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Changes in the Trade of Agricultural and Livestock Products and Implications after Seven Years from the Enforcement of the Korea-EU FTA

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Summary

- In Year 7 of the implementation of the Korea-EU FTA, the import value of agricultural and livestock products from EU countries is USD 4.33 billion, a 105.1% increase from the average year before the enforcement and a 9.2% increase from Year 6.
 - The degree of the opening of the agricultural and livestock market for the Korea-EU FTA that took effect on July 1, 2011 is 96.2%. The impact of reduced tariff has been visible for the recent seven years, while the trade volume of TRQ-applied items has also been on the rise.
 - The imports from the EU take up 13% in the total import value of agricultural and livestock products, a 0.3%p increase from Year 6.
 - The import value of processed food, fruits and vegetables, and livestock products jumped by 20.4%, 16.6% and 5.9%, respectively, from Year 6. On the contrary, the import value of grains from the EU dropped by 37.9% from Year 6 due to the increased import of U.S. and Russian wheat and the expanded production of corn in the U.S.
- As of Year 7, the value of agricultural and livestock products exported from South Korea to EU countries is USD 460 million, up 132.2% from the average year before the enforcement and up 1.5% from Year 6.
 - Exports to EU countries account for 6.4% in the total export value of agricultural and livestock products in the country, a 0.39%p decrease from Year 6.
 - In the category of agricultural products, the value of fruits and vegetables (oyster mushroom, kimchi, pear) exported to the EU increased by the largest degree. As of Year 7, the value of fruits and vegetables exported to the EU jumped by 19.4% from Year 6.
- As of Year 7, the preferential tariff application rate of the imported agricultural and livestock products from EU countries is 84.3%, a 1%p decline from Year 6, while that of such products exported to EU countries is 51.1%, a 1%p increase from the previous year.
 - The preferential tariff application rates of pork and cheese imported from the EU have been on the steady rise every year, now reaching almost 100% (99.9% and 98.9%, respectively).
 - The preferential tariff application rates of products exported to the EU are lower than those of imported products. In particular, the preferential tariff application rate of composite food preparations, which take up a large share in the total value of exports to the EU, has been on the steady decline, recording 36.4%, a 0.4%p decrease from Year 6.
- In the trade between South Korea and EU countries, the former is specialized in imports, showing an imbalanced structure.
 - South Korea's TSI of agricultural and livestock products is -0.65 in the total international trade and -0.81 in the trade with EU countries, indicating a larger volume of imports than exports.
- The government spent KRW 6.7 trillion for the Korea-EU FTA supplementary measures for the recent seven years from 2011 to 2017, with the budget execution rate at 86.5%.
 - The supplementary measures resulted in visible outcomes, including the enhanced productivity of livestock farms, reduced expenses, and stabilized supply and demand.

01 | Trade Trend of Agricultural and Livestock Products under the Korea-EU FTA¹⁾

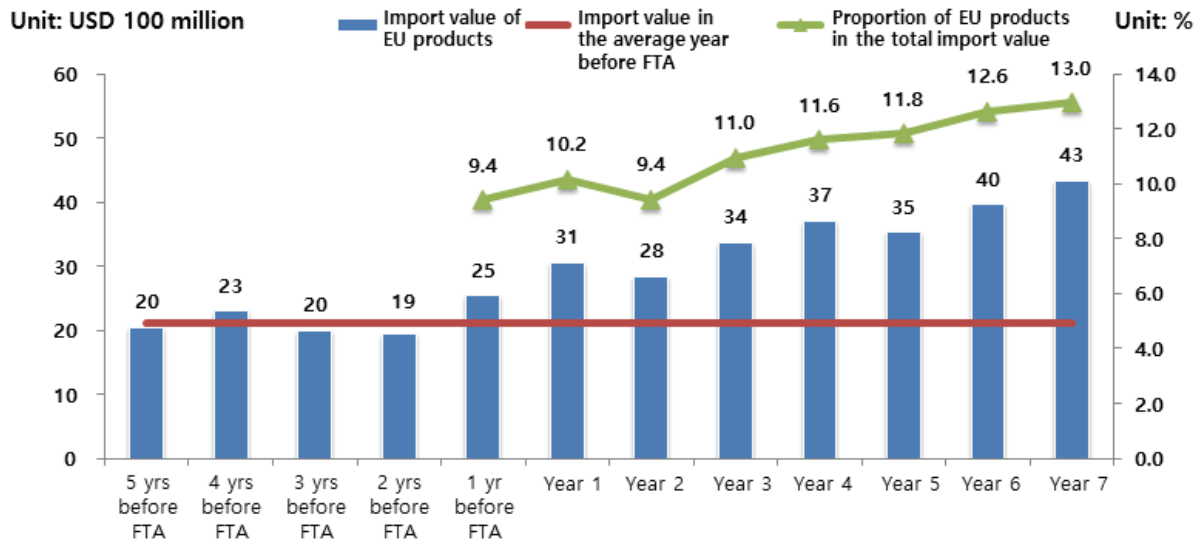
- The degree of the opening of the agricultural and livestock market for the Korea-EU FTA that took effect on July 1, 2011 is 96.2%, which is the second highest after that for the Korea-U.S. FTA (97.9%) among a total of 15 free trade agreements signed (and enforced) between South Korea and other countries.
 - Considering the expected loss and damage to local farms due to the Korea-EU FTA, the South Korean government excluded several items with a huge potential impact from tariff concession, or introduced special measures, including the long-term (up to 20 years) tariff elimination, the Tariff Rate Quotas (TRQ), and the Agricultural Safeguard Measure (ASG).
 - For the last seven years, there has been a visible impact of tariff cuts even among the items with the long-term tariff elimination measure applied, and the volume of the trade of items with TRQ applied has been on the rise.

1.1. Import Value of Agricultural and Livestock Products from EU Countries

- In Year 7 of the Korea-EU FTA, the import value of agricultural and livestock products from EU countries reached USD 4.33 billion, a 105.1% increase from the average year before the enforcement and a 9.2% increase from Year 6.
 - In Korea, imports from EU countries currently take up 13% in the total import value of agricultural and livestock products, a 0.3%p increase from Year 6.
 - Import value of agricultural and livestock products from EU countries (USD 100 million):
21.1 (average year before the enforcement) → 39.7 (Year 6) → 43.3 (Year 7)

1) The statistics of the trade of agricultural and livestock products presented in this chapter are comprised of the data from July in each year to June in the following year. Since the number of HS codes of agricultural and livestock products was changed from 3,068 in 2017 to 2,924 in 2018, some parts of the data may be different from those in “Changes in the Trade of Agricultural and Livestock Products and Implications after Six Years from the Enforcement of the Korea-EU FTA,” the report of the previous year (published on June 30, 2017). There is no statistical data released regarding the imports and exports in June 2018 (Year 7 of the enforcement of the FTA), so the relevant data was calculated by using the mean of the figures of the same month for the recent three years.

Figure 1. Changes in the Import Value of EU Agricultural and Livestock Products



Source: Korea Trade Statistics Promotion Institute, Korea Agro-Fisheries & Food Trade Corporation (aT).

- Despite the increase in the import price of dairy products, the import value of livestock products went up by 132.1% from the average year before the implementation of the FTA and 5.9% from Year 6, partly due to the increased supply in the EU countries²⁾ and the impact of the reduced tariff.
 - The import value of pork soared by 35.8% from USD 880 million in Year 6 to USD 900 million in Year 7.
 - The import value of dairy products such as cheese, whey and modified milk powder increased by 10.6% from USD 440 million in Year 6 to USD 480 million in Year 7.
 - Amount of pork (slaughtered pigs) from the EU (1,000 tons): 17,662 (JUL 2016 to MAR 2017) → 17,918 (JUL 2017 to MAR 2018)
 - Amount of raw milk for processing from the EU (1,000 tons): 110,830 (JUL 2016 to MAR 2017) → 115,105 (JUL 2017 to MAR 2018)
 - Import price of frozen pork belly from the EU (USD/kg): 4.23 (Year 6) → 4.32 (Year 7)
 - Import price of frozen pork from the EU (USD/kg): 2.14 (Year 6) → 2.37 (Year 7)

2) The statistics of the amount of pork (slaughtered pigs) and that of raw milk for processing from EU countries were sourced from EUROSTAT (as of June 22, 2018).

- The import value of grains dropped by 37.9% from Year 6 due to the decrease in the volume of imports from the EU because of the increased import of wheat from the U.S. and Russia and the increased production of corn in the U.S.
 - The import values of wheat and corn are USD 18.24 million and 6.88 million, respectively, which plunged by 75.6% and 74.5% from Year 6.

- Despite the reduced import of vegetables, the import value of fruits and vegetables went up by 16.6% from Year 6 due to the expanded import of fresh fruits.
 - The import value of oranges surged by 129.7% from USD 9.93 million in Year 6 to USD 22.81 million in Year 7.³⁾
 - The import value of other fruits declined by 23.9% from USD 38.56 million in Year 6 to USD 29.34 million in Year 7.

Table 1. Changes in the Import Value of EU Agricultural and Livestock Products by Category

Unit: USD million, %

Category	Average year before the FTA (A)	FTA implementation year ⁴⁾							Rate of change	
		Year 1 (2011/2012)	Year 2 (2012/2013)	Year 3 (2013/2014)	Year 4 (2014/2015)	Year 5 (2015/2016)	Year 6 (2016/2017) (B)	Year 7 (2017/2018) (C)	C/A	C/B
Total	2,111	3,054	2,838	3,373	3,700	3,521	3,965	4,331	105.1	9.2
Agricultural products	1,105	1,471	1,614	1,868	1,841	1,779	1,870	2,115	91.4	13.1
- Grain	83	194	289	450	304	261	227	141	68.7	-37.9
- Fruits & vegetables	58	71	87	88	102	105	140	163	179.6	16.6
- Processed food	962	1,206	1,238	1,331	1,436	1,413	1,504	1,811	88.3	20.4
Forestry products	289	332	353	442	436	443	479	506	75.5	5.7
Livestock products	736	1,251	871	1,063	1,423	1,299	1,615	1,710	132.1	5.9

Note 1) The value of the average year before the implementation of the FTA is the mean of the values of three years out of the previous five years before the FTA took effect, except for the highest and lowest values.

Note 2) Since the value of the average year before the implementation of the FTA was calculated for each item, the sum of every category of the average year may be different from the total value.

Note 3) Grains include cereals, other grains, pulses, potatoes, starch, residues, and oil seeds. Fruits and vegetables include fruits, vegetables, flowers, mushrooms (agricultural products), and other live plants. Processed food includes the rest of items in the category of agricultural products except for grains, fruits and vegetables.

Source: Korea Trade Statistics Promotion Institute, Korea Agro-Fisheries & Food Trade Corporation (aT).

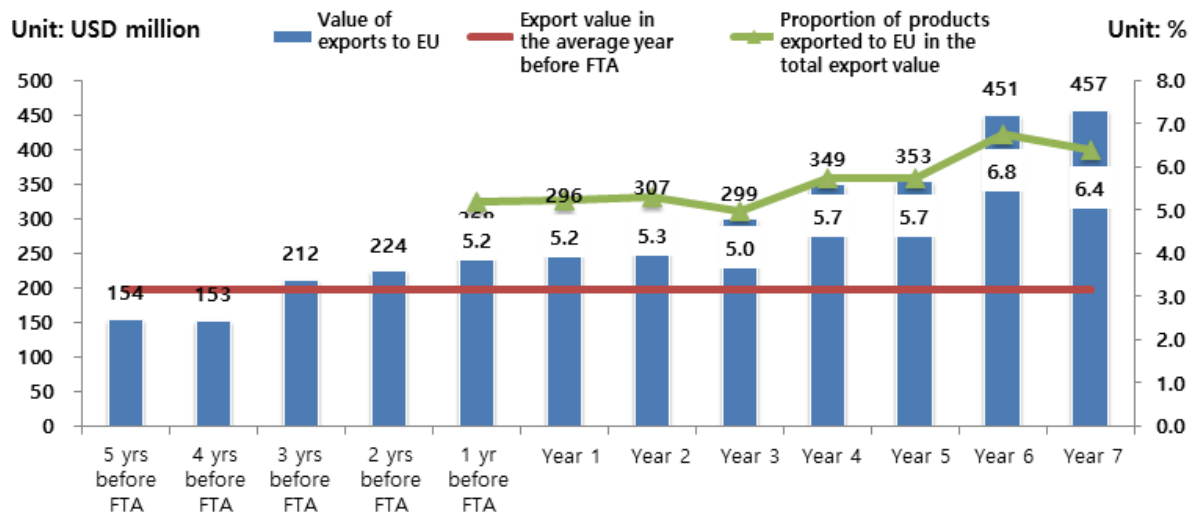
3) The import value of oranges is the sum of that of fresh oranges (080510) and that of orange juice (200911, 200912, 200919).

4) Each year of implementation of the Korea-EU FTA signifies the period from July of each year to June of the following year, marked as 2011/2012, for instance.

1.2. Value of Agricultural and Livestock Products Exported to EU

- In Year 7 of the implementation of the Korea-EU FTA, the value of agricultural and livestock products exported to EU countries amounted to USD 460 million, a 132.2% increase from the average year before the enforcement and a 1.5% increase from Year 6.
- Exports to EU countries currently account for 6.4% in the total export value of agricultural and livestock products in the country, a 0.39%p decline from Year 6.
 - Value of agricultural and livestock products exported to EU countries (USD 100 million): 2.0 (average year before the enforcement) → 4.5 (Year 6) → 4.6 (Year 7)

Figure 2. Changes in the Value of Agricultural and Livestock Products Exported to EU



Source: Korea Trade Statistics Promotion Institute, Korea Agro-Fisheries & Food Trade Corporation (aT).

- The export value of processed food dropped by 1.2% from Year 6 due to the reduced export of composite food preparations and coffee products.
 - The export value of composite food preparations declined by 1.1% from USD 250 million in Year 6 to USD 240 million in Year 7.
 - The export value of other beverages went up by 11.4% from USD 29.9 million in Year 6 to USD 33.3 million in Year 7.
 - The export value of ramen increased by 22% from USD 24.12 million in Year 6 to USD 29.42 million in Year 7.

- The export value of fruits and vegetables jumped by 19.4% from Year 6 due to the increased export of oyster mushrooms, kimchi and pears.
 - The export value of oyster mushrooms increased by 21.9% from USD 7.41 million in Year 6 to USD 9.04 million in Year 7.
 - The export value of kimchi went up by 19.3% from USD 5.41 million in Year 6 to USD 6.45 million in Year 7.
 - The export value of fresh pears soared by 67.7% from USD 0.18 million in Year 6 to USD 0.3 million in Year 7.

- The export value of livestock products jumped by 36.6% from Year 6 due to the increased export of gelatin.
 - The export value of gelatin went up by 29.4% from USD 8.69 million in Year 6 to USD 11.25 million in Year 7.

Table 2. Changes in the Value of Agricultural and Livestock Products Exported to EU by Category

Unit: USD million, %

Category	Average year before the FTA (A)	FTA implementation year							Rate of change	
		Year 1 (2011/2012)	Year 2 (2012/2013)	Year 3 (2013/2014)	Year 4 (2014/2015)	Year 5 (2015/2016)	Year 6 (2016/2017) (B)	Year 7 (2017/2018) (C)	C/A	C/B
Total	197	296	307	299	349	353	451	457	132.2	1.5
Agricultural products	179	274	283	277	320	327	427	427	138.1	0.03
- Grain	1	1	1	1	1	1	2	1.08	33.0	-34.6
- Fruits & vegetables	16	18	22	25	24	25	28	33	106.4	19.4
- Processed food	163	254	260	250	295	301	398	393	141.6	-1.2
Forestry products	7	11	10	9	10	10	11	13	94.8	19.0
Livestock products	12	12	14	13	19	16	12	17	42.9	36.6

Note 1) The value of the average year before the implementation of the FTA is the mean of the values of three years out of the previous five years before the FTA took effect, except for the highest and lowest values.

Note 2) Since the value of the average year before the implementation of the FTA was calculated for each item, the sum of every category of the average year may be different from the total value.

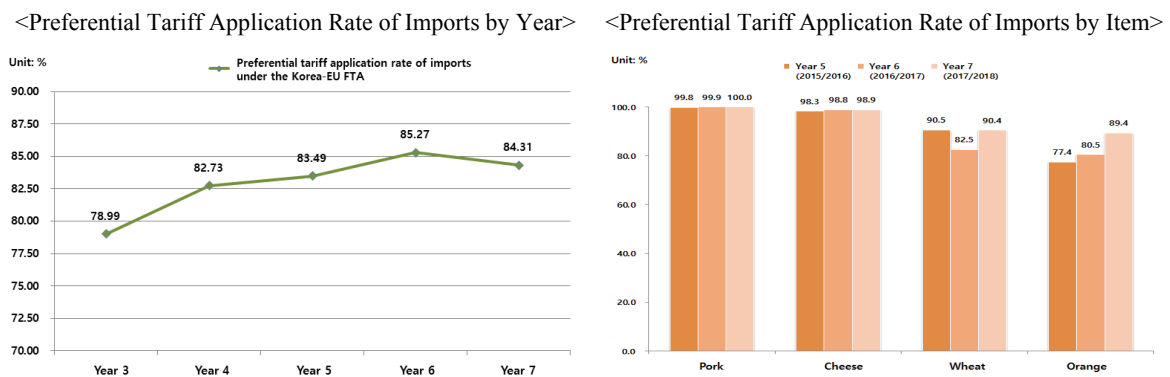
Note 3) Grains include cereals, other grains, pulses, potatoes, starch, residues, and oil seeds. Fruits and vegetables include fruits, vegetables, flowers, mushrooms (agricultural products), and other live plants. Processed food includes the rest of items in the category of agricultural products except for grains, fruits and vegetables.

Source: Korea Trade Statistics Promotion Institute, Korea Agro-Fisheries & Food Trade Corporation (aT).

1.3. Preferential Tariff Application Rate of Agricultural and Livestock Products under the Korea-EU FTA⁵⁾

- The preferential tariff application rate of agricultural and livestock products imported from EU countries under the Korea-EU FTA in Year 7 is 84.3%, a 1%p decrease from Year 6.
 - In Year 7, out of the import value of EU agricultural and livestock products, that of FTA items reached USD 2.13 billion. In particular, the import value of products with preferential tariff applied is USD 1.8 billion.
 - Preferential tariff application rate of imports (%): 82.7 (2014/2015) → 83.5 (2015/2016) → 85.2 (2016/2017) → 84.3 (2017/2018)
 - Among livestock products, the preferential tariff application rates of imported pork and cheese have been on the rise for years, currently reaching almost 100% (99.9% and 98.9%, respectively).
 - The preferential tariff application rate of imported oranges under the FTA has jumped since Year 4, now reaching 89.4% in Year 7, 8.9%p up from Year 6.
 - In the category of grains, the preferential tariff application rate of imported wheat is 90.4%, 7.9%p up from Year 6. The rate of imported barley is 37.9%, which is lower than that of wheat since most part of the imports of barley is the recommended target of TRQ that does not require a certificate of origin, while it is still a 7.7%p increase from Year 6.

Figure 3. Preferential Tariff Application Rate of Major Imported Agricultural and Livestock Products under the Korea-EU FTA



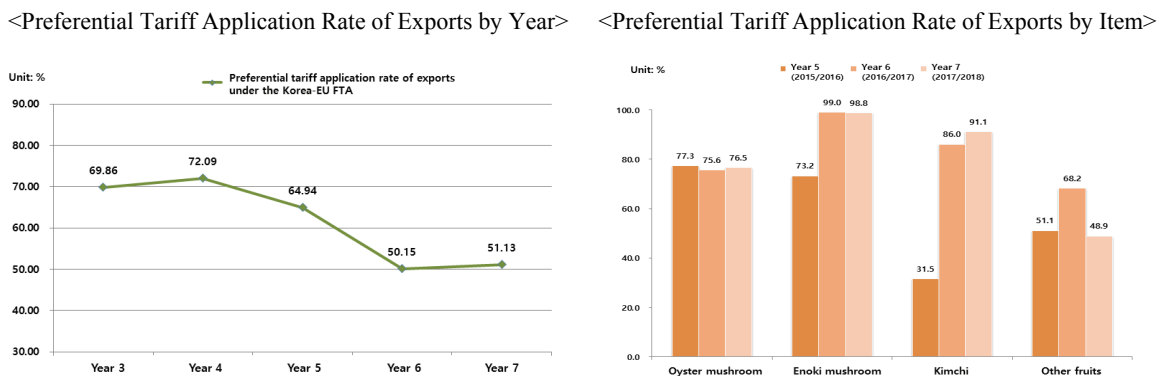
Note: The preferential tariff application rate was calculated based on 3,068 HS codes of agricultural/livestock products until Year 6 and 2,924 HS codes in Year 7.

Source: Korea Trade Statistics Promotion Institute, Korea Agro-Fisheries & Food Trade Corporation (aT).

5) The utilization rate of preferential tariff for imported and exported products in Year 7 was calculated based on the trade statistics from July 2017 to May 2018. In particular, the utilization rate of preferential tariff for products imported from EU countries is that of items with tariff concession applied in accordance with the agreement.

- The preferential tariff application rate of agricultural and livestock products exported to EU countries under the Korea-EU FTA in Year 7 is 51.1%, a 1%p increase from Year 6.
 - In Year 7, the value of Korean agricultural and livestock products exported to EU countries reached USD 240 million in Year 7.⁶⁾ In particular, the export value of products with preferential tariff applied is USD 120 million.
 - Preferential tariff application rate of exports (%): 72.1 (2014/2015) → 64.9 (2015/2016) → 50.2 (2016/2017) → 51.1 (2017/2018)
 - In the category of fresh agricultural products, the preferential tariff application rate is relatively high for oyster mushroom (76.6%) and enoki mushroom (98.8%). The rate of oyster mushroom went up by 0.9%p from Year 6, while that of enoki mushroom declined by 0.3%p.
 - The preferential tariff application rate of kimchi has been on the rise since Year 5; the rate reached 91.1% in Year 7, a 5%p increase from Year 6.
 - The preferential tariff application rate of other fruits dropped by 19.3%p from Year 6 to 48.9% in Year 7.
 - The preferential tariff application rate of composite food preparations, which take up a large share in the total value of exports to the EU, has gradually declined; the rate reached 36.4%, a 0.4%p decrease from Year 6.

Figure 4. Preferential Tariff Application Rate of Major Exported Agricultural and Livestock Products under the Korea-EU FTA



Note: The preferential tariff application rate was calculated based on 3,068 HS codes of agricultural/livestock products until Year 6 and 2,924 HS codes in Year 7.

Source: Korea Trade Statistics Promotion Institute, Korea Agro-Fisheries & Food Trade Corporation (aT).

6) In this section, the value of agricultural and livestock products exported to EU countries in Year 7, which was calculated to identify the preferential tariff application rate of exports, used the data from July 2017 to May 2018, which can be different from the aforementioned data on exports to EU countries.

1.4. TSI Analysis of Agricultural and Livestock Products under the Korea-EU FTA

- The Trade Specialization Index (TSI), a variation of the marginal intra-industry trade index (G-L), is analyzed to compare the trade competitiveness of each industry and commodity.
 - TSI is an index that measures a relative competitiveness to indicate the degree of specialization of each commodity in the bilateral trade. It is calculated by dividing the net export value of a particular item by the total trade value between the two countries.
 - TSI 1 signifies a complete specialization in export, and -1 a complete specialization in import. 0 means that the volumes of imports and exports are equal.

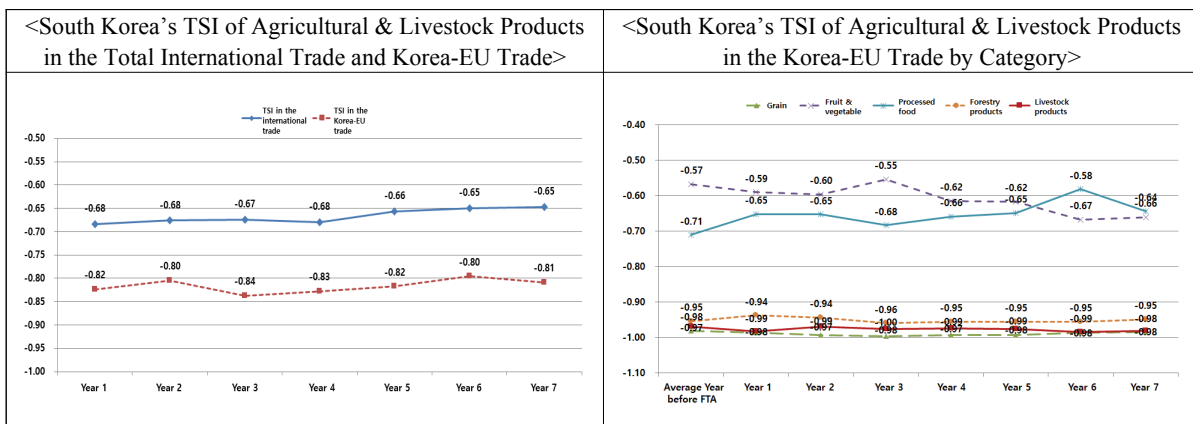
<For Reference> TSI Calculation Formula

$$TSI_{ij}^k = \frac{X_{ij}^k - M_{ij}^k}{X_{ij}^k + M_{ij}^k}$$

TSI_{ij}^k : TSI of Country j for Item k from Country i
 X_{ij}^k : Value of Item k exported from Country i to Country j
 M_{ij}^k : Value of Item k imported from Country j to Country i

- The trade of agricultural and livestock products between South Korea and EU countries is imbalanced, which is characterized by South Korea’s specialization in imports.
 - South Korea’s TSI of agricultural and livestock products in the total international trade and that in the trade with EU countries slightly dropped from -0.64 and -0.80 in Year 6 to -0.65 and -0.81 in Year 7.

Figure 5. TSI of Agricultural and Livestock Products under the Korea-EU FTA



Note: TSI was calculated based on 2,924 HS codes of agricultural and livestock products as of Year 7 (2018).
 Source: Korea Trade Statistics Promotion Institute, Korea Agro-Fisheries & Food Trade Corporation (aT).

- South Korea's TSI of grains has indicated the country's specialization in imports since even before the implementation of the FTA. In Year 7, the index was -0.98 , a similar level to that of Year 6, despite the improved state of deficit in the goods balance in the trade with EU countries.
 - The value of trades of wheat, barley and corn with EU countries dropped from Year 6 by USD 56.61 million, USD 12.26 million and USD 20.09 million, respectively. The deficit in the goods balance decreased by a similar amount.
 - The TSI of wheat first repeated ups and downs and later was maintained to indicate the country's specialization in imports from Year 3. In the case of barley and corn, the country has specialized in imports since even before the FTA took effect.

- South Korea's TSI of livestock products has demonstrated the country's complete specialization in imports since even before the implementation of the FTA. In Year 7, the index was -0.98 , a similar level to that of Year 6, as the total value of trades with EU countries increased by similar amounts, while the deficit in the goods balance decreased.
 - The value of trades of pork and cheese with EU countries jumped from Year 6 by USD 12.98 million and USD 9.89 million, respectively. The deficit in the goods balance also decreased by similar amounts. The TSI maintained at -1 , consistently indicating the country's complete specialization in imports, like it was in Year 6.

- The TSI of fruits and vegetables, which was -0.57 in the average year before the FTA took effect, has been on the decline since Year 3. The index reached -0.66 in Year 7, a slight rise from Year 6 partly due to the increase in the value of trades with EU countries.
 - In the trade with EU countries, South Korea is completely specialized in imports in terms of pears. The surplus in the goods balance in the trade of pears with the EU jumped by USD 0.12 million from Year 6.
 - Kimchi, enoki mushroom and oyster mushroom are major items that indicate the country's complete specialization in exports. Their value of trades with the EU increased from Year 6 by USD 1.05 million, USD 0.49 million and USD 1.63 million, respectively.

Table 3. TSI of Major Agricultural and Livestock Products under the Korea-EU FTA

Category	FTA implementation year						
	Year 1 (2011/2012)	Year 2 (2012/2013)	Year 3 (2013/2014)	Year 4 (2014/2015)	Year 5 (2015/2016)	Year 6 (2016/2017)	Year 7 (2017/2018)
Livestock products	-0.98	-0.97	-0.98	-0.97	-0.98	-0.98	-0.98
- Pork	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
- Cheese	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
- Raw milk	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Grains	-0.99	-0.99	-1.00	-0.99	-0.99	-0.99	-0.98
- Wheat	-0.81	-0.67	-0.65	-1.00	-1.00	-1.00	-1.00
- Barley	-0.98	-0.99	-1.00	-1.00	-1.00	-1.00	-1.00
- Corn	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Fruits & vegetables	-0.59	-0.60	-0.55	-0.62	-0.62	-0.67	-0.66
- Fresh pear	1.00	1.00	1.00	1.00	1.00	1.00	1.00
- Kimchi	1.00	1.00	1.00	1.00	1.00	1.00	1.00
- Oyster mushroom	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Note: TSI was calculated based on 2,924 HS codes of agricultural and livestock products as of Year 7 (2018).

Source: Korea Trade Statistics Promotion Institute, Korea Agro-Fisheries & Food Trade Corporation (aT).

02 | Analysis of the Import Trend and Price of Major Items

2.1. Pork

- In Year 7 of the implementation of the Korea-EU FTA, the quantity of imported pork from the EU decreased by 3.2% from Year 6 due to the reduced demands for the decreased price of domestic pork and concern over hepatitis E in EU pork.
 - The base tariff rate of frozen pork from the EU (25%) was abolished in July 2016, while that of frozen and chilled pork belly is deregulated over ten years.
 - In Year 7 of the implementation of the FTA, the tariff rate is 0% for frozen pork, 9% for frozen pork belly and 8.1% for chilled pork belly from the EU.
 - The quantity of imported pork from the EU is 280,000 tons, which decreased by 3.2% compared to Year 6 due to various reasons such as the reduced price of domestic pork, increased unit price of EU pork and decreased demands for the concern over hepatitis E.
 - In comparison of Year 6 of implementation, the quantity of frozen pork, frozen pork belly and chilled pork belly decreased by 4.7%, 3.3% and 35%, respectively.
 - The number of graded domestic pigs (10,000 head)⁷⁾: 1,534 (JUL 2016 to MAY 2017) → 1,575 (JUL 2017 to MAY 2018)
 - Price of domestic pork (KRW/kg, scalding): 4,595 (JUL 2016 to MAY 2017) → 4,553 (JUL 2017 to MAY 2018)
 - Unit price of pork imported from the EU (USD/kg): 3.05 (Year 6) → 3.20 (Year 7)
 - After the distribution and sale of unheated processed pork products from the EU were banned (AUG 24, 2017), the Ministry of Food and Drug Safety (MFDS) lifted the ban of distribution and sale by conducting a virus test for hepatitis E (SEP 5, 2017).

7) As the data on the number of graded domestic pigs and pork price for June 2018 were not collected, the data on other 11 months (from July to May) were compared.

Table 4. Trend of the Imports of EU Pork

Unit: Ton, %

Category	Average year before the FTA (A)	FTA implementation year							Rate of change		
		Year 1 (2011/2012)	Year 2 (2012/2013)	Year 3 (2013/2014)	Year 4 (2014/2015)	Year 5 (2015/2016)	Year 6 (2016/2017) (B)	Year 7 (2017/2018) (C)	C/A	C/B	
Subtotal	Import	139,343	208,271	125,446	148,558	240,226	247,157	289,331	280,136	101.0	-3.2
	Percentage	40.8	43.4	36.5	44.5	52.5	50.4	55.0	53.3	-	-
Frozen pork	Import	53,893	84,242	53,344	54,308	126,476	125,211	153,911	146,726	172.3	-4.7
	Percentage	25.7	28.6	23.7	23.2	42.7	40.0	46.0	27.9	-	-
Frozen pork belly	Import	76,459	113,650	62,833	80,308	97,295	103,260	117,989	114,082	49.2	-3.3
	Percentage	79.3	87.0	79.5	86.7	87.7	84.8	87.3	93.3	-	-
Chilled pork belly	Import	54	952	108	112	272	374	287	186	244.9	-35.0
	Percentage	0.4	3.7	0.7	1.4	2.7	3.2	2.0	1.3	-	-

Note 1) The HS codes of frozen pork, frozen pork belly and chilled pork belly are 0203299000, 0203291000 and 0203191000, respectively.

Note 2) The percentage indicates the percentage of the quantity of each item imported from the EU in the total imports in Korea.

Source: Korea Trade Statistics Promotion Institute, Korea Agro-Fisheries & Food Trade Corporation (aT).

- The percentage of pork imported from the EU in the total pork supply in Korea in 2017 is 19.4%, which increased by 6.5%p compared to the average from 2007 to 2011.⁸⁾
 - In 2017, the total supply of pork in Korea was 1,433,000 tons, which increased by 37% compared to the average from 2007 to 2011 (1,044,000 tons) for the increased domestic consumption of pork.
 - Amount of pork consumption per capita in Korea (kg): 20.9 (2013) → 22.2 (2014) → 22.8 (2015) → 24.1 (2016) → 24.5 (2017)⁹⁾
 - The increased amount of domestic pork was 200,000 tons, 51.7% of the total increased supply in the country (388,000 tons) compared to the average from 2007 to 2011, while the supplies from the EU and U.S. accounted for 37.4% and 18.4%, respectively.
 - The quantity of domestic pork increased compared to the average of 2007-2011, but the percentage was 62.8%, which reduced by 4.7%p.
 - The percentage of EU imports in 2017 was 19.4%, which increased by 6.5%p compared to the average of 2007-2011. The percentage of imports from the U.S. and other countries increased, but that of Canada was on the decrease.¹⁰⁾
 - Percentage of imports from the EU (%): 13.8 (2012) → 10.7 (2013) → 15.7 (2014) → 18.1 (2015) → 18.3 (2016) → 19.4 (2017)
 - Percentage of imports from the U.S. (%): 11.2 (2012) → 9.3 (2013) → 9.6 (2014) → 10.8 (2015) → 10.3 (2016) → 11.8 (2017)

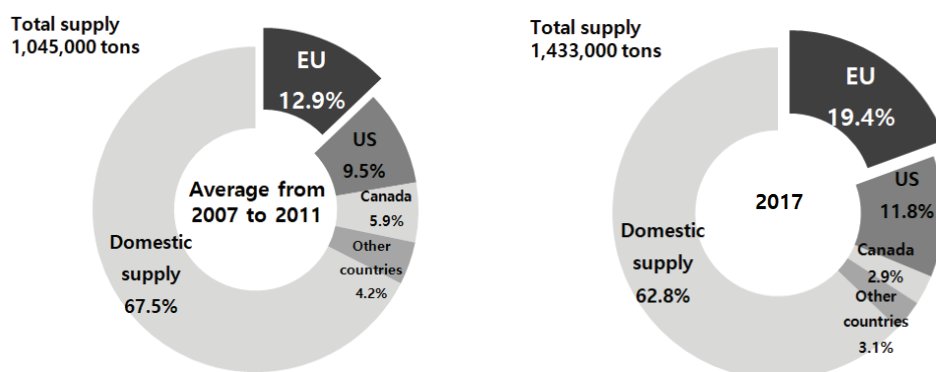
8) The average from 2007 to 2011 refers to the average of three years except the highest and lowest amount in the imports of each year.

9) The quantity of 2017 was estimated by KREI's Department of Agricultural Outlook.

10) The total imports of pork in 2017 were 530,000 tons, which increased by 6.1% year on year. The imports from the EU (280,000 tons) and the U.S. (170,000 tons) increased by 5.5% and 13.7%, respectively, while those of other countries (44,000 tons) and Canada (41,000 tons) decreased by 7.8% and 1%, respectively.

- Percentage of imports from Canada (%): 5.3 (2012) → 3.6 (2013) → 3.0 (2014) → 3.4 (2015) → 2.9 (2016) → 2.9 (2017)

Figure 6. Changes in the Percentage of Pork Supply in Korea



Note 1) Domestic supply = Domestic production + Imports - Exports

2) The quantity of pork production in 2017 is an estimate from KREI KASMO (2017).

Source: Korea Trade Statistics Promotion Institute, National Agricultural Cooperative Federation.

- The import price of frozen pork increased by 6.6% compared to Year 6, but that of frozen and chilled pork belly was reduced by 3.7% and 6.2%, respectively.
 - Despite the increased unit price of import, the import price of frozen and chilled pork belly from the EU was down by 3.7% and 6.2%, respectively compared to Year 6 of implementation due to the reduced conventional tariff rate.
 - Although zero tax rate has applied to EU frozen pork from Year 6, the unit price of import increased by 10.8% compared to Year 6, which led the import price to be increased by 6.6% as well.

Table 5. Trend of the Import Price of EU Pork

Unit: KRW/kg, %

Category	Average year before the FTA (A)	FTA implementation year							Rate of change	
		Year 1 (2011/2012)	Year 2 (2012/2013)	Year 3 (2013/2014)	Year 4 (2014/2015)	Year 5 (2015/2016)	Year 6 (2016/2017) (B)	Year 7 (2017/2018) (C)	C/A	C/B
Subtotal	3,735	4,493	3,973	3,886	3,846	3,433	3,716	3,729	-0.2	0.4
Frozen pork	2,563 (25.0)	2,800 (20.8)	2,398 (16.6)	2,395 (12.5)	2,947 (8.3)	2,558 (4.1)	2,442 (0.0)	2,603 (0.0)	1.6	6.6
Frozen pork belly	4,592 (25.0)	5,707 (22.7)	5,304 (20.4)	4,889 (18.1)	5,006 (15.9)	4,483 (13.6)	5,367 (11.3)	5,170 (9.0)	12.6	-3.7
Chilled pork belly	6,948 (22.5)	9,446 (20.4)	7,190 (18.4)	7,594 (16.3)	7,098 (14.3)	6,748 (12.2)	7,918 (10.2)	7,430 (8.1)	6.9	-6.2

Note 1) The subtotal was calculated for frozen pork, frozen pork belly and chilled pork belly.

Note 2) The formula for import price is the quantity of imports × unit price of import × (1+tariff rate) × average exchange rate/quantity of imports.

Note 3) The number in parentheses refers to the conventional tariff rate of items in each year.

Note 4) As there is no outcome for the import of chilled pork belly in the average year before the FTA took effect, the results were calculated by the average of four years except for the data from July 2009 to June 2010.

Source: Korea Trade Statistics Promotion Institute, Annexes of the Korea-EU FTA.

- With the reduced conventional tariff rate based on the FTA, the import price of major parts of pork in Year 7 of the implementation of the Korea-EU FTA is estimated to be reduced by 13.3-25% compared to the assumption that the FTA has not become effective.
- When the import price of EU pork in Year 7 is compared to the import price on the assumption that the FTA has not become effective, it is estimated that the import price of frozen pork, frozen pork belly and chilled pork belly was reduced by 25%, 14.7% and 13.3%, respectively.

Table 6. Impact of Tariff Rate Reduction for EU Pork

Category	Unit: KRW/kg, %		
	Frozen pork	Frozen pork belly	Chilled pork belly
Import price with base tariff rate applied (A)	3,254	5,929	8,420
Import price with Year 7 conventional tariff rate applied (B)	2,603	5,170	7,430
Effect of tariff rate reduction (B/A)	-25.0	-14.7	-13.3

2.2. Dairy Products

- Despite the reduced tariff rate and expanded TRQ, the quantity of imported dairy products from the EU in Year 7 of the Korea-EU FTA implementation decreased by 3.9% compared to the previous year due to the increased unit price of import.
- Among major dairy products, cheese and modified milk powder experienced the increased TRQ and long-term abolishment of conventional tariff rates, while only TRQ was expanded for each year without the reduction of the tariff rate (176%) for whole and skimmed milk powder.
 - The TRQ for cheese increased by 3% at compound interest each year from 4,560 tons. The tariff rate is abolished after 15 years (10 years for curd and blue-veined cheese).
 - The TRQ for whole and skimmed milk powder increased by 3% at compound interest each year from 1,000 tons (fixed at 1,512 tons after Year 16).
 - The TRQ for modified milk powder increased by 3% at compound interest each year from 450 tons, while the tariff rate is abolished after 10 years.
- In Year 7 of the implementation, the imports of EU dairy products (131,000 tons) were reduced by 3.9% compared to the previous year due to the increased unit price of import despite the reduced tariff rate and expanded TRQ.
 - Despite the increased TRQ, reduced tariff rate and decreased unit price of import, the quantity

of cheese imported from the EU increased by 13.7% compared to Year 6, and the percentage of the imports was 33.2%, a 4.9%p decrease.

- The quantity of whole and skimmed milk powder imported from the EU increased by 13.4% compared to Year 6, but the percentage of the imports was 34.8%, which decreased by 1.5%p due to the rapid increase in the imports from New Zealand for the FTA between Korea and New Zealand.
- Despite the increased domestic demand, reduced tariff rate and expanded TRQ, the quantity of EU modified milk powder imports was reduced by 37.3% compared to Year 6, and the percentage of the imports was 65.9%, which was down by 34.1%p.

Table 7. Trend of the TRQ and Imports of EU Dairy Products

Category		Average year before the FTA (A)	FTA implementation year							Rate of change	
			Year 1 (2011/2012)	Year 2 (2012/2013)	Year 3 (2013/2014)	Year 4 (2014/2015)	Year 5 (2015/2016)	Year 6 (2016/2017) (B)	Year 7 (2017/2018) (C)	C/A	C/B
Subtotal	Import	38,701	79,324	58,006	64,692	82,886	98,198	136,532	131,220	239.1	-3.9
	Percentage	25.2	35.6	28.8	31.0	35.8	40.9	47.5	45.8	-	-
Cheese	Import	5,183	10,998	12,323	10,625	24,300	38,124	46,854	40,434	680.1	-13.7
	Percentage	10.3	14.9	14.5	12.1	22.5	35.3	38.1	33.2	-	-
	Standard TRQ	-	4,560	4,560	4,696	4,837	4,982	5,132	5,286	-	-
Whole and skimmed milk powder	Import	1,255	24,782	5,889	8,227	8,978	8,733	8,920	10,118	693.6	13.4
	Percentage	13.6	63.7	33.3	35.1	39.1	36.9	33.6	34.8	-	-
	Standard TRQ	-	1,000	1,000	1,030	1,060	1,092	1,125	1,158	-	-
Modified milk powder	Import	93	428	787	1,048	1,474	2,017	4,284	2,688	2,790.3	-37.3
	Percentage	8.2	15.1	31.6	36.8	48.9	54.9	100.0	65.9	-	-
	Standard TRQ	-	450	450	463	477	491	506	521	-	-

Note 1) The subtotal refers to the total quantity of dairy product imports, including cheese, whole and skimmed milk powder and modified milk powder.

Note 2) The cheese includes 14 items, including cream cheese (HS code: 0406101010) and cheddar cheese (HS code: 0406901000). The HS codes of whole milk powder and skimmed milk powder are 0402101010 and 0402211000, respectively, and the HS code of modified milk powder is 1901101010.

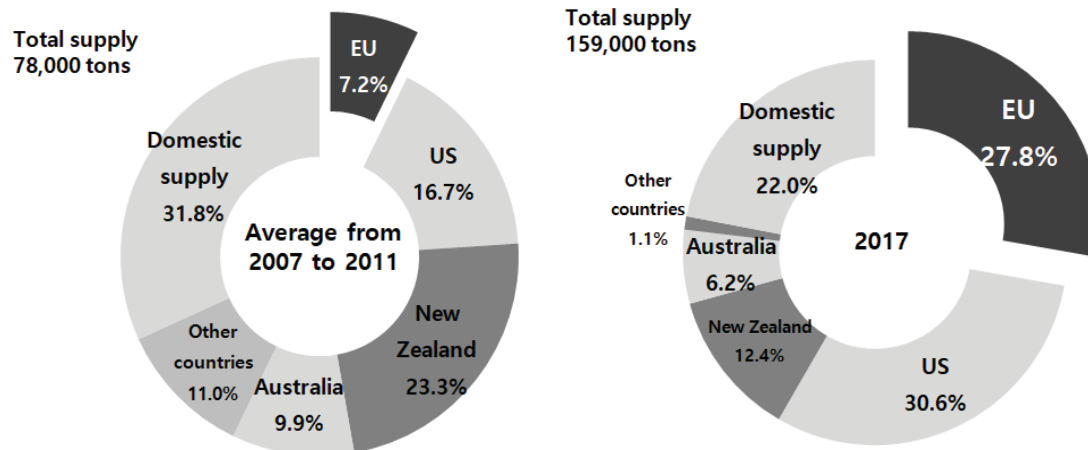
Source: Korea Trade Statistics Promotion Institute, Annexes of the Korea-EU FTA.

- In the total domestic supply of cheese in 2017, the percentage of EU cheese imports was 27.8%, which increased by 20.6%p compared to the average from 2007 to 2011.
 - The total domestic supply of cheese is 159,000 tons, which increased by 104.7% compared to the average of 2007-2011 (78,000 tons).
 - Out of the increased portion (80,000 tons) compared to the average of 2007-2011 in the total domestic supply of cheese in 2017, the increased amount of EU imports is 39,000 tons and

accounts for 47.5% of the total increment. The increased amounts of imports from the U.S. and domestic supply account for 44.1% and 12.9%, respectively.

- The percentage of EU imports in the total domestic supply increased by 20.6%p from 7.2% (average of 2007-2011) to 27.8% in 2017.
- The percentage of imports from the U.S. increased by 13.9%p compared to the average of 2007-2011 and 1.7%p compared to Year 6. The percentage of imports from New Zealand and Australia decreased by 10.9%p and 3.7%p, respectively.¹¹⁾
- Percentage of imports from the EU (%): 11.5 (2012) → 10.1 (2013) → 13.0 (2014) → 23.7 (2015) → 32.2 (2016) → 27.8 (2017)
- Percentage of imports from the U.S. (%): 31.9 (2012) → 39.6 (2013) → 52.8 (2014) → 40.7 (2015) → 28.9 (2016) → 30.6 (2017)
- Percentage of imports from New Zealand (%): 23.9 (2012) → 22.2 (2013) → 8.4 (2014) → 11.6 (2015) → 12.0 (2016) → 12.4 (2017)
- Percentage of imports from Australia (%): 7.5 (2012) → 5.3 (2013) → 4.4 (2014) → 6.0 (2015) → 5.5 (2016) → 6.2 (2017)

Figure 7. Change in the Percentage of Cheese Supply in Korea



Note 1) Domestic supply = Domestic production + Imports - Exports
 Source: Korea Trade Statistics Promotion Institute, Korea Dairy Committee.

□ In Year 7 of the implementation of the Korea-EU FTA, the import price of EU cheese and whole and skimmed milk powder decreased compared to the average year before the implementation, whereas that of modified milk powder increased.

11) The total cheese imports to Korea in 2017 were 125,000 tons, which increased by 14% compared to the previous year. The quantity of EU cheese imports (44,000 tons) were down by 0.3%, while the imports from the U.S. (49,000 tons), New Zealand (20,000 tons) and Australia (10,000 tons) increased by 22.6%, 19% and 30.3%, respectively.

- The import price of EU cheese and whole and skimmed milk powder is on the decrease for the reduced unit price of import, expanded TRQ and decreased tariff rate, while the import price of modified milk powder with domestic demands increased maintains a high level.
 - The import price of EU cheese decreased by 51.4% compared to the average year before the FTA took effect, but increased by 17.9% in comparison to Year 6.
 - The import price of EU whole and skimmed milk powder was reduced by 55.5% compared to the average year before the FTA took effect.
 - The import price of modified milk powder from the EU rose by 40.1% compared to the average year before the FTA took effect due to the increased unit price of import (112.3%).

Table 8. Trend of the Import Price of EU Dairy Products

Unit: KRW/kg, %

Category	Average year before the FTA (A)	FTA implementation year							Rate of change	
		Year 1 (2011/2012)	Year 2 (2012/2013)	Year 3 (2013/2014)	Year 4 (2014/2015)	Year 5 (2015/2016)	Year 6 (2016/2017) (B)	Year 7 (2017/2018) (C)	C/A	C/B
Cheese	9,514 (36.0)	8,569 (33.7)	8,372 (31.5)	9,298 (29.2)	7,127 (27.0)	6,077 (24.7)	5,329 (22.5)	6,284 (20.2)	-51.4	17.9
Whole and skimmed milk powder	11,584 (176)	10,711 (176)	9,256 (176)	12,062 (176)	9,759 (176)	7,066 (176)	7,145 (176)	7,473 (176)	-55.0	4.6
Modified milk powder	14,197 (36.0)	22,822 (32.7)	23,353 (29.4)	24,644 (26.1)	26,351 (22.9)	26,543 (19.6)	25,205 (16.3)	23,696 (13.0)	40.1	-6.0

Note 1) The formula for import price is the quantity of imports \times unit price of import \times (1+tariff rate) \times average exchange rate/quantity of imports.

Note 2) The import price was determined by considering the conventional tariff rate and amount of standard TRQ for each item. In terms of modified milk powder, the import price was calculated under the assumption that the total quantity of TRQ is consumed for modified milk powder (HS code: 1901101010).

Note 3) The number in parentheses refers to the conventional tariff rate of items in each year.

Source: Korea Trade Statistics Promotion Institute, Annexes of the Korea-EU FTA.

- In Year 7 of the implementation of the Korea-EU FTA, the import price of major dairy products is estimated to be reduced by 7.3-18.8% for the reduced conventional tariff rate based on the FTA and expanded TRQ compared to the assumption that the FTA has not become effective.
 - When the import price of EU dairy products in Year 7 is compared to the import price on the assumption that the FTA has not become effective, it is estimated that the import prices of cheese, whole and skimmed milk powder and modified milk powder were reduced by 13.6%, 7.3% and 18.8%, respectively.

Table 9. Effect of Tariff Rate Reduction for Major EU Dairy Products

Category	Unit: KRW/kg, %		
	Cheese	Whole and skimmed milk powder	Modified milk powder
Import price with base tariff rate applied (A)	7,276	8,061	29,169
Import price with Year 7 conventional tariff rate applied (B)	6,284	7,473	23,696
Effect of tariff rate reduction (B/A)	-13.6%	-7.3%	-18.8%

2.3. Grain

- The imports of major EU grains (113,000 tons) in Year 7 of the implementation of the Korea-EU FTA decreased by 37.2% compared to the average year before the FTA took effect and by 80.2% compared to Year 6.
 - The quantity of EU wheat¹²⁾ imports in Year 7 of the FTA implementation is 68,000 tons, which increased by 803.2% compared to the average year before the FTA took effect. The imports of wheat flour slightly increased, while wheat imports for feeding decreased.
 - Wheat for feeding (60,000 tons) and wheat flour (3,606 tons) account for 88.4% and 5.3% in the imports of EU wheat and 4% and 16.7%, respectively compared to the total imports in Korea.
 - The import of wheat for feeding has been diversified to North America, Russia, Australia, India and the EU depending on the internal and external conditions of Ukraine, which is a major exporting country.¹³⁾ The import of EU wheat for feeding started from Year 3 of the FTA implementation.
 - The imports of EU wheat for feeding decreased by 87.9% and 83.4% compared to the average year before the FTA took effect and compared to Year 6, respectively¹⁴⁾ due to the increased imports from the U.S. and Russia with the unit price of import relatively low.¹⁵⁾
 - The quantity of EU maize imports¹⁶⁾ is 18,000 tons, which decreased by 89.4% and 86.3% compared to the average year before the FTA took effect and compared to Year 6, respectively

12) The base tariff rates of products related to meslin (seed, milling and powder, 1.8-3%) and bulgur wheat (8%) were abolished when the FTA took effect. The base tariff rates of wheat flour (4.2%) and wheat middlings, coarse powder and wheat pellets (288.2%) are abolished over 4 and 11 stages, respectively.

13) The international grain price increased due to the global food crisis in 2007-2008, wheat embargo in Russia and Ukraine in 2010 and 2012 and droughts in the U.S. in 2012 and 2014.

14) The unit price of EU import in Year 7 is USD 0.22/kg, while the unit prices of import from the U.S. and Russia are USD 0.21 and 0.19, respectively.

15) The total wheat imports in Year 7 of the implementation of the Korea-EU FTA are 1,530,000 tons, which decreased by 24.7% compared to Year 6, while the imports from the U.S. (267,000 tons) and Russia (302,000 tons) increased by 67.6% and 290.7%, respectively.

16) The base tariff rates of maize for other uses than seed, popcorn and feeding (328%) are abolished over 6 stages (JUL 2016) and 14 stages (JUL 2024). The base tariff rates of maize middlings, coarse powder (162.9%) and processed maize (167%) will be abolished over 11 stages, respectively, while the base tariff rate of maize powder (5%) was removed when the FTA took effect.

due to the reduced import of maize for other uses than seed, popcorn and feeding.

- In the imports of EU maize, maize for other uses than seed, popcorn and feeding (7,499 tons) is 41.3%, while the fluctuating maize for feeding (4,801 tons) accounts for 26.4%.
 - The quantity of EU maize imports for other uses than seed, popcorn and feeding gradually decreased due to the increased production of maize in the U.S. after 2012/2013¹⁷⁾, and its percentage in the total imports in Korea decreased by 11.8%, 6.2% and 0.3% compared to the average year before the FTA took effect and in comparison to Year 6 and Year 7, respectively.¹⁸⁾
 - In the imports of maize for feeding in Korea, the percentage of EU imports accounts for only about 1% on average (0.1% in Year 7). The imports of Brazil, Argentina and Paraguay, which have relatively low unit price of import, increased.¹⁹⁾
- In Year 7 of the implementation of the FTA, the imports of EU barley²⁰⁾ increased by 1,496% compared to the average year before the FTA took effect due to the increased imports of green malt and malting barley for the increased domestic demands, but the quantity is 26,000 tons, which decreased by 58.6% compared to Year 6 for the effect of import diversion.
- In the imports of EU barley, the quantity of imported green malt and malting barley (24,000 tons) is 89.1%, while the imports of other barley (2,887 tons) account for 10.9%.
 - Although the imports of EU green malt and malting barley increased by 2,143% compared to the average year before the FTA took effect (1,052 tons), the quantity of EU imports was reduced by 62.6% compared to Year 6 due to the increased imports from Australia and China with relatively low unit price of import.²¹⁾

17) The maize production in the U.S. increased by 30.8% from 273,190,000 tons in 2012/2013 to 357,270,000 tons in 2017/2018.

18) In Year 7 of the Korea-EU FTA implementation, the total imports were 2,240,000 tons, which increased by 7.2% compared to Year 6. The imports from Brazil (254,000 tons) and Russia (1,005,000 tons) were up by 274.1% and 25.3%, respectively.

19) In Year 7 of the Korea-EU FTA implementation, the total imports were 7,222,000 tons, which increased by 9.2% compared to Year 6. The imports from Brazil (1,766,000 tons) and Argentina (1,827,000 tons) were up by 212.8% and 194.3%, respectively, and the imports from Paraguay, which had no import outcome in Year 6, were 309,000 tons. The unit price of import from the EU is USD 0.21/kg, while that from Brazil and Argentina is USD 0.19.

20) Exclusion applies to hulled barley (higher cost (rate) of 324% or KRW 326/kg) and naked barley (higher cost (rate) of 299.7% or KRW 361/kg). While TRQ applies to green malt (269%) and malting barley (513%), any quantity exceeding the TRQ standard is abolished over 16 stages, and ASG is operated for 16 years (The trigger level in Year 6 is 15,154 tons; the tariff rates of 240% and 408% apply to green malt and malting barley, respectively).

21) In Year 7 of the Korea-EU FTA implementation, the total quantity of imports was 225,000 tons, a 12.6% increase from Year 6. The imports from Australia (172,000 tons) increased by 38.7%, while the imports from China, which did not show significant outcome in import, were 8,154 tons. The unit price of EU import is USD 0.52/kg which increased by 22%, while the unit prices of import from China (USD 0.42/kg) and Australia (USD 0.43/kg) were down by 35.4% and 9.2%, respectively.

Table 10. Trend of the Imports of Major EU Grains

Unit: Ton, %

Category	Average year before the FTA (A)	FTA implementation year							Rate of change		
		Year 1 (2011/2012)	Year 2 (2012/2013)	Year 3 (2013/2014)	Year 4 (2014/2015)	Year 5 (2015/2016)	Year 6 (2016/2017) (B)	Year 7 (2017/2018) (C)	C/A	C/B	
Subtotal	Import	180	337	634	1,291	873	778	570	113	-37.2	-80.2
	Percentage (%)	1.5	2.6	4.5	9.0	6.1	5.3	4.3	0.8		
Wheat	Import	8	1	1	865	565	373	373	68	803.2	-81.7
	Percentage (%)	0.2	0.0	0.0	20.8	14.9	8.8	8.9	1.7		
Maize	Import	171	320	619	409	265	353	133	18	-89.4	-86.3
	Percentage (%)	2.2	4.2	7.4	4.2	2.6	3.5	1.5	0.2		
Barley	Import	2	16	14	17	43	52	64	26	1,496.3	-58.6
	Percentage (%)	0.9	6.1	4.9	5.9	13.3	21.1	28.8	10.5		
	Standard TRQ		10.000	10.000	10.800	11.600	12.400	12.772	13.155		
	Standard ASG		14.000	14.000	14.280	14.565	14.856	15.154	15.457		

Note: The percentage refers to the percentage of EU imports of each item in the total imports in Korea.

Source: Korea Trade Statistics Promotion Institute, Korea Agro-Fisheries & Food Trade Corporation (aT).

- In Year 7 of the Korea-EU FTA implementation, the import price of maize powder increased compared to Year 6, but that of wheat flour, other maize, green malt and malting barley decreased.
 - In Year 7, the import price of maize for other uses than seed, popcorn and feeding (KRW 612/kg) decreased by 51.5% and 2.8% compared to the average year before the FTA took effect and in comparison of Year 6, respectively due to continuous reduction in the tariff rate.
 - In Year 7, the import price of wheat flour (KRW 985/kg) increased by 31.7% compared to the average year before the FTA took effect due to the increased unit price of import, but it was reduced by 1.3% compared to Year 6.
 - In Year 7, the import price of barley (KRW 1,076/kg) decreased by 61.6% and 29% compared to the average year before the FTA took effect and in comparison of Year 6, respectively due to overall reduction in the unit price of import and expanded quantity of TRQ and ASG.

Table 11. Trend of the Import Price of Major EU Grains

Unit: KRW/kg, %

Category	Average year before the FTA (A)	FTA implementation year							Rate of change		
		Year 1 (2011/2012)	Year 2 (2012/2013)	Year 3 (2013/2014)	Year 4 (2014/2015)	Year 5 (2015/2016)	Year 6 (2016/2017) (B)	Year 7 (2017/2018) (C)	C/A	C/B	
Wheat (wheat flour)	748 (4.2)	1,115 (3.1)	998 (2.1)	1,030 (1)	928 (0)	1,067 (0)	997 (0)	985 (0)	31.7	-1.3	
Maize	Other maize (328)	1,263 (304.5)	1,588 (281.1)	1,530 (257.7)	1,207 (234.2)	830 (210.8)	767 (187.4)	630 (164)	612	-51.5	-2.8
	Maize powder (5)	665 (0)	742 (0)	721 (0)	746 (0)	825 (0)	682 (0)	783 (0)	828 (0)	24.4	5.8
Barley (green malt, malting barley)	2,805 (269) (513)	1,032 (252.1) (480.9)	1,075 (235.3) (448.8)	1,172 (218.5) (416.8)	1,647 (201.7) (384.7)	1,699 (184.9) (352.6)	1,516 (168.1) (320.6)	1,076 (151.3) (288.5)	-61.6	-29.0	

Note 1) The formula for import price is the quantity of imports \times unit price of import \times (1+tariff rate) \times average exchange rate/quantity of imports. For barley, the amount was calculated by considering the standard quantity of TRQ and ASG.

Note 2) For the average exchange rate, the average basic exchange rate announced by KEB Hana Bank from July of each implementation year to June of the following year applies.

Note 3) The number in parentheses refers to the conventional tariff rate of items in each year. In terms of barley, the number indicates the conventional tariff rate which applies in case exceeding the TRQ of green malt and malting barley, respectively.

Source: Korea Trade Statistics Promotion Institute, Annexes of the Korea-EU FTA.

- In Year 7 of the Korea-EU FTA implementation, the import prices of major grains (wheat, maize, barley) are estimated to be reduced by 2.9-48.6% compared to the assumption that the FTA has not become effective for the effect of abolishment or reduction of base tariff rates.
 - The effects of reduction in the tariff rate for maize for other uses than seed, popcorn and feeding and for barley are 38.3% and 48.6%, respectively, which are relatively significant because of a large reduction in the tariff rate for maize for other uses than seed, popcorn and feeding (23.4%p) and expansion of standard TRQ each year for barley.
 - As the base tariff rate was abolished early, the effects of reduction in the tariff rate for wheat flour and maize powder are relatively low—2.9% and 4.8%, respectively.

Table 12. Effect of Tariff Rate Reduction for Major EU Grains

Unit: KRW/kg, %

Category	Wheat (wheat flour)	Maize		Barley (green malt, malting barley)
		Other maize	Maize powder	
Import price with base tariff rate applied (A)	1,014	993	869	2,095
Import price with Year 7 conventional tariff rate applied (B)	985	612	828	1,076
Effect of tariff rate reduction (B/A)	-2.9	-38.3	-4.8	-48.6

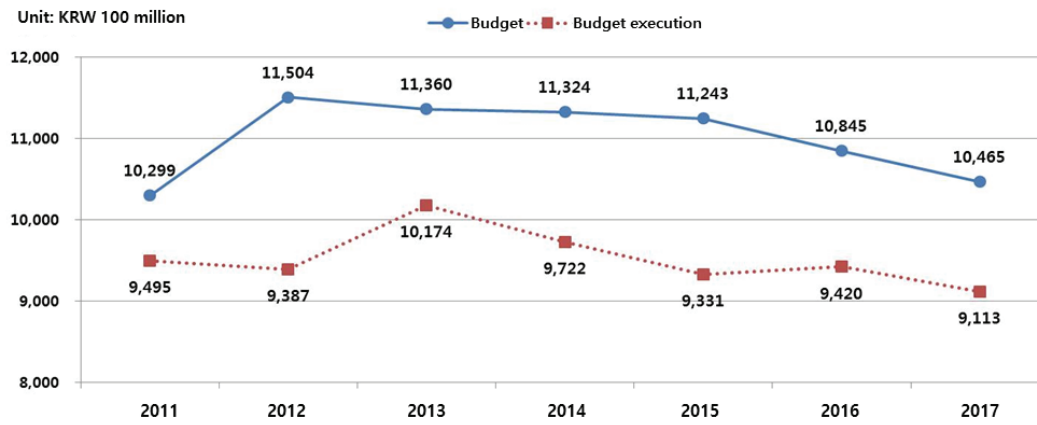
03 | FTA Supplementary Measures for the Domestic Market and Outcomes

3.1. Current Korea-EU FTA Supplementary Measures for the Domestic Market

- The South Korean government established supplementary measures for the domestic market to deal with the impact of the Korea-EU FTA, which would spend a total of KRW 10.8 trillion²²⁾ for a decade from 2011 to 2020.
 - The supplementary measures were aimed at making up for damage to local farmers and workers engaged in the agricultural industry caused by the enforcement of the FTA, and improving the structure and competitiveness of the industry.
 - A total of KRW 10.8 trillion would be spent for a decade to specifically enhance the competitiveness and structure of the livestock industry, which was expected to face the largest scale of damage due to the FTA.
 - The supplementary measures consist of 6 policy goals and 26 detailed projects, including the modernization of livestock facilities, the stabilization of the supply and demand of raw milk, the support of raw milk for processing, the comprehensive assistance for the feed industry, and the improvement of breeding stocks.
- For the recent seven years from 2011 to 2017, 86.5% of the budget amounting to KRW 7.7 trillion allocated for investments and loans as supplementary measures was spent.
 - From 2011 to 2017, KRW 6.6642 trillion (86.5% of the budget amounting to KRW 7.704 trillion allocated to this period) was spent for the supplementary measures.
 - The budget execution rate is low because the loan project was not facilitated due to the continued low interest rate and the burden of collateral.
 - In 2017, 87.1% (KRW 911.3 billion) was spent out of the budget allocated to the supplementary measures this year (KRW 1.0465 trillion).

²²⁾ The total budget includes all expenditures for supplementary measures for free trade agreements with other countries, overlapping projects, the extended period, and increased amount of spending.

Figure 8. Budget for the Korea-EU FTA Supplementary Measures for the Domestic Agricultural Industry and Result of Budget Execution



Source: Ministry of Agriculture, Food and Rural Affairs.

Table 13. Financial Support Plan for the Korea-EU FTA Supplementary Measures for the Domestic Market

Unit: KRW 100 million

Category	Project name	2011	2012	2013	2014	2015	2016	2017	2018	2019-2020	Total
Strengthen the competitiveness of the livestock industry	Modernization of livestock facilities	1,633	2,760	2,200	1,692	1,544	1,401	1,549	2,072	355	15,206
	Comprehensive financing for livestock business	1,226	1,396	1,356	1,356	1,416	1,416	1,416	1,416	5,217	16,215
	Comprehensive support for the feed industry	400	600	950	1,000	930	722	583	570	2,206	7,961
	Support for butchery and processing business	1,500	1,500	1,500	1,500	1,700	1,700	1,700	1,700	2,908	15,708
	Support for the specialization of breeding stock business	112	247	147	89	-	-	-	-	0	595
	Modernization of calf auction facilities	5	10	9	9	-	-	-	-	0	33
	Support of special vehicles for transportation of livestock and eggs	8	15	13	13	-	-	-	-	0	49
	Modernization of agri-food facilities	70	70	70	-	-	-	-	-	0	210
	Improvement of productivity of beef production	30	25	18	-	-	-	-	-	0	73
	Support for systematization of Korean beef farms	50	-	-	-	-	-	-	-	0	50
	Establishment of exhibition, experience and promotion facilities for the agricultural and livestock industry	15	-	-	-	-	-	-	-	0	15
	Comprehensive training support for livestock business	18	-	-	-	-	-	-	-	0	18
	Subtotal	5,067	6,623	6,263	5,659	5,590	5,239	5,248	5,758	10,686	56,133
Manage the supply and demand of livestock products	Self-assistance fund for livestock business	248	214	214	193	230	250	260	260	119	1,988
	Support for stabilization of calf production	68	426	43	13	43	6	7	7	28	641
	Stabilization of supply and demand of raw milk (school meal service, supply/demand control)	305	333	416	482	754	585	492	520	578	4,493
	Support of raw milk for processing	100	72	100	122	140	170	170	170	473	1,517
	Stabilization of supply and demand of raw milk	5	4	-	-	-	-	-	-	0	9
	Subtotal	726	1,049	773	810	1,167	1,011	929	957	1,226	8,648
Reinforce safety control of livestock products	Animal Products Traceability	154	165	182	182	223	203	194	206	317	1,826
	Support for HACCP certification of livestock products	65	72	-	-	-	-	-	-	0	137
	Subtotal	219	237	182	182	223	203	194	206	317	1,963
Foster the eco-friendly livestock industry	Expansion of infrastructure for roughage production	1,065	1,240	1,540	1,577	1,363	1,190	1,025	970	2,100	12,070
	Livestock excreta treatment facilities	801	708	870	976	815	1,143	1,096	932	644	7,985
	Direct payment for eco-friendly livestock business	30	70	102	173	179	178	172	171	709	1,784
	Invigoration of natural circulation farming	242	242	224	310	279	-	-	-	0	1,297
	Subtotal	2,138	2,260	2,736	3,036	2,636	2,511	2,293	2,073	3,453	23,136
Tackle livestock diseases	Animal disease control in each city and province	1,575	803	783	1,020	1,138	991	1,007	1,192	3,335	11,844
	Livestock Health Control Association	223	198	208	213	397	249	270	288	329	2,375
	Subtotal	1,798	1,001	991	1,233	1,535	1,240	1,277	1,480	3,664	14,219
Distribute livestock farming techniques	Support for improvement of livestock breeding stocks	344	327	408	397	477	641	524	537	223	3,878
	Meat treatment expert training	7	7	7	7	-	-	-	-	26	54
	Subtotal	351	334	415	404	477	641	524	537	249	3,932
	Total	10,299	11,504	11,360	11,324	11,243	10,845	10,465	11,011	19,980	108,031

Source: Ministry of Agriculture, Food and Rural Affairs.

3.2. Outcomes of the Korea-EU FTA Supplementary Measures for the Domestic Market

- For the recent seven years, the Korea-EU FTA supplementary measures for the domestic market have produced visible outcomes, including the enhanced productivity of livestock business, reduced expenses, and stabilized supply and demand.
 - The supplementary measures are implemented as classified into several categories according to the purpose and contents of government policies. They have a positive impact on livestock farms, including higher productivity of livestock business, the stabilization of supply and demand management, and the distribution of advanced techniques.²³⁾
 - The projects such as the modernization of livestock facilities and the improvement of breeding stocks are recognized for contributing to increasing the productivity of each livestock type.
 - There has been a steady increase in major indexes regarding the productivity of pork business, including MSY (Marketed pigs per Sow per Year) and the Daily Gain of Finisher Pigs.
 - MSY: 14.6 (2012) → 16.9 (2014) → 16.8 (2015) → 16.9 (2016) → 16.7 (2017)
 - Daily Gain of Finisher Pigs (kg/day): 0.66 (2010) → 0.68 (2012) → 0.67 (2014) → 0.67 (2015) → 0.68 (2016)
 - The Daily Milk Yield per Dairy Cow in the dairy industry has gradually been on the rise.
 - Daily Milk Yield per Dairy Cow (ton): 9.93 (2010) → 10.01 (2012) → 10.02 (2014) → 10.07 (2015) → 10.36 (2016) → 10.45 (2017)
 - The comprehensive support project for the feed industry alleviated the burden of feed expense on livestock farms, stabilized the price of feed, and enhanced the quality of feed.
 - The fluctuation of the feed price was maintained within a certain degree (5%), while the quality of feed improved.
 - Coefficient of variation of the feed price (%): 2.44 (2012) → 2.61 (2014) → 7.85 (2015) → 3.41 (2016) → 1.37 (2017)
 - Rate of feed with inadequate quality (%): 2.1 (2012) → 1.8 (2014) → 1.0 (2015) → 0.9 (2016) → 0.9 (2017)

23) Refer to “Outcome Analysis Report of the 2017 FTA Supplementary Measures for Local Farms” for details.

- The supply and demand stabilization project for raw milk contributed to the stable management of dairy farms and relevant companies, addressing the nutritional imbalance of students and expanding the basis of consumption.
 - The project supported the school meal services with milk to help students grow up healthy and strong, and expanded the basis of milk consumption, thereby promoting the stable growth of the dairy industry.
 - Expanded scope of milk support for schools: Elementary and middle schools (2016) → Elementary, middle and high schools (2017)

- The support project for livestock excreta treatment facilities turned excreta into resources to boost the domestic farming industry using resource recirculation.
 - The project improved the environment of livestock facilities and reduced odor to mitigate the negative perception of livestock farms in local communities.
 - Rate of livestock excreta used as resources (%): 86.6 (2010) → 88.7 (2012) → 89.7 (2014) → 90.6 (2016) → 91.0 (2017)

04 | Summary and Implications

- As of Year 7 of the implementation of the Korea-EU FTA, the import value of agricultural and livestock products from EU countries reached USD 4.33 billion, up 105.1% from the average year before the enforcement and up 9.2% from Year 6.
 - The degree of the opening of the agricultural and livestock market for the Korea-EU FTA that took effect on July 1, 2011 is 96.2%. The impact of reduced tariff has been visible for the recent seven years, and the trade volume of TRQ-applied items has also been on the rise.
 - The imports from the EU take up 13% in the total import value of agricultural and livestock products, a 0.3%p increase from Year 6.
 - To be specific, the import value of processed food, fruits and vegetables, and livestock products jumped by 20.4%, 16.6% and 5.9%, respectively, from Year 6. On the contrary, the import value of grains from the EU dropped by 37.9% from Year 6 due to the increased import of U.S. and Russian wheat and the expanded production of corn in the U.S.

- As of Year 7 of the implementation of the Korea-EU FTA, the value of agricultural and livestock products exported from South Korea to EU countries is USD 460 million, up 132.2% from the average year before the enforcement and up 1.5% from Year 6.
 - Exports to EU countries account for 6.4% in the total export value of agricultural and livestock products in the country, a 0.39%p decrease from Year 6.
 - In the category of agricultural products, the value of fruits and vegetables (oyster mushroom, kimchi, pear) exported to the EU increased by the largest degree. As of Year 7, the value of fruits and vegetables exported to the EU jumped by 19.4% from Year 6.

- As of Year 7, the preferential tariff application rate of the agricultural and livestock products imported from EU countries is 84.3%, a 1%p decline from Year 6, while that of such products exported to EU countries is 51.1%, a 1%p increase from the previous year.
 - The preferential tariff application rates of pork and cheese imported from the EU have been on the steady rise every year, now reaching almost 100% (99.9% and 98.9%, respectively).

- The preferential tariff application rates of products exported to the EU are lower than those of imported products. In particular, the preferential tariff application rate of composite food preparations, which take up a large share in the total value of exports to the EU, has been on the steady decline, recording 36.4%, a 0.4%p decrease from Year 6.
- In the trade between South Korea and EU countries, the former is specialized in imports, showing an imbalanced structure.
 - South Korea's TSI of agricultural and livestock products is -0.65 in the total international trade and -0.81 in the trade with EU countries, implying a larger volume of imports than exports.
- The government spent KRW 6.7 trillion for the Korea-EU FTA supplementary measures for the recent seven years from 2011 to 2017, with the budget execution rate at 86.5%.
 - The supplementary measures resulted in visible outcomes, including the enhanced productivity of livestock farms, reduced expenses, and stabilized supply and demand.
- The output of domestic livestock products is on the rise with the growth of the domestic market, while their market share is on the decline. The increase in the output of domestic livestock products with lower price competitiveness means the departmentalization of the market and the expansion of high-quality product markets. Therefore, proper boosting strategies are needed to maintain and strengthen the quality and competitiveness of domestic livestock products.
- The exports from South Korea to EU countries have gradually been growing since the enforcement of the Korea-EU FTA, while the preferential tariff application rate of exported products has rather been on the decline. Since such a low preferential tariff application rate may limit the expansion of exports, the authorities should exert efforts to increase the rate.

