The evaluation of effects of the subsidy system on Slovak farms in different regions in the pre- and post-EU accession stage

Komparácia bežných priznaných podpôr poľnohospodárskych podnikov hospodáriacich v rôznych výrobných podmienkach pred a po vstupe do EÚ

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Abstract: The primary goal of our analysis is to evaluate the effects of changes in the Slovak agriculture subsidy system on the selected farms located in different production areas between the years 2003 and 2004. Our comparative analysis divides the farms into two groups: The first group represents all those farms that operate in good farming conditions i.e. primarily the land is more productive (PA). The second group of farms operates in less favorable farming conditions (LFA). The regions differ from each other in terms of geographical position, location, production and climatic conditions, as well as the quality of land. We analyzed data of 119 farms.

Key words: subsidy system, Single Area Payment Scheme, Common Agriculture Policy, Agenda 2000, direct payments

Abstrakt: Prioritným cieľom analýzy je vyhodnotiť zmenu finančných podpôr vybraných poľnohospodárskych subjektov lokalizovaných vo výrobných podmienkach v rokoch 2003–2004. Analýza rozdeľuje podniky do dvoch skupín: prvá hospodári na pôde s vyšším produkčným potenciálom (PA). Druhá skupina podnikov hospodári v horších prírodných podmienkach (LFA). Porovnávané regióny sa líšia geografickou polohou, výrobnými a klimatickými podmienkami, kvalitou pôdy. Analyzovanú vzorku tvorilo 119 poľnohospodárskych podnikov.

Kľúčové slová: dotačný systém, systém jednotnej platby na plochu, Spoločná agrárna politika, Agenda 2000, priame platby

The Slovak Republic was among ten new members that joined the European Union in May 2004. Since then it has witnessed how EU accession has influenced many aspects of life in the country and still continues to do so. The European Union accession specifically influences agriculture because agricultural sector has traditionally been strongly regulated by the Common Agriculture Policy (CAP). Almost half of the EU budget is spent on agriculture.

The EU accession involves both changes in agricultural support level as well as support instruments used. Most prices in Slovakia were below the EU level prior to the EU accession but the gap was closing in the recent years. Direct payments in Slovakia are higher within the EU than they were before the accession. Price support and direct payments are two major policy instruments of the CAP. Direct payments adopted by Slovakia and other accessing states are significantly decoupled, detached from production (Pokrivčák, Ciaian 2005).

The CAP went through significant reforms since early 1990s, reducing price support and replacing it with the decoupled income support. Since 1960s till 1990s, price support was a major instrument used to support the EU agriculture. Domestic prices were usually set above the world prices while tariffs were imposed in order to avoid imports of cheap products to the common market from abroad. In commodities in which the EC/EU produced more than the domestic consumption level, export subsidies were used to eliminate surpluses. Reforms started in 1992 (MacSharry reform) and continued through the Agenda 2000. The last reform round took part within the Mid Term Review (MTR) of the CAP in 2003. The nature of these reforms was to replace the distortive price support with income support. That

is the guaranteed prices were lowered and farmers were compensated for the income loss with direct payments from the EU budget. Initially, direct payments were coupled (linked) to farm inputs like hectares of crops or numbers of animals. The MTR cut further the link between direct payments and farmers' decision to produce by introducing the SFP. Most of commodity specific direct aid payments to farmers are being replaced by a single farm payment which is independent from the current and future production. This is known as the full decoupling of support. The SFP is only dependent on payments received in reference period which were the years 2000–2002. In principle, the support to farmers for most products is detached from production.

Accession negotiations with the new Member States were conducted before the MTR reform of the CAP. The Agenda 2000 was a reference point. Because of the MTR reform, which took place after signing of the Accession Treaty, and due to administrative complexity of the Agenda 2000 it was decided that the new member states will adopt the SAPS – Single Area Payment Scheme. To adopt the SAPS, the overall level of direct payments for the whole country or regions within a country is computed. This is the so called national envelope, which is computed based on the coupled direct payments for which the whole country or regions within the country would be eligible under the Agenda 2000. The national envelope is then divided among farms based on their cultivation of hectares of agricultural land. Direct payments in the NMS are therefore decoupled too, as they do not depend on production. Thus farmers would get subsidy for each used hectare of land, and basically there is no constraint on production or on input use.

Direct payments financed from the EU budget are gradually introduced in the NMS. The payments start at 25% of the EU level in 2004 and then gradually increase by 5% until 2006, and by 10% from 2007 until 2013. Additionally, the NMS may complement (top-up) direct payments from the rural development funds and from the national budget. Top-ups may reach 30% of the level in the EU, but overall direct payments (the EU financed + top-ups) must not exceed 100%. Top-ups are generally more coupled to production than direct payments from the EU budget (Ciaian et al. 2005).

METHODOLOGY

The primary goal of our analysis is to evaluate the effects of changes in the Slovak agriculture subsidy system on the selected farms located in different production areas between the years 2003 and 2004. The data were collected from the Information Reports submitted by Slovak agribusinesses according to the Slovak accounting regulations. Our comparative analysis divides the farms into two groups: The first group represents all those farms that operate in good farming conditions i.e. primarily the land is more productive (PA).This group is divided into two sub-regions: PA 1 and PA 2. The second group of farms operates in less favorable farming conditions (LFA) and is divided also into two sub-regions: LFA 1 and LFA 2. The regions differ from each other in terms of geographical position, location, production and climatic conditions, as well as the quality of land (expressed in the termsof the percentage of arable land and the share of unfavorable – less productive land LFA in total land area, verified by the Land Parcel Information System (LPIS). We analyzed the data of 119 farms that were consistent with the methodology of our research while some farms were omitted because they did not fulfill the consistency precondition, especially in terms of time comparison (Bielik et al. 2002).

The partial objectives of our analysis are as follows:

– One of the objectives of our research is the analysis of the changes in the land evidence reflected in the system of LPIS and the cadastre between the years 2004 and 2003, for the regions with more and less favorable conditions, as well for each sub-region.
– Another objective is the analysis of the changes in standard granted subsidies (the SGS, i.e. total support level or disbursed subsidies; the terminology here is adjusted to the Slovak specific system) between the years 2004 and 2003 calculated in total and per hectare of cultivated agriculture land in line with the LPIS system of regional and sub-regional divisions.
– Another objective is the analysis of the relationship between the level of standard granted subsidies per hectare of agriculture land and the degree of tillage, and its development with time.
– Another objective of our analysis is the comparison of the above mentioned calculated indicators like the SGS per hectare within the regions and sub-regions as well as their development in time or differences between regions.
– Also, our research analyzes the percentage structure of the SGS based on the classification per chapter (of the disbursed subsidies): the Single Area Payments Scheme (SAPS), support for the LFA, commodity specific direct aid (SCS), the national support of the Ministry of Agriculture (NS of MA) based on

the Act 806, (while specifically disseminating the support for animal production).
– We have calculated separately also the value of the financial support of the SGS per hectare of agriculture land according to the LPIS and compared their regional or sub-regional differences.
– We have analyzed the changes in the farms' operational results between the years 2004 and 2003, with or without subsidies, in total per hectare of agriculture land.

The results of our research are useful in terms of comparison of the differences for the selected indicators in time as well as between regions and sub regions respectively.

RESULTS AND DISCUSSION

Table 1 apparently demonstrates the disproportion in the changes of the cultivated agriculture land according to the cadastre and the LPIS in time and between regions. In 2004, there is a significant decrease (–34.32%) of the land classified as eligible for support (verified by the LPIS) compared to 2003 in less favorable regions (areas) LFA, or in other words reduction of 28 249 hectares of agriculture land. The biggest reduction in eligible agriculture land is registered mainly in the LFA 1 (–38.28% or 22 156 hectares). In the sub-region LFA 2, the reduction in the area of agriculture land is not as drastic compared to the LFA 1 in absolute terms (only 6 093 hectares), however, given the small size of this sub region, it represents a huge decrease (–24.94%). Also according to the findings from the cadastre, the reduction of the eligible agriculture land in the LFA region is considerable (–17.3%), with the following sub regional breakdown of –20.6% for the LFA 1 respectively –10% in the LFA 2.

In the more favorable, productive areas (PA), the reduction of the verified land (LPIS) in 2004 compared to 2003 is negligible – only 2 101 hectares or –2.53%. Especially in the sub-region PA 1, the reduction is very small (–0.78% or 408 hectares) while in the PA 2 it represents a –5.55% decrease or 1 692 hectares. According to the cadastre the reduction in the eligible land is only –0.9% with the following sub regional breakdown: the PA 1 only 16 hectares or almost 0% and the PA 2 –2.4% or 704 hectares.

The reduction of eligible agriculture land registered in the LPIS is due to a reduction in the area of pastures and meadows, while the tillage coefficient increased in all sub-regions, with a remarkable impact especially in areas where the biggest reduction of agriculture land was registered – the LFA 2, LFA 1, PA 2). It is clear that the area reduced could not be considered as eligible (or maintained in good condition) for the potential Direct Payment support.

Time and regional comparison of standard granted subsidies per hectare of agriculture land – the LPIS methodology

Figure 1 and Table 2, demonstrate not only differences of the calculated BPP per hectare of agriculture land between years, but also between regions and sub regions. In 2003, the PA received 2 953 SKK of the SGS per ha, while the LFA 4 071 SK, i.e. the difference in the SGS was 1 118 SKK to the benefit of less favored areas. In 2004, the support for the PA increased to the level of 4 071 SKK per ha, while in the LFA it increased to 6 678 SKK per ha deepening the disparity in the level of support between the areas at 1 642 SKK to the benefit of the LFA. However, the additional level of support disparity between regions from 2004 to 2003 (524 SKK) is statistically insignificant (Figure 1),

Table 1. Cultivated agriculture land according to the cadastre and the LPIS

Region	Cultivated agriculture land according to the LPIS (hectare)				Cultivated agriculture land according to the cadastre (hectare)		
	2003	2004	difference (2004–2003)	decrease (%)	2003	2004	difference (2004–2003)
PA	83 002	80 901	–2 101	–2.53	83 129	82 417	–712
PA 1	52 525	52 116	–408	–0.78	52 491	52 507	16
PA 2	30 477	28 785	–1 692	–5.55	30 638	29 910	–728
LFA	82 304	54 055	–28 249	–34.32	78 226	64 678	–13 548
LFA 1	57 873	35 717	–22 156	–38.28	53 795	42 690	–11 106
LFA 2	24 431	18 338	–6 093	–24.94	24 431	21 989	–2 442

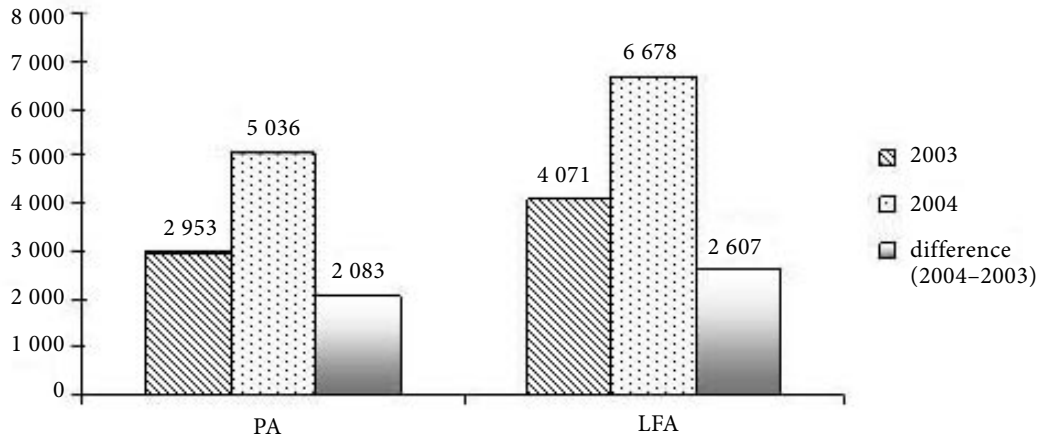

Figure 1. Comparison of the SGS per hectare of agricultural land according to the LPI

even though the difference in the levels of support per each region is statistically significant (the PA + 2 083 SKK and the LFA + 2 607 SK).

It is interesting to see not only the differences of support level in time (2004 compared to 2003) between sub-regions, but also the support level disproportion within the regions themselves (Table 2, Figure 2 and 3). Our calculations show that disparities in the support level slightly increased within the PA in 2004 compared to 2003. In the PA 1 it increased from 2 093 SKK per ha to 4 762 SKK per ha (or by 64%), while increasing by 82.1% in the PA 2 (from 3 038 SKK to 5 532 SKK – the biggest % increase among the analyzed four regions). The support disproportion between these sub-regions is 770 SKK.

In the LFA region, the change in support level between its sub regions led to a complete change in terms of priorities and reallocation of that support. So the LFA 2 received in absolute terms a higher level of support than the LFA 1 in contrast to 2003 and previous years, due to a larger share of increase in support level for the LFA 2. Concretely, the support level in the LFA 1 increased from 4 149 in 2003 to 6 526 in 2004 or by 57.3%. In the LFA 2 the support increased by 79.5% from 3 885 SKK in 2003 to 6 974 SKK in 2004 (in absolute terms the support level of 6 974 SKK per ha is the highest among four sub regions).

Another interesting point of this analysis is the comparison of the variability of the SGS between farms within the sub regions themselves. The coefficients of variance in Table 2 show the share of variability given by the standard deviation, on the average the SGS levels per sub region. It is obvious that lower coefficients of variance mean lower disparities in the level the SGS per ha between farms within sub-regions.

The conclusion from the data and calculated coefficients of variance is that differences or disparities in the level of the SGS between farms within all sub-regions are narrowing comparing 2004 with 2003. The biggest differences are noticed in PA 1 in 2003 (the coefficient of variance 50%) while given that the average SGS level is at 2 903 SKK than the difference among farms from the average level (std. deviation)

Table 2. Standard granted subsidies per hectare of cultivated agricultural land (thousand SKK)

Region	SGS – Average per hectare of agriculture land according to LPIS					Growth coefficient 2004/2003	Accrual (%)
	2003	coefficient of variance in 2003 (%)	2004	coefficient of variance in 2004 (%)	difference (2004–2003)		
PA	2.953		5.036		2.083	1.706	70.60
PA 1	2.903	50.00	4.762	19.80	1.859	I.64	64.00
PA 2	3.038	44.30	5.532	21.00	2.494	1.821	82.10
LFA	4.071		6.678		2.607	I.64	64.00
LFA 1	4.149	17.10	6.526	12.50	2.377	1.573	57.30
LFA 2	3.885	34.20	6.974	7.10	3.088	1.795	79.50

is +/–1 500 SKK. In 2004, though, the variability in this sub-region decreased significantly to 19.8%. The situation in the PA 2 is similar, but the decrease in variability is not as significant as in the previous case (from 44.3% in 2003 to 21% in 2004).

For the LFA regions, it is typical that in the pre accession years there are small differences in the SGS level, due to the Slovak agriculture support policy specificity that gave the same level of support to all farms in less favored areas. So, in 2003, the coefficients of variance for the LFA 1 respectively the LFA 2 are 17.1% and 34.2%. However, even in these sub-regions, we could see the tendency of reduction in the difference of support level between farms. In the LFA 1, the variability decreased to 12.5% in 2004 and 7.1% in the LFA 2 (the lowest differences among all analyzed sub-regions).

Part of our research was to analyze the relationship between the levels of the SGS per ha and the tillage coefficient (in %). There were set up 4 intervals based on the tillage coefficient. Our hypothesis, that the level of the disbursed farm support is dependent upon the differences of the quality of their land expressed by different tillage coefficients, proved statistically significant. Even though our hypothesis was related to the 2004 support level, we tested it for 2003 as well. To test the significance of our hypothesis, we used the analysis of variance (ANOVA).

From the calculations of 2003, we conclude that there are statistically significant differences in the level of farm support in relation to the land tillage differences (*P*-value = 0.02). This is demonstrated also by the fact that the SGS levels fall with the increasing land tillage coefficients. For example, the

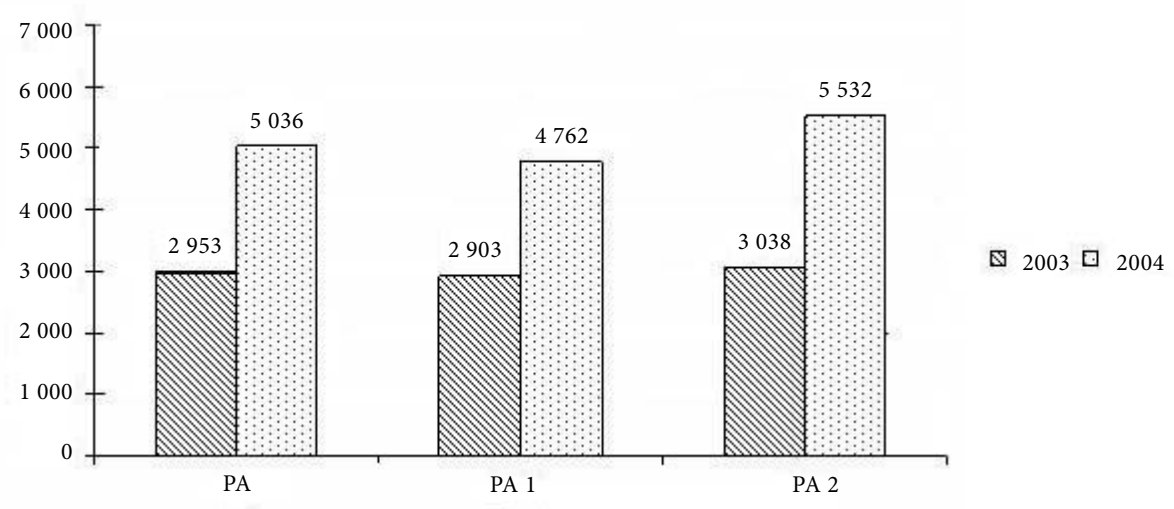

Figure 2. Comparison of the SGS per hectare of agricultural land in more productive regions

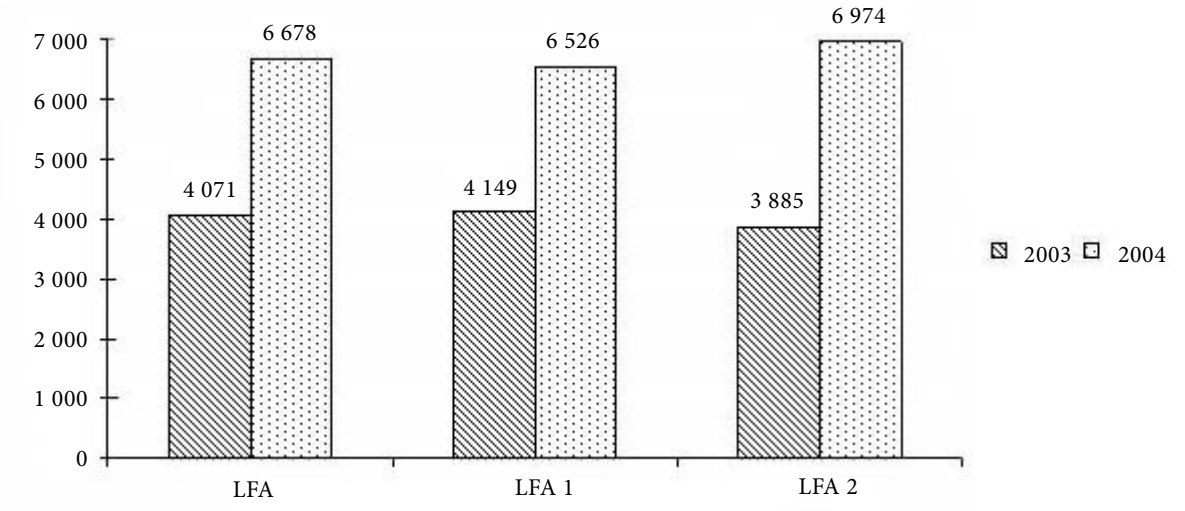

Figure 3. Comparison of the SGS per hectare of agricultural land in less favorable regions

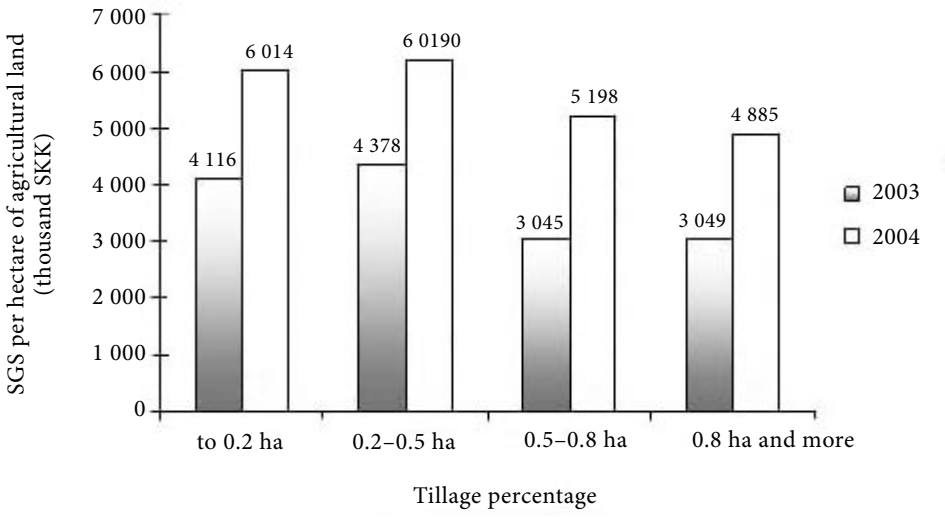

Figure 4. Standard granted subsidies level per hectare of agricultural land in relation to the tillage percentage

higher SGS per ha are paid to farms operating land with the tillage coefficient up to 0.5 (4 116 SKK for those with tillage coeff. up to 0.2 and 4 738 for those between 0.2 and 0.5). The level of the SGS decreases with levels of tillage coefficients above 0.5, in the average it reaches 3 050 SKK per ha per farm. The highest variability it is shown in farms with the land tillage coefficient higher than 0.8, where the levels of the BPP varies with 2 590 SKK per ha over or below average. The lowest variability is reached in farms with the tillage coefficient up to 0.2.

Regarding the year 2004, our hypothesis is proved statistically significant i.e.; huge differences in the level of support related to farms with different land tillage coefficients (*P*-value = 0.002). The higher SGS per ha are paid to farms operating in a land with a low tillage coefficient, up to 0.5 (6 014 SKK for those with tillage coefficient up to 0.2 and 6 190 SKK for those between 0.2 and 0.5). The level of the SGS decreases with the levels of tillage coefficients above 0.5 (3 050 SKK per ha per farm with coefficient between 0.5 and 0.8, and 4 885 SKK for coeff. above 0.8). The highest variability it is shown in farms with lower land tillage coefficients. For the farms with tillage coefficients up to 0.2, the levels of the SGS varies by 1 927 SKK above or below average (the coefficient of variance 32%). With lower tillage coefficients, the variability of the SGS per ha falls. The lowest variability is reached with tillage higher than 0.8, where the levels of the SGS vary with 1 085 SKK per ha over or below average and the coefficient of variance is 22.2%

The structure of standard granted support based on payment system in 2004

There are differences between regions and sub-regions not only in the level of support (BPP per ha), but also in the structure of that support. While the support level for the less favored areas LFA within the PA is on the average 420 SKK per 1 ha of the

Table 3. Structure of the SGS per hectare of agricultural land (thousands SKK)

Region	LFA per ha LPIS	SCS per ha LPIS	NS of MA	SAPS	Total	Another subsidies + incongruity	SFP per ha LPIS
PA	0.420	1.244	1.601	1.633	4.898	0.138	5.036
PA 1	0.049	1.309	1.660	1.592	4.610	0.152	4.762
PA 2	1.092	1.128	1.493	1.707	5.420	0.112	5.532
LFA	3.643	0.161	0.847	1.845	6.495	0.182	6.678
LFA 1	3.846	0.109	0.505	1.886	6.346	0.180	6.526
LFA 2	3.247	0.283	1.512	1.766	6.808	0.166	6.974

LPIS land, in the LFA regions it reaches the level of 3 843 per ha LPIS. Given the fact that the interval of support level varies between 781 SKK and 4 402 SKK per ha, than it is obvious that the share of the LFA per ha of the LPIS in the PA areas is really low while in the LFA it is really high.

In highly productive regions the PA, support levels breakdown based on categories of support are balanced: the single commodity support (SCS) per ha of arable land 1 244 SKK, the NS of the MA at 1 601 SKK and the single area payments (SAPS) at 1 633 SKK. But there differences within the PA region between the PA 1 and the PA 2 sub-regions. So, for example, the LFA support level per ha of the LPIS is 49 SKK in the PA 1 sub region, in the PA 2 it represents 1 092 SKK per ha. Even though the tillage coefficient of land in this sub-region (PA 2) is high, major part of the available land in this sub-region is classified as the LFA and that's how the support is disbursed. This is the reason why the SGS level in the PA 2 sub-region is in average 600 SKK per ha higher than in the PA 1 sub region.

In the less favored areas LFA, the LFA support level is on the average 3 643 SKK per 1 ha LPIS. There are just very small differences on this level between sub regions. The differences in the SGS levels between those sub regions are due to the effect of the differences in the level of support by the national program of support of the Slovak Ministry of Agriculture (NS of MA). So, the NS of the MA level of support for the LFA 1 is only 505 SKK per ha of the LPIS, while in the LFA 2 it reaches 1 512 SKK per 1 ha LPIS.

Table 4. Percentage structure of the SGS on the basis of the constituent chapters

Region	SGS (%)				
	LFA	SCS	NS of MA	SAPS	another subsidy + incongruity
PA	8.3	24.7	31.8	32.4	2.7
PA 1	1.0	27.5	34.9	33.4	3.2
PA 2	19.7	20.4	27.0	30.9	2.0
LFA	54.6	2.4	12.7	27.6	2.7
LFA 1	58.9	1.7	7.7	28.9	2.8
LFA 2	46.6	4.1	21.7	25.3	2.4

Table 5. Share of subsidies per animal production from the NS of the MA in year 2004

Region	NS of MA per ha LPIS (thousand SKK)	there of	
		animal production (%)	another (%)
PA	1.601	0.98	99.02
PA 1	1.660	0.58	99.42
PA 2	1.493	1.79	98.21
LFA	0.847	24.6	75.42
LFA 1	0.505	31.6	68.40
LFA 2	1.512	20.0	80.00

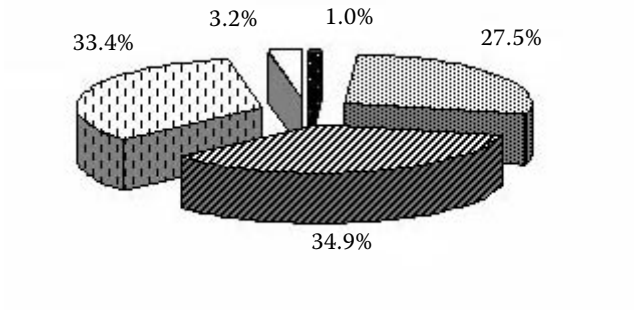

Figure 5. Percentage structure of subsidies in the sub-region PA 1 of the productive region PA

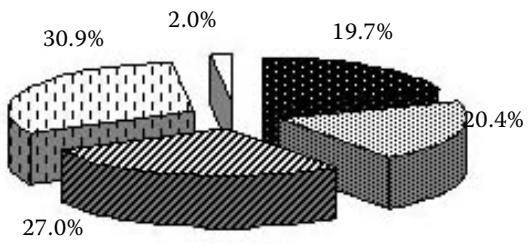

Figure 6. Percentage structure of subsidies in the sub-region PA 2 of the productive region PA

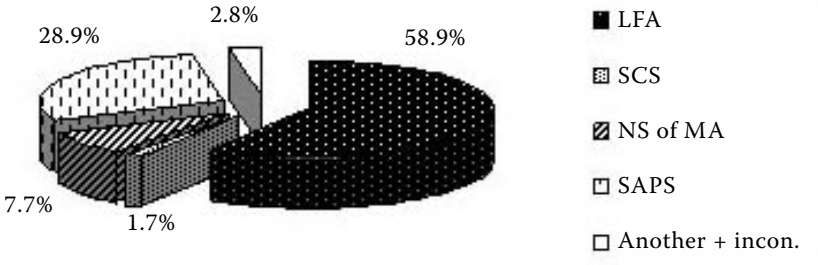

Figure 7. Percentage structure of subsidies in the sub-region LFA 1 of less favorable region LFA

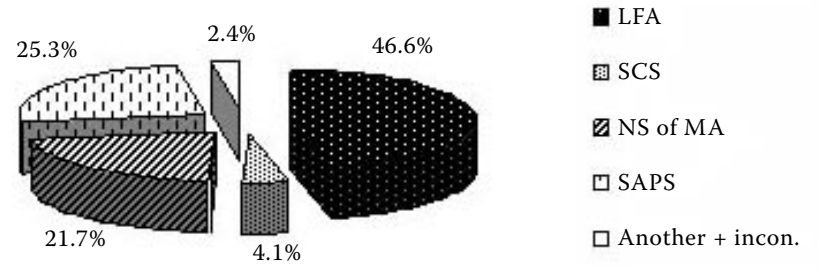

Figure 8. Percentage structure of subsidies in the sub-region LFA 2 of less favorable region LFA

There are significant differences in the disseminated support for animal production, between regions. In the PA region, the national program share of support for Animal Production represents only 0.98%, while in the LFA it represents 24.6% (no big differences between the LFA 1 31.6% and the LFA 2 20%).

The structure of support, its category breakdown and the respective shares per category are represented in Table 4, Figure 5–8. In the PA region, the SAPS 32.4% and the National Program of support NS of the MA 31.8% represent the highest share of the SGS. The other categories, the SCS and the LFA represent only 24.7% resp. 8.3% of the total SGS. The last category (LFA) is the main reason behind the differences between sub-regions, as mentioned above. The LFA share of total the SGS in the PA 1 region is 1% while the same share in the PA 2 represents 19.7% (even though tillage coefficient is 80.5%), leading to a higher SGS per ha of agriculture land in the PA 2 compared to the PA 1, given that other categories of support are at a similar level in both sub-regions.

In less favored areas LFA, obviously it is the LFA category that represents the highest share 54.6%, where the difference between sub-regions is 12% (the LFA 1 58.9% and the LFA 2 46.6%). This disparity in the level of the SGS per ha between the LFA 1 and the LFA 2 is due to the NS of MA that represent only 7.7% of the total SGS in the LFA 1 but almost 22% in the LFA 2. It is interesting to notice that the share of support disseminated for animal production is higher in the LFA 1 (31.6%) than in the LFA 2 (20%).

Table 6. LFA changes and SGS per LFA

Region	LFA in ha agricultural land			Accrual/ decrease (%)	LFA support per ha	LFA/LPIS (%)	
	2003	2004	difference (2004–2003)		2004	2003	2004
PA	10 346	23 589	13 243	128.0	1.442	12.5	29.2
PA 1	1 094	3 119	2 025	185.2	0.824	2.1	6.0
PA 2	9 252	20 470	11 218	121.2	1.536	30.4	71.1
LFA	32 122	41 299	9 177	28.6	4.078	51.4	97.7
LFA 1	18 847	26 170	7 323	38.9	4.160	45.6	98.4
LFA 2	13 275	15 129	1 854	14.0	3.936	62.7	96.7

Table 7. Arable area changes and the SGS per arable area

Region	Arable area			Accrual/ decrease (%)	SCS per ha arable land (thousands SKK)	Tillage percentage	
	2003	2004	difference (2004–2003)		2004	2003	2004
PA	70 608	72 099	1 490	2.1	1.396	85.1	89.1
PA 1	48 148	48 932	784	1.6	1.394	91.7	93.9
PA 2	22 460	23 167	707	3.1	1.401	73.7	80.5
LFA	14 841	1 1815	–3 026	–20.4	1.118	18.0	21.9
LFA 1	8 849	6 451	–2 398	–27.1	0.976	15.3	18.1
LFA 2	5 992	5 365	–627	–10.5	1.289	24.5	29.3

The comparison of the LFA support level and the commodity specific direct aid SCS

The changes in agriculture support policy from 2003 to 2004 (that included the verification of land categorization evidence by aerial photographing) led to a decrease in the cultivated land – the LPIS system. The establishment of the Direct Payments and the LFA support led to an increase in the evidence of the LFA land area. The biggest increase was registered in the productive areas PA and especially in the PA 1 (185% or 2025 increase in the LFA land). However, compared to the low share of LFA reported in 2003 in this sub-region, this is not a dramatic development. In the the PA 2, the increase of the the LFA evidence was more remarkable: 11 218 additional hectares were reported as the LFA in 2004 compared to 2003 (121% increase). The share of the LFA on the total area of cultivated land rose from 12.1% in 2003 to 29.2% in 2004. While in the PA 1 the share of the LFA/LPIS increased just slightly, in the PA 2 the increase was dramatic from 30.4% in 2003 and 71.1% in 2004. As the tillage coefficient rose from 73.7% in 2003 to 80.6% in 2004, so did the share of arable land classified as the LFA. In the PA 1 region the share of the LFA/LPIS is small and it increased just slightly (2.1% in 2003 and 6% in 2004). The SGS per ha of LFA is different in both PA sub-regions. In PA 1 it represents on average 824 SKK while in PA 2 up to 1 536 SKK.

In the LFA areas, the phenomenon of increased evidence of arable land as the LFA is apparent as well. The increase is not as dramatic as in the PA case, because the share LFA/cultivated land is high in LFA areas. In this region, the LFA evidence increased by 28.6% or 9 177 hectares. There are differences between sub-regions: in the LFA 1 it increased by 14% and in the LFA 2 by 38.9%. The LFA/LPIS share increased remarkably in this region from 51.4% in 2003 to 97.7% in 2004. Practically the differences in the LFA/LPIS share were canceled out in 2004. The average LFA support level represents 4 078 SKK per ha while the difference between the sub-regions is really small only 200 SKK higher in the LFA 1.

The single commodity support level SCS is presented in Table 7. It is obvious that in the PA regions the arable land increases slightly by 2.1%, in the LFA regions it decreases on average by 20.4%. The increase in tillage coefficient from 18% in 2003 to 21.9% in 2004 is due considerable decrease in the reported LPIS in favor of pastures and meadows areas. The level of support is balanced between sub-regions (from 1 289 SKK per ha up to 1 401 SKK per ha). The LFA 1 is an exemption where the support level is 976 SKK per ha of arable land. In all sub-regions, the tillage coefficient increases caused by increases resp. decreases in the area of arable land and primarily by differences in the reduction of reported cultivated land according to the LPIS (Table 1).

The analysis of profitability with and without subsidies

In both regions and their respective sub-regions, the farms report net losses under the condition without subsidies and in 2004 net losses are reduced from by 15.3% in the LFA 1 up to 26.1% in the PA 1. The LFA 2 is an exemption because the net loss deepens by 22% (Table 8). Only two farms reported a net loss in 2004 under the subsidy variant but their weight in the sub-regional agriculture was so large that it led to a negative operational profit for the whole LFA 1 region.

Table 9 shows the operational profit – loss calculated per hectare of agricultural land and for both variants (with and without subsidies) for the years 2003 and 2004. All farms report a net loss per ha for all regions under the variant without subsidies where

Table 8. Profit changes without subsidies and with subsidies

Region	Profit without subsidies (thousands SKK)			Difference (%)	Profit with subsidies (thousands SKK)			Difference (%)
	2003	2004	difference (2004–2003)		2003	2004	difference (2004–2003)	
PA	–379 195	–281 246	97 949	–25.8	–134 132	126 168	260 300	194.1
PA 1	–222 114	–164 078	58 036	–26.1	–69 629	84 095	153 724	220.8
PA 2	–157 081	–117 168	39 913	–25.4	–64 503	42 073	106 576	165.2
LFA	–366 835	–344 356	22 479	–6.1	–31 800	16 599	48 399	152.2
LFA 1	–276 798	–234 530	42 268	–15.3	–36 685	–1 458	35 227	96.0
LFA 2	–90 037	–109 826	–19 789	22.0	4 885	18 057	13 172	269.6

Table 9. Profit changes without and with subsidies per ha agricultural land LPIS

Region	Profit without subsidies per ha agricultural land LPIS (thousands SKK)			Difference (%)	Profit with subsidies per ha agricultural land LPIS (thousands SKK)			Difference (%)
	2003	2004	difference (2004–2003)		2003	2004	difference (2004–2003)	
PA	–4.569	–3.476	1.092	–23.9	–1.616	1.560	3.176	197
PA 1	–4.229	–3.148	1.080	–25.5	–1.326	1.614	2.939	222
PA 2	–5.154	–4.070	1.084	–21.0	–2.116	1.462	3.578	169
LFA	–4.457	–6.371	–1.913	42.9	–0.386	0.307	0.693	179.5
LFA 1	–4.783	–6.566	–1.783	37.3	–0.634	–0.041	0.593	–93.6
LFA 2	–3.685	–5.989	–2.304	62.5	0.200	0.985	0.785	392.5

the highest average figure is reported for the PA region (–4 569 SKK per ha) and the lowest for the LFA region (–4 457 SKK per ha). The figures are similar for sub regions as well, where the LFA 2 reports the lowest net loss –3 685 SKK per ha. The dynamic of changes in the level of operational loss for 2004 is different between farms from different regions. The farms in the PA region reduced their operational net loss per ha by 23.9% (from –4 569 SKK per ha in 2003 to –3 476 SKK in 2004). We notice similar changes in the PA 1 and the PA 2 sub regions.

On the other hand, farms' operational net loss per ha deepens in the LFA region under the variant without subsidies. The net loss for the LFA farms increases by 42.9% from –4 457 SKK per ha in 2003 to –6 371 SKK per ha in 2004. The biggest operational net loss was faced by farms in the LFA 1 –6 566 SKK per ha or 37.3%. The biggest increase in the net loss was noticed in the LFA 2 62.5% (from –3 685 SKK in 2003 to –5 989 SKK in 2004).

It is interesting to emphasize that in 2003, even with the implementation of subsidies and support, farms in all sub regions reported net losses (excluding the LFA 2 where a profit of 200 SKK per ha was reported). The highest net loss was reported by farms operating in the the PA regions (–1 326 SKK per ha in the PA 1 and –2 116 SKK per ha in the PA 2). In the LFA 1, the farms operational net loss represented only 634 SKK per ha. Lower support level for the PA regions in 2003 could not compensate losses occurred by the farms in that region. The increase level of support in 2004 compensates operational net losses for all farms from all regions with the exception of above mentioned 2 farms from the LFA 1 region. In the PA sub-regions, the farms from the PA 1 and the PA 2 regions report similar operational profit levels on average at 1 560 SKK per ha. The situation in the LFA region is different, though. Farms in the LFA 1 region report a small net loss of 41 SKK per ha (after subsidy implementation) while the LFA 2 farms report a profit of 985 SKK per ha. It is obvious, though, that even after subsidy implementation and higher than the PA level of support (BPP), the operational net loss of the farms from the LFA could be not fully compensated.

CONCLUSION

From our analysis, it is shown that recently the agricultural policy in Slovakia continues to support farms in the LFA in line with the priorities of the Common Agricultural Policy of the EU. The level of allocated support is significantly higher for farms operating in the the LFA regions. The Single Area Payments support the extensive agriculture in LFA, paving the way for their sustainable development. The farms operating on land with low tillage coefficient (under 50%) receive a significantly higher level of support. The variability (disparities) however in the level of support (SGS per ha) between sub-regions is decreasing. The current level of support (SGS per ha), even though is significantly higher than in the previous years, does not compensate farms' net losses in the LFA regions.

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