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THE USE OF CAPITAL AND CONDITION OF ECONOMICALLY WEAK FARMS IN THE SELECTED CENTRAL AND EASTERN EUROPEAN COUNTRIES

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Abstract

This paper shows the economic situation of economically weak farms in 8 countries of Central and Eastern Europe (CEE) in 2010. The data were obtained from the survey on EU farms carried out under the FADN system. The study included countries in which economically weak farms were the dominant farm type (i.e. Bulgaria, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia). The aim of the study was to assess the economic performance of those farms and indicate advantages of the competing farm types. The analysis was performed in terms of total factor productivity, income levels, assets and debt level. The influence of CAP instruments on management efficiency was also demonstrated. The study found a high diversity in terms of production potential as well as financial condition of farms in particular countries, whereas one point of correspondence between farms is the prevalence of fixed assets, i.e. an excessive assets-to-area ratio, and the dominance of own capital in financing those assets. Romanian, Polish and Bulgarian farms are characterised by the highest efficiency of use of current outlays and, in turn, a lower cost of the production unit, which accounted for 66%, 86% and 87% of the output value respectively. In Latvia, Estonia and Slovenia, the costs exceeded the output value by 6%, 7% and 23% respectively and, as a result, the income of those farms was generated exclusively due to subsidies.

Key words**:** *asset structure, asset utilisation efficiency, income of economically weak farms*

INTRODUCTION

According to the FADN study [1], the majority of Central and Eastern European (CEE) countries have an unfavourable farm structure in terms of economic power. The dominant farm types are very small and small farms, i.e. of economic size from EUR 2 thousand to EUR 25 thousand. In Poland, farms of these two classes of economic size amounted to 79.6% in 2010. Even higher percentages were recorded in Bulgaria (90.6%) and Romania (97.5%).

These types did not constitute the majority of farms only in Slovakia and the Czech Republic. In those countries, only the second economic size class was represented, i.e. farms from EUR 8 thousand to EUR 25 thousand, accounting for 21.3% and 39.6% of farms in Slovakia and in the Czech Republic, respectively. The EU accession of Poland and other countries revitalised the economy of the entire agricultural sector. Considerable funds were allocated to agriculture. However, in spite of numerous support schemes, farms from first two economic size classes (i.e. very small and small ones) faced a rather difficult situation [2].

The income levels of those farms are often too low to maintain satisfactory living standards for their users [3]. It is often possible to receive income only with subsidies to operating activity of farms. Consequently, farms reduce expenses on current assets but, most importantly, they reduce investment expenditure [4]. Economic weakness of those farms causes difficulties in obtaining investment credits.

Little inclination of landholders towards external sources of financing (credits) is also noted in other countries, e.g. Romania or Bulgaria. High and fluctuating interest rates, strict requirements of banks concerning credit collateral and too short repayment period inconsistent with the specifics of agricultural production are believed to be main barriers to the use of investment credits by agricultural producers [5], [6], [7].

The study revealed that assets used for farm production are immobilised to a high degree. This is one of major barriers limiting possibilities of an effective use of assets owned. An asset structure dominated by current assets is more favourable for farms, as it improves their liquidity and, in turn, contributes to the increase of income [8], [9], [10].

Thus, management decisions should lead to an optimised use of current and fixed assets to achieve high economic performance and competitive advantage. As the farm asset value increases, so does the significance of asset management. As a result of the increasing mechanisation and the resulting increase in capital value per employee as well as the implementation of new technologies, making right decisions requires increasingly more expertise [11]. Unfortunately, some researchers indicate that CEE agriculture lacks appropriate qualifications and management skills, which is one of its weaknesses [12].

Sound asset management is particularly important in the case of economically weak farms, which are exposed to flawed performance to a greater extent than other farms. After the EU accession, numerous farmers from new Member States, including Poland, purchased many machines regardless of the size of the farm and potential capacity of the machinery. The majority of small farms in terms of utilised agricultural area (UAA) invested in used machinery, while farmers from larger farms purchased modern and expensive equipment [13].

In most cases, large farms in terms of UAA have a higher capital-to-labour ratio and lower assets-to-area ratio. Accordingly, their labour and land profitability rates are higher. Small farms, on the other hand, are characterised by a less favourable capital structure, which results in a lower profitability of own capital and lower asset management efficiency. As a result, the competitiveness of those farms is impaired [14].

Veveris et al. [15] proved that an unfavourable capital structure, combined with an expected increase in cost intensity of production, may cause a considerable decline in the competitiveness of economically very small and small farms. Farmers should primarily seek more efficient utilisation of assets owned.

The aim of this study was to show differences in productive capacity between economically very small and small farms in eight CEE countries. The study assessed economic performance of those farms, capital utilisation and development capacities, in particular propensity to invest.

The remaining part of the paper is organised in the following manner. The Materials and Methods section presents data sources and methods employed in the analysis of results. The Results and Discussion section contains the findings of the study and their synthetic analysis. The final section of the paper, Conclusions, presents main conclusions arising from this study.

MATERIALS AND METHODS

The sample consisted of farms with the economic size of EUR 2 thousand to EUR 25 thousand (i.e. economically very small and small farms), which were deemed economically weak. The analysis employed data from 2010 (most up-to-date and accessible), collected and processed within the EU Farm Accountancy Data Network (FADN) [1]. FADN information is aggregated into the Standard Results Database, including the average values for groups of farms selected by economic size. Results for previous years are not presented due to the modification of Community Typology for Agricultural Holdings parameters.

The study covered economically weak farms in eight CEE countries, i.e. Bulgaria, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovenia. The countries were selected due to the dominant share of economically weak farms (from EUR 2 thousand to EUR 25 thousand) in the total number of FADN sample (the share of those farms was from 69.0% in Estonia to 97.5% in Romania). Additional criteria included close proximity of the countries to Poland, which indicated similar conditions for agricultural

production, as well as the exact or similar date of the EU accession.

Results of economically weak farms are shown for each country in tabular form. Particular items are to be interpreted as average results for two joint classes of economic size, i.e. very small and small farms. This means that calculations included the number of farms from both classes of economic size. The study employed the horizontal analysis, comparing parameters typical of economically weak farms in particular countries.

The assessment covered farm resources i.e. utilised agricultural area, assets and labour. The study also analysed the capital-to-area ratio and capital-to-labour ratio, expressed by the relation of machinery and equipment value to UAA and the number of full-time workers respectively (AWU – Annual Work Unit, total labour input expressed in full-time person equivalents = 2200 hours/year).

Total factor productivity, i.e. land, labour and capital, was the indicator of farm efficiency [16]. Total factor productivity was calculated as the relation of the output value to utilised agricultural area, the number of full-time workers and the total asset value of farms.

The basic measure of economic performance and competitiveness of farms was farm income. However, in order to carry out the study according to the established aim, other data were also analysed, i.e. farm assets, its utilisation and debt level. The study employed the following indicators:

$$\text{fixed assets to current assets [ratio]} = \frac{\text{fixed assets}}{\text{current assets}} \quad (1)$$

$$\text{the indicator of debt structure [\%]} = \frac{\text{long-term liabilities}}{\text{liabilities in total}} \quad (2)$$

$$\text{Debt-to-equity [ratio]} = \frac{\text{liabilities in total}}{\text{own capital}} \quad (3)$$

Fixed assets to current assets ratio shows the degree of immobilisation of assets used for farm production. The higher the indicator value, the longer the period of the immobilisation of the assets. If the indicator value exceeds 1.0, that indicates that the fixed asset value is higher than the current asset value. In that case, farms are less flexible in terms of restructuring and adapting to market transformations [17].

The debt structure indicator is a percentage ratio of the long-term liability value to the total liability value. The higher the indicator value, the more financially stable farms are [17].

The debt-to-equity ratio shows a percentage relation of the total liability value to the own capital value, i.e. total assets reduced by total liabilities. This indicator shows the financial risk of conducted activity. For small enterprises, including economically weak farms, the limit value is the ratio of 3:1, otherwise the risk is too high [18].

The assessment also included investment activity of farms, expressed by gross investment value (gross investment is the value of purchased and produced fixed assets, reduced by the value of assets sold and transferred) per 1 ha of UAA and EUR 100 of the total output value.

The assessment also covered the rate of farms' dependence on support in the form of subsidies. Thus, the impact of the CAP on economic performance of farms was determined.

RESULTS AND DISCUSSIONS

Analysis of farm resources

Resources of a farm determine its productive capacity. In market economy conditions, in order to face new challenges farmers need to analyse occurring phenomena and properly manage their assets, i.e. farm resources. Data concerning agricultural land, farm assets and labour input were utilised to assess the differences between the farms studied in terms of the resources owned.

The data shown in Table 1 imply that economically weak farms in eight CEE countries were characterised by a great diversity with regard to agricultural area (variation coefficient was 64.4%). The smallest farms in terms of UAA were found in Romania (5.2 ha) and Bulgaria (5.5 ha),

whereas the largest farms were in Estonia (33.6 ha) and Latvia (34.1 ha). There were also different types of ownership, with the highest share of own land in the total agricultural area recorded in Poland (84.4%), Slovenia (76.1%) and Romania (74.6), and the lowest – in Bulgaria (28.2%). See Table 1.

Table 1. Characteristics of basic resources of economically weak farms in selected CEE countries in 2010

Specification	Utilised agricultural area (UAA)		Assets		Labour input	
	total area	own land share to total agricultural land	Total	fixed assets to total assets	total input	hired labour to total input
	[ha]	[%]	[EUR thousand]	[%]	[AWU]	[%]
Bulgaria	5.5	28.2	23.23	60.5	1.8	30.3
Estonia	33.6	56.2	52.65	84.5	1.1	8.5
Hungary	17.6	69.0	62.40	66.8	0.8	23.4
Latvia	34.1	67.6	41.74	67.4	1.5	8.5
Lithuania	23.0	62.7	56.99	70.7	1.5	4.2
Poland	10.7	84.4	92.29	90.8	1.4	3.6
Romania	5.2	74.6	26.54	80.0	1.3	6.7
Slovenia	8.4	76.1	168.79	95.0	1.6	1.8

Source: Own compilation based on FADN EU (Farm Accountancy…, 2013).

There is also a great diversity between countries in terms of asset value. The total asset value per farm reached from EUR 23.23 thousand in Bulgaria to EUR 168.79 thousand in Slovenia (the difference was 7.3-fold). In all countries, economically weak farms maintained higher fixed asset value than current asset value. The fixed asset to total asset ratio reached from 60.5% in Bulgarian farms to 95.0% in Slovenian farms. Such a high share of fixed assets is unfavourable, it generates high overhead costs and constitutes one of major barriers to efficient use of resources (for comparison, the fixed asset to total asset ratio for non-agricultural manufacturing companies is ca. 60%, and for service companies ca. 30% [16]). The adaptability of such farms to market situation changes is also lower. Their asset structure, however, stems from investment decisions taken much earlier.

Some researchers stress the fact that there is an increased demand in fixed assets in agriculture, which entails a relatively high share of fixed assets, buildings as well as machinery and equipment in the asset structure [19]. Their total share [B+M] in the farms studied reached from 38.4% in Poland to 63.6% in Romania – Table 2.

The specifics of agricultural production in particular countries also results in different levels of farms' current assets. A higher number of production activities involve maintaining larger resources, whereas farm specialisation helps optimise their volume. In the farms studied, the current asset to total asset ratio reached from 5.0% in Slovenia to 39.5% in Bulgaria.

While analysing the levels and structure of farm assets, it should be noted that they are determined by the natural character of cultivation and breeding processes in particular countries. As new technologies develop due to the scientific and technological progress, this dependence is declining. Nevertheless, it affects significantly the type of resources needed to conduct business activity.

Fixed assets of farms consist of four basic groups, namely land [L], buildings [B], machinery [M] and breeding livestock [S] – Table 2. The higher the share of land and breeding livestock in the fixed asset structure, the better the chances of achieving a high output value, since land and breeding livestock constitute the productive part of farmers' assets. The results indicate that in the majority of countries studied, the share of land remained high, amounting to 53.2–59.8%. The only exceptions were Lithuania and Romania (30.2%) and Bulgaria (34.1%), whose land share was considerably lower. All countries recorded a low share of

breeding livestock in the asset structure, reaching from 1.6% in Slovenia to 12.5% in Bulgaria.

Table 2. Fixed asset structure of economically weak farms in selected CEE countries in 2010 (%)

Specification	Land [L]	Buildings [B]	Machinery [M]	Livestock [S]
Bulgaria	34.1	27.2	26.2	**12.5**
Estonia	53.3	21.9	20.9	3.9
Hungary	53.2	23.3	20.8	2.7
Latvia	54.4	16.7	22.9	6.0
Lithuania	30.2	18.3	**47.5**	4.0
Poland	59.8	26.5	11.9	1.8
Romania	30.2	**52.7**	10.9	6.2
Slovenia	56.2	29.4	12.8	1.6

Legend: L – land, permanent crops and production quotas, B – buildings and fixed equipment, M – machinery, equipment and transport equipment, S – breeding livestock, female animals.
Source: See Table 1.

Labour force is another important farm resource. Expressed as the number of full-time workers (AWU), the highest employment was recorded in Bulgaria (1.8 AWU), and the lowest – in Hungary (0.8 AWU). Hired labour was used by farms to varying degrees, with the lowest share in the total employment in Slovenia (1.8%), and the highest – in Bulgaria (30.3%). See Table 1.

In order to provide a more detailed analysis of differences in productive capacity between farms, the volume of selected resources was compared to utilised agricultural area and labour input. The analysis used indicators concerning the assets-to-area ratio as well as capital-to-labour and capital-to-area ratios – Table 3.

The highest total asset value per 100 ha of UAA was noted by economically weak farms in Slovenia (EUR 2000.93 thousand), followed by Polish farms (EUR 858.60 thousand). Those countries also recorded the highest capital-to-area ratio, which reflects the value of machinery and technical equipment per 100 ha of UAA. The values for Slovenia and Poland were EUR 243.39 thousand and EUR 93.09 thousand respectively, whereas in Latvia, where the ratio was the lowest, the value amounted to EUR 18.02 thousand.

When set beside, the difference between the extremes was 13.5-fold.

It should be added that the order of countries was identical in terms of total assets owned and the value of buildings with fixed equipment. In terms of the capital-to-area ratio, two countries changed their prior positions.

Lithuania ranked among the group of countries with a higher capital-to-area ratio, while Romania joined the countries with a lower one.

This is a favourable change for Lithuania, reflected by a high capital-to-labour ratio, which influences labour productivity.

Table 3. Assets of economically weak farms in selected CEE countries in 2010

Specification	Per 100 ha of UAA			Per 1 AWU		
	total assets	machinery and technical equipment	buildings and fixed equipment	utilised agricultural area	machinery and technical equipment	buildings and fixed equipment
	[EUR thousand]	[EUR thousand]	[EUR thousand]	[ha]	[EUR thousand]	[EUR thousand]
Bulgaria	422.11	64.60	67.27	3.1	2.02	2.10
Estonia	156.49	27.83	29.13	31.2	8.69	9.09
Hungary	355.07	49.09	55.02	21.1	10.37	11.62
Latvia	122.56	18.02	13.13	22.4	4.04	2.94
Lithuania	248.09	82.27	31.71	15.7	12.93	4.98
Poland	858.60	93.09	206.92	7.5	7.00	15.55
Romania	506.41	42.37	205.73	4.1	1.73	8.41
Slovenia	2000.93	243.39	557.40	5.3	12.86	29.44

Source: See Table 1.

The capital-to-labour ratio is the value of machinery and equipment per 1 full-time worker (1 AWU). This indicator confined within EUR 1.73 thousand in Romania and EUR 12.93 thousand in Lithuania, the difference was 7.5-fold. The capital-to-labour ratio corresponds to the share of machinery and other technical equipment in the fixed asset structure. This share was the lowest in Romanian farms (10.9%) and the highest in Lithuanian farms (47.5%). It should be added that the difference between the capital-to-labour ratio extremes is nearly two times lower than in the case of the capital-to-area ratio.

Utilised agricultural area per 1 AWU was also assessed. This indicator did not exceed 10 ha in four countries (Bulgaria, Romania, Slovenia and Poland), whereas it amounted to 15.7–31.2 ha in the remaining ones (Lithuania, Hungary, Latvia and Estonia). The difference in farm area between the extremes was 10.1-fold – Table 3.

The indicators utilised in the analysis helped to assess the capital-to-labour ratio, the level of which influences labour productivity. The study revealed that labour productivity measured by net value added (EUR thousand) per full-time worker was the highest in Hungary (7.72) and Estonia (6.25), and lower in Lithuania (4.17), Latvia (3.85), Poland (3.76) and Romania (3.26), while the lowest labour productivity was recorded in Slovenia (1.46) and Bulgaria (2.57). Generally, it may be stated that more favourable results were obtained in those countries, where utilised agricultural area per 1 AWU was higher. However, it is a much more complex problem in reality.

The results of the study show that economic performance of farms is affected not only by the level of resources, but also by relations between them. Adequate production factors combined with inadequate relations do not guarantee good financial performance. Furthermore, excessive manufacturing component (machinery, buildings) leads to an increased cost intensity of production, as was the case with Slovenian farms, which, despite the highest productivity per ha (EUR 1,691 per 1 ha of UAA), achieved very low profitability (EUR 241 per 1 ha of UAA). The key factor of the situation was high cost intensity of production (EUR 100 of the output value cost EUR 123), which primarily resulted from an excessive use of fixed assets in the production process – Table 4 and 5.

A common phenomenon in agriculture is an asset structure incompatible with farming conditions. This may stem from the seasonal character of many farm works, whereby certain machines are only used for a few days per year. Hence, in order to increase production efficiency, one should aim for low unit costs to operate machinery by means of high annual operation, e.g. by collective use of machines. Similarly, if livestock buildings are not utilised rationally, leasing them may be a solution. A high assets-to-area ratio is not always favourable, it may be a sign of overinvestment, which leads to decreased management efficiency.

Total factor productivity and farm income

The findings shown in Table 4 prove that economically weak farms differ substantially in terms of land productivity, which was the highest in Slovenia (EUR 1,691 per 1 ha of UAA) and the lowest in Estonia (EUR 314 per 1 ha of UAA). The difference between the extremes was 5.4-fold. It is believed that land productivity was heavily influenced by technical capacity of plant and animal production. In the majority of the countries, the structure of the total output value was dominated by plant production (between 53.2% in Estonia and 76.9% in Hungary). Only three countries recorded a similar share of plant and animal production, namely Bulgaria (48.9 and 50.3% respectively), Latvia (46.5 and 46.0%) and Romania (49.3 and 50.4%).

The difference between the extremes of the asset productivity indicator (output value per EUR 100 of assets in total) was 4.5-fold. The highest indicator value was noted in Bulgaria (EUR 36) and the lowest – in Slovenia (EUR 8). Farm assets had the greatest influence on the value of this indicator. Their value was the lowest in Bulgaria (EUR 23.23 thousand) and the highest in Slovenia (EUR 168.79 thousand).

The output value per full-time worker, which was the measure of labour productivity, showed the slightest variation – only 3.7-fold. The highest labour productivity was recorded in Hungary (EUR 17.64 thousand) and the lowest in Bulgaria (EUR 4.77 thousand). Labour input was the main differentiating factor in the farms studied – Table 4.

Farm income is the economic result of agricultural activity. It determines the level of satisfaction of consumption needs of the farmer's family and farm development capacities. However, agricultural production is a complex process, and farm development, regardless of internal conditions arising from the quality and utilisation of productive capacity, i.e. land, labour and capital resources, is also determined by external factors arising from external impact on agriculture.

Table 4. Productivity and income of economically weak farms in selected CEE countries in 2010

Specification	Output value per:			Farm income (including subsidies) per:				Subsidies per:		
	1 ha of UAA	1 AWU	EUR 100 of total assets	farm	1 ha of UAA	1 FWU	EUR 100 of total costs	1 ha of UAA	1 FWU	EUR 1 of farm income
	[EUR]	[EUR thousand]	[EUR]	[EUR thousand]	[EUR]	[EUR thousand]	[EUR]	[EUR]	[EUR thousand]	[EUR]
Bulgaria	1528	4.77	36	2.90	527	2.36	40	329	1.47	0.62
Estonia	314	9.79	20	6.17	183	6.26	55	191	6.51	**1.04**
Hungary	835	17.64	24	5.08	289	7.98	38	239	6.58	0.83
Latvia	379	8.50	31	5.32	156	3.83	39	186	4.55	**1.19**
Lithuania	520	8.17	21	7.84	341	5.62	73	207	3.41	0.61
Poland	1050	7.89	12	4.96	462	3.60	51	336	2.62	0.73
Romania	1648	6.74	33	3.75	715	3.13	66	172	0.75	0.24
Slovenia	1691	8.93	8	2.03	241	1.30	12	673	3.62	**2.79**

Source: See Table 1.

External impact has increased considerably since the EU accession of respective countries. Increase in farmers' revenue is one of the objectives of the Common Agricultural Policy, it determines the achievement of competitive advantage as a precondition for the existence of farms in the future. In this regard, it should be stated that the most competitive were economically weak farms in Lithuania, where farm income (including subsidies) amounted to EUR 7.84 thousand. They were followed by farms from Estonia and Latvia, with farm income of EUR 6.17 thousand and EUR 5.32 thousand respectively. Bulgarian and Slovenian farms were the least competitive, with farm income of EUR 2.90 thousand and EUR 2.03 thousand respectively.

Subsidies have a major influence on the income level of farms. However, their impact is determined by the value of economic surplus and the amount of subsidies granted. In this context, it should be noted that the relatively high competitiveness of Estonian and Latvian farms was ensured entirely by subsidies. In both countries, farm income reduced by subsidies was negative (EUR -241 per farm in Estonia and EUR -1,006 per farm in Latvia), which means that costs were higher than the generated output value. Subsidies covered the production loss, while the remaining surplus generated some level of farm income. The amount of subsidies per EUR 1 of farm income was EUR 1.04 in Estonia and EUR 1.19 in Latvia. The situation was even more difficult for economically weak farms in Slovenia, where the amount of subsidies per EUR 1 of farm income amounted to as much as EUR 2.79. Accordingly, farmers' loss at the income level reduced by subsidies was EUR 3,642, and the amount of subsidies was 2.8 times higher than farm income including subsidies.

There are also wide variations in terms of farm income per 1 ha of UAA, as the measure of land profitability. The highest was achieved by farms in Romania (EUR 715). Compared to the lowest level in Latvia (EUR 156), the difference was 4.6-fold. High land profitability

of Romanian farms results from its high productivity (EUR 1,648 per 1 ha of UAA) and the lowest, when set beside the other countries, cost intensity of production (EUR 66 per EUR 100 of the output value). In Latvia, on the other hand, land productivity was relatively low (EUR 379), whereas the cost-to-output ratio was high (EUR 106) – Table 4 and 5.

Farm income determines competitive advantage of farms, but at the same time, its value per 1 unit of full-time family labour (FWU) indicates the potential amount of expenditure on work of the farmer and the family members. According to the study, the highest income per 1 FWU was obtained in Hungary and Estonia (EUR 7.98 thousand and EUR 6.26 thousand respectively), and the lowest – in Bulgaria and Slovenia (EUR 2.36 thousand and EUR 1.30 thousand respectively).

The results presented in Table 4 show that, depending on the country, the significance of subsidies received by the farmers differs as regards income generation of economically weak farms. They also indicate that the amount of subsidies is dependent on farm area. Subsidies for large farms in terms of UAA, e.g. in Estonia, Hungary or Lithuania, calculated per 1 unit of full-time family labour (1 FWU – Family Work Unit, labour input expressed in full-time workers = 2,200 hours/year), were a few times higher than in the case of smaller farms in terms of UAA i.e. in Bulgaria, Romania and Slovenia. Therefore, subsidies are not equally profitable for all farms.

Farm asset utilisation

The calculation results shown in Table 5 describe production efficiency and asset utilisation efficiency. Costs are an important decision element in the production process, and their level depends mainly on the farmer. The farmer must decide how to use production factors in order to provide optimal output. The study revealed that the cost of generating a production unit in the countries analysed varies greatly depending on the country. The total costs of generating EUR 100 of the output value amounted to EUR 66 in Romania, and as much as EUR 123 in Slovenia. Similar was the case of Estonia and Latvia – the total costs exceeded the output value by 7 and 6%, respectively. Situation of economically weak farms in those countries was extremely poor, farmers sustained losses and, as mentioned before, the income was generated entirely by subsidies.

It is estimated that the situation was heavily influenced by indirect costs incurred due to operating activity of farms, in particular the cost of fixed assets depreciation. The analysis of the share of depreciation cost in the total output value indicates that the cost of tangible assets amortisation had a relatively high share in both output value and total costs. This is indicative of excessive manufacturing component (buildings, machinery) – Table 5.

Table 5. Selected financial indicators of economically weak farms in selected CEE countries in 2010

Specification	Costs per EUR 100 of the output value		Depreciation cost to output value	Depreciation cost to total costs	Gross investment per:		Fixed assets to current assets	Debt structure indicator	Debt-to-equity
	total	direct			1 ha of UAA	EUR 100 of the output value			
	[EUR]	[EUR]	[%]	[%]	[EUR]	[EUR]	[ratio]	[%]	[%]
Bulgaria	87	37	10.0	11.5	241	16	1.5	72.9	6.20
Estonia	107	36	20.1	18.8	66	21	5.4	56.5	13.88
Hungary	90	37	12.9	14.3	37	4	2.0	50.8	12.82
Latvia	106	47	16.9	15.9	3	1	2.1	74.8	11.70
Lithuania	90	34	24.9	27.6	226	43	2.4	51.2	5.44
Poland	86	35	22.4	26.1	76	7	9.8	66.4	2.21
Romania	66	35	9.6	14.6	67	4	4.0	82.9	0.03
Slovenia	123	45	40.5	33.1	574	34	18.9	97.7	0.88

Source: See Table 1.

Economically weak farms in all examined countries were characterised by small capacity to restructure and, consequently, to adjust to the changes in the surrounding. These points to the assets immobilization ratio, i.e. the relation between the fixed and current assets. The higher is the fixed assets to current assets ratio, the greater the amount of capital is engaged in a farm in a more or less fixed manner. Thus the higher is the relation of fixed costs to variable costs, known also as the operating leverage. This leads to a significant income variability, which means higher risk of running a farm.

In the case of the examined farms the value of fixed assets exceeded the current assets 1.5-fold in Bulgaria to 18.9-fold in Slovenia. This relation is known as fixed assets to current assets ratio which was high also in Poland (9.8), Estonia (5.4) and Romania (4.0). Prevalence of fixed assets over current assets seriously hinders decision-making process concerning adjustments corresponding to the market signals. The essence of the problem lies in the right organisation of mutual proportions between both groups of assets to maximise expenditure on current assets with the use of the owned resources of fixed asset.

Financial resources are necessary to restructure farms, including to make investments. In the researched farms investments were in general implemented from own capital, but it sometimes happened that necessary resources came also from credits. To assess the level of debt an indicator calculated as the relation between liabilities and the value of total assets was used. The highest level of debt per farm was noted in Estonia (12.2%), Hungary (11.4%) and Latvia (10.5%). It is evident that there is a positive correlation between the average UAA and debt level of farms (in countries of higher debt ratios of assets the average farm, in general, had at its disposal a greater UAA), this may prove that greater farms show greater capacity to diversify the sources of financing. It also proves the creativity of managers as regards obtaining external resources. Whereas in three countries, i.e.: Romania (0.03%), Slovenia (0.9%) and Poland (2.2%), where farmers used loans to a very limited degree the debt level of farms was small. The fact that farmers only occasionally use loans is evidenced also by the indicators showing debt level of own capital of farms – Table 5.

In all countries from the research sample the structure of liabilities was predominated by long-term loans that are usually used for investments. This may mean that there is a drive at development of farms since investment activity is one of the determinants of economic condition. It also points to adjustment of farms to the changing surrounding and new conditions. The share of long-term loans in total liabilities is from 50.8% in Hungary to 97.7% in Slovenia.

The level of investment activity of researched farms was determined by referring gross investments to the UAA and the value of a farm's output. The studies showed that the value of investments per 1 ha of utilised agricultural area was the highest in the economically weakest farms of Slovenia (EUR 574), Bulgaria (EUR 241) and Lithuania (EUR 226), while the lowest in Latvia (EUR 2). It should be noted that Latvian farms had one of the highest levels of long-term debts, and thus potentially high skills in obtaining resources for investments. This means that this had to be investments of small value as compared to relatively significant area of farms (34.1 ha). As regards investment activity Lithuanian farms should be mentioned as they have considerable area (23.0 ha), but the value of investments per 1 ha of agricultural land was high – Table 5.

Referring gross investments to the output value confirms the advantage of Lithuanian farms, per EUR 100 of output value there was EUR 43 investment expenditure. Slovenia was ranked second (EUR 34) and it was followed by Estonia (EUR 21) and Bulgaria (EUR 16). In the remaining countries this measure was significantly lower. In all countries there was less than EUR 100 investment expenditure per EUR 100 of output value. This situation shows market risk (price and cost) accompanying agricultural output. High output value does not guarantee satisfactory incomes, thus investment activity of farmers was not significant.

CONCLUSIONS

In 2010, very small and small in economic terms farms, termed as economically weak farms, prevailed in the total number of farms represented in FADN surveys among eight countries of CEE (i.e. Bulgaria, Estonia, Hungary, Latvia, Lithuania and Poland, Romania and Slovenia). Economic condition of these farms was very different. This is partly caused by geographical location of respective countries, which is responsible for different climate and soil conditions to develop agricultural output, but external conditions of the agricultural sector surrounding and management skills of farmers also contributed thereto. The conducted studies allow to formulate final conclusions.

– The studies showed significant differentiation in the field of output potential that is at the disposal of farms in individual countries and in the area of financial results. Whereas excess of fixed assets in the assets of farms and clear dominance of the share of own capital in financing of the assets is their common trait.

– The structure of assets of Bulgarian, Hungarian, Latvian and Lithuanian farms was more advantageous than in the remaining countries given the lower share of own capital. This favours greater effectiveness of its use. The transformation capacity of Polish and Slovenian farms was several times lower, they were characterised by the greatest level of immobilization of assets engaged in output activity of farms, which means low efficiency of assets use.

– There is a clear dependency between the UUA and debt level of farms. Larger farms were more willing to diversify their sources of financing, which is an evidence of creativity of farmers as regards winning external resources. The highest level of debts of farms was noted in Estonia (12.2%), Hungary (11.4%) and Latvia (10.5%). Farms from Bulgaria (5.8%) and Lithuania (5.2%) had lower debt level, while in Poland (2.2%), Slovenia (0.9%) and Romania (0.03%) the level was the lowest. Low level of use of external sources of financing is often caused by low credit worthiness of farms, but it may also follow from unwillingness of farmers to run a debt which is linked to legalities that need to be tackled and also from little sense of economic stabilisation of farms.

– Long-term loans most often intended for investments prevailed in the structure of liabilities of economically weak farms of all countries. This may imply a drive at further development and adjustment to new conditions. Lithuanian farms stand out as regards investment activity. This is evidenced by the high level of gross investments per 1 ha of UAA (EUR 226) and per EUR 100 of output value (EUR 43).

– Economically weak farms in Bulgaria, Poland and Romania are marked by the highest effectiveness of using current inputs and, consequently, lower cost of producing one output unit. It amounted, respectively, to 87, 86 and 66% of the output value. Whereas in Latvia, Estonia and Slovenia the costs exceeded the output value by 6, 7 and 23%, respectively.

– In three countries, i.e. Estonia, Latvia and Slovenia the income of economically weak farms was generated only due to subsidies to operational activity of farms. In Estonia there was EUR 1.04 of payments per EUR 1 of farm income (including payments), in Latvia – EUR 1.19, and in Slovenia as much as EUR 2.79.

– The highest income per family member employed full-time (1 FWU) was reached by farmers from Hungary and Estonia (EUR 7.98 thousand and EUR 6.26 thousand, respectively), and the lowest – from Bulgaria and Slovenia (EUR 2.36 thousand and EUR 1.30 thousand). In two last countries the level of payment per work of a farmer and his family members was several times lower.

– Economically weak farms in Estonia, Latvia and Lithuania were characterised by the highest level of absorption of subsidies available under CAP by unit of farm's economic power. In large, in terms of area, Estonian farms the cost of producing one unit of economic power was funded by subsidies to operational activity of farm in 57%, in

Latvian farms in 46% and in Lithuanian – 44%. Whereas the lowest share of subsidies in costs of producing one unit of economic power was noted in small Bulgarian and Romanian farms, 25 and 16% respectively. This means that profitability of payments is not the same across all farms. In Estonia, Latvia and Lithuania the level of financing was much higher than in Bulgaria and Romania.

The economic condition of small, in terms of area, farms is in general more difficult, since they are more prone to changes in the economic situation on the market. Thus actions should be flexible which will be manifested in readiness to make decisions concerning production and development that would be tailored to the market situation.

Common trait of economically weak farms in all countries were characterised by too high assets-to-area ratio, which is an evidence of overinvestment. This stimulates increase in costs and, consequently, leads to deteriorating efficiency of farming. Farmers who want to earn their income from agricultural output in a long term should concentrate on implementing the low output costs strategy, at the same time, keeping the specific quality level of manufactured products. This statement is based on guidelines of the positioning school of management, whose most notable representative is Michael E. Porter (born 1947) – American economist, expert in the field of organisation and competition strategy. The representatives of this school paid special attention to the drawing up of competition strategy, which mainly consists in achieving the selected competitive advantage in order to reach the targeted competitive position. The competitive advantage is based on the resources of the enterprise and the ability to use them.

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