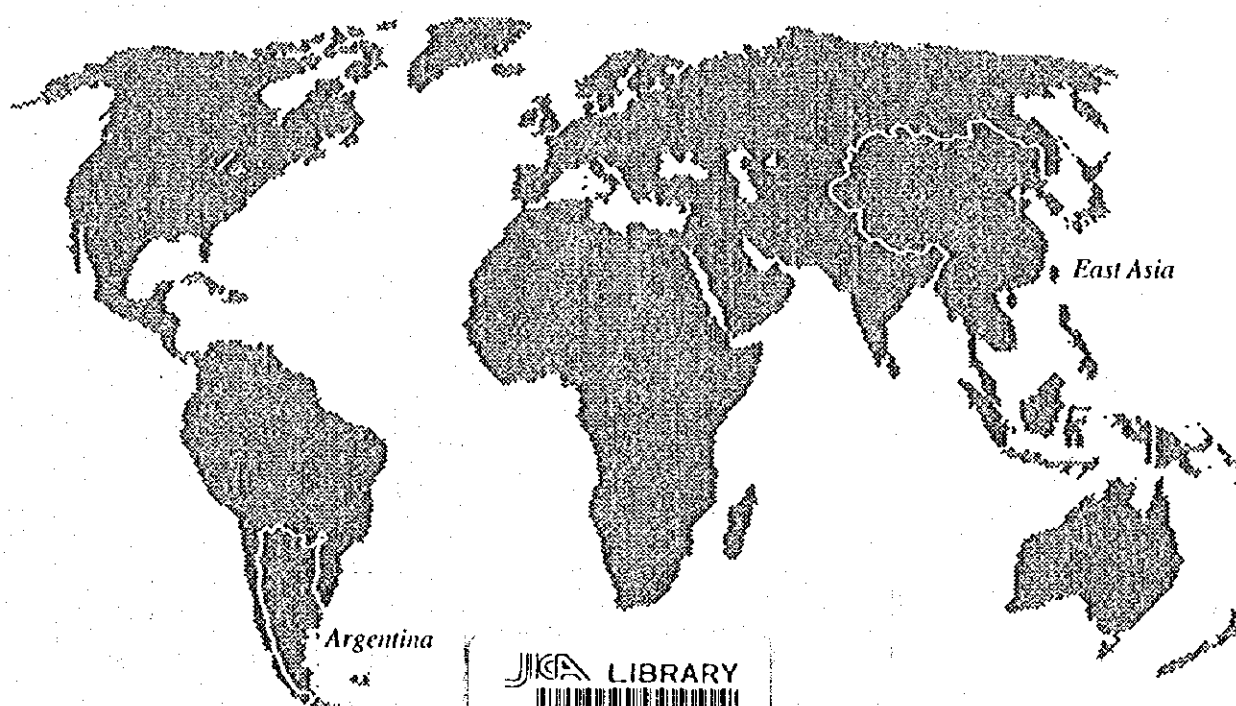


Secretariat of Trade and Investment
Ministry of Economy and Public Works and Services
The Argentine Republic

Japan International
Cooperation Agency

TOWARD A GREATER INTERDEPENDENCE BETWEEN ARGENTINA AND EAST ASIA: A NEW OPPORTUNITY FOR THE ARGENTINE ECONOMY

Final Report



JICA LIBRARY
J 1128499 [9]

Vol. 5 Expanding Export Capacity Through Improvement in Productivity and Quality

Study on Economic Development of
the Argentine Republic (The Second Study)

June 1996

International Development Center of Japan

P F S

J R

96-1(6/8)

Secretariat of Trade and Investment
Ministry of Economy and Public Works and Services
The Argentine Republic

Japan International
Cooperation Agency

**TOWARD A GREATER INTERDEPENDENCE BETWEEN
ARGENTINA AND EAST ASIA:
A NEW OPPORTUNITY
FOR THE ARGENTINE ECONOMY**

Final Report

**Vol. 5 Expanding Export Capacity Through
Improvement in Productivity and Quality**

Study on Economic Development of
the Argentine Republic (The Second Study)

June 1996

International Development Center of Japan

Country	Currency	Average Exchange Rate		
Argentina	Argentine Peso	Y1	=	US\$1.00
Australia	Australian Dollar	A\$10	=	US\$7.45
Belgium	Belgium Franc	BF.100	=	US\$3.39
Brazil	Real	R\$1	=	US\$1.03
Canada	Canadian Dollar	C\$10	=	US\$7.36
Chile	Chilean Peso	Ch\$1,000	=	US\$2.38
Hong Kong	Hong Kong Dollar	HK\$10	=	US\$1.29
Indonesia	Rupiah	Rp.10,000	=	US\$4.31
Italy	Lira	Lit.10,000	=	US\$6.26
Japan	Yen	¥100	=	US\$0.97
Korea	Won	W.1,000	=	US\$1.29
Malaysia	Ringgit	RM.10	=	US\$3.90
Mexico	Mexican Peso	N\$10	=	US\$1.33
Singapore	Singapore Dollar	S\$10	=	US\$7.09
South Africa	Rando	R.10	=	US\$2.73

Above exchange rate figures were calculated from the actual purchases of the currencies made by the Study Team members during the visits to those countries concerned in the period between June 1995 through March 1996.



1128499 [9]

TABLE OF CONTENTS

Vol. 5

Expanding Export Capacity Through Improvement in Productivity and Quality

Summary and Recommendations	1
 Chapter 1 Beef and Beef-based Products	
1.1 Scope of the Study	19
1.2 Market Access to Japan.....	20
1.2.1 Liberalization of Beef Trade.....	20
1.2.2 Market Access Situation.....	20
1.2.3 Foot and Mouth Diseases (FMD)	21
1.3 Market Situation in Japan	29
1.3.1 Market Size, Its Growth, Major Factors for the Growth and Future Prospect	29
1.3.2 Characteristics of the Market	30
1.3.3 Japan's Beef Production	36
1.3.4 Japan's Beef Import.....	36
1.3.5 Distribution of Imported Beef by Major User Sectors.....	39
1.3.6 Strategies to Penetrate into the Japanese Market	50
1.4 Capacity of the Export of the Argentine Beef to the Japanese Market.....	66
1.4.1 Demand and Supply Situation in Argentina.....	66
1.4.2 Meat Packing Industries in Argentina	67
1.4.3 Evaluation of the Competitiveness of the Argentine Beef.....	71
1.4.4 Measures to Enhance the Productivity of the Argentine Beef	81
1.5 Summary and Recommendations for Beef and Beef-based Products.....	91
1.5.1 Summary of Current Situation	91
1.5.2 Recommendations	91
Appendix to Chapter 1	95
1. Korea	95
2. Indonesia	101
3. Taiwan	107
 Chapter 2 Fresh Fruits and Fruit Juices	
2.1 Fresh Fruits	111
2.1.1 Scope of the Study.....	111
2.1.2 Current Situation of Market Access.....	111
2.1.3 Market Situation in Japan.....	115
2.1.4 Summary and Recommendations for Fresh Fruits.....	119

2.2	Fruit Juices	121
2.2.1	Definition and Scope of the Study	121
2.2.2	Current Situation of Market Access	122
2.2.3	Market for the Final Products in Japan	127
2.2.4	Concentrated Fruit Juice Market in Japan	133
2.2.5	Argentine Juice Industry	139
2.2.6	Recommendations	147
2.2.7	Summary and Recommendations for Fruits Juices	158
Appendix to Chapter 2 - (1) Fresh Fruits		161
1.	Korea	161
2.	Indonesia	164
3.	Taiwan	166
Appendix to Chapter 2 - (2) Fruit Juices		169
1.	Korea	169
2.	Indonesia	171
3.	Taiwan	173
 Chapter 3 Tomato-based Products		
3.1	Scope of the Study	175
3.2	Present Situation of Japanese Market	176
3.2.1	Market Access	176
3.2.2	Demand, Domestic Supply and Import	178
3.2.3	Distribution of the Imported Products	181
3.2.4	Origin of Import	184
3.2.5	Conditions of Exporting to Japan by Projects	186
3.2.6	Conditions of Exporting from Argentina to Japan	189
3.3	Present Situation of Argentine Tomato Industry	191
3.3.1	Outline of the Industry	191
3.3.2	Import and Export	192
3.3.3	Competitiveness of the Industry	193
3.3.4	Problems and Possibilities of Growing Tomatoes for Industrial Use	195
3.4	Sources for Improvement in Productivity and Quality	200
3.4.1	Total Cost Analysis and Sources of Cost Reduction	200
3.4.2	Sources for Quality Improvement	205
3.5	Recommendation on Revitalization of Argentine Tomato Industry ...	206
3.5.1	Consensus on Goal and Strategy	206
3.5.2	The Way to Revitalize the Agricultural Sector	208
3.5.3	The Way to Revitalize the Manufacturing Sector	210
3.5.4	Roles of Public Sector to Support Revitalization of the Tomato Industry	212
3.5.5	Forming a Close Relation with Japan	214
3.6	Summary and Recommendations for Tomato-based Products	215
3.6.1	Summary of Current Situation	215
3.6.2	Recommendations	215
Appendix to Chapter 3		219
1.	Korea	219
2.	Indonesia	221

3. Taiwan	223
Chapter 4 Squid-based Products	
4.1 Scope of the Study	225
4.2 Current Situation of Market Access	226
4.2.1 Law and Regulations	226
4.2.2 Tariff Rates for Squid and Squid-based Products	227
4.2.3 Import Quota for Squid	228
4.2.4 Import of Squid Under Import Quota	231
4.2.5 Market Access of <i>Daruma</i> and <i>Sakiika</i>	232
4.3 Market Situation of Squid-based Products in Japan	234
4.3.1 Demand and Supply of Squid	234
4.3.2 Market Size of Squid-based Products	235
4.3.3 Characteristics of Distribution of <i>Daruma</i> and <i>Sakiika</i> and Their Suppliers	237
4.3.4 Characteristics of <i>Sakiika</i> and Its Production.....	239
4.4 Present Situation of Catch and Processing of Squid in Argentina.....	242
4.5 Pre-feasibility Study of Producing <i>Daruma</i> and <i>Sakiika</i>	245
4.5.1 Outline of the Study	245
4.5.2 Cost Structures of <i>Daruma</i> and <i>Sakiika</i> Manufacturing.....	253
4.5.3 Sensitivity Analysis of <i>Daruma</i> Manufacturing	256
4.6 Basic Condition for Development of Fish Processing Industry in Argentina	258
4.6.1 Present Sanitary and Quality Situation	258
4.6.2 Development of New Products.....	260
4.7 Recommended Measures to be Taken for Export of Squid-based Products to the Japanese Market and Development of Fish Processing Industry in Argentina	261
4.7.1 Expanding the Export of Frozen Squid to Japan Under Import Quota	261
4.7.2 ' <i>Daruma</i> ' Project.....	261
4.7.3 Developing the Fish Processing Industry.....	262
4.8 Summary and Recommendations for Squid-based Products	264
4.8.1 Summary of Current Situation	264
4.8.2 Recommendations	264
Appendix to Chapter 4	267
1. Korea	267
2. Indonesia	269
3. Taiwan	271
4. Merluza-based Products.....	273

Summary and Recommendations

Summary and Recommendations

1. Purpose of the Study

This study attempts to suggest how to solve the problems which the Argentine exporters are likely to face when they try to begin or expand exports to the East Asian market. Four products were selected for case studies. They are beef, fresh fruits and fruit juices, tomato-based products and squid-based products. The East Asian economies covered in this study are Japan, Korea, Taiwan and Indonesia.

While the problems vary from one product to the other, the following three areas were specially studied. They are market access problems which agricultural and fishery products often face, marketing strategies which are key for the Argentine exporters that are new or late comers to the market, and problems concerning productivity and quality which the Argentine exporters should improve to meet the requirements of the market.

These four products have a common characteristic that they are based on natural resources which Argentina is blessed with. However, each has its own *uniqueness* when assessed from the viewpoint of access to the East Asian market.

Beef Argentina is highly competitive in the world market, but due to foot-and-mouth disease problems, Argentina has not yet materialized an export in major East Asian economies. Fresh fruits are also susceptible to phytosanitary problems. Therefore, the key issue for export of these two products is how to solve such problems.

Fruit juices The Argentine juice manufacturing industry is also competitive and already exports to Japan, although the market share is marginal. Therefore, the key is to develop sophisticated and deliberate marketing strategies to expand this share.

Tomato-based products Argentina has potential for export since Argentina is endowed with ecological and climatic conditions suitable for tomato production. However, at this moment, the Argentine industry can not compete due to the high production cost of tomatoes for industrial use. Therefore, the key issue for an export of the product is how to reactivate the primary industry that produces tomatoes as well as the tomato processing industry. The reactivation of the industry is essential to enhance competitiveness. Unless the productivity and quality of the primary and processing industries are improved, export of the product will not be materialized.

Squid-based products The Argentine fishing industry tries to export squid as higher value-added products. Argentina has been supplying its fresh squid, an abundant natural resource, to the East Asian market, but now wishes to export it with higher value added. Therefore, a key for export is how to design a strategy for new markets as well as how to produce the product with competitive prices and quality.

The variety of the four products renders the results of this study widely applicable to other products that have similar characteristics. For example, when Argentina faces a new market access problem on different products, e.g. vegetables, the results of this study will provide some hints on how to solve it. When one Argentine industry holds some share of the Japanese market but it wants to increase it, the industry will have some ideas how to realize the target from this study. When an Argentine industry is forced to restructure itself to regain its competitiveness in the Japanese market, the industry will have some ideas how to deal with it. When Argentina wants to export a higher value added product instead of a raw material, this study will also provide some useful information.

2. Characteristics of the Japanese Market

The East Asian market is expanding. Rapid economic growth has increased the number of people at the middle-income level who have significant purchasing power. Diversification of demand and the introduction of westernized lifestyles also contribute to the demand for food. Among the East Asian economies, the Japanese market is particularly important. The volume of import of the selected products is the largest in Japan. As the Japanese market is the most quality conscious, when Argentine products are able to meet the quality requirements of the Japanese market, their access to the other East Asian markets is facilitated. Thus, special attention has been paid to how the Japanese market can be penetrated.

For the expansion of exports to the Japanese market, two requirements should be met. The first is, needless to say, price competitiveness. Japan is basically a market of free competition, though some traditional and unique business practices exist and they may work as impediments for foreign exporters. In addition, since Japan is surrounded by many low-wage countries like China, Vietnam, Indonesia and Thailand, the Japanese importers can manufacture products in these countries and bring them to the Japanese market (so-called "outsourcing"). Exporters to the Japanese market are always forced to face fierce price competition. It is especially true of labor-intensive products which are difficult to differentiate from the others.

The other requirement is quality. The Japanese consumers are said to be very sensitive to the quality of products. Quality here means not only the various quality features of the product itself, such as physical condition and taste, but also its appearance, packaging style and delivery service and so on. In this sense, it is possible to call it *total quality* and this *total quality* matters Japanese consumer market.

However, while price and quality play an important role, another factor seems to be important in current trade. For the purpose of this report, we call it *whole product concept*. This concept includes, in addition to price and quality, business philosophy, reliability, capability of stable supply, and technological capability of suppliers. While the traditional concept of price and quality seems to affect the static competitiveness of a product, the whole product concept assesses the competitiveness from a more dynamic point of view. Today's competitiveness does not always ensure future competitiveness. There is a need not only for present competitiveness but also for the capability of management to maintain or enhance competitiveness. The reason why this concept is important is that Japanese consumers and importers emphasize the importance of long-term business relations. When the Japanese importers commit to buy a product, it implies their satisfaction not only with the price and quality of the product but also with the supplier. The importance of this concept is always kept in mind when marketing strategies are designed in this study.

While the results of this study are described in the subsequent chapters by product, the following section presents the major findings and proposals derived from the case studies.

3. Market Access Problems

(1) Nature of the problem

Market access problems have exerted a substantial impact on global trade. Argentina has market access problems not only with Japan, Korea, Taiwan, and Indonesia but also with other economies in East Asia. To deal with market access problems, it is very important to clarify what the *real* problem is. There seems to be two kinds of public market access problems. One is associated with direct import controls by the government such as prohibitions on imports or import quotas. The other is a sanitary or phytosanitary problem which results in a restriction on imports indirectly. The first problem is not so easy to solve because it is sometimes a political matter, and national interests are directly involved. These problems should be solved at the negotiation table

of the WTO or through bilateral negotiations. The second problem, however, can be positively addressed because it is basically technical in nature.

The market access problem on beef is basically a technical matter in the case of Japan. This is because the import of beef was completely liberalized in Japan in 1991, and at present any amount of beef can be imported by anybody at any time as long as an applicable tariff is duly paid. As for the sanitary problem, the Japanese government has adopted the Agreement on the Application of Sanitary and Phytosanitary Measures which became effective on January 1, 1995. The Japanese government is unable to maintain sanitary measures if they are higher levels of sanitary protection than the international standards unless there is a scientific justification. Furthermore, the government has complied with the concept of *risk analysis*. The Japanese government determines whether it begins to import from a new country such as Argentina based on the analysis. If the analysis shows that the risk is small enough to satisfy the Japanese government, Argentina can export its deboned beef. However, as the methodology of risk analysis has not been established yet, it takes some time before the concept is effectively utilized in the setting of sanitary and phytosanitary standards.

The market access problem on fresh fruits, specifically lemons, is purely a technical matter again. It is because so long as the Argentine government convinces the Japanese government of the effectiveness of cold treatment, Argentina can export to Japan. This process has already been pursued successfully by many countries including South Africa, Israel and Chile. Even the market access problem on squid is basically a technical matter.

An import quota itself is, needless to say, a political matter. The quota, however, is allocated to importers, not countries. The problem is that Argentina holds only a small share of exports under the quota. This is mainly because the quality of squid caught by the Argentine vessels is inferior to the ones caught by those of other countries. The low quality is attributed to an inappropriate handling and storage of squid on vessels.

(2) Approach to the solution

To solve technical market access problems, in general, it is necessary for the Argentine government to clarify the point of issue by listening carefully what its trade partner thinks and says. Since technical professionals are specialized in technical matters, they can easily exchange their views by using the same technical languages. Thus, this kind of problem can be solved if it is handled by technical professionals in due course. However, when the other kinds of people who are not very familiar with technical issues

are involved and they lead the discussion, miscommunication tends to occur and the problem becomes more difficult to solve. Language and cultural barriers complicate the issue furthermore. Cool, rational and logical discussion among the professionals is very important at least in the initial stage of negotiation. However, even if technical professionals are directly involved, misunderstanding can occur. To avoid such a case, it may be useful to ask for the support of local technical consultants.

(3) Establish a task force

In spite of tremendous efforts to develop a cold treatment to kill the Mediterranean flies, the Argentine government has not been successful in solving the technical problem associated with fresh fruits. The main reason would be a lack of communication between the Argentine and the Japanese governments as well as among the Argentine institutions concerned. To avoid this kind of lack of communication, it is recommended that technical experts responsible for the solution of the problem communicate directly with the Japanese counterparts face to face, and confirm that their technical work is on the right track at each key stage. So long as the target and methodology of approaching the problem are appropriately formulated, it is not very difficult for the relevant organizations to sort out the problems.

However, considering the following two factors, it is recommended to form a special and cross-sectoral task force to solve sanitary and phytosanitary problems. The role of the task force is very simple: to solve the problem as *efficiently and promptly* as possible. An environment should be established for enabling the task force to devote itself to solving the problem.

The first factor is that it is necessary to settle the matter as soon as possible since the Argentine government has already spent so many years on this problem. It is difficult for the current staff who are involved in this problem to settle it in a short time because they also have to deal with their own routine work. The other is a time factor. The solution of the market access problem with Japan, Korea, Taiwan, and Indonesia is expected to bring a significant benefit to Argentina, but it takes a long time to settle the problems. Considering this, it should be useful to organize a full time task force to tackle the problems. In order to minimize the cost of maintaining organization and to avoid bureaucratic inefficiency, the size of the task force should be as small as possible. The shortage of manpower may be supplemented by hiring local professional consultants or experts. Establishing a task force would also be effective to cope with the problem of miscommunication.

(4) Approach to the other Asian economies

The characteristics of sanitary and phytosanitary problems vary from country to country because each country has its own standards that depend on its own natural environment and the stages of economic development. At the same time, however, the problems have an international characteristic because the natural science and technology concerned are the same all over the world. Therefore, each country pays close attention to how other countries consider and deal with the problem. Korea and Taiwan are always watching how the USA and Japan react and make decisions on the problem. The Korean veterinarians keep close contact with the Japanese ones, and they make decisions based on such contacts. While the Japanese government makes a decision based on its own analysis in principle, it seems to respect USA's decision because the USA has abundant experiences and is advanced with research and empirical experiments in the sanitary and phytosanitary area.

As mentioned above, technical professionals are the key persons. They have many chances to meet and exchange opinions with technical professionals in other countries at international meetings and conventions. It is necessary for the Argentine professionals to attend these meetings frequently to enhance the communication with the other participants because good communication will be helpful in solving the problem.

(5) Strategies for non-technical market access problems

As stated, the current market access problems associated with beef, fresh fruits, and squid are - except for the import quota on squid - technical ones. However, even though they are basically technical, the other factors that derive from social and economic structure of a country could also be involved. What kind of approaches should be taken in this case ?

A *package deal* may be one of the approaches. In general, trade issues between two countries are not confined to one sector; the two countries are negotiating on various sectors. In this case, a package deal seems to have two advantages. The first is to maximize export potentials. If a negotiation between two countries is made separately by sector, each country tends to be reluctant to provide a special favor or concession to each other. In this case, the volume of trade does not increase. However, if the negotiation is undertaken in a consolidated manner, each country will be prepared to provide a special favor or concession to each other. The second is that there is also a possibility that the package deal speeds up the negotiation because both countries share the sense of *give and take*. Thus, it seems that a negotiation based on a package deal is preferable to sector-

wise negotiations, although it does not necessarily mean that the negotiation style is without shortcomings. Argentina may need to restructure the current organization for trade negotiations to introduce the concept of package deal.

(6) Market access problems in the private sector

It is sometimes mentioned that not only the public sector but also the private sector virtually restricts imports by means of so-called traditional *business practices*. A complicated distribution channel is often criticized as one of such practices. However, as far as the four products selected for this study are concerned, no restrictions have been found on imports in the private sector. Needless to say, it could happen that, depending on the product, exporters are advised to go through trading houses instead of selling their products directly to users. This is the case with juice concentrates. In this case, direct users prefer to import through trading houses. Reasons why the users prefer to use trading houses include that it is more convenient and economic; users can avoid the complicated process of damage claims and find out instantly a substitute supply source when the current supplier fails to supply the juice concentrates. Nevertheless, it does not mean that exporters have to go through trading houses. They can establish their own distribution channels. They are free to do so, and this is the marketing strategy often pursued by foreign companies when they enter the Japanese market.

4. Marketing Strategies

While market access problems are very critical, it does not mean that Argentina is automatically able to export when the problems are solved. Without efforts of sales promotion along with adequate marketing strategies, Argentina will not be successful in penetrating the East Asian market. For example, Japan's beef market is fundamentally a grain-fed beef market while the Argentine beef is grass-fed. How to sell the new type of beef to the Japanese consumers is a difficult problem for Argentina. The same can be said of fresh fruits. It is clear from the past experiences of the USA and Israel that Argentina will face difficulty finding a niche in the Japanese market if it fails to develop products whose taste is well accepted by Japanese consumers. The USA was not successful in selling apples to the Japanese market because it did not develop apples whose taste was well accepted by Japanese consumers. On the other hand, Israel was successful in adjusting grapefruit to meet the taste of Japanese consumers. In this context, it can be understood that appropriate marketing strategies are as important as the settlement of market access problems.

(1) Commitment to the Asian market

First of all, it is important that Argentine industry let importers be aware of its strong commitment to the East Asian market and become a stable and reliable supplier. The most troublesome case is that of an Argentine supplier ceasing to exports soon after the commencement of export because of the lack of profitability that comes from market fluctuation. Unstable supply can critically damage the reputation of the supplier. It is difficult for a supplier to gain the confidence of an importers, but it is much more difficult to *regain* that confidence once it is lost. In order to avoid such a risk, the industry has to make a long-term export business plan that includes a portfolio of the market and export promotion methods. The industry has to maintain a favorable financial conditions so that it can materialize capital investment when necessary.

(2) Need to differentiate

Since the Argentine industry is a *marginal* supplier or a newcomer to the East Asian market, it is necessary to differentiate the products from those of its competitors. This is relevant to the fruit juice manufacturing industry. One of the ways of differentiation is to promote the Argentine product as having *real value*. For example, the *real value* is derived when the product is produced in a very natural condition without any harm to the environment. In the case of food products, the concepts of "healthy, safe and environmentally sound" can become tools of *differentiation*. Organic juice is a good example. Since the Japanese consumers are very sensitive to quality, a guarantee of quality by a governmental institution could be considered another example of differentiation. A quick delivery in response to orders from clients through the establishment of a stockyard near the clients is another example of differentiation.

(3) Sell Argentine Culture

Argentina may try to sell the Argentine products not just as foodstuff but also as Argentine culture. In the case of beef, Japanese consumers are accustomed to grain-fed beef, but not grass-fed beef which is the main type of beef in Argentina. However, many Japanese people who have eaten the Argentine beef become ardent fans of the beef. The Argentine way of cooking and the variety of side dishes may contribute to this. It is suggested that Argentina sell its beef with other foodstuffs such as wine, vegetables, fruits, and pasta. In another words, it should not be the sale of the physical product of beef, but the sale of the *Argentine culture* associated with the foodstuffs.

(4) Selection of distribution channels in importing countries

The selection of good distribution channels in importing countries is very important. In the case of beef, as the Japanese market for Argentine grass-fed and frozen beef is not very large at present, it is necessary to make a great effort to expand the market with the support of powerful distributors who are capable of developing new markets.

(5) Approach to various markets simultaneously

When exporters formulate marketing strategies, they should deal with various markets in East Asia simultaneously, though the markets vary from one product to the other. In the case of beef, fresh fruits, and squid-based products, in addition to the Japanese, the Korean market is very important in East Asia because the size of the market is substantial. If such a marketing strategy is followed and the formation of joint-venture companies are shown to be practical for developing products in Argentina, it is recommended to form a joint ventures (JV) among Argentine and East Asian enterprises. It is worthy to consider the formation of a JV among the Argentine, Japanese, and Korean enterprises for squid-based products. In formulating the strategy, it is efficient to hire local consultants who are familiar with the market.

(6) Strengthening information gathering functions

The Argentine industry will need to strengthen its information gathering functions by setting up a liaison office or assigning liaison officers particularly in Japan. Since information is the fundamental source of efficient and right decision-making, exporters should be aggressive in information gathering even if it entails a significant amount of expenditure. Major functions would include the collection of information on the Japanese market, especially on technology and new products in Japan, and the dissemination of the information on the current situation of the Argentine industry to Japanese clients. Information to be conveyed is, among others, the profile of major suppliers, their business philosophy, soundness of their financial condition and the strength of the industry as a whole. The last one is important because it shows a wide base of the industry. By its nature, this issue is basically to be tackled by each exporter. However, considering that the expenses are significant and some information gathered is common to other companies in the same industry, it is recommended for exporters in the same industry to form a *consortium* and to share the costs, especially at the early stages of export promotion.

While the cost of the activities and maintenance of the office and liaison officers should be shared among exporters, it is necessary to minimize the cost as much as possible. One way is to review the effectiveness and to examine the continuance of the office after a certain number of years. Another way is to utilize local consultants as liaison officers. They know how to collect information on the Japanese market and how to distribute the information on the Argentine industry to the Japanese importers and/or users. In addition, it is required for the government to assist the exporters in producing the nation-level information. For example, information on the number of cattle, total crop area of tomatoes and the total amount of squids caught in Argentina is very important information for importers. The role of government is important in gathering market information especially for small and medium enterprises (SMEs) as they can not afford to do so due to financial and personnel limitations.

(7) Active sales promotion

Sales promotion should be strengthened to expand exports to the East Asian market. Except several products, Argentina is only a marginal supplier in the East Asian market. East Asian importers do not know much about Argentine products and their suppliers. Under the situation, it is necessary for the Argentine industry to strengthen its sales promotion activities to enter the market or to increase the market share. It is even true of the Argentine beef that is highly competitive. Though the US and Australian beef hold more than 90% market share combined in Japan, the US and Australian meat packers' sales promotion activities are always very active. In the future, for Argentine meat packers to thrust themselves into the Japanese market, they will have to prepare and implement more active and strong sales promotion programs than the US and Australian meat packers' program. Active promotion by exporters will lead to an increase in demand for the other Argentine products such as fresh fruits.

5. Improvement in Productivity and Quality

(1) A main source of improvement: raw material production

Compared to market access problems and marketing issues, problems on the supply side are not so serious concerning the four case study products, the exception being tomato-based products which, are not internationally competitive at present. With regard to the resource-based products, the Argentine industries, in general, seem to be internationally competitive in both productivity and quality. In fact, some aspects of meat packing plants in Argentina are rated as highly as those in the USA and Australia. However, this competitiveness does not readily translate into immediate entry into the

major East Asian markets. Considering the fierce competition in Japan in both price and quality, the Argentine meat packers need to become more competitive. Moreover, the meat packers will have to expand its production facilities when an export to Japan is realized.

A processed product to be exported goes through four different stages. They are production of raw materials, commercialization of the raw materials to a processing industry, processing, and the commercialization of the processed product for export. As for the two commercialization processes, it has been widely heard that '*Costo Argentino*' situations have been rapidly disappearing, though they are not yet completely wiped out. Especially, port services have improved, and transportation services also show improvements. Some of these improvements are attributed to the introduction of free competition. Therefore, the main issue in this section is how to improve productivity and quality in the production of raw materials and processing.

First of all, it is necessary to pay special attention to the importance of procurement of high-quality raw materials. While improvement in productivity and quality in a processing industry is, needless to say, very important, securing raw materials at reasonable prices and with the best quality is far more important. It is because the quality of raw materials directly influences the quality of the processed products. Since the raw materials are generally tradable, it is possible to import the best quality raw material if they are not available locally. However, there are raw materials that are physically tradable but economically not. Fresh tomatoes for industrial use and fresh fruits for juices are such cases. Their prices are too low to bear the transportation costs.

(2) Towards better relations between raw material suppliers and processing industries

To be able to procure high-quality raw materials all the time, it is necessary for a processing industry to build a good, close business relationship with the suppliers of raw materials. This is especially important when the suppliers of raw materials are not exposed to an international market and, therefore, are not subject to fierce competition.

Various ways of building a good relationship between farmers and processing industries have been tried. One multinational cereal company has tried for many years to build a good relationship by lending seeds, fertilizers and pesticides to their contract farmers and guaranteeing the purchase of their harvest at a fixed price. The company takes both price and production risks, while the price risk is hedged by the futures

market, and some portion of the production risk is transferred to principal banks of the company. One of exporting meat packers recently concluded a contract with a producers' association and has become a shareholder of the meat packer. Under the contract, the association supplies cattle to the meat packer, and the meat packer pays for the cattle depending on the quality. The meat packer also pays to the association a part of its profits which are obtained from its sales. Both parties are now in the same boat in the sense that they share the common interest of requiring high-quality raw materials. Business diversification by a processing industry (downstream) to a primary industry (upstream) or by a primary industry to a processing industry through the formation of a subsidiary or a joint venture, are other ways of building a good, close relationship between the two. There will be advantages and disadvantages in these ways. Which way is the most practical and effective in Argentina is not known yet. The answer will reveal itself through experience.

(3) Room for improvement in the processing industry

With respect to the productivity of the processing industries for three case study products other than squid-based products, there seems to be no serious defect. Productivity of the production lines in a narrow sense is standard, though old machinery and equipment are still used in the tomato processing industry. However, when other lines such as the packing line and the storage process are closely checked, there seems to be much room for improvement. This is especially true in the case of some meat packing plants.

A similar phenomenon is seen in quality control. It is standard in production lines, but there is some room for improvement in the control of fruit juice filling and the packing or storage process of the meat packers. In the fruit juice industry, a more strict risk control should be imposed on each process by introducing the Hazard Analysis - Critical Control Point system. The benefit of the system is not recognized unless some defects occur in a factory. However, since such a case is rather rare, people do not pay much attention to the importance of introducing the system. It is also necessary for the food processing industry to keep the factory neat and clean all the time, regardless of the areas, such as production, packing, and storage lines and administration offices. The Argentine industry still seems to be weak in this respect.

(4) Capital investments for export expansion

When production lines are designed mainly for the domestic market, a part of the facility has to be transformed or rearranged if the firm wants to export. This will require

new capital investments. Such a situation is seen in the meat packing industry. In the domestic market, beef is mainly distributed in carcass or quarter, while beef for export should be cut in pieces (boxed meat). Thus, domestic market-oriented meat packing plants are only equipped with the slaughtering and storage rooms. If such a plant aims to export, it should construct or expand the cutting and packing rooms. Even within the domestic market, it is expected that a greater amount of meat will be distributed in the form of boxed meat, which will require the plants to expand the cutting and packing sectors. Due to economic and sanitary factors these changes have taken place in many big markets such as the USA and Japan. It is expected that the change will also take place in the near future in Argentina.

Similarly, when the Argentine meat packing industry begins to export to the East Asian market, it will have to correspond to many varieties of orders: different sizes and weights of beef, packing size, packing style and so on. The industry will have to expand the investment in facilities of the cutting and packing lines. It would be necessary for the industry to make enough profit through improvement in productivity for future investment.

It has been confirmed that some local companies have acquired the technology or know-how necessary for improvement in productivity and quality, though the number of such companies is not so large. A fish processing firm in Puerto Madrin is one of them. The firm has excellent management skills in the catching and processing of merluza. They recognize the importance of the catch of high quality raw materials for the processing industry, and they know how to ensure such a catch. Transferring such management skills to other firms will be the key for the development of the fish processing industry in Argentina. It is recommended for the government to consider seriously the way to transfer such management skills to other companies before it requests foreign assistance.

(5) Further deregulation

As far as the selected four products are concerned, the impact of *Costo Argentino* is not very significant. This may be explained partly by the introduction of free competition which was brought about by deregulation. However, it does not necessarily mean that there is no necessity for further deregulation. Taking electricity as an example, the generation of electric power was privatized, but the distribution is not yet deregulated. The percentage share of electricity cost to the total cost in the selected processing industries ranges from 0.5 % in the squid processing industry to 9 % in the tomato processing industry. If this sector is deregulated, there is a chance of a decrease in

electricity costs. Transportation is another example. Transportation, as a share of costs for the whole process from raw materials to processing and export, ranges from 6% in the Argentine beef industry to 12% in the tomato industry. Due to accelerating competition among transportation companies, the tariff is declining. However, if the import of trucks is liberalized, the transportation cost can be further decreased. The main sources of the decrease would be depreciation and maintenance costs. If the cost of importing trucks decreases, transportation companies will be able to afford to buy new trucks within an adequate depreciation term, thus lowering the maintenance costs of trucks.

6. Role of the Government

It should be made clear what kind of role the government is expected to play in an export expansion effort. In principle, the role of the government should be minimized as much as possible. While market access problems are basically the responsibility of the government, the private sector should take the initiative in marketing and improving productivity and quality. This is especially true in the case of products that are already competitive and widely exported such as beef and fruit juices.

There are some other areas where the government should be involved directly. In addition to the production of nation-level information and market information gathering as explained in 4. (6), research and development by SMEs on new technology, new products, new system, and sanitary and quality control should be supported by the public sector. This is because the output is considered a public good and SMEs can not afford this independently due to the lack of human and financial resources.

The role of the government, however, should be a *low profile*. Direct costs for export expansion, such as a cost of having liaison offices in Japan, should be borne by exporters themselves because they are the ones that benefit directly. When the government is required to contribute to a part of the expenditure, it is suggested that the government extends a soft loan for the expenditure and shall be repaid when the exporters succeed in export expansion.

7. Basic Conditions for Export Expansion

In concluding this chapter, more general and basic conditions for Argentina's export expansion to the East Asian market are discussed below:

(1) A new type of leaders in farming

First, the competition among suppliers of raw materials should be intensified. As for the competition in the processing industry, market forces will accelerate it and concentration will develop in the industry. It will result in an increase in productivity of the industry as a whole. It will make the industry more competitive. The effect of free competition has already begun to appear in some sectors such as the beef and tomato processing industries. However, as far as upstream sectors such as agriculture are concerned, the effect is not so dramatic as that in the processing industry due to its nature and, more importantly, *institutional framework*. It is free to trade agricultural products, but import pressure is not strong enough to accelerate the competition in comparison to manufactured products. Maintaining or enhancing the competitiveness of the primary sector is a key for Argentina. It is never an exaggeration to say that the possibility of export expansion depends on whether it is possible to build up a favorable chain between raw material suppliers and the processing industry.

In this regard, a very symbolic and impressive phenomenon has appeared in the production of tomatoes. According to the Tomato Products Manufacturers Association, the supply of tomatoes for industrial use in the future will derive from the following three sources, direct farming by the processing industry, traditional but efficient farmers in contract with the industry, and *agro-engineers*. The last source should be paid special attention because it is a completely new type of farming. Agro-engineers produce tomatoes with advanced industrial technology. In this sense, they are not farmers but engineers and industrialists. Since agricultural work is not a purely scientific endeavor, there will be some limit to such farming. However, it is important to bear in mind that a new wind is going to blow through the Argentine agricultural sector. There is a possibility that tomato farming will change dramatically, and that the tomato processing industry will regain its competitiveness in international markets. Taking account of the importance of this reform, the government is expected to provide support by creating an environment that would facilitate the emergence and development of agro-engineers.

Another important aspect of the emergence of new leaders in farming is that they are likely to initiate technological innovation in Argentina. Technological development and innovation are very crucial for economic development and export expansion. It is not an exaggeration to say that the achievement of stable economic development necessitates technological development and innovation. While technological development and innovation may take place in various industries in Argentina, the agricultural sector should lead other industries. This is because Argentina is one of the prominent agricultural

countries in the world, and therefore, should play a leadership role in the world's agricultural technology.

One of the salient characteristics that relate to the agro-engineers is that they introduce a concept of *management* to the farming. They manage the farming from seeding to harvesting with their scientific knowledge, technological devices and even corporate management techniques. This is already seen in cattle raising. Some producers have improved the productivity by introducing intensive farm management. They manage cattle with scientific knowledge and technology. If this kind of method is widely followed by the other sectors in the primary industry, it will become much more competitive.

(2) Entrepreneurship

Second, in order for Argentine industry to expand exports to a new market, the industry has to take a risk. Without risk, nothing happens. However, it is also important to minimize such risks. It is a fundamental question whether the Argentine industry has a strong will to export its products to the East Asian market. A manufacturer of tomato-based products expressed frankly that it is ready to expand its production capacity for export if the Japanese clients commit to purchase. A fruit juice producer stated that it does not expand its production facility for export because the Japanese market is uncertain. These statements may indicate that they are not in a position to take the risk of exporting to Japan. If most Argentine industries or companies share this attitude, it is very difficult for Argentina to expand exports to the East Asian market.

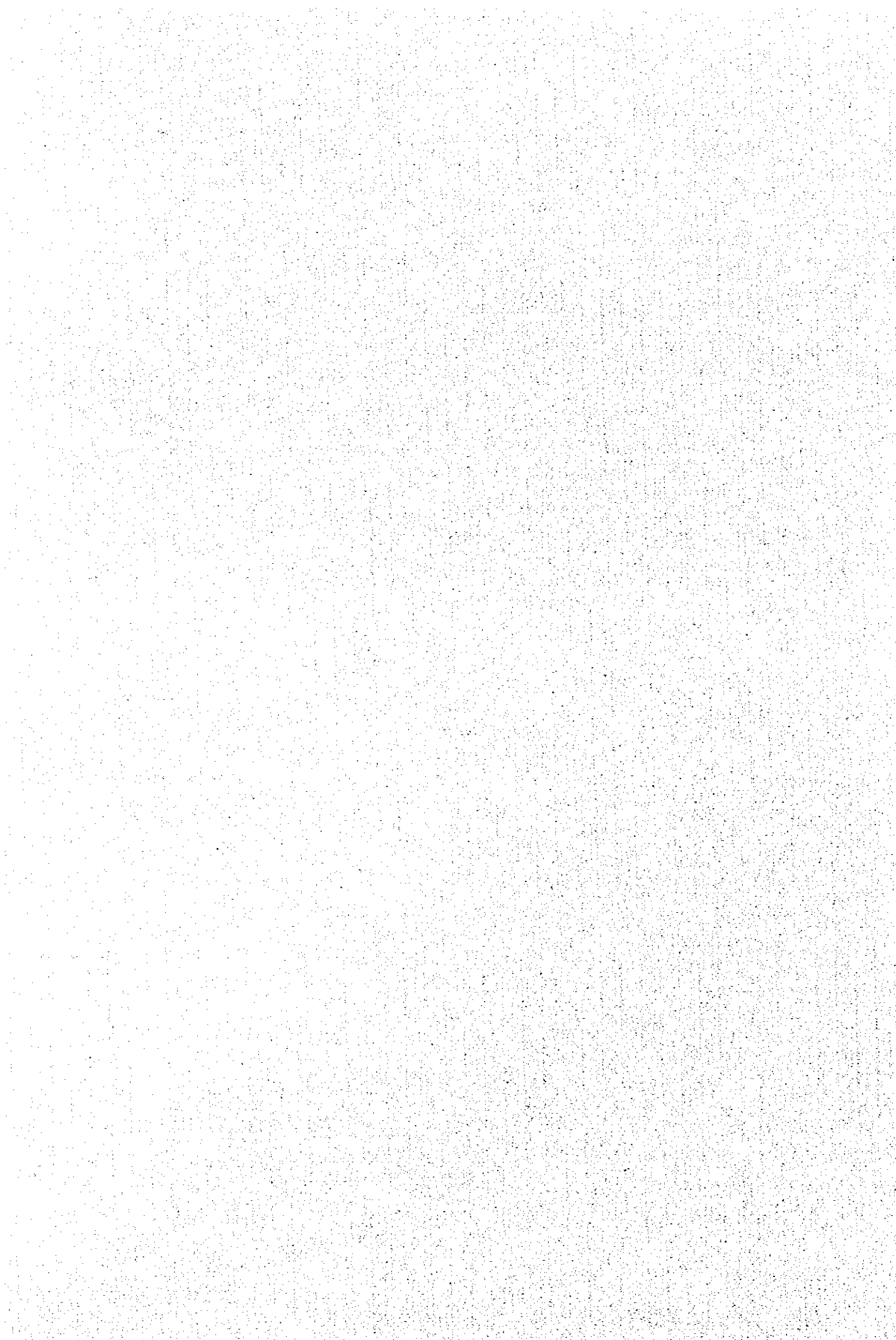
One way to minimize such a risk is to make a long-term corporate plan and to clarify the risk which the industry has to and can afford to take. *Strategic approach* is very important when the Argentine industry targets the East Asian market. In this regard, it can be said that the Argentine industry, in general, seems to be weak in long-term strategic thinking not only for exports, but also for domestic sales.

(3) The age of production managers

Third, the importance of *production* should be emphasized. Some Argentine intellectuals stated that financial managers used to be the most important and sales managers came next in the business circle. Under hyper-inflation and a closed economy, people did not pay much attention to the production because they could determine and quote the price based on the mark-up method. They were rather concerned with the terms of payment of raw materials; they tried to buy with a deferred payment and sell with an

advanced payment. This is what the financial managers had to do. While the importance of the role of the financial managers can not be denied even under the current stable prices and an open economy, production managers are as important as financial and sales managers, particularly in the case of export of manufactured products. Adherence to the good quality of products and high productivity in plant operations are very important for the development of industrialization. This adherence may be attained only when the role of production managers is properly evaluated and highly respected.

Chapter 1
Beef and Beef-based Products



1.1 Scope of the Study

Products to be covered in this study are chilled and frozen fresh beef. Japan classifies imported beef as shown in the following table. The size of overall beef market, at the wholesale level, was about US\$ 10 billion in 1994. Processed beef is not dealt with in this study because its market is relatively small compared to that of fresh beef.¹

Table V-1-1-1 Classification, Volume, and Value of Japan's Beef Import
(volume: ton, value: Japanese yen million)

HS	Items	CY	1993		1994	
			Volume	Value	Volume	Value
0201.10-000	Carcasses and half-carcasses of bovine animals, fresh or chilled		32	19	60	36
0201.20-010	Meat of bovine animals, quarter fresh or chilled		4,321	2,050	5,219	2,429
0201.20-090	Meat of bovine animals, cuts with bone in, excluding carcasses, half-carcasses and quarter, fresh or chilled		149	130	66	53
0201.30-010	Loin of bovine animals, boneless, fresh or chilled		66,064	67,710	82,836	81,389
0201.30-020	Chuck, clod and round of bovine animals boneless, fresh or chilled		155,880	68,401	187,347	79,681
0201.30-030	Brisket and plate of bovine animals, boneless, fresh or chilled		47,175	26,284	60,140	32,444
0201.30-090	Other meat of bovine animals, boneless, fresh or chilled		961	524	990	445
0202.10-000	Carcasses and half-carcasses of bovine animals, frozen		8	2	74	26
0202.20-010	Meat of bovine animals, quarter frozen		10	5	33	8
0202.20-090	Meat of bovine animals, cuts with bone in, excluding carcasses, half-carcasses and quarter, frozen		6,197	3,477	8,061	3,603
0202.30-010	Loin of bovine animals, boneless, frozen		30,096	30,127	31,157	28,436
0202.30-020	Chuck, clod and round of bovine animals boneless, frozen		56,950	20,971	59,371	19,997
0202.30-030	Brisket and plate of bovine animals, boneless, frozen		102,812	43,951	106,136	33,771
0202.30-090	Other meat of bovine animals, boneless, frozen		40,898	8,675	47,119	9,757
Grand total			511,553	272,326	588,609	292,075

Source: Japan Tariff Association, Japan Exports and Imports.

¹ The market size at the retail level of corned beef, a major form of processed beef, is about US\$ 93 million in 1993.

1.2 Market Access to Japan

1.2.1 Liberalization of Beef Trade

Since the import quota was eliminated and beef trade was liberalized in 1991, there has been no restriction for the importation of beef. Today any amount of beef can be imported by anybody at any time as long as an applicable tariff is duly paid. Currently imported beef accounts for approximately 60% of Japan's beef consumption. The figure is expected to rise to 70% by the year of 1997.

Although beef trade was liberalized, high tariff rates have been applied to the import of beef. The tariff rate for fresh beef was set at 70% in 1991. Revenue from the tariff is partly used to subsidize the Japanese cattle producers by Law Concerning Stabilization of Livestock Price (LCSLP). In 1993, the subsidy amounted to about US\$ 90 per beef cattle and US\$ 640 per dairy cattle, which may have undermined the competitiveness of imported beef.

The tariff rates, however, have been reduced and are subject to further decrease by 1.9% annually to 38.5% by the year of 2000. This decline indicates that the Japanese government is committed to continue the liberalization of beef trade.² LCSLP should be understood in this context; its role is not to support the financial viability of the Japanese livestock producers, but to alleviate the short-term impact of trade liberalization on the producers. The Japanese producers are deemed to be out of business by economic forces unless they create an innovative method to effectively compete with foreign suppliers.

Table V-1-2-1 Japan's Tariff Rates for Chilled and Frozen Beef

	FY3										(%)
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
Chilled and frozen beef	70.0	60.0	50.0	50.0	48.1	46.2	44.3	42.3	40.4	38.5	

Source: Customs and Tariff Bureau, Ministry of Finance, Annual Report

1.2.2 Market Access Situation

There is no implicit public nor private market access impediment to the beef trade in Japan. All the regulations are explicit. There is no business practices that would hamper a new entry, either. Distribution channels are short and simple, while they are sometimes long when the amount of beef of handling by a user is too small and needs to

² There is a safeguard mechanism in the case of rapid expansion of beef import. The tariff rate is restored at the level of 50% for the rest of the fiscal year when the growth of beef import exceeds by 17% over the previous year. The safeguard was actually implemented on frozen beef in August 1995.

³ FY is fiscal year. It is from April to March in Japan.

be consolidated with the beef for other users to become an appropriate handling volume. The transparency of the market access to Japan has been confirmed not only by the Japanese (government and the private sector) but also by foreign exporters such as the Australian and US firms. Neither the US nor Australia which has already obtained a large market share in Japan is collaborating with the Japanese government and beef importers to restrain the entry of new comers.

The beef market is not in monopoly nor in oligopoly. None of major beef importers such as trading houses, meat packers, and supermarkets has been able to dominate the distribution channels. It can be said that the US distribution channels are more restrictive than those in Japan in a sense that the channels are beginning to be dominated by a few major meat packers.

Free competition of Japan's beef market can be confirmed by a decline in the price of beef. The wholesale prices of beef have dropped nearly 20% since 1990. The decline in the wholesale price of beef exceeds that of all foods as shown in the following table. Price decline in imported beef is more prominent than that of all foods imported. Due to rapid price decline, many beef importers have withdrawn from the dealing of beef; the number of beef importers decreased from about 110 after the beef trade liberalization to 50~60 at present.

Table V-1-2-2 Wholesale and CIF Prices of Beef and Foods in Japan

		(1990=100)	
		FY	
		1993	1994
Wholesale prices	Beef	81.6	81.2
	All foods	98.6	96.9
Import prices (CIF)	Beef	76.2	69.9
	All foods imported	80.6	81.8

Source: Beverage and Food Statistics Monthly

1.2.3 Foot and Mouth Diseases (FMD)

1.2.3.1 Domestic animal infectious disease control law and the GATT Agreement on the application of sanitary and phytosanitary measures

While economic market access impediments are absent, it does not necessarily mean that regulations such as sanitary measures do not exist. The most relevant regulation to Argentina is the Domestic Animal Infectious Disease Control Law (DAIDCL).

The objective of the law is to prevent the outbreak and spread of animal diseases such as foot and mouth diseases (FMD). Article 43 of DAIDCL designates the countries

and regions from which Japan can import animal-based products. The law classifies countries in four categories as shown in the following table. Argentina is in Category 3, and it is unable to export fresh beef to Japan.

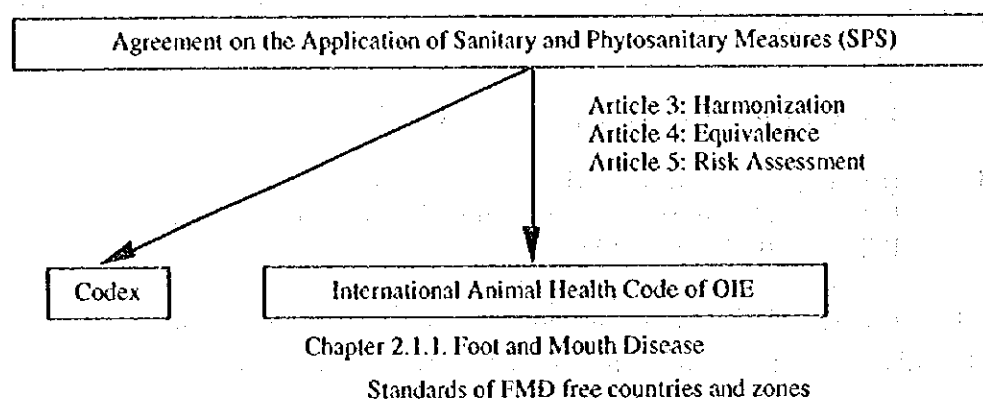
Table V-1-2-3 Article 43 of Domestic Animal Infectious Disease Control Law (DAIDCL) of Japan

Category	0	1	2	3
Countries and regions	Korea, Taiwan, Finland, Sweden, Norway, Denmark, Netherlands, France, Germany, Belgium, UK(Northern Ireland), Ireland, Iceland, Madagascar, Canada, USA, Mexico, Belize, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama, Dominican Rep., North Marianas, New Zealand, Vanuatu, New Caledonia, Australia	Singapore, Poland, Hungary, Rumania, Yugoslavia, Switzerland, Austria, UK (Great Britain)	China, Chile	Other countries and regions
Live animals	Allowed	Allowed	Allowed	Not allowed
Semen, embryos	Allowed	Allowed	Allowed	Not allowed
Ham, sausages, bacon	Allowed	Allowed	Not allowed*	Not allowed*
Meat/offal	Allowed	Not allowed*	Not allowed*	Not allowed*

*: Import of thermo-processed meat is allowed from certified plants only

The issue here is whether the level of sanitary standards to which the Japanese government applies is excessively restrictive and whether it has unnecessarily restricted trade potentials. In this context, in order to prevent sanitary measures from being used as disguised non-tariff trade barriers, the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) was issued at the GATT in January, 1995.

Figure V-1-2-1 Relation Between the Agreement on the Application of Sanitary and Phytosanitary Measures and Relevant Standards



The SPS aims to harmonize sanitary and phytosanitary measures of each country using the accepted international standards being developed by the Office International des Epizooties (OIE). Although governments have the right to put their own sanitary and

phytosanitary measures in place, they must show scientific justifications if such measures are more restrictive than the international standards. The SPS also specifies that sanitary and phytosanitary measures of each country should be based on the assessment of risks to human, animal or plant life or health. As a member country of the GATT, Japan's regulations should be examined in accordance with these international standards.

1.2.3.2 FMD outbreak in Argentina

Argentina has tackled the problem of FMD for many years, and at last it has been successful in eliminating the outbreak of FMD. No outbreak has been observed since April 27, 1994 in Argentina. The most important factor for this success was producers' participation. Producers had not paid much attention to export because they had a huge domestic market; export accounted for only around 10% of domestic production. However, as the domestic market shrank due to a decline in per capita beef consumption and beef price continued to stagnate, producers began to seek the possibility of exporting to FMD-free countries. This recognition of producers led them to actively participate in FMD eradication programs. Strengthening of government's institutional support as well as the development of oil-made vaccination is also attributable to the success.

Table V-1-2-4 The Number of FMD Outbreaks in Argentina

CY	1985-89 average	1990	1991	1992	1993	1994	1995
FMD outbreaks	820	841	234	350	196	18	0

Source: SENASA

The current situation of FMD varies from region to region. Patagonia which holds 0.3% of cattle has not had any FMD outbreaks for more than 20 years, and may be classified as a "FMD free region not practicing vaccination." Mesopotamia which holds 16% of the total cattle in Argentina, saw the last outbreak more than 2 years ago but is still practicing vaccination. The other regions including the Pampa is free from FMD outbreak with vaccination since April 1994. The Pampa is abundant with good quality races such as Aberdeen Angus, and is the most important region for the beef industry in Argentina.

Argentina has exported deboned beef to the EU since 1968, and no outbreak of FMD in the EU associated with the beef imported from Argentina has been observed. This export system is principally to debone the beef and lower the PH of meat to below 6.0 through the maturation of 36~48 hours. The system has been implemented in order to not only eliminate the possibility of the survival of FMD virus but also improve the tenderness of meat and brighten the color of beef. Exporting meat-processing plants are

under the strict control of Servicio Nacional de Sanidad Animal (SENASA), and every plant has several permanent staffs of SENASA and veterinarians who check the sanitary situation of the plant and animals. In addition, some importing countries inspect the plants to monitor the situation. According to SENASA's FMD eradication plan, Argentina aims to be qualified as a "FMD free country where vaccination is not practiced" by 1998.

The US has acknowledged the safety of the above mentioned export system after a full investigation of risks. It has begun the process of the revision of relevant laws to facilitate the importation of deboned beef from Argentina. The import volume is set at 20,000 tons a year.⁴ Argentina now turns to Japan and the other East Asian FMD free countries as a next target for the export of its fresh beef.⁵

1.2.3.3 View of the Japanese government

(1) View of the Japanese government before 1995

The stance of the Japanese government had in general accorded to OIE's standards, although they had not been formally acknowledged as effective international standards. OIE had not been designated by the GATT as the organization that would establish international standards. Japan's criterion for the importation of fresh beef was based on the zero risk concept. The Japanese government allowed import only from those countries that were assumed to be classified as a "FMD free country where vaccination is not practiced" by OIE's definition.

(2) View of the Japanese government at present

With the implementation of the SPS, the Japanese government has introduced the concept of risk assessment. Article 5 of the SPS specifies that "(m)embers shall ensure that their sanitary measures are based on an assessment ... of the risks to human, animal, taking into account risk assessment techniques, developed by the relevant international organizations." The Japanese government is committed to follow this Article 5 of the SPS. Traditional argument of "zero" or "minimum" risk concept is no longer valid in this context. Japan has departed from the zero risk concept. OIE became a legitimate organization that would establish international standards.

⁴ The risk assessment of the importation of 20,000 tons of deboned Argentine beef shows that the importation of infected meat could happen only every 221,995 years.

⁵ Argentina already has access to some East Asian markets such as Hong Kong, Malaysia, the Philippines, Singapore and Thailand.

In spite of the development of international legal framework, the SPS agreement and OIE's international standards are very new and not mature yet, according to the Japanese government. It considers that there is a lot to do before the standards are used effectively enough to guide sanitary regulations of each country. In fact, WTO's operational committee on the SPS agreement is still discussing the definition of such important terms as 'risk assessment.' Similarly, according to the definition of the OIE, the "FMD free countries where vaccination is practiced" should demonstrate the absence of viral activity, but no concrete and scientific methods to demonstrate the absence has been established. While the OIE has definitions of FMD status applied to countries and regions, the list up of the countries and regions has not been completed yet, either.

The current stance of the Japanese government is that it will examine possibility of the importation only from those countries that may be classified as "FMD free countr(ies) where vaccination is not practiced" and "FMD free countries where vaccination is practiced." It will not meet request from any other countries/regions because it does not consider that methodology of assessing risks associated with the importation of beef has been established by the OIE yet.

The Japanese government will not meet request based on zoning or deboned beef, either. With regard to deboned beef, its opinion is that, in addition to the absence of methodology of assessing risks, actual cases of analyzing risks associated with the importation of deboned beef from FMD infected countries such as the one between Argentina and the US, are rather sporadic, and the concept of deboned beef has not been accepted by many member countries of the OIE. In terms of zoning, the Japanese government is not willing to proceed for consideration because there were cases where FMD outbreaks occurred in a "free" zone surrounded by FMD infected areas in the past. It does not consider that the concept of zoning has been generally accepted by the member countries of the OIE, either. Unless the concept of deboned beef and zoning is developed, and its operational measures are clearly defined at the OIE, the Japanese government is unwilling to proceed to risk analysis.

The Japanese government wishes to contribute to the development of OIE's international standards at the *multilateral* levels rather than through a *bilateral* negotiation. The Animal Health Division of Livestock Industry Bureau of the Japanese Ministry of Agriculture, Forestry and Fisheries which is in charge of FMD issues established a committee in July, 1995 that aims to develop a methodology of risk assessment. The committee has decided to take up the importation of fresh beef from Uruguay as a case

study of risk analysis. Through this process, it tries to contribute to the discussion made at the OIE.

The Japanese government is aware of the recent development of negotiation between Argentina and other FMD free countries including the US and Canada. But it considers that it will still take some time before the Argentine beef is actually exported to these countries.

In terms of the procedure of requesting the Japanese government to lift the ban on the export of fresh beef, it is the same as that of thermo-processed beef. The process starts with the submission of requests and relevant documents. The Japanese government may request other materials for their references. Once all the documents are submitted, and the Japanese government does not find any problem, it will send a mission to confirm the information provided by the documents. When the mission is satisfactorily completed, the law (DAIDCL) is revised and the importation is allowed to take place.

1.2.3.4 Suggestions for clearing the market access problems

Given a meticulous stance of the Japanese government, little short cut seems to exist for Argentina to begin beef export to Japan. It is suggested that Argentina may take measures including the following:

- (1) Continuing to show its interest on the risk analysis of the export of deboned beef

Argentina should continue to express an interest on the risk analysis of the export of deboned beef to Japan. It may also show its interest on the concept of zoning. Although the current stance of the Japanese government is to withhold from bilateral negotiations, with the development of international standards, the Japanese government may become prepared to undertake the risk analysis on bilateral basis. Continuing to show a concern of exporting deboned beef may also help maintain a dialogue between the Argentine and the Japanese governments.

- (2) Beginning beef export to FMD free countries including the US as soon as possible

To begin beef export to FMD free countries would demonstrate the effectiveness of deboned beef export to the Japanese government. Japan's current strict stance may change once other FMD free countries begin to import from Argentina. Exportation to the US, Canada, Korea and Taiwan might possibly give an impact on the decision of the Japanese government. Since Korea and Taiwan in general follow the stance of the

Japanese government, it seems difficult to materialize export to these countries prior to Japan. Canada is intrinsically a beef exporting country. Therefore, the exportation to the US would be the key; realization of export to the US might have a possibility to influence the decision of the Japanese government.

(3) Contributing to the development of international standards

Development of OIE's international standards would have a direct impact on the stance of the Japanese government. Argentina should, especially, work on the following points:

- To develop a guideline for risk assessment
According to the Japanese government, a precise and concrete methodology of risk assessment has not been established by the OIE. It is an urgent need for Argentina to develop the methodology for risk assessment at the OIE.
- To clearly define the "FMD free countries where vaccination is practiced."
Although these countries are required to demonstrate the absence of viral activity, the methodology of demonstrating the absence has not been clearly defined yet. A scientific method should be created and defined.
- To list up countries/regions in each definition of FMD status;
No country nor region has been listed up, in the standards of FMD status defined by the OIE. Designation of countries and regions should be prompted to enhance the effectiveness of the standards.
- To make the standards more effective
The process of deboned beef exportation from the FMD infected countries is stated, but it is not obligatory. The process should be developed to be utilized as an effective guidance of exportation.

Note: Relevant Laws and Regulations for Argentina to Export Fresh Beef to Japan:

Relevant Laws and Regulations	Relevant Articles	Import Regulations	Remarks
Foreign Exchange and Foreign Trade Control Law	1,52	No	Control trade from balance of payment point of view
Import Control Ordinance	3,4,9	No	Describe regulations concerning import
Import Control Notification		No	Beef is not designated as IQ items
Domestic Animal Infectious Disease Control Law (DAIDCL)	36	Yes	Control the import of animal-related goods by country
DAIDCL Enforcement Ordinance	43	Yes	Classify countries in four ranks. Argentina is in rank 3, which is unable to export raw meat to Japan
DAIDCL Notification(1971, 1972)		Yes	Designate factories which can export thermo-processed meat to Japan
Food Sanitation Law	1,2,4,5,7,11, 14,16	Yes	Avoid sanitary troubles brought about by food and beverages
Food Sanitation Law Enforcement Regulation	2,5	Yes	Import of meat products must be accompanied by a document of the government of an exporting country. The package must show name of goods, date of production, name of producer etc.
GATT	20	Yes	Countries have the right to adopt trade measures necessary to protect human, animal and plant life or health.
A Protocol on Participation for GATT		Yes	
Agreement on the Application of Sanitary and Phytosanitary Measures		Yes	Countries may introduce sanitary measures which result in a higher level of protection than international standards if there is a scientific justification.

1.3 Market Situation in Japan

1.3.1 Market Size, Its Growth, Major Factors for the Growth and Future Prospect

1.3.1.1 Current features of the demand for beef

Japan's consumption of beef has increased for the last few decades. In 1994, overall market size of fresh beef was about US\$ 10 billion, at the wholesale levels, of which imported beef accounted for 45 % (US\$ 4.5 billion). In volume, the Japanese and imported beef accounted for approximately 40% and 60%, respectively. Japan was the second largest beef import country after the US in 1994.

Table V-1-3-1 Demand and Supply of Beef in Japan

		(Carcass weight, 1,000 tons)									
	FY	1965	1970	1975	1980	1985	1990	1991	1992	1993	1994
Demand		232	311	417	595	776	1,079	1,083	1,182	1,327	1,446
Production		216	278	353	418	555	549	575	592	594	602
Import		15	33	64	177	220	529	508	591	732	844

Source: MAFF, Meat Distribution Statistics,
Japan Tariff Association, Japan Exports and Imports

The liberalization of beef trade has accelerated the import and consumption of beef. The following factors are cited for the fast expansion in demand;

- Decline in price brought about by the liberalization of import, the appreciation of yen, and reduction in tariff rates;
- Changes in eating habit;
- Increase in eating out;
- Active promotion of beef-related industries, including the US and Australian organizations.

The following table shows the consumption per capita and growth rate of various kinds of meat. Beef consumption per capita has increased in the last 30 years by more than five-times. Beef is the only meat of which consumption per capita growth rate is increasing, while the volume of consumption is still less than that of pork and chicken.

Table V-1-3-2 Consumption of Meat in Japan

	Consumption per capita (kg)							(Bone-less basis) Growth rate (%)		
FY	1965	1975	1985	1990	1991	1992	1993	1965-75	1975-85	1985-93
Beef	1.5	2.5	4.4	6.1	6.2	6.7	7.4	5.2	5.8	6.7
Pork	3	7.3	10.3	11.5	11.5	11.5	11.4	9.3	3.5	1.3
Chicken	1.9	5.3	9.1	10.2	10.4	10.6	10.4	10.8	5.6	1.7

Source: MAFF, Food Demand and Supply

1.3.1.2 Future prospects of the demand for beef

While the growth rate of beef consumption will become modest, the consumption will expand steadily taking into account the current level of consumption per capita as a developed country. Development of new beef-related dishes by private firms that aim to expand their market share will also contribute to the expansion of beef consumption. It is a consensus in the beef industry that consumption per capita will reach 10kg in the year of 2000 from 7.4 kg in 1993. The following table shows a forecast of future demand and supply by one of major beef importers.

Table V-1-3-3 Demand and Supply Forecast of Beef in Japan

	(1,000 ton, bone-less basis)					
FY	1995	1996	1997	1998	1999	2000
Demand	1,070	1,100	1,140	1,180	1,220	1,260
Production	420	420	420	420	420	420
Import	650	680	720	760	800	840
Per capita consumption	8.6	8.8	9.1	9.4	9.8	10.1

Source: Japan's one of major beef importers

However, the forecast seems to be too optimistic when the effect of aging of the Japanese society is taken into consideration. More conservative forecast is that the beef consumption per capital will grow by 1~3% for the next 10 years, and it will remain at 7.9~9.1 kg in 2004.

1.3.2 Characteristics of the Market

1.3.2.1 Types of final use

Table V-1-3-4 Types of Final Use of Beef in Japan

	(% , Estimate)							
FY	1975	1980	1985	1990	1991	1992	1993	1994
Total	100	100	100	100	100	100	100	100
Household	70	61	56	48	48	47	46	44
Processing	13	14	14	9	10	8	8	8
Commercial	17	24	30	43	42	45	46	48

Source: MAFF, Livestock Industry Bureau

In the table above, the household use means the consumption fresh beef which are sold directly to consumers at supermarkets, meat shops etc. Processed beef includes hamburgers and corned beef. Commercial use means the meat consumed at restaurants and hotels and other commercial/public facilities.

Both household and processing uses are declining relative to commercial uses. This shift reflects a change in eating habit of the Japanese. The share of commercial uses have more than doubled in the last two decades and exceeded that of household uses in 1994.

1.3.2.2 Market segmentation

Japan's beef market can be segmented by quality as shown in the following table. In Japan, domestically produced beef is considered superior to imported beef, while the latter is catching up the former rapidly.

Table V-1-3-5 Type of Beef by Quality in Japan

		Grain/grass	Shipping form	Quality	Market	
					First	Second
Japanese	Beef cattle (Wagyu)	Grain-fed	-	High	Household	Commercial
	Dairy cattle	Grain-fed	-	Standard	Household	Commercial
Import		Grain-fed	Chilled	Standard	Household	Commercial
		Grass-fed	Chilled	Standard	Commercial	Processing
		Grain-fed	Frozen	Low	Commercial	Processing
		Grass-fed	Frozen	Low	Processing	Commercial

The Japanese consumers recognize that Wagyu is the most superior beef, and it still is a luxury food. Wagyu is mainly used for steaks and traditional Japanese dishes such as *Sukiyaki* and *Shabushabu*. *Shimofuri*, a special type of Wagyu, is the best type of marbled beef and the most popular in Japan. Dairy cattle has been seriously affected by imported beef as they are competing in the same market. Although dairy-cattle are grain-fed, they are not able to offer high prices as Wagyu.

Among imported beef, the quality of chilled and grain-fed beef has been adjusted for the last several years to suit the Japanese taste. It is often purchased by household as a table meat. Chilled and grass-fed beef is mainly imported from Australia, and is used for commercial purposes. Processing use is increasing. It is sometimes sold at supermarkets as a special discount goods. Frozen and grain-fed beef is used in inexpensive dishes such as beef bowls and lunch boxes sold at convenience stores. Many restaurants also use this kind of beef as steaks. Most frozen and grass-fed beef are imported from Australia and are used for processing purposes such as hamburgers and retort-packed curry rice.

The following table shows the uses of beef by its origin (the Japanese, the US and Australia). It presents that the Japanese beef is mainly consumed by the household

sector. The US beef is popular in the commercial sector, and many Australian beef are used in the processing sector.

Table V-1-3-6 Types of Beef and Uses in Japan

			Domestic beef					US beef					Australian beef				
			Beef cattle					Dairy cattle									
			A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
Household	Supermarket		○	○	○			○	○	○	○	○	○	○	○	○	○
	Retailers		○	○	○	○		○	○	○	○		○	○	○		
Commercial	Restaurant	Family			○					○			○		○		○
		Steak			○					○					○		
		Japanese	○		○			○		○			○				
	School and firms											○	○		○	○	
	Fastfood											○	○				○
	Beefbowl											○				○	
	Yakiniku		○	○	○	○		○	○	○	○						
Industrial	Hotels				○							○			○		
	Han/sausage											○	○		○		○
	Others															○	○

Note: ○: Frequently used, ○: Used, Yakiniku is BBQ (Asado)

A: chuck, brisket, fore shank, B: rump, round, hind shank, C: loin, ribs, D: plate, flank, E: others

Source: Suzuki Tadatashi, 1995, "Japan's beef cattle"

The cut of the Japanese beef is different from that of imported beef to meet the differences in uses. Many imported beef are sliced thicker (5 mm ~) to be used for steaks, while the Japanese beef is sliced thinner (~3 mm) to be used for traditional dishes such as *shabushabu*.

1.3.2.3 Chilled and frozen beef

Recently the ratio of the volume of chilled beef to that of frozen beef has risen as is shown in the table below. There are several reasons for this trend. First, a decline in the price of beef triggered by the liberalization of beef trade has improved the cost competitiveness of chilled beef, and it has begun to replace frozen beef. For example, hamburgers and retort-packed curry rice used to use frozen beef, but recently chilled beef has begun to be utilized for these dishes. Second, consumers are nowadays conscious about not only the price but also the quality of imported beef. Third, for beef distributors, chilled beef is easier to handle because the process of tempering is not necessary, and the color of beef does not deteriorate as rapid as that of frozen beef.

Table V-1-3-7 The Ratio of Chilled Beef to the Total Import of Fresh Beef in Japan (% , volume-basis)

CY	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Ratio of chilled beef	27.5	26.3	26.6	28.7	32.7	39.2	48.2	50.0	53.6	57.1

Source: Japan Tariff Association, *Japan Exports and Imports*

The following table shows the volume of imported beef by chilled/frozen and grain-fed/grass-fed in 1994. While the import of grain-fed beef is increasing, that of grass-fed beef has been stagnant at about 200,000 tons a year recently.

Table V-1-3-8 Japan's Import of Chilled and Frozen Beef in 1994

						(unit: 1,000 ton)
	Chilled		Frozen			Total
Grain-fed	220 (US	100)	160 (US	150)		380
	(Australia	120)	(Australia	10)		
Grass-fed	110 (Australia	110)	90 (Australia	80)		200
			(NZ	10)		
Total	330		250			580

Source: Japan's one of major beef importers

1.3.2.4 Consumers' attitude

(1) Perception on the Japanese and imported beef

Table V-1-3-9 Consumers' Perception on the Japanese and Imported Beef in Japan (%)

Price		Inexpensive	Normal	Expensive	No Answer	Total
Japanese	Beef cattle	1.4	19.3	78.7	0.6	100.0
	Dairy cattle	7.1	66.5	23.0	3.4	100.0
Imported		71.2	20.8	3.3	4.7	100.0
Taste		Good	Normal	Not good	No Answer	Total
Japanese	Beef cattle	83.2	14.9	0.9	1.0	100.0
	Dairy cattle	26.5	66.1	3.5	3.9	100.0
Imported		3.8	57.3	32.4	6.5	100.0
Quality		Good	Normal	Bad	No Answer	Total
Japanese	Beef cattle	73.3	25.0	0.2	1.5	100.0
	Dairy cattle	28.4	65.4	1.2	5.0	100.0
Imported		4.1	73.1	15.0	7.8	100.0
Safety		Certain	Concerned	Unknown	No Answer	Total
Japanese	Beef cattle	66.0	6.2	27.0	0.8	100.0
	Dairy cattle	49.0	11.4	35.9	3.7	100.0
Imported		2.8	59.7	32.4	5.1	100.0

Source: Japan Meat Information Service Center, Consumer Survey

The above tables show the difference in perception of the Japanese consumers on the Japanese and imported beef. The Japanese consumers feel that imported beef is inexpensive, but its taste and quality are inferior to the Japanese beef. Approximately 60% of the Japanese consumers are concerned with the safety of imported beef. They suspect that the date of production of imported beef may be obsolete, and they are not

certain about the country from which the beef was imported nor the way how the beef was processed / produced.⁶

Differences in perception on the Japanese and imported beef are reflected in the prices of major volume zones as is shown in the following table. Major volume zone for the Japanese beef is around 251~400 yen (\$2.50~\$4.00) per 100 grams, while that for imported beef is around 151~250 yen (\$1.50~\$2.50).

Table V-1-3-10 Household Purchase of the Japanese and Imported Beef by Retail Prices in Japan

Yen /100 grams	0~100	101~150	151~200	201~250	251~300	301~350	351~400	401~500	501~
Japanese Beef	0.6	1.6	8.1	14.2	21.7	20.1	21.7	17.3	16.6
Imported Beef	4.5	14.9	31.6	22.8	18.5	8.4	5.6	2.0	0.5

Note: Figures show the percentages of respondents who have bought the Japanese and imported beef within those price zones. (Plural answers)

Source: Japan Meat Information Service Center, Consumer Survey

(2) Preferences of the kind of meat

The types of favorite beef seems to be in close relation with the age of consumers as is shown in the table below. Shimofuri (marbled beef), a product of grain-fed beef, is preferred by the younger generation, while Akami (lean beef), a product which emphasizes the characteristics of grass-fed beef, is preferred by the elderly people (older than 50 years old). Taking into account a limited volume of meat consumed by the elderly people, sales efforts of the Argentine lean-type beef should be directed to the people regardless of age. Excessively marbled beef has begun to be avoided even by the younger generation because of high cholesterol content. Consumption of lean beef may increase in relative to marbled beef partly due to the aging of the Japanese society.

Table V-1-3-11 Relation Between the Ages of Consumers and Their Preferences in Japan

Ages	Akami	Shimofuri	Indifference (%)
~30	26.5	51.5	22.1
30~39	30.7	44.0	25.0
40~49	36.8	42.3	20.7
50~59	43.7	37.9	18.4
60~	50.3	35.2	13.8

Source: Japan Meat Information Service Center, Consumer Survey

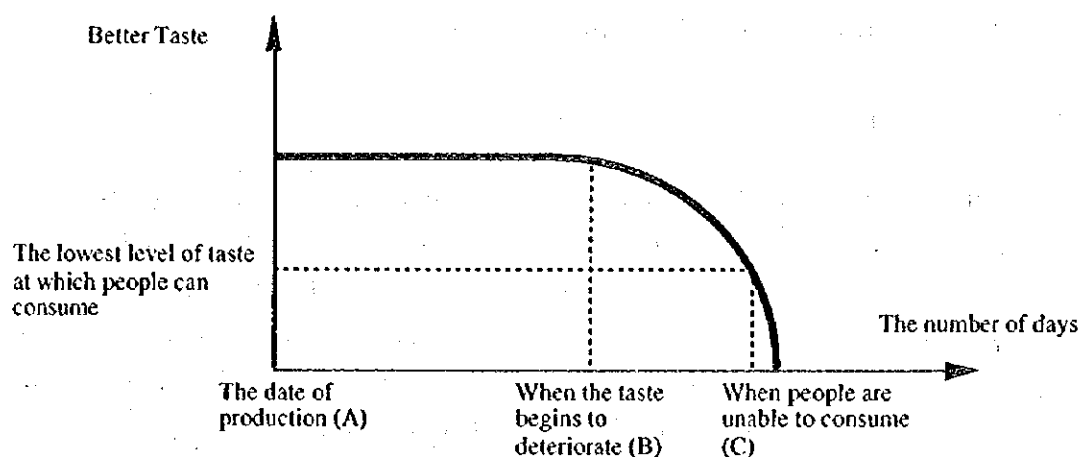
⁶ This does not necessarily mean that the Japanese consumers are well aware of how meat is produced and processed in Japan.

Consumers' changing perception on the Japanese and imported beef is available at Japan Meat Information Service Center in Tokyo, while it should be noted that it is a subsidiary of the Ministry of Agriculture, Forestry and Fisheries, and its role is to promote the consumption of *the Japanese* beef.

(3) Rules concerning the date of production and Productivity Liability Law

Recently rules on the indication of the date of production were decided to be changed, and new rules will be effective in 1997. The date of production (A), or the date of import in the case of foreign made products, had been required to be indicated on a package of food. But it has been alleged that the system has fostered the perception of consumers that they are excessively and unnecessarily conscious about the freshness of products even when the products are not subject to deteriorate in a short period of time. It has been suggested that the date of production is no longer necessary to be indicated. In place of the date of production, the date when the taste begins to deteriorate (B) has been recommended to be indicated for highly perishable foods such as beef. In the case of foods which are not highly perishable, the latest date when people are able to consume (C) will need to be indicated on a package.

Figure V-1-3-1 Relation Between the Taste of Products and the Number of Days After Production



Product Liability (PL) Law was implemented in Japan in July 1995. As fresh beef is not a manufactured or processed product, it is not subject to the PL Law. However, importers are very much concerned with this law, and the following action is likely to be taken by beef importers even on fresh beef:

- More complete safety check by the importers on production systems;
- Improvement of the indication on a package;

Better cooperation between producers and importers, and clearer division of responsibilities between them.

1.3.3 Japan's Beef Production

Japan's beef production is expected to continue to stagnate. Increase in beef cattle production has been very modest, while the production of dairy cattle has been around 2 million heads a year for the last 15 years. The concentration of livestock production has been taking place in all over Japan. The beef production may decrease mainly because the Japanese farmers are only competitive in the beef cattle (*wagyu*) which is expensive but in a limited demand. An average cost to raise beef cattle in Japan is US\$ 11.42/kg, which is about 12 times as high as that in Argentina.

Table V-1-3-12 The Number of Livestock Farms and Heads in Japan

		(unit 1,000)								
	FY	1970	1975	1981	1985	1990	1991	1992	1993	1994
Beef cattle	Farms	902	474	353	298	232	221	210	199	184
	Heads	1,789	1,857	2,281	2,587	2,702	2,796	2,898	2,956	2,971
	Cattle per farm	2	4	6	9	12	13	14	15	16
Dairy cattle	Farms	308	160	106	82	63	60	55	51	48
	Heads	1,804	1,787	2,104	2,111	2,058	2,067	2,082	2,068	2,019
	Cattle per farm	6	11	20	26	33	35	38	41	42

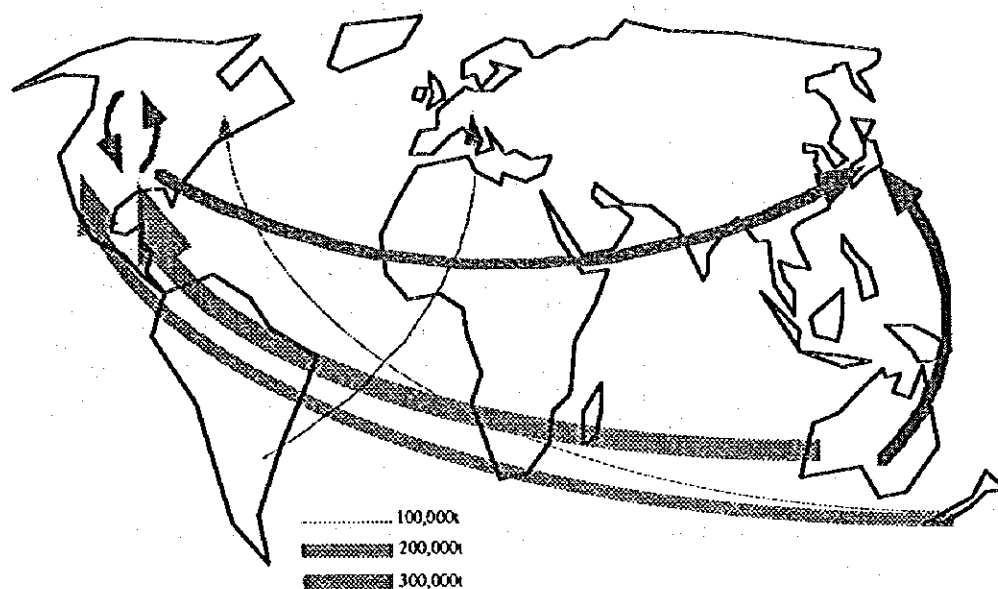
Source: MAFF, Statistics Information Bureau, Livestock statistics

1.3.4 Japan's Beef Import

1.3.4.1 Overview of world beef trade

In a global beef trade, Australia, New Zealand, Canada, Argentina, and the US are the major exporters, while the US and Japan are the major importers. The US is a major exporter and simultaneously a major importer of beef. The EU is also a main exporter and an importer as a region, but most of the trade takes place within Europe. Its export to Japan is very small; in 1994, Japan imported chilled beef only from Austria by 7.4 ton and from Greenland (Denmark) by 1.7 ton, respectively.

Figure V-1-3-2 World Beef Trade (1991)



Code No. 011.1 Bovine Meat Fresh, Frozen
 Source: United Nations, *World trade annual 1991*

1.3.4.2 Overview of Japan's beef import

An increase in demand is met by an increase in import. Dependence of beef consumption on import has increased from 28% in 1985 to 58% in 1994. The tendency will continue in the future. The following table shows major origins of import, and the volume and value of beef imported.

Table V-1-3-13 Origin of Japan's Beef Imports

CY	1992		1993		1994	
	Volume	Value	Volume	Value	Volume	Value
Canada	875	699	1,501	829	3,051	1,652
USA	185,162	151,322	216,632	151,443	250,382	155,472
Mexico	139	83	83	31	-	-
Australia	214,373	106,829	277,427	113,364	312,949	126,600
New Zealand	8,218	4,984	14,475	6,227	20,927	7,993
Vanuatu	1,150	425	1,376	410	1,229	325
Total	411,551	264,522	511,553	272,326	588,609	292,075

Source: Japan Tariff Association, *Japan Exports and Imports*

1.3.4.3 USA and Australia: major beef exporting countries to Japan

Major exporting countries of beef to Japan are the US and Australia. Both countries combined hold 96% share of the Japan's total beef import. Detailed breakdown of Japan's beef imports from these countries are shown below. The table shows that a greater amount of the US beef is imported in a frozen form, while most Australian beef

are imported in a chilled form. The table also shows that the US beef has higher value per kg than the Australian beef in both chilled and frozen beef.

Table V-1-3-14 Japan's Beef Import from USA and Australia

CY		1993				1994			
		Volume		Value		Volume		Value	
		(ton)	(%)	(Yen million)	(%)	(ton)	(%)	(Yen million)	(%)
USA	chilled	73,601	14.9	70,561	26.6	97,620	17.3	86,120	30.5
	frozen	143,031	29.0	80,882	30.5	152,762	27.1	69,352	24.6
Australia	chilled	197,036	39.9	92,309	34.9	231,712	41.1	106,520	37.8
	frozen	80,391	16.3	21,055	8.0	81,237	14.4	20,081	7.1
Total		494,059	100.0	264,807	100.0	563,331	100.0	282,073	100.0

Source: Japan Tariff Association, *Japan Exports and Imports*

The following summarizes the characteristics of the US and Australia as beef exporters / producers:

USA

- World's largest producer, importer, and consumer of beef;
- Top exporter to Japan in value;
- All the beef are grain-fed;
- The Japanese consumers consider that the US beef is superior to the Australian beef in quality;
- Distribution channels are in oligopoly by a few major meat packers;
- It can export in single cuts (parts) because the rest can be absorbed in its own domestic market;

Australia

- Export-oriented country (Approximately 40% of the production is exported);
- Top exporter to Japan in volume;
- Chilled-related technology is advanced. Shelf life is 60 days compared to 45 days of the US beef;
- Beef for domestic market is grass-fed. Grain-fed beef is mainly raised by foreign firms for export purposes;
- Most beef exported to Japan are in the form of full-set;
- Production capacity is limited. Frequent drought and the shortage of grains for feed may undermine the stable supply of beef.

The following table shows C&F prices of the beef imported from the US and Australia as of September 15, 1995. The prices were very low at that time, and some Australian meat packers ceased to export to Japan.

Table V-1-3-15 C&F Prices of Imported Beef in Japan

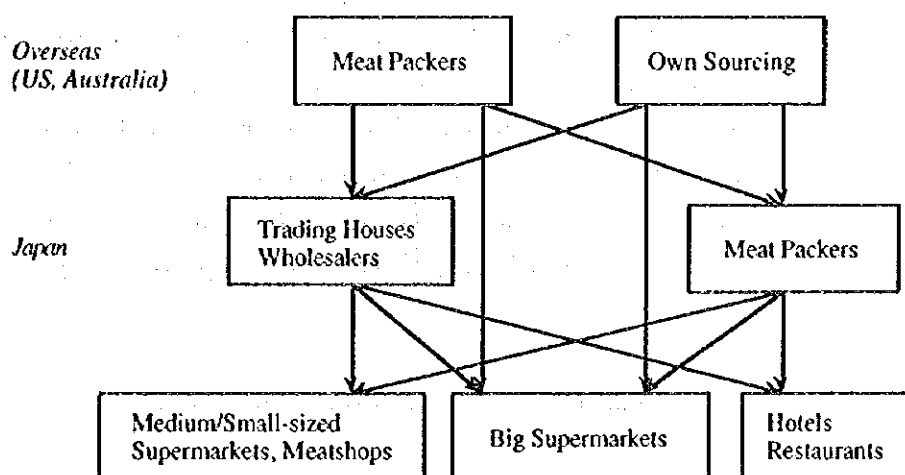
	Origin	Chilled/frozen	Price (US\$/kg)
Striploin	USA	Frozen	7.82
Tenderloin	USA	Frozen	11.10
Rib eye role	USA	Frozen	9.71
Grass-fed full-set	Australia	Chilled	3.33
Grass-fed striploin	Australia	Chilled	5.07
Grass-fed cuberole	Australia	Chilled	5.62
Grass-fed tenderloin	Australia	Chilled	12.19
Chuck & blade	Australia	Frozen	2.09
Brisket	Australia	Frozen	1.94
Topside	Australia	Frozen	2.82
Thick flank	Australia	Frozen	2.71
Fore and hind	Australia	Frozen	1.76

Source: Livestock products market price weekly, September 19, 1995

1.3.5 Distribution of Imported Beef by Major User Sectors

1.3.5.1 Distribution of imported beef

Figure V-1-3-3 Commercial Flow of Imported Beef in Japan



Source: Private interview

Beef is imported mostly through trading houses and wholesalers. The trading houses include subsidiaries (house agents) of some meat packers and big supermarkets. Now the number of companies engaged in the importation of beef is about 50~60. Among them, 41 trading houses, wholesalers and meat packers have formed an association called "Japan Meat Traders Association." The association accounts for 85%

of Japan's beef import. The association compiles and analyzes the data and information regarding demand and supply situation of beef in Japan. Most of the remaining 15% is directly imported by big supermarkets and meat packers which do not have their own house agents.

1.3.5.2 Key players of beef import

Although trading houses and wholesalers account for 85% of beef import, they do not always determine the countries, the plants and the types of beef. Roles of trading houses is sometimes limited to custom clearances and risk hedges. Thus, the following are the key players of beef import in Japan:

- Big supermarkets
- Meat packers
- Commercial restaurants such as fast-food and beef bowl
- Discount stores specialized in beef
- Trading houses and wholesalers

All but meat packers, trading houses and wholesalers have retailing functions. Most of the key players are well aware of the need and changes in the taste of consumers. It should be noted that beef industries develop their business in a worldwide perspective. They do not run their business simply between producing and consuming countries. For example, one company that owns a grain-fed farm in Australia exports some parts of its products to Japan, and the other parts to the US and the East Asian countries in order to effectively meet the different taste in different market. Similarly, Japan's beef industry determines the sources of import and the countries to establish own-sourcing farms with deliberate considerations on the world market trend. For instance, agricultural policies of Argentina such as the eradication of FMD could affect investment plans of a Japanese firm in Australia.

The following table summarizes the characteristics of the players.

Table V-1-3-16 Evaluation of Players of Beef Import in Japan

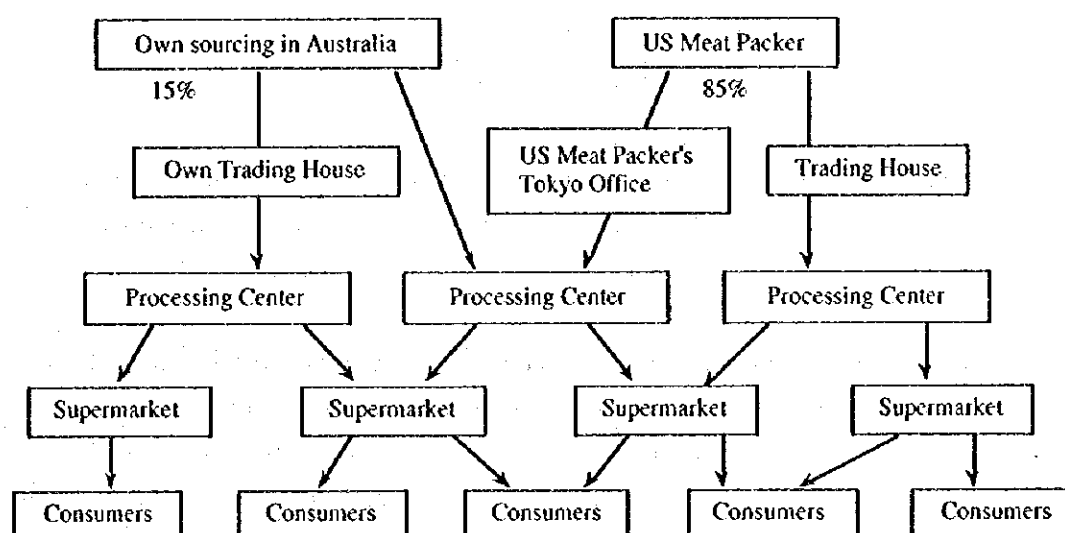
	Recognition of consumers' taste	Ability to sell to consumers	Access to worldwide information	Ability to develop new dishes	Initiatives to import	Handling volume
Big supermarkets	+++	+++	++	+++	+++	+++
Small/medium supermarkets	+++	++	+	+	+	+
Meat packers	+++	-	+++	+++	+++	+++
Restaurants (fast-food, etc.)	+++	+++	++	++	+++	+++
Hotels	+	+	+	+	+	+
Discount stores	+++	++	++	++	++	+
Meat shops	++	+	+	+	+	+
Trading houses / Wholesalers	++	-	+++	++	+++	+++

Note: +++ very important; ++ important; + moderate; - do not have the function.

1.3.5.3 Activities of major beef importers

(1) One of prestigious and big supermarkets

Figure V-1-3-4 Commercial Flow of Beef Through a Big Supermarket in Japan



A big supermarket, which deals with a large quantity of beef (20,000 tons a year), has its own farms in a foreign country. It owns several distribution centers in Japan, where the final processing (slicing and packing) of meat is undertaken. It decides the countries and the plans from which it purchases beef.

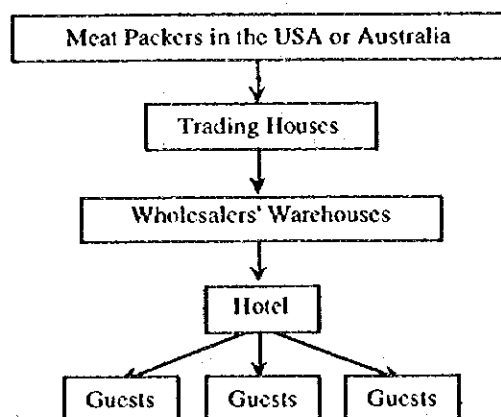
Appearances (especially colors) of beef is the most important factor for the Japanese consumers to choose. As the color of beef can be fresh for only a few days in a display, they make utmost efforts to make the beef look better by improving packaging

materials, display stands and lighting systems. Few vacuum packed beef is directly sold to consumers in Japan.

Supermarkets, in general, do not deal with frozen beef because it is not popular among the Japanese consumers, and it requires more complicated procedure than chilled beef in tempering, dealing with drips and so on.

(2) One of five star hotels in Tokyo

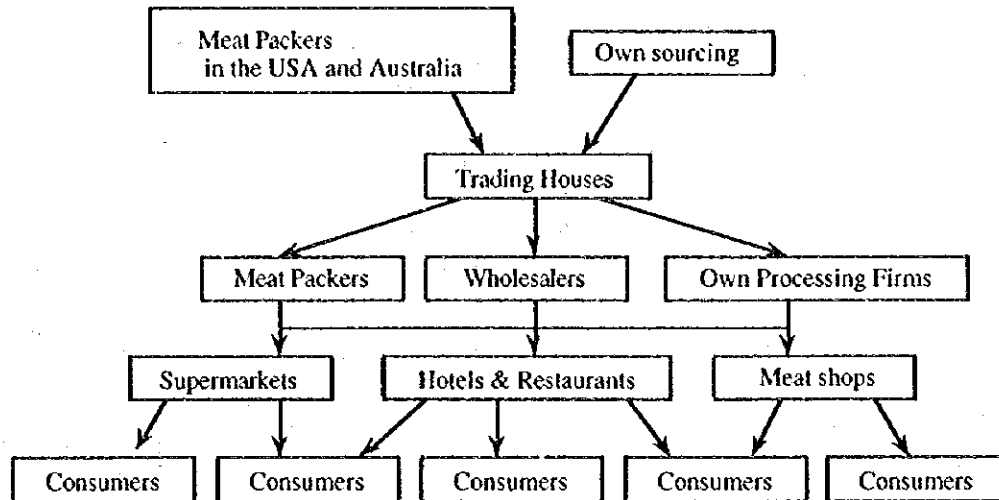
Figure V-1-3-5 Commercial Flow of Beef Through a Hotel in Japan



Even if they are prestigious and big, hotels rely their procurement of beef on trading houses or wholesalers. It is because a volume of their order is rather small (approximately 100 ton a year), and it is more efficient for them to rely on trading houses.

Flexible adjustment of the supply and quality of beef by overseas meat packers is necessary to maintain business with hotels. For example, one of the biggest concerns of the hotels is whether they are able to obtain the same size and quality of many sliced or block beef. This is because the beef served in a banquet needs to be the same in size and quality.

(3) One of major trading houses

Figure V-1-3-6 Commercial Flow of Beef Through a Major Trading House in Japan

Trading houses have begun to act as a merchandiser. They sometimes take initiatives in the choice of foreign sources. Trading houses are especially important at the beginning of business when sellers and buyers are not familiar with each other. Trading houses can play an important role as an intermediary. Reasons for beef users to rely on trading houses include the following:

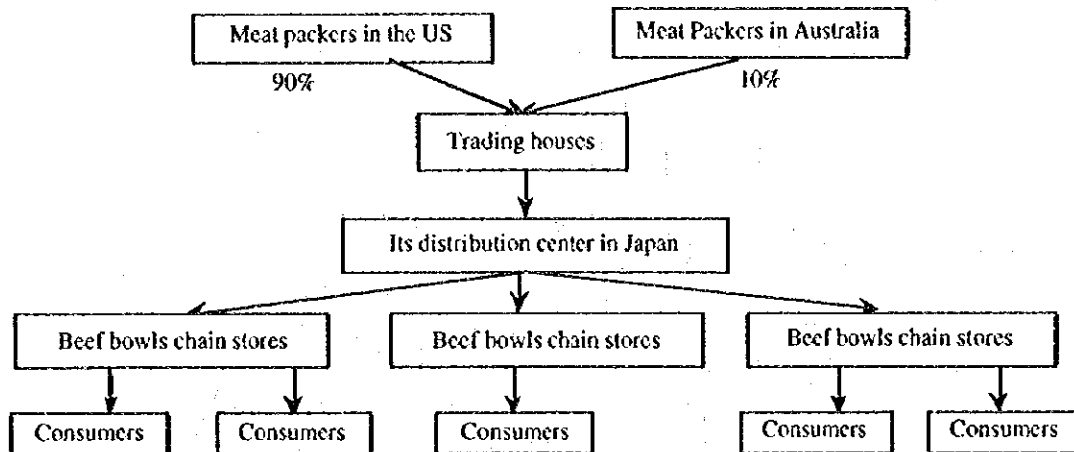
- To rely on their knowledge on beef and worldwide information
- To facilitate the process of damage claim
- The amount of beef ordered is too small to purchase on its own
- To complement the shortage of procurement staffs
- To minimize the risk involved in starting a business with a country where business practices are unknown

Meat processing plants from which they purchase beef is determined after a full investigation of plants. As each plant produces different kinds of meat in terms of cutting and packaging, business deal is made on plant basis, not on firm basis.

The function of large wholesalers is similar to that of trading houses.

(4) One of beef bowl chain stores

Figure V-1-3-7 Commercial Flow of Beef Through a Beef Bowl Chain Store in Japan

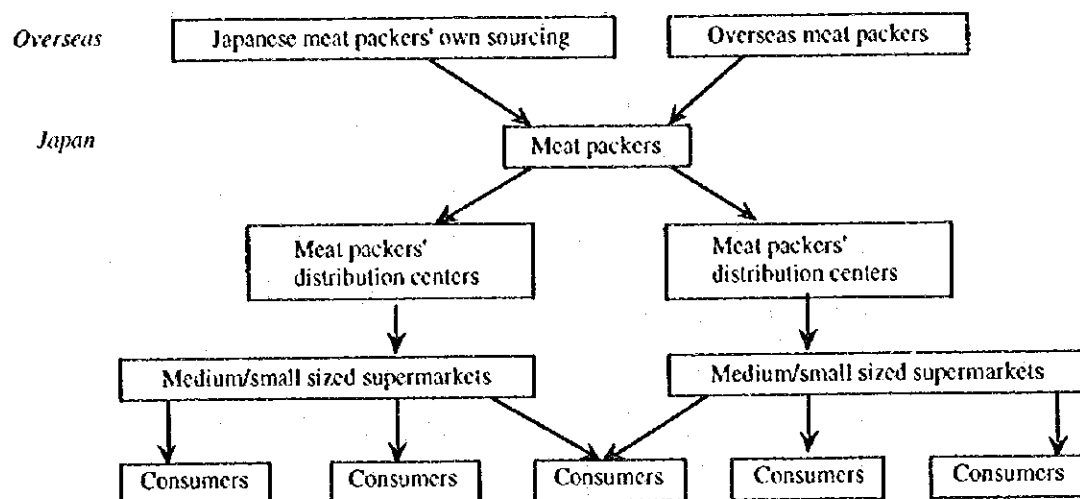


Although its import accounts for approximately 2.5% of total beef import in Japan, the number of persons in charge of the procurement of beef is only one. In many Japanese firms, the procurement of beef is often handled by only a few people. They sometimes rely trading houses on the streamlining of damage claim processes and for risk hedge purposes.

Since it purchases only one part of beef (short plate, grain-fed and frozen), it does not plan to invest on farms nor meat packing plants abroad, but it is interested in developing new dishes that utilize the other parts of beef in order to reduce purchasing prices. It has its own restaurants in the US and several other countries in Asia, and it procures beef from several sources to meet the tastes of different market.

A reason why it purchases a small amount of beef from Australia is for risk-hedge purposes only.

(5) One of small- and medium-sized supermarkets

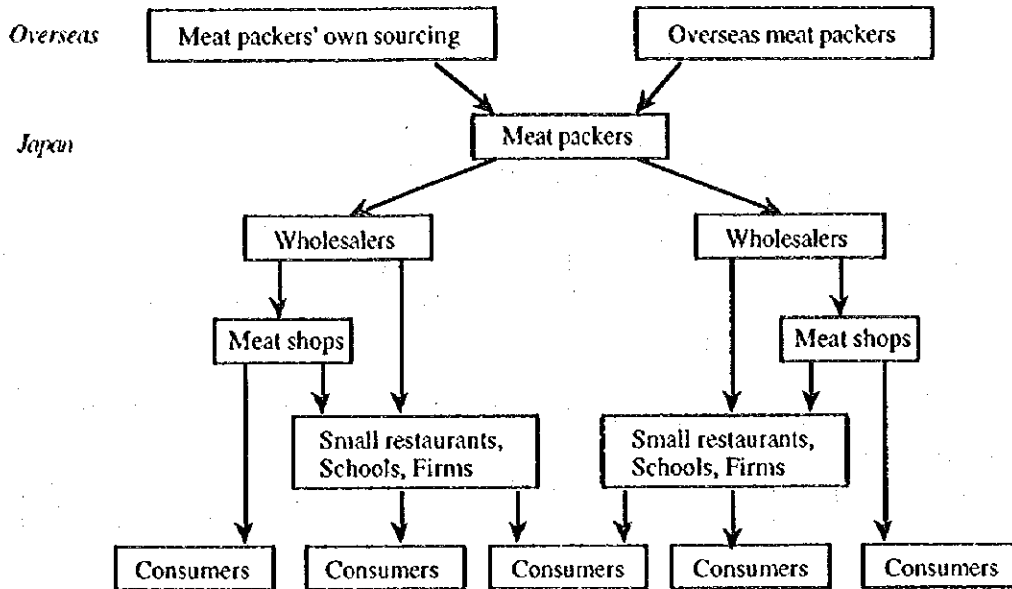
Figure V-1-3-8 Commercial Flow of Beef Through a Medium-sized Supermarket in Japan

Its annual purchase of imported beef is approximately 1,000 tons. With this volume of import, the supermarket purchases beef from meat packers. It does not directly purchase from overseas meat packers because, through the Japanese meat packers, it can effectively utilize the storage facilities of the meat packers. Nevertheless, the supermarket itself determines the kinds and brand of beef it purchases in consultation with the meat packers.

Many Japanese beef importers are concerned with the specifications of the cuts of meat. Some prefer to import from small- and medium-sized meat packers because such meat packers are more willing to adjust specifications to the needs of the importers. They say US's large meat packers are sometime reluctant to adjust the specifications to their needs. In addition to the adjustment of cut specifications, appropriate beef slicing is appreciated by beef importers. Such meat are ready to be displayed in a supermarket without any processing and cutting in Japan.

(6) Meat shops

Figure V-1-3-9 Commercial Flow of Beef Through a Meat Shop in Japan

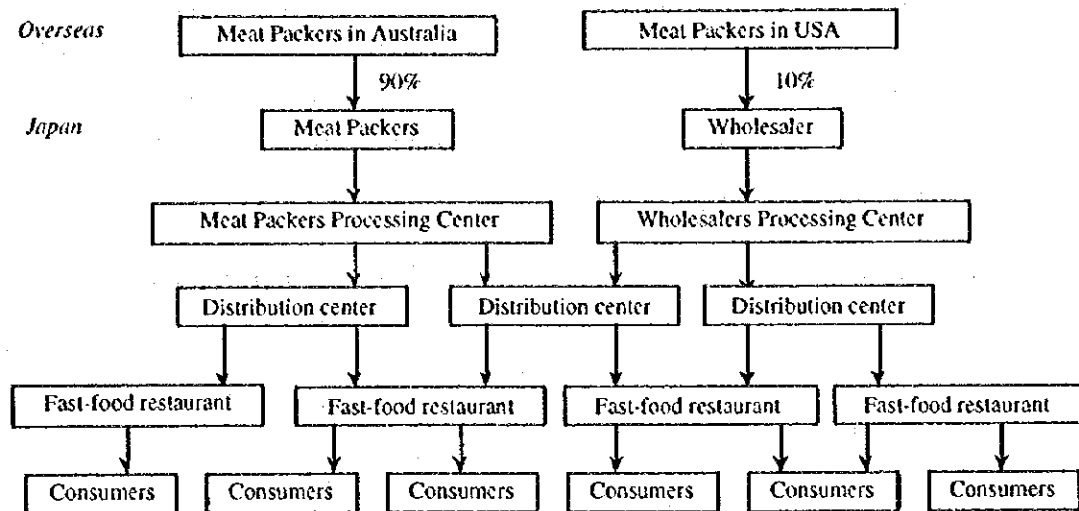


Due to the expansion of supermarkets, the number of meat shops is declining. Seventy percent of meat shops do not have imported beef in their own shops. Most of them sell only the Japanese beef to consumers. However, they *handle* imported beef as a wholesaler in distributing to local small restaurants and for lunches provided by nearby schools and firms for their students and employees. The reasons why many meat shops do not directly sell imported beef to consumers include:

- 1) Meat shops are not able to effectively manage the appearances (especially color) of beef.
- 2) Profit per kg from imported beef is less than that from the Japanese beef (beef cattle)

(7) Fast-food restaurants

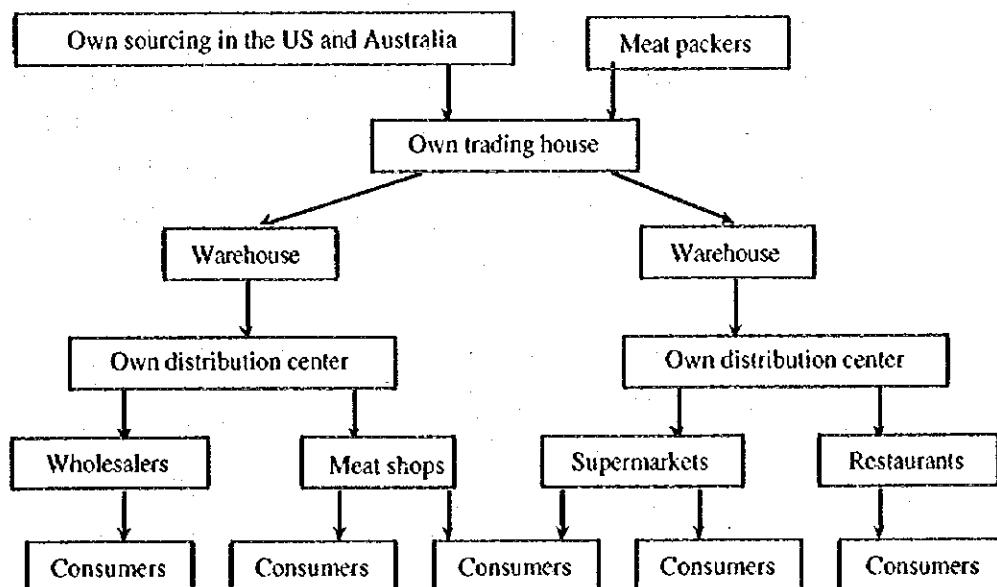
Figure V-1-3-10 Commercial Flow of Beef Through a Fast-food Restaurant in Japan



A meat packer and a wholesaler imported beef from Australia and the USA, and they process it into patty at their own processing centers. Then the patty is distributed to fast-food restaurants' distribution centers. As it is the world-wide fast-food restaurant, beef is purchased in a consolidated manner with its chain stores in other countries.

(8) One of the most influential meat packers

Figure V-1-3-11 Commercial Flow of Beef Through a Major Meat Packer in Japan



A meat packer accounts for more than 20% of Japan's beef import. The meat packing industry is by far the most influential beef dealer in Japan. Although it is a meat packer, its business is not limited to fresh meat. The production of ham and sausages, processing of meat such as hamburgers, and fresh meat handling as an intermediary account for 21%, 17% and 62% of its revenue, respectively. Many industries including small- and medium-sized supermarkets, meat shops, wholesalers, and restaurants purchase imported beef from meat packers. Major meat packers have their own research institutes and are active in developing new dishes.

The following table provides the names of major beef dealers by industry.

Table V-1-3-17 Major Beef Importers by Industry in Japan

Big supermarkets	Daiei	Ito-Yokado	Jusco	Seiyu
Five-star hotels	Imperial Hotel	Hotel Okura	Hotel New Otani	
Trading houses	Sumikin Bussan	Mitsubishi Corp.	Ito-chu Corp.	Marubeni corp.
Wholesalers	Hannan	Zenchiku	Yonekyu	
Beef bowl	Yoshinoya	Matsuya		
Fast-food restaurant	McDonald	Lotteria	Mosfood	
Ham/sausage makers	Nippon Meat Packers	Ito Ham Foods	Prima Meat Packers	Marudai Food
Discount store	New quick	Cowboy	Dairiki	Ohkubo
Medium and small supermarket	Inageya	Summit store	Daimaru Peacock	Life

1.3.5.4 Shelf life

Shelf life and the transit time (the number of days required for ocean transportation) are very important factors to determine the sources of import in the case of chilled beef. Shipping from Argentina to Japan takes approximately 40 days while it takes 14 and 12 days from the US and Australia, respectively. Shelf life for the Argentine fresh beef is around 90 days, which gives 40 days allowance for the Japanese importers when the number of days used for export and import procedure is extracted. The number of days of allowance for the US and Australian beef is 20 and 40 days, respectively. In this context, if the shelf life of 90 days of the Argentine beef is adequate, Argentina has a good potential to export *chilled* beef to Japan.

Table V-1-3-18 Shelf Life and Days Required for Transportation to Japan

	US to Japan	Australia to Japan	Argentina to Japan
Export procedure	7	3-4	7
Transit Time	14	12	40
Import Procedure	3-4	3-4	3-4
Total	25	20	50
Shelf Life	45	60	90
Allowance	20	40	40

Nevertheless, many beef importers in Japan have cited that the importation of chilled beef from Argentina is unlikely due to the following reasons:

- Regardless of the length of shelf life, it would be more convenient for beef importers to deal with the Australian and the US beef than the Argentine beef because it takes only 20~25 days to import from the former countries while it takes more than 50 days from the latter. It is a trend of the Japanese market that chilled beef is consumed sooner and sooner. One of major supermarkets has made it a company's rule to sell chilled beef within 40 days even though the beef is evaluated to have the shelf life of 60 days.
- The quality of beef deteriorates even within the length of shelf life as the beef becomes old. A 35-days-old chilled beef can be sold for one day longer in supermarkets than a 60-days-old chilled beef as the color of the latter deteriorates more rapid than that of the former. The amount of drip also increases as the beef becomes old, and it reduces the yield of meat. As these effects lower the price of old chilled beef, beef importers are not willing to deal with the chilled beef with a long transit time.
- With a longer shelf life, there is more possibilities for damage claim. As when and how the damage has taken place is very difficult to specify and tend to bring about a controversy between the importers and exporters, the Japanese importers try to avoid the damage claim. For this reason, the Japanese beef importers attempt to sell chilled beef as fast as possible.

Although sanitary conditions in the Argentine meat packing plants, which is a major factor to determine the length of shelf life, are better than those in the US and Australia, the shelf life of the Argentine chilled beef is not likely to reach 90 days. Experimental shipment of the Argentine chilled beef to Japan may be necessary to evaluate the length of shelf life, although such trial is unable to conduct at present.

Exportation to Japan via Chile does not seem to be a viable alternative at present. Freight from Chile to Japan is approximately the same as that from Argentina. Under the current shipping schedule, transit time from Valparaiso to Japan is around 30 days, and this is about 5~10 days less than that from Buenos Aires to Japan. However, the frequency of call at Valparaiso port is less than that at Buenos Aires port, which in practice extends the number of days required for transportation. If the number of days and costs for inland transportation are taken into consideration, exportation from Chile does not seem to benefit the Argentine meat packers. According to a Japanese shipping

company, the only cargo that is exported via Chile but originates in Argentina is wine from Mendoza.

Regardless of the length of shelf life, the price of chilled beef declines as the beef becomes old. Even if the Argentine chilled beef has sufficient length of shelf life, its market price may be lower than that of US or Australian beef.

Air transportation enables the exportation of chilled beef. With the current flight schedule, it takes only a few days from Argentina to Japan. At present, for example, beef jerky is exported to Japan via air. Feasibility on air transportation of the Argentine chilled beef will be studied in 1.3.6.2. (2).

1.3.6 Strategies to Penetrate into the Japanese Market

1.3.6.1 Basic notion for the formulation of marketing strategies: value creation and the whole product concept

For a product to maintain its attractiveness, the product needs to have its own intrinsic value. In other words, although the prices of many products have been decreasing due to recent "price destruction," consumers are willing to pay a premium to a product which has its own intrinsic value. This tendency, however, does not mean that there no longer exists a market where prices determine everything. Such market is always approached by new comers which quote lower prices. Only those products that have intrinsic value can survive in the market for a long time.

Nevertheless, recent technological innovation and mass-communications development have made it very difficult to find an intrinsic value and to differentiate from the others. Traditional marketing strategies to focus on prices and quality are not sufficient for the differentiation. Apart from prices and quality, the reliability of suppliers has become an important issue. The reliability of suppliers is derived from:

- Good reputation of exporters;
- Strong management philosophy;
- Soundness of financial situations;
- Sustainability of the business;
- Desire to technological innovation; and
- Commitment to the Asian market.

These factors can be summarized by the term "whole product concept." Prices and quality will continue to play an important role, but they will not be everything that is needed.

(1) Value creation

Although value creation is important, it is difficult to argue the value creation on beef in the same context as that of high-technology-based products or special services. In the case of beef, a major source of such value creation is a combination of the crude value of beef itself with the values of other invisible factors. The value of beef increases when the beef is linked with something valuable.

There are three food-related key notions which the Japanese consumers increasingly consider valuable. They are health, safety, and the environment. Health relates to the balance of diet. Consumers make an utmost effort to balance their daily diet by minimizing the consumption of, for example, fat and cholesterol. Safety implies the purchase of foods which have not used any pesticide nor food-additives. The environment is significant because consumers are trying to minimize an impact on the environment of their consumption of food. An impact on the environment is evaluated through the whole process that covers choice of food materials, cooking, eating, washing, preserving and waste.

Any products that can appeal these notions to consumers would be able to enjoy a reputation of valuable food. These notions should be taken into consideration for Argentina when it devises marketing strategies.

(2) Whole product concept

The reliability of suppliers is a major factor of the "whole product concept," and it results from the following conditions:

- The Argentine beef industry has a solid foundation in terms of number of firms, soundness of management and finance, sanitary conditions, and unified association;
- The Argentine beef industry has high reputation;
- Importers can be assured of sanitary controls in Argentina;
- The Argentine beef industry has a definite corporate culture which respects health, safety and the environment;

- The Argentine beef industry has a clear and appropriate management philosophy;
- The Argentine beef industry is always aware of the demand and supply balance, and stable supply is assured;
- The Argentine beef industry is aggressive in technological innovation and takes initiatives in the world beef industry;
- The relation between the Argentine government and the beef industry is amicable; and
- Information on the financial status of each firm and other relevant issues are disclosed to the public.

These conditions indicate that the competitiveness of the Argentine beef is not solely derived from a few top firms, but is derived from the beef industry as a whole.⁷ In case the current Argentine beef industry does not meet these conditions, it should try to acquire them with an aim to expand exportation.

This line of thought tries to see the competitiveness of the Argentine beef industry from dynamic, but not static, point of view. The Japanese beef importers will not deal with the Argentine beef industry unless they are confident that it has a dynamic competitiveness. This dynamic point of view is especially important for the Japanese firms which wish to foster a long-term business relationship. The whole product concept will be the focal point of promotion activities in Japan.

1.3.6.2 Market and product strategies

(1) Advantages and disadvantages of the Argentine beef

Since there is a limit to the domestic supply of beef in Japan, beef consumption will increasingly be dependent on foreign sources. Argentina, one of the largest beef producing countries in the world, has a good potential to be the third major supplier to Japan after the US and Australia.

The advantages and disadvantages of the Argentine beef from Japan's perspectives can be summarized as follows:

Advantages:

- Good natural conditions

⁷ Here and in chapter 1.4, export meat packers refer to those meat packers that are already exporting to the US and Europe.

Argentina is endowed with better climate, geography, soil and other natural conditions than Australia.

- Good quality

Many Japanese people recognize the excellent quality of the Argentine beef. Races of cattle are better in Argentina than in Australia.

- Healthy food

Unlike the US and Australian beef, the Argentine beef is hormone-free and contains little fat.

- Meat packers are experienced in export

- Japanese beef dealers are looking for alternative sources.

They are concerned with the possible dominance of the beef market by a few US meat packers.

They are always eager to expand their market share.

They are familiar with the US and Australian beef, but somewhat tired of them.

Disadvantages

- Far from Japan

Constraints in shelf life in the case of chilled-beef.

Timely (just-in-time) delivery is difficult due to longer transit time.

- Grass-fed and frozen beef is not very popular in Japan

In general, grass-fed beef is not very popular in Japan due to its taste and smell. Frozen beef has begun to be replaced by chilled beef.

- The Argentine beef has different appearances

The Argentine beef has a slightly purple color which an uninformed Japanese consumer could associate with old beef. In addition, the fat of the Argentine beef has a yellowish appearance while that of Japan and the US has a whitish appearance.

Taking into account these advantages and disadvantages, the following table summarizes suggested marketing strategies for Argentina.

Table V-1-3-19 Marketing Strategies

Priority	Market	Frozen / chilled	Grass/grain	Menu	Key	Examples
1	Processing Commercial	Frozen	Grass-fed	Traditional	Cost	Hamburger Steak
2	Processing Commercial	Frozen	Grass-fed	New	Development of new dishes	Milanesa Oven cooked dishes
3	Household	Frozen	Grass-fed		Adjustment in grass-fed beef	
4	All	Chilled	Grass-fed		Air transportation	
5	All	Chilled	Grain-fed		FDI	

Priorities 1 and 2 seem to be materialized soon after the market access problem is cleared, while priority 3 is expected to take some time due to the characteristics of grass-fed beef with which the Japanese consumers are not familiar. Air transportation seems to be more suitable to the exportation of chilled beef (Priority 4) than ocean shipping, while in that case differentiation of the Argentine beef from the Australian grass-fed beef would be necessary. Although direct investment of the Japanese firms may be a precondition for Argentina to export grain-fed beef to Japan (Priority 5), there are several constraints for it. The first four priorities (from 1 to 4), except priority 3 to some extent, are trying to export the Argentine beef as they are. No modification of the taste, appearances, quality will be necessary. Priority 5 is a long-term goal and will require an extra stage of feed-lot after cattle is fattened. The following section explains each priority in more detail.

(2) Marketing strategies

Priority 1: Export of frozen and grass-fed beef for the processing and commercial sectors

Most of the frozen and grass-fed imported beef is used for processing purposes such as hamburgers and retort-packed curry rice. Fore and hind, and chuck and blade are the major parts used for hamburgers, and brisket is used for retort-packed curry rice. Cost is the most important factor to determine the origin of import, and currently this type of beef is mainly imported from Australia. This is the most inexpensive type of beef available in Japan. Although the importation of frozen and grass-fed beef is relatively small (90,000 tons in 1994 on bone-less basis), the market is larger than 90,000 tons because the leftover of chilled beef and/or grain-fed beef is poured into this market. This flow further lowers the price of frozen and grass-fed beef. It would be difficult for any country to gain substantial profit from this market.

Even in this low value-added market, the Japanese beef importers demand very high levels of safety and sanitary controls at processing plants. For example, not a single piece of metal nor bone is allowed to be mixed in the patty for hamburgers.

The exportation of aged frozen beef may allow to add some value. At present, some restaurants and hotels use the Australian aged frozen beef for steaks and traditional Japanese dishes. Parts imported include tender loin, strip loin, rib eye role, chuck role, and clod. Current C&F price of the aged frozen chuck role, for example, is about US\$ 2.65/kg. While cost is the main factor to determine the sources of import, prices of aged frozen beef are higher than those of fresh frozen beef by about US\$ 0.30/kg. Although grain-fed beef is preferred, demand for grass-fed beef does exist. One of Japan's major beef dealers is interested in dealing with aged frozen beef in Argentina. The development of a new technology of tempering frozen beef will help upgrade the quality of beef available in Japan.

Another strategy to add value would be to promote from "value creation" perspectives. The Argentine beef is healthy, safe, and is produced with a due care to the environment. Although most Argentine beef is not regarded as an "organic" beef by the definition of "organic food" of Argentina as well as other major countries, Argentina should emphasize the absence of hormones and chemical additives.⁸ Argentina may also emphasize the way cattle is raised in Argentina. It is very natural, while cattle in Japan is treated completely cruelly. Many Japanese beef dealers are eager to differentiate themselves from the others, and the above characteristics of the Argentine beef may attract such dealers.

Sales efforts to the commercial sector should be accompanied with aggressive promotion activities. The US and Australian beef organizations have their branch offices in Japan, and they join promotion activities of restaurants and supermarkets by sharing the costs and providing some promotional materials. New Zealand and Canada have also established their own beef organizations in Japan for promotional activities although their beef export to Japan is still minimum. Institutional framework for Argentina's promotion activities will be further discussed in 1.3.6.3. The priority 1 is summarized under the following points:

⁸ The definition of "organic livestock product" has not been established yet in Japan. The definition of "organic agricultural product" is as follows:

No practice of synthesized agricultural chemicals, chemical fertilizer, and synthesized chemical materials to improve soils for the whole process of food production. Or if some designated synthesized chemical materials to improve soil were practiced, it must have passed more than three years since the practice is halted.

Main user:	Fast-food restaurants
	Meat packers
Market size	90,000 ton in 1994
Key:	Cost
Competitor:	Australia
Distributor:	Meat packers
	Trading houses
Time frame:	One year

Priority 2: Export of frozen and grass-fed beef for the commercial and processing sectors for new dishes

The objective of the priority 2 is to expand the market of frozen and grass-fed beef. The market of grass-fed beef has been stagnant at about 200,000 tons for the last several years, although the beef market as a whole has expanded rapidly. The key would be the development of new dishes.

Eating beef is rather new in the history of Japanese food habit, and most Japanese like to eat beef sliced as is shown in the table below. The Japanese are not familiar with the other kinds of forms. The Japanese meat industries have been active in developing new dishes with a hope to expand Japan's beef consumption furthermore. The Japanese consumers do not hesitate to try new dishes.

Table V-1-3-20 Forms of Beef Purchased in Japan

	FY	1992	1993
			(%)
Block		4.1	5.8
Smaller block		15.3	16.3
Steak		19.6	22.7
Slice for Yakiniku		33.4	33.3
Very sliced		54.5	55.2
Sliced (others)		6.6	7.5
Minced		9.9	8.0

Note: Plural answers.

Source: Japan Meat Information Service Center, Consumer Survey

The first approach to develop new dishes would be the introduction of the Argentine dishes. Dishes that are cooked by ovens seem to have a good potential because such dishes are not very much developed in Japan. The Argentine dishes like *milanesa* may also have a potential to be accepted by the Japanese consumers.

The meat packing industry is the most active in developing new dishes. Collaboration with the industry is suggested. Big meat packers have their own research

and development (R&D) institutes where dozens of people are engaged in research activities. The staff members at basic research institutes represent about 1% of the total employees in the meat packing industry. The role of the R&D institutes would include:

- Development of basic technology
Control of micro-organism, processing technology, protein, by-product of livestock, etc.
- Product development
Development of new dishes
- Development of livestock breeding

Table V-1-3-21 R&D Activities by Meat Packers in Japan

Name of company	R&D Expenditure (US\$ million)	Ratio of the Expenditure to Sales (%)	Organizations
Nippon Meat Packers	25	0.5	Basic research institute Products development institute Technology development institute Breeding technology institute
Ito Ham Foods	17	0.4	Basic research institute Products development institute
Prima Meat Packers	7	0.3	Basic research institute Products development institute Technology development institute
Marudai Food	8	0.4	Basic research institute Products development institute

Note: Figures are for FY1995

Source: Financial Statement of each company

One way to avoid being involved in exhausting cost competition is to supply a specialized specification of meat. Collaborative development of new dishes between the Argentine and Japanese meat packers may allow the Argentine meat packers to provide such specification that the other meat packers are unable to offer. In order to be a partner of collaborative development, the Argentine meat packers should be recognized:

- To have sufficient equipment and skills;
- To be flexible, prompt and accurate in responding to the requests of the Japanese beef dealers.

The priority 2 is summarized under the following points:

Main user:	Restaurants
	Meat packers
Market size	Unknown

Key:	Development of new dishes
Competitor:	Australia
Distributor:	Meat packers
Time frame:	Two years

Priority 3: Export of frozen beef for the household sector

The sale of the Argentine grass-fed beef directly to the consumers seem to take longer time than the previous two priorities. In addition to differences in color of both meat and fat, difference in smell of the Argentine beef may become an obstacle. Grass-fed beef has a smell being different from the smell of grain-fed beef which the Japanese consumers have been accustomed with.

Nevertheless, these differences may be overcome by some technological development. Adding grains to grasses as a feed for some time before the cattle is slaughtered may change the color of meat and fat and mitigate the smell. It has been said that vitamin E plays an important role, although it would raise the cost of cattle. In Australia, grains have been given to grass-fed cattle for 100 days and its meat is popular in Japan for its healthiness and the absence of smell.⁹ Some adjustment of feed may enable the Argentine beef to approach to the household sector.

The best way to approach the household sector seems to supply a portion cut of vacuum packed aged frozen beef through mail order and house delivery services. Consumers cooperatives in Japan are very active in this kind of services, and they are interested in dealing with "natural" or "healthy" beef. These services are also provided by other firms.

The exportation of portion cut beef may also attract supermarkets as it will eliminate the process of slicing and packing in Japan. Supermarkets will be able to display the meat without any processing. Although the sale of frozen beef in supermarkets is minimum in Japan yet, the trend is that a greater portion of processing is done by the up-stream industries. An obstacle for higher processing in the up-stream industries is that tariff rate is imposed on the value-added in the up-stream industries. This increases the cost of products available in Japan that were value-added before it was imported.

⁹ In Australia, beef is not recognized as grain-fed unless grain is provided for more than 100 days. The beef is sold in Japan as a grain-fed beef.

The preparation of recipe and the education of consumers are indispensable to attract the consumers. Recipe is often attached to beef in supermarkets. Recipe is particularly important when offering new dishes to consumers. The US and Australian beef organization have been very active in the preparation and the distribution of recipes which use their own beef. The priority 3 is summarized under the following points:

Main user	Consumers cooperatives Supermarkets
Market size	Small
Key	Adjustment in the characteristic of grass-fed beef
Competitor	Australia
Distributor	Meat packers Supermarkets

Priority 4: Export of chilled beef

Taking into account the long transportation time between Argentina and Japan, the exportation of chilled beef via ocean seems to be difficult due to the constraints of shelf life. Air transportation of chilled beef appears to have a better potential than ocean shipping.

Japan's beef import via air is not very significant. At present, it accounts for about 1% (8,000 tons per annum) of the total beef import in Japan. Forty percent of this is to deliver beef as soon as possible to make up a delay in production or to meet a sudden decline in stock in Japan. The remaining sixty percent is imported in carcass to be cut in Japan and sold as a Japanese beef. An increase in freight cost is recouped by offering the beef as a Japanese beef as it can offer higher prices than imported beef. Costs of imported beef via air are higher than those via ocean by US\$ 3.00/kg from the US, and by US\$ 1.50/kg from Australia, respectively.

Major foods imported via air include tuna, salmon, eel, and some vegetables. They are perishable and can offer high prices in the Japanese market. An average market price of tuna imported via air is about US\$ 40/kg. Only 10% of these goods are those that are imported via air for emergency purposes. Vegetables are imported from the Southern hemisphere to make use of a difference in season.

Given this current market situation, the following would be the key to export the Argentine beef via air:

- The Argentine beef would have to differentiate it from, especially, the grass-fed Australian beef. The breakdown of the cost through the distribution channel in Japan of Australian grass-fed beef imported via ocean is shown below.

**Table V-1-3-22 Breakdown of costs through the distribution channel in Japan
(In the case of strip loin of the Australian grass-fed beef)
(US\$/kg)**

Items	Cost	Remarks
CIF	5.60	
Tariff	2.80	About 50%
Domestic transportation, etc.	0.25	
Cost for wholesaler	8.65	
Margin of wholesaler	1.00	
Loss in weight	2.50	Yield from vacuum packed meat is about 80%
Transportation to, and cutting, packing, and margin at supermarkets	7.50	
Retail price	19.65	

Air transportation cost from Buenos Aires to Japan is about US\$ 4/kg, while ocean transportation cost from Australia to Japan is about US\$ 0.3/kg. The difference becomes around US\$ 5/kg when custom tariff (around 40%) is taken into account. The Argentine beef would need to offer higher prices than the Australian grass-fed beef to recoup this additional cost. Since the Argentine beef would not be sold as a Japanese beef due to a difference in grass-fed vs. grain-fed, an emphasis of the characteristics of the Argentine beef through active promotion would be necessary.

Since there is no direct flight from Argentina to Japan, a smooth operation at a transit airport (New York in general) is very important. The temperature in a container is adjusted by the amount of dry ice which is put in at the Buenos Aires airport. To enable to put an exact amount of dry ice in the container, a precise travel time from Buenos Aires to Japan should be available prior to departure. Sometimes, however, air cargoes are not loaded as planned at transit airports. A delay in transit may deteriorate the quality of meat in the container. One way to ensure a smooth transit would be to use influential forwarders as airline companies pay a greater attention to those cargoes handled by big forwarders. As the ratio of damage claim on imported beef via air is higher than that of via ocean, very careful handling and operation of meat would be required.

The realization of the export of chilled beef will expand the market to which the Argentine fresh beef can penetrate. Among the sectors, the commercial uses would be the largest, and easier to approach than the household sector. Restaurants can manipulate the taste and smell of the grass-fed beef by using sauces and side dishes effectively. In addition, restaurants are not likely to be discouraged by the appearances of grass-fed beef. The priority 4 is summarized under the following points:

Main user	Restaurants
	Meat packers
Market size	110,000 ton in 1994
Key	Air transportation
Competitor	Australia
Distributor	Meat packer
	Trading houses

Priority 5 Export of grain-fed beef

The production of grain-fed beef will allow Argentina to penetrate into the main part of the beef market in Japan. It is the market where the Japanese and imported beef are struggling each other to expand market shares. The market is very large, and prices are higher in comparison to those of grass-fed beef. The Argentine grain-fed beef would be much more competitive than the Australian grain-fed beef because of the good availability of grains and lower transportation costs of grains.¹⁰

However, for Argentina to be a grain-fed beef supplier to the Japanese market, Japan's direct investment seems to be necessary. Past experiences show that other forms of cooperation would not be successful. Some Japanese firms have sent experts to some Australian firms to help them produce the kind of meat which is well accepted in Japan. But such trial has been a failure because of a difference in corporate culture and that not all the meat is exported to Japan.

Major impediments for Japan's direct investment to Argentina would include the following:

- No grain-fed market in Argentina. As there is no grain-fed beef market in Argentina, grain-fed beef will have to be exported in full-set, which would make the price of beef higher. The US grain-fed beef is more competitive in this context

¹⁰ Australia imported grains from the US to feed cattle in 1995.

because the exportation of a specific part is possible as the rest of the parts can be absorbed by the US market.

- Difficulty to export chilled beef. Cost of direct investment will not be recouped by the export of frozen beef as its prices are lower than those of chilled beef. The exportation of chilled beef would be a precondition for FDI, but it is difficult due to long transportation time and the constraints of shelf life.
- Lack of financial capability of the Japanese beef dealers. Although many firms have invested in the US and Australia, most of them are said to be in an accumulated loss. They are not very aggressive in foreign direct investment now.

In spite of these difficulties, it should be reminded that Argentina is still regarded as a potential supplier of grain-fed beef among the Japanese beef dealers. This fact shows Argentina's great potential to be an important supplier to the Japanese beef market. The priority 5 is summarized under the following points:

Main user	Household and commercial sectors
Market size	380,000 tons in 1994
Key	Technology development to extend shelf life Demand for grain-fed beef in Argentina Foreign direct investment
Competitor	USA, Australia, Japan's dairy cattle
Distributor	Meat packers Trading houses

1.3.6.3 Sales promotion with institutional support

In order to promote the Argentine beef based on the whole product concept, existing entities related to beef export may need to be re-arranged to the direction as described below:

(1) Solid association

As mentioned before, competitiveness of the Argentine beef should derive from the industry as a whole. An effective cooperation among exporting meat packers should be fostered through an association. The association should be solid and comprehensive. It can play an important role in enhancing the competitiveness of the industry by coordinating the interest of each firm, undertaking promotion activities of the Argentine

beef, and negotiating with the government. Recent merger of Asociacion de Industrial Argentinas de Carnes (AIAC) and Centro de Industriales de Carne (CIC) is a good sign toward this goal.

(2) Good cooperation between the private and the public sectors

In addition to fostering a good relationship among exporting firms, the relation between the private and public sectors should be amicable and cooperative. PROCAR has been established in 1993, and has developed joint activities between private and public sectors by, for example, participating in food fairs abroad. Due to budget constraints the activities of PROCAR have been small-scale, but it has been successful in encouraging private firms to be more aggressive in promotion and disseminating information on the situations of some foreign markets.

Cooperation not only between the private sector and the central government but also between the private sector and provincial governments should be fostered. In Japan, both local governments and the private sector have been active in promoting the product of the area. In Japan, the quality of beef is often associated with the area of breeding, and high quality beef is sold under the name of breeding areas such as Kobe beef and Matsuzaka beef. These promotion activities have contributed to regional development. Designation of some production areas and sales promotion referring to the area can be developed through an effective cooperation between the private sector and provincial governments.

Forecasting future demand and supply by both the private and public sectors will foster the reliability of the Argentine beef industry as a whole. The Japanese importers are very much concerned with stable supply. They expect that Argentina has a clear future prospect on demand and supply situation. Periodical forecast by each sector and the consolidation of the forecasts will facilitate to find out potential problems and allow them to take some measures in advance.

1.3.6.4 Strengthening market information gathering function

(1) Reasons why market information gathering system is necessary

As the market environment in Japan such as regulations, market trend, strategies of competitors varies rapidly, it is difficult to gather all the necessary information in Argentina. When beef is constantly exported to Japan from Argentina, information can be easily gathered through the Japanese importers or at the occasion of exporters'

business trips. However, this is not the case of Argentina at present. Establishing a market information gathering system is necessary. The establishment of such a system entails a risk as the export of fresh beef has not been materialized. The key would be who bears the cost and how to allocate it among them.

(2) Function of the market information gathering system

The system would have a role in the gathering of market information, promotion of the Argentine beef industry, and assistance to inter-governmental negotiations. More detailed roles are described below:

I. Market information gathering

- Information to gather:

Domestic demand and supply, distribution, the trend of consumers and the beef industry, the trend of import and competitors.

- Sources of information:

MAFF Livestock bureau, animal health division; trading houses, meat packer, super markets, restaurants, import associations, etc.

Information will be gathered based on both periodical and request-basis.

II. Promotion of the Argentine beef industry

Promote to the Japanese beef importers and consumers using materials prepared by the Argentine beef industry. Key for promotion would be the reliability of the Argentine beef industry with an emphasis on "whole product concept."

(3) Staff

One person. Working period will be three months in a year. Hiring a Japanese who has enough knowledge on the Japanese market and administrative procedure would be recommended. It would be more desirable if he/she is familiar with the situations in Argentina. In addition, it is recommended to hire a staff member of neutral organizations or consulting firms to avoid being considered as a business of a particular company.

An Australian livestock organization in Japan has hired a Japanese who had previously worked with Japan's quasi-public livestock organization and had worked in its Australian office.

(4) Cost sharing

Overall cost will be US\$ 100,000/year (three months) including trips to Argentina. All the amount should be borne by the association of exporting meat packers. If ten firms share the US\$ 100,000, costs for each firm will amount to US\$ 10,000 per annum. This amount will be equivalent to about 0.1 % of the sales if annual export from Argentina to Japan is 40,000 ton.

(5) Stages of activities

The proposed activities should be carried out in the following three stages:

I. Hiring a consultant

A contract may be established when a ban on import is likely to be lifted in the near future (in a year), and be terminated when the exportation has become solid which is expected to be 2~3 years after the commencement of export. The above mentioned (3) Staff and (4) Cost sharing are assuming this stage.

II. Establishing a representative office of association

At this stage, promotion becomes more critical, while each exporting meat packer is still unable to establish its own office in Japan. The association can consolidate these needs and establish its own representative office in Tokyo. This kind of office is expected to be required for about next 10 years. Marketing boards and/or exporters association in Australia, New Zealand and some European countries have their own representative offices in Japan.

III. Establishing a representative office of each exporting firm

Final goal is for each exporter to establish its own office in Japan. Major meat packers in the US have their own offices in Tokyo.

1.4 Capacity of the Export of the Argentine Beef to the Japanese Market

1.4.1 Demand and Supply Situation in Argentina

Table V-1-4-1 Basic Indicators of Beef Production and Consumption in Argentina

	CY	1990	1991	1992	1993	1994
The number of cattle*	Thousand heads	51,564	51,915	53,011	53,804	53,730
Cattle slaughter	Thousand heads	12,467	12,345	11,712	11,895	11,824
Beef production	Thousand tons (carcass weight)	2,686	2,607	2,487	2,508	2,473
Average carcass weight	kg	215	211	213	211	210
Beef consumption per capita	kg/annum	71.3	67.9	66.4	66.9	62.7
Price of steers	1960=100	73.1	82.4	100.1	86.2	82.5
Beef exports	Thousand tons (carcass weight)	474	411	296	280	374
Export as % of total production	%	17.6	15.8	11.9	11.2	15.1

Notes: The figures in beef production and beef exports are carcass weight.

Prices are Liniers Market prices.

Source: Situación del Mercado de Carnes, Año: IV No.23, SAGyP

* Estadísticas Agropecuarias y Pesqueras, SAGyP, p.152

Argentina has a huge domestic market of beef. Its beef consumption per capita is one of the highest in the world. Eighty to ninety percent of beef products is consumed within the country.

Per capita beef consumption, however, has been declining recently due to the diversification of food consumption and a greater concern for healthy food. The Argentine people have begun to divert from beef to chicken which is considered healthier. In order to revitalize the domestic beef consumption, beef-related industries are taking measures to educate the consumers on the benefits of beef in a balanced diet. Some studies have verified that the Argentine beef contains less cholesterol than chicken. However, the trend of a decline in beef consumption per capita does not seem to have stopped.

A decrease in domestic beef consumption has resulted in a reduction in the number of cattle producers. In Argentina, cattle is raised through the chain of breeders (criadores) and fatteners (invernadores). Small breeders and fatteners who have been unable to improve productivity due to land and capital constraints have sold their land to large land-owners. The number of cattle producers is now estimated to be less than 370,000.

Agricultural land holding is fairly skewed as is shown in the following table, although the updated data are not available.

Table V-1-4-2 Land Holdings of Agricultural Areas in Argentina

Size of agricultural area by individual farmers	The number of farmers	%	Total areas (ha)	%
5 ha ~ 500 ha	329,801	87	28,927,753	16
501 ha ~ 5,000 ha	42,355	11	60,561,887	34
5,001 ha ~ 20,000 ha	6,201	2	87,947,755	50
Total	378,357	100	177,437,395	100

Source: Censo Agropecuario 1988

The amount of cattle production has been stagnant. Traditionally cattle has been fattened on the pasture during the fallow period of crop production in which rotation was generally made every 4 to 5 years. Recent stagnation in the price of cattle and an increase in the price of crops have reduced the profitability of cattle raising relative to crop production, and led to a reduction in the area for cattle fattening. Cattle production is also being pushed out into "marginal" land. If the current low prices of cattle continue, the amount of cattle production is likely to decrease, which may undermine Argentina's supply capacity.

Table V-1-4-3 Production of Beef in Argentina (1981/82 - 86/87 = 100)

		1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
Agriculture	Cereals	77.78	80.39	56.56	70.15	80.33	90.91	90.22	83.00
	Oilseeds	104.68	143.68	104.93	159.82	163.60	163.77	151.68	159.73
	Total	97.48	102.33	87.88	102.73	108.18	107.57	106.42	106.86
Livestock	Beef	100.20	94.06	95.59	95.94	93.62	90.14	91.49	88.84
	Dairy	104.61	102.49	120.54	112.65	109.76	121.84	129.46	138.66
	Total	101.32	95.81	90.96	97.43	92.88	90.92	92.59	90.10

Source: Censo agropecuario

1.4.2 Meat Packing Industries in Argentina

1.4.2.1 Characteristics of meat processing plants

Meat processing plants in Argentina can be divided into four groups as shown in the following table. First, the plants exporting to the US and EU are under the direct jurisdiction of SENASA. Plant equipment and sanitary and operational measures must be accorded to the requirements of the US/EU. Meat packing plants that wish to export to Chile also need to be in this category.

Table V-1-4-4 Classification of Meat Packing Plants in Argentina

Market of products		Direct Jurisdiction	The number of plants	Share of slaughtering	Levels of facilities and sanitary / operational standards	Levels of control
Export	USA, EU, Chile	SENASA	30	87%	High	Strict
Export	Brazil	SENASA	140		Normal	Strict
Domestic	Inter-provinces	Provincial government	Many	13%	Low	Loose
Domestic	Intra-provinces				Low	Loose
Domestic	Intra-municipality	Municipal government	Many	13%	Low	Loose

Second, the plants for inter-provincial markets are under the direct jurisdiction of SENASA. However, they are unable to export to the US/EU partly because they can hardly finance the facilities which they have to be equipped with and partly because they are unable to introduce costly sanitary and operational measures. Another reasons for their lack of access to the US/EU markets would include the difficulty to obtain lucrative quotas due to high competition. These plants can export to Brazil as the levels of facilities and measures required by Brazil are almost the same as the ones required by SENASA.

Third, the plants for intra-provincial markets are under the direct control of provincial governments which are, in turn, overseen by SENASA. Fourth, the plants for intra-municipal markets are directly controlled by the municipal governments, which are also overseen by SENASA.

1.4.2.2 Distribution channels

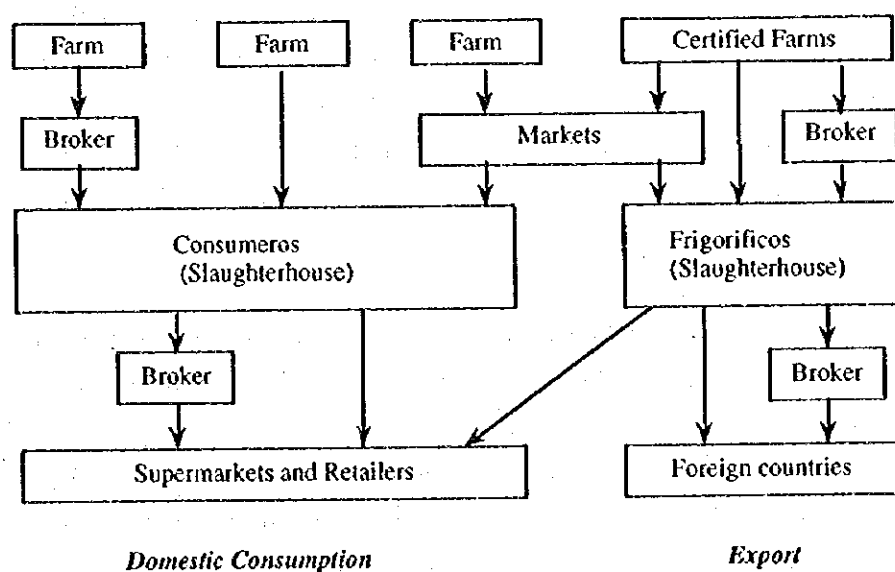
In Argentina, production, processing, and distribution of export beef are completely separated from those for the domestic market. Major size of cattle for domestic consumption is around 400 kg while that for export is bigger than 450 kg. Most domestic-market oriented beef is handled by *matarifes* who purchase cattle from producers and have *consumeros* slaughter cattle into carcasses, and distribute them to meat shops and supermarkets. On the other hand, most export meat packers are specialized in exports, and distribution (export) is made in cuts (boxed beef). Export meat packers are not competitive in the domestic market because they are subject to strict facility and operational requirements of SENASA and the countries to which beef is exported. These measures have increased the fixed cost of export meat packers. In addition, while export meat packers, in general, comply with 21% (as of December 1995) of value-added tax (VAT), many domestic market oriented slaughterhouses and *matarifes* are said to have evaded from the VAT. Thus, export meat packers cannot compete in the

domestic market. The only cuts export meat packers supply to the domestic market are those that are not popular in external markets.

Vertical integration is underway in the distribution system in order to minimize commercialization costs. The share of beef handled by central and regional markets, brokers, broker-cum-wholesalers is declining. The ratio of cattle handled by the Liniers market has decreased to 17% in 1994 from 31% in 1984, although the Liniers prices have continued to be used as a reference for cattle handling outside the market.

Recent expansion of supermarkets is notable. Supermarkets have been successful in obtaining a reputation for good quality of beef. Some supermarkets have reduced intermediary costs by holding their own slaughterhouses. Supermarkets are especially prevalent in cities, where many traditional meat shops are out of business.

Figure II-1-4-1 Distribution Channels of Beef in Argentina



1.4.2.3 Export activities

Table V-1-4-5 Argentina's Beef Export by Destination

CY	(volume: ton, value: US\$ 1,000)											
	1993				1994				1995 (1st quarter)			
	Volume		Value		Volume		Value		Volume		Value	
	%		%		%		%		%		%	
EU	128,339	46	335,184	60	152,726	41	410,129	74	37,869	35	105,533	52
Germany	59,461	21	241,752	44	67,585	18	278,880	50	14,102	13	60,852	30
France	8,510	3	15,911	3	7,786	2	16,809	3	2,690	2	6,101	3
Netherlands	8,779	3	10,394	2	9,457	3	13,046	2	4,238	4	8,307	4
Italy	16,195	6	23,665	4	21,857	6	38,976	7	5,829	5	10,167	5
UK	32,654	12	37,544	7	42,494	11	53,901	10	9,610	9	16,919	8
USA	86,367	31	124,855	22	80,993	22	115,036	21	22,666	21	32,264	16
Japan	616	0	848	0	902	0	1,251	0	367	0	476	0
Brazil	9,618	3	16,692	3	43,381	12	55,392	10	17,703	16	22,727	11
Chile	24,135	9	33,121	6	47,410	13	64,846	12	10,997	10	15,948	8
Total	280,455	100	555,208	100	373,995	100	555,208	100	107,720	100	204,180	100

Note: The figures include processed meat. The volume is carcass weight.

Source: Situación del Mercado de Carnes No.23 Enero-Abril 1995, SAGyP, p.90-95

The region to which the largest amount of Argentine beef is exported in the world is the EU. It accounted for 41% in volume, and 74% in value in 1994, respectively.

Main reasons for a larger representation of the EU in value than volume of the Argentine beef export would include the existence of Hilton Quota which is provided by the EU. It amounts to about 28,000 tons per annum. All the beef exported to the US is thermo-processed such as corned beef.

Beef export has been expanding since 1993. The growth of export is particularly prominent in Brazil and Chile. In 1995, the volume reached 450,000 tons (carcass weight, about 20% of Argentina's production). In Argentina, overall slaughtering and packing capacity is estimated at 20 million heads per year, while the current number of slaughtering is about 12 million. Some exporting plants are not in full operation at present. Thus, meat packers' supply capacity is not likely to be a constraint for the expansion of export.

Table V-1-4-6 Type of Beef Exports in Argentina

CY	(volume: ton, value: US\$ 1,000)							
	1991		1992		1993		1994	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Chilled and Frozen Quarters	3,652	6,210	546	915	1,492	1,599	14,096	15,456
Chilled Cuts	36,396	250,060	34,692	260,675	36,867	250,245	56,608	325,192
Frozen Cuts	51,421	135,527	22,588	74,650	25,617	72,128	56,323	136,345
Frozen Manufacturing Type	547	762	553	859	1,107	1,437	3,169	4,044
Cooked and Frozen	43,135	149,969	32,004	117,544	33,941	129,813	35,123	132,815
Corned Beef	55,651	150,753	45,011	94,890	33,050	75,692	34,379	84,999
Other Cans	13,104	37,399	9,022	24,802	8,902	24,295	6,673	17,771
Total	411,289	730,680	296,407	574,335	280,455	555,209	373,995	716,622

Figures in Total volume are carcass weight.

Source: SAGyP, Situación del Mercado de Carnes, No.23, page 27,28

The level of concentration of the beef export industry is high. The top 5 and top 10 exporters accounted for 57% and 77% of the total export, respectively in 1994. Many major export meat packers have experienced merger during the last several years.

Table V-1-4-7 Major Beef Exporters in Argentina

Table 1-1-4-7 Major Beef Exporters in Argentina									
(volume: ton, value: US\$ 1,000)									
	CY	1994				1995 (Jan. to Apr.)			
		Volume		Value		Volume		Value	
		%	%	%	%				
1 C.E.P.A. S.A.		45,106	19	145,968	18	17,900	19	63,054	20
2 SWIFT-ARMOUR SA		34,957	15	132,380	17	12,237	13	44,941	14
3 FRIAR S.A.		21,109	9	73,019	9	7,719	8	27,631	9
4 QUICKFOOD ALIM. RAPIDOS S.R.L.		16,028	7	57,206	7	6,302	7	24,024	7
5 FRIG. RIOPLATENSE S.A.		12,060	5	46,029	6	7,714	8	21,023	7
6 FINEXCOR S.A.C.I.F.I.A		14,743	6	41,872	5	6,592	7	17,047	5
7 VIZENTAL Y CIA S.A.		12,059	5	40,765	5	4,240	4	15,642	5
8 IND. FRIG. NELSON S.A.		11,087	5	33,898	4	4,231	4	14,050	4
9 COCARSA S.A.		8,287	4	26,584	3	4,641	5	13,473	4
10 NUTRYTE NUTRICION Y TECNOLOGIA		7,344	3	21,715	3	4,636	5	12,601	4
Total		236,218	100	792,274	100	94,933	100	321,616	100

Source: PROCAR Analysis de Mercados Internacionales de la Carne, Junio 1995, SAGyP, Cuadro 5 & 6

Some exporters have shown a good performance in domestic markets. They have begun to compete on non-price factors such as quality. Some of the exporters have been successful in providing good quality and healthy beef mainly for the upper class people, although market segmentation is not very much developed yet in Argentina.

1.4.3 Evaluation of the Competitiveness of the Argentine Beef

1.4.3.1 Competitiveness of the Argentine beef

The Argentine beef seems to have both cost and quality competitiveness in comparison to the Australian and the US beef. In terms of quality, Argentina has a higher ratio of the British races such as Aberdeen Angus and Hereford than Australia. The British races account for approximately 60% of the total cattle in Argentina, while they account for only 30% in Australia. In addition, the Argentine cattle grows faster than the Australian cattle, and the faster growth ensures the tenderness of meat.

The Argentine beef also seems to have a cost competitiveness. Three factors are cited for the major determinants of cost competitiveness. They are the price of live animals, productivity of meat packing plants, and ocean freight.

The price of steers (live animals) is around US\$ 0.75/kg in Argentina while it is US\$ 0.90/kg in Australia at present. The productivity of meat packing plants seems to be lower in Argentina than in Australia, although the difference is not very large under the current volume of production. Australia has an advantage in ocean freight by approximately 20%. It is about US\$ 0.28/kg from Argentina to Japan, while it is US\$ 0.24/kg from Australia. As the cost of raw materials (live animals) account for more than 70% of the cost of FOB, when all the key factors are combined, the Argentine beef seems to be more competitive than the Australian beef under the current market situation.

This view can be confirmed by the following table. The table compares Argentina, Australia and the US in the cost of beef production on Tokyo C&F basis. It shows that the C&F price of the Argentine beef is the lowest. Gross animal cost is by far the lowest in Argentina, while the advantage shrinks when it comes to net animal cost as by-product revenue is the smallest in Argentina. In terms of processing and transportation, the US is by far the most efficient. Even though the Argentine beef is subject to processing and inland transportation costs that are higher than the US, its C&F price is still lower than the Australian and the US beef by approximately 10%.

Table V-1-4-8 Total Costs of Production in "Best in Class" Beef Processing Plants in Argentina, Australia, and the US

	Argentina		Australia		US	
	%		%		%	
Gross animal cost	2.02		2.55		3.49	
By-product revenue	-0.31		-0.42		-0.61	
Net animal cost	1.71	54	2.13	61	2.88	82
Processing cost	0.79	25	0.85	24	0.31	9
Inland transportation cost	0.38	12	0.28	8	0.08	2
FOB	2.88	91	3.26	93	3.27	93
Ocean-shipping cost	0.28	9	0.24	7	0.26	7
C&F Tokyo	3.16	100	3.50	100	3.53	100

Note: Finished Weight: All chilled or frozen muscle meat cuts; manufacturing and ground beef; trimmings and fat that can be sold as boxed meat, not by-products. Does not include the sale of traditional by-products (e.g. hides, internal organs)

Ocean costs have been added to the original data to have C&F Tokyo prices.

Source: New Zealand Meat Producers Board, 1994, Foot and Mouth disease - An insignificant trade barrier? A review of the beef industries of Uruguay, Argentina, Brazil & Paraguay
The study was originally done in 1992 by Booz Allen & Hamilton commission by the Australian Meat Research Cooperation. Figures are slightly modified to obtain C&F Tokyo prices.

Cost competitiveness of the Argentine beef has also been confirmed by a Japanese beef expert who has recently visited several farms and export meat packers in Argentina.

1.4.3.2 Cost structure of the whole process of beef production in Argentina

The cost structure of the whole process of beef production has been formulated as is shown in the following page. The figures are per head, and the costs are calculated on mark-up basis. The small table below the main one in the same page is the cost per kg at each stage of production. In Argentina, the cost structure of producers varies significantly by many factors including the size of farms, areas of production, fertility of land, and production methods. The cost structure is a model case of the combination of a breeder and a fattener; a breeder whose farm is 2,000 ha and has 628 calves in Cuenca del Salado in the Province of Buenos Aires, and a fattener which has allocated 500 ha to cattle fattening and has approximately 588 steers in the western area of the same Province. It is assumed that the breeder grows calves to 180 kg and the fattener raises the steers upto 450 kg for export purposes. The cost structure of a meat packer is also given as a model case of one of medium-sized export meat packers. Like producers, cost structure of meat packers varies from company to company.

A difference in the final prices in Table V-1-4-8 (C&F Tokyo, US\$ 3.16/kg) and II-1-4-9 (CIF Tokyo, US\$ 4.04/kg) may be explained by the inclusion of capital charges; Table V-1-4-9 includes capital charges as a cost while Table V-1-4-8 may not. Excluding capital charges from Table V-1-4-9 would reduce the CIF Tokyo price to \$3.26 /kg, which is close to the C&F Tokyo price (US\$ 3.16/kg) in Table V-1-4-8.

Cattle production can be divided in four phases: production of raw materials (breeder and fattener), domestic commercialization (breeder to fattener, fattener to meat packer), processing (meat packer), and export commercialization (costs incurred for export).

Among the four phases, main strength of the Argentine beef lies in the production of raw materials because the sector has produced good quality cattle at less cost than Australia and the US. On the other hand, some sources of improvement can be found in the processing sector (meat packers), although it does not necessarily mean that meat packers' productivity is low taking account of the current volume of production. "Cost Argentino" has been gradually disappearing especially in the commercialization sectors (both domestic and export). The following section overviews each phase in detail.

Table V-1-4-9 Cost structure of the whole process of beef production in Argentina

\$/head	Breeder	Breeder to Fattener	Fattener	Fattener to meat packer	Meat packer	Costs incurred for export	
Input		204.62	232.96	396.81	428.07	518.28	555.30
	Food 43.63 Animal health 11.20 Labor 19.57 Energy 1.98	Freight 12.78 Guide 1.34 Tax 2.22 Commission 12.00	Food 48.43 Animal health 5.62 Labor 14.24 Energy 2.21	Freight 16.26 Guide 0.60 Tax 3.60 Commission 10.80	Manufacturing cost Labor Packaging Others Energy Maintenance Publicity Depreciation Interest Others By-product	Sales expenditure Commission Inland freight Port charge Custom clearance Ocean freight Insurance	74.65 6.11
Added cost	Maintenance 12.11 Tax 61.38 Depreciation 30.94 Capital charge 70.89 By-product -47.08	Others 0.00	Maintenance 6.38 Tax 17.51 Depreciation 17.66 Capital charge 52.26 By-product -0.46		Others Energy Maintenance Publicity Depreciation Interest Others By-product	7.57 4.32 6.08 9.46 7.43 14.78 -55.35	0.57
Total	204.62	Total 28.34	Total 163.85	Total 31.26	Total 90.21	Total 37.02	Total 80.76
Output	2,000ha 628heads 0kg-->180kg Cuenca del Salado in the Prov. of BsAs.	232.96	396.81	428.07	518.28	FOB BsAs 555.30	CIF Tokyo 636.06
\$/kg	1.14	1.29	0.88	0.95	3.29	3.53	4.04

Note: Figures in the upper table are costs per head. Figures in the lower table are costs per kg of cattle/meat at each stage.

Costs are mark-up basis.

Source: SAGyP and Private Interviews

(1) Production of raw materials (breeding and fattening)

This is the main source of the competitiveness of the Argentine beef. Two factors contribute to this. The first is the favorable natural endowments such as geography, fertility of land, precipitation, and temperature. The second is an efficient use of land. In Argentina, breeding and fattening are done in different places. Since the breeding requires less grass than does the fattening, relatively infertile land is allocated to breeding while more fertile land is used for fattening. In Australia both breeding and fattening are done in the same place that are marginal and not suitable for crop production.

The following table shows a comparison in the cost structure of breeding and fattening in Argentina, Japan and the US. The Argentine cost data in the table are the same as the one in Table V-1-4-9. In both breeding and fattening, costs of food for cattle is significantly higher in Japan and the US than in Argentina due to the difference in food (grain-fed vs. grass-fed). Labor costs (salaries) are the largest in Japan because of higher wages and a smaller number of cattle per producer. On the other hand, the proportion of the costs of animal health is the highest in Argentina. Mandatory vaccination against FMD may attribute to this.

Table V-1-4-10 Cost Structure Comparison Among Argentina, Japan, and the US in Cattle Production

	Breeding				Fattening	
	Argentina	Japan	USA		Argentina	Japan
I. Production cost				I. Production cost		
Food for cattle	17.34%	32.98%	34.12%	Food for cattle	6.74%	23.39%
Animal health	4.45%	1.67%	2.94%	Hay	7.40%	
Tax	24.39%	0.84%	2.60%	Animal health	1.64%	0.58%
Maintenance	4.81%	5.60%	4.65%	Cattle cost	52.02%	56.34%
Fuel and oil	0.79%	0.69%	3.56%	Tax	5.11%	0.46%
Salaries	7.78%	30.59%	19.79%	Maintenance	1.86%	2.63%
Insemination fee		2.24%	2.48%	Fuels	0.65%	0.56%
Others			8.57%	Salaries	4.16%	10.91%
Total(a)	59.56%	74.61%	78.71%	Total (a)	79.58%	94.87%
II. Depreciation				II. Depreciation		
Fixed capital	9.21%	1.77%		Fixed assets	4.48%	1.07%
Working capital	3.08%	11.12%		Working capital	0.67%	0.64%
Total (b)	12.29%	12.89%	14.07%	Total (b)	5.15%	1.71%
III. Interest				III. Interest		
Farm land	21.63%	4.09%		Farm land	11.40%	0.47%
Working capital	6.53%	8.40%		Working capital	0.15%	2.97%
Others				Others	3.71%	
Total (c)	28.16%	12.49%	7.22%	Total(c)	15.26%	3.44%
Total (a)-(c)	100.00%	100.00%	100.00%	Total (a)-(c)	100.00%	100.00%

Note: Commercialization costs are not included.

US's cost data for fattening is not available.

Sources: Argentina: SAGyP, Japan: Japan's MAFF, USA: USDA

The tax proportion is the highest in Argentina, especially in the case of breeding. This is probably because the model case is taken in Cuenca del Salado. The price of land is high in the area because of its adjacency to Buenos Aires, and it resulted in high real estate taxes. High interest on farm land in Argentina may be attributed to extensive farming in comparison to land-intensive cattle production in Japan.

It should be noted that the cost of production in Table V-1-4-9 includes capital charge of US\$ 70.89 in breeding and US\$ 52.26 in fattening. For producers it is an opportunity cost of their own land and equipment. The capital charges are, therefore, not real costs for producers. It can be considered that on cash-flow basis producers can further reduce costs.

While the primary sector is the main source of the competitiveness of the Argentine beef, the sector is not without shortcomings. As mentioned before, due to lower profitability of cattle raising, cattle production has increasingly shifted to marginal land. This is especially so in the case of breeding. Profitability of breeding is very low given the current low prices of calves. Although precise data are not available, there is a growing concern that the number of cows may decrease in the future.

In addition to breeding, fattening may also shift to marginal land if a return from cattle fattening continues to be lower than that of crop production. An increased use of fertilizer may reduce the necessity of the rotation of land, and this process may accelerate the shift of fattening areas toward marginal land. An impact of this shift on cattle production is unknown yet, but it has a potential to lower the productivity of cattle production.

Another problem would be the low levels of productivity of cattle production. In the case of breeding, the ratio of pregnancy and weaning has been estimated to be low at about 60% for the last few decades. Similarly in the case of fattening, annual cattle gain in weight per ha has been stagnant at about 200 kg/ha/annum for many years. These figures are the most common indicators of productivity of breeding and fattening. It can be said that the productivity of cattle production has been stagnant for the last few decades.

One of the major reasons for this lack of improvement in productivity is the effect of inflation. Under the inflationary economy, the best way to enhance profitability was not an increase in productivity but the manipulation of buying and selling activities. For

example, under the 720% of annual inflation per annum (60% monthly), if the payment is two months after the receipt of goods, the real value of payment becomes less than 50%. ($60\% \times 2 \text{ months} = 120\%$, the real value becomes 45% ($100/220$)). Thus, many producers sought for an increase in profit through the manipulation of buying and selling activities, not through an increase in productivity.

Recent economic restructuring, however, has halted the inflation, and as a consequence, the liberalized economy has begun to provide producers with a right incentive. Raising productivity is the only way to increase profitability. Some producers who have introduced intensive production management have been successful in enhancing the productivity, and as a result, their profits have increased. On the other hand, the profitability of those producers who have been unable to accustom themselves to a new economic environment has shrunk, and such producers are beginning to be replaced or absorbed by those producers who are more aggressive in introducing new technology and management systems.

(2) Domestic commercialization (breeder to fattener and fattener to meat packer)

Although the commercialization sector had been one of the sources of "Costo Argentino," the streamlining of the sector has been proceeding. In the Table V-1-4-9, domestic commercialization accounts for 9.4% (US\$ 59.6/head) of CIF Tokyo. Measures to minimize the commercialization costs are under way.

While commission charges account for 3.6% (US\$ 22.8/head) of CIF Tokyo, vertical integration has been proceeding with an aim to reduce intermediary costs. Direct purchase of cattle by meat packers from producers is increasing. As a result the number of brokers (consignatarios) is declining. The ratio of cattle that goes through the Liniers market has also drastically decreased. Direct sale and purchase are likely to increase especially between big producers and meat packers.

Although vertical integration is expected to continue, the role of brokers will not disappear. Brokers have provided loans, information, know-how, and technology to, especially, medium and small sized producers whose access to such resources otherwise is limited. Brokers will continue to play an important role for medium and small sized producers.

While inland freight cost is US\$ 29.04 /head (4.6% of CIF Tokyo), freight per km has declined from US\$ 0.85/km in 1992 to US\$ 0.80/km in 1995, but the decline does not seem to be enough. At present, domestic trucks cost approximately US\$

70,000~80,000 and are about 25~30% higher than imported trucks. Since the trucks are expensive, they are used for longer periods, and this makes the maintenance costs higher. Labor costs are also high partly due to strong labor unions. These factors have contributed to high costs for the trucking industry. Free import of trucks, a kind of deregulation, may allow the industry to reduce costs and to offer lower prices for its services.

Distance of cattle trucking is rather long in Argentina. Some exporting meat packers have their meat packing plants near Buenos Aires because they used to purchase cattle from the Liniers market. At present their cattle procurement area is within a radius of about 500 km while those who have meat packing plants in fattening areas procure cattle in the area within a radius of no more than 200 to 300 km. It is estimated that shifting meat packing plants to fattening areas from the suburbs of Buenos Aires would reduce the freight by US\$ 8~10 per head.

(3) Meat packing plants

Meat packing plants for export in Argentina have following advantages in comparison to those in Australia and the US:

- Sanitary management is at a very high level partly due to strict oversight by both SENASA and the countries to which beef is exported. The level seems to be higher than those in the US and Australia;
- Equipment and management of corrals are appropriate. Corral facilities are adequate, and they are always maintained clean. Cattle can be brought to corrals even in the night. Cattle stays in corrals for at least 24 hours before being slaughtered. This would relieve the stress of cattle and improve the quality of meat. In the US and Australia, some cattle are delivered on the same day of slaughtering;
- Cattle handling in a slaughtering room is very careful. Cattle skin is peeled both by machine and hand. In Australia, peeling is mainly done by machines, which deteriorate the quality of both meat and skin. While carcasses are washed manually by high-pressure shower in Argentina, they are washed by washing machines in the US and Australia. Consequently, washing is more complete in Argentina; and

- Temperature of meat is properly managed through the process of slaughtering, maturation, and cutting. In most plants, internal organs are taken away from cattle within less than thirty minutes after slaughtering in order to facilitate the reduction in the temperature of carcasses.

While meat packing plants do have some good points, they have some weak points especially at and after the cutting process. There are some unnecessary workers; some of them can be reduced by the rearrangement of lines. The flow of meat is sometimes interrupted by an inefficient setting of machines. The relocation of machines to ensure the smooth flow of meat would be necessary. The quality management of meat is sometimes not adequate where SENASA does not oversee. Storage of cartons does not seem to be efficient, either. While cartons are mainly handled by hand, more mechanized and automated management can be introduced to prepare for an increase in the number of cartons. These issues shall be explained in detail in 1.4.4.2.

Labor, packaging, and energy are the major costs in meat packing plants. Labor costs account for 13% of the total cost at meat packers (US\$ 65.98/518.28). Although social charges have continued to be significant as is shown in the table below, labor productivity has been improving since many export meat packers have introduced a system in which salaries are closely related with labor productivity.

Table V-1-4-11 Social Charges in Argentina, 1995

		(US\$)
Basic salary (monthly)		1,050.00
Social charges	Employer's outlay	
	Pension	189.00 18% of basic salary
	Family fund	94.50 9% of basic salary
	Social welfare fund	63.00 6% of basic salary
	Supplemental pension	36.75 3.5% of basic salary
	Total	383.25
	Employee's outlay	
	Pension	115.50
	Law 19032	31.50
	Labor union	26.25
	Social insurance	31.50
	Total	204.75

Note: Employee's outlay is included in basic salary
Figures are in the case of a secretary.

In terms of packing, while some packing machine is old, it is not causing a significant impact on productivity. Only a few meat packing plants are equipped with the state-of-the-art vacuum packing machinery. Given the current volume of production,

packing facilities have little impact on efficiency. Handling of packed meat seems to be a greater problem rather than machinery itself.

Energy cost accounts for about 1.5% of the total cost of meat packers (US\$ 7.57/518.28). It has been declining since the privatization in 1992. But the distribution of electricity has not yet been privatized, and it has been done by provincial or municipal entities. However, large consumers such as meat packers can select distributors, which allows them to purchase electricity at reasonable prices through direct contract. Thus, a delay in privatization (deregulation) in the energy sector does not seem to have caused a significant impact on the meat packing industry.

While the Table V-1-4-9 shows that a total cost of meat packer is US\$ 90.21, this seems to be at a high side among export meat packers. Other cost data of meat packing plants for export include US\$ 81.27/kg and US\$ 59.51/kg. An average of the cost at meat packing plants for export is US\$ 77.00/kg. If this figure is applied, CIF Tokyo becomes US\$ 622.85/head from US\$ 636.06/head, and US\$ 3.95/kg from US\$ 4.04/kg.

(4) Export commercialization (Costs incurred for export)

Facilities and operation of Buenos Aires port have improved since the terminals were privatized in 1994. Port charge has declined from US\$ 2.1/ton in 1991 to US\$ 1.50/ton in 1995. Labor problems which had been one of the major sources of inefficiency have improved significantly.

Ocean freight from Argentina to Japan is not a major obstacle for Argentina because it is not very different from that from Australia to Japan. At present, ocean freight of a 20 foot reefer container is approximately US\$ 4,700 from Argentina while it is US\$ 4,000 from Australia. The difference is only US\$ 0.04/kg, which is approximately 1% of the total cost (CIF Tokyo).

A major problem associated with export commercialization is unreliable services of ocean shipping. While most shipping firms have been trying to operate weekly services between Argentina and Japan, they have not been successful in maintaining the service. Main reason is the congestion at Santos port where container vessels sometimes have to wait for a few days outside the port. Due to unreliable shipping services, meat packers have been unable to produce meat to meet the shipping schedule.