# Support available for investments by agriculture holdings in Latvia

## Ilze Upīte<sup>1</sup>,

### Andis Rukmanis<sup>2</sup>

<sup>1</sup> Department of Business and Management, Latvia University of Agriculture E-mail: ilze.upite@llu.lv

<sup>2</sup> The Rural Support Service E-mail: andis.rukmanis@lad.gov.lv The aim of the present study is analysis of the use of funds available for investments in agricultural holdings in Latvia before and after its accession to the European Union (EU). Investment support, increasing farms' productivity and competitiveness are the prerequisites for an agricultural holding to survive on the market. The support available for farm investments in Latvia significantly increased when programs co-funded by the EU became accessible: SAPARD (2000–2006), financing from the European Agricultural Guarantee and Guidance Fund (EAGGF) (2004–2006) and the European Agricultural Fund for Rural Development (EAFRD) (2007–2013). The investigation concerns the period from 1997 to 2008. The research deals with the following main topics: forms of investments and allocation of resources of investment support among the different regions and types of farms.

Key words: agriculture, rural development, EU support, national support, investment support

### INTRODUCTION

Latvia's accession to the EU radically impacted Latvian farmers by setting much tougher standards for product quality and production conditions and by increasing their incomes. The total amount of support was set for the new member states in the accession agreement. It provided a gradual increase in support, thus reaching the level of support of the EU member states in 2013 (Pilvere, 2008).

Several researchers (Pilvere, 2008; Špoģis, Radžele, 2007; Saktiņa, 2007; Mickiewicz, 2007; Saktiņa, Meyers, 2005; Mazūre, 2004, etc.) have analysed the amounts of support available for Latvian agriculture before and after the accession to the EU and the impact of support on the growth of the agricultural sector and on farm incomes.

According to Pilvere (2008), the availability of support payments of the EU Common Agricultural Policy (CAP) has promoted the development of Latvia's agricultural sector as the value of its agricultural output increased 2.7 times, while the net income of farms increased even fourfold over the period 2000–2007.

Mickiewicz (2007) points out that one of the prerequisites for an agricultural holding to survive on the market or to be able to adapt to market conditions is to increase its productivity and competitiveness. Investment is an important measure in achievings these goals (Mickiewicz, 2007). Špoģis and Radžele (2007) emphasise that the most important part in developing agricultural enterprises is investment support, the goal of which is to modernise limited agricultural production in terms of technology and machinery in order to raise labour productivity and reduce labour intensity.

When analysing the amounts of EU and national support available in Latvia for increasing farm competitiveness before and after the accession to the EU, several researchers have revealed a negative trend: this support concentrates in farms of economically most active regions.

The concentration of investment support in economically most active regions was identified by Mazūre (2004) while studying investments and loans for investments in rural areas before and after Latvia's accession to the European Union.

After evaluating the efficiency of support available for rural entrepreneurs, Saktiņa and Meyers have drawn a conclusion that the support funds have been allocated mostly for developing two industries – grain farming and dairy farming, and these funds have promoted the concentration of capital necessary for entrepreneurship in the economically most active central part of the country. These authors conclude that the support has led to polarisation among groups of entrepreneurs as both investment support and direct payments and compensations were gained by entrepreneurs who were not a priority target group for support, i. e. the entrepreneurs who would be able to ensure development of their enterprises without support, using bank loans (Saktiņa, Meyers, 2005).

According to a research carried out by Špoģis and Radžele (2007) in 2005, a higher proportion of investment subsidies in the total amount of subsidies (around 30–50%) and the largest amount of investment subsidies per ha of agricultural land were received by large farms.

The point of view of scientists (1998) from the Latvian State Agrarian Economics Institute is still considered topical: Latvia lacks a clearly defined and purposefully implemented structural policy for farms; it means that a certain level concentration of production resources is achieved or production resources are located in a certain territory. The government's policy relies on the views, capabilities, and decisions of private sector participants in choosing a rational business form, farm size, and location.

The urgency of the research topic is justified by a **hypothesis:** investment support is a significant instrument in increasing farm competitiveness, therefore, it is important to use it in Latvian farms.

The **aim** of the **research** was to prove the hypothesis, i. e. to analyse the use of funds allocated for investment support in farm groups and in regions.

To achieve the aim, the following research tasks were set forth:

• to define the term of investment support and to evaluate changes in its amount in Latvia in 1997–2008;

• to evaluate the use of investment support allocated from the support programs co-financed by the EU in Latvian farms in 2002–2008.

### METHODS AND CONDITIONS

Information of the Rural Support Service (RSS) and the Ministry of Agriculture (MoA), normative acts of the Republic of Latvia, and studies of other scientists on EU and national support for agriculture were used in the present research.

In the study, general and structural research methods were applied. To formulate the results, the descriptive method, synthesis, and the logically constructive method were used. The estimates done in the research are based on the authors' compilations of unpublished data on project proposals submitted to the RSS.

To evaluate the use of investment support in the regional aspect, the territorial division of Latvia into nine regions, which was elaborated by the RSS, was used:

• Eastern Latgale (EL – Rēzekne, Ludza districts);

• Southern Kurzeme (SK – Saldus, Kuldīga, Liepāja districts);

• Southern Latgale (SL – Preiļi, Daugavpils, Krāslava districts);

• Lielrīga (LR – Ogre, Rīga, Aizkraukle districts);

• Central Latvia (CL – Jēkabpils, Madona districts);

• Zemgale (ZE – Jelgava, Dobele, Bauska districts);

• Northeastern Region (NE – Gulbene, Balvi, Alūksne districts);

 Northern Kurzeme (NK – Talsi, Tukums, Ventspils districts);

• Northern Vidzeme (NV – Valmiera, Cēsis, Limbaži, Valka districts).

### **RESULTS AND DISCUSSION**

#### 1. A review of investment support in Latvia in 1997–2008

No definition of investment support is given in Latvian and foreign normative documents and studies. The authors of the research have defined investment support as a type of support used for co-financing long-term investments and / or promoting their availability in relation to establishing a new enterprise, expanding and modernising an existing enterprise, introducing new technologies and innovations in it, or changing the entire production process at an existing enterprise.

Increasing the efficiency and competitiveness of farms is an essential part of investment support received by Latvian rural entrepreneurs both from national funds and support programs financed by the EU.

The amounts of investment support allocated for Latvian farms for increasing their efficiency and competitiveness in the period 1997–2008 are shown in Fig. 1.



Fig. 1. Investment support paid to improve performance efficiency of rural enterprises in Latvia in 1997–2008 and on average per year, million LVL

*Source:* authors' construction based on data of the Ministry of Agriculture (1997–1999) and the Rural Support Service (2000–2008).

Since 1997, in compliance with the National Subsidy Regulation, support for modernising production has been allocated for Latvian farms; it included co-funding to be used for purchasing machinery and constructing farm buildings. National subsidy funds used for modernising farms were allocated also after Latvia's accession to the EU because in certain periods when EU structural funds were received with a delay, this support was financed from the national funds. Before and after Latvia's accession to the EU, investment support was received from the support programs co-financed by the EU. The amount of investment support available for farmers was mostly impacted by Latvia's accession to the EU because on average over the period 2007-2008, this support increased almost sevenfold (from 3.26 to 22.24 mill. LVL) as compared to the period before Latvia's accession to the EU (see Fig. 1).

The allocation of funds for investments in farms was started in 2002 under the SAPARD program; however, in the period 2004–2006 this support was allocated from the EAGGF in accordance with the Single Programming Document. Starting with 2007, investments in rural enterprises in Latvia were financed from the EAFRD under its measures.

# 2. Analysis of the use of investment support co-financed by the EU in Latvian farms

Owing to the support programs co-financed by the EU in the period 2002–2008, Latvian farms have received support for investing into increasing their efficiency and competitiveness, which amounted to almost 95 million LVL. It comprises 70% of the total investment support allocated for increasing the efficiency and competitiveness of farms (hereinafter in the text – investment support) in the period 1997–2008.

Therefore, studies on the use of funds for investments that were made in Latvian farms owing to the support programs co-financed by the EU are regarded as topical. Latvian rural entrepreneurs have received support for increasing the efficiency and competitiveness of farms under three programs co-financed by the EU: 1. SAPARD support program "Investments in Agricultural Holdings", Measure 1.1. Modernisation of agricultural machinery, equipment, and construction of buildings.

2. Measure "Investments in agricultural holdings" financed by the EAGGF for the period 2004–2006.

3. Measure "Modernisation of farms" financed by the EAFRD for the period 2007–2013.

The goal of all the investment support measures is to increase the efficiency of agricultural production and to promote the development of commercial and competitive farms in order to increase farm incomes and the economic and social wellbeing of farmers.

The implementation of the SAPARD program in Latvia was completely finished, and 826 projects were supported under the measure "Investments in agricultural holdings". Under the measure "Investments in agricultural holdings" financed by the EAGGF, 819 projects were implemented. The submission of projects under the measure "Modernisation of farms" co-financed by the EAFRD was started in 2007, and presently its fifth round is over. In the analysis of data, information on the activities planned in 1893 projects submitted and approved in the first three rounds is also included.

The main provisions for receiving investment support under the measures co-financed by all the EU support programs are compiled in Table 1.

Under all the measures, purchase of new machinery and equipment as well as construction and reconstruction of production buildings are co-financed. A substantial change in the measure for investment support financed by the EAGGF is related only to the projects submitted starting with 2006. Referable costs of these projects include only construction of production buildings and purchase of stationary equipment for these buildings. Similar provisions are set in relation to support intensity; however, a decrease in support intensity is observed for the measure financed by the EAFRD due to a 25% support rate introduced for the referable cost of machinery and equipment worth more than LVL 35000.

Table 2 includes a compilation on investments co-financed by the EU in Latvian farms by objects.

Table 1. <b>Provisio</b> r	ns of allocating investme	ent support under p	programs co-financed by	y SAPARD, EAGGF	and EAFRD in Latvia
	· · · · · · · · · · · · · · · · · · ·				

Provisions	SAPARD	EAGGF	EAFRD
Purchase of new machinery	×	×*	×
Purchase of new equipment	×	×	×
Construction, reconstruction, renovation	×	×	×
Investments in perennial crops	-	×	_
Purchase of breeding animals	For milk and meat production	X*	_
Rate of support as % of referable costs	45–50	45–65	25–45
Maximum amount of referable costs within the programming period	540 000 EUR	800 000 EUR 180 000 EUR**	421 000 LVL

\* Not included in referable costs for projects after 2006.

\*\* Maximum amount of referable costs for projects after 2006.

Source: authors' summary based on data of support programs.

Table 2. Grouping of investments.	oy object type co-fina	nced by SAPARD, EAC	<b>5GF and EAFRD in Latv</b>	ia in 2002–2008, th	ous. LVL				
		SAPARD			EAGGF			EAFRD	
Object of investments	Thous. LVL	Proportion, %	Average value per unit, LVL	Thous. LVL	Proportion, %	Average value per unit, LVL	Thous. LVL	Proportion, %	Average value per unit, LVL
Tractors	13020,90	23.80	33821	14866,37	20.91	34735	19799,70	42.13	32945
Grain harvesters	11094,57	20.27	74963	10155,22	14.30	82563	9208,40	19.59	89402
Machinery for soil tillage	3097,02	5.66	8129	3270,89	4.60	9162	2575,58	5.48	9683
Machinery for sowing	2605,95	4.76	15063	2618,83	3.68	18186	2764,62	5.88	23833
Machinery for sown area maintenance	1429,55	2.61	6743	1381,36	1.94	8633	1497,89	3.19	11434
Transportation and loading machinery	704,29	1.29	8695	1565,11	2.20	4312	1977,73	4.21	10039
Other machinery for crop farming	468,45	0.86	8517	429,86	0.60	4830	508,98	1.08	5719
Feed and fodder preparation machinery	2545,85	4.65	9191	3142,48	4.42	9297	4633,69	9.86	8677
Other machinery for livestock farming	192,68	0.35	14821	I	I	I	65,58	0.14	9368
Machinery in total	35159,26	64.25	×	37430,12	52.65	×	43032,17	91.56	×
Milking and cooling equip- ment	1888,22	3.45	7125	2183,55	3.07	15709	169,94	0.36	8944
Livestock farm equipment	6068,31	11.09	26044	4750,01	6.69	12500	227,85	0.49	10357
Other equipment	5343,49	9.76	23855	7374,32	10.37	13481	1970,07	4.19	19314
Equipment in total	13300,02	24.30	×	14307,88	20.13	×	2367,86	5.04	×
Newly buildings	4563,67	8.34	86107	10713,56	15.07	88542	1101,53	2.34	57975
Reconstruction and renovation	995,15	1.82	47388	7206,50	10.14	79192	219,24	0.47	54809
Manure storage facilities	164,87	0.30	54957	1166,16	1.64	83297	276,21	0.59	138104
Construction in total	5723,69	10.46	×	19086,22	26.85	×	1596,98	3.40	×
Purchase of land	I	I	I	5,50	0.01	5500	I	I	I
Perennial crops	Ι	I	I	0,74	Ι	742	I	I	I
Breeding animals	538,87	0.99	341	258,94	0.36	666	I	I	I
Investments in total	54721,84	100.00	×	71089,40	100.00	×	46997,01	100.00	×
Source: authors' calculations based on un	published SAPARD, EAGO	5F, EAFRD project data.							

Support available for investments by agriculture holdings in Latvia

173

The differences by types of investment objects are large among various programs (SAPARD, Structural Funds) for the period 2004–2006 and the Rural Development Program for 2007–2013. Under the first two programs implemented in Latvia, the proportions of investments for purchasing machinery are quite equal accounting for 64% and 53% of total investments, whereas under the newest program the purchase of machinery accounts for almost 92% of total investments. As to the cost item of machinery, the largest funds, under all the measures, are spent on tractors (24%, 21%, and 42% of total investments, respectively) and grain harvesters (20%, 14%, and 20% of total investments).

Investments in equipment are quite equal under the measures financed by SAPARD and Structural Funds, whereas investments in equipment using the EAFRD's co-funding account for only 5% of the total funds. Under the programs of SAPARD and Structural Funds, the proportions of funds spent on livestock farm equipment and other equipment are quite equal (17–21% of the total investments). In the group of other equipment, the highest proportion belongs equipment related to grain pre-processing.

The highest proportion of investments in construction (almost 27%) is allocated from Structural Funds. However, the EAFRD investments in construction are very small – only 3% of the total investments. Such a trend can be explained by the negative experience gained from applying for previous support programs in implementing construction projects due to their large size, long implementation time, and complex project documentation.

After comparing the average values of units of machinery, one can conclude that more and more expensive machinery is acquired among almost all types of machinery purchased with the help of EU support. This trend could be partially explained by an increase in prices in the country. However, the average cost of a unit of the most popular machinery – tractors – decreases. Such a trend could be explained by a change in priorities of support recipients as under the SAPARD program expensive and high capacity tractors were purchased, whereas the funding of the EA-GGF and the EAFRD was used for acquiring lower capacity tractors (see Fig. 4). Under the latter two programs, relatively cheaper tractors manufactured in the Commonwealth of Independent States, which could not be purchased during the implementation of the SAPARD program, become most popular.

An analysis of the proportions of funds invested in construction has shown that the average size of a project implemented under the support measure financed by the EAGGF is larger than under both other programs.

A similar trend is observed when analysing the number of projects for acquiring machinery and equipment as well as the number of construction projects (see Fig. 2).

Data of Fig. 2 show that the number of units of tractors and machinery for tilling soil and preparing feed accounts for 62% of the total number of units of machinery purchased under the support measures co-financed by the EU.

A more detailed analysis on the number of projects for purchasing machinery and equipment and the number of construction projects under every support measure is shown in Fig. 3.

The largest proportion of purchased units of machinery among all the investment support measures comprises tractors (22%, 21%, and 29% of the total number of purchased units of machinery), followed by soil tillage machinery (22%, 18%, and 13%) and feed preparation machinery (16%, 17%, and 26%).

Fig. 4 shows the distribution of the most popular machinery – tractors – by their capacity among all the investment support measures.

After analysing the distribution of support funds by regions (Table 3), one has to conclude that, under all the three support programs, the largest amounts of support have been received by farmers in the regions where intensive agriculture prevails.

Farmers in Zemgale, Northern Vidzeme and Southern and Northern Kurzeme have attracted 77% of all the investments during the performance period of the analysed programs. In Zemgale region, 25% of all the investments are made.



Fig. 2. Structure (per cent) of machinery units purchased with co-funding of SAPARD, EAGGF and EAFRD in Latvia in 2002–2008

Source: authors' construction based on unpublished data of the Rural Support Service.



Fig. 3. Number of units of machinery, equipment, and construction projects made with co-funding of SAPARD, EAGGF and EAFRD in Latvia in 2002–2008 Source: authors' construction based on unpublished data of the Rural Support Service.



**Fig. 4.** Number of tractors purchased with cofunding of SAPARD, EAGGF and EAFRD and grouped by their capacity in Latvia in 2002–2008 *Source:* authors' construction based on unpublished data of the Rural Support Service

The greatest changes in making investments by using EU co-funding took place in the measure financed by the EAFRD. During 2007–2008, a substantial decrease both in the average size of projects and in the size of land area of project submitters was observed.

A compilation of data in Table 3 shows that the largest part of investment support was attracted by farms with a large land area (see the average land areas of projects by region). Of the projects submitted, 78% were implemented in grain farming and dairy farming. Such a trend was observed during the performance period of all the support programs. While doing the research on investment support funds in Latvian farms and their regional distribution, the authors stated that the hypothesis has not been proven. The authors forecast that the concentration trend of investment support in the most active regions of the country will be observed in the future, if the provisions of allocating investment support funds are not substantially revised. Since 2007, the investment support funds have been distributed among the regions with regard to the area of agricultural land in a region. Therefore, in fact, since 2008 a larger funding for investments is available in the regions that had a smaller share of investment support. That is why the prevalence

Indicates El St L L C Z ML <th <="" th=""><th>Table</th><th>3. SAPARD, EAGGF and EAFRD investments grouped by</th><th>y regions in Lat</th><th>via, 2002–2008</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th>	<th>Table</th> <th>3. SAPARD, EAGGF and EAFRD investments grouped by</th> <th>y regions in Lat</th> <th>via, 2002–2008</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	Table	3. SAPARD, EAGGF and EAFRD investments grouped by	y regions in Lat	via, 2002–2008								
Indextination Indextin		Indicators	EL	SK	SL	LR	CL	ZE	NE	NK	NN	Total	
Model Signer </td <td></td> <td>Total investments, thous. LVL</td> <td>1616,39</td> <td>5188,91</td> <td>2495,86</td> <td>6339,53</td> <td>2184,63</td> <td>19858,06</td> <td>2496,39</td> <td>4579,65</td> <td>9962,40</td> <td>54721.83</td>		Total investments, thous. LVL	1616,39	5188,91	2495,86	6339,53	2184,63	19858,06	2496,39	4579,65	9962,40	54721.83	
Reduction, % 34 33 9 32 48 24 13 20 1   Reduction, % 7 13 14 12 11 9 8 9 1   Restruction, % 5 72 77 64 80 87 96 81 7   Restruction, % 55 72 77 64 80 87 96 81 338 379 310   Reduction, % 55 58 610 653 81 435 147 10 429 379 310   Relativestments, thous, LVL 192,56 664 218 435 78 669 317 40 379 317   Restruction, % 55 58 40 37 38 111 16 10 17 1   Restruction, % 52 58 33 313 38 313 36 31 31 31 31 31		incl. machinery, %	56	53	76	55	40	66	79	70	69	63	
Model Table <t< td=""><td>۵۶</td><td>equipment, %</td><td>34</td><td>33</td><td>6</td><td>32</td><td>48</td><td>24</td><td>13</td><td>20</td><td>17</td><td>26</td></t<>	۵۶	equipment, %	34	33	6	32	48	24	13	20	17	26	
Propertion of projects in grain and milk production,% 5 72 77 64 80 87 96 81 73   Average area of agricultural land per project 516 664 218 435 218 693 333 339 333 309 33   Average area of agricultural land per project 516 664 218 613960 960988 4345,94 1497910 4229,40 11265,73 102   Incl. machinery, % 553 30 30 30 11 16 10 17 1   Incl. machinery, % 23 19 37 30 11 22 69 37 46 37 102   Incl. machinery, % 10 23 23 23 11 22 21 46 33 37 37 48   Incl. machinery, % 72 88 339 233 581 450 378 33 7 9 37 37 36 37 37	APA	construction, %	7	13	14	12	11	6	8	6	11	11	
Netage area of agricultural land per project 516 664 218 435 218 633 338 379 33   Iotal investments, thous. LVL 1962/64 83213 6139/60 9609.88 4345/4 14979/10 4229/40 11265/33 102   Incl. machinery, % 65 58 40 45 78 62 69 37 4   Proportion, % 213 19 37 30 11 16 10 17 1   Proportion, % 213 19 23 23 23 11 22 46 46 31 41 46 31 46 31 46 31 46 33 31 46 33 41 46 31 46	S	Proportion of projects in grain and milk production, %	65	72	77	64	80	87	96	81	77	78	
Indiametine ty, we chance the use that the use		Average area of agricultural land per project	516	664	218	435	218	693	338	379	354	424	
Incl. machinery, % 65 58 40 45 78 62 69 37 4   equipment, % 23 19 37 30 11 16 10 17 1   equipment, % 23 19 37 30 11 16 10 17 1   ronstruction, % 23 23 23 11 22 21 46 37 8 37 8   Poportion of projects in grain and milk 72 80 73 88 81 85 87 378 378 8 378 8 378 8 378 8 378 8 378 8 378 8 378 8 378 8 378 8 378 8 378 8 378 8 378 8 378 8 378 8 378 8 378 8 378 8 8 8 8 8 8		Total investments, thous. LVL	1962,64	8322,18	6139,60	9609,88	4345,94	14979,10	4229,40	11265,73	10242,91	71097.37	
Herity Construction		incl. machinery, %	65	58	40	45	78	62	69	37	47	56	
Noticition,% 10 23 23 11 22 21 46 33   Proportion of projects in grain and milk 72 80 73 8 77 8 77 8   Proportion of projects in grain and milk 72 80 73 8 71 8 339 813, 56 87 77 8   Average area of agricultural land per project 512 447 268 399 233 581 450 378 33   Average area of agricultural land per project 512 447 268 399 233 581 450 378 338 33 <t< td=""><td>Ę</td><td>equipment, %</td><td>23</td><td>19</td><td>37</td><td>30</td><td>11</td><td>16</td><td>10</td><td>17</td><td>18</td><td>20</td></t<>	Ę	equipment, %	23	19	37	30	11	16	10	17	18	20	
Proportion of projects in grain and milk 72 80 73 68 81 85 77 8   production, % production, % 512 447 268 399 233 581 450 378 33   Average area of agricultural land per project 512 447 268 399 233 581 450 378 33   Total investments, thous. LVL 2828/3 8127,84 5548,88 2964,90 4037,41 8038,03 4319,36 5084,99 604   Incl. machinery, % 98 96 94 91 96 85 97 86 8   equipment, % 2 44 5 94 91 96 37 9 7 9   construction, % 2 44 5 94 3 6 3 7 9 7 9   fourturel mont, % 7 7 7 7 7 7 7 7 7 7	BAG	construction, %	10	23	23	23	11	22	21	46	35	24	
Average area of agricultural land per project 512 447 268 399 233 581 450 378 33   Total investments, thous. LVL 2828,73 8127,84 5548,88 2964,90 4037,41 8038,03 4319,36 5084,99 604   Incl. machinery, % 98 96 94 91 96 85 97 86 8   incl. machinery, % 2 43 5 94 91 96 85 97 86 8   incl. machinery, % 2 4 5 94 91 96 33 7 9   equipment, % 2 4 5 94 96 33 7 9 9 7 9 9 7 9 9 7 9 9 7 9 7 9 7 9 7 9 7 9 7 7 7 7 7 7 7 7 7 7	3	Proportion of projects in grain and milk production, %	72	80	73	68	81	85	85	77	82	78	
Total investments, thous. LVL 2828,73 8127,84 5548,88 2964,90 4037,41 8038,03 4319,36 5084,99 604   Incl. machinery, % 98 96 94 91 96 85 97 86 8   Red 22 44 5 94 91 96 33 7 86 8   Red 22 44 5 94 34 6 3 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 <td></td> <td>Average area of agricultural land per project</td> <td>512</td> <td>447</td> <td>268</td> <td>399</td> <td>233</td> <td>581</td> <td>450</td> <td>378</td> <td>327</td> <td>400</td>		Average area of agricultural land per project	512	447	268	399	233	581	450	378	327	400	
Incl. machinery,% 98 96 94 91 96 85 97 86 8   Requipment,% 2 4 5 9 3 6 3 7 9   Requipment,% 2 4 5 9 3 6 3 7 9   Requipment,% - - - 1 - 1 9 - 6 8 7 9   Reportion,% - - 1 - 1 9 - 6 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 8 7 9 7 9 7 9 7 9 7 9 7 9 8 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 <td< td=""><td></td><td>Total investments, thous. LVL</td><td>2828,73</td><td>8127,84</td><td>5548,88</td><td>2964,90</td><td>4037,41</td><td>8038,03</td><td>4319,36</td><td>5084,99</td><td>6046,84</td><td>46996.99</td></td<>		Total investments, thous. LVL	2828,73	8127,84	5548,88	2964,90	4037,41	8038,03	4319,36	5084,99	6046,84	46996.99	
Requipment,% 2 4 5 9 3 6 3 7 9   Requipment,% - - 1 - 1 9 - 6 8   Restruction,% - - 1 - 1 9 - 6 8   Proportion of projects in grain and milk 77 74 79 81 71 79 86 76 7   Production,% 132 249 113 340 228 542 260 331 2 <sup>-</sup> Average area of agricultural land per project 132 248,434 18914,31 10567,98 42875,19 11045,15 20930,37 2655		incl. machinery, %	98	96	94	91	96	85	97	86	87	92	
Construction,% - - 1 9 - 6 8   Proportion of projects in grain and milk 77 74 79 81 71 79 86 76 7   Proportion, % 7 74 79 81 71 79 86 76 7   Average area of agricultural land per project 132 249 113 340 228 542 260 331 2 <sup>-</sup> Investments in total, thous.LVL 6407,76 21638,93 14184,34 18914,31 10567,98 42875,19 11045,15 20930,37 2625	D	equipment, %	2	4	5	6	e	9	e	7	5	5	
Proportion of projects in grain and milk 77 74 79 81 71 79 86 76 7   production, % Average area of agricultural land per project 132 249 113 340 228 542 260 331 2   Investments in total, thous. LVL 6407,76 21638,93 14184,34 18914,31 10567,98 42875,19 11045,15 20930,37 2625	EAFR	construction, %	I	I	-	I	-	6	I	9	8	ß	
Average area of agricultural land per project 132 249 113 340 228 542 260 331 2   Investments in total, thous. LVL 6407,76 21638,93 14184,34 18914,31 10567,98 42875,19 11045,15 20930,37 2625	I	Proportion of projects in grain and milk production, %	77	74	79	81	71	79	86	76	76	78	
Investments in total, thous. LVL 6407,76 21638,93 14184,34 18914,31 10567,98 42875,19 11045,15 20930,37 2625		Average area of agricultural land per project	132	249	113	340	228	542	260	331	215	268	
	Inv	estments in total, thous. LVL	6407,76	21638,93	14184,34	18914,31	10567,98	42875,19	11045,15	20930,37	26252,15	172816,19	

Source: authors' construction based on unpublished data of the Rural Support Service.

of the four above-mentioned regions in attracting investment support from the measure financed by the EAFRD has substantially decreased as compared to the performance results of the first two support programs.

In their research, Saktiņa and Meyers (2007) suggest taking into account some basic principles that are essential to enhance the targeting of available resources in general and especially for the identified lagging rural areas of Latgale region. First, it is important to take a place-based (territorial) approach to the allocation of available funds. The second and related principle is to set a maximum grant size for each measure.

The authors believe that investments are a type of support for developing market-oriented farms and increasing their competitiveness. However, social goals, such as increasing employment in rural areas and preserving the rural environment, should be implemented with the help of other support mechanisms. In her research, I. Pilvere found that the largest number of farms producing agricultural commodities for sale are located in Southern Kurzeme, Central Latvia and Zemgale (Pilvere, 2008). Sproģis, Sproģe, Sproģis (2008) emphasise that differentiating support payments only by location of farms does not promote a rational location of farms and production of agricultural products under most advantageous conditions. Therefore, the authors believe that the trends in attracting investment support, observed so far, possibly reflect the most appropriate distribution of support of this type in Latvian farms, concentrating the funds planned for investments in developing market-oriented farms and not for achieving social goals.

### CONCLUSIONS

1. Investment support is an important instrument for improving the efficiency and competitiveness of farms. A substantial increase in investment support available for Latvian farms took place after Latvia's accession to the EU.

2. The investment support for improving the efficiency and competitiveness of farms in 2002–2008 was allocated under the support measures co-financed by the following three EU support programs: SAPARD, EAGGF, and EAFRD.

3. During the period 2002–2008, Latvian farms have received support for investing in increasing their efficiency and competitiveness, which amounted to almost 95 million LVL; part of these funds were co-financed by the EU. It comprises 70% of the total investment support allocated for increasing the efficiency and competitiveness of farms in the period 1997–2008.

4. The purchase of machinery, which takes more than a half of the total investments, prevail in the farm investments co-financed by the EU in the period 2002–2008. As to the cost item of machinery, the largest funds are spent on tractors and grain harvesters. The number of units of tractors and machinery for tilling soil and preparing feed accounts for 62% of the total number of units of machinery purchased.

5. Farmers in Zemgale, Northern Vidzeme, and Southern and Northern Kurzeme have attracted 77% of all the investments during the analysed period when the EU support was available. Of all the investments co-financed by the EU, 25% are made in Zemgale region.

6. The largest part of investment support was attracted by farms with a large land area. Of the projects submitted, 78% were implemented in grain farming and dairy farming.

> Received 16 June 2009 Accepted 8 October 2009

### References

- Latvian agriculture and rural areas in 1998: politics and development. *Research Results*. Latvian State Institute of Agrarian Economics, 1999. No. 7.
- 2. Mazure G. Loans. *Guarantees and Investments to Promote* the Role of Rural Entrepreneurship. Doctoral Thesis. 2004.
- Mickiewicz P. Investment by agricultural holdings under programs co-funded by the EU. *Economic Science for Rural Development*. 2007. No. 14. P. 122–128.
- Pilvere I. Agriculture and rural development in Latvia subsequent to accession to the European Union. *Economy & Business: International Scientific Publications*. 2008. Vol. 2. P. 464–478.
- Pilvere I. The profile of Agriculture and its largest enterprises in Latvia. *Economic Science for Rural Development*. 2008. No. 16. P. 157–164.
- Rural Support Service. State Support. 2009. http://www.lad. gov.lv/index.php?s=144
- Rural Support Service. Rural Development Program (2007 to 2013). 2009. http://www.lad.gov.lv/index.php?d=3375
- 8. Rural Support Service. *Public Reports 2000 to 2008*. http://www.lad.gov.lv/index.php?s=199
- Saktina D., Meyers W. H. Rural Support Programs Cofunded by the European Union and the National Rural Support Programs in Latvia. 2005.
- Saktiņa D., Meyers W. H. Method and approach for achieving rural development objectives through more targeted and appropriate support policy: Case study of a polarized and centralized country, Latvia. *Economic Science for Rural Development*. 2007. No. 14. P. 59–66.
- SAPARD Programme for Agriculture and Rural Development for Latvia 2000–2006. http://www.lad.gov.lv/index. php?s=145
- Sprogis J., Sproge I., Sprogis A. Latvian agricultural change in the regional specialization. *Economic Science for Rural Development*. 2008. No. 15. P. 257–264.
- Spogis K., Radzele A. Relationships of the subsidization and labor productivity in Latvian agricultural enterprises. *Economic Science for Rural Development.* 2007. No. 14. P. 13–18.

### Ilze Upīte, Andis Rukmanis

### PARAMA INVESTICIJOMS LATVIJOS ŽEMĖS ŪKYJE

### Santrauka

Šio straipsnio tikslas – pateikti analizę apie investicinių fondų panaudojimą Latvijos ūkininkų ūkiuose iki ir po įstojimo į Europos Sąjungą (ES). Investicinė parama, skatinanti ūkių našumą ir konkurencingumą, yra viena svarbiausių sąlygų ūkininkų ūkiams išsilaikyti rinkoje. Parama, skiriama investicijoms į Latvijos ūkius, žymiai padidėjo pradėjus naudoti bendro finansavimo programas: SAPARD (2000–2006), finansuojama iš Europos žemės ūkio orientavimo ir garantijų fondo (EŽŪOGF) (2004–2006) ir Europos žemės ūkio fondo kaimo plėtrai (EŽŪFKP) (2007–2013). Tyrimai apima 1997–2008 metus pagal temas: kokios rūšies investicijos buvo vykdytos; kaip buvo paskirstytos investicinės paramos lėšos pagal atskirus regionus ir ūkių tipą.

**Raktažodžiai:** žemės ūkis, kaimo plėtra, ES parama, nacionalinė parama, investicinė parama