

Economic results of agricultural holdings in less favoured areas

Výsledky hospodaření zemědělských podniků hospodařících v méně příznivých oblastech

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Abstract: The profit/loss of agricultural holdings in the LFA is decreased due to worse conditions of climate and production. This disadvantage should be compensated by the "compensatory payments" in the LFA that should support the continuous using of agricultural land and preserving the rural region. The prepared delimitation of the LFA should be created according to the analyses of the possible impacts and the proper evaluation of the current state as its impacts will significantly influence the competitiveness of agricultural holdings. This paper summarises the results of the economic indicators analysis of agricultural holdings in the Czech Republic in the LFA and out of the LFA and the influence of subsidies on the profit/loss.

Key words: LFA (Less Favoured Areas), the profit/loss, subsidies

Abstrakt: Zemědělské podniky hospodařící v LFA dosahují vlivem horších výrobně-klimatických podmínek nižších výsledků hospodaření. Toto znevýhodnění by měly vyrovnávat tzv. vyrovnávací příspěvky v LFA, které by měly podpořit stálé využívání zemědělské půdy a tím přispívat k zachování venkova. Nově připravované vymezení LFA by mělo být vytvořeno na základě analýz možných dopadů a pečlivého zhodnocení současného stavu, neboť jeho dopady budou významně ovlivňovat konkurenceschopnost zemědělských podniků. Příspěvek shrnuje výsledky analýzy ekonomických ukazatelů zemědělských podniků v České republice hospodařících v LFA a mimo LFA a dopady dotací na výsledky hospodaření.

Klíčová slova: LFA (Less Favoured Areas), výsledek hospodaření, dotace

Less Favoured Areas (LFA) can be characterized by lower competitiveness of agricultural production caused by worse conditions of climate and production. Farms in the LFA reach a lower profit due to the increased cost/revenues ratio of agricultural production caused by a shorter vegetation period, poor land productivity, and the increased slope. The crop structure of these areas is limited and the natural yields are lower.

The Council Regulation 1257/1999 on support for rural development delimited three main types of LFA: mountain areas, other less favoured areas and areas affected by specific handicaps. In 2003, The European Court of Auditors suggested that the Commission and member states should revise the

current classification of LFA and indicators used to identify these areas. According to this recommendation, the Council has set out a clear rule on the LFA scheme and especially of other LFA delimitation and called upon the Commission to prepare a report in 2008 with proposals referring to the future payment scheme and the LFA identification. The implementation of the new scheme since January, 1, 2008 should have been the final aim of these steps.

In 2005, there were 91 million ha in the LFA in the EU-25, of which 60 million ha is other LFA (according to the Article 19 of the 1257/1999 Regulation). This is 58 and 39% of the total utilized agricultural land in the EU. Approximately 2 million of agricultural holdings (i.e. 14% of the total number of holdings in

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the EU-25) obtained subsidies from the LFA scheme. The overall public expenses increased especially in the last program period 2000–2006 and reached approximately 2.6 billion € per year, of which 51% is financed by the EU sources.

The LFA scheme has become a valuable tool of the Common Agricultural Policy as confirmed by the evaluation of the EU from November 2006.

The share of LFA in the utilized agricultural land in 2005 was divided as follows: 100% share of LFA – Finland, Malta, Luxembourg; 75–100% Ireland, Spain, Austria, Portugal; Slovenia; 50–75% Germany, Greece, Cyprus, Italy, Latvia, Lithuania, Poland, Slovakia, Sweden, Great Britain; 25–50% Czech Republic, Estonia, France, and less than 25% in Belgium, Denmark, Hungary and the Netherlands.

The re-evaluation of the LFA occurs in four ways:

- Improvement of the current state, enabling member states of the EU to delimit the LFA according to the national criteria.
- Social criteria focused on the targeted delimitation of these areas.
- Rules of eligibility with a special emphasis on applying these rules within agricultural holding.
- High natural value that would connect the support to agricultural areas with natural handicaps and the protection of agricultural systems with high natural value.

The COPA – COGECA understand that the matter of new LFA delimitation is very sensitive due to the fact that it influences the compensatory payment to the LFA and therefore it is extremely important to prepare the new delimitation according to the analysis of the possible impacts and a proper evaluation of the current state.

This paper analyses the development of economic indicators of agricultural holdings in the LFA and in the Non-LFA in the Czech Republic and the influence of subsidies on the profit/loss.

MATERIAL AND METHODOLOGY

The ways of the less favoured area delimitation according to the area as well as according to farms differ in the EU states. The Commission emphasises the unification of the criteria according to the area delimitation. The EU states use very different criteria of the beneficiary area specification as well as the eligibility of the farm for payment. This situation makes the comparison more difficult (Štolbová 2008).

58% of the overall Utilized Agricultural Area in the EU is currently classified as LFA, but only a limited propor-

tion of farmers in the LFA benefit from compensatory payments under the LFA aid scheme (14% of the total farms in the EU in 2005) (EC 2008).

The Czech Republic is the only state of the EU that limited the area eligible for the LFA payment only to grassland. In the other states, the beneficiary area consists of grassland including areas of growing fodder plants, eventually other plants. In some states, it is the total agricultural land of the farm (Štolbová 2007).

There are great differences among the EU member states in the level of the compensatory payments for the LFA as there is no unified methodology determining the level of payments. These rates had to be set in order to their contribution to the utilization of agricultural land.

The conditions of farming in the less favoured areas, the suitability of the LFA subsidies and their influences to farming in the less favoured area in the EU are concerned, for example, in Dax (2005), Dax, Hovorka (2007) or Crabtree (2003).

According to Shucksmith (2005), the Pillar 1 prefers mainly the well-performing areas with large farms to poorer areas of the periphery with smaller farms. He added that the fact that the main European regions, such as Great Britain, France and the Netherlands, have been profiting from agricultural subsidies more than peripheral regions, such as Spain, Poland, Italy, Southern and Eastern Europe, significantly contrasts with the European aims of cohesion focused on the reduction of differences in wealth and opportunities all over the Europe.

According to Štolbová (2008), the payment system of the newly delimited LFA since 2010 will require the evaluation of new suggestions and their influence on the profit/loss of agricultural holdings. It will be necessary to focus on setting a proper payment rate and an appropriate differentiation of these payments.

Sojková et al. (2008) deal with the technical efficiency of agricultural holdings in the LFA in comparison with Non-LFA in the period of 2003–2005. They state that the significant difference in an average efficiency of farms in Slovakia was seen in 2005 only.

Less favoured areas in the Czech Republic are delimited according to the Government Regulation No. 241/2004 Coll., on conditions for the implementation of the assistance to less favoured areas and areas with environmental restrictions. According to this Regulation, less favoured area are classified as

- (a) Mountain areas (M-type areas), with the criteria of the altitude and the slope of agricultural land
- (b) Other less favoured areas (O-type areas), with the criteria of agricultural land productivity and demographic criterion.

- (c) Areas with specific handicaps (S-type areas), with the criteria of agricultural land productivity and slope.

This paper uses the results of our own investigation of a sample of agricultural holdings divided into three groups according to the share of agricultural land in the LFA within the total utilized agricultural land.

The group of LFA consists of agricultural holdings farming in more than 50% on agricultural land classified as the LFA. The group of Non-LFA consists of farms with less than 5% of land in the LFA. Other farms are classified as “transition area”.

The sample contains agricultural holdings with their own accountancy. For that reason, the sample includes mostly farms owned by corporations. The data collection consists of standard statements – the Balance Sheet by 31.12; the Income Statement by 31.12; the Annual Report of Agricultural Crop Harvest, the Report about Sowing Areas of Agricultural Plants by 31.12. These data are completed with our own questionnaire that includes other production and economic data of farms. We used the data of the investigated period of 2003–2007.

Is such sample, we compared an average volume of subsidies per farm, per ha of agricultural land, the structure of subsidies according to the subsidy title, changes in the structure of production, the profit/loss, the profit/assets ratio, the impact of subsidies on the liquidity and debt ratio of a farm and other related indicators. All of them are compared in time (with regard to the development in recent years) and space (among individual groups of farms).

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RESULTS AND DISCUSSION

The development of production indicators

The sample consists of agricultural holdings from the whole area of the Czech Republic. In 2003–2007, the number of farms ranges between 115 and 149, of which 52% are farms in the LFA, 28% out of LFA and approximately 20% are farms in the transition area. An average size of farmed agricultural land was 2 064 ha in the Non-LFA, 1,863 ha in the transition area and 1 652 ha in the LFA in 2007. The share of arable land was 93% in the Non-LFA, 76% in the transition area and 66% in the LFA in 2007. In comparison with 2003, this share increased by 2.4 percent points in the Non-LFA, decreased by 1.3 points in the LFA and by 2.7 points in the transition area.

There was an average livestock density of 56.2 heads per 100 ha of agricultural land in 2007. The highest density was in the LFA (67 heads/100 ha in 2007). The development of this indicator in 2003–2007 shows a slight decrease in the Non-LFA and the transition area and a slight increase in the LFA (see Figure 1). There was an average rate of growth of 1.9% in the LFA.

A similar tendency is shown by the development of milk cow density. The average milk cow density was 22.6 heads/100 ha in 2007. The highest density was in the LFA, 26.8 heads/100 ha. The Non-LFA registered an average annual decrease by 1.7% and the transition areas by 3.4%. There was an average rate of growth of 3% in the LFA.

The density of suckler cows was the highest in the LFA in 2007 (4 heads/100 ha – this means an increase to 123% in comparison with 2004). The density of suckler cows in the transition area (2.1 heads/100 ha)

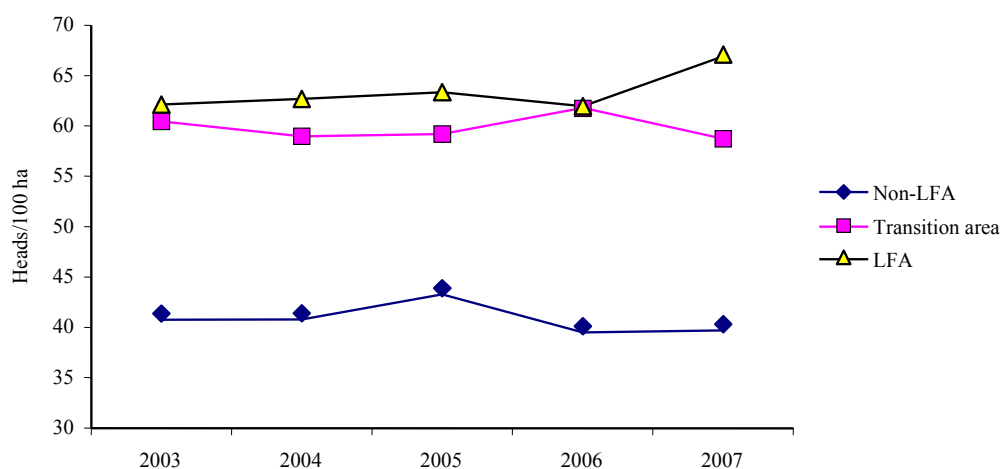


Figure 1. Development of livestock density

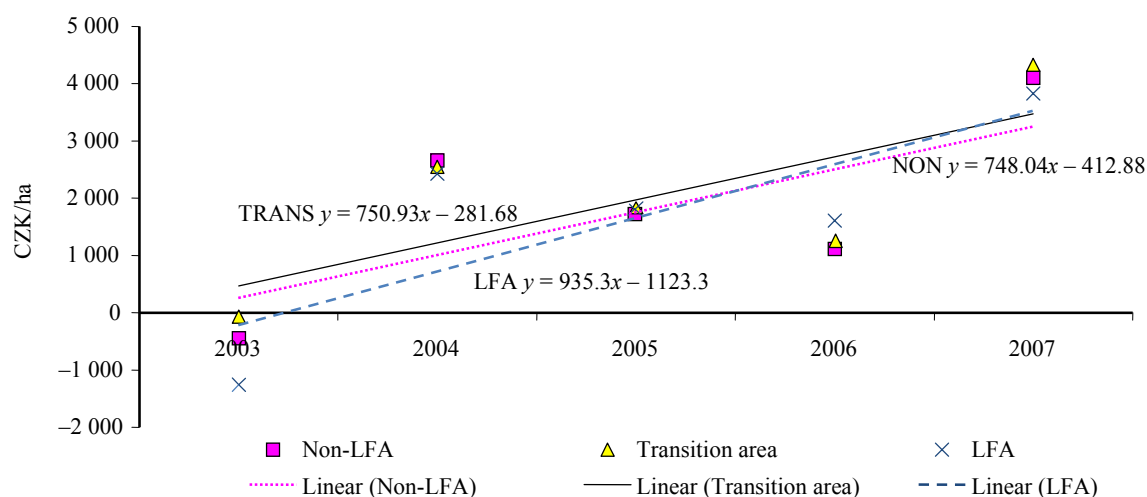


Figure 2. Development of the profit/loss before taxes

reached 197% of 2004. The density in the Non-LFA of 0.2 heads/100 ha registered a decrease to 50% of 2004.

The density of pigs per 100 ha of agricultural land was the lowest in the LFA – 35.8 heads in 2007; a decrease to 60.5% of 2003. In the Non-LFA, 53.5 heads per 100 ha meant a decrease to 64% of 2003. The highest density of pigs was in the transition area – 83 heads per 100 ha – it increased to 111% compared to 2003.

The share of plant production revenues was the highest in the Non-LFA: 52.4% (an increase of 11 percent points in comparison with 2003); 30% in the transition area in 2007 (an increase by 2.5 percent points) and 28% in the LFA (an increase by 3 percent points). The share of animal husbandry revenues was the highest in the LFA: 63% in 2007 with an increase of 1.3 percent point in comparison with

2003. The Non-LFA group registered 34.3% share (a decrease by 8.7 percent point) and the transition area 57.2% (a decrease by 2.4 percent point). The share of revenues from non-agricultural production decreased in all areas. The highest share was in the Non-LFA (13.2% meant a decrease by 0.8 percent point), 12.9% in the transition area (a decrease by 0.1 percent point) and 9.2% in the LFA (the greatest decrease of 4.5 percent points in comparison with 2003).

The development of economic indicators

The development of economic indicators of an average agricultural holding in 2003–2007 showed an improvement. The highest profit was gained in 2007: 4 068 CZK per ha in the Non-LFA; 3 827 CZK

Table 1. Development of profit before taxes and the profit/assets ratio

	2003	2004	2005	2006	2007
Profit/loss (CZK/ha)					
Non-LFA	-446	2 662	1 756	1 116	4 068
Transition area	-68	2 542	1 794	1 260	4 328
LFA	-1 257	2 423	1 813	1 607	3 827
Overall	-790	2 521	1 792	1 383	4 034
The profit/assets ratio (%)					
Non-LFA	-0.76	4.09	2.45	1.63	5.60
Transition area	-0.12	4.38	2.69	1.85	6.00
LFA	-2.40	4.25	3.02	2.58	5.73
Overall	-1.44	4.22	2.75	2.12	5.76

Source: Monitoring of agricultural holdings

per ha in the LFA and 4 328 CZK/ha in the transition area (Figure 2).

The number of holdings in the Non-LFA with the profit higher than 2 500 CZK/ha increased from 5% in 2003 to 44.7% in 2004. In 2005, it was 23.5%; only 11.8% in 2006 and 66.7% in 2007. This area shift to worse or better profit/loss implies an increasing importance of external influences such as prices, climate and the overall volume of subsidies.

In the transition area, there were 3.8% of farms with the profit higher than 2 500 CZK/ha in 2003, 48% in 2004, 21.7% in 2005, 38.5% in 2006 and 51.7% in 2007.

In the LFA, there were 1.2% of farms with the profit higher than 2 500 CZK/ha in 2003, an increase to 46.2% in 2004, 30.8% in 2005, 28.4% in 2006 and 66% in 2007.

In 2003, there were 57% of farms in the Non-LFA and 62.7% in the LFA in a loss. In 2007, there were no farms with a loss in the Non-LFA and less than 2% in the LFA.

During the whole period under investigation, the profit/assets ratio overreached 4% in 2004 and 2007 only (Table 1). An average rate of growth is 11% since 2004 in the Non-LFA and 10% in the LFA.

In 2007, the highest labour productivity was seen in the transition area with the average of 1 303 thousand CZK per worker. An average rate of growth in labour productivity of an average farm amounted to 11.5% since 2003. The greatest increase of labour productivity occurred in the transition period (by 13% per year) – see Figure 3.

The increase of labour productivity is followed by a relative saving of workers and secondarily to a relative saving of labour costs. In comparison with 2006, the greatest relative saving of workers occurred in the

transition area in 2007 (21.8 workers), 13.7 workers in the Non-LFA and 10 workers in the LFA. In 2007, an increase of labour productivity in the Non-LFA was caused by an increase of revenues by 15.2% together with a decrease in the number of workers by 1.2%. Similarly, the increase of labour productivity by 16.2% in the LFA was caused by an increase of revenues by 17.4% together with a decrease of workers by 4.4%.

The average wage increased by 35.5% in comparison with 2003 (the greatest increase in the LFA). An average rate of growth was 7% in the Non-LFA and transition area and 8.5% in the LFA.

The volume of revenues of an average agricultural holding in the LFA and Non-LFA shows an increasing trend. In 2007, there were overall revenues in an average farm of 111.5 million CZK in the Non-LFA and 91.7 million CZK in the LFA. In comparison with 2006, the revenues in the LFA and Non-LFA increased by 15% with an average rate of growth higher in the LFA since 2003 (8% in the LFA and 5.8% in the Non-LFA).

The renovation and modernization of buildings and technology as well as the increasing concentration of agricultural holdings caused an increase of the tangible fixed assets (TFA). The volume of the TFA of an average agricultural holding was equal to 81 million CZK in the Non-LFA and 65 million CZK in the LFA in 2007 (Figure 4). In the Non-LFA, the TFA increased by average 4.8% per year since 2003 and in 2007 it reached the level of 121%. An average rate of growth in the LFA is 6% in the same period. The volume 2007 reached 125% of 2003.

The dynamics of the increase of technical equipment of labour (TEL) is higher in comparison with the dynamics of the increase of the TFA in the Non-LFA with an average rate of growth of 8.2%. An analysis

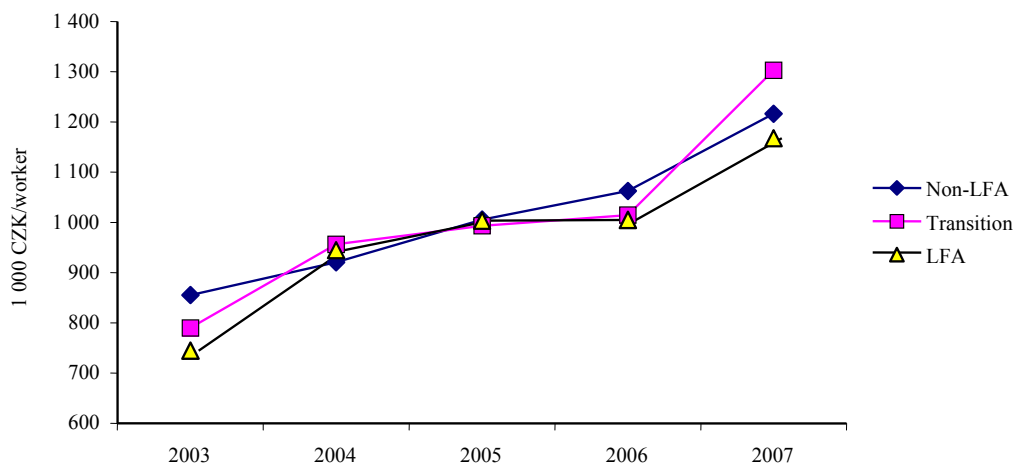


Figure 3. Development of labour productivity according to the LFA

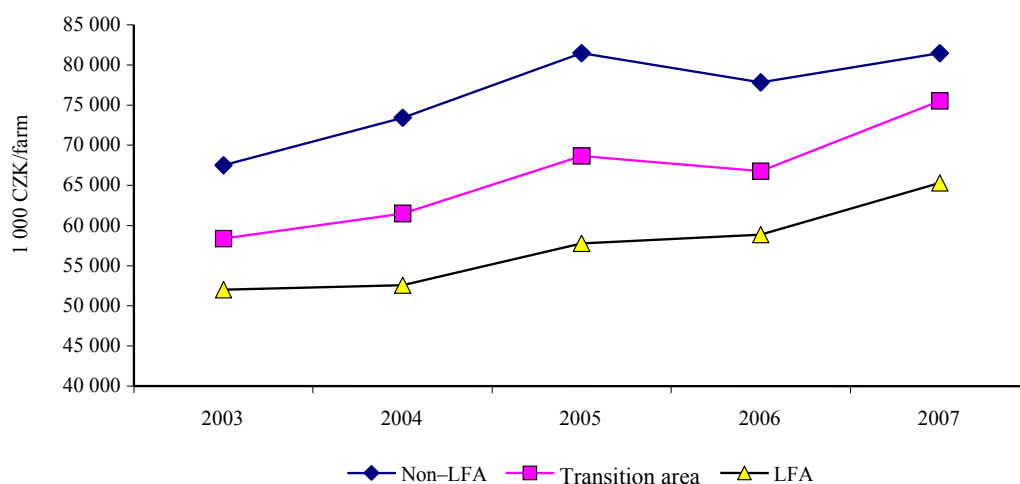


Figure 4. Development of Tangible Fixed Assets

of the technical equipment of labour index revealed that this index is the ratio of the TFA index to the index of the average number of workers. It means that if the index of technical equipment of labour increases faster than the TFA index a decrease of the average number of workers occurs. The TEL in the LFA increased faster than the TFA as well with an average rate of growth of 9.8%.

An increase in fund efficiency led to a relative saving of the farm fixed assets connected with the saving of depreciation and other costs. An increase of the turnover rate of short-term assets caused a decrease of costs connected with the storage and material manipulation. A relative saving of assets is connected with their higher interest running. Fund efficiency reflects the same trend as can be seen within the volume of revenues. There is no significant development of this indicator in the production areas, only a year-on-year cycling. The value of this indicator is very high and ranges from 1.3 to 1.4.

Changes of this indicator are more significant in the LFA – it ranges from 1.03 to 1.18. An increase of fund efficiency in 2006–2007 means a relative saving of tangible fixed assets of an average farm of 8 175 thousand CZK in the Non-LFA and 2 379 thousand CZK in the LFA.

The debt ratio assesses the long-term financial structure of a farm. It acts as an indicator of financial risk of a farm within the given structure of sources and also as an ability of a farm to multiply profit by external capital (the effect of the financial leverage). Assessing the debt ratio is possible due to several indicators based on the balance sheet. The indicator of the overall debt ratio is the share of external sources to total assets. Generally, the higher is the debt ratio the higher is the risk both for creditors and for shareholders. However, it is necessary to assess the risk with regard to the overall profitability of the total capital as well as in the connection with the structure of the external capital.

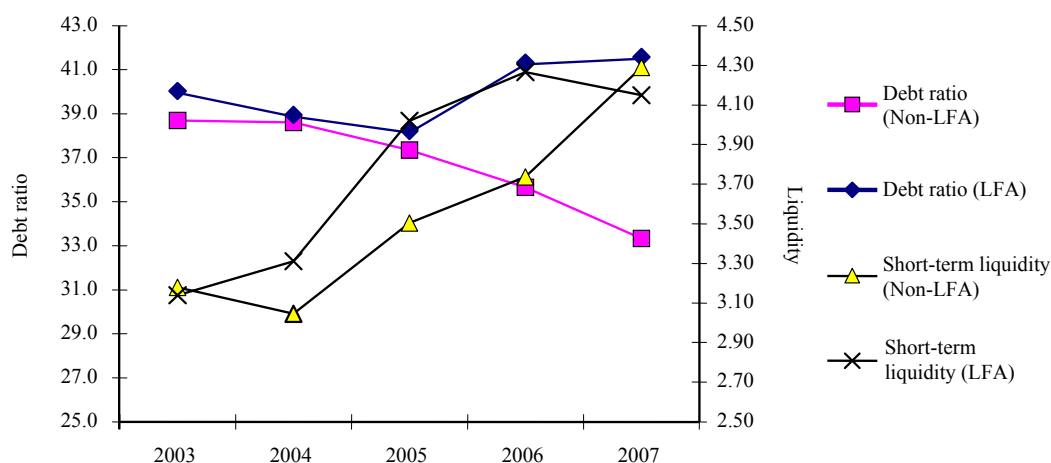


Figure 5. Development of the debt ratio and liquidity in the LFA

The development of the debt ratio of an average agricultural holding showed a decreasing trend in the Non-LFA (the average of 1.3 percent point per year) and in the transition area (0.7 percent point per year). On the contrary, there was an increase by about 0.4 percent point per year in the last 5 years in the LFA. In 2007, the overall debt ratio reached 33.3% in the Non-LFA, 36.7% in the transition area and 41.6% in the LFA.

Short-term liquidity of an average farm in the Non-LFA and in the LFA revealed an increasing trend and ranges from 3 to 4 (Figure 5). Its value was 4.3 in the Non-LFA and 4.2 in the LFA in 2007.

The acid-test ratio is the indicator excluding stocks from current assets. The value close to 1 is found satisfactory. A low value of this indicator reveals that a farm does not have enough available finances.

Values of the acid-test ratio increased both in the LFA and in the Non-LFA and ranged between 1 and 2.

The Non-LFA reached 2.15 and the LFA 1.75 in 2007. The acid test ratio increases both in the Non-LFA and in the LFA faster than the short-term liquidity.

The development of subsidies

The increase of subsidies significantly influenced the increasing trend of economic indicators. In 2007, there was the subsidy rate of 7 566 CZK per ha in the Non-LFA and 8 814 in the LFA. These subsidies increased 2.8 times in the LFA and the transition areas and 2.7 times in the Non-LFA as compared with 2003.

An average rate of growth reached 28.9% in the LFA in 2003 and 28.5% in the Non-LFA. The share of subsidies to overall revenues of a farm increased 2 times in comparison of 2003 and 2007. It reached 20% in the LFA, 13.5% in the Non-LFA and 14.3%

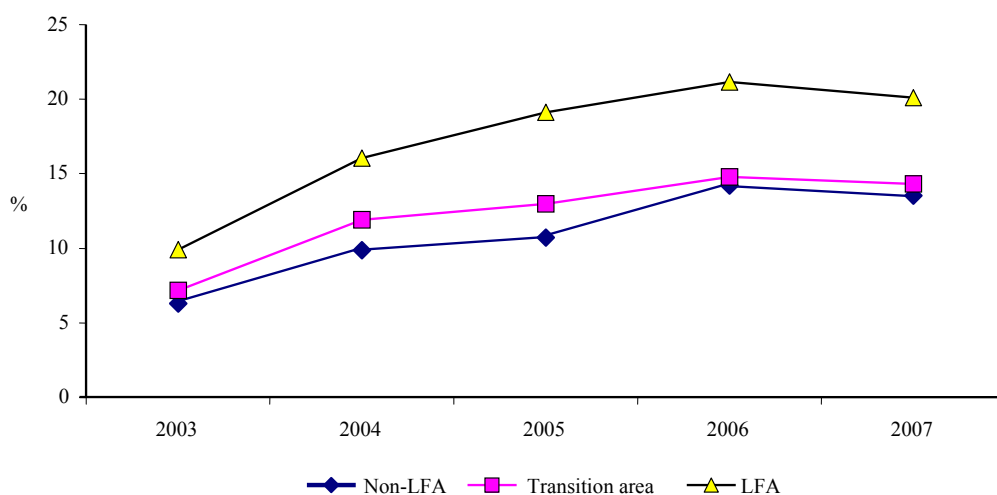


Figure 6. Development of the rate of subsidies to revenues

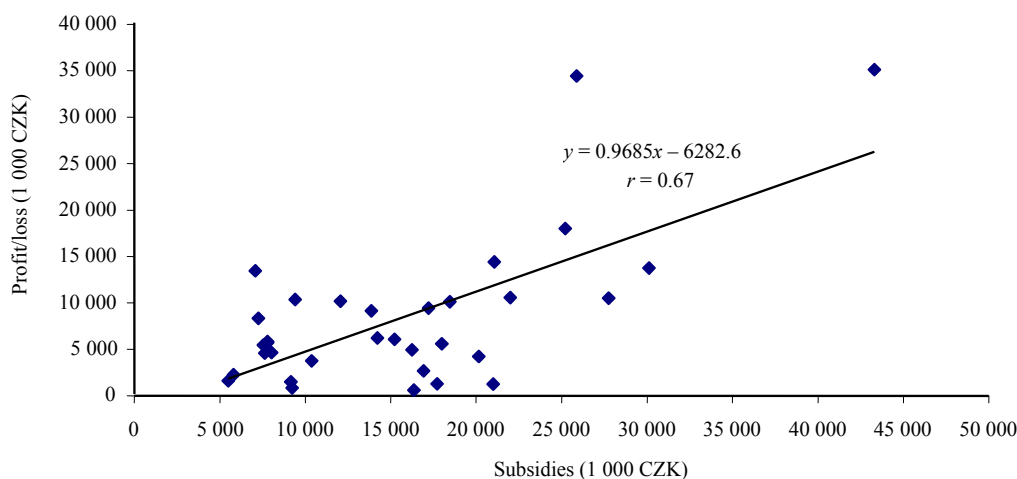


Figure 7. Relation of the profit/loss and subsidies in the Non-LFA in 2007

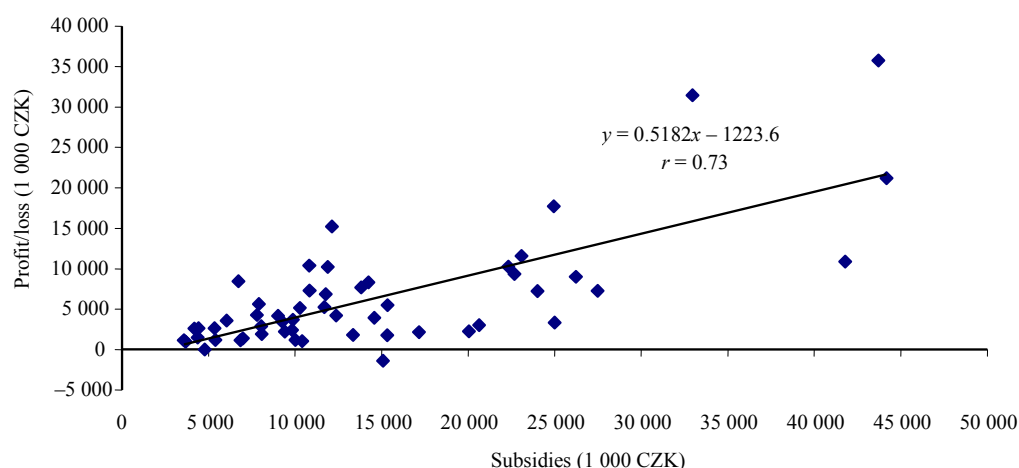


Figure 8. Relation of the profit/loss to subsidies in the LFA in 2007

in the transition area in 2007 (Figure 6). In 2003, there were 8 CZK of subsidies per every 100 CZK of revenues of an average farm in comparison with 16 CZK of 2007.

Figures 7 and 8 showed a different efficiency of increasing subsidies in the LFA and Non-LFA.

The derivation of the above mentioned lines will bring out contrasty elasticity coefficients that will indicate the level of the profit increment generated by the standard increment of subsidies. The elasticity coefficient is 0.97 in the Non-LFA and 0.52 in the

LFA. The lower coefficient in less favoured areas is the result of worse conditions of production.

Tables 2–4 show the development of subsidies according to the subsidy titles before and after the Czech Republic entered the EU. The overall Non-LFA and transition area subsidies in CZK/ha of agricultural land amounted 87% of the LFA subsidies in 2003. These differences among the areas increased after the accession of the Czech Republic. In 2004, the farms in the Non-LFA obtained 74% of the subsidies to LFA (84% in the transition area). This difference

Table 2. Development of subsidies in the Non-LFA (CZK/ha)

	2003		2004	2005	2006	2007
Number of farms	40	Number of farms	38	34	34	33
Average area of a farm (ha)	2 088	Average area of a farm (ha)	2 043	2 031	2 027	2 064
Overall subsidies	2 778	Overall subsidies	4 709	5 638	7 027	7 567
Support programme acc. to "Principles"	283	SAPS	1 804	2 091	2 521	2 779
B.1. moderation of damages	595	TOP-UP	1 655	2 188	2 284	2 407
Regulation 505/2000 Coll. ¹	81	Support programme acc. to "Principles"	279	282	322	109
Regulation 86/2001 Coll. ²	1 136	Compensatory payments in the LFA	14	9	16	7
Regulation 445/2000 Coll. ³	138	Agro-environmental measures	293	467	489	496
Other	545	Other	664	602	1 395	1 769
Profit/loss before taxation	-446	Profit/loss before taxation	2 662	1 756	1 116	3 773

¹establishing support programmes for promoting the non-productive functions of agriculture and activities which contribute to landscape maintenance, programmes to support less-favoured areas

²establishing the rules of financial support to set-aside land...

³on milk production quota in 2001 and 2005

Source: Own investigation of a sample of agricultural holdings

Table 3. Development of subsidies in the transition area (CZK/ha)

	2003		2004	2005	2006	2007
Number of farms	26	Number of farms	25	23	26	29
Average area of a farm (ha)	1 910	Average area of a farm (ha)	1 949	1 857	1 761	1 863
Overall subsidies	2 766	Overall subsidies	5 334	6 080	7 030	7 670
Support programme acc. to "Principles"	266	SAPS	1 811	2 095	2 509	2 793
B.1. moderation of damages	344	TOP-UP	1 603	2 193	2 452	2 410
Regulation 505/2000 Coll. ¹	494	Support programme acc. to "Principles"	222	184	330	108
Regulation 86/2001 Coll. ²	927	Compensatory payments in the LFA	505	558	552	647
Regulation 445/2000 Coll. ³	224	Agro-environmental measures	609	584	748	785
Other	511	Other	585	466	439	927
Profit/loss before taxation	-68	Profit/loss before taxation	2 542	1 794	1 260	4 231

Note see Table 2

Source: Own investigation of a sample of agricultural holdings

Table 4. Development of subsidies in the LFA (CZK/ha)

	2003		2004	2005	2006	2007
Number of farms	83	Number of farms	78	65	67	53
Average area of a farm (ha)	1 668	Average area of a farm (ha)	1 577	1 647	1 597	1 652
Overall subsidies	3 186	Overall subsidies	6 327	7 559	8 356	8 815
Support programme acc. to "Principles"	415	SAPS	1 821	2 115	2 514	2 799
B.1. moderation of damages	309	TOP-UP	1 541	2 145	2 373	2 425
Regulation 505/2000 Coll. ¹	1 057	Support programme acc. to "Principles"	242	253	238	101
Regulation 86/2001 Coll. ²	796	Compensatory payments in the LFA	1 265	1 228	1 235	1 214
Regulation 445/2000 Coll. ³	208	Agro-environmental measures	831	956	1 051	1 150
Other	402	Other	624	862	944	1 126
Profit/loss before taxation	-1 257	Profit/loss before taxation	2 423	1 813	1 607	3 529

Note see Table 2

Source: Own investigation of a sample of agricultural holdings

further decreased to the same level as before the EU accession: 86% in the Non-LFA and 87% in the transition area in 2007.

The Non-LFA and transition area subsidies according to the Government Regulation No. 86/2001 on the rules of financial support to set-aside land gave out the greatest share of subsidies in 2003 (before the EU accession). They were increased by 43% in the Non-LFA and by 16% in the transition area in comparison with the LFA.

The greatest subsidies to the LFA came according to the Government Regulation No. 505/2000 Coll. establishing support programmes for promoting the non-production functions of agriculture and activities which contribute to the landscape maintenance, programmes to support the less-favoured areas. These subsidies in the Non-LFA reached 8% of subsidies to LFA and 47% in the transition area. Subsidies of supporting programmes according to the "Principles" were also increased in the LFA – they

amounted to 68% of the LFA in the Non-LFA and 64% in the transition area. On the contrary, subsidies to the damage moderation (ploughing) were increased in the Non-LFA by 93% and by 12% in the transition area in comparison with the LFA.

The structure of subsidies changed after the EU accession (Tables 2–4). The greatest share of subsidies is paid as direct payments within two levels. The first level is the Single Area Payment Scheme (SAPS) paid from the EU resources per hectare of utilized agricultural land. The second level of direct payment is the complementary national Top-Up payment paid from the national resources to the most endangered sectors. In 2007, the direct payments formed 69% of all subsidies in the Non-LFA, 68% in the transition area and 59% in the LFA.

The SAPS counted per ha of agricultural land should be equal in all areas so that any differences in 2004–2007 were less than 1% and might be caused by the errors in the declared area or by excluding of land due to administrative mistakes in application forms etc. The share of the Top-Up differed within years and areas. The comparison with the LFA revealed a higher Top-Up by 7% in the Non-LFA in 2004 and by 2% in 2005. It was lower by 3.8% in 2006 and by 0.7% in 2007 in the Non-LFA. In the transition area, the Top-up was slightly higher in 2004–2006 in comparison with the LFA and lower by 0.6% in 2007.

Payments within the Horizontal Rural Development Plan (HRDP) and the Rural Development Programme since 2007 have become important after the EU accession. The greatest share of payments to agriculture within these programmes refers to compensatory payments in the LFA and the agro-environmental measures. The compensatory payment in the LFA is paid per the area of permanent pastures and its level therefore depends on the share of the LFA as well as on the share of permanent pastures. The share of these payments ranged between 0.5% and 1.3% of the LFA payments in the Non-LFA and between 40 and 53% of the LFA in the transition area (in 2004–2007).

The greatest agro-environmental measure payments are in the LFA – their share in the overall subsidies is about 13%, compared to 10% in the transition area and approximately 6% in the Non-LFA. In 2007, the LFA payments were higher by 57% than the Non-LFA and by 32% in the transition area (Tables 2, 3, 4).

CONCLUSION

The LFA scheme is a part of Axis 2 of the Rural Development Program in 2007–2013 and its aim is

to improve the rural environment. The Article 33 states that the payments to natural handicaps in mountain areas and payments in other areas affected by special handicaps should contribute to maintaining the rural region through the permanent utilization of agricultural land. In this regard, it is necessary to make the profit/loss of farms in the LFA and in the Non-LFA comparable.

Comparing production indicators (especially the proportionality indicators) will reveal significant differences between the LFA and the Non-LFA. These differences increased further in 2007 and 2006.

The difference in the share of arable land ranges between 19 and 20 percent points. The difference in the livestock density per 100 ha increased to 27 heads in 2007. The difference in the milk cow density increased also as well as the difference in the density of suckler cows in 2007. This positive trend was supported by the allegiance of payments in the LFA to permanent pastures and Top-Up payments to livestock units.

The development of economic indicators was influenced by the fertile years in 2004 and 2007. In 2007, the profit was accelerated also by the positive price development.

It is important to say that the acceptable profit/assets ratio was reached in these two years only. In 2004, profit/assets ratios in the LFA (4.25%) and in the Non-LFA (4.20%) in investigated areas were well-balanced and acceptable. In 2007, the profit/assets ratio increased to 5.73% in the LFA and 5.78% in the Non-LFA which are the best results of the whole period under investigation.

The unsatisfactory profitability in less fertile years remains to be a permanent problem of both areas. The imbalanced profit/loss was expressed in the unfavourable development of the debt ratio in the LFA. The debt ratio of an average farm in the LFA reached 41.6% in 2007 and increased by 1.6 percent points in comparison with 2003. The debt ratio in the Non-LFA decreased monotonously during the whole period and reached 33.3% in 2007.

The specialization of agricultural holdings has been changing since 2003 due to the subsidy system. The share of plant production increased in the Non-LFA by 11 percent points. On the contrary, the share of animal husbandry is higher in the LFA by 28.6 percent points. The subsidy volume per ha of agricultural land reached 8 815 CZK in the LFA and 7 612 CZK in the Non-LFA in 2007. The rate of growth in 2003–2007 was equal in both areas: 277%. Within the last three years (2005–2007), subsidies covered 20–22% of all costs in the LFA and 11.1–14.6% in the transition area and in the Non-LFA. The share of subsidies in

the overall costs increased monotonously during the whole period.

REFERENCES

- Council Regulation (EC) No. 1257/1999 on Rural Development Support by Means of the European Agricultural Guarantee Fund (EAGGF). Brussels, 1999.
- Council Regulation (EC) No. 1698/2005 on support for rural development by the European Agricultural Fund for Rural Development. Brussels, 2005.
- Crabtree R. et al. (2003): Review of Area – based Less Favoured Area Payments across EU Member States. Report for the Land Use Policy Group of the GB Statutory Conservation, Countryside and Environment Agency. CJC Consulting, Oxford.
- Dax T. (2005): The Redefinition of Europe's Less Favoured Areas. 3rd Annual Conference 'Rural Development in Europe' – Funding European Rural Development in 2007–2013. London, 15–16 November 2005.
- Dax T., Hovorka G. (2007): The territorial dimension of the Common Agricultural and Rural Development policy (CAP) and its relation to cohesion objectives. Collection of papers of international conference Less Favoured Areas for Agriculture and Rural Areas. Jihlava, 7–10 November 2007, pp. 20–31. VÚZE Praha; ISBN 978-80-86671-46-8.
- European Commission (2004): Review of the Less Favoured Area Scheme. Available at <http://ec.europa.eu> [Quoted 7.10.2008]
- Government Regulation No. 241/2004 Coll., on Conditions for the Implementation of Assistance to Less Favoured Areas and Areas with Environmental Restrictions. Praha, 2004.
- Shucksmith E.M., Thompson K., Roberts D. (2005): The CAP and the Regions: the Territorial Impact of the Common Agricultural Policy. CAB International; ISBN 0 85199 055 X.
- Sojková Z., Kropková Z., Benda V. (2008): Slovak agricultural farms in different regions – comparison of efficiency. *Agricultural Economics – Czech*, 54 (4): 158–165.
- Štolbová M. (2007): Comparative analysis of less-favoured areas payments in the EU states. *Agricultural Economics – Czech*, 53 (10): 455–465.
- Štolbová M. (2008): Eligibility criteria for less-favoured areas payments in the EU countries and the position of the Czech Republic. *Agricultural Economics – Czech*, 54 (4): 166–175.

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