Prediction of the financial situation of agricultural enterprises in the Czech Republic at the EU accession

Predikce finanční situace zemědělských podniků v České Republice při vstupu do Evropské unie

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Abstract: The paper deals with the financial situation of two selected agricultural enterprises in productive as well as in less favourable areas (LFA) in the present situation – before and consecutively after the accession to the EU. 11 selected ratio indicators are used to evaluate the financial situation. There are proposed some preparatory precautions – based on the analysis of the financial situation that can be helpful for Czech farmers in gradual adaptation into the CAP conditions.

Key words: agricultural enterprises, financial situation, Common Agricultural Policy

Abstrakt: Příspěvek porovnává u dvou vybraných zemědělských podniků v produkčních i méně příznivých oblastech (LFA) jejich finanční situaci v současném období před vstupem a následně po vstupu do Evropské unie. K posouzení finanční situace je použito 11 vybraných poměrových ukazatelů. Při propočtu očekávané finanční situace zemědělských podniků jsou zohledněny podpory dle metodiky EU a rovněž výdaje, které zemědělské podniky budou postupně vynakládat při vstupu do EU.

Klíčová slova: zemědělské podniky, finanční situace, společná zemědělská politika

This paper compares financial situation of two selected agricultural enterprises in production areas and in less favourable areas (LFA). The financial situation is compared before and subsequently after the accession to the EU.

INTRODUCTION

Among others, different system of direct payments will be applied at the accession of Czech agricultural enterprises to the conditions of the EU Common Agricultural Policy. The goal of the direct payments is to adopt appropriate measures related to agricultural areas, agricultural production, to stabilise employment in agricultural sector, to contribute to adequate living standards of rural population and to consider the prosperity of economy.

The EU and the Czech Republic agreed on some transitional period during the negotiations. This transitional period set the duration in which the EU legislation is not valid for the Czech Republic in some concrete fields. The transitional period for gradual use of direct payments will be applied in the following two stages:

1. Stage: In year 2004, direct payments will be introduced in new member countries at the level of 25% of direct payments granted to farmers in the current member states. Till the year 2007, the direct payments will be raised by 5% yearly.
2. Stage: In the following years, direct payments will be gradually raised by 10% until 2013, when they should reach 100% of direct payments in the current member states.

The EU has also agreed with the possibility of direct payments from Czech national budget up to 55% in 2004, 60% in 2005 and 65% in 2006. From the year 2007, it is possible to increase this level annually for compensation by 10% until the direct payments reach 100% level. Furthermore, for the commodities with national support higher in 2003 than the given proposal, it is possible for the Czech Republic to compensate it to the same level as it were in 2003 plus increase by 10%.

The impacts of direct payments for the economics of agricultural enterprises in individual production areas of

the Czech Republic are set partly by the amount of per hectare, possibly per life stock unit, direct payments and also by the production structure of enterprises operating in different production areas even though they are calculated by so called simplified technique. Their influence will be also reflected in the financial situation of enterprises. What kind of impact there will be for selected agriculture enterprises in favourable and less favourable areas? That is the problem solved in this paper.

OBJECTIVES AND METHODOLOGY

The goal of this paper is to evaluate – on the basis of the carried out analysis – financial situation of selected agricultural enterprises before and after the accession to the EU while considering the system of direct payments of the EU.

The paper was created in the framework of the research project PEF MZLU Brno, MSM 431100007 "Forming of the structure of agriculture and food industry and the trends in behaviour of entrepreneurial subjects in the process of integration into the EU".

The methodology of the EU for calculating direct payments was used while evaluating financial situation of two selected agricultural enterprises operating in production and less favourable areas. Subsequently, the analysis of the attained financial indicators and the prediction of expected economical result were carried out with the use of the company information system. The ratio indicators, used in methods of financial analysis, were used for evaluation of the financial situation of enterprises.

The following selected ratio groups and individual indicators were used for evaluation of financial situation of enterprises before and after the accession to the EU:

LIQUIDITY INDICATORS

1. *2nd degree liquidity*

$$= \frac{\text{money} + \text{claims}}{\text{current liabilities}} \times 100$$

2. *3rd degree liquidity*

$$= \frac{\text{floating capital/current assets /}}{\text{current liabilities}} \times 100$$

INDEBTEDNESS INDICATORS

3. *Share of equity capital (Rate of internal financing)*

$$= \frac{\text{equity capital}}{\text{total capital}} \times 100$$

4. *Rate of indebtedness*

$$= \frac{\text{foreign funds /gross debt/}}{\text{total capital}} \times 100$$

ACTIVITY INDICATORS

5. *Turnover of total assets*

$$= \frac{\text{sales}}{\text{total assets}}$$

6. *Turnover time of total assets*

$$= \frac{\text{total assets}}{\text{sales}}$$

PROFITABILITY INDICATORS

7. *Profitability of equity capital*

$$= \frac{\text{economic result in accounting period}}{\text{equity capital}} \times 100$$

8. *Profitability of total capital*

$$= \frac{\text{economic result in accounting period}}{\text{total capital}} \times 100$$

9. *Cost profitability*

$$= \frac{\text{economic result}}{\text{total cost}} \times 100$$

COMPLEMENTARY INDICATORS

10. *Reproductive ability of assets*

$$= \frac{\text{total assets}}{\text{profit} + \text{depreciations}}$$

11. *Cost*

$$= \frac{\text{cost}}{\text{ea rnings}}$$

RESULTS AND DISCUSSION

There are considered direct payments for individual enterprises in Table 1 and 3, which will be received by agricultural enterprises according to the EU criteria.

It means direct payments with respects to plant production and animal husbandry in the beet-growing production region for the agricultural enterprise A.

Agricultural enterprise B is operating in LFA (less favourable area). Besides the direct payments considering plant production and animal husbandry, there are also LFA structural payments available for this enterprise.

Tables 1 and 3 show support received by individual enterprises in year 2002 according to the conditions set in the Czech Republic.

There are listed selected ratio indicators in the Table 2 and 4, which analyse the existing financial situation of

enterprises in years 2000, 2001 and 2002 and further there is a prediction of situation in agricultural enterprises in three different variants. The prediction is considering calculated direct payments with the respect to the EU criteria.

The variations of calculation of the agricultural enterprises expected financial situation are considering the following methodology:

IA – indicators representing economic situation of agricultural enterprise in the year 2004 and considering direct payments from the EU at the level of 25% with no (minimal) increase from the national budget of the Czech Republic while the conditions of farming remain the same as they were in 2002, i.e. unchanged prices of inputs and outputs.

IB – indicators representing economic situation of agricultural enterprise in the year 2004 and considering direct payments from the EU at the level of 25% with no (minimal) increase from the national budget of the Czech Republic while the prices of inputs in comparison with the year 2002 are raised by 20% for labour cost and by 10% for land rent, the prices of outputs are unchanged.

IIA – indicators representing economic situation of agricultural enterprise in the year 2004 and considering direct payments from the EU at the level of 25% with 30% (maximal) increase from the national budget of the Czech Republic while the conditions of farming remain the same as they were in 2002, i.e. unchanged prices of inputs and outputs.

IIB – indicators representing economic situation of agricultural enterprise in the year 2004 and considering direct payments from the EU at the level of 25% with 30% (maximal) increase from the national budget of the Czech Republic while the prices of inputs are raised by 20% for labour cost and by 10% for land rent in comparison with the year 2002, the prices of outputs are unchanged.

III – indicators representing economical situation of agricultural enterprise (in year 2013), when the level of direct payments for agricultural enterprises in the Czech Republic will be at the same level (according to present

Table 1. Direct payments according to the EU and existing support received in the Czech Republic by the analyzed agricultural enterprise A

Indicator	Unit	2002	2004	2005	2013
Direct area payments from the EU with no increase from the national budget of the Czech Republic	thousand CZK		1 091	1 399	
	CZK/ha	–	1 611	2 066	–
	%		2.6[1]	3.3[1]	
Direct area payments from the EU with maximal increase from the national budget of the Czech Republic	thousand CZK		2 519	2 849	
	CZK/ha	–	3 721	4 208	–
	%		5.9[1]	6.7[1]	
Support received in the Czech Republic	thousand CZK	478			
	CZK/ha	706	–	–	–
	%	1.1[1]			
Support according to methodology of the EU at the same level as it is at present for the farmers in the EU	thousand CZK				4 666
	CZK/ha	–	–	–	6 892

[1]Share of direct payments in total revenues of the firm

Table 2. Indicators of financial situation of agricultural enterprise A before and after the accession to the EU (average values)

	Indicator	2000	2001	2002	2004 IA	2004 IB	2004 IIA	2004 IIB	2013 III
1	2nd degree liquidity	107.95	146.52	86.22	94.06	63.42	112.33	81.68	77.89
2	3rd degree liquidity	235.96	344.70	255.67	263.51	232.86	281.77	251.13	221.53
3	Share of equity capital	10.09	14.73	11.44	12.32	8.77	14.31	10.92	7.38
4	Rate of indebtedness	89.91	95.27	88.56	87.68	91.23	85.69	89.08	92.62
5	Turnover of total assets	0.52	0.54	0.55	0.54	0.56	0.53	0.55	0.57
6	Turnover time of total assets	1.92	1.84	1.82	1.84	1.77	1.89	1.81	1.74
7	Profitability of equity capital	19.30	31.59	−56.33	−43.70	−110.8	−20.93	−65.27	−153.32
8	Profitability of total capital	1.95	4.65	−6.44	−5.38	−9.71	−2.99	−7.13	−11.32
9	Cost profitability	3.14	8.15	−8.51	−7.18	−11.82	−4.09	−8.88	−12.44
10	Reproductive ability of assets	15.48	13.34	−68.41	−221.46	−21.83	54.78	−47.27	−16.37
11	Cost	0.96	0.93	1.10	1.08	1.14	1.04	1.10	1.14

methodology of the EU) as it is at present for the farmers in the EU. The prices of inputs in comparison with the year 2002 are raised by 50% for labour cost and by 100% for land rent. The prices of outputs are considered supposedly at the same level as they were in 2002.

Agricultural enterprise A (agricultural co-operative) operates in the beet-growing production region on 677 hectares of agricultural land, it is focused on classical plant production and animal husbandry. There are listed direct payments according to the methodology of the EU and selected financial indicators in the Table 1 and 2. The financial indicators show, that the agricultural enterprise A realised a loss in the initial year 2002 for prediction of further trend. Predicted financial situation of the enterprise A according to variants I, II, III, both A and B, is not favourable. Liquidity, indebtedness, profitability as well as cost indicators are not improving with the expected conditions in 2004. This enterprise will fundamentally have to consider restructuring all its activities. It will also be complicated to solve the so-called transformation indebtedness in this enterprise.

The level of direct and LFA structural payments only from the EU funds expected for this enterprise in 2004 and 2005 is closely comparable to payments granted from the funds of the Czech Republic in 2002. The increase of direct payments and structural payments in 2004 and 2005 is apparent only after the increase of payments from the national budget of the Czech Republic at the level of 30% or 35%. It is clear while predicting the financial situation of this profitable enterprise in 2004, that the indicator will worsen slightly in the variants IA and IB. Better economical situation is in the variant IIA. The variant IIB is comparable with the year 2002. It is possible to recommend this enterprise to consider all possibilities of increasing profitability and lowering costs including the change in structure of cattle breeding with the gradual conversion of part of the dairy cows to beef cows.

Table 3. Direct payments according to the EU and existing support received in the Czech Republic by analyzed agricultural enterprise B

Indicator	Unit	2002	2004	2005	2013
Direct area payments from the EU with no increase	thousand CZK		3 657	4 173	
from the national budget of the Czech Republic	CZK/ha	–	3 486	3 978	–
	%		9.0[1]	10.3[1]	
Direct area payments from the EU with maximal	thousand CZK		6 184	6 722	
increase from the national budget of the Czech Republic	CZK/ha	–	5 895	6 408	–
	%		15.2[1]	16.6[1]	
Support received in the Czech Republic	thousand CZK	3 808			
	CZK/ha	3 630	–	–	–
	%	9.4[1]			
Support according to methodology of the EU at the same	thousand CZK				13 896
level as it is at present for the farmers in the EU	CZK/ha	–	–	–	13 247

[1]Share of direct payments in total revenues of the firm

Table 4. Indicators of financial situation of agricultural enterprise B before and after the accession to the EU (average values)

	Indicator	2000	2001	2002	2004				2013
					IA	IB	IIA	IIB	III
1	2nd degree liquidity	90.12	100.72	72.51	70.59	56.73	102.72	72.71	118.31
2	3rd degree liquidity	281.02	310.66	262.81	260.89	230.88	293.02	263.01	308.61
3	Share of equity capital	65.80	68.58	65.27	65.20	64.05	66.35	65.28	66.88
4	Rate of indebtedness	34.20	31.42	34.63	34.80	35.95	33.65	34.72	33.12
5	Turnover of total assets	0.36	0.44	0.44	0.44	0.45	0.42	0.44	0.42
6	Turnover time of total assets	2.82	2.29	2.30	2.29	2.22	2.37	2.30	2.41
7	Profitability of equity capital	4.21	2.94	0.27	–0.04	–5.21	4.96	0.31	7.21
8	Profitability of total capital	2.77	2.01	0.18	–0.03	–3.34	3.29	0.20	4.82
9	Cost profitability	6.15	3.98	0.33	–0.05	–5.56	6.21	0.34	7.96
10	Reproductive ability of assets	11.68	12.92	16.23	16.75	35.01	11.00	16.18	9.50
11	Cost	0.95	0.96	1.00	1.00	1.06	0.94	1.00	0.93

CONCLUSION

The prediction of economic situation of agricultural enterprises in 2004 shows, from the point of view of production as well as less favourable areas, that according to the variant I with the direct payments only at the level proposed by the EU without the increase from the budget of the Czech Republic, the payments are insufficient. Economic situation of enterprises in both areas is more favourable with the conditions listed in variant IIA. Financial situation of agricultural enterprises A as well as B is comparable to the year 2002 while considering the variant IIB. It is possible to state, that it is necessary to increase direct payments with funds from the budget of the Czech Republic even under the consideration of the possible simplified methodology of calculation with the full use of conditions set by the EU. Afterwards, it is possible to consider competitiveness of the analysed agricultural enterprises with the agricultural enterprises in the present EU. All enterprises should consider the necessity of measures, and at that not only of those of administrative character, which make it possible to manage the transition to the conditions of the EU for agricultural enterprises. Thereafter, it is possible to fulfil the thesis listed at the very beginning of this paper.

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