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WTO/DDA negotiation and Korea's Agricultural Policy, *Case of rice*
(Draft version¹)

Yoo-Duk Kang²

Introduction

During the sixth WTO Ministerial held in Hong Kong in December 2005, more than 1,400 Korean farmers and militants of their associations took to the streets of Hong Kong. Their demonstrations attracted international and local media, because such a massive mobilization mostly from agriculture from one single country is rare. Their demonstration are mainly due to actual problems Korean agricultural sectors are facing in multilateral liberalization rather than to anti-globalization movement.

In fact Korea has been one of the major beneficiaries of growth in the world trading system. But its trade policy had not been always oriented towards trade liberalization. In particular, Korean agriculture has been always heavily protected from foreign market through tariffs, quota and various subsidies.

It is hardly expected that Korea's agriculture becomes competitive. Various efforts in restructuring agriculture has limited outcome due to basic structural reasons. Korea's territory is in most of parts mountainous and not suitable to highly mechanized plantation for scale economy. Even more crucially, 60 percent of Korean farmers are over 60 years old, which turns difficult job-change from agriculture to other sectors (and even from some crops to others). Facing the increasing pressure of opening its agricultural market, its agricultural sectors have made various efforts, such as improving the productivity, increasing scale of farming and farming higher valued farm products. However these efforts have given limited results. Korea's agriculture is highly dependant on the tariff and quota protection and subsidy from the Government.

¹ This draft focuses on the presentation of the key issues at stake and on the description of the current situation. It does no attempt to provide policy options for addressing the problems. At this stage, comments and criticisms on the current situation will be very much appreciated.

²PhD candidate,

Groupe d'Economie Mondiale
Institut d'Etudes Politiques de Paris, Sciences Po
Email : yooduk.kang@sciences-po.org

Debates on opening Korea's agriculture can be explained by the interaction of two factors, internal and external factors.

(i) Internal: Currently, the agriculture's share in Korea's GDP is 2.7 percent and farmers become a small group in the economy, being only 3.7 percent in total population. But they are not necessarily small in politics, because they are considered important, due to agriculture's non-economic roles such as conservation of territorial balance and food security. Korea had experienced severe food shortage after the Korean War (1950-1953) and food shortage had continued until the early 70s. This experience of the former generation is still alive in Korean public mind, even though Korea is already developed industrial economy. Besides given that Korea's economic transformation from agrarian economy to industrial economy was very rapid, actually most of Koreans have family background in rural areas. This creates public sympathy on farmers group and contribute to their political influence which is stronger than their actual contribution to the Korea's economy.

(ii) External: As Korea is heavily dependant on its non-agricultural exports (more than one third of its GDP), the more its economy benefits from trade liberalization on non-agricultural products with trading partners, the stronger the pressure from exporters (mainly USA) for liberalization of its agricultural markets becomes. In consequence, Korea's export-driven economic growth model conflicts more and more with protection in agriculture in international debates.

Besides, it has been more and more difficult for Korea to escape from the multilateral liberalization agenda. The expected outcome of the on-going Doha Development Round (DDR) agenda is more substantial and far-reaching than former Rounds for the agriculture. It is therefore more necessary for Korea's agriculture to be reformed in advance in order to be compatible with requirement of the expected outcome of the DDR agenda.

What follows concentrates on rice, both because rice is the most protected single item as shown below in detail and because Korea's trading partners (from the US to Thailand) have strong stakes in the market access for this product. Rice is all the more important because its production represents more than one third of Korea's agricultural output in terms of value and domestic supports in Korea's agriculture are concentrated on rice.

Korea's commitments to the WTO

The liberalization efforts - though very modest – had first begun in the early 1980s and had taken a prior qualitative step forward with Korea's compliance to the 1994 Uruguay Round of GATT. The economic crisis in 1997-1998 and subsequent reforms accelerated the liberalization of the country's trade policy in manufacturing. But agriculture, and especially rice, escaped from this liberalization.

Existing Korea's commitments to the WTO consist mainly in two aspects: Aggregate Measurement of Supports (AMS) and Minimum Market Access (MMA). First issue includes various supports to agriculture such as subsidy and double-price policy and second one is related to tariffication of the trade protection.

Korea has been reducing AMS according to its commitment to the WTO...

Korea's base year total AMS was reported to reach the amount of 1,718.6 billion won (1.43 billion US dollars) in 1994, more than 91 percent of which from rice support, as shown in Table 1. The remaining AMS for other products including barley, soybean, maize, and rape seeds accounts only for less than 9 percent of the total. This total AMS is subject to reduction by 13.3 percent over 10 years as presented in table 2.

Table 1

Aggregate Measurement of Supports for Korea			
	AMS (bil. won)	AMS/Production (%)	Share (%)
Total AMS	1,718.6		100.0
Rice	1,568.4	24.8	91.3
Barley	52.3	17.4	3.0
Soy bean	72.9	34.1	4.2
Maize	22.6	79.9	1.3
Rape seeds	2.4	53.3	0.1

Source: Republic of Korea "Schedule LX - Republic of Korea: Agricultural Products" 1994

This commitment to reduce AMS has driven Korea's support policy toward less distorted one, especially in the case of rice. Rice purchase system of the Korean government had been based on "double-price system" in which the Government guarantees the purchase of rice by a higher price than market price. This trade-distorting "domestic price support" policy in MPS category in terminology of OECD was subject to Korea's reduction commitment on AMS on agriculture in the Uruguay Round (Amber box). As presented in table 2 the AMS was to be scheduled to be reduced by 13.3 percent over 10 years and Korea's agricultural supports policy had to be adapted according to this commitment.

Table 2

AMS reduction schedule for Korea											
Year	Baseline	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AMS	1,719	1,696	1,672	1,650	1,627	1,604	1,581	1,559	1,536	1,513	1,490

Source: Republic of Korea "Schedule LX - Republic of Korea: Agricultural Products" 1994

In 2003, government introduced new support policy "Direct payment for rice earning" which replaced the "double-price system" for rice from year 2005. This support system is considered less trade-distorting. In this reform, the Government supports 80 percent of difference between target price in a base year and market price through "fixed direct payment" and "variable direct payment". The fixed direct payment is designed in principle to be "*decoupled*" support which does not motivate more production of rice, while variable direct payment can be still linked to production.

... but still Korea has a lot more domestic support rate than OECD average.

In order to quantify overall domestic support on agriculture, OECD use different methodology such as Producer Support Estimate (PSE), Market Price Support (MPS) and Total Support Estimate (TSE).³ Korea's support to producers (% PSE) was 76% in 2004, and it is double the OECD average.⁴ The most trade-distorting support, MPS represents 93 percent of the PSE in 2004. The level of support measured by the producer Nominal Assistance Coefficient (NAC) shows that Korea's NAC, 2.79 (2001-2003) is much higher than the average 1.45 of OECD countries. It means that current Korean farm receipts are 179% higher than if entirely generated in world markets without any support.

The overall reduction of PSE by 12.5 percent over recent period (1995-2004) is mainly due to the gradual decrease in price support according to Korea's AMS reduction commitment to WTO and its preparation to the expected outcome of on-going DDR negotiation.

³ OECD Agricultural Policy 2004

⁴ Support to producers in 2001-03 was below 5% of farm receipts in Australia and New Zealand, 20% or less in Canada, Mexico, Poland, Slovakia, Turkey and the United States, around 25% in the Czech Republic and Hungary, 35% in the European Union. Korea has the highest percentage of PSE, 60% or more with Iceland, Japan, Norway and Switzerland.

Table 3

Korea's Estimates of Support to Agriculture and Rice										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Producer Support Estimate (Total)	19,367	18,708	19,173	17,313	21,445	21,827	20,881	21,987	20,620	22,872
Market Price Support (Total)	18,330	17,639	18,030	16,324	20,547	20,865	19,633	20,479	18,855	21,283
Percentage PSE (PSE/Total production value)	72	64	63	57	65	67	62	65	61	63
MPS/PSE (Rice %)	95	94	94	94	96	96	94	93	91	93
PSE (Rice)	6,370	7,478	7,563	6,904	7,929	9,127	9,002	8,094	6,903	8,112
MPS (Rice)	6,161	7,209	7,287	6,631	7,668	8,847	8,611	7,607	6,379	7,604
MPS/PSE (Rice %)	97	96	96	96	97	97	96	94	92	94
Percentage PSE (Rice)	72	64	63	57	65	67	62	65	61	63
Total Support Estimate (Total)	22,038	21,387	23,229	21,451	24,433	25,030	24,323	25,596	24,687	25,959
Percentage TSE (expressed as share of GDP, %)	5.53	4.77	4.73	4.43	4.61	4.33	3.91	3.74	3.41	3.33

Source: OECD data set, 2005 and Korea Statistical Information System, 2006

Table 4

Production Support in Korea											
		1986	1990	1995	1996	1999	2000	2001	2002	2003	2004
Total	PSE	8,308	13,609	19,367	18,708	21,445	21,827	20,881	21,987	20,620	22,872
	Percentage PSE	65	75	72	64	65	67	62	65	61	63
	Producer NAC	2.89	3.93	3.57	2.78	2.90	2.99	2.63	2.88	2.59	2.67
Rice	PSE	4,024	5,799	6,370	7,478	7,929	9,127	9,002	8,094	6,903	8,112
	Percentage PSE	80	85	88	81	77	84	81	80	74	76
	Producer NAC	5.03	6.87	8.13	5.25	4.26	6.39	5.16	5.07	3.83	4.18
Barley	PSE	188	258	248	244	229	161	272	214	168	181
	Percentage PSE	75	79	82	79	83	81	77	77	80	78
	Producer NAC	3.94	4.65	5.56	4.75	5.92	5.25	4.37	4.42	4.91	4.56
Oildseeds	PSE	120	206	249	250	289	263	244	260	264	451
	Percentage PSE	75	83	88	86	91	90	88	89	89	89
	Producer NAC	4.03	5.72	8.59	7.26	10.72	10.35	8.31	9.25	9.00	8.70
Milk	PSE	255	411	541	530	786	959	781	970	955	906
	Percentage PSE	68	63	62	58	63	69	53	61	62	61
	Producer NAC	3.16	2.72	2.66	2.39	2.72	3.21	2.15	2.57	2.66	2.57
Beaf and veal	PSE	428	661	1,332	1,251	1,599	1,430	1,384	1,536	1,268	977
	Percentage PSE	50	69	70	68	63	59	65	73	61	56
	Producer NAC	1.99	3.19	3.39	3.13	2.67	2.45	2.88	3.71	2.54	2.29
PSE in rice / Total PSE		0.48	0.43	0.33	0.40	0.37	0.42	0.43	0.37	0.33	0.35

Source: OECD, PSE/CSE database 2005

Producer Support Estimate (PSE): annual monetary value of gross transfers from consumers and taxpayers to farmers (billion won)

Producer Nominal Assistance Coefficient (Producer NAC): the ratio between the value of gross farm receipts including support and gross farm receipts valued at border prices

Consumer Nominal Assistance Coefficient (Consumer NAC): the ratio between the value of consumption expenditure on agricultural commodities (at farm gate) and that valued at border prices

Using distortionary coefficients, table 5 shows level of support measures to Korea's agriculture and particularly to rice farming. From the Producer NAC (Nominal assistance coefficient), we can estimate that ad valorem tariff equivalent of Korea's agricultural products is 167 percent⁵

⁵ Producer NAC for year 2004, 2.67 means that farm receipts of this year is 167 percent higher than if entirely generated in world markets without any supports. Consumer NPC (Nominal protection coefficient) for year 2004, 3.98 means that the price paid by consumer to buy rice is 298 percent higher than the price in world market.

Table 5

		Distortionary coefficients of support to agriculture and rice									
		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Producer NAC	Total	3.57	2.78	2.71	2.30	2.90	2.99	2.63	2.88	2.59	2.67
Producer NAC	Rice	8.13	5.25	4.83	3.63	4.26	6.39	5.16	5.07	3.83	4.18
Producer NPC	Rice	7.90	5.09	4.69	3.53	4.15	6.22	4.98	4.83	3.62	3.98
Consumer NAC	Total	3.40	2.71	2.55	2.14	2.67	2.68	2.41	2.79	2.39	2.37
Consumer NAC	Rice	7.68	5.06	4.66	3.52	4.15	6.22	4.96	4.81	3.62	3.98
Consumer NPC	Rice	7.90	5.09	4.69	3.53	4.15	6.22	4.98	4.83	3.62	3.98

Source : OECD Agricultural Policies 2004

Korea's rice market has been highly protected by Minimum Market Access (MMA)...

Opening of Korea's agricultural market started in limited way only after the Uruguay Round. Regarding rice imports the Korean Government had completely banned rice imports in order to protect domestic market. It allowed rice imports only for the years of poor harvest. When opening of rice market became an inevitable issue at the end of Uruguay Round under the pressure of rice importing countries, Korea agreed unwillingly to accept the partial opening of domestic market, not through fixing tariffs for rice, tariffication, but through Minimum Market Access for 10-year period (1995-2004).⁶ Rice imports had been scheduled to rise from 1 to 4 per cent of average domestic consumption as presented in table 6. Relatively low tariff (around 5 percent) had been imposed on rice imports within quota and protective high tariff had been imposed on rice imports out-of quota.⁷ In this agreement giving ten-year grace period, the modality of rice market opening at the end of this period was supposed to be decided at the expiration of the period without previous commitment.

This limited opening of rice market gave actually no signal to the price mechanism of market, because rice imported in MMA framework were allowed to be sold only to processing industries such as rice cookie making. Table 6 shows that actual quantity of rice imported has been negligible relative to Korea's total consumption. Korean consumers couldn't buy imported rice for purpose of meal. This means that rice imports of this period (1995-2004) doesn't have positive implication in consumer's welfare side. It is difficult to estimate welfare loss and rents probably enormous due to difference between domestic and international rice prices. The MMA commitment was rather in order to protect Korean farmers in the best possible way under the pressure of rice exporters and to gain adaptation period to prepare eventual market opening in agriculture.

⁶ Former President Kim, Young Sam (1993-1998) made a public promise at the presidential election campaign that he would block completely any opening of rice market at all efforts (November 23 1992 Donga-il-bo). However, on December 9 in 1993 Korea agreed to open its rice market in the MMA framework for 10-year period.

⁷ In case of Korea's rice import out-of quota rate has had no meaning, because fill ratio (actual imports/import quota) has been very low. Until now (2006) annual import quota has never been filled.

Table 6

Rice production, Minimum Market Access for Korean rice market and rice imports in Korea				
Year	Rice production in Korea (ton)	MMA (ton)	MMA/Domestic consumption (%)	Actual rice imports (ton)
1990	5,605,979			0
1991	5,384,388			0
1992	5,330,826			365
1993	4,749,562			1,467
1994	5,059,764			262
1995 (first year of MMA)	4,694,956	51,307	1.00	501
1996	5,322,962	64,133	1.25	102
1997	5,449,561	76,960	1.50	10
1998	5,096,879	89,787	1.75	74
1999	5,262,700	102,614	2.00	263
2000	5,290,771	102,614	2.00	62
2001	5,514,796	128,267	2.50	87
2002	4,926,746	153,920	3.00	102
2003	4,451,135	179,574	3.50	94
2004	5,000,149	205,228	4.00	281

In-quota tariff in the MMA is 5 percent and out-of-quota tariff has not been applied due to the low fill ratio of quota.

Source: Republic of Korea "Schedule LX - Republic of Korea: Agricultural Products" 1994

Korea Agricultural Trade Information 2006 www.kati.org

...and Korea starts to open its rice market only through extending the MMA

Coming to the expiration of 10-year MMA commitment in 2004, Korea had to decide once more the modality of opening of its rice market. Instead of adopting the tariff based system such as Japan and Chinese Taipei did, Korea, however, notified to the WTO secretariat its intention to extend its MMA framework over a 10-year period more.⁸ Korea's farming household desired strongly to protect domestic rice market and public opinion was still hostile to the market opening with tariff based system. Under the increasing pressure of the market opening, this extension of MMA with more import quota was expected as a possible best option. To begin with USA in May 2004 Korea negotiated this commitment on bilateral basis. After following 50 negotiations with 9 rice exporting countries, Korea submitted its Country Schedule agreement to the WTO secretariat in the end of 2004.

This agreement was submitted to the Korean Parliament to be ratified and gave rise to strong oppositions between political groups. There are various levels and attitudes of oppositions to this agreement. One of general opinions which dominated opposition groups is that agriculture, especially rice, should be excluded from the negotiation agenda with following reasons; first of all rice farming

⁸ Japan had 6-year period of MMA commitment at the end of the Uruguay Round for its rice imports. In 1999, 2 years before its expiration, Japan adopted tariff based system "tariffication" of its rice imports. Its tariff rate on imported rice at the beginning of tariffication was 402yen/kg (approximately 1,152 percent if calculated in ad valorem tariff). Joining to the WTO in 2002, Chinese Taipei had only one-year grace period before adopting tariff based system for imported rice. Its tariff rate was 45NT/kg (approximately 475 percent if calculated in ad valorem tariff) at the beginning of tariffication.

is still important economic activity in rural areas which engage more than 3 millions of population. Due to ageing of farming population, it is very hard for them to change a job. Secondly, the self-sufficiency of food is important for food security. Thirdly the agriculture has important role in territorial balance and conservation of environment. In addition to these reasons there is certain mistrust on trade negotiation in general due to its lack of transparency, which might victimize rice farming. After strong opposition of Farmers' Unions and groups of deputies, this agreement was finally ratified on November 23 2005 (139 ayes against 61 noes with 23 abstentions and 76 non-participation).⁹

Under the second 10-year period of MMA agreement (2005-2014), the minimum-access import quota will almost double from 4 percent in 2004 to almost 8 percent in 2014.¹⁰ The tariff within the quota will remain at 5 percent, but there is no provision or mention for imports above the quota. The Korean government is committed to resell a portion of the imported rice into the Korean market for final consumer use as a meal as shown in following table. (10 percent of MMA in 2005 and 30 percent of MMA in 2010).

The minimum import quota for 2005-14 is divided into two sections as presented in tables 7 and 8. One section, consisting of the 205,228-ton quota size reached in 2004, is to be divided each year among four exporting countries. A second section, consisting of the increments added to the quota each year, 2005-14, is open to exporters on a most-favored-nation (MFN) basis, so that exporters in any country that has MFN standing with Korea can try to sell rice within the quota. The initial MFN section of the quota in 2005 is 20,347 tons, and the quota increases by 20,347 tons each year thereafter, until the total quota size is 408,700 tons (7.96 percent of base year's consumption), with the MFN section equal to 203,472 tons in 2014. For the negotiation side, this dual MMA allocation has an advantage. It guarantees interests of existing large exporters and equally, it allows the market entry of new exporters, so that it facilitates to reach a compromise with different countries. At anytime for the years 2005-14, it is possible to convert this MMA system to tariffication and the tariff in this case is fixed by the on-going DDA agricultural negotiations.

⁹ Most of no votes came from the opposition party (Grand National Party - ayes: 30, noes: 51, abstention: 18 non-participation: 28) and deputies from rural areas. The strongest opposition group, all deputies of Democratic Labor's Party (leftist party) and Democratic Party refused to participate in voting except one deputy of DP who voted for no.

¹⁰ This MMA import quota is calculated according to base year (1988-1990) of rice consumption. In fact Korea's rice consumption has been decreasing since then and so it is estimated that the actual import in 2014 will reach 11.8 percent of estimated total rice consumption of 346,700 ton.

Table 7

Minimum Market Access Import commitment on rice, 2005-14

Year	Tons	Sale at market* (% of total quota)	Year	Tons	Sale at market (% of total quota)
2005	225,575	10	2010	327,311	30
2006	245,922	14	2011	347,658	30
2007	266,269	18	2012	368,006	30
2008	286,617	22	2013	388,353	30
2009	306,964	26	2014	408,700	30

Source: Lee and al. (2003)

Note: Sale at market means that the imported rice should be sold to final consumer for the purpose of meal

Table 8

Rice import quota

Country	Quota (ton)
China	116,159
United States	50,076
Thailand	29,963
Australia	29,963

Source: Kim and al. (2003)

This situation is analyzed in graph 1 in welfare point of view. First of all, we consider world supply of rice is infinitely elastic, because world rice production is huge relative to Korea's rice demand.¹¹ So it is represented by horizontal line S_w . And then Korea's domestic rice supply curve is S_k and its demand curve is D_k which is not much elastic to price change, because rice is staple food in Korea, of which demand is not much influenced by the price fluctuation.¹²

When the MMA commitment is fully completed, the 8 percent of Korea's domestic consumption is allocated to foreign supplier as quota. Currently, in-quota tariff is 5 percent ($P_t - P_w$). For the out-of-quota tariff, there is no provision on it. We can only estimate possible out-of quota rate on tariff equivalent basis between 350 and 400 percent.¹³ In free trade case with 0 tariff on rice, total rice demand is OY' . With 5 percent of in-quota tariff and 356 percent of out-of-quota tariff, domestic

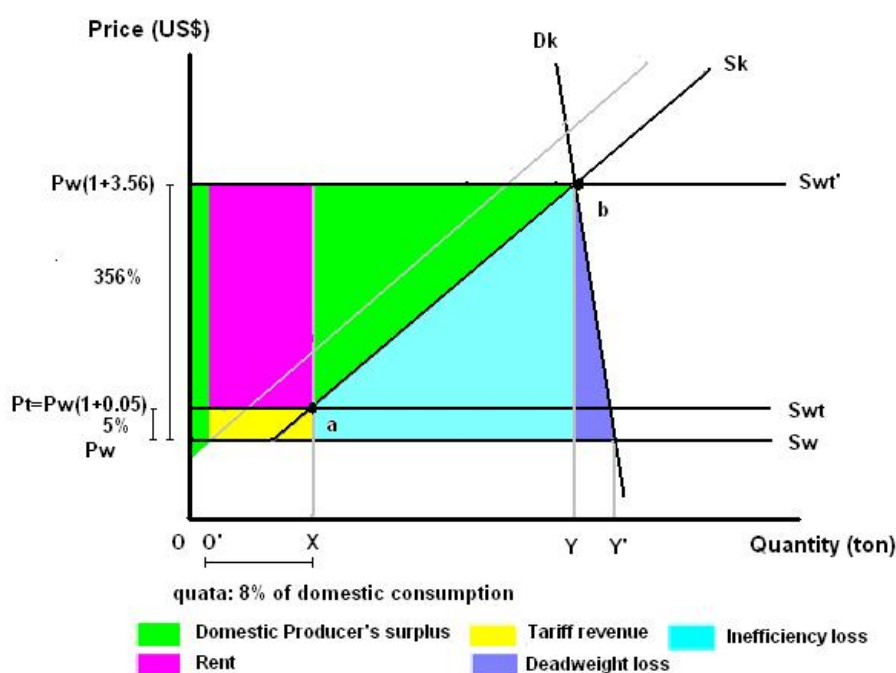
¹¹ The world rice production in 2004 is 605,584 thousands ton. And Korea's rice production in 2004 is 6,945 thousands ton, representing 1.1 percent of world production. (Source: FAO, 2006)

¹² In general production curves of agricultural products are inelastic. For rice in Korea, it seems more inelastic due to government's annual price setting. Korea had used until 2005 the public purchase system of rice, in which the Government set its rice purchase price, being based on the expected production, its rice stock and farming household income. Farmers could decide whether to sell their rice to public agency with this price or to sell directly to market. Due to this system, Korea's rice production is somewhat immune to market mechanism of price setting. For demand side, rice demand curve is not elastic either, because rice is staple food in Korea. According to the Ministry of Agriculture, Korea (2004) rice (own price) demand elasticity is -0.31 .

¹³ This estimated tariff equivalence is estimated from Consumer NPC (nominal protection coefficient) from the OECD. The 5 year average (2000-2004) of Consumer NPC is 4.72. This means that the price consumers pay to buy rice in Korea is 372 percent higher than if freely purchased from world market. In this case, we use tariff estimates of 356% from OECD data set 2005).

supply is XY and foreign supply is OX (on which 5 percent low tariff applied). With this prohibitive out-of quota tariff, all possible imports beyond quota are completely blocked. The combined rice supply curve is a line which connects Pt , a and b .

In that case, it should be noticed that there are two parts (triangles) which are surcharged due to tariff and quota. First part "inefficiency loss" occurs due to the fact that inefficient domestic suppliers produce rice instead of efficient foreign suppliers. Second part "deadweight loss" is due to the loss of possible transaction. Korean farmers are protected from competition from foreign suppliers through this combination of tariff and quota. We estimate more than 3 billion US dollars as inefficiency loss and 1.24 million dollars as deadweight loss. One of problems of this protection is that there is a considerable rent, which may motivate intermediaries to be engaged in active lobbying to obtain imports license. In the graph, the rent is 5.2 billion US dollars, while the tariff revenue on 8 percent of MMA quota (408,700 tons) is only 7,4 million US dollars. Tariffication of quota can eliminate this rent seeking possibility.¹⁴ The part XY is supplied by domestic suppliers and domestic suppliers surplus is estimated 3 billion US dollars.¹⁵



Graph 1. Tariff and quota protection of Korea's rice market

Given that Korea just obtained 10 years more MMA extension for the tariffication of rice, there is a question whether this MMA extension is rather fundamental solution to the Korean rice farming. For

¹⁴ For the rice price (CIP basis from origin to Korea) in world market, we used the average rice price (363 US dollars /ton) of 5 years (2000-2004) in OECD data set 2005.

¹⁵ See Annex for detailed information.

the 10 years 2005-2014, the tariff (out-quota) on rice will decline continuously. If this MMA extension 2005-2014 will be expired without its renewal, the tariff on rice at the first year of the tariffication in 2015 will be a lot lower than current tariff. So if the price gap between Korean rice and imported rice is not reduced, the impact of tariffication is expected quite strong. Recent study (Seo and al.) propose how much the price of Korean-produced rice should be lowered to be competitive vis-à-vis imported rice. Supposing that tariff reduction schedule under the DDA are implemented from 2008 and so tariff on imported rice 400 percent is reduced by 25 percent for 5 years (transitory period), the import price of rice including tariff will be 1,721 US dollars/ton in 2014. Currently Korean-produced rice price is 1,378 US dollars/ton.¹⁶ To be competitive vis-à-vis foreign produced rice in 2014, the price of Korean rice should be lowered by more than 2 percent each year over the same period.

Concluding remarks

Korea has had rather defensive strategy for trade negotiation as a whole, mainly due to its concern in agriculture. What does Korea's case propose us as a lesson and reference in the multilateral trade negotiation?

First of all, in one single country it is possible that two categories of contradicting industries exist; industries of the first category are highly competitive not only in domestic market but also in international market. Tariff rates of their products are generally low and they are oriented toward foreign market. Some industries consider their domestic market just auxiliary to more large international market. But in same country there are also non competitive industries which are highly protected by tariff and non-tariff barriers. Korea's semiconductor, ship building and IT industries are in the first category and agriculture is well in the second category. In this case, tariff rates become non-consistent with possible double structure. When it comes to overall tariff cuts, benefits from the tariff cuts are asymmetric and become potential cause of conflict, if a proper distribution mechanism or proper functioning of market are not well established. Whether the country liberalizes its trade or not, these asymmetric benefits arise. In Korea agriculture represent only 2.7 percent of the economy, employing only 3.7 percent of its total population. Nevertheless, Korea's case shows us that agriculture determines in large part the Korea's overall trade policy.

Secondly Korea's case says that it is not easy to increase productivity in agriculture relative to manufacturing sectors, if natural and structural reasons – geography, weather etc.- matter. In Korea's agriculture modernization is quite well accomplished for last decades, but it has limits and is hardly expected to be competitive vis-à-vis large agricultural countries.

Thirdly, while trade negotiation in the WTO is on multilateral basis, bilateral negotiations are also important and affecting multilateral negotiations. For MMA extension for rice 10-year period more, Korea negotiated this commitment on bilateral basis and conducted 50 negotiations with 9 rice exporting countries. It should negotiate also on a bilateral basis with other countries on its developing country status. It is possible to expect that this negotiation would be done at the expense of its first negotiation objective, rejecting tariff cap method. In the trend of bilateral Free Trade Agreement in which most of countries started being engaged, the relation between bilateral and multilateral negotiations seems to be increasingly more important.

¹⁶ 1 US dollar = 1,152 won

Annex

Welfare effects of Rice market protection in MMA schedule, tariffication and liberalization						
International and domestic rice prices and tariff estimates						
Year	2000	2001	2002	2003	2004	Average price of 5-year (2000-2005)
International rice price (CIF basis), (US\$/ton)	283	304	322	460	443	363
Korea's rice price (farm gate level), (US\$/ton)	1,762	1,514	1,556	1,663	1,763	1,652
Protective tariff estimates (%)	522	398	383	262	298	356
In-quota tariff of MMA (%)	5					
Korea's base year (1988-1990) rice production (ton)	5,134,400					
MMA quota of 8 percent (ton)	408,700					
Case 1. Marekt protection in MMA framework (US\$)						
Tariff revenue (5%) for the MMA imports	7,409,038					
Rent	519,499,253					
Domestic Producer's surplus	3,003,422,586					
Inefficiency loss	3,089,091,517					
Deadweight loss	1,242,297					
Own price demand elasticity of rice (negative)*	0.31					
Case 2. Tariffication, 356% (supposing imports are 8 percent by construction) (US\$)						
Tariff revenue (356%) for the MMA imports	526,908,292					
Domestic Producer's surplus	3,046,257,052					
Inefficiency loss	3,046,257,052					
Deadweight loss	1,242,297					
Case 3. Complete liberalization of rice market (US\$)						
Consumer surplus	6,620,664,692					

Source: Personal elaboration based on OECD data set 2005

Note*: Demand elasticity from Ministry of Agriculture, Korea, 2004

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Reference in English

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Bank of Korea - www.bok.or.kr

Ministry of Foreign Affairs and Trade, Korea - www.mofat.go.kr

Ministry of Agriculture and Forestry, Korea - www.maf.go.kr

Ministry of Commerce, Industry and Energy, Korea - www.mocie.go.kr

Korea Rural Economic Institute - www.krei.re.kr

Korea International Economic Policy Institute - www.kiep.go.kr

Korea Exchange and Import Bank - www.koreaexim.go.kr

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