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KOREAN AGRICULTURAL MARKETING SYSTEM: ITS EFFICIENCY AND PERSPECTIVE*

SUNG BAI-YUNG**

I. Introduction

The marketing system includes sub-systems such as the demand and supply system, the technical system: input-output relationship of the marketing functions, the power system: bargaining power of exchange in the different market structure and the communication system: price mechanism. This article introduces the Korean agricultural marketing system and explains the factors influencing the marketing system. This article also examines some policy issues and provides perspectives on the agricultural marketing system.

Marketing efficiency is divided into two categories, productive efficiency and pricing efficiency. These efficiencies are closely related to the marketing system. The efficiency of the Korean agricultural marketing system is studied in order to evaluate the marketing activities for further development.

Efficiency is not the only criterion for the performance of agricultural marketing functions and for investment in market facilities. Policy making decisions are based on not only efficiency but also equity. The policy direction of the marketing development influences the decisions of marketing participants such as farmers, middlemen, consumers and agribusiness firms.

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** Research Director. Korea Rural Economic Institute, Seoul, Korea.

II. Demand and Supply of Major Agricultural Products

Demand for agricultural products in Korea has drastically changed during the last couple of decades mainly due to a rapid increase in national income. The consumption of cereals went up to saturation point and went down gradually but the turning points were different from commodity to commodity. For example rice consumption increased to a maximum of 135.6 kg per capita in 1979 and has decreased at 116.3 kg in 1991. The consumption of whole grain is still increasing because the increase in demand for feed grain exceeds that for food grain (Table 1). The consumption of feed grain has exceeded that of food grain since 1988.

The self-sufficiency rate for total grain consumption has been decreasing and reached 37.5% in 1991. This rate differs by commodity. For example, self-sufficiency rates in 1991 were 102.3% for rice, 74.4% for barley, 0.02% for wheat, 2.1% for corn, 19.0% for beans, 95.9% for potatoes and 16.6% for the other grains (Table 2).

TABLE 1. Grain Demand and Supply in Korea, 1980, 1985, 1990-91

Year	Supply		Demand				Carry-over	Per capita consume.
	Total	Import	Total	Food	Feed	Export		
----- Thousand M/T -----								kg
1980	14,775	5,051	12,596	6,860	2,472	-	2,179	195.1
1985	16,947	7,336	14,667	6,800	4,746	-	2,280	181.7
1990	19,939	10,022	16,282	6,302	6,301	1	3,657	167.0
1991	21,324	11,104	17,518	6,269	7,291	12	3,806	166.3

Source: Ministry of Agriculture, Forestry and Fisheries (MAFF), *Major Statistics of Agriculture, Forestry and Fishery*.

TABLE 2. Self-Sufficiency Rate of Grain in Korea, 1980, 1985, 1990-91
(Unit: %)

Year	Total grain	Food grain	Rice	Barley	Wheat	Corn	Beans	Potatoes	Others
1980	56.0	69.6	95.1	57.6	4.8	5.9	35.1	100.0	89.8
1985	48.4	71.6	103.3	63.7	0.4	4.1	22.5	100.0	97.7
1990	43.1	70.3	108.3	97.4	0.05	1.9	20.1	95.6	13.9
1991	37.5	64.2	102.3	74.4	0.02	2.1	19.0	95.9	16.6

Source: *ibid*

Consumption of livestock products continues to grow. Annual per capita consumption of meat amounted to 21.7kg in 1991 including 5.1kg of beef, 11.8kg of pork and 4.8kg of chicken. Total of 913 thousand M/T of meat was consumed, including 769 thousand M/T of domestic production and 144 thousand M/T of imports. A total of 7,671 million eggs were produced and consumed. This is equivalent to 178 eggs per capita per annum. Milk consumption amounted to 1,869 thousand M/T which is equivalent to 43.2kg per capita. Domestic production was 1,741 thousand M/T, an import, 171 thousand M/T and a carry-over, 66 thousand M/T in 1991 (Table 3).

TABLE 3. Demand and Supply of Livestock Products

Year	1980	1985	1990	1991
Meat				
Demand				
Total(thousand M/T)	433	593	860	913
Per capita(kg)				
Beef	2.6	2.9	4.1	5.1
Pork	6.3	8.4	11.8	11.8
Chicken	2.4	3.1	4.0	4.8
Supply				
Production (thousand M/T)	423	588	773	769
Import (thousand M/T)	10	5	87	144
Self-sufficiency (%)	97.8	99.7	90.0	84.2
Egg				
Production & consumption (million eggs)	4,543	5,390	7,151	7,671
Per capita (eggs)	119	131	167	178
Milk				
Demand				
Total (thousand M/T)	412	991	1,879	1,869
Per capita (kg)	10.8	23.8	42.8	43.2
Supply				
Production (thousand M/T)	474	1,047	1,902	1,912
Import (thousand M/T)	-	2	-	171
Carryover (thousand M/T)	62	57	23	66

Source: ibid

The consumption of vegetables reached saturation point of per capita consumption of 130kg which was the maximum amount since 1982. Total production of vegetables in 1991 amounted to 8,609 thousand M/T of which major products were chinese cabbage and radish. A small amount of imports and exports were observed for spice vegetables. Fruit consumption has been increasing steadily and amounted to 48.0kg per capita and 1,729 thousand M/T in total (Table 4).

TABLE 4. Demand and Supply of Fruit and Vegetable in Korea

Year	Vegetable		Fruit	
	Production	Per capita consumption	Production	Per capita consumption
	(thousand M/T)	(kg)	(thousand M/T)	(kg)
1980	7,676	120.3	833	21.8
1985	7,763	98.6	1,464	35.2
1990	8,677	129.9	1,766	42.0
1991	8,609	128.7	1,729	48.0

Source: ibid

Korea has imported a lot of grain such as wheat, corn, and soybean, livestock products such as beef and milk products, special crops such as sesame and peanut, and bananas. Total export of agricultural products amounted to US\$ 756 million in 1991 while total imports reached US\$ 4,420 million. As a result, the balance of payment in the agricultural sector exhibited a deficit of US\$ 3,664 million (Table 5).

TABLE 5. Agricultural Trade in Korea (Unit : US\$ million)

	1980	1985	1990	1991
Export	541	388	795	756
Import	2,215	1,791	3,751	4,420
Balance	1,674	1,403	2,956	3,664

Source: ibid

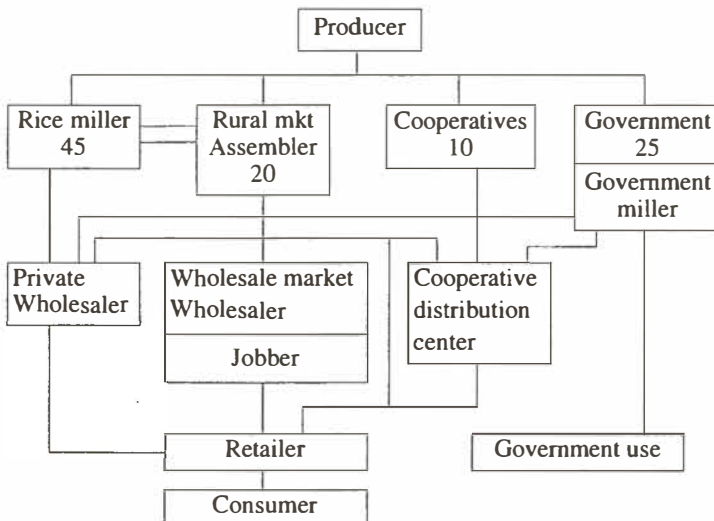
In future the trend for demand and supply is not expected to change significantly. The international competition becomes more severe, but Korean agriculture will be far beyond the competition because of its structural weakness. The supply of agricultural products is expected to rely more on international markets.

III . Marketing Channels for Major Products

The product flow from producer to consumer constitutes the marketing channel, which provides several informations such as the marketing stages, marketing participants, and product stream. The marketing channels are different according to the kind of commodity, size of production, the level of consumer income, the level of social infrastructure, the commercial custom, the law and regulation, the behavior of market participants, and so on.

Rice in Korea is the most important product in terms of farmers' income and consumer food items. The Korean Government purchases about 25% of the marketable surplus, which is more than 80% of total

FIGURE 1. Marketing Channel of Rice in Korea

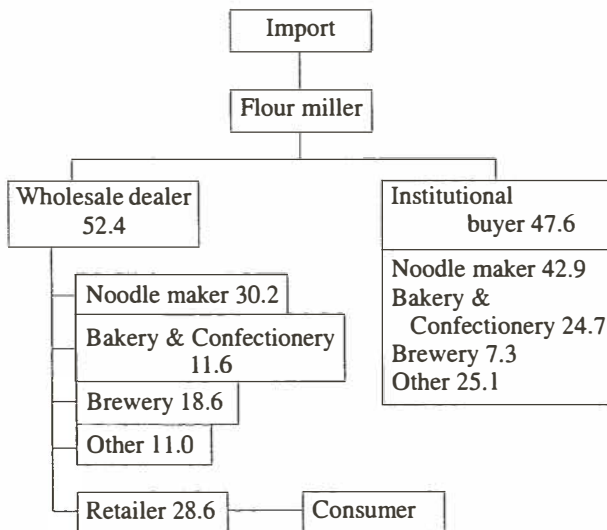


production, in order to stabilize rice price and producers incomes. Agricultural cooperatives and their Federation are undertaking marketing functions such as purchasing, storage and distribution to retailers instead of the Government on a commission basis. They also buy and sell rice on their own account and handle about 10% of all rice.

Private purchasers of rice from producer are local assemblers and rice millers in producing area. The assembler collects unhulled rice from the farm and polished rice from the local periodic market. The proportion of marketing volume by assembler through the local market is estimated at about 20%. The local rice miller becomes assembler-shipper-wholesaler and handles about 45% of total marketable surplus of rice. A rice wholesale market in Seoul had been established by the joint investment of the Government and the National Federation of Agricultural Cooperatives, however its trading volume is very small(Figure 1).

All wheat is imported while all rice is domestically produced. The marketing channel of the imported wheat is very simple. The price of wheat is determined in the world market and the big flour millers supply their product with efficiency(Figure 2).

FIGURE 2. The Marketing Channel of Wheat



Fruit and vegetable have a free marketing system which is very complicated. The assembling function at producing areas is mainly in the hands of private merchants, namely assemblers and shippers. It is at this stage that the cooperative marketing network appears to be most vulnerable.

Small-scale peddlers and collectors buy fresh produce from farmers. Shippers usually buy from these merchants, or directly purchase fruits and vegetables in the field. Large-scale farmers often ship their produce to consignee-dealers in urban wholesale markets, usually tied to credit advanced from the dealers prior to the 3-5 months of production. In the areas of commercially-grown fruits and high value vegetables, farmers organize themselves into either a purely private marketing association or the government-sponsored horticultural cooperative unit for the organized orderly marketing of perishables. Grading and packing are very poor at this marketing level. In general, the majority of Korean farmers whose dominant products are still grains are not well organized in preparing their marketing activities systematically.

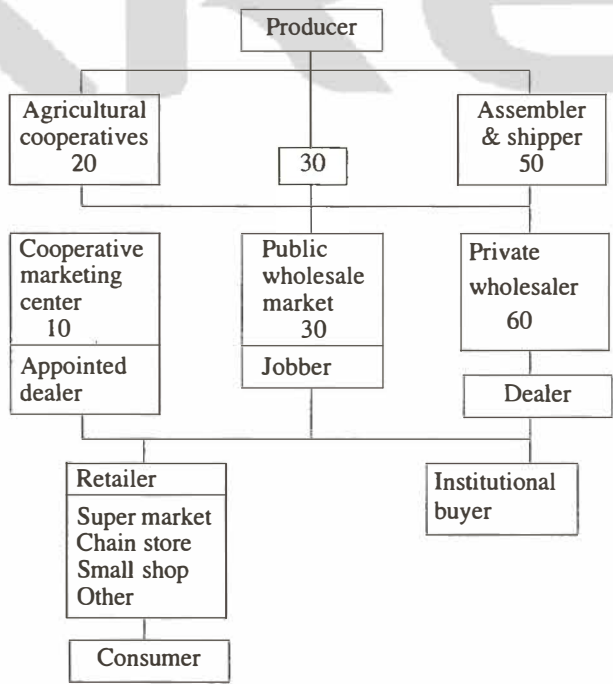
Wholesale Marketing for fresh produce is being carried out in Korea by three types of wholesalers. There are 77 cooperative marketing centers, 37 public wholesale markets and many traditional private wholesalers. The market shares of these markets are estimated as 14%, 24% and 62% respectively. Cooperative marketing centers receive produce primarily from farmers and local cooperatives, while wholesale companies operating public wholesale markets on behalf of municipal governments receive produce from all related parties, including assemblers and shipping merchants. Cooperative centers and wholesale companies put fresh produce received on auction where appointed jobber-dealers with shops located in the market bid for them. Institutional buyers can join the auction when they are registered with the market authority as the same as jobber dealers, but there is practically no registered institutional buyers, implying a closed auction system for outsiders. Individual and institutional buyers purchase produce through jobber-dealers, usually clearing their payments to the market authority in 3-15 days. There is little daily carry-over of produce on the auction floor and storage requirements are therefore minimal.

Traditional consignment dealers(wholesalers) receive produce

from farmer/shippers and sell them to other wholesalers or retailers (and even to consumers) on a consignment basis charging 8-9% of commission to the shippers. They can easily avoid value-added tax on wholesaling since they have no duties to report to the tax office on their transaction status including the name list of their shippers and buyers.

Retailing sales of perishable farm products are performed by street stalls, peddlers, individual shops, public markets, specialty shops, supermarkets and chain stores, but traditional retailing agencies are still prevalent. There are about 474 daily markets, either public or private, in Korea, where fruits and vegetables are being sold. Cooperative retail marketing network handles fruits, vegetables, food grains and meat products in urban centers. Recently a growing number of privately-owned chain stores and supermarkets are also dealing in farm fresh produce(Figure 3).

FIGURE 3. Marketing Channel of Fruit and Vegetable

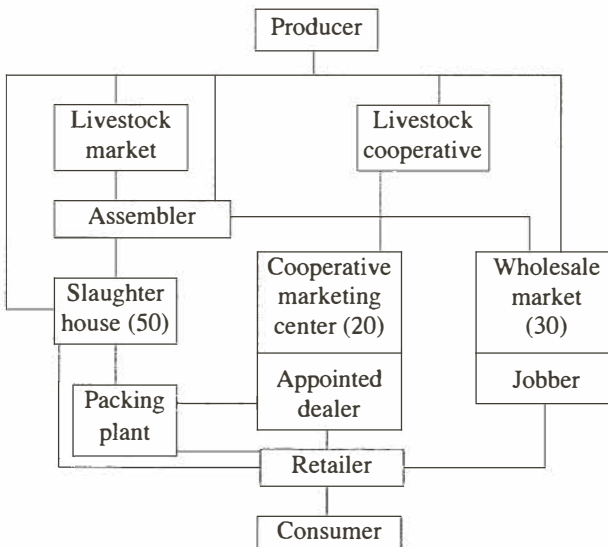


Livestock markets are generally located in producing areas. These markets play roles in the trading of livestock animals for breeding, and collection and transport of livestock to be slaughtered for consumption. The livestock market for breeding has little to do with the price formation for meat.

The collection and transmission of livestock for slaughtering is carried out by private merchants, such as collectors and shippers, and livestock cooperatives in the producing area. Livestock producers and meat retailers often ship the animals directly to the slaughtering house on a commission basis.

There were 178 authorized slaughtering houses in the nation in 1990. The Livestock Law regulates that the livestock should be inspected by an authorized person in the slaughtering house. It also prohibits the slaughtering of such livestock as breeding stock, pregnant cows and animals under the regulated age and weight. The public wholesale markets which are established by "the Law of Marketing and Price Stabilization of Farm and Marine Products" are scattered throughout the major cities of Korea, and have their own

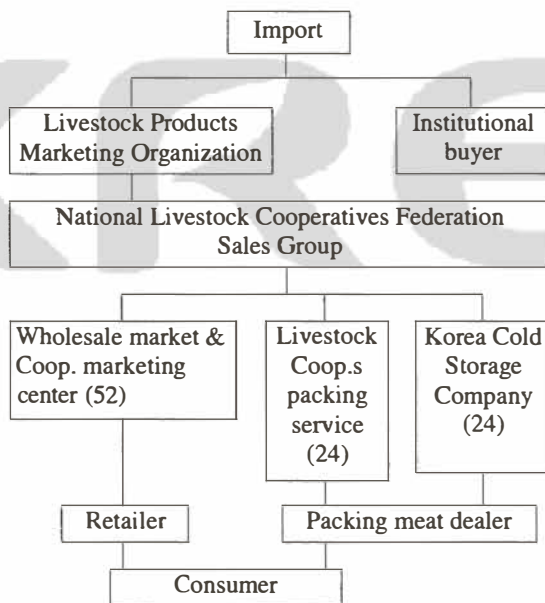
FIGURE 4. Marketing Channel of Domestic Livestock and Meat



slaughtering facilities. They also provide auction rooms for middlemen who buy the carcass on retailers' risk, and cold storage transportation facilities for meat retailers. In addition to public wholesale markets, NLCF marketing centers have a livestock section, the function of which is the same as that of the public wholesale markets.

Retailing activities for beef are carried out by private meat shops, agricultural cooperative retailer stores, and supermarkets. Among them the private meat shops and NLCF meat retailer stores are specialized in meat retailing activities(Figure 4, 5).

FIGURE 5. Marketing Channel of Imported Meat



IV. Marketing efficiency

1. Competitive factors are weak amongst outlets for collecting agricultural products in producing areas. Private dealers dominate the

collecting activities. They have a more powerful bargaining position in price determination than farmers do. Some measures are required to promote competition among dealers such as private collecting merchants, marketing cooperatives and self-helps joint shipment groups.

Large scale farmers can sell their product directly to wholesalers and/or supermarkets. However, it is very difficult for every farmer to become a large scale farm. Cooperative marketing by small farmers is one of the most feasible ways to increase competition in collecting activities in producing areas. In recent years the cooperative marketing has developed rapidly and is still developing.

2. Wholesale markets for agriculture and fishery products can be classified into three types; legal wholesale markets, cooperative marketing centers and quasi-wholesale markets. In 1990 there were 55 legal wholesale markets, 279 cooperative marketing centers and 81 quasi-wholesale markets.

Though the scale or the size of facilities varies depending upon the type and location of the markets, the scale of most markets is so small that they cannot effectively handle most transactions. Sometimes this results in a stockpiling of goods. Especially the rapid expansion of cities, rapid increase of transportation and the failure to secure enough parking area and facilities bring about traffic congestion. Other facilities, including sanitation facilities, are so insufficient and inadequate that the environment is unclean. These are problems which most markets have in common.

Most wholesale markets are located in the center of cities. With rapid urbanization, the role and the function of wholesale markets have increased rapidly. But the flexibility of the market is very limited. Traffic congestion and pollution problems inside and outside the markets are so serious that new sites for markets in suburban area need to be developed.

It is recent trend that mayors of cities responsible for establishing wholesale markets directly invest in the construction of such markets. Total of 10 new wholesale markets are open and 3 markets are under construction. Many of them are privately owned and operated. In other words, wholesale market corporations, approved by local autonomous entities to engage in wholesale business, establish

and operate the wholesale markets. Most of them rely so heavily upon private capital that their scale is small and their facilities are poor.

In the case of legal wholesale markets, market companies are generally responsible for the operation and management of markets. But in the case of quasi wholesale markets, market companies, as lease holders of market facilities, actually have more interest in the leasing business. This is a great obstacle to the improvement of market operations and effective distribution.

In legal wholesale markets and cooperative marketing centers, the consigned products to the appointed wholesaler are sold partly through auction, and partly by negotiation between consignors and retailers. The auction is conducted under the simultaneous English system with finger and label pricing methods. Under the auction system the seller supplies a commodity in ascertain quantity before auction time and the buyers compete each other.

Direct negotiation between sellers and buyers is a very rational transaction method because the seller and buyer's intentions can be well expressed. But there is important precondition that buyers should have as much knowledge and information on the commodities as do the sellers. If this precondition is not met, transactions generally will be unfair and price formation will be unstable. This, therefore, will prevent wholesale markets from properly carrying out their roles. Generally, the middle merchants are in the better position in respect of market information.

3. The retail market, the final step in the distribution process, is a market which provides goods to consumers, satisfying the various needs and demands of many consumers. It has the following characteristics and functions.

(1) Transaction volume is very small and the profit margin of distribution is high.

(2) Market size is generally proportionate to the population served by the market.

(3) A retail market usually consists of family-operated petty shops, and from an economic point of view, it has a job-creation effect.

(4) There are various types of retail markets because over their long history their characteristics have changed with the needs and

demands of consumers. Also a variety of functions are performed such as packaging, grading and standardization of goods, financial function by credit transaction, transportation and delivery of goods, and gathering and distribution of information.

At the retail stage there are many different retailers: retailer in traditional retail markets, small retail shops, supermarkets, department stores, convenient stores, and even peddlers.

It was pointed out that traditional retail markets have more problems than modern ones. The important problems are as follows: Firstly, the market system is often on such a small scale and so decentralized that it cannot effectively adjust itself to changes in customer demand. It is also very likely to lose its market function, because it falls behind the large scale retail systems that gain profit from unitary operation. Also, the market owners are too often concerned only with rental fee revenue, neglecting to improve facilities and to streamline operations. Occupying dealers bear such high rental fees and premiums that their profits fall. In addition, their operating conditions are very unstable due to a short contractual period. Secondly, poor market facilities and unclean environments sometimes result in unsanitary treatment of foods and cause inconvenience to customers. Thirdly, the operating scale of the occupying dealers is so small that they purchase small quantities of goods. Therefore, they sometimes have to tolerate suppliers' arbitrary behavior and have difficulties in purchasing popular items.

With the appearance of large scale retail systems, retail competition is likely to be intensified and the traditional retail markets will inevitably be pressured in their operations. The traditional retail market is a place where small scale retailers, and also those who are alienated from social welfare policies without further job opportunities, can earn their living from a small capital base. For this reason, if improvement of the market environment, or modernization of such markets is undertaken without preparing alternative social policies, serious social problems could ensue. There were 157,151 retail shops in 1,099 traditional retail markets in the nation in 1990.

Although supermarkets have developed rapidly since 1970, they also have several difficult operational problems.

Firstly, customers perceive that supermarkets do not provide commodities at a low prices other than industrial products. In

particular, the price of agricultural products is generally more expensive in supermarkets than in traditional markets.

Secondly, trust and solidarity between super chain headquarters and their affiliates is so weak that the rate of goods provided from headquarters to affiliates is very low. Consequently, they cannot effectively counter other producers and do not have scale advantages.

Thirdly, productivity is low due to the lack of expertise and experience on the part of personnel.

In this context, supermarkets numbered 1,311 in 1990 and an average of 11 persons work at each supermarket. Department stores with supermarket sections numbered 80. Chain stores, general merchandise stores and convenience stores are also involved in the distribution of produce to consumers and have become more prevalent recently.

4. The food processing industry uses primary agricultural products as raw materials, and must endure very unstable supply because of the storage and preservation of raw materials, a bumper crop or a poor crop, and seasonal variations. Therefore, the annual operation rate is at a very low level and the majority of enterprises are generally run on rather a small scale.

The market structure of agricultural processing industry is so called the leading firm industry. A few big firms are leading the many small firms in terms of price. Big firms enjoy excellent manpower, capital and advanced technology while the small firms face low productivity and limits in exploring outlets.

Taking a look at the institutional aspect of the food processing industry will reveal diversified administrative agencies for foodstuffs, and a lack of linkage between agencies concerned. In respect of the future roles of the processing industry and its importance, comprehensive measures for promoting and assisting this sector are urgently required.

Food processing and brewing firms numbered 4,576 with turnover of 17,144 billion Wons (US\$21 billion) in 1991, recording a high average annual growth rate of 14%. This growth however has been led by several large enterprises which process mainly imported materials, and small and medium businesses in farming and fishing villages have contributed negligibly to the growth. Therefore, the

current negative factors such as low profit ratio from investment, weak international competitiveness, backward related industries, unstable supply of raw materials, and low technical standard must be improved in order to develop the food processing industry.

Recently the joint efforts of the government and cooperatives are aimed at attracting active investment in order to replace small scale and worn out facilities, to develop new processing techniques, and to expand contract production for a stable supply of raw materials.

5. A large percentage of agricultural inputs in Korea are delivered to the farm through the cooperative system. There are several reasons for the cooperative delivery system. Firstly, developing countries face a shortage of capital to invest in the agricultural input industry which requires large investment. They have to secure capital from foreign countries which request government guarantees for the loans provided, and for profitability for joint venture. A good example is fertilizer industry. Korea has built several fertilizer plants as joint ventures with foreign companies which have requested that the government buy every product over a certain time period. The government asks cooperative and their federation to deliver fertilizer to the farmer on behalf of the government at a set price.

The terms of these joint venture were terminated recently, and the delivery system for fertilizer has shifted to the private distribution channel. The mixed system of private channel and cooperative delivery system will prevail for a while.

Secondly, the adoption rate for some agricultural inputs is so low that the government tried to encourage farmers to use the inputs by loan arrangement through the cooperative system. Agricultural machinery such as tractors, combines, threshing machines, tillers and so on, require such large lump-sum payments for farmers to purchase that farmers need loans to pay for the machine. The loan arrangement is made by the cooperative organization with partial support of the government. At present the distribution system for agricultural machinery is divided into two channels; one is the cooperative channel and the other is the private channel, but the loan is arranged by cooperatives. As farmer income increases and terms of the loan become unfavorable, it is expected that farmers will prefer the

marketing services which private merchants provide.

Thirdly, the agricultural input industry is, more or less, oligopoly, and has more bargaining power in market than an individual farmer does. Cooperatives of farmers can have monopolistic bargaining power in the purchase of input. Agricultural chemicals are the example.

Insect and infection are unexpected and occur at random. Disease of staple crops becomes a disaster to farmers and the national economy. It is essential that the cooperative secures in advance most of agricultural chemicals for unexpected insect and disease of staple crops such as rice. Agricultural chemicals for other crops such as vegetable and fruit are distributed by private dealers. Other materials such as vinyl and iron belong to this cooperative category.

Economic efficiency in resource allocation cannot be maximized if there are any imperfect competition factors, and institutional barriers in agricultural input marketing. Main concerns focus on how to maintain competition in input distribution, and on what extent to intervene in the market by cooperatives.

6. The price of agricultural product varies over time. Price observed through time is the result of a complex mixture of changes associated with seasonal, cyclical, trend and irregular factors. The most regular observation in respect of agricultural price is a seasonal pattern of change. The price of a commodity is lowest at harvest time and then rises as the season progresses, reaching a peak prior to the next harvest. The price cycle of an agricultural commodity tends to vary in length and in amplitude of fluctuation. Irregularity in price movement is commonly observed due to weather condition and natural disasters. Agricultural commodities such as vegetables and livestock products have high price fluctuation from year to year in Korea.

Price variability is not "good" or "bad". It is the result of economic change. In a private enterprise economy, price is one of the regulators, and hence makes production more profitable. A typical response to higher profits is larger production. The result is lower prices, which increase the quantity demanded and also signal producers to lower production. In another example, we saw how price variability allocated a seasonally produced commodity over the marketing season. Changes in relative prices play a role in directing

the economy.

However, our society has from time to time decided that extreme price variability is undesirable. Great price variability creates uncertainty for the producer. He may be handicapped in planning the future; he may be unwilling to make investments(internal credit rationing) because of price uncertainty; or lenders may be unwilling to provide capital(external capital rationing) because of price risk.

7. The existing agricultural market information system is a piecemeal type in which the demanders acquire their information needs and an integrated market information network system should be developed.

Marketing information for agricultural and fishery products is presently collected and distributed by individual institutions in accordance with their own procedures and needs. Even though surveys on producing area prices, wholesale prices and retail prices are carried out, the lack of standard criteria for sampling, size of product, times, places, and items to survey, makes comparison among prices surveyed almost impossible, and thus the value of the data may be diminished.

As far as wholesale prices are concerned, the Ministry of Agriculture, Forestry and Fishery(MAFF), the National Agricultural Cooperatives Federation (NACF), the Agricultural and Fishery Marketing Corporation (AFMC), the National Livestock Cooperatives Federation (NLCF) and the Bank of Korea (BOK) carry out the surveys in accordance with their own needs, although, in most cases, they survey the same products for the same purposes. In particular, both NACF and AFMC choose vegetables, grains and fruits as their survey items, and a survey of wholesale prices of fishery products was conducted by AFMC.

The lack of a standard criteria for classification, packing and trading units makes the maintenance of objectivity and validity of data difficult, and price comparison among products almost impossible.

Presently, existing price index data often fails to cover the average price index nationwide. In consideration of the undeniable role that the average price index plays in obtaining information for marketing, as well as for the marketing margin, national income statistics and agricultural income structure, a complete price index

information system should be established.

Complete data on the marketing volume will no doubt facilitate to set up an accurate price structure, marketing information and other related concerns. Unfortunately, however, the existing information on marketing fails to provide an exact assessment of the volume of marketing.

To establish an integrated marketing information network system would require the unification of the existing system that links MAFF, NACF, AFMC, NLCF into one system coordinated by the MAFF marketing information center(National Agriculture Marketing Information System).

Overall survey methods need to be improved, in particular, areas such as sampling mode, survey items and grades, and appropriate timing for surveys should be reassessed. Price information including price indexes should comprise average, maximum, minimum prices on a national, provincial and city basis. The information on average price provides no more than the overall price structure, and fails to inform the consumers of exact price margins. Therefore, maximum and minimum prices on the basis of items, grades, places and period should be published.

V. Police Issues and Perspective

1. Price policy

Korean marketing system is a free market economy of which the price is determined in principle by the market demand and supply. There are some exceptions. The rice and barley markets are partially controlled by the government, which purchases these commodities at harvest time and releases them over time at the predetermined prices. The quantity and price of the purchase are determined by the government and approved by the assembly. Less than a quarter of the marketable surplus of rice has been purchased every year. A double price system has operated. The difference between the purchasing cost and the release price has been funded by the government expenditure which has been supplied by borrowing from the central bank and the budget. This expenditure has become a big burden for

the government. The government manages the rice program to stabilize the rice price all year around because rice is a staple food in Korea. As a result the actual difference between the market prices at harvest time and preharvest time sometimes cannot cover the marketing margin, and as a result limit the private activities in rice marketing. To overcome these problems, the government is searching for a new program to provide more scope for the private market(Table 6).

The other exception is the price stabilization program. Some commodities are very limited in supply but their importance is very high in term of farmers' income. Therefore, these commodities are imported on the quota basis, and sold domestically at a price which incorporates the imported price plus some surcharges which are used to fund increases in domestic production. This keeps prices relatively high and stable. Commodities included under this program are beef, sesame, peanuts, red peppers, garlies, food soybeans, etc. These surcharges and government subsidy are the basis for Funds as The Livestock Production Fund and The Agricultural Price Stabilization Fund which are utilized to buy commodities during the bumper crops, and resell them during the bad crops. Even if the import of all commodities is liberalized, the price stabilization program will still be implemented for commodities with the unstable production and with severe price fluctuations such as vegetable and some livestock products.

Finally, some commodities such as food soybean, red bean, green bean and corn are purchased by the government at high prices,

TABLE 6. Rice Management Program

	1990	1989	1988
Purchase(thousand M/T)	1,203	1,692	967
Ratio to production(%)	21.5	28.7	16.0
Purchasing price(won/80kg)	106,390	96,720	84,840
Releasing price(won/80kg)	87,000	53,200	47,770
Wholesale price(won/80kg)	95,156	85,884	81,937
Government deficit(billion won)	724.1	414.5	239.7

Source: MAFF

imported by government corporations at the low prices and supplied to the processors and the buyers at quantity weighted average prices.

2. Trade issues

Korea is so limited in resources and land area required to obtain self sufficiency in the food consumption, that some agricultural products are imported at different degrees of import liberalization according to their importance to farmer's income and their comparative advantages. Recently the world trade environment is moving to a free trade system, and the trade partners of Korea are requesting to open the Korean import market including the agricultural product market.

In response to these change and requests Korea has gradually opened her markets, and had only 273 items of agricultural, forestry and fishery products unopened till 1991. In future it is anticipated that the agricultural import liberalization in Korea will be proceeded further because of the graduation of the GATT Article 18:B which specifies import restrictions on the basis of the adverse balance of payment.

When Korea agreed to abandon the rights to restrict agricultural imports, it was instead granted the grace period of eight years for structural adjustment of domestic agriculture. Korean Government had already set up and presented an import liberalization schedule of for 1991-94 of 131 items of agricultural and fishery products to GATT. Korean Government also have an obligation to present import liberalization schedule for 1995-97 of the remain 142 items (Table 7).

TABLE 7. Agricultural Import Liberalization Schedule of Korea
(Unit: No. of items)

	Till 1991	1992-94	After 1995
Import liberalization	1,517 (84.7)	131	142
Agricultural product	1,007 (86.3)	69	90
Forestry product	275 (97.5)	1	6
Fishery product	235 (68.7)	61	46

Note: Number in () is percentage of import liberalized items to total items of HS commodity classification

Source: MAFF

Korean Government are watching the termination and the results of the Uruguay Round negotiations, and are expecting a stable and healthy Korean economy.

3. Agricultural processing

Agricultural processing has a long history as one of main functions in agricultural marketing system. Modern technology for food processing was introduced after The Korean War. Free wheat was imported and needed to be processed into flour, noodles, bread, cakes, and confectionery in Korea. New products such as ham, sausage and bacon were introduced during The War. Subsequently private

TABLE 8. The Concentration of Agricultural Processing Industry, 1988

Food industry	Number of companies		Share of total sale	Share of total employment
	Total	Big Co ¹⁾		
Meat processing	88	5	42.2	30.9
Milk processing	57	12	70.3	66.9
Fruit & vegetable	149	3	18.6	17.6
Fishery products	1,422	11	19.6	11.2
Edible oil	71	2	51.8	20.1
Food grain	187	4	21.8	26.4
Bakery	121	9	80.5	75.9
Confectionery	270	15	80.6	72.4
Noodle	148	8	92.9	73.8
Sugar	5	2	99.6	93.6
Spice	146	3	61.2	46.3
Other food	541	5	53.5	21.0
Alcohol	829	8	48.9	24.5
Soft drink	44	11	60.1	80.1
Tobacco	22	13	95.1	85.7
Food, brewery & tobacco	4,720	114	57.7	39.8

Note: 1) Big company means the company with more than 300 employees

Source: Economic Planning Board (EPB), *The Statistical Survey Report of Mining and Manufacturing Industry*, Korea, 1989.

entrepreneurs have made food products and created a new area of demand under government sanitary control.

When raw materials for food have been easily and stably procured by either import or domestic production, the processing of those materials has developed. Alternatively bumper crops make it possible for processing plants to operate, and bad crops make them cease. Food technology takes time to adjust to the domestic consumer's taste, and is very expensive to import. Stable procurement of the raw materials, the creation of new demand for new products, long lead times of the technical adjustment and the expensive importation of new technology require a large amount of capital.

Big companies have been participating in and striving to become the leading firms in the food processing industry. As a result, the agricultural processing industry has developed but is concentrated into a few firms (Table 8). The Korean Government and agricultural cooperatives work together to return the value added of food processing to farmers who produce the raw materials. The government encourages and subsidizes the agricultural cooperatives to participate in food processing with simple technology and small scale operation in the rural area. However, they face many problems such as competition with big companies and competition with international food processors.

4. Wholesale markets

The fresh products such as fruit, vegetables and fishery products need speedy marketing of large quantities. It is recognized that the small scale of the private merchants limits their ability to increase efficiency and to perform fair trade in fresh produce marketing. Large scale wholesale markets are recognized to have many advantages in competitive pricing, reducing marketing costs, fair trading and expediting distribution. Transparency in the marketing is very important for free competition and should be able to be obtained through the formation of wholesale market networks. It is regulated that City Mayors open agricultural wholesale markets.

The construction of large scale wholesale markets needs a high level of investment and to fund this the central government provides a subsidy up to 50 % of total construction costs on the basis that the

TABLE 9. The Agricultural Wholesale Market Network Plan, 1993

Kind of market	Total	Opened	Under construction	Under planning
Main market	19	10	3	6
Supporting market	15		4	11
Total	34	10	7	17

Source: MAFF

wholesale market is considered as a kind of social infrastructure. It is planned that 19 main wholesale markets in 12 big cities and 15 supporting wholesale markets in other cities will be constructed and opened in the near future to enhance the market network (Table 9). But the wholesale markets are not the only channel for efficient marketing, therefore the government encourages agricultural cooperatives to participate in the direct marketing from the producers to consumers.

5. Laws and regulations

Government activities are limited to those area which private dealers can not perform, and in which public investment is more efficient than private investment.

Government support and control services for agricultural marketing development are regulated by, and specified in, law and regulations.

The Law of Facilitating Marketing Modernization under jurisdiction of The Economic Planning Board (EPB) specifies the formulation of a master plan, the annual implementation program, the management program of marketing development and the implementation of those plans/programs.

The Law of Marketing and Price Stabilization of Agricultural and Marine Products under jurisdiction of MAFF specifies the adjustment and control of production and marketing of agricultural products, the opening of the agricultural wholesale markets and the cooperative marketing center, the establishment and management of the price stabilization fund, and measures for improvement of the agricultural and fishery marketing system.

The Wholesaling and Retailing Promotion Law under jurisdiction of Ministry of Commerce and Industry (MCI) specifies the opening, management and development of retail markets, daily markets and periodic markets. Retail markets include regional markets, supermarkets, department stores, general merchandising stores, convenience stores and chainstores.

The Livestock Law under jurisdiction of MAFF specifies opening, management and improvement of livestock markets.

The Law of Utilization and Processing of Livestock Products under jurisdiction of MAFF specifies the slaughtering and dressing facilities development of livestock products.

The Laws of Agricultural, Livestock and Fishery Cooperatives specify the management and development of the cooperative marketing and the performance of the related activities.

The Law of Sanitation under jurisdiction of Ministry of Health and Social Affairs (MHS) specifies the opening and operation of meat retail shops.

The Grain Management Law under jurisdiction of MAFF specifies the opening and operation of grain retail shops and grain milling plants.

The Law of Anti-Trust and Fair Trade under jurisdiction of EPB specifies and regulates the anti-monopoly measures, competitive price formation of all goods and services, and fair contract and trade.

EPB, MCI and MAFF have their own division of marketing, and local and provincial governments also have marketing divisions or sections. There is a trend to expand marketing administrative units and to cooperate more closely in order to improve marketing development and price stabilization.

VI. Conclusion

The demand for food, and the related market services, has been, and will be changed in terms of quantity and quality. The incomes of Korean consumers is expected to increase to the level of developed countries in the near future. They demand high quality food with good sanitary conditions at all time. They are willing to pay to eat outdoor with a cozy atmosphere. They want to pay for delivery service and

nice treatment. To meet those kinds of demands, the farmers will specialize their production to provide the cheapest food, and discriminate their products to give many choices. The middlemen will utilize the latest communication and transportation technologies to deliver the excellent marketing services.

Korea is a developing economy and the agricultural marketing system is also developing into a mixed system in which the traditional marketing system is mixed together with the modern one. Market facilities are being economized and marketing activities are becoming more efficient. New technology is being developed and introduced in the field of marketing, processing, storage, transportation and information. However, the traditional aspect of the agricultural marketing prevails in terms of trading custom, packaging, weighing, and standardization.

It is expected that Korean agricultural marketing system will be improved by the following measures. The collecting stage of producing market would maintain effective competition among marketing channels and among various buyers. The large scale wholesale markets and their network provide advantages of scale economies and competitive pricing mechanism. Investment for the agricultural wholesale market network is expected to be carried out by the government. The free market mechanism will be widely adopted in the domestic agricultural market and international trade. The market information system is well developed, as is the product standardization and grading. It is encouraged that farmers take the value added from the processing of farm products. Every effort is made to stabilize agricultural prices in order to make the farmer's income and consumer expenditure stable.

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