

Agris on-line Papers in Economics and Informatics

Volume I

Number 2, 2009

The range and the structure of subsidies in agriculture companies reaching a different economical level

E. Svobodová, K. Vinohradský

Department of Regional and Business Economics, Faculty of Regional Development and International Studies, Mendel University of Agriculture and Forestry in Brno

Abstract

The paper deals with a range and a structure of subsidies in agricultural companies reach a different economic level and farm in different natural conditions.

The research realized within a set of 109 agricultural companies of NUTS II South-East throughout the years 2001-2003 shows that the endowment support of field economy had the same extent in the main (subsidies for 1 ha of agricultural land and for one worker), both in the group of different economic level and in the group of agricultural companies running their own business in different natural conditions during this period.

The structure of subsidies, in a view-point of their special purpose, is a bit different among the companies running businesses in less favored areas (LFA), namely in a higher share of subsidies supporting a non-production asset, ecological agriculture and beef-raising.

Key words

Agricultural companies, subsidies, economical level of companies, natural conditions.

Anotace

Práce analyzuje rozsah a strukturu dotací zemědělských podniků různé ekonomické úrovně hospodařících v různých přírodních podmínkách.

Výzkum, který se uskutečnil v rámci vybraného souboru 109 zemědělských podniků NUTS II Jihovýchod v letech 2001–2003, vedl k poznání, že dotační podpora zemědělského hospodaření byla v tomto období v podstatě stejného rozsahu (dotace na 1ha zemědělské půdy a na pracovníka) jak ve skupinách podniků rozdílné ekonomické úrovně, tak i v různých přírodních podmínkách.

Struktura dotací z hlediska jejich účelového směřování se poněkud odlišuje v podnicích s méně příznivými přírodními podmínkami (oblasti LFA), a to vyšším podílem dotačních titulů podporujících mimo-produkční přínos, ekologické zemědělství a chov skotu.

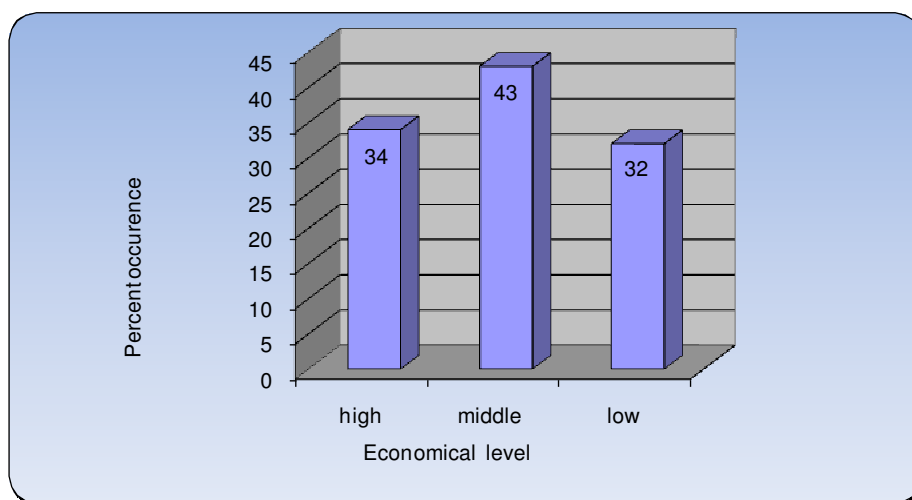
Klíčová slova

Zemědělské podniky, dotace, ekonomická úroveň podniků, přírodní podmínky.

Introduction

The research of connection between differentiation of agricultural companies in its economic level, natural conditions of agriculture and the specialization in production leads to the fact that we can find approximately the same variability of economic level in a group of agricultural companies which run their business approximately in the same

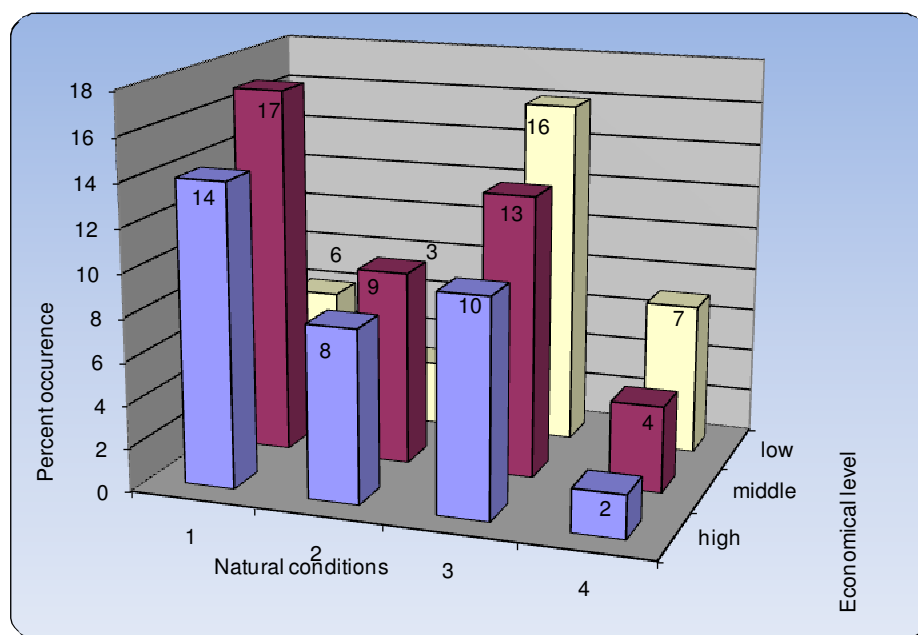
natural conditions as in the companies of the same production structure (2), (4), (6). The mentioned research confirms also a definite accruing difference in the progress of agricultural production structure by different natural conditions, especially in the areas with less favored natural conditions. The analysis of indicated development connection in agriculture opens a question



Source: FADN CZ VUZE Prague, Database of the thematic courses 04 and 05 research programmers MUFA in Brno, authors' calculation
Graph 1: Percentage occurrence of different economics levels companies.

Indicator	Companies according to different natural conditions				
	1-4	1	2	3	4
The number of the companies	109	37	20	39	13
Added value per AWU in thousand CZK	248	274	268	235	198
Added value per 1 ha in CZK	12 052	13 598	15 547	11 154	8 621
Subsidies in sum per 1 ha in CZK	2 283	2 191	2 720	2 251	2 324
Subsidies per 1 CZK added value	0,19	0,16	0,17	0,20	0,27
Subsidies per AWU in thousand CZK	47	44	45	47	53

Source: FADN CZ VUZE Prague, Database of the thematic courses 04 and 05 research programmers MUFA in Brno, authors' calculation
Table 1: The subsidies in companies in different natural conditions.



Source: FADN CZ VUZE Prague, Database of the thematic courses 04 and 05 research programmers MUFA in Brno, authors' calculation
Graph 2: The classification of companies according to their economic level and natural conditions

of influence of agrarian policy tools, especially of subsidies, on the differentiation of economic development of the agricultural companies.

The aim of this paper is to contribute to knowledge of agricultural subsidies allocation in different natural conditions of agricultural production and to their use by companies on different economic levels. The range and also the structure of subsidies will be analyzed here.

Methodology

To identify an economic level of the companies, an indicator of added value per work deposit was used. The authors - Bečvářová, Grega, Vinohradský (1) - specified the added value in an indicator form (according to a profit financial statement) per one agricultural work unit (AWU) (symbol AV/AWU). Three groups of agricultural companies were identified on the basis of variability of the AV/AWU average value analyses – companies with low, middle and high economic level. The middle group was defined as the average value + - 0,4 standard deviation.

The authors decided to consolidate the subsidy support (so called subsidy titles) into groups pursuant to the effect sight because of the fact that the subsidy support system was expediently sorted in the period and there were many changes in the methodology during years. You can find the aggregation in the table 2 and 4.

The classification according to natural conditions of the agricultural companies was made in compliance with the LFA area share in four groups. The main factors for the aggregation were the share of mountain area, other LFA, the production area, and the elevation above sea level.

The definition of the four groups is:

- 1 – the group of companies with favored natural conditions,
- 2 – the group of companies with good natural conditions,
- 3 – the group of companies with majority of other LFA,
- 4 – the group of companies with majority of mountain LFA.

The selected methodological process was applied on the chosen collection of agricultural companies NUTS II South-East. The collection includes 109 agricultural companies from the South Moravia area and highlands. For the South Moravia region, typical dominants are beet and corn areas. The Highland region has suitable natural conditions for potatoes growing.

Results

On the basis of presented results (see graph 1) it is possible to conclude that in the collection of monitored companies there is approximately the same number of agricultural companies in particular categories of economic level. The added value per AWU reaches the following amounts by the individual categories: high 274 – 429 thousand CZK AV/AWU; middle from 193 to 266 thousand CZK; low from less than 289 to more than 189 thousands of CZK AV/AWU.

If authors take into consideration also the natural conditions, in which the agricultural companies run their business (graph 2), it is obvious that there is a great variability of economic levels among companies running their business in favored and less favored conditions of agricultural production. But, it is necessary to say, that the share of companies with a low economic level is high in the area with predominating LFA. It is eminent that also in these conditions there is a significant number of companies which reach the high and middle degree of economic level.

In the context of the analyses of agricultural companies with economic level differentiation, a research question arises about the possibility of different subsidy support influence. In the Economic routine, there is frequently pronounced mind about disproportionate subsidy support allocation in the companies running their business in less favored condition LFA.

The subsidy allocation in the agricultural companies running their business in different natural conditions is evident from data in the table 1 and 2. The subsidy support ranged per 1 ha agricultural land, per 1 CZK of added value, and per 1 AWU is high in the companies running their business in worse natural conditions, especially in mountain LFA. The more extensive land use in these areas and with it related the lower added value

The range and the structure of subsidies in agriculture companies reaching a different economical level

Subsidies	Companies according to different natural conditions				
	1-4	1	2	3	4
1 General support of the financial resources	17,82	20,17	15,85	17,96	14,32
2 Support of less favoured areas	5,66	2,75	5,13	5,86	15,51
3 General support except-commodities function	1,22	0,50	0,69	1,35	4,09
4 Ecological agriculture	0,60	0,30	0,45	0,00	3,75
5 Support of the inputs	16,46	17,96	15,91	15,74	13,85
6 Support of the credits (PGRLF)	14,44	9,63	17,41	17,11	13,88
7 Commodities support – plant production	8,94	9,06	15,82	6,55	5,15
8 Commodities support - livestock	1,08	0,36	2,06	0,76	4,08
9 Commodities support – other raising	2,55	1,54	2,34	2,84	4,60
10 Sinking the influence of the diversification and losses	9,40	14,57	6,45	8,36	3,58
11 Remedy for the supply sinking	15,93	16,50	15,44	15,95	12,23
12 Other supports	5,90	6,66	2,45	7,52	4,96
As a whole in %	100,00	100,00	100,00	100,00	100,00

Source: FADN CZ VUZE Prague, Database of the thematic courses 04 and 05 research programmers MUFA in Brno, authors' calculation
Table 2: The subsidy structure in companies in different natural conditions (in %).

Indicator	Economical level of the companies		
	low	middle	high
The number of the companies	32	43	34
Added value per AWU in thousand CZK	155	229	321
Subsidies in sum per 1 ha in CZK	2 191	2 394	2 210
Added value per 1 ha in CZK	6 788	11 619	15 799
Subsidies per 1 CZK added value	0,32	0,21	0,14
Subsidies per AWU in thousand CZK	50	46	45

Source: FADN CZ VUZE Prague, Database of the thematic courses 04 and 05 research programmers MUFA in Brno, authors' calculation
Table 3: Subsidies in companies with different economical levels.

level per 1 ha of area under cultivation and per worker is possible to rate as a factor which impartially gets worse the financial situation of companies in these areas. A comparison of subsidies high in the fact to the added value and per AWU shows, that the dicta about disproportionate subsidy allocation in the less favored conditions are not supported by the data of the table 1.

On base of the data about the subsidy support (table 2) it is evident, that owing to different natural conditions, in the fourth group of agricultural companies there is a high share of subsidies for less favored areas, a non production function of agriculture, ecological agriculture and beef-raising. Otherwise, the subsidy structure doesn't embody essential differences according to the specific sight.

The divergence of the subsidy support range on different economic levels in companies is shown in the table 3 and 4. By approximately the same subsidies range per 1 ha arable land and different one of added value per 1 ha, the subsidy per 1 CZK added value in the companies with low economic level is 0,32 CZK, in the companies of high economic level it is 0,14 CZK. From these differences it is obvious an influence of the differences on the productivity of production activity of the agricultural companies, and also on the intensity of land use.

The subsidy structure in the different economic level groups of companies is approximately the same. There is a lower utilization of the PGRLF credit. It is related to the fact that these companies

Subsidies	Economical level of the companies		
	low	middle	high
1 General support of the financial resources	17,61	16,70	19,34
2 Support of less favoured areas	10,16	4,70	3,85
3 General support except-commodities function	2,77	1,20	0,10
4 Ecological agriculture	1,90	0,19	0,29
5 Support of the inputs	14,78	16,60	17,12
6 Support of the credits (PGRLF)	8,02	16,00	16,23
7 Commodities support – plant production	10,50	8,00	9,00
8 Commodities support - livestock	2,90	2,00	1,90
9 Commodities support – other raising	3,30	1,00	2,00
10 Sinking the influence of the diversification and losses	8,98	8,67	10,64
11 Remedy for the supply sinking	14,10	16,64	16,10
12 Other supports	4,98	8,30	3,43
As a whole in %	100,00	100,00	100,00

Source: FADN CZ VUZE Prague, Database of the thematic courses 04 and 05 research programmers MUFA in Brno, authors' calculation

Table 4: The The subsidy structure in agricultural companies with different economic levels (in %).

are in arrears with investment into a modern production base.

Conclusion

In the frame of monitored collection of 109 agricultural companies in the area NUTS II South-East it was found out that for the economic level differentiation it is characteristic that the number of companies with low, middle and high economic level, measured by the added value per AWU, is relatively the same in different natural conditions. This shows that the decisive factors for determination of variation of economic levels of companies don't consist in the natural conditions. In this respect, the presented results confirm the results of previous analyses.

The subsidy allocation analyses lead to the understanding that the support of agricultural economy was approximately of the same range per 1 ha arable area in different natural conditions in the observed periods. An especially eminent aspect is also the range of subsidies to 1 ha. It is approximately the same also by the companies with different economical level. The range of subsidy support, by recalculation per 1 CZK of created added value, embodies essential differences among companies with different economical levels. The

differences in this indicator among companies in different natural conditions exist because of different weight of the except-commodities assets of farming in LFA, especially under mountains and in mountain areas.

The structure of subsidy regarding an expedient direction is approximately the same in the monitored groups of businesses. There are slight differences among the companies which run their business in less favored conditions owing to the high share of the subsidy support addressed to the non-production assets support, ecological agriculture and beef-raising.

The results of these analyses form a knowledge base for a comparison with development of the subsidy policy after the accession of the Czech Republic into the EU.

This paper was elaborated in frame of the project of MUAF Brno, MSM 6215648904, the thematic direction 04 "The trends of agribusiness, formation of the segmented markets within the commodities' chains and the food nets in the process of integration and globalization and the changes of the agrarian policy".

Corresponding author:

Ing. Eliška Svobodová

Department of Regional and Business Economics, MZLU in Brno

Zemědělská 1, 613 00 Brno

E-mail: eliska.svobodova@node.mendelu.cz

References

- [1] Bečvářová, V., Grega, L., Vinohradský, K.: Konkurenceschopnost českého zemědělství při vstupu do Evropské unie – předpoklady a možnosti. Závěrečná studie. Brno 1998, s.63
- [2] Bečvářová, V., Vinohradský, K.: Intenzivní a extenzivní soustavy zemědělského hospodaření a příjmový potenciál zemědělských podniků. In Aktuálne problémy a perspektívy agrárneho sektoru po vstupe do Európskej Únie. Nitra: FEM SPU Nitra, 2005, s. 27-32. ISBN 80-8069-637-3
- [3] Bečvářová, V., Vinohradský, K.: Koncepce zemědělských dotací a kritérium rozdílných přírodních podmínek zemědělství. In. Aktuální ekonomická problematika zemědělských podniků III: 1. vyd. Praha: Výzkumný ústav zemědělské ekonomiky, 2005, s. 137-142. ISBN 80-86671-30-5
- [4] Grega, L. a kol: Mimoprodukční přínos trvale udržitelného multifunkčního zemědělství v podmínkách ČR, část I Analýza finančně ekonomické situace zemědělských podniků a jejich důchodových zdrojů. Průběžná výzkumná zpráva za rok 2003, MZLU Brno 2004
- [5] Hanibal, J. a kolektiv: Uplatnění „Zemědělské účetní datové sítě“ (FADN) v České republice. Výzkumná studie č. 78, Praha 2004 – Výzkumný ústav zemědělské ekonomiky, ISBN 80-86671-23-2.
- [6] Svobodová, E., Vinohradský, K., Redlichová, R. Vliv výrobního zaměření na ekonomickou úroveň zemědělských podniků. In Firma a konkurenční prostředí 2008, 1. část. Brno: MSD, spol. s r. o., 2008, s. 379--384. ISBN 978-80-7392-020-3