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CHANGES IN DIRECT PAYMENTS AFTER 2013 IN THE CZECH AGRARIAN SECTOR

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Abstract

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The Common Agricultural Policy is the oldest common policy of the European Union and its influence covers a wide range of social life issues, covering the agricultural production itself as well as the fields of rural development, employment, environmental protection and others. The aim of this paper is to review the development of the CAP subsidy policy and its possible scenarios after 2013. For the analysis, a sample of Czech farms was selected (920 farms) in 2004–2011. The first part of this paper describes the development of subsidies in 2004–2011 and their impact on the profitability of enterprises. It includes a prediction of a possible new system of the direct payments for 2014. These calculations are set out in two variants: a) simplified flat rate per hectare; b) combined payment based on the Regulation of the European Parliament and Council Regulation 2011/0286 (EC, 2011b).

agriculture, Common Agricultural Policy, subsidy, direct payment, productivity, farms

Support to entities in agriculture is implemented for various reasons in almost all states of the world. Large differences in production and climatic conditions in different regions is one of these reasons. Entrepreneurs in less favourable conditions cannot compete with enterprises in the areas of production without intervention to cover their higher costs, assuming that production under the circumstances could be viable, or where it is necessary to maintain the population of the region (Szabo-Grznár, 2002).

The objectives of the CAP are related to its three basic principles: market unity, Community preference and financial solidarity. Agricultural products can freely move across member states borders. Unified presentation is ensured. Producers are protected against outer competitors. The CAP expenses are paid from common sources.

The Common Agricultural Policy has gone through many partial reforms, however the attempts to its restructuring in an important way started in the nineties. The most important reform occurred in 2003.

In 1992, the MacSharry reform came with essential changes. Its main instrument was to decouple payments from production that caused a decrease of overproduction. The Community decreased guaranteed price compensating the decrease by direct payments based on the production. Some compensation was paid on laying a part of land fallow.

In 2003, the Fishler reform made a breakthrough with introducing the single payment scheme. Farmers receive one payment instead of several payments. Direct payments are subject to respect the legislative standards, the cross-compliance (19 rules for environmental protection, food safety and animal health).

Last changes were made during the CAP Health Check in 2008. The package of four legislative documents approved partial reforms and modification of some mechanisms of the CAP: the direct payment and modulation system, payments no longer linked to production, changes of the common milk and dairy market including phasing out milk quotas and new priorities in the area of rural development.

The main aim of this paper is to determine the possible amount of direct payments based on proposed solutions for the CAP after 2013 in the

Czech agrarian sector, according to two variants. Partial aims are: a) comparison of subsidies in the EU, b) analysis of existing supports in the Czech Republic in 2004–2011.

MATERIAL

The problem of agricultural support and prediction of its impacts to the international market and the EU has been discussed in a number of studies, such as Fárek-Foltýn (2004), Donaldson *et al.* (1995), Beard and Swinbank (2001), Benjamin *et al.* (2006), Latruffe and Davidova (2007). Most of foreign studies are aimed at impacts of the EU enlargement (Ciaian *et al.* 2007). An analysis of the CAP impact to new member states is discussed in Pokrivčák-Svinnen-Gorter (2003). Szabo-Grznár (2002) deal with impact of the CAP to profit of farms, highlighting the disparity of profit of different types of farms, natural conditions and economic prosperity.

Direct payments provide income transfers to European farmers. Recently, a few member states have supported a restriction of direct payment after 2013. The way how would removing direct payments influence the dynamics of land use in Europe including impacts to structural changes and environment is discussed by Uthes *et al.* (2011), ACS *et al.* (2010), Offermann *et al.* (2009). Božík (2011) says that the absolute abolition of direct payments will bring very unfavourable economic consequences with impacts on agricultural production in Slovakia.

This paper analyses the sample of farms (920) in 2004–2011. The analysis is based on financial statements (balance sheet, income statement) and a questionnaire discovering provided support. The first part of the paper describes the subsidy system of the CAP and compares the subsidy within the EU. The analysis itself is focused on the sample of Czech farms. A structure of subsidies is set to calculate selected ratios showing the impact of subsidies to profitability of farms (the profit/loss, total profitability and relations of parts of these ratios is assessed).

Further analysis is focused on a possible calculation of direct payment in 2014. The Common Agricultural Policy is due to be reformed by 2013. After a wide-ranging public debate the Commission presented on 18th November 2010 a Communication on "The CAP towards 2020", which outlines options for the future CAP and launched the debate with the other institutions and with stakeholders. On 12th October 2011 the Commission presented a set of legal proposals designed to make the CAP a more effective policy for a more competitive and sustainable agriculture and vibrant rural areas (EC, 2012a). Following a debate in the European Parliament and the Council, the approval of the different regulations and implementing acts is expected by the end of 2013, with a view to having the CAP reform in place as from 1st January 2014. Kožar *et al.* (2012) present key results regarding a possible reform of the CAP direct payments, based on a scenario analysis by the CAPRI (Common Agricultural Policy Regionalized Impact) modelling system. Results suggest a drop of the agricultural gross value added by 9% at the aggregate EU27 level compared to the reference scenario. Impacts differ between the Member States groups, Member States and regions, depending on the share of premiums in the income from agriculture, specialization and competitiveness of production. The largest reduction is projected for the suckler cow herd, dropping by 6% compared to the reference scenario. The drop is caused by removing the coupled support. Erjavec *et al.* (2011) say that there would be minor negative impacts on the agricultural production at the EU level, but that more substantial impact for some commodities, most notably beef, could occur in the individual EU Member States. An important outcome of such a policy reform would be a substantial change in the budget allocation between Member States, which could help mitigate the budgetary tensions between the Member States.

A single scheme across the EU, the basic payment scheme, replaces the Single Payment Scheme and the Single Area Payment Scheme as from 2014. The scheme will operate on the basis of payment entitlements allocated at national or regional level to all farmers according to their eligible hectares in the first year of application. Thus the use of the regional model that was optional in the current period is generalized, also effectively bringing all agricultural land into the system. The rules on the management of entitlements and the national reserve largely follow current rules (EC, 2011a).

METHODOLOGY

According to current proposals, since 2014, multicomponent basic payment is supposed to be provided instead of direct payment, obliged to consist of the green payment (30%) and payment to young farmers (2%). A voluntary payment for farmers in areas facing specific natural constraints (up to 5%), system of payments coupled to production (up to 10%) and simplified scheme for small farms (up to 10%; implementation of the payment is compulsory, using it by farmers is voluntary) will be introduced as well.

The direct payment national envelope for the Czech Republic will amount to EUR 892 million. Total direct payment rate per hectare could therefore be estimated for EUR 253–255; of which 75–76 EUR/ha will be provided to green payment (greening) and 33 EUR/ha will be provided to young farmers. In case the payment to areas with natural constraints is implemented (currently, the LFA payment is considered within the second pillar only), the rate will range between 22–25 EUR/ha of agricultural land. Simplified system for small farms (with the area up to 3 ha) will replace payment with the rate ranging from EUR 500 to EUR 1,000 in relation to the size of the farm. Payments coupled to production follow supported sensitive commodities in the Czech Republic within the TOP-UP payment, i.e. to support dairy cows for beef production, sheep, goat, potatoes for starch and hop production.

The Czech Republic is considering implementation of the payment for 10% of the national budgetary envelope. In case the envelope of approximately EUR 89 million will be divided in the similar way as within the 2012–2013 schemes, it is possible to estimate the ruminant livestock unit rate to be approximately EUR 140, EUR 450 for hop and EUR 1,000 for starch potatoes (Fantyš, 2012).

The basic direct payment will be paid from sources left from the budgetary envelope after distracting the above mentioned payments. The rate is supposed to be calculated per hectare of agricultural land the SAPS was paid to in 2011. The basic direct payment is estimated to be approximately 130–135 EUR/ha, including all above mentioned payment schemes possible to use within the direct payment.

A total sum of support that a single farmer can receive within the basic payment scheme, i.e. the sum of all direct payments listed above less the green payment and the scheme for small farms will be subjected to degression and reduction. The total sum will be limited to EUR 300,000 per year and the payment will by decreased by 70% of the sum for sums ranging from EUR 250,000 to 300,000; by 40% for sums ranging from EUR 200,000 to 250,000 and by 20% for sums ranging from EUR 150,000 to 200,000. Considering the employment factor it will be possible to depreciate wage cost of the previous year before applying the reduction (Fantyš, 2012).

Based on the above mentioned rules, probable requirements for the direct payments in 2014 were calculated for the sample of 89 farms from data collection of 2011. The impact of the CAP changes to the profit/loss and total profitability were drawn up classified in relation to climatic conditions of farming.

Further analysis was performed according to the classification in order to describe possible differences of different groups of farms. The following classifications were employed: I) classification based on the LFA share (50% chosen as a limit); II) based on the altitude (300 m above sea level as a limit; followed by steps of 50 m and above 600 m above the sea level); III) based on the farm size in relation to its area of agricultural land in ha (up to 500 ha as a limit, followed by steps of 500 ha and more than 3,000 ha).

RESULTS AND DISCUSSION

Comparison of the EU subsidies development

Compared to the EU states Tab. I showed a development of total subsidies – excluding on investments calculated per ha of utilized agricultural land since 2004. As the table reveals, the Czech Republic has improved and skipped from the 20th place in 2004 up to 16th in 2009 with EUR 318 per ha of agricultural land. Regarding the neighbour states, Austria reached the greatest subsidy per ha (by 93% compared to the Czech Republic) as well as Germany (by 29% compared to the Czech Republic). On the other hand, Slovakia reached 98% of Czech subsidies in 2009. Poland had only 88%.

A recalculation of total subsidies – excluding on investments per work unit based on the FADN monitoring (EC, 2012) revealed that the Czech Republic reached the 12th place within the EU; greater subsidies in EUR/AWU occurred in Germany (by 57%), Austria (by 32.8%) and Slovakia (14.8%). On the other hand, Poland had 28.8% of subsidies in EUR/AWU only compared to the Czech Republic.

The share of subsidies in assets was of the 6th rank in the Czech Republic; 9% in the Czech Republic as well as in Slovakia. There was a 5% share of subsidies in assets in Germany, 4.7% in Austria and 3.9% in Poland.

Comparing subsidies and farm income calculated per ha of agricultural land revealed that the Czech Republic was the third worst after Denmark and Slovakia that were in a loss in 2009 (Fig. 1).

Assessment of the subsidy development of Czech farms in 2004–2011

Basic conditions of the Czech Republic in the EU environment in agriculture are based on the Accession Treaty between the Czech Republic and the EU signed in Athens (April 2003), the final version of the CAP reform (October 2003) approved by the EU summit in June 2003 and other EU legislative measures in relation to the environment, food safety, etc.

The new Member States could no later than to the date of accession decide to reimburse payments under support schemes by a single area payment calculated by dividing the annual financial framework for the agricultural area of each new Member State. The system of direct payments applied in 2004 consisted of the single area payment scheme (SAPS), where the basic rate per 1 ha of agricultural land was calculated as the share allocated to the national limit and the number of hectares of declared agricultural land. The amount of support was determined by multiplying the basic rate per 1 ha of agricultural land and area of the agricultural land. Besides the SAPS, national additional payments (TOP-UP) paid for arable land, hop, ewes and goats, suckler cows, cattle and forage seed and flax were approved by the Ministry of Agriculture for 2004.

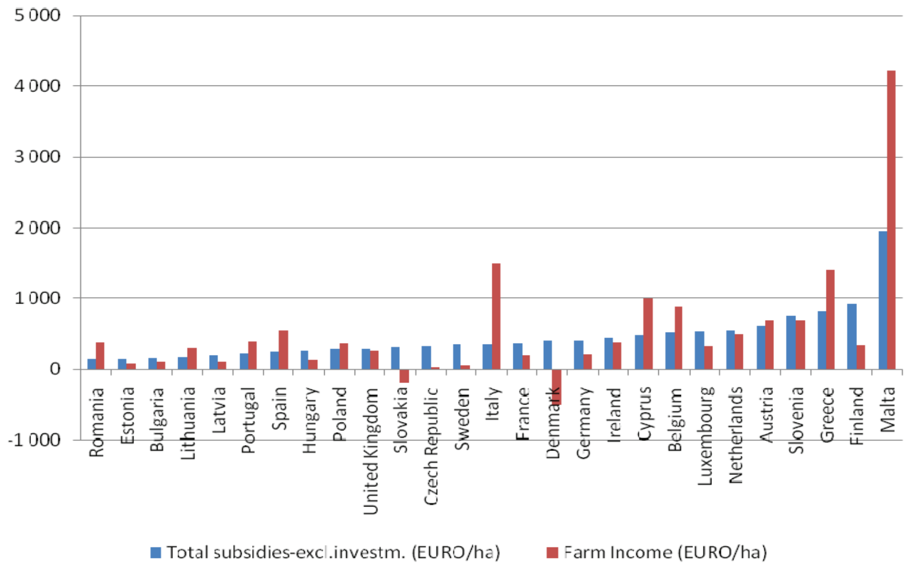
In 2007 the Czech Republic was forced to accept the Addendum to the Guidelines on the Complementary National Direct Payments in the New Member States. It brought a necessity to change the system of the TOP-UP previously strictly coupled to production.

After entering the EU, the payments under the Horizontal Rural Development Plan (HRDP) and the

I: *Total subsidies – excluding on investments in 2004–2009 (EUR/ha)*

State	2004	2005	2006	2007	2008	2009
Belgium	388.2	419.9	483.5	538.7	547.6	524.3
Bulgaria				85.5	146.0	171.5
Cyprus	521.2	547.8	470.2	416.6	721.5	479.4
Czech Republic	**150.0**	**192.1**	**258.6**	**272.8**	**333.1**	**318.7**
Denmark	381.6	383.0	407.3	398.3	407.3	404.7
Germany	389.9	372.5	415.0	405.6	401.4	410.5
Greece	641.3	667.3	847.5	824.6	890.4	823.7
Spain	214.2	208.8	216.2	190.9	243.9	240.4
Estonia	98.2	112.6	137.5	153.7	172.0	157.2
France	351.6	357.7	372.1	355.4	360.2	358.6
Hungary	180.1	209.2	215.9	244.6	267.5	261.3
Ireland	382.9	420.4	444.0	440.3	448.2	439.2
Italy	351.0	362.0	374.4	338.3	340.8	353.7
Lithuania	112.7	130.8	163.3	165.7	179.1	184.7
Luxembourg	512.6	507.5	520.4	519.1	522.2	540.6
Latvia	121.1	134.4	206.8	185.4	218.1	203.9
Malta	2 965.0	2 740.7	3 117.0	3 841.0	3 677.9	1 952.0
Netherlands	307.7	431.3	518.3	517.7	535.9	543.3
Austria	593.8	615.1	626.4	588.4	598.9	616.1
Poland	129.3	135.2	215.2	220.9	274.1	279.6
Portugal	217.6	220.0	217.3	203.8	212.1	235.9
Romania				167.8	159.7	147.6
Finland	879.5	900.7	828.8	900.8	918.2	926.4
Sweden	316.0	333.8	365.2	367.8	381.4	347.9
Slovakia	98.6	166.9	188.9	241.3	257.2	313.5
Slovenia	437.4	505.7	429.0	557.5	652.7	758.9
United Kingdom	281.8	296.7	302.9	301.5	274.5	280.6

Source: FADN



1: *Comparison of subsidies and farm income in 2009*
Source: FADN

Operational Programme Rural Development and Multifunctional Agriculture (OP RDMA) focused on the support of investment projects implemented in agriculture became important as well. In the years 2007–2013, these aids have been addressed under the Rural Development Programme (RDP). The aim of the programs was to ensure greater competitiveness of agriculture through increased productivity, increased added value and quality of agricultural products and thereby increased agricultural incomes.

Since 2004, the most important payments include the direct payments (SAPS, TOP-UP and decoupled payment) as well as the LFA compensatory allowance and agri-environmental measures (AEM). These payments were 82–89% of all subsidies received in years of the monitoring (Tab. II).

An average growth rate of subsidies reached 6.1% per year with the greatest increase in 2005 (20%) and a decrease in the following years with a decrease compared to the previous year in 2010.

As far as each payment is concerned, the greatest growth rate was revealed by the SAPS – 13.7% in average; on the other hand the TOP-UP were decreasing by 18% per year in average. The LFA payment stagnated more or less with an average growth rate of 0.3%. The agro-environmental measure payments had an average growth rate of 2.2%.

The development corresponds to the scheme agreed by the EU summit in June 2003 with a starting amount of the direct payment for the new member states (NMS) of 25% if the EU-15 in 2004 and a 5% increase up to 2007 (40%) followed by an increase by 10% per year including a possibility to pay the rest

II: *Development of subsidies of an average farm in 2004–2011 (thousand CZK)*

Indicator	2004	2005	2006	2007	2008	2009	2010	2011
Number of farm	141	122	127	115	116	112	98	89
Agricultural land	1 768	1 794	1 746	1 824	1 803	1 765	1 766	1 692
Total subsidies	**9 955**	**11 954**	**13 388**	**14 797**	**15 070**	**15 108**	**14 872**	**15 064**
SAPS	3 207	3 773	4 391	5 090	5 534	6 497	7 117	7 867
TOP UP	2 810	3 962	4 166	4 404	3 762	3 305	2 029	698
- of it: arable land (agricultural land from 2008)	2 000	2 367	2 266	2 473	2 433	2 083	931	
- livestock	635	1 494	1 840	1 890	1 178	1 060	947	587
- hops (coupling)	5	8	7	8	7	4		
- hops (decoupling)					1	6	15	12
- sheep and goats	1				1	1	1	0
- suckler cow	122				96	114	78	64
- seeds	47							
- flax		20	10	5	1	1		
- potatoes for starch (coupling)		73	43	28	25	13	32	15
- potatoes for starch (decoupling)					20	24	25	19
Separate payments	0	0	237	439	155	504	1 255	1 258
- dairy cow							738	684
- separate sugar payment			237	439	155	504	518	573
State-aid	441	446	495	192	263	173	141	273
HRDP	2 382	2 586	2 669					
Rural Development Programme				3 593	3 491	3 769	3 533	4 054
- LFA	1 286	1 278	1 248	1 233	1 211	1 294	1 385	1 314
- agrienvironmental	1 096	1 308	1 421	1 538	1 613	1 457	1 489	1 277
- Axis II. RDP				799	554	951	639	1 433
Operational Programme Rural Development	60	486	675					
SAPARD	72	6	0					
SGAFF - interest	348	361	307	346	268	266	217	225
SGAFF - insurance	105	105	133	143	145	218	231	265
LEADER	9	0	6	3	0	4	0	0
Oder subsidies	521	228	309	588	1 452	371	349	424

Source: Own investigation sample farms

III: *Profit/loss of an average farm in 2004–2011*

Indicator	2004	2005	2006	2007	2008	2009	2010	2011
Profit/loss (thous. CZK):								
- operating	5 088	3 655	2 881	8 128	5 696	–148	4 229	7 812
- financial	–830	–873	–775	–1 019	–1 118	–1 015	–965	– 1 003
- from ordinary activity	4 258	2 782	2 106	7 109	4 577	–1 163	3 265	5 843
- extraordinary	239	432	308	247	279	87	285	156
- total (brutto)	4 496	3 214	2 414	7 356	4 856	–1 077	3 549	6 967
- total (netto)	4 152	2 904	2 030	6 910	4 351	–1 001	3 091	5 999

Source: Own investigation sample farms

IV: *Other indicators and the relations to subsidies for an average farm in 2004–2011*

Indicator	2004	2005	2006	2007	2008	2009	2010	2011
Operating revenues (thous. CZK)	75 719	79 703	76 811	90 415	92 469	73 943	78 383	85 227
Total revenues (thous. CZK)	76 771	80 837	78 054	91 698	93 804	75 513	79 436	86 565
Total assets (thous. CZK)	106 870	116 672	114 064	127 769	130 088	123 759	129 890	129 611
Share of subsidies in operating revenues	12.96%	14.38%	16.54%	15.48%	15.70%	19.14%	18.16%	15.99%
Share of subsidies in total revenues	12.78%	14.18%	16.28%	15.26%	15.47%	18.74%	17.92%	15.75%
Profitability of total assets	4.21%	2.75%	2.12%	5.76%	3.73%	–0.87%	2.73%	5.38%
Profit – excluding subsidies (thous. CZK)	–5 318	–8 248	–10 293	–6 639	–9 659	–15 230	–10 683	–6 664
Profitability of total assets - excluding subsidies	**–4.98%**	**–7.07%**	**–9.02%**	**–5.20%**	**–7.43%**	**–12.31%**	**–8.22%**	**–5.14%**

Source: Own investigation sample farms

from national sources (TOP-UP) up to 30% per year. The 100% amount of payment is supposed to be reached by the new member states to 2013.

The structure of the profit/loss is revealed in Tab. III. In the agrarian sector, its amount is significantly affected by natural and climatic conditions that affect both crop and livestock production.

Operating profit/loss generated from the most important business activity of farms should stay in positive values – farms should be achieving profit and could be able to fulfil the sense of their activities. Profit was achieved (with the exception of 2009) in all years. Unfortunately, it is not possible to say that the profit was showing a clearly growing trend. As mentioned previously, it was partly due to climatic and natural conditions and then due to the development of agricultural commodity prices – both national and worldwide. The added value also affects the outcome in an important way. Unfortunately, its amount continues to decrease (average rate of decline of 3.5%). It was at about 16 million CZK in the last year of the monitoring. To the contrary, the amount of total subsidies – excluding on investments was increasing, de facto generating a positive result for several years, (see below).

A long-term loss (approximately 1 million CZK) of the profit from financial activity is not so surprising (similarly to other sectors) as it is caused by the payment of cost interests of loans. It is connected with financing of investment activities primarily which is a result of underfunding of farms. The profit/loss from extraordinary activities (of about 300 thousand CZK) consisted of cost compensation due to extraordinary events – such as compensation from insurance companies.

Total gross profit/loss (4 million CZK in average) copied the development of the operating profit/loss. Its net value was lower approximately by 500 thousand CZK due to the income tax. The relation was proved in Tab. IV. Tab. IV also revealed other items of financial statements and their values excluding the subsidies.

In compliance with Czech accounting legislation, most of the subsidies is a part of other operating income (excluding the RDP – Axis II, OP RD, and SAPARD). The share of these total subsidies – excluding on investments in operating as well as total income was approximately 16% with an average growth rate of 3%. The fact of comparatively same share is given by the fact that operating profit/loss is approximately 99% of total income.

The return on assets is the way how to make the assessment more comprehensive as it considers the volume of invested funds necessary to produce the profit. In large measure, it copied the analysed profit/loss and did not exceed 6% in absolute values. An average, the total assets of farms amounted approximately to 120 million CZK. The values of profit/loss and total profitability without subsidies are, however, alarming. Without subsidies, the farms would report a loss (9 million CZK in average) connected to negative profitability.

The long-term unprofitable agricultural production dependent on high alert subsidies drew attention to in earlier papers Střeleček *et al.* (2011, 2012). Therefore, it is not possible to say, that entering the EU would significantly improved the profitability by other way than the subsidies.

Two possible scenarios of direct payments since 2014

The system of direct payment is supposed to go through significant changes in the future. On 12 October 2011 the European Commission presented a proposal of the CAP reform after 2013. The aim of the proposal is to strengthen the competitiveness and the sustainability of agriculture and maintain its presence in all regions, in order to guarantee European citizens healthy and quality food production, to preserve the environment and to help develop rural areas (EC, 2011a).

Ten key points of the reform:

1. Better targeted income support in order to stimulate growth and employment – to support farmers' income in a fairer, better targeted and simpler way;
2. Tools to address crisis management will be more responsive and better suited to meet new economic challenges – more effective safety nets which are more responsive for the chains of agricultural suppliers most exposed to crisis and to promote the creation of insurance and mutual funds;
3. A 'Green' payment for preserving long-term productivity and ecosystems – to spend 30% of direct payments specifically for the improved use of natural resources such as crop diversification, maintenance of permanent pasture, the preservation of environmental reservoirs and landscapes;
4. Additional investment in research and innovation – to double the budget for agricultural research and innovation, and to ensure the transfer of the research results to the field through a new European Innovation Partnership;
5. A more competitive and balanced food chain;
6. Encouraging agri-environmental initiatives – two of six policy priorities are proposed to be restoring and preserving ecosystems, the fight against climate change and resource efficiency;
7. Facilitating the establishment of young farmers – to create a new installation aid available to farmers under forty years old, during the first five years of their project;
8. Stimulating Rural employment and entrepreneurship – to stimulate economic activity in rural areas and encourage local development initiatives;
9. Better addressing fragile areas – to further help farmers in areas with natural handicaps, with additional support;
10. A simpler and more efficient CAP – to simplify several mechanisms of the CAP, including the rules of conditionality and control systems, without losing efficiency. Moreover, aid to small farmers will also be simplified (EC, 2011a).

The Single Payments Scheme and the Single Area Payment Scheme will be replaced by the basic payment scheme unified for the whole EU. The scheme will operate on the basis of payment entitlements allocated at national or regional level to all farmers according to their eligible hectares in the first year of application. The use of the regional model that was optional in the current period will be generalized, also effectively bringing all agricultural land into the system. The rules on the management of entitlements and the national reserve largely follow current rules.

With a view to a more equitable distribution of support, the value of entitlements should converge at national or regional level towards a uniform value. This is done progressively to avoid major disruptions.

An important element is to enhance the overall environmental performance of the CAP through the greening of direct payments by means of certain agricultural practices beneficial for the climate and the environment that all farmers will have to follow, which go beyond cross compliance and are in turn the basis for pillar II measures.

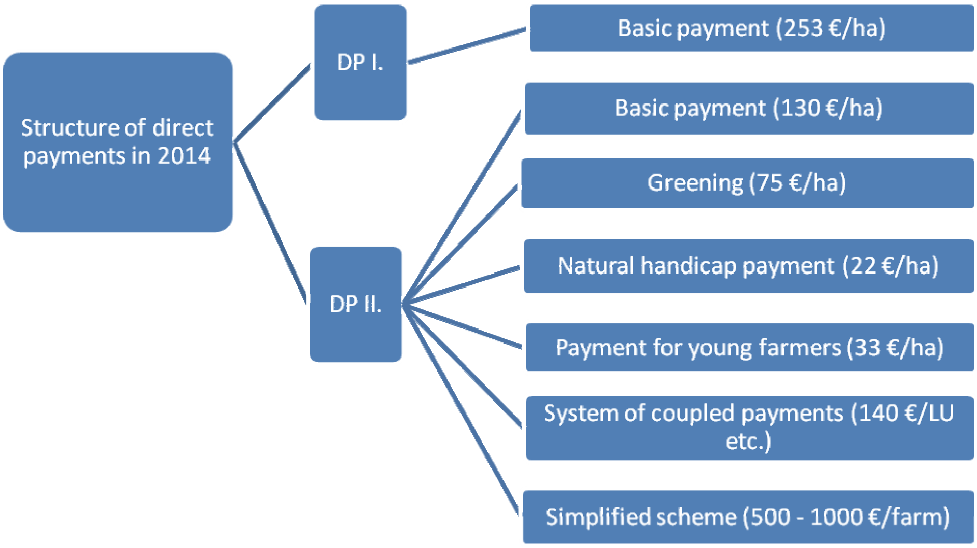
The definition of active farmer further enhances targeting on farmers genuinely engaged in agricultural activities. In addition, the progressive reduction and capping of support for large beneficiaries is foreseen while taking due account of employment.

Direct payment for 2014 were calculated in two possible scenarios (Fig. 2) – as the product of eligible area that the SAPS was paid to in 2011 and estimated rate of EUR 253 per ha (further as DP I) and as the sum of each part if the direct payment in case the system of payment coupled to production is implemented and payment for natural handicap (further PP II).

Neither the payment for young farmers nor the camping would affect any farm in the sample based on the data of 2011. Concerning the green payment, there will be 7% of farms in the sample unable to fulfil the condition of keeping ecologic area, currently it is approximately 10%. The calculation dealt with the situation that all farms will follow the rules and fulfil the greening measures.

Tab. V showed the amount of subsidies and additional indices in absolute values in thousand CZK as well as calculated per hectare of agricultural land.

An average farm received increased subsidy – direct payment in average based on both methods (approximately by 8% for DP I and approximately by 16% for DP II). Total subsidy includes programmes



2: *Scheme of calculation of direct payment in 2014*
Source: Authors' own model

V: *Comparison of direct payments for 2011 with the new system in 2014*

Indicator	2011	2014	
		DP I.	DP II.
Direct payment (thous. CZK)	9 823	10 617	11 440
Direct payment (CZK/ha)	5 805	6 275	6 761
Total subsidies – excluding on investments (thous. CZK)	13 631	14 428	15 248
Total subsidies – excluding on investments (CZK/ha)	8 056	8 526	9 012
Profit before tax (thous. CZK)	6 967	7 761	8 584
Profit before tax (CZK/ha)	4 118	4 587	5 074
Total profitability	5.4%	6.0%	6.6%

Source: Authors' calculations

with no relation to the new scheme (Tab. II) so that total increase corresponds to the increase of the direct payments. The increase of the direct payments impacted related indicators such as the profit loss and total profitability as well (by 11% for DP I and by 23% for DP II).

A more detailed analysis of the sample of farms revealed the following results: applying the DP I would result into lower direct payment for 15% of farms compared to 2011; 28% of farms would increase total subsidies – excluding on investments by more than 10% (in case of unchanged payments of the second pillar). Other farms would register an increase up to 10% compared to 2011.

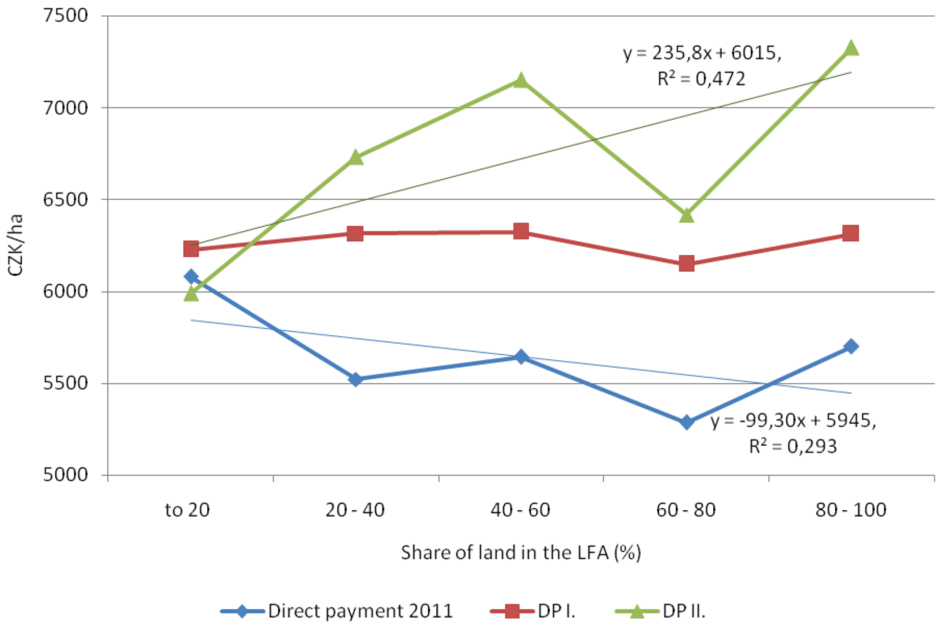
The second system – DP II – would result into lower payments for 13% of farms. An increase by more than 10% would apply to 79% of farms. Generally, the second system (DP II) would be more favourable to the majority of the sample.

Based on the above mentioned calculation it is possible to see that most of farms will receive in 2014 greater direct payments compared to 2011 by 6% (for the DP I) or by 12% (for the DP II) in average under fulfilling the condition of greening. However, it is necessary to consider that the Czech Republic was far from receiving the average current subsidy amount of the EU-15 in 2011. Based on the FADN monitoring for 2009, there was an average current subsidy of EUR 469.7 (i.e. 11,743 CZK) per ha of agricultural land in the EU-15. An average farm in the sample received 68.6% of the above mentioned amount in 2011. Our calculation revealed 72.6% (for DP I) and 76.7% (for DP II) of the EU-15 average in 2014. As saying Božík (2011) priority of the new Member States is not a form of scenarios, but equality of conditions with the use of differentiated regions.

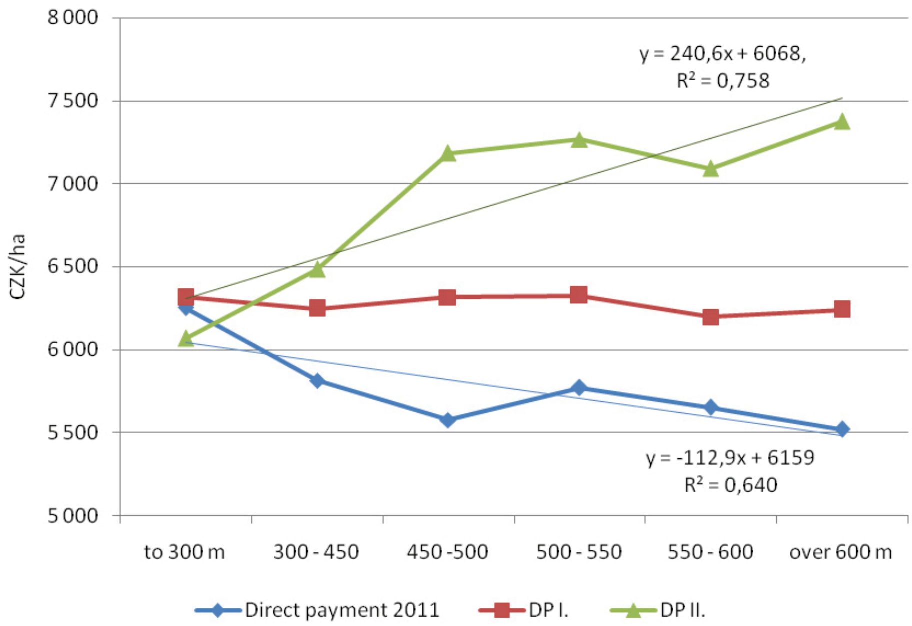
The sample of farms was further divided in relation to:

- the share of agricultural land area in the LFA
- the average altitude
- the farm size based on the agricultural land area (Fig. 3–5).

In the LFA, the direct payments calculated per ha of agricultural land were lower by 5% compared to production area in 2011. Applying the DP I system would equalize the LFA and NON-LFA payments (with the difference of 0.9% in favour of the LFA).



3: *Comparison of direct payment in 2011 with the new scheme in 2014 in the LFA*
Source: Authors' calculations

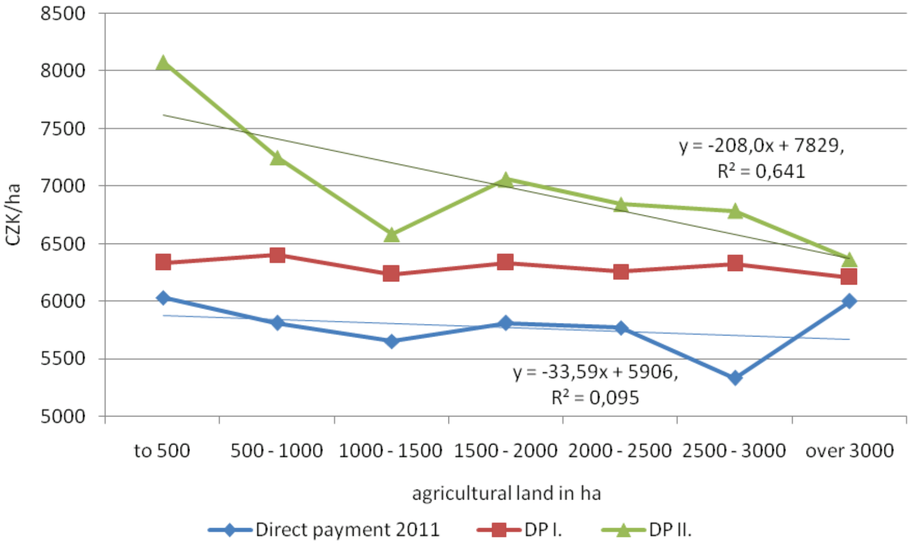


4: *Comparison of direct payment in 2011 with the new scheme in 2014 based on the altitude*
Source: Authors' calculations

Applying the DP II system would increase the LFA payments by 17% compared to the NON-LFA. The profitability (the ratio of profit in total assets) would increase slightly (by 0.1–0.3 percentage point) in the NON-LFA; on the other hand, the LFA would notice an increase ranging from 0.9 to 2.1 percentage points.

Fig. 3 revealed the tendency of the direct payments for groups of farms in steps of 20% area in the LFA. The tendency for direct payments applied in 2011 is described as decreasing with increasing share in the LFA, which pointed out in earlier papers Střeleček-Lososová (2005), (Střeleček *et al.*, 2008). Differences among groups are equalizing in case of the single area payment. Applying the DP II system would be connected to the increasing tendency of payments calculated per hectare towards worse natural conditions.

Dividing the sample based on the altitude revealed a similar tendency as in case of the LFA (Fig. 4). Farms in production area with the altitude up to 300 m reported the lowest increase of the



5: *Comparison of direct payment in 2011 with the new scheme in 2014 based on the farm size*
Source: Authors' calculations

direct payments by 1% in case of the DP I or even a decrease to 97% compared to 2011 in case of the DP II. The rest of farms reported an increase of the direct payments, greater in case of the DP II system.

The return on assets reported a decreasing tendency with an increase of the altitude with the exception of farms above 600 metres above the sea level. The same tendency was revealed for the direct payment in 2011 – it reported a decreasing tendency with an increase of the altitude. As seen from the figure, the new DP I system would equalize the difference between the production area and marginal area payments. The payment within the DP II would increase with increasing altitude and significantly equalize huge differences in the profitability in 2011.

At last but not least, the classification based on the size divided farms by the area of agricultural land. As revealed by figure 5, the direct payments reported slightly decreasing tendency with an increase of the area in 2011. The direct payments calculated within the DP I scheme would be balanced around 6,300 CZK/ha in all farms. On the other hand, applying the DP II system would be connected to a significant degression of payments expressed as

$y = -208.0x + 7829$ with the r-squared value of $R^2 = 0{,}641$.

CONCLUSION

Historical development of the Common Agricultural Policy has shown that it has gone through constant changes in response to current situation. The Common Agricultural policy is also the most discussed policy and political consensus in this area is not always undisputed. Total costs of the CAP amount approximately EUR 53 milliard per year which is about 40% of the EU total budget. The share has been decreasing constantly from 71% in 1984 to presumed 39% in 2013. The paper discussed the development of the CAP in the Czech Republic after 2004 and its possible changes and their impact on Czech farms.

Regarding the subsidy volume, the Czech Republic has improved and skipped from the 20th place in 2004 up to 16th in 2009 with EUR 318 per ha of agricultural land. The calculation of the total subsidies – excluding on investments revealed that the Czech Republic reached the 12th place in the EU in 2009 as well as it reached the 6th best rank of the subsidy share in assets (9% in 2009). Comparing the total subsidies – excluding on investments and the income from agricultural activity per year of agricultural land revealed that the Czech Republic was the third worst in 2009.

An average growth rate of subsidies reached 6.1% per year with the greatest increase in 2005 (20%) and a decrease in the following years with a decrease compared to the previous year in 2010. Concerning each payment, the greatest growth rate was revealed by the SAPS – 13.7% in average; on the other hand the TOP-UP were decreasing by 18% per year in average. The LFA payment stagnated more or less with an average growth rate of 0.3%. The agri-environmental measure payments had an average growth rate of 2.2%.

Total gross profit/loss (4 million CZK in average) copied the development of the operating profit that has been generated by subsidies in previous years. The share of these total subsidies – excluding on investments in operating as well as total income was approximately 16% with an average growth rate of 3%. The return on assets did not exceed 6%. The total assets of farms amounted approximately to 120 million CZK in average. The total profit and total profitability without subsidies are, however, alarming. Without subsidies, the farms would report a loss (9 million CZK in average) connected to negative profitability. Therefore, it is not possible to say, that entering the EU would significantly improved the profitability by other way than the subsidies.

After 2014, the new scheme of the direct payment is proposed. The paper analysed model calculations of the direct payment for the sample of farms in 2014. Two types were discussed. The first type was calculated as the product of eligible area that the SAPS was paid to in 2011 and estimated rate of EUR 253 per ha (further as DP I) and as the sum of each part if the direct payment in case the system of payment coupled to production is implemented and payment for natural handicap (further PP II).

An average farm received increased subsidy – direct payment in average based on both methods (approximately by 8% for DP I and approximately by 16% for DP II). Total subsidy includes programmes with no relation to the new scheme so that total increase corresponds to the increase of the direct payments. The increase of the direct payments impacted related indicators such as the profit loss and total profitability as well.

Applying the DP I would result into lower direct payment for 15% of farms compared to 2011; 28% of farms would increase total subsidies – excluding on investments by more than 10%. Other farms would register an increase up to 10% compared to 2011. The DP II would result into lower payments for 13% of farms. An increase by more than 10% would apply to 79% of farms. Generally, the second system (DP II) would be more favourable to the majority of the sample.

The assessment of the new system by dividing farms based on the LFA share in total area proved that the direct payments of the new system would report a growing tendency towards worse natural conditions of the production in comparison with the current system. The same tendency was revealed when dividing farms by the altitude. Dividing farms according to their size reported more significant degression of the new system of the direct payments compared to the current system. Although there will be an increase of the direct payments in 2014 compared to 2011 it will probably be a decrease compared to 2013. The majority of farms of the sample will not receive average direct payments of the EU in 2014.

SUMMARY

The main aim of this paper is to determine the possible amount of direct payments based on proposed solutions for the CAP after 2013 in the Czech agrarian sector, according to two variants. Partial aims are: a) comparison of subsidies in the EU, b) analysis of existing supports in the Czech Republic in 2004–2011.

For the analysis, a sample of Czech farms was selected (920 farms) in 2004–2011. The analysis is based on financial statements (balance sheet, income statement) and a questionnaire discovering provided support. The first part of the paper describes the subsidy system of the CAP and compares the subsidy within the EU. The analysis itself is focused on the sample of Czech farms. A structure of subsidies is set to calculate selected ratios showing the impact of subsidies to profitability of farms. The profit/loss, total profitability and relations of parts of these ratios are assessed.

Total profit/loss copied the development of the operating profit that has been generated by subsidies in previous years. The share of these total subsidies – excluding on investments in operating as well as total income was approximately 16% with an average growth rate of 3%. The return on assets did not exceed 6%. The total assets of farms amounted approximately to 120 mils CZK in average. The profit and total profitability without subsidies are, however, alarming. Without subsidies, the farms would report a loss (9 mills. CZK in average) connected to negative profitability. Therefore, it is not possible to say, that entering the EU would significantly improved the profitability by other way than the subsidies.

Further analysis dealt with the calculation of possible direct payments in 2014. Since 2014, multicomponent basic payment is supposed to be provided instead of direct payment, obliged to consist of the green payment (30%) and payment to young farmers (2%). A voluntary payment for farmers in areas facing specific natural constraints (up to 5%), system of payments coupled to production (up to 10%) and simplified scheme for small farms.

By the above mentioned method possible entitlement to the direct payments in 2014 were calculated for the sample of 89 farms from our own data collection of 2011. The impact of the CAP changes to the profit/loss and total profitability of an average farm was defined classified by natural and climatic conditions of production. Further analysis based on the classification was performed to describe differenced of farms in the sample. Farms were classified by the share of land in the LFA, by the altitude and by the size based on the area of agricultural land in hectares.

The assessment of the new system proved, that the direct payment will not reach the average of the EU-15 after 2013. Comparing farms by the LFA and altitude proved that that the direct payments of the new system would report a growing tendency towards worse natural conditions of the production in comparison with the current system. Dividing farms according to their size reported more significant degression of the new system of the direct payments compared to the current system.

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