japanese joint venture arrangements with Australian and American cattle feedlots and beef packing companies.

The Japanese dominated fresh chilled carcass beef trade is trying to produce beef that is similar in quality characteristics to the better grading Japanese dairy steers and the middle to lower end of the Wagyu beef. A common program in Australia to achieve this quality of beef is to purchase 300 to 350 kg (660 to 770 pounds) live weight store cattle and feed for 300 to 360 days resulting in finished animals weighing 650 to 680 kg (1430 to 1500 pounds) yielding carcasses of 400 to 420 kg (880 to 925 pounds). Preferred breeds include Murray Grey, large frame Angus, and crosses showing large amounts of Murray Grey and/or Angus blood lines.

The highly marbled long grain fed beef that is sourced in North America tends to be obtained by one of three methods.

1. Purchase of yearling heifers and/or steers mostly of Angus breeding and fed on grass until nearly two years of age and weighing 350 to 380 kg (770 to 830 pounds). These cattle are then fed high energy feedlot diets for 300 to 360 days. These cattle are either owned by Japanese companies or controlled through joint venture and/or contract relationships.
2. Carefully selected animals that have been on feed for 170 to 200 days are fed for an additional 150 to 200 days. Cattle are selected on a visual appraisal basis; marketers look for animals that hopefully will continue to grow and achieve a high marbling score without excessive extraneous fat. These cattle are also either owned or controlled by Japanese interests.
3. Selected highly marbled USDA Prime grade carcasses from slaughtering plant coolers are purchased by Japanese buyers in the United States from the smaller packing plants and part are sold by the larger U.S. meat companies through their sales network in Japan. Apparently many of these highly marbled long-fed beef carcasses come from animals fed in smaller farm feedlots in the midwest and eastern states. These cattle are often described as feedlot accidents because they are excessively fat for the domestic U.S. market. Prior to the start of the Japanese carcass beef trade, these carcasses usually sold at discounted prices, but currently they often

bring a premium relative to the U.S. Choice grade.

The fresh chilled air freighted carcass beef trade is important to the United States beef industry in that it provides an opportunity to compare imported products with domestic beef under similar conditions. However, even though this practice has been going on for nearly three years, good data on comparisons of quality characteristics of imported beef with domestic beef is not available. This is an area where further investigations are needed.

Estimated Rates of Protection

The difference between the landed or c.i.f. price and the price of imported beef subsequently sold in the wholesale market can be used as a measure of the level of protection afforded by trade barriers. Rates of protection are of particular interest currently because they afford an estimate of the possible price drop of imported beef in the Japanese market after trade liberalization in 1991. Many North American and Australian industry and government spokesmen have been forecasting a substantial drop in Japanese wholesale and retail beef prices as a result of trade liberalization. The anticipated drop in prices is expected to stimulate consumption and thus imports of beef.

After the quotas for imported beef are removed in 1991, one would expect consumer prices of imported beef to be derived by adding tariffs, wholesale, and retail margins to landed (c.i.f.) prices. Many people expecting large drops in wholesale and retail prices for imported beef after trade liberalization in 1991 are apparently using inaccurate data on wholesale prices of imported beef in Japan. Since the Japanese government does not publish wholesale prices for imported beef, it is very difficult to get information on these prices. The Japanese government does publish prices for domestic carcass beef. However, these price series cannot be used for imported beef because of vast differences in product quality characteristics.

The authors have been able to assemble wholesale price series for imported beef by country of origin by the tedious method of using daily prices reported in trade journals and other sources. Based on this information, one would expect very little fall in Japanese wholesale market prices for imported beef if the quotas were eliminated immediately and the higher tariff rate were imposed.

Estimates of rates of protection for air freighted carcass beef imports range from 90 to 77 for beef sourced from the United States during the 1987-89 period (Table 6). Given these rates of protection, there is no room for wholesale prices to fall after adjusting c.i.f. prices for the 70 percent tariff in 1991, the tariff on the transportation cost and the margins required by importers. In fact, wholesale prices may have to rise, making this type of beef uncompetitive in the market in 1991. Based on estimates derived from the unregulated beef offal trade, importer margins might be expected to average around 20 percent after liberalization. Protection rates of 80 to 100 percent do not allow for much of a drop in wholesale prices on the Japanese domestic market even when the tariff drops to 50 percent in 1993.

Table 6

Estimated Rates of Protection for
Air Freighted Fresh Chilled
Longer Fed Carcasses
Sourced from the United States

Year	Wholesale Price ----- yen/kg -----	c.i.f. Price	Protection Percent ^a
1987	1,200	639	88
1988	1,214	639	90
1989 ^b	1,217	717	77

^aThe protection percent is derived by subtracting the c.i.f. price from the wholesale price and dividing the difference by the c.i.f. price. To arrive at a true protection price, importer margins must be subtracted.

^bJanuary through June.

Rates of protection for boxed beef imported from the United States (mostly frozen primal cuts) have ranged from 56 to 119 percent since 1983 (Table 7). Although the rate reached 119 percent in 1987, most of the time the rate averaged around 70 percent, the level of the tariff rate starting in 1991. Rates in the 60 to 80 percent range leave little room for price drops.

Table 7

Estimated Rates of Protection,
Frozen Boneless Grain Fed Beef
From the United States

Year	Wholesale Price ----- yen/kg -----	c.i.f. Price	Protection Percent ^a
1983	1,477	907	63
1984	1,454	859	69
1985	1,454	933	56
1986	1,405	641	119
1987	1,221	647	89
1988 ^b	1,118	715	56
1988-89 ^c	1,461	818	79

^aThe protection percent is derived by subtracting the c.i.f. price from the wholesale price and dividing the difference by the c.i.f. price. To arrive at a true protection price, importer margins must be subtracted.

^bJanuary through September. Slightly understated due to increases SBS imports of high value cuts.

^cOctober 88 through June 89. Weights adjusted for increased high value cuts.

Summary of Findings

Based on the limited information available at the current time, it might be reasonable to summarize the Japanese beef market from the perspective of the United States as a beef exporter as follows:

1. The per capita consumption of beef in Japan is likely to increase as a result of many factors including trade liberalization, but it is unrealistic to assume that per capita consumption will approach U.S. rates in the foreseeable future.
2. The quantity of beef imported in the mid 1990s may increase beyond the 394,000 metric tons of quota in 1990-91, the last year of the quota, but increases will likely be gradual after the quotas are eliminated.

3. The Japanese beef trade for most uses prefers fresh chilled beef products over frozen products and will be willing to pay higher prices for chilled beef.
4. A large segment of the Japanese wholesale beef trade prefers carcass beef to boxed primal cuts and acceptance of boxed beef by all segments of the trade may not occur rapidly. Therefore, imported beef will be at a competitive disadvantage to domestic beef in selected market segments.
5. Beef in Japan is not a uniform product, but rather a broad range of different products with each being particularly suited to specific uses.
6. Wholesale and retail prices of beef in Japan are not likely to fall substantially in 1991 when the quotas are eliminated because of a) the relatively high tariff (70%) and b) imported beef may not be a close substitute for most domestic beef. Increases in the quantity of imported beef of USDA Choice grade or grass-fed grain-finished beef from Australia on the Japanese market may have little effect on wholesale or retail prices of the higher quality domestic beef.

Implications for United States Beef Exporters

The following comments on the implications for U.S. beef exporters should be preceded by the warning that the beef market in Japan is in a transitional stage and rapid changes may occur in the next few years. What appears to be the situation today may change rapidly as the beef quota system is eliminated and the complex institutional arrangements long associated with the quota system are dismantled.

U.S. beef exporters should approach the Japanese market from the perspective that they are marketing a specialty product rather than a commodity. The Japanese market presents an opportunity to sell a wide range of beef products ranging from highly marbled expensive beef to relatively inexpensive lean beef. Exporters have the opportunity to specialize in the products and quality of beef that best fits their particular situations. A large part of the beef market in Japan is better described as a specialty market than as a commodity market.

Beef exporters should also be prepared to make the investment in the necessary technology and to adjust their operating practices to be able to ship fresh chilled boxed beef that has a shelf

life of at least 60 days and preferably up to 100 days. This may present a challenge to large U.S. packers where only 5 percent or less of total volume is for the Japanese export market.

The exporter is probably well advised to proceed slowly in the Japanese market being careful not to make large investments in production systems and/or marketing channels that may be wholly dependent upon the Japanese market. Potential new political policies, changes in currency exchange rates, and increased competition from Australia, Canada, and New Zealand are just some of the factors that are likely to increase risks at the time the market is adjusting to the new trade rules.

Most American meat companies are currently not well prepared to participate as wholesalers operating directly on the Japanese beef market. This may even be an appropriate comment for some of the U.S. meat companies that have been active in the Japanese market for several years. The quota system has placed a communication barrier between the beef exporter and the end-users and has also emphasized low value frozen commodities.

Endnotes

¹Tonnage and value figures in this article are from the Custom Bureau, Ministry of Finance, government of Japan. Japan often classifies beef and beef offal products differently than does the U.S. government. Hence, U.S. and Japanese figures often do not agree.

²Shelf life is defined as the time lapse from slaughter date.

