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THE OPPORTUNITIES OF THE HUNGARIAN CORN AT THE INTERNATIONAL AGRICULTURAL MARKETS IN 2016

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ABSTRACT

Agriculture is traditionally an important sector in the Hungarian economy even though its importance is weakening today. The sector had positive export import balance during the past years, so it means that it is an export oriented field of the national economy which improves the performance of the national foreign trade balance of Hungary. On the global agricultural market we can expect volume increase of the different agricultural products, which forecasts harsh competition on the agribusiness market as well. Although it is not easy to make a long or even middle term prognosis because of the changes of climate, weather conditions, crude oil price, macroeconomics and agricultural policies but because of the size of the country we can conclude that the Hungarian agricultural market should follow the trends of the EU and the global market. The grain sector is one of the most dominant ones on the domestic agricultural market. Within the local market corn was the most dominant product during the last years. In this paper the objective of the author is to examine the present situation of the Hungarian corn on the local and on the international markets according to the available data of local and international institutions (KSH, MGTKSZ, FAPRI, USDA).
Keywords: agriculture, grain market, Hungarian agriculture, corn, international market

INTRODUCTION, METHODOLOGY

Traditionally Hungary was a country where agriculture was one of the most dominant fields of the national economy until the second half of the last century. It played a significant role in the income of the families, the food supply for the people and the employment of the country (*Nagy*, 2006). During the past decades Hungarian agriculture went through fast and significant changes starting from the Soviet system through the transition period of the 90s until joining the European Union. The countries situated in the Central-East European Region needed to face similar issues which affected not just their agriculture but the whole agribusiness sector as well (*Fertő*, 2006). In 1989 13.7% of the GDP was produced by the sector and more than 17% of the employed people worked in agriculture. In the next decade the sector lost its importance in the national economy by the millennium (*Kiss*, 2002). In 2001 4.1% of the GDP while in 2014 only 3.7% were produced by the sector and 4.6% of the employed people worked there. Even though there are negative tendencies visible according to the previous numbers, but the agricultural sector is still a dominant one in Hungarian economy. 79% of the territory of the country is cultivation land and out of this 5.3 million hectares are used by agriculture. Year by year the country exports more agricultural products than it imports. From the study point of view it is more important that the volume of the crop output of Hungary increased in 2014. In 2014 there was a record high volume of corn harvested (9.2 million tons) but also the output of fodder and industrial plants was higher than before. Although the sown area of corn decreased a bit during the past years, it is still the most dominant crop of the country with the biggest volume of grain harvested year by year. Hungarian agriculture is important not only on the national level but also on the EU level, since 2% of the total EU agricultural output were produced by Hungary. In case of crop products, this number is even higher since it reaches 2.3%, while within the grain sector it was 4.9% in 2014 (*KSH*, 2015).

The objective of the study is to examine the position of the Hungarian corn in 2016 on the international market. The data analysis was made after a secondary data collection according to the data bases of different international and domestic institutions. The idea of the paper is to start first with a broad overview of the current world and after EU markets of the corn while at the end to show the most important available domestic data of the product.

RESULTS AND DISCUSSION

The situation of corn on the world markets

The world corn production has decreased compared to the last crop years, but still corn is the most popular agricultural crop before wheat and rice with its more than 30% of share on the crop market (*Popp-Potori*, 2010). In the last year 5% less corn was harvested globally than in 2014/15 crop year, which means 969 million tons of corn were available on the global market as *Table1* shows. In contrast, this number was still about 10 million higher than the previous year forecasts said, since China and some South American countries were able to harvest more than they had expected. The agricultural use of this year might be around 970 million tons, which exceeds the corn production, but because of the high close stock of the previous years, the author expects a high closing stock in 2015/16 as well. In case of big exporters and other corn producing countries they follow the world trend and we can see a decrease of volume in all cases except China. There are some countries where the decrease of corn volume is bigger than the world trend. In some of them there are military conflicts, while in others different kinds of other cereals are increasing their sown area, which affects corn production. In South-Africa the volume decrease is around 30% but in the EU and the Ukraine it is also around 25% compared to the previous years.

In case of corn trade according to the *Food and Agricultural Policy Research Institute* (2011) until 2025/26 the volume is projected to reach almost 130 million tons. The biggest change of the near future of corn is that China becomes a net importer of the product in 2016/17 and reaches about 6.5 million tons of imported corn by 2025/26. Brazil and Argentina's market share would decline, while the USA may increase slightly by the end of the period.

According to the projections of *OECD* (2014) the prices of the major cereals, including corn, remain under downward pressure in the near future until 2023. As

OECD's projection shows, the price of corn followed mostly the price trends of the other cereals during the past years. The projection of *OECD* (2014) says the prices of corn, rice and wheat may slightly decrease compared to the beginning of the decade. The oilseed products have different future in terms of prices according to the projection as there is a slightly increasing price visible in the trends. The price differences might be constant, which means that corn probably stays the cheapest of the four products measured by *OECD* (2014).

Table 1

Corn production of the world (million tons)

Country	13/14	14/15	15/16
Exporter			
USA	351.3	361.1	345.5
Brazil	80.1	84.7	83.5
Argentina	33.1	33.8	28
Ukraine	30.9	28.5	23.3
Others			
China	218.5	215.6	224.6
EU	64.2	76.2	57.1
India	24.3	24.2	21
South-Africa	15	10.6	7
World total	999.1	1015.7	969.4

Source: *MGTKSZ*, 2016b.

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As we are getting closer towards the Hungarian market, the paper must show some data about the corn market of the European Union. As the data of *Table 2* shows that there was no significant change during the past years in case of arable land used for corn and also for grains in the EU. In case of yield in both cases between the shown periods the numbers testify that the changes are not significant and they rather happened because of the weather conditions of the continent than the changes in the sector. The situation of the crop follows the tendency of the land and yield as well. So during the past period there was stability on the EU agricultural market from the land, yield and crop point of view both for corn and grains in total. In the meantime the EU corn balance shows similar numbers and stability in a long term according to *MGTKSZ* (2016a). During the next crop year a slight decrease of import corn is expected on the market and also bigger volume of consumption on the EU level, which is basically caused by the bioethanol, starch and fodder production mainly in France, Hungary, Germany and the Benelux States. So the position of agriculture is quite stable nowadays within the EU. The processing industry is significant, the export import balance is still positive, as it exports more every year than imports. The issues of the future might be the situation of the Ukraine and the Russian markets because they produce a huge volume of corn and traditionally at a lower price. Besides the stronger integration of the Ukraine within the EU, it might have an effect mostly on the Central-Eastern European agricultural markets.

Table 2

EU volume production between 2012-2016
(land 1.000 ha/ yield 100 kg/ha/ crop 1.000 t)

	EU-27/EU-28 (Croatia from 01.07.2013.)				
	2016	**2015**	**2014**	**2013**	**2012**
Corn					
Land	9.328	9.144	9.629	9.815	9.032
Yield	68	64	78	64	70
Crop	63.168	58.522	75.011	63.150	63.248
Grains Total					
Land	57.129	56.634	57.313	57.225	55.992
Yield	54	55	57	53	50
Crop	306.282	308.864	325.046	301.097	281.751

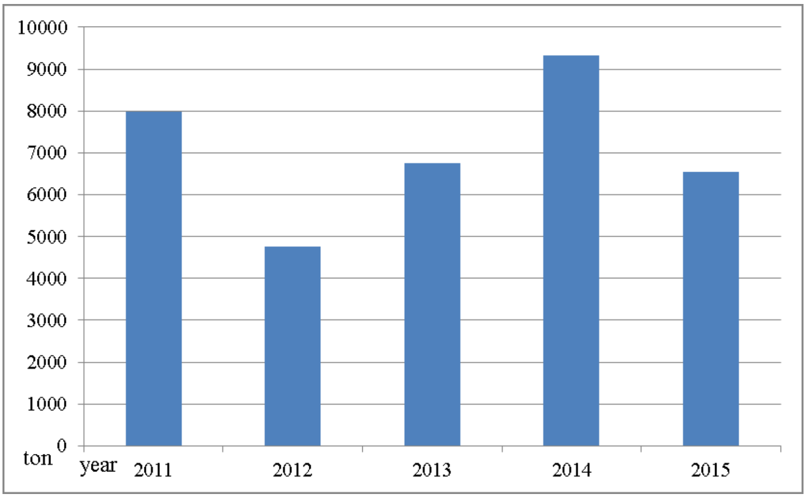
Source: *COCERAL*, 2016.

The Hungarian corn market

Hungary is a small country with a relatively big cultivation area, which means more than 7.3 million hectares of land. Out of this the use of agriculture is around 5.3 million hectares and more than 80% of them are arable land. The grain production is one of the most dominant one within the sector. In 2014 43% of the total harvested area of grain was corn which followed long years of tradition (*KSH*, 2016). The data shows that also the average yield of corn was the biggest during the past years. Consequently, the total volume of corn has been the biggest in Hungary. In 2014 more than 46% of the total grain volume was corn which means that it was the most dominant product of the sector before wheat (37%) and barley (10%). As *Figure 1* shows, during the past 5 years the harvested volume of corn was under 5 million only in 2012 while in 2014 there was record high volume of corn harvested in Hungary.

Figure 1

Harvested volume of corn in Hungary



Source: Based on *MGTKSZ*, 2016a

The volume of corn produced in the country is significant not just between the other grains in Hungary but also compared to the total corn yield of the EU. As we can see in *Table 3* in 2014 when there was a record high volume of corn produced in the country it reached the 15% of the total corn production of EU. But according to data of *KSH* (2016) there were years when these numbers were under 10%. Hungary has been usually the fourth biggest corn producer of the EU 28 since the country joined the EU. Only France, Italy and Romania produced more corn in the period. The top four producers of the EU 28 produced around two third of the total amount during the last decade.

Table 3

Volume of corn between 2005-2014

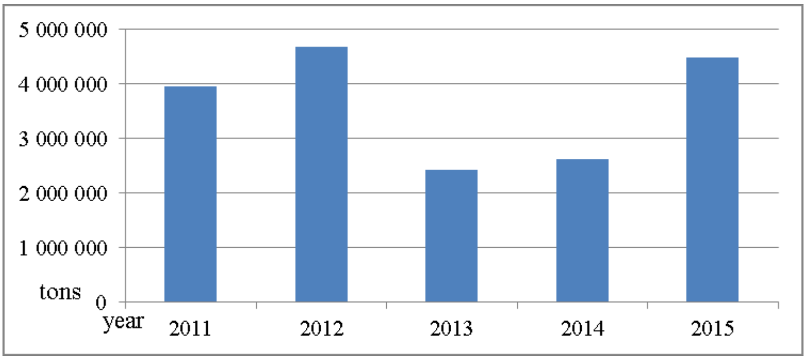
	2005	**2006**	**2007**	**2008**	**2009**
Hungary	9 050	8 282	4 027	8 897	7 528
EU 28	65 446	57 901	50 268	65 413	60 026
	2010	**2011**	**2012**	**2013**	**2014**
Hungary	6 985	7 992	4 763	6 756	9 315
EU 28	59 204	70 574	59 812	66 948	61 344

Source: *KSH* (2016)

The volume of corn produced in Hungary is more than the domestic consumption of the country including grinding, husking, industrial consumption, seed and animal feed. Because of this, the export markets are necessary for the product. Year by year Hungary exports more corn than it imports. During the last years, as *Figure 2* shows, the export volume was between 2.5 and 4.6 million tons of corn/year, which means that the country is one of the biggest exporters of corn in the region.

Figure 2

Corn export in tons



Source: Based on *MGTKSZ*, 2016a

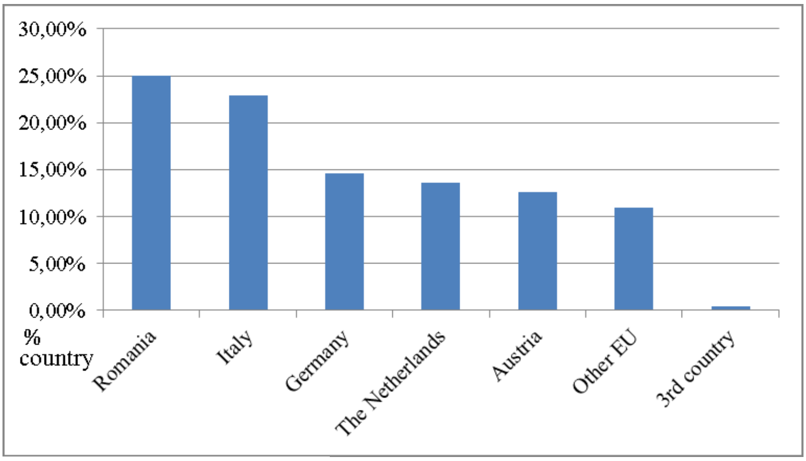
As it is visible in *Figure* 3, the export markets of the Hungarian corn are quite concentrated. After 2004, when Hungary joined the EU, the export direction of corn went mainly towards the EU member states. This tendency is still working today, since in 2015 less than 1% of the total corn export of the country went to 3rd countries. The concentration of the export markets is also visible within the EU member states. There were five dominant countries in the last year where around 85% of the total corn export of Hungary went to. Traditionally, Italy is one of these countries with its huge processor sector. But also the neighbouring countries are taking a huge volume, such as Austria or Romania. Romania had the biggest share of the corn export market of Hungary in 2015. Except for Italy, we can see that the other four countries are directly connected to Hungary via the Rhine-Main-Danube Canal, which is one of the most popular transporting ways of bulk products, such as corn.

Figure 4 shows that during the past years we can see changes in case of export freight types. Although the export by truck is still the most dominant, Danube corn export has taken the second position from the rail freight. Using the River Danube or train as a way of export the target market should be far from the country in order to make it worth loading the wagons or the barges. For bigger distances probably they are competitive but since Hungary's most important export destinations are the neighbouring markets with short distances, the truck business might still be the dominant type of freight in the near future according to the author's expectation. In case of the Danube export, the exporter must take into consideration the risks originated from nature (low water level, flooding). From the logistic point of view, the geographical location of the country is quite advantageous, as the main European train networks of the Central-East European

Region pass the country as well as the River Danube, which is the only waterway passing the continent. Because of the multiple options of freight types, the corn exporters have more options to sell the product on different international markets.

Figure 3

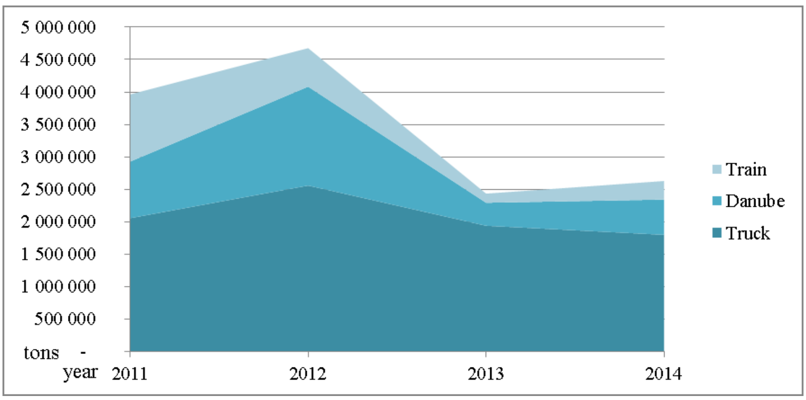
Corn export by countries in 2015 (KN:10059000)



Source: Based on *MGTKSZ*, 2016c.

Figure 4

Corn export by freight types between 2011-2014



Source: Based on *MGTKSZ*, 2016c.

CONCLUSION

Hungary as a country and part of the international agricultural markets needs to follow the world trends. In the world global crop production corn plays a decisive role as well as in Hungary. According to the data shown in the paper, the position of corn was relatively stable during the past decades and as the forecasts say, it may stay in the same situation in the near future. Hungarian corn production has decades of history in agriculture. The country produces a huge volume not only compared to other local cereals but also compared to other corn producers of the EU. The domestic processor sector was stable during the past years and the entrance of new processors is expected on the market in the near future. Besides the domestic market, the Hungarian corn export is important in the Central-Eastern European region as well, since the main importers are the neighbouring countries and their agribusiness sector, as it is visible from the paper. The main issue of the Hungarian corn is not its place on today's agricultural market but the possible changes in front of it. The domestic sowing structure is slowly changing and the different oil seeds are taking bigger and bigger territories from the arable land, which tendency may affect the sown area of corn as well. The biggest issue on the Central-Eastern European agricultural market in the near future is the situation of the Ukraine. The further integration of the Ukrainian economy and agricultural products might cause changes on the whole EU agricultural market and mainly in the regions where countries should directly compete with cheap grains coming from the country. Other possible open issue is the situation of Russia and the embargo against the country. There is a big market and also huge production of corn in the country as well.

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