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## **AGRICULTURAL MACHINE DISTRIBUTION IN THE HUNGARY IN PAST TEN YEARS**

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**Abstract:** The Hungarian agricultural machine park went through the considerable modernization in last 10 years. With Hungary's European Union accession in the retail of the agricultural machine considerable market expansion and qualitative improvement can be experienced. The Hungarian machine park, its average age, his modernity still lags behind the Western European countries' in his totality. The technical-technological development was continuous in these Western European countries, the smallholders received a suitable support early already, that they utilized well, and that provides competitive advantage to them on more areas.

**Key words:** *Hungarian agricultural machine market, distribution of agricultural machines, value of sold machines*

### **INTRODUCTION**

The Hungarian agricultural machine park went through the considerable modernization in last 10 years. During these years, considerable market expansion and qualitative improvement can be experienced. Nevertheless, internal machinery park, its average age and its modernity still stay behind the machinery parks of western European countries.

### **RESULTS AND DISCUSSION**

#### **Amount and value of the machinery purchased in Hungary**

From the point of investment in agricultural machinery, years 2007, 2008 and 2009, can be considered most advantageous (Chart 1, Table 1). In the Hungarian agriculture, in

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those years, the total value of realized investments in machinery surpass the amount of 1293 millions of Euros, which was supported with a profit of production from previous years, as well as with market expectations in the first half of 2008-is still a year positive. Agricultural enterprises are intended to expand and modernize its machinery parks and were trying to use more funds from the approved amount of support. [4]

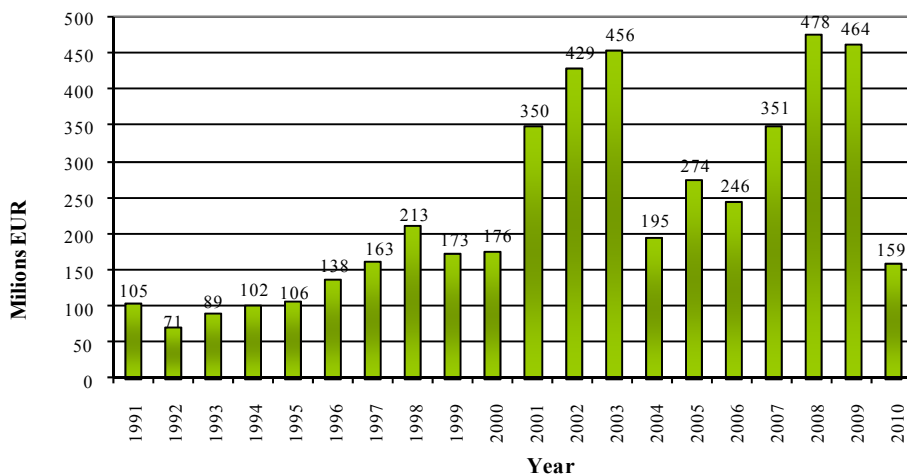


Chart 1. Investment in agricultural machines from year 1991 to year 2010 in Hungary

Table.1. The number of a sold agricultural machines in Hungary (2007-2010) [1]

Machine	Year 2007 (pieces)	Year 2008 (pieces)	Year 2009 (pieces)	Year 2010 (pieces)
Tractors	3244	3261	3045	990
Wheat harvesters	442	412	503	69
Harvesting machinery adapters	650	744	773	185
Balers	387	484	396	192
Fodder harvesters	1421	1517	1215	833
Self propelled loaders	290	434	287	109
Basic soil tillage machinery	4196	4108	4014	2060
Seeders and planters	1101	1155	1028	354
Fertilizing machinery	1015	1006	828	504
Machinery for plants protection	1464	1518	1529	815
Agricultural transport trailers	544	691	557	215

(New agricultural machinery trade only)

After a good 2008 year, turnover has declined substantially in the early 2009's year. A number of external, unfavorable conditions also reduced the desire for investment, which was already otherwise have been undermined by the inflow end of support. State tender-forint, weakened significantly, which led to a significant rise in prices and market prices of products were already in collapse, and global economic environment did not show an encouraging vision for the future.

Farmers in the summer of year 2009 could again, after a year and a half, to apply for grant funds intended for purchase of machinery and capital goods. The total amount of grants to fund

amounted to about 107 million Euros. This amount and intensity of the grants at a rate of 25-35% induced trade of second hand machinery of about 464 millions of Euros in year 2009.

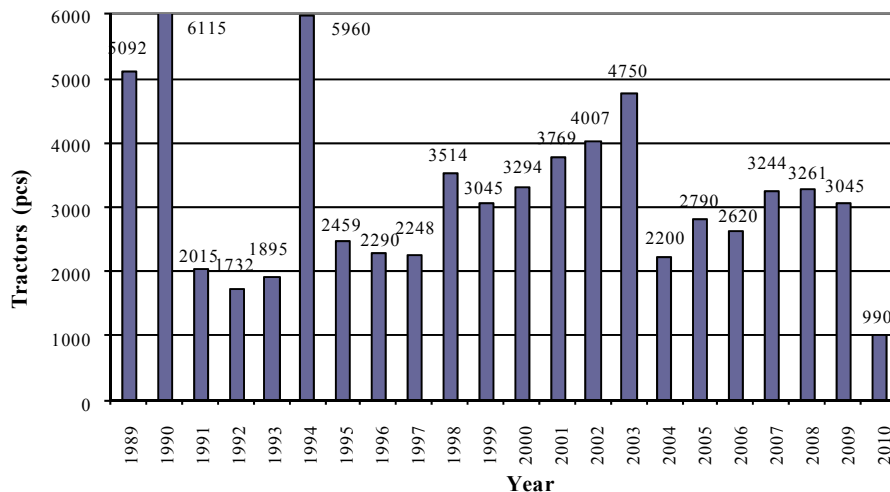


Chart 2. Number of tractors sold in Hungary from year 1989 to year 2010.

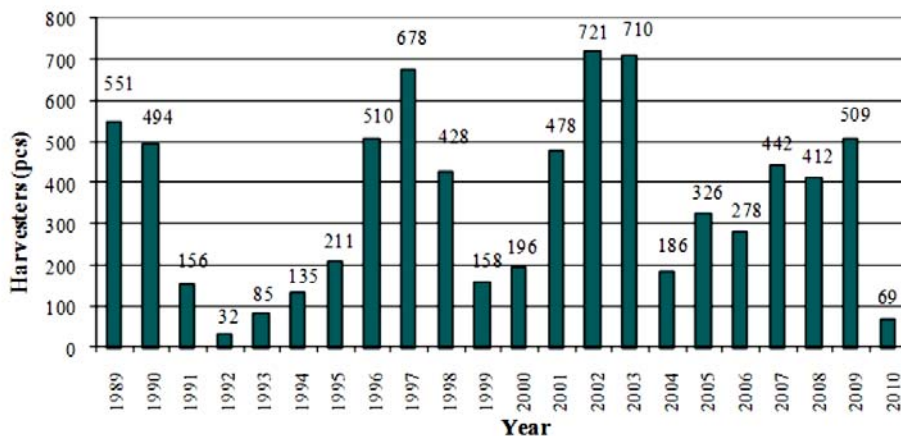


Chart 3. Number of harvesters sold in Hungary from year 1989 to year 2010.

### Hungarian traders, market actors

Among the actors in the Hungarian market traders of machinery amounted to more than one thousand of them, in terms of turnover, only one tenth can be considered significant. Their maximum annual turnover amounts to approximately 535 millions of Euros, of which turnover of machinery and equipment comprises nearly 465 millions of Euros and sales of spare parts reach 65 - 75 millions [7]. Circle of dealers is unusually heterogeneous, and the following are present: the individual contractors, vendors, resellers own production company - organized in trade network - as well as dominant

agribusiness actors - while operating as a department store - relying on a larger number of polygonal sales bases. High degree of concentration is characteristic for the Hungarian machinery market. Nearly 90% of total turnover - which is implemented with the ultimate agricultural users - conducted around 22 companies. Three sellers of agricultural machinery: AXIAL Kft, KITE Zrt, and IKR Zrt. Are realizing almost two thirds of the total machinery turnover in Hungary. Domestic importers of agricultural machinery are representing the world's leading manufacturers of agricultural machinery - American and European global companies - and their machines. The three major competitive firms are specialized in trade between the different brands and for some brands have the authorization of exclusivity. [5]

The annual number of buyers of agricultural machinery from the circle of agricultural entrepreneurs - who make the purchasing side of the market - shows a decreasing tendency. Number of investors who have made a grant to purchase machinery from year 2002, has been close to 30.000, which represents 13 percent of the registered producers [6]. Number of applicants for grants in year 2007 is 4700, which makes just over 2% of the registered producers. During 5 years, funding grants - counted to one applicant - has increased by tenfold, and according to data from September 2007 exceeded the total amount of 140 thousands of Euros. The established range of customers comes from the ranks of trade actors with higher incomes. The growing competitiveness of agricultural producers directed toward cost effectiveness and supply of highly productive machines. [2]

In the past ten years, agricultural producers were buying new machinery (mainly tractors) in the amount of nearly 3.4 billion of Euros. Half of the total agricultural investments are focused to the purchase of tractors. 3700 types and standard variants of tractors, that come from sixty manufacturers, are present in the market. Fifty percent comes from the expensive, technologically highly developed Western European countries and from the United States and Canada. Cheaper tractors, Eastern European and Turkish, account for about 34 percent, while the tractors of Far Eastern producers, also with relatively lower prices, account for about 16 percent.

### **Offer of Hungarian machinery market**

Realized annual turnover of the Hungarian market of agricultural machinery, during the last 10 years, was around 350 millions of Euros, representing about 1.2% of European turnover (Chart 1). Nevertheless, Hungarian market is not negligible for the machine manufacturers. Actually, on the Hungarian market are present all the major manufacturers and traders of agricultural machinery and road. The market is open and characterized by very tough competitiveness. [8]

Hungary offer of agricultural machinery in recent years steadily expanded. In 2002 machinery selection could have been made from 54 thousands of different machines, while in year 2009 for 133.300 types and standard variants, as registered in the dealers catalogs. The total share offer "Eastern Route" (Eastern-Europe and the Far-East) accounted for only 7%, but in some industries e.g. tractors share in Korean, Chinese, Indian and Turkish products can be considered significant. Besides those, in Hungary offer are permanently present and traditional (Belarus, Russian, Polish, Romanian, etc.) importers. Offer of domestic manufacturers of agricultural machinery is characterized by a decreasing tendency. Currently, the share of Hungarian machine is 13.3%, while in

some product groups (e.g. machinery for primary soil tillage) was significantly higher than the average. Agricultural machinery industry in Hungary specialized in certain areas. There is a significant innovation activity in the area of mechanization of vegetable machine technology in the production of multifunctional transport vehicles, as well as in the segment of soil tillage machinery production - more than 30% stake in the Hungarian market belong to domestic producers.

According to previously mentioned, the Hungarian market of agricultural machinery is characterized by a wide variety of machines. Hungarian machines offer is greater even than that of many developed European countries. Considering that in these markets products of Hungarian factories are not represented, the eastern offer is significantly narrowed (due to higher demands of the market actors). [3]

## CONCLUSIONS

For the Hungarian market, a significant impact is the availability of grants for the purchase of machines, which intensifies the turnover: if the grants are available, machinery turnover is increasing, and in case of lack of subsidies decline in purchases becomes evident, as it was in the year 2010. Machinery Dealers notice an increase in demand for used machines in the absence of grants for the purchase of new machinery. The Hungarian market extreme oscillations are evident. In the years between 2001 and 2003 was recorded dynamic growth of investments in machinery.

Year 2003. considered the record, when the Hungarian farmers spent 455 millions of Euros to purchase machinery. In the last year - which preceded the accession to the European Union - the farmers were trying to seize the opportunity, in addition to its own funds and loans, to come to funds intended for government subsidies to its development plans. The role of direct subsidies – finishing with membership in the European Union - could not take much less resources allocated by tenders.

In 2004 was recorded significant, more than 50%, decrease in the procurement of agricultural mechanization. By re-activating the grants in 2005, the volume of investments started to increase again. In the year 2005, grant applications did not take place, which reduced the number of machinery investments. Reduction of investments was significantly related to decrement of funds of the central support and the expectations of new grants for 2007-2013.

Repeated access to sources of grants, since 2007 has given new momentum to machinery turnover and created the possibility of mitigating the technical backwardness of Hungarian agriculture. Again, years 2007, 2008. and 2009. were outstanding with record amounts of 305, 478 and 464 millions of Euros.

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## PROMET POLJOPRIVREDNIH MAŠINA U MAĐARSKOJ U PRETHODNIH DESET GODINA

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**Sažetak:** U prethodnih 10 godina, poljoprivredni mašinski park u Mađarskoj znatno je usavršen. Pristupanjem Mađarske Evropskoj Uniji, u prometu poljoprivrednih mašina zapaža se značajno proširenje tržišta i poboljšanje kvaliteta. Međutim, interni mašinski park, njegov prosečan vek starosti, kao i njegova savremenost u celini, još uvek zaostaju za mašinskim parkovima zapadno-evropskih država, u kojima postoji konstantan tehničko-tehnološki razvoj, gde su poljoprivredni proizvođači i ranije dobijali odgovarajuće dotacije, koja su dobro upotrebljena, i koja su tako, osigurala konkurentnost na različitim poljima.

**Ključne reči:** *Mađarsko tržište poljoprivrednih mašina, vrednost prodatih mašina, distribucija poljoprivrednih mašina*

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