

FARM STRUCTURES DEVELOPMENT IN THE NEW MEMBER STATES OF EUROPEAN UNION

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ABSTRACT. *Farm restructuring is an ongoing process in any country. The Common Agricultural policy employs some instruments which have a direct impact on the farm structures (the milk and sugar quotas, set-aside program etc.). The present structure of farm sector depends very much on some important decisions in the past. A comparison between the New and Old Member state provide the evidence that similar economic conditions didn't lead to a convergence in the farm structure. Hence the history might be one of the main determinants of the present farm structure in every country.*

The agricultural land price accomplishes one from the important functions to express the production and economical potential of agriculture. The real price of arable land characterize the production and economical potential of the farms situated in different natural conditions.

Keywords: *farm structure, farm size, Common Agricultural policy, farm development history, commodity prices, land prices.*

Introduction

Clearly, the farm structure is intimately related to many factors, including the organisation of rural society, the nature of financial institutions and their policies, the conditions of international trade, and the physical agro climatic conditions of production. Nevertheless, a fundamental element in determining the pace and shape of agricultural development is the framework of property and its ownership, particularly for agricultural land, machinery, farm buildings and other physical units.

The average EU-25 farm size is 16 hectare with significant variation between the Member State in 2005. In general, farm size are higher than the average in EU-15 (with the exception of Greece, Italy and Portugal) and lower in the New Member State (with exception of Czech Republic, Estonia and Slovak republic).

Agricultural restructuring in Baltic States

We are partly agree that production structures fundamentally different from that of the Western model in Eastern and Central European Countries. But Baltic States have another development scheme compared with Central European countries. One main reason is the different history of land ownership formation.

Over the long term, *five stages* can be mentioned in the establishment of different forms of land tenure for agricultural production in territory of Baltic States.

The *first stage* had a long history and may be associated with the Great Nation Movement more than three thousand years ago

The *second stage* was based on laws adopted in 1848 and 1856. According to these laws farms could be bought in perpetuity. More than 10,000 farms with a total area of 400,000 hectares were established in less than half a century. In addition, before 1921 in Estonia there were 1,149 estates with an average size of 2,113 ha. Thus, both large- and small-scale production forms co-existed in Baltic agriculture at that time (Table1).

The *third stage* development of production forms was initiated by the Land Acts adopted in 1919. An agrarian reform was put into effect, in the course of which estates were parcelled out into individual farms. During the next ten years the total number of farms in Estonia increased to 133,387, and during the following 10-year period, to 139,984.

The data of the land cadastre of 1939 show that farms generally had less than 30 ha of land but were quite variable in size. Together, they held 3,179,438 ha of land, including 1,117,811 ha of arable land and kitchen plots, 1,626,782 ha of grasslands and pastures, and 188,498 ha of forest.

Thus, the size of an average farm in 1939 was 22.7 hectares, including 8.0 hectares (35%) of arable land and kitchen plot, 11.6 hectares (51%) of grasslands and pastures and 1.3 hectares (6%) of forest. The remaining 1.8 hectares (8%) was unprofitable land (yards, roads, sandy areas, etc.). Many of the farms at that time consisted of scattered plots, sometimes as many as 5 or more. This historical fact causes difficulties in applying the present Land Reform Law, which requires that the land be restored to its former owners in its previous boundaries.

Table 1. Structural Development of Agriculture in Baltic State
Tabel 1. Struktuursed arengud Baltimaade põllumajanduses

Period <i>Periood</i>	Velocity of changes <i>Muutuste kiirus</i>	Type of development <i>Arengu tüüp</i>	Structure of agriculture <i>Põllumajanduse struktuur</i>
Up to 1849 <i>Kuni 1849</i>	3000 years <i>3000 aastat</i>	Evolutionary <i>Evolutsiooni-</i> <i>line</i>	Farming in communal and serf regimes <i>Põllumajandus kogukondlikus ja pärisorjuslikus</i> <i>režiimis</i>
1849–1920	71 years <i>71 aastat</i>	Evolutionary <i>Evolutsiooni-</i> <i>line</i>	Coexistence of manors and private family farms <i>Mõisa- ja talumajapidamiste koeksisteerimine</i>
1919–1939	21 years (main changes in 1st 7 years) <i>21 aastat (peamised muutused</i> <i>7 esimesel aastal)</i>	Violent <i>Sundus</i>	Liquidation of estates (manors) and rapid increase of family farms <i>Mõisamajanduse likvideerimine ja peretalude</i> <i>kiire areng</i>
1940–1989	49 years; violent change in 1947–1950 <i>49 aastat; sunnitud muutus</i> <i>1947–1950</i>	Violent <i>Sundus</i>	Liquidation of family farms and formation of large-scale state controlled farms <i>Peretalude likvideerimine ja riigi kontrolli all</i> <i>oleva suurtootmise asutamine</i>
1989–present <i>1989–senini</i>	Depend on the progress of land reform <i>Sõltub maareformi</i> <i>arengutempost</i>	Restoration <i>Restau-</i> <i>ratsioon</i>	Restoration of agriculture based on inherited land property <i>Endistele omandisuhetele baseeruva</i> <i>põllumajanduse taastamine</i>

In the *fourth stage*, a programme of collectivisation was initiated first on a partial basis and then imposed on a massive scale. After 1947, private farming was considered to be inconsistent with communist ideology and was tolerated only to a limited extent. Families were permitted to cultivate a plot of about 0.5 ha on their own and to keep a small number of animals. In spite of their small size, these private plots produced a remarkable amount of food, sometimes with significant inputs from the farms on which the plot-holders worked. In the scarcity economy of the day, this became a significant source of both sustenance and, in semi-legal farmers' markets, income for rural families. The land used by State farms and Collective farms decreased progressively and significantly.

The *fifth stage*, of restoration of the previous structure of agriculture, began in 1989. The law on economic autonomy approved by Supreme Soviet of the USSR opened the way for the "Farm Law" enacted in December 1989, which provided permanent land use rights to individuals who wanted to establish private farms. Under the ownership constraints imposed by Soviet law the land was inheritable, but not tradable, and it had to be used for farming. Land, which was not regarded as essential for the operations of State and collective farms, was allocated to the applicants, in many cases to those with prior claims to the land.

The Present Farm Structures in New Member States

Major differences between the Central European Countries and Baltic States are:

- Historical development of rural areas (Independent state versus colony).
- Significant differences of ownership structure. (State or co-operative ownership versus private ownership).
- Implementation of agricultural and land reforms.

The present farm structure of NMS are characterised by three different types of farm. First, large enterprises resulting from the transformation of state and collective farms into joint-stock companies, partnerships or co-operatives. Secondly, private family farms and the third the semi subsistence household plots.

Patterns in land use by different farm groups vary. In five countries of the CEEC s the farms exceeding 50 ha cultivate more than 50% of total agricultural land (Table 2). In Czech Republic (92%) and in Slovakia (94%), this share is highest among all these countries. It is lowest in Slovenia (8%), Lithuania (10%) and Romania (18%).

In Romania, Lithuania and Slovenia the farms belonging to the lowest size bracket dominate the agricultural sector and their average farm size is among the smallest of the countries considered. Due to the large number of small holdings Bulgarian and Hungarian agriculture is also characterized by a very low average farm size. At the same time, in both countries the share of land cultivated by holdings belonging to the cluster of large farms remains high.

Similarly, small- and large-scale farms coexist in Poland and Latvia, whilst in Estonia, the Czech Republic and Slovakia, agricultural land cultivated mostly in large farms.

Table 2. Average size of all farms as well as share of small and large farms in total land cultivated by countries in 2003
Tabel 2. Talude keskmine suurus ning maa jagunemine väike- ja suurettevõtete vahel riikide lõikes 2003. aastal

Country <i>Riik</i>	Average farm size (ha) <i>Keskmine talu suurus (ha)</i>	Share of cultivated land in size group below 5 ha <i>Haritavast maast majapidamistes suurusega alla 5 ha</i>	Share of cultivated land in size group above 50 ha <i>Haritavast maast majapidamistes suurusega üle 50 ha</i>
Slovakia/ <i>Slovakkia</i>	31	2%	96%
Czech Republic <i>Tšehhi Vabariik</i>	100	1%	93%
Bulgaria/ <i>Bulgaaria</i>	4	19%	75%
Hungary/ <i>Ungari</i>	4	18%	58%
Estonia/ <i>Eesti</i>	12	9%	56%
Average/ <i>Keskmine</i>	5	27%	38%
Latvia/ <i>Läti</i>	12	9%	31%
Poland/ <i>Poola</i>	8	16%	25%
Romania/ <i>Rumeenia</i>	2	58%	19%
Lithuania/ <i>Leedu</i>	4	31%	11%
Slovenia/ <i>Sloveenia</i>	6	46%	8%

Source/*Allikas*: Network of Independent Agricultural Experts in the CEEC Candidate Countries (2003)

Expected development of farm structure

Agricultural and structural policies in the CEEC s that will be implemented after accession to the EU may bring about structural changes and an increase in productivity that will be limited in the short run and more pronounced in the longer term. Country experts expect that by 2007, some shifts of agricultural land between farms from different farm size groups will have taken place (Table 3).

Table 3. Expert judgement on development of farm structure according to different farm size clusters till 2007
Tabel 3. Ekspertide hinnang talude struktuuri arengu kohta erinevates talude suurusgruppides kuni aastani 2007

Country <i>Riik</i>		Farm size clusters / Talude suurusgrupid					
		>5	5–20	20–50	50–100	100–1000	>1000
Estonia <i>Eesti</i>	No of holdings / <i>Majapidamiste arv</i> Area cultivated / <i>Haritav pind</i>	–	–	0	0	0	n.a
Latvia <i>Läti</i>	No of holdings / <i>Majapidamiste arv</i> Area cultivated / <i>Haritav pind</i>	–	0	+	+	+	n.a
Lithuania <i>Leedu</i>	No of holdings / <i>Majapidamiste arv</i> Area cultivated / <i>Haritav pind</i>	–	+	+	+	0	n.a
Poland <i>Poola</i>	No of holdings / <i>Majapidamiste arv</i> Area cultivated / <i>Haritav pind</i>	0	–	+	+	0	0
Czech Republic <i>Tšehhi Vabariik</i>	No of holdings / <i>Majapidamiste arv</i> Area cultivated / <i>Haritav pind</i>	0	–	–	+	+	+
Slovakia <i>Slovakkia</i>	No of holdings / <i>Majapidamiste arv</i> Area cultivated / <i>Haritav pind</i>	0	–	+	+	+	0
Hungary <i>Ungari</i>	No of holdings / <i>Majapidamiste arv</i> Area cultivated / <i>Haritav pind</i>	–	0	+	+	+	–
Slovenia <i>Sloveenia</i>	No of holdings / <i>Majapidamiste arv</i> Area cultivated / <i>Haritav pind</i>	–	+	+	0	0	0
Romania <i>Rumeenia</i>	No of holdings / <i>Majapidamiste arv</i> Area cultivated / <i>Haritav pind</i>	–	0	+	+	+	0
Bulgaria <i>Bulgaaria</i>	No of holdings / <i>Majapidamiste arv</i> Area cultivated / <i>Haritav pind</i>	0	+	+	+	+	–
Average strength and direction of change in number of holdings <i>Muutuste tugevus ja suund talude arvuna väljendatuna</i>		–6	–1	6	8	6	–1
Average strength and direction of change in area cultivated <i>Muutuste tugevus ja suund haritava pinnana väljendatuna</i>		–8	–1	7	9	6	–2

Notes: ("+" is an increase, "0" – no changes, "–" – a decrease) / Märkused: ("+" kasv, "0" – pole muutusi, "–" – kahanemine)
 Average over all countries with "–" = –1; "0" = 0, "+" = 1 / Keskmine üle kõigi riikide "–" = –1; "0" = 0, "+" = 1

Source/*Allikas*: Network of Independent Agricultural Experts in the CEE Candidate Countries; Institute of Agricultural Development in Central and Eastern Europe, Halle, Germany 2003

There is a strong expectation among experts that in the next few years, the number of smallest farms will decrease; and, to an even larger extent, agricultural land will be moved to larger holdings.

The net balance of changes in the group between 5–20 ha is close to zero. A significant increase, both in the number of farms and the area cultivated, is expected to occur with regard to large farms. The relative increase in the number of farms between 20–50 and 50–100 hectares will be the most striking. Farms over 1,000 ha are only expected to increase their number and land share in the Czech Republic, whereas this size cluster is expected to lose importance in Hungary, Bulgaria and Slovakia. In all countries, concentration in the farming sector is expected to deepen. But this process will depend on the initial farm structure; the greater the share of large farms, the more land should go to clusters with a larger size.

The predicted pattern regarding change in farm structure by legal type is less clear. Experts expect, for 2 of the 4 countries where state farms still exist, a further reduction of their importance as a result of the continuation of privatisation processes. Similarly, cooperative farms are predicted to decrease in number as well in their share of cultivated land.

This is due to the expected expansion of commercial companies and individual farms. Development is forecast for a number of countries where presently the position of cooperatives is strong (Czech Republic, Hungary, Bulgaria, Slovakia). The only exception in the opinion of the country experts is Romania, where both commercial and co-operative farms are expected to strengthen their position at the expense of individual farms.

In six of the new Member States, structural changes will likely lead to an increase in the share of individual farms in overall land use. The direction of changes in individual farming in Poland, Hungary and Lithuania is a reduction in the number of holdings and an increase of the average farm size and share of the total area of agricultural land. In Slovakia, Bulgaria and the Czech Republic, where individual farming has the weakest position, an increase in the number of individual farms is also expected. For Romania and Latvia, the experts expect that individual farms will lose importance.

The future development of the farm structure and employment in agriculture is dependent on many factors. Among them are the expected earnings in agriculture, which are influenced by agricultural policy. However, the opportunity costs of labour of those engaged in agriculture are even more important for deciding to stay in agriculture or to leave the sector. They are dependent on the availability of off-farm income opportunities, the age structure and the endowment with human capital. There is evidence in many current EU Member States that general economic development is more decisive for structural change in agriculture than the economic situation in this sector itself. The same probably also holds for the New Member States.

Expected development of farm gate prices and farm income

In 2005, average farm gate prices of the main agricultural commodities in the new Member States were below the EU-15 average. However, considerable deviations could be observed both with regard to commodities and countries.

Though the prices reported in this table are not adjusted for quality differences, the numbers indicate that, in 2000–2003, quite considerable deviations existed between the new Member States and the EU-15 (Table 4).

Table 4. Average farm gate prices of all CEEC-s as observed in 2000-2003, and expected for 2007 and 2010 relative to the corresponding EU-15 average price for main commodities

Tabel 4. Keskmised tootjahinnad suhtena EL-15 tasemesse Kes- ja Ida-Euroopa riikides aastail 2000–2003 ning prognoos aastaks 2007 ja 2013

Product <i>Toode</i>	Year (% relative to EU 15) / <i>Aastad (% EL-15 suhtes)</i>		
	2000–2003	2007	2010
Wheat/ <i>Nisu</i>	93	94	98
Barley/ <i>Oder</i>	82	91	97
Rye/ <i>Rukis</i>	83	80	85
Rapeseed/ <i>Rapsiseemned</i>	91	95	98
Milk/ <i>Piim</i>	76	86	94
Beef/ <i>Veiseliha</i>	56	78	88
Pork/ <i>Sealiha</i>	94	101	102
Poultry/ <i>Linnuliha</i>	84	97	99

Sources/*Allikas*: The future of rural areas in the CEE new Member State. Network of independent Agricultural Experts in the CEE Candidate Countries. Institute of Agricultural Development in Central and Eastern Europe, Halle, Germany 2003

These observations also show substantial price disparities among the CEECs. Though a general pattern cannot be noticed, crop and milk prices in Slovenia are among the highest, and in some cases substantially above, the averages in the EU-15. Crop prices were also above EU-15 levels in Poland and Hungary. On the other hand, they were especially low in the Czech Republic and Slovakia. There was a striking difference with

regard to milk and beef prices between the EU-15 and the CEECs. The latter only reached 33% of the average EU-15 price in Lithuania and 36% in Slovakia. And in the two countries with the highest beef prices, farmers only received 72% (Czech Republic) and 70% (Poland) of the average price in the EU-15. Milk was cheapest in the Baltic republics (Latvia, Lithuania, Estonia), while the highest prices were reported in Slovenia, Hungary and Romania. The highest pork and poultry prices in the CEECs reached the approximate EU-15 average. The lowest ones, however, were also strikingly below the corresponding EU-15 level. Lower quality, oversupply and low production costs are most commonly listed as the main reasons for the deviation from the EU average price level. Another reason is the competitiveness of the food processing and marketing sector, which is often still rather low. Many countries continue to experience excess capacity, particularly in primary processing sectors such as meat and dairy processing, as well as grain milling the countries are currently in the process of modernising or closing down food processors in order to comply with the gross compliance rules. This may be a realistic prediction, assuming the upward trend in the new Member States is going to continue as a result of CAP implementation. Furthermore, improvements in product quality are to be expected, partly due to higher standards imposed by EU regulations. In addition, improvements in the food processing sector could lead to a reduction of processing and marketing costs and increased demand.

Farmland prices

The farmland prices are much lower in Baltic countries than the EU (Figure 1). Markets of arable land are not active yet.

Substantial rise of land values can definitely be expected the certain time (5–6 years) after the accession to the European Union.

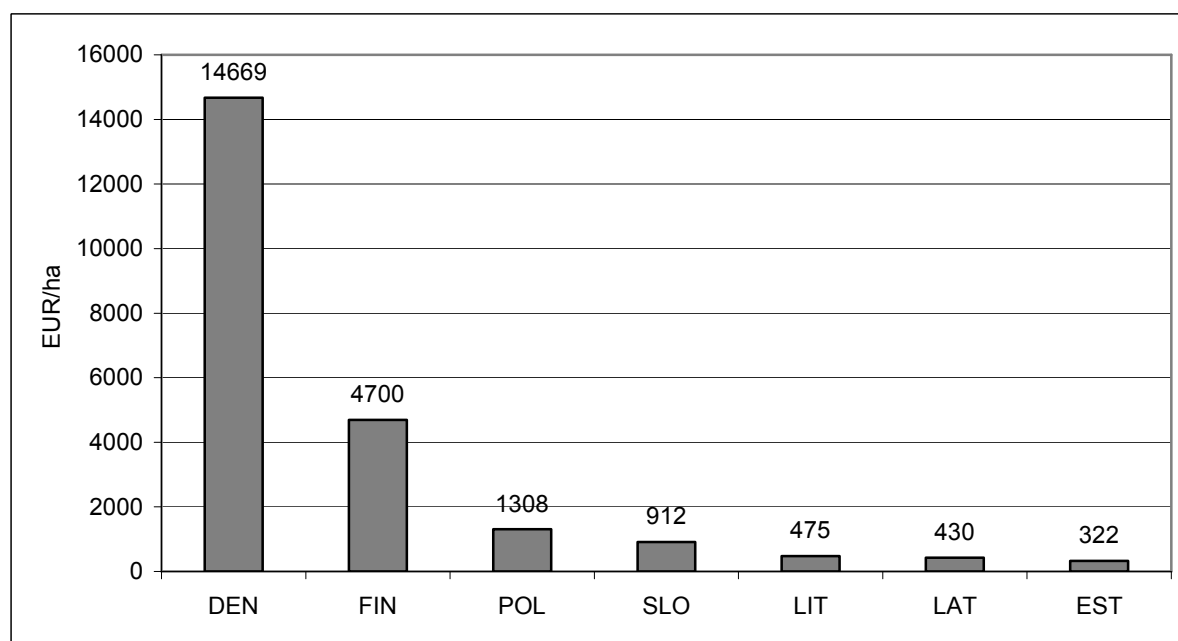


Figure 1. Average transaction prices for arable land DEN, FIN, POL, SLO-2003; LAT, LIT, EST – 2004
Joonis 1. Keskmised haritava maa tehingute hinnad (eurot hektar)

Sources/*Allikas*: Agriculture in the European Union – Statistical and Economic information 2004; <http://www.maaamet.ee>; Review of Baltic State Real Estate Market 2004

Land market activity and total price of sold parcels increased 3.2 times in Estonia in 2006 compared to 2001 (Figure 2) Land price increased by 2.4 times in Lithuania. Latvia had a 10% decrease in sales but price of arable land increased by 2.3 times. Rapid land price increase in all Baltic States has taken place after the accession to European Union (2004–2006).

The low market demand of farmland determined low level of farmland rents. These rents are generally lower than commercial interest rates. Sooner or later consider the rise of direct aid and investment support from Structural Funds will increase farm assets, and thus the land prices and rents must to run up.

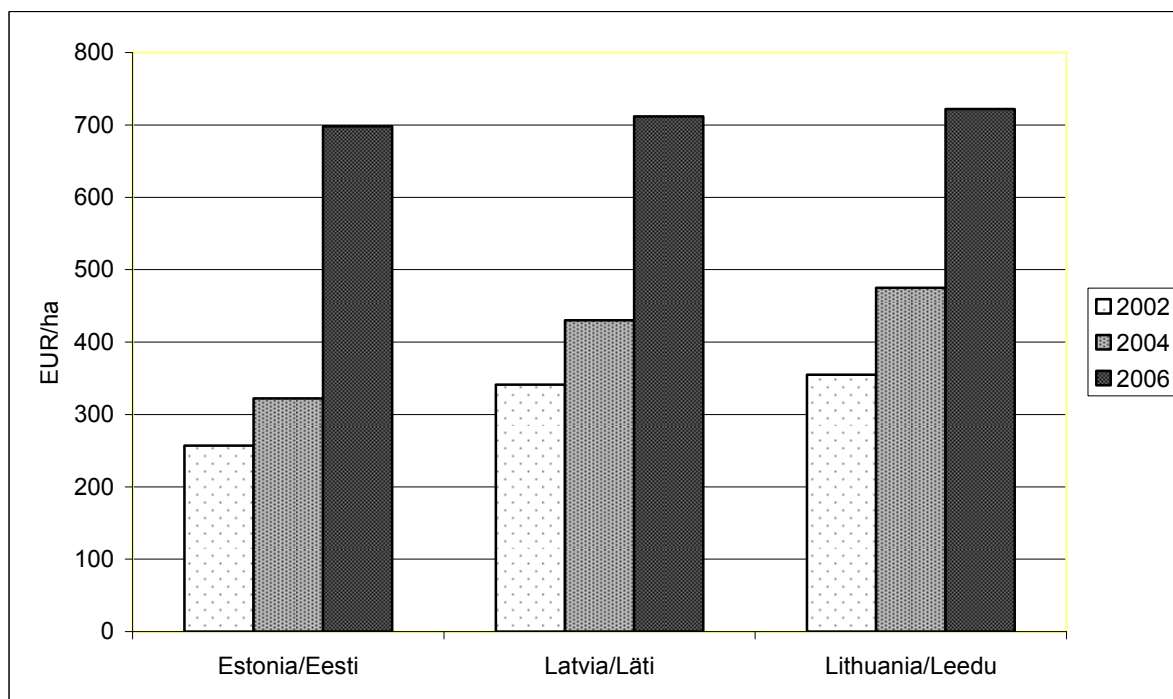


Figure 2. Transaction prices for arable land in Baltic States

Joonis 2. Haritava maa tehingute hinnad Baltimaades

Sources/Allikas: <http://www.maaamet.ee>; Review of Baltic State Real Estate Market 2001, 2004

Discussion and conclusions

Accession of the Baltic States into EU capital and employment market had influence in the first year of membership reliability and attraction of countries to foreign investors increased, new possibilities opened up to national business members. On another hand production quality requirements as well as active migration of citizens to western European countries increased. Economical growth, perfection of crediting system, increasing construction span and other factors has influenced further development of real estate market. Activity of majority real estate market types and prices will increase.

In six of the new Member States, structural changes will likely lead to an increase in the share of individual farms in overall land use. The direction of changes in individual farming in Poland, Hungary and Lithuania is a reduction in the number of holdings and an increase of the average farm size and share of the total area of agricultural land. In Slovakia, Bulgaria and the Czech Republic, where individual farming has the weakest position, an increase in the number of individual farms is also expected. For Romania and Latvia, the experts expect that individual farms will lose importance.

The future development of the farm structure and employment in agriculture is dependent on many factors. Among them are the expected earnings in agriculture, which are influenced by agricultural policy. However, the opportunity costs of labour of those engaged in agriculture are even more important for deciding to stay in agriculture or to leave the sector. They are dependent on the availability of off-farm income opportunities, the age structure and the endowment with human capital. There is evidence in many current EU Member States that general economic development is more decisive for structural change in agriculture than the economic situation in this sector itself. The same probably also holds for the New Member States.

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Põllumajandusettevõtete struktuuri arengud Euroopa Liidu uutes liikmesmaades

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Lühikokkuvõte

Põllumajandusettevõtte on ajalooliselt väljakujunenud ja seadustatud omandisuhetele tuginev institutsionaalne üksus, kelle põhimissiooniks on taime- ja loomakasvatussaaduste tootmine. Euroopa Liidu käesoleval arenguetapil, kus põhitähelepanu on suunatud ühenduse konkurentsivõime tõstmisele, on nii vanades kui uutes liikmesriikides märgata väikeste ja keskmise suurusega farmide kiiret vähenemist. Samas erineb uutes liikmesriikides suur- ning väiketootjate struktuur. Kui Slovakkias ning Tšehhi Vabariigis domineerivad suurtootjad, siis Leedus ja Sloveenias on põllumajandussaaduste tootmine koondunud väikestes tootmisüksustesse. Väikeste ja keskmise suurusega farmide põhiprobleemiks on finantsraskused uute tehnoloogiate rakendamisel, millela pole aga võimalik turukonkurentsist püsida. Sageli pole taolistel ettevõtetel võimalik järgida Euroopa Liidus kehtestatud ühtseid nõudeid (toiduohutus, keskkond). Teiseks on põhiliste põllumajandussaaduste hinnad Euroopa Liidu siseturul aastatel 2003–2006 pidevalt vähenenud.

Üheks suurimaks erinevuseks Euroopa Liidu uute ja vanade liikmesmaade vahel on põhilise tootmisvahendi, maa hind. Põhjuseks on, et senised maamüüki kitsendavad seadused uutes liikmesriikides ei võimalda veel maaturgu täielikult avada.