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Marketization in North Korea

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The following is an abstract by Professor Yang Moon-soo of the University of North Korean Studies in Seoul. Professor Yang, an invited speaker at the 4th annual Roundtable on DPRK Agriculture hosted by FAS/Seoul, presented a paper entitled “Marketization in North Korea: Implications for Agriculture,” which describes the steps being taken toward an unofficial market economy in North Korea and its future prospects.

General Information:

Marketization in North Korea: Implications for Agriculture

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Proliferation and Acceleration of Marketization

People who visited Pyongyang last year pointed out that the most outstanding ostensible change in downtown Pyongyang was streets teeming with cars. Some said they had experienced traffic jams at rush hour, which was unconceivable in the past. They said it was very impressive to see speeding taxis in the streets and car sales advertisements plastered all over the city. They also said they had witnessed new high-end development, such as high-rise apartment complexes, fast food franchises and Italian restaurants, popping up here and there almost every day.

The recent change in North Korea can be seen not only in the affluent but also in ordinary citizens. Tropical fruits and imported products, which used to be sold at stores only for high-ranking North Korean government officials or foreigners, are on sale all year round in *jangmadang* (marketplaces) where commoners usually go to buy daily necessities. Ordinary North Korean people have a new custom, it is said, setting rare fruits, such as pineapple and banana, on the table for a wedding feast or birthday party.

Ordinary North Koreans now feel ashamed of not having a used bicycle made in Japan and a TV set made in China in their houses. These days, ordinary North Korean people think it is mandatory to make a video recording of their wedding ceremony and school graduation ceremony.

Cell phone fever is already well known. The number of cell phone subscribers was around 1,600 in 2008; the number exceeded 2 million in May 2013 and surpassed 2.4 million in the second quarter of 2014. In addition, North Korea's cell phone network is being expanded not only in Pyongyang but also in major cities across the nation and some rural areas in North Korea.

Another example that symbolically demonstrates recent changes in North Korea is the intercity bus terminal in Pyongsong, where the largest wholesale market in North Korea is located. The Korea Broadcasting System (KBS) of South Korea aired video clips of North Korea in February 2014. In one of the clips, dozens of intercity buses are parked on a spacious lot. A large bulletin board stands in the compound to show bus fares and distances for each route. Buses from Pyongsong reach all major cities in the country. The number of intercity bus routes from the terminal rose to 49 as of the end of 2013 and is reportedly still increasing. And individual investors, not the North Korean government, are operating the bus businesses. North Korean defectors say they can see privately operated buses in any major city in North Korea.

Individual investors, called *donju* (money owners), are increasing in number and diversifying their businesses. Individuals own not only stores and restaurants, but also export businesses, fishing boats, mines, small farms, trucks, buses, and even manufacturing factories. These recent enormous changes in the North Korean economy and society are closely related to the phenomenon called "marketization." North Korean markets lost their material and financial foundations after North Korea carried out a

currency reform in 2009. But now North Korean markets appear to have recovered from the currency reform shock and are spreading their influence again.

Marketization in the Agricultural Production Sector

Because marketization in North Korea has made steady progress for a long period of time and to some extent has become a stable, accepted system, all sectors of industry have been linked to markets to a greater or lesser degree. Agricultural production is no exception.

The first example of marketization in agricultural production is small farms. Private farming plots have rapidly expanded since the economic crisis and were included in the official economy through the July 1st Economic Management Improvement Measures introduced in 2002. Private farming plots are categorized as official private plots, unofficial private plots, plots owned by groups, and farming plots owned by state-run factories or state-run enterprises. Individual farmers first turned to the market, but larger farms, including cooperative farms, have also joined this widespread and still growing market-based activity.

The centralized supply system of the agricultural sector collapsed after the economic hardships in the 1990s, as did the industrial sector. The North Korean government had supplied cooperative farms with raw materials and equipment according to an annual production plan, but the system suffered major setbacks after the economic crisis. In particular, beginning in the mid-1990s, the supply of agricultural production materials such as fertilizers, pesticides and greenhouse vinyl sheets came to a halt.

Nevertheless, the state demanded strongly that cooperative farms should achieve their production goals by securing the necessary agricultural raw materials “autonomously,” with a revolutionary spirit of “self-rehabilitation.” In addition, cooperative farms had to pay quasi-taxes, regular or irregular, to superior authorities. Faced with these burdens, cooperative farms had to rely on “markets” to obtain agricultural raw materials. In the early stages, these purchases were made mainly in the unofficial sector – bluntly, they were illegal transactions. But some of the markets were legalized after the July 1st Economic Management Improvement Measures were announced, so some purchases were made in the official economy. As time goes by, legal and illegal transactions became entangled in markets.

According to the July 1st Economic Management Improvement Measures, cooperative farms are allowed to sell some of their agricultural products in general markets and to purchase some raw materials for agricultural production from socialist material exchange markets with earnings from market sales. But these product sales and raw material purchases quickly grew beyond the limits the authorities had set. The wider the gap becomes between the government purchase price and the market price or commodities becomes, the bigger the enticement grows to do business in the unregulated market.

Cooperative farms send their grains, vegetables, fruits, livestock goods, and other products to government agricultural offices such as those for seed management, irrigation management and formula feed factories. Sometimes cooperative farms “lend” their agricultural plots to the government offices during the six-month growing season under the pretext that the offices will farm them as a sideline. In return, the cooperative farms receive equipment and raw materials they need for production. This practice has become common.

Initially, those government offices were to supply equipment and raw materials to cooperative farms according to North Korea's planned economic system. But the farms quickly set up direct deals with each office after the official distribution system collapsed during the economic crisis. This barter system sets the value of transactions according to the market price of the inputs and outputs, not the state price. There are some variations. Cooperative farms sometimes sell their agricultural products in general markets and purchase equipment and raw materials at those markets or from state-run factories or other state-run enterprises with the profits from those sales. Here again, the transactions are made according to the market price, not the state price.

From time to time, cooperative farms borrow money from *donju* (money owners) when they need financing. They repay the loans with their production. Individual capitalists lend cash to cooperative farms or act as middlemen to give them production inputs. In return, cooperative farms repay the loans either with cash or with their output.

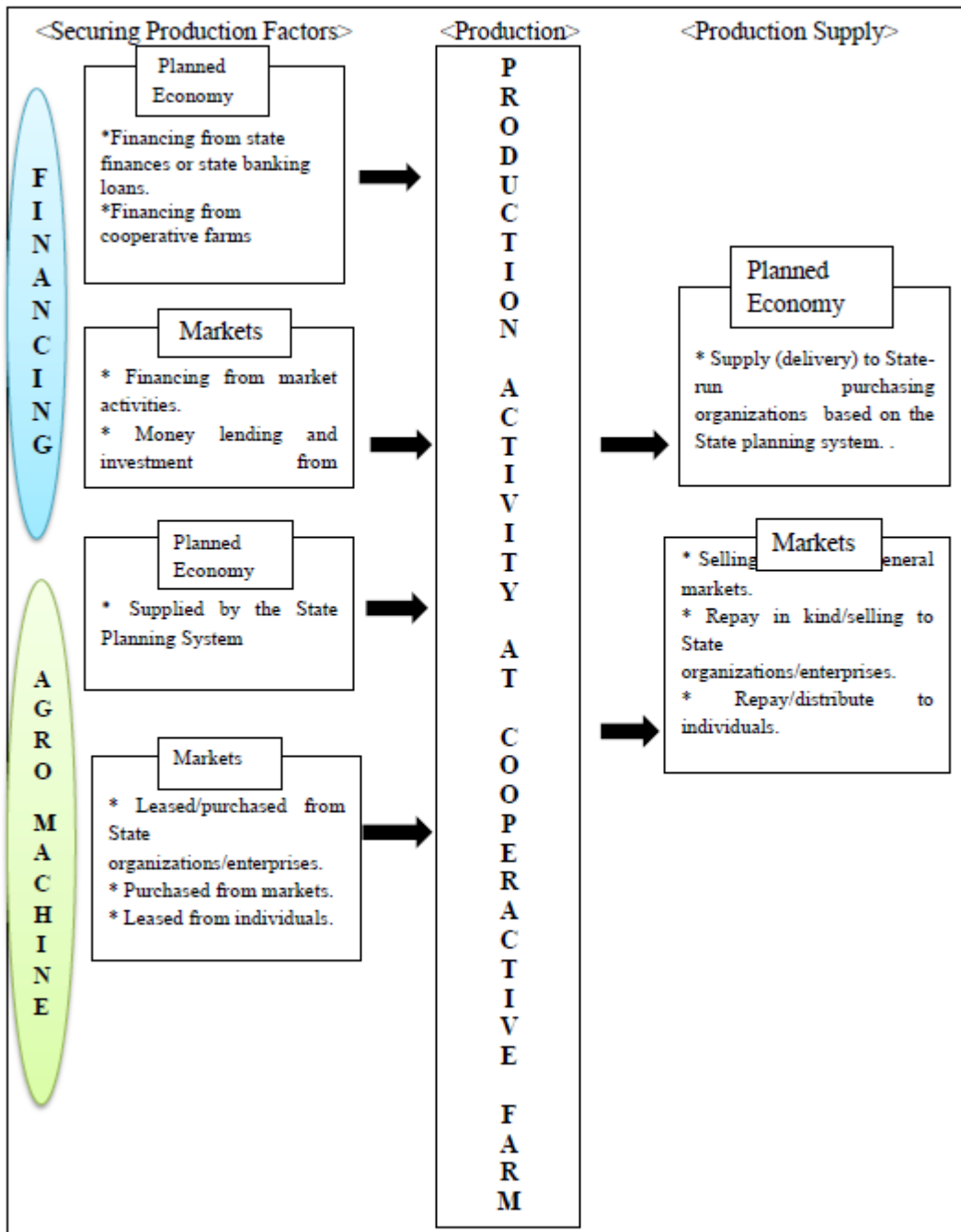
According to a survey a few years ago, 65.2 percent of North Korean defectors who were polled said they were familiar with this *donju* lending to cooperative farms. 13.4 percent said there were "very many" such *donju*, and 51.4 percent said they existed "to some degree." 11.3 percent of these defectors also said there were "very many" such lenders working with individual farmers cultivating small plots. Fifty-four percent said this linkage of *donju* (money owners) and farmers existed "to some degree." Again, 65.3 percent of the North Korea defectors agreed that the system extended not only to state farms but to individual farmers as well. Finally, 13.4 percent of those surveyed said there were "very many" workers employed to till private plots, and 50.3 percent said that hired agricultural workers existed "to some degree." Nearly 64 percent of the North Korean defectors, therefore, agreed that this type of private enterprise was in place. In short, the survey results suggest that private farming on small plots exists not only as an individual livelihood but also as a means of accumulating wealth.

Coexistence of Planned Economy and Markets at Cooperative Farms

Cooperative farms are a major agent of production in North Korea's national economy. Figure 1 shows that the planned economy and market economy, from a farm's viewpoint, coexist in providing production inputs and a means of distribution for output.

In the planned economy domain, farms secure money from North Korea's state finances or through state-run bank loans; with official permission, cooperative farms can also secure financing "autonomously." In the market economy domain, cooperative farms secure financing by selling their products at markets or by obtaining loans from individual *donju*.

Figure 1: Coexistence of the Planned Economy and Market Economy at Cooperative Farms in North Korea



Cooperative farms receive agricultural equipment and raw materials through the state supply system according to a national planning document. They purchase or rent agricultural equipment and raw materials from government agricultural organizations, nearby factories or state-run enterprises. Sometimes cooperative farms purchase agricultural equipment and raw materials from industrial

markets or rent them from individuals.

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With the money and production inputs obtained through formal channels, cooperative farms produce agricultural goods and hand them over to a chain of state-run purchasing agencies. In the market economy, cooperative farms sell their products in general markets and repay loans from agricultural offices with the proceeds. Alternatively, they may deal either in cash or in kind with state-run factories, state-run enterprises, or individual money owners.

The importance of the planned economy and the market economy in securing inputs and distributing products differs by farm. The importance of the planned economy will go up if the cooperative farm is important or has priority in national planning. The importance of the market economy will go up if the cooperative farm is low-profile.

In addition, although not seen in Figure 1, government agricultural organizations or nearby state-run factories or state-run enterprises can provide agricultural production equipment and raw materials to cooperative farms. In return, they can rent farming plots for a certain period of time.

North Korea's Food Supply and Demand

The Table 1, is an estimate of North Korea's food supply and demand situation, but this approach may lead to a misunderstanding because it does not reflect the situation in North Koreans' real lives, as explained below.

Table 1: Food Supply and Demand in North Korea (Unit: million metric tons)

Calendar Year	2010	2011	2012	2013	2014
Domestic production (Based in harvest year)	4.5	4.69	4.41	4.92	5.03
Commercial Imports	0.41	0.42	0.33	(0.3)	(0.3)
Demand	5.31	5.34	5.36	5.39	5.42
Supply	4.91	5.12	4.73	5.22	5.33
Shortfalls	0.4	0.22	0.63	0.16	0.09

Note: The figures in parentheses indicate estimates.

Sources: FAO, WFP/FAO; "The Changes of North Korea's Agricultural Policy and Prospects of Food Supply and Demand in 2014/2015," January, 2005, No.4 of Volume XVI, "KREI North Korean Agriculture Trends by Kim Young-hoon."

The problem is that the official food supply and demand in North Korea is different from what North Koreans actually experience; they have access to informal markets to supplement official supplies. This gap between the (estimated) official situation and the true situation tends to get bigger as time goes by and free markets develop.

This trend is similar in the Bank of Korea (South Korea) estimates of North Korea's gross national income, which do not fully reflect North Korea's market activities. Of course, Table 1 reflects output from market activities such as private kitchen farms and plots in North Korea. However, such food supply and demand through market activities in North Korea accounts for only limited portion in overall food supply and demand.

When North Korea's planned economy operated properly in the past, there was no large discrepancy in its official food supply and demand figures and the situation seen by people there. The state could control the nation's food supply and demand through the food rationing and supply system. But when that system started to collapse and marketization began to expand rapidly, the gap between the official and real figures began to widen. For instance, snacks were very rarely available under the planned economic system, but became available as free markets expanded. North Koreans were able to get foods easily outside of the state-run system – from general markets, shops, restaurants, and street vendors. In addition, the types of food became much more diverse.

Staple foods and side dishes are clearly defined in Koreans' minds, and both are part of daily meals. Staple foods are cereal grains, especially rice, but can vary according to region and time. South Korea's dietary menu and culture are changing as its economy grows and GNI per capita expands. South Koreans now include more protein and fats in their diets, giving them a more balanced diet than their former carbohydrate-heavy fare. Rice is no longer the centerpiece, the staple, of a meal, and rice consumption in South Korea has fallen more than 50 percent over the past 30 years.

A similar trend may be emerging in North Korea. It isn't appropriate to compare South Korea and North Korea because of the huge difference in wealth, but North Koreans' current diet is quite similar to that during South Korea's early stages of economic development, even if the North is developing much more slowly than the South did. But the importance of grain as the dietary staple seems to be decreasing, and the distinction between a staple and a side dish is weaker.

Unlike in South Korea, North Korea's usual diet is linked to famines rather than to income level hikes. Substitute foodstuffs appeared in the mid-1990s in North Korea during its great famine period. Grass roots, the bark of trees, wild edible greens, and wild fruits were used widely during that time. They were regarded as famine food or poverty food, because they were substitutes for staple foods in North Korea. But as the famine period in North Korea passed and its economy recovered from the worst of the problem, marketization in North Korea has been developing new types of substitute food and people are not resistant to altering their traditional dietary practices.

Market Activities in Foodstuffs Production by Individuals and Enterprises

As general markets grew bigger, North Korean housewives found a profitable sideline in selling at those markets foodstuffs they made themselves. They sell side dishes and snacks such as sweet puffed rice, rice cakes, breads and cookies. They also set up street stalls where they cook hot dishes and serve them.

In some cases, North Koreans have developed such an enterprise into a larger business. In the manufacturing sector, there are now noodle factories and artificial meat factories that developed from vendors' enterprises. Those factories produce meals which are cheap and convenient or inexpensive,

tasty and nutritious. Machinery and at least some labor are necessary for such factories, as is a stable electrical supply. Accordingly, most noodle factories and artificial meat factories were registered as a “production base” of major state-run factories. These production bases usually assume a legal form designated as a source of additional earnings for the state-run factory involved.

As an example, an individual enterprise which produces dry noodle in South Hwanghae Province was sponsored by a machine factory. The entrepreneur set up a noodle production line in a corner of the machine factory compound, hired workers and bought the equipment and raw materials to produce noodles. The owner sold noodle products to wholesale dealers and gives a portion of the profit to the machine factory. The owner is called “head of production base” at the factory and runs the noodle production line independently from the machine factory. But decisions on profit sharing, resource rental and legal matters are made by mutual agreement.

Another example is an artificial meat factory. Artificial meat and artificial meat with rice has become explosively popular among the North Korean people after the “Arduous March” famine of the 1990s, and has become a new popular meal in North Korea.

Artificial meat was first produced in North Korea in 1999 in the city of B, with an urban population of about 200,000. A group of craftsmen in the city began to produce artificial meat as an extension of their soybean oil extraction business; they imported soybeans from China and sold the oil in free markets. As artificial meat grew popular, the entrepreneurs went to Anju, China, and learned to turn soybeans into artificial meat. Back home, they cobbled together production machinery and started production.

An individual who plans to set up an artificial meat production line consults with an executive of a state-run factory and obtains the right to install and run a production line on the factory premises. The individual becomes the person in charge of a production line on the factory’s personnel charts and is given access to electrical power. He or she buys production machinery personally and employs workers, usually including family members of the factory’s executive who helped make the arrangements.

About 80 percent of the population of B city, the middle class, consumes an average of 850 grams of artificial meat (50 grams for soup, 300 grams for side dishes and 500 grams for artificial meat with rice) per day per family of four. Total consumption in B city, therefore, is about 3.2 tons per day. Each production base in B city can produce 400 kilograms of artificial meat per day. As of 2008, nine years after the first production of artificial meat there, the city supports seven or eight production lines, each employing up to 10 workers. This is a good example of how market development increases the quantity and quality of foodstuffs.