IMPACT OF PORTUARY INVESTMENTS ON THE TRADE WITH ROMANIAN GRAINS

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Abstract: *In Romania, an agricultural market where only one hectare in 10 hectares is irrigable, the silos and warehouses remain one of the few risk management instruments. Such an investment enables farmers to keep their grains on stock or to maximize their profits waiting for the prices to rise. In recent years, the world grain prices were higher, fostering the Romanian grain trade. As the great players on the market consider that the Romanian grain production will increase by 25% in the next five years, the investments in the ports on the Danube and at the Black Sea also increased, in order to facilitate grain transport. A possible impact of the grain trade increase will be represented by more attractive prices for farmers and greater investments in the grain cultivation technology.*

Key words*: silos, warehouses, risk management, exports, grain production, farm gate price.*
JELClassification*: Q10, Q13, Q16, Q55, Y10*

INTRODUCTION

The Romanian farmers have few risk management instruments at their disposal in the conditions in which the grain production fluctuates from one year to another due to the variations in weather conditions and lack of irrigations. Most often the farmers are obliged to sell their grains from the field at harvest as they do not have the necessary transport and/or storage means and thus they sell at the lowest market price.

That is why the grain silos and warehouses have represented one of the Romanian farmers' investment targets in recent years as the storage facilities enable these to secure their profits. The modernization and construction of new silos located in the ports on the Danube or at the Black Sea represented significant investment directions for traders as well. Thus, according to the industry representatives, in the last four years in Romania, the investments in storage facilities totalled 260 mil. Euro. The total amount of traded grains ranged from 27 million tons (in 2007) to 35 million tons (2009), to reach only 28 million tons in 2011.

The competition for buying grains becomes increasingly strong and we expect farmers to obtain better prices for their grains, which will enable them to make investments in technology.

MATERIALS AND METHODS

The paper investigates and evaluates the impact of investments in portuary warehouses on the Romanian grain sector. The current situation of the grain sector is presented in the context of domestic and world demand increase, with impact upon farmers' decisions. The research for this paper included a combination of documentation work, field visits, data processing and analysis.

RESULTS AND DISCUSSIONS

Romania's grain production fluctuated from 10 million tons (2007, year with severe drought) to 27 million tons (2004, year with extremely favourable weather conditions). Overall, the greatest fluctuations were noticed in maize and sunflower production, which are much more affected than the other grains by the weather conditions.

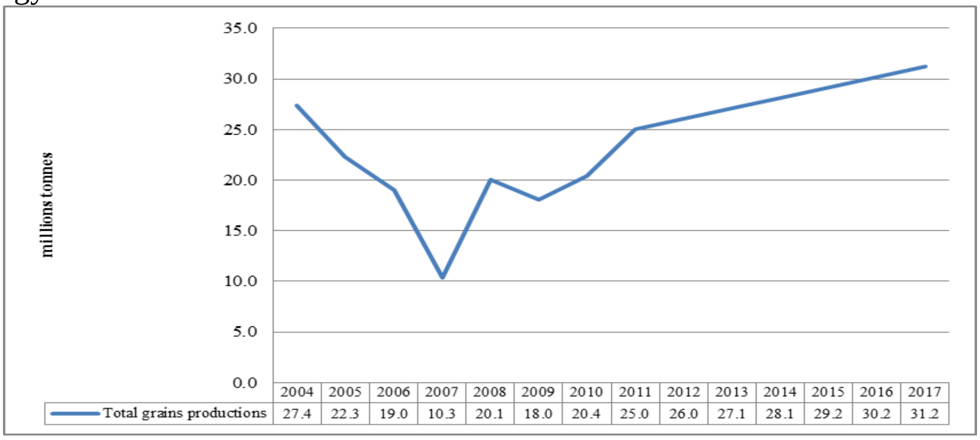
Table 1

Total production of grains ('000 tons)

Total production	2007	2008	2009	2010	2011
Wheat	3,045	7,181	5,203	5,812	7,192
Maize	3,854	7,849	7,973	9,042	11,720
Barley	531	1,209	1,182	1,311	1,454
Sunflower	547	1,170	1,098	1,263	1,866
Rapeseed	362	673	570	943	747
Total grains	10,345	20,090	18,035	20,381	24,990

Source: FAOSTAT and European Commission (DG Agriculture and Rural Development)

According to trade experts' estimates, the total grain production is expected to rise by 25% by the year 2017 as a result of farmers' future investments in the crop production technology.



Source: own estimations on the basis of grain traders' expectations

Figure 1 Romanian grain production forecast for 2013-2017, million tons

Grain prices. It can be noticed that in the investigated period, 2007/2012, the annual average grain prices reached a maximum level in 2012, after a depression in the years 2008-2010. The prices were reflected in the farmers' annual gains depending on the moment when these sold their grains.

Table 2

Annual average grain price (euro/ton)

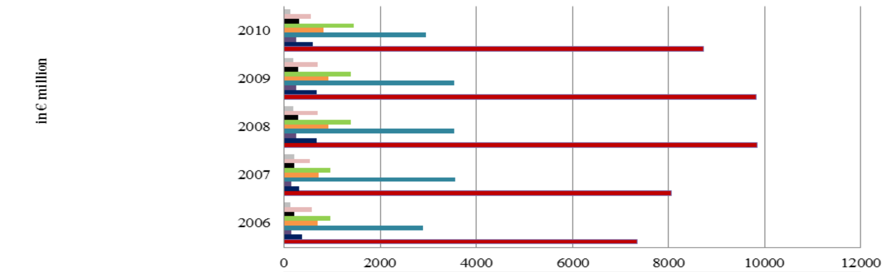
Items	2007	2008	2009	2010	2011	2012
Wheat	183	179	111	140	208	204
Barley	219	242	144	152	217	227
Corn	231	263	158	169	236	233
Sunflower seeds	252	304	203	283	373	413

Source: tempo on line, transformed in euro at the average annual exchange rate of the National Bank of Romania

At the same time the most recent OECD-FAO forecast of world crop prices to 2021 suggests that while prices may fall slightly from the high averages seen in the period 2009-2011 the price outlook to 2021 for the key commodities being produced in Romania remains positive. By 2012/22 the price for wheat is forecast to rise from an average of USD 266.6 to USD 279.3, for maize from USD 227.8 to 246.3 and for oilseeds from USD 503.1 to USD 550.3. This trend is supported by the expected world population growth over this period as well as changing eating habits associated with income growth and increasing urbanization.

The input costs of farms increased with Romania's EU membership. It can be noticed that farmers have higher fuel and lubricant costs, higher phyto-sanitary protection and seed and planting stock costs, while the fertilizer costs doubled. Lower costs were noticed with agricultural machinery maintenance, as a result of an increase in the number of new agricultural machinery.

These costs are expected to increase with the growth of farm incomes.



	2006	2007	2008	2009	2010
Agricultural services	134	205	195	197	131
Maintenance of machinery	570	537	696	698	550
Veterinary expenditure	215	202	300	295	306
Energy and lubricants	952	957	1394	1396	1458
Seeds and reproductive material	691	723	929	924	830
Animal feed	2898	3565	3543	3539	2960
Crop protection products and pesticides	160	158	246	246	253
Fertilizers and soil improvers	367	314	674	668	603
Total farm input expenditure	7356	8047	9838	9830	8732

Source: European Commission, DG Agriculture and Rural Development

Figure 2 Evolution of expenditure on total farm inputs and key inputs in Romania, 2006-2010 (in € million)

The present situation of warehouses. The Ministry of Agriculture has issued in 2012 a total number of 3,713 authorizations for a total storage capacity of 17.363 million tons. Of which 49% is represent storage in silos, and 51% storage in warehouses. According to the industry representatives, 90% represent own stored grain and only 10% is represented by grain storage services.

The storage market is divided into silos that operate on the domestic market (farmers, mills, bakeries, farm animal breeding, plant vegetable oils etc.) and export market with the silos on Danube and Black See held usually by multinational companies.

Table 3

Top 10 counties with the largest storage capacity, 2012 (in tons)

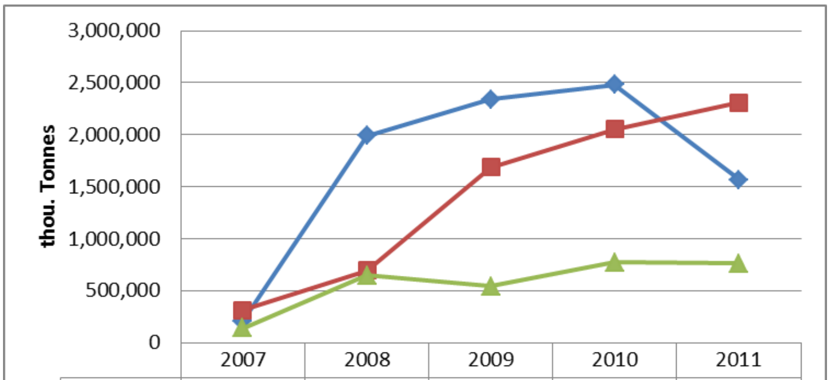
County	Number of authorizations	Total storage capacity authorized	Silo capacity	Warehouse capacity
Total	3,713	17,363,926	8,453,844	8,910,082
Constanta	197	2,181,034	1,262,742	918,292
Timis	304	2,166,247	1,142,848	1,023,399
Calarasi	266	1,603,930	906,640	697,290
Ialomita	125	977,586	613,240	364,346
Teleorman	177	976,609	616,555	360,054
Braila	123	855,785	369,005	486,780

Arad	270	747,829	247,785	500,044
Dolj	161	699,080	293,745	405,335
Buzau	200	671,250	290,280	380,970
Galati	125	509,874	210,529	299,345

Source: Ministry of Agriculture and Rural Development

The most significant investment in storage capacities were made in the county of Constantza as a result of the increased interest in grain exports. Timis county is on the second position, with a total storage capacity of 2.18 million tons. The development of storage capacities in this region was the result of the high grain production volumes as well as the high requirements for grain use in feeding the pigs from S.C. Smithfield Ferme S.R.L Timisoara. Calarasi county is the third largest in terms of capacity storage, with 1.6 million tons – a county with agricultural potential and with a strategic position for grain export.

In Romania's grain trade an increase of grain export is noticed in the investigated period. Maize stands out as the grain in most demand for export.



	2007	2008	2009	2010	2011
wheat	206,634	1,988,758	2,340,673	2,480,143	1,568,734
corn	312,289	694,891	1,686,404	2,054,488	2,310,665
barley	139,808	645,056	543,311	771,878	763,541

Source: Eurostat

Figure 3 Romania's grain exports (tons)

CONCLUSIONS

Romania has mostly favourable conditions for grain cultivation.

Farmers' future investments in the grain production technologies will determine greater availabilities for domestic consumption as well as for export.

The grain storage market will become an increasingly competitive market as a result of investments in the ports on the Danube and at the Black Sea.

The farmers will benefit from better prices as a result of higher quality of grains.

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