

Influence of subsidies on height and structures of farmers' incomes in EU member states

I.Boháčková¹, M.Hrabánková²

¹Faculty of Economics and Management, Czech University of Life Science, Prague, Czech Republic

²Faculty of Economics, South-Bohemian University, České Budějovice, Czech Republic

Abstract

In a new budgetary framework for years 2014-2020, changes will be made in expenditures of financial means from the EU budget, which will significantly influence incomes of agricultural producers in all member states of the Community. Incomes of agricultural enterprises always represented a very sensitive area of economic-political approaches in the agrarian sector. At the present, the situation is the same. In a theoretical sphere and in practice of institutions, ways to monitor incomes of agricultural farms, to analyze them, and what measures on base of these analyses to realize, are searched. The submitted paper deals in this context with a question of incomes according to their origin – agricultural incomes, incomes from non-agricultural activities, subsidy means. The aim is to draw attention to the fact that the subsidiary policy towards farmers can not be base in the area of incomes only on development and height of incomes, which have their origin in agricultural activities, but that it is necessary to consider the general income situation. A special attention has to be paid than to non-agricultural incomes – which are in the attention center in connection with demanding activity diversification. Knowledge presented in this paper is the result of grant solution MSM 6046070906 "Economics of Czech agriculture resources and their efficient usage within the framework of multifunctional agri-food systems".

Key words

Agrarian sector, incomes of agricultural producers, incomes of agricultural branch, income indicators A and C, subsidy means, diversification of activities, incomes of non-agricultural activities, total incomes.

Anotace

V novém rozpočtovém rámci na roky 2014-2020 dojde ke změnám ve výdajích finančních prostředků z rozpočtu EU, které významným způsobem ovlivní příjmy zemědělských producentů ve všech členských zemích Společenství. Příjmy zemědělských podniků vždy představovaly velmi citlivou oblast ekonomicko-politických přístupů v agrárním sektoru. Není tomu jinak ani v současnosti. Ve sféře teoretické i v praxi institucí jsou hledány cesty, jak sledovat příjmy zemědělských hospodářství, jak je analyzovat a jaká opatření na základě těchto analýz realizovat. Předkládaný článek se v těchto souvislostech věnuje otázce příjmů podle jejich původu – zemědělských příjmům, příjmům z nezemědělské činnosti, subvenčním prostředkům. Cílem je upozornit na to, že nelze podpůrnou politiku vůči zemědělcům v oblasti příjmů opírat pouze o vývoj a výši příjmů, které mají svůj původ v zemědělských činnostech, ale že je nutné zohlednit celkovou příjmovou situaci. Specifickou pozornost je pak nutné věnovat příjmům nezemědělských - které jsou v centru pozornosti v souvislosti s žádoucí diverzifikací činností. Poznatky prezentované v článku jsou výsledkem řešení výzkumného záměru MŠM 6046070906 "Ekonomika zdrojů českého zemědělství a jejich efektivní využívání v rámci multifunkčních zemědělskopotravinářských systémů".

Klíčová slova

Agrární sektor, příjmy zemědělských producentů, příjmy zemědělského odvětví, příjmové indikátory A a C, subvenční prostředky, diverzifikace činností, příjmy z nezemědělských činností, celkové příjmy.

Introduction

A new financial frame will be hold in the EU member states in a new budget period 2014-2020. Against the present financial frame it will contain changes of annual budgets, both in their height and the expenditures structure. It is supposed that the fundamental changes will touch financing of agriculture and the country and will influence significantly incomes of agricultural producers in the EU member states.

Incomes of farmers represent a very sensitive area of economic-political approaches to agrarian sector. They were an important factor in the entire history of the Common Agrarian Policy (CAP) which influenced its orientation and content. In this context we can remember the beginnings of CAP when one of priorities was to secure living standards of agricultural inhabitants, further McSharry's reform from 1992, which introduced direct payments as a tool to maintain the income level after decrease of intervention prices. The necessity to maintain an adequate income level is mentioned also in the document Agenda 2000 which influenced financing of agriculture in the budget frame in 2000-2006. Finally, also all other reform measures including the reform from 2003 (Mid-term Review) respected maintenance of farmers' incomes height. The changes touched rather the structure.

No small role in the height of income of agricultural entrepreneurial subjects is played by endowment means. Transfers of financial means in agriculture, direct and indirect, are the subject of discussions in both the theoretical sphere and the practice.

The theoretical sphere deals above all with questions whether institutional interventions (of the EU, the state) are compatible with market mechanism (possibly to what extent) and what deformation of their existence it invokes. Theoretical reasons defending the necessity of institutional supports and interventions of the EU (the state) in market relations in agriculture stem mostly from a message of this important sector of national economies (Sanderson 1990, Šrein 1998, Rektořík 2007). First of all in the area of security of food safety, maintenance of the country settlement, the care for landscape, a positive affect on the environment, in creation of balance on agrarian markets etc. Some authors see the message of endowment in agriculture in maintenance of production function, mainly in the dimension of meeting needs of agrarian products from own resources (Šrein 1998) and in security of price and income stability (Grega 2005). Others (Rektořík 2007) hold view that the subsidies in agriculture should be concentrated on

supports of its non-production functions. Both the above mentioned approaches consider the specific character of agriculture.

Vice versa, many other economists question the EU (state) interventions in agriculture, criticize the existence of re-distribution of means in favour of enterprises or sectors (Rothbard 2007) which in final consequence does not bring the total product growth or negative influence of subsidies on self-sufficiency and entrepreneurial activity of farmers, and dependence on external financial supports (Boháčková 2006). A common denominator of these opinions is a negative impact of subsidies on economic efficiency of enterprises and the sector and on a small motivation of farmers to its growth.

In practice, the agrarian-political approach of the Community to agriculture invokes a discussion about a financial demandingness of this sector for public resources, about justification and usefulness of subsidies provided to agriculture and about future changes which are necessary in the area of agricultural supports.

An often argument substantiating the necessity of subsidies in agricultural enterprises is a statement that the agricultural activity itself (i.e. traditional plant and animal production, or perhaps forest production and productions and activities connected with agriculture or establishing with it) despite price interventions and regulatory interventions in the agrarian market connected with EU protectionist policy, has not been able already for longer time to secure prosperity and desirable living standards for farmers. This fact projects also in both strategies, the present and of the future CAP. There the emphasis is put on „restructuring“ of the present total incomes of agricultural farmers in sense of strengthening of secondary non-agricultural income activities. The Community strives so that producers would be more responsible for achieved incomes in the future, the decreasing importance of agricultural incomes would be eliminated by growing share of incomes of non-agricultural character, and the share of financial means from public resources would decrease in the total incomes structure.

Methodology

The presented paper sets following goals, regarding the above mentioned:

1. To analyze a height and a structure of agricultural incomes in EU member states
2. To quantify an influence of endowments

on the achieved income from agricultural activity

3. To analyze activity diversification in agricultural enterprises

The methodological procedure consists of establishing steps:

- a definition of used economic categories,
- a subsequent review of used methods and
- introduction of data resources.

Following economic categories are analyzed in the paper: the income of agricultural producers resulting from agricultural activities (further agricultural income), a subsidy creating a part of agricultural incomes, and non-agricultural incomes. In connection with the category „agricultural income“ it is necessary to emphasize that:

- It is not dealt with a personal income of farmers but of agricultural entrepreneurial subjects, whereas the firm income in family agricultural farms can be identified with the income of an owner (possibly of a family).
- As the agricultural income it is understood only the income coming from economic activity „agriculture“ (plant production, vegetable growing and horticulture, animal production), further from agricultural breeding activity and services (except veterinary ones), from forestry (hunting, catching and breeding of wild animals) and from activities connected with agricultural enterprise (agricultural services in form of contractual works at the level of production, and other agricultural services). Besides this also non-agricultural activities belong here which can not be separated from the main agricultural activity. Agricultural incomes are methodologically delimited by so called „summary agricultural account of the Community (SAAC).
- Resulting income, defined as the income from agricultural activity, is expressed by triplicate way (see the scheme 1):
 - as a net added value. In its character it is not a real firm income; it can be rather marked as an income achieved by working of production factors. Methodologically it is set in a frame of the production account when the height of semi-consumption (expenses of external and internal character) and the height of consumption of fixed capital (depreciations) is deducted

from the value of agricultural activity outputs. A correction of the really achieved net added value is the balance of so called other production taxes and other production subsidies.

- as an operating surplus which is a result of an account of creation of income achieved from the land, the capital and unpaid work. The methodological starting point is a category the net added value from which wage costs of foreign work are deducted. The operating surplus is adjusted by a tax balance and a subsidy of investment character.
- As a net business income. It is close to the conception of income from operations (a profit), however, is not identical. In its calculation in frame of account of business incomes it is stemmed from the net operating surplus from which payments of a lease, interests and a compensation for unpaid work is excluded, and in which possible yields flowing to enterprises from land lease and capital yields.

Also a construction of 3 basic indicators expressing the level of agricultural incomes – indicators A, B and C conforms to this segmentation. Only two of the indicators were used in the analysis, the indicator A (an index of real income from production factors – the net added value relative to an annual work unit) and the indicator C (it expresses a net business income from agricultural activities). The indicator B was not used because it has a very good informative power in countries where agricultural enterprises have a form of individuals, but is unsuitable where a significant number of agricultural enterprises works with paid labour force. The indicators were used in form of indexes where the base was represented by the height of incomes achieved in 2005 (100%).

As it results from the scheme 1, agricultural policies having a various entrepreneurial form show different types of business incomes. For comparison purposes, a category „net business income“ was used which is an income category monitored in all entrepreneurial forms, although in some enterprises (of individuals, of family businesses, and specific companies of i.e. cooperative type) it is not the final income.

Subsidies – a part of agricultural incomes

The Regulation of European Parliament and the Council (EC) (References) defines a financial farmers support in connection of agricultural incomes as „subsidies“. The subsidies „are common unilateral payments paid by governmental

institutions or EU institutions to producers with an aim to influence their level of production, price or reward to production factors“. They are divided in subsidies for products (including import subsidies and other subsidies for products) and in other subsidies for production. Similarly, the particular kinds of subsidies are defined by the mentioned Regulation.

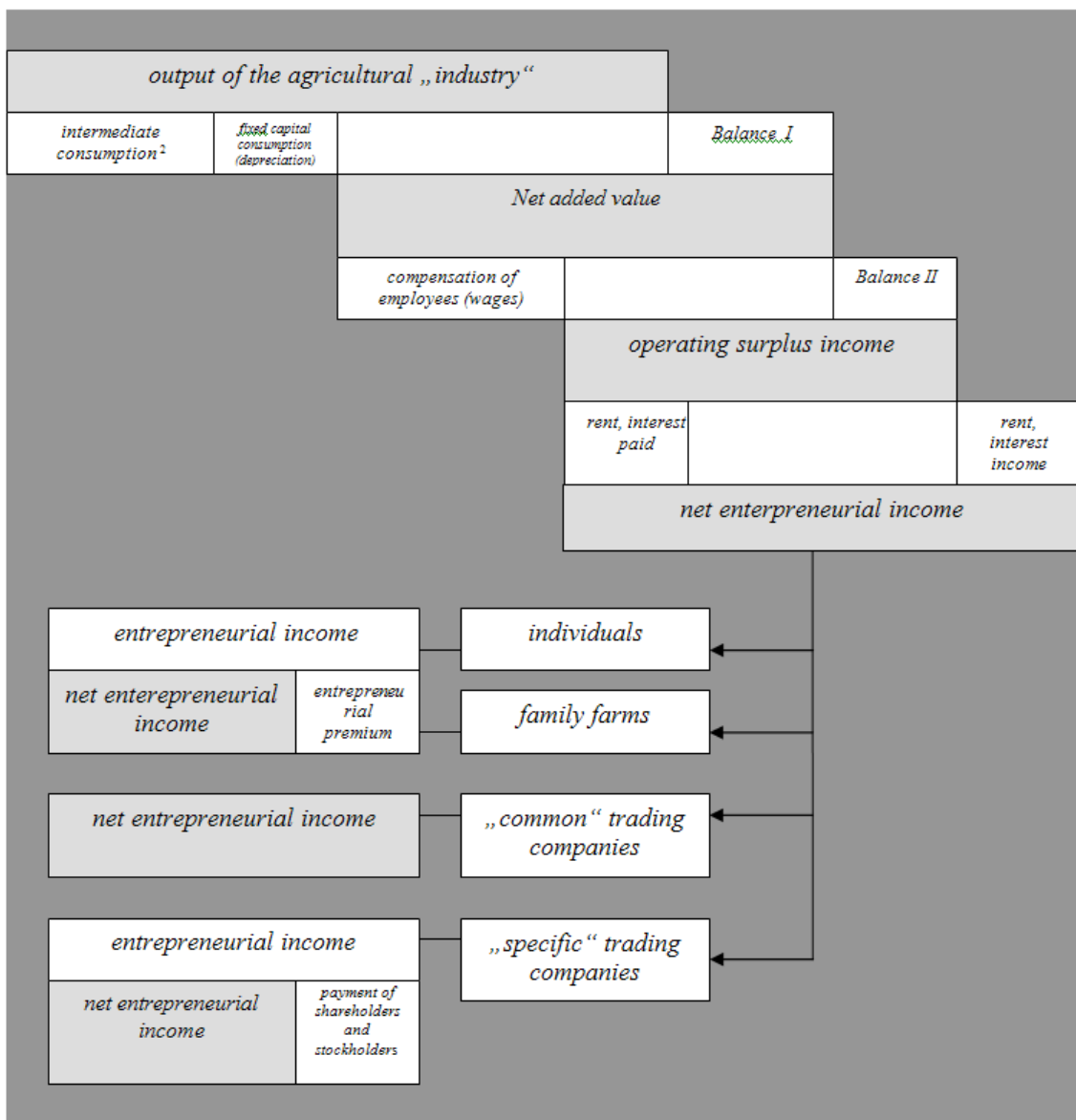
Non-agricultural activities

The term „agricultural activity“ is used in the analysis in dual way. There are differentiated partly non-agricultural inseparable activities and partly separable non-agricultural activities. Among the inseparable non/agricultural activities are ranked a processing of agricultural products and other

products in which „an agricultural enterprise and its production means are involved“. The separable non-agricultural activities have purely non-agricultural character; they neither establish with agricultural production nor complement it, and they use specific production means which can not serve, at the same time, the agricultural activity.

Basic methods used in the paper were an analysis and a comparison. In frame of the analysis, standard methods as a trend analysis and a vertical analysis (i.e. a structure analysis) were applied.

The comparison object was the situation in agrarian sectors of all 27 EU member states (a system of „agricultural accounts“). Further, valid documents of European institutions were used.



Scheme 1: Methodology of determination of agricultural activity income in relation to a form of agricultural enterprise.

Results and Discussion

1. Agricultural incomes, their development and structure

Income development of agricultural enterprises, which have their origin only in agricultural activities, was monitored by the help of indicators A and C in the period 1998-2009. Besides the development trend, also factors which influenced significantly the development trend were evaluated (except subsidies, they are dealt with separately). At the same time also differences between the „old“ (EU-15) and the „new“ (EU-12) member states were observed.

In the countries of EU-15, the income indicator A, except few exceptions, recorded almost an identical

development trend. The indicator value had grew in all countries till 2007, it means that the net added value in recount per one work unit increased; in 2007 the indicator A reached the highest value. Further, except Great Britain, it decreases. A more significant fall is obvious in countries of Benelux, France, Germany and Austria. The indicator decreased more slowly in countries of so called “south wing” (however, in Italy, a decreasing trend of the indicator is apparent already since 1998). From the following analysis of SZÚ data it resulted that one of reasons of the mentioned facts is the development of agricultural production value. It either decreased or more or less stagnated in some countries. Then, the development of agricultural production value contrasted with a high increase in intermediate

Country	1998	2000	2003	2004	2007	2008	2009
Income indicator A							
Belgium	113,6	119,3	106,3	108,3	129,5	92,5	93,0
Bulgaria	x	101,1	86,4	74,5	98,5	152,2	136,9
Czech Republic	65,1	66,5	59,2	93,2	118,7	123,5	102,5
Denmark	84,6	105,4	88,2	99,3	105,0	54,4	56,7
Germany	70,5	90,0	75,4	111,9	134,5	127,6	100,8
Estonia	50,8	40,5	57,6	94,8	143,5	113,7	93,9
Ireland	78,5	73,2	75,6	80,1	94,2	87,4	66,8
Greece	118,4	116,7	103,4	98,3	103,8	96,6	96,9
Spain	106,4	104,3	123,1	113,2	107,4	103,8	101,9
France	117,8	111,4	106,8	105,3	124,1	110,6	89,6
Italy	118,1	117,9	113,5	114,6	94,2	95,5	75,7
Cyprus	x	125,4	98,7	96,6	91,3	86,7	87,7
Latvia	54,2	41,2	57,6	95,9	134,9	115,7	98,6
Lithuania	78,9	60,8	58,7	92,5	133,4	123,5	103,3
Luxembourg	119,8	104,3	99,2	99,1	103,9	90,3	67,2
Hungary	99,2	74,3	65,1	98,2	114,8	146,2	99,2
Malta	108,2	92,8	99,4	96,8	93,8	87,8	94,6
Netherlands	133,1	124,5	108,6	101,1	121,2	98,6	90,2
Austria	83,0	90,8	97,5	102,4	124,4	119,1	95,9
Poland	69,3	61,0	58,5	110,3	134,3	127,2	126,4
Portugal	90,8	95,2	98,4	108,8	100,0	103,8	99,8
Romania	104,6	66,9	121,2	175,1	76,8	112,3	91,8
Slovenia	64,4	71,6	64,5	99,5	109,5	98,3	83,4
Slovakia	80,9	82,5	82,8	107,3	128,9	143,4	125,1
Finland	59,4	89,6	98,2	86,2	106,0	89,3	91,6
Sweden	93,7	89,6	105,7	91,1	134,3	128,2	119,8
Great Britain	85,5	80,0	94,6	101,1	112,0	144,7	137,0

Source <http://nui.epp.eurostat.ec.europa.eu> – agricultural accounts according to SZÚ 97 Rev.1.1.

Table 1: Indicator of agricultural incomes A (in index values where 100 = year 2005).

consumption value (an average increment in the monitored period amounted to 37.5 %, e.g. in Denmark 44.8 %, in Spain 81.9 %, in Luxembourg 76.6 %). Depreciations influenced the indicator A development more significantly only in Spain (an increase 70.9 %) and in Luxembourg (112 %). An exception in the whole period was represented by Great Britain when the intermediate consumption increased only by 15 % and depreciations fell by 17 %. Great Britain is the only country where the indicator A and factors influencing it developed in a different way from other countries. It is a fact that the indicator A achieved a higher value in 2009 than in the starting year 1989 only in several countries – in Germany, Austria, Portugal, Finland, Sweden, and in Great Britain, of course. Its value was lower

in other countries, at average about 75 % of the value in 1989.

In the „new“ EU member states, the indicator A showed the same development tendency after the accession in the EU as in the countries of EU-15. It means that values of the indicator had increased till 2007 (exceptions were Cyprus and Malta), after that they decreased. However, the decrease was not so significant like in the countries EU-15. A considerable increase in creation of net added value per one work unit happened in Bulgaria, Poland and Slovakia. In comparison with the countries EU-15, both the value of agricultural production and of intermediate consumptions grew faster. Also the depreciations influence was more significant.

Country	1998	2000	2001	2004	2007	2008	2009
Income indicator C							
Belgium	146,4	146,7	129,7	115,1	138,5	72,9	69,0
Bulgaria	158,4	131,3	143,5	108,4	71,8	102,4	78,8
Czech Republic	-72,8	-19,1	46,9	120,9	135,8	130,9	47,0
Denmark	117,9	216,0	343,1	72,3	11,0	-580,3	-604,0
Germany	65,3	112,6	155,5	129,3	163,0	140,2	78,0
Estonia	89,4	69,5	75,5	100,5	127,2	70,4	36,1
Ireland	89,4	98,7	98,3	82,1	87,3	73,0	49,1
Greece	134,3	127,0	123,8	100,9	99,2	90,1	90,2
Spain	192,2	116,9	127,2	121,4	106,9	94,4	90,0
France	162,9	141,2	136,7	113,6	133,1	103,3	67,4
Italy	170,6	157,5	153,5	144,4	81,2	82,4	45,6
Cyprus	9,3	x	x	104,4	79,2	74,8	76,3
Latvia	61,4	43,5	56,8	101,9	101,2	70,8	56,6
Lithuania	141,7	64,1	54,2	87,5	104,4	89,5	61,5
Luxembourg	152,8	126,6	119,8	99,3	94,3	73,3	38,2
Hungary	151,8	84,2	88,3	103,8	94,4	73,3	38,2
Malta	123,8	106,5	117,5	102,4	98,0	91,1	98,9
Netherlands	255,1	209,5	191,1	118,0	138,4	75,0	54,9
Austria	95,3	99,1	119,7	106,8	121,7	112,4	83,6
Poland	77,8	56,3	67,6	113,1	137,8	127,7	120,5
Portugal	120,2	124,3	139,7	126,4	79,1	76,8	66,1
Romania	163,9	103,7	161,6	186,0	53,7	87,1	61,7
Slovenia	76,8	79,8	69,0	100,2	106,2	92,3	74,4
Slovakia	-315,1	157,7	275,1	328,5	402,9	547,6	91,5
Finland	73,3	111,9	107,9	92,2	95,5	60,2	65,5
Sweden	97,8	89,3	97,5	74,3	95,5	60,2	65,5
Great Britain	102,4	80,8	89,0	109,1	105,5	159,0	150,9

Source <http://nui.epp.eurostat.ec.europa.eu> – agricultural accounts according to SZÚ 97 Rev.1.1.

Table 2: Indicator of agricultural incomes C (in index values where 100 = year 2005).

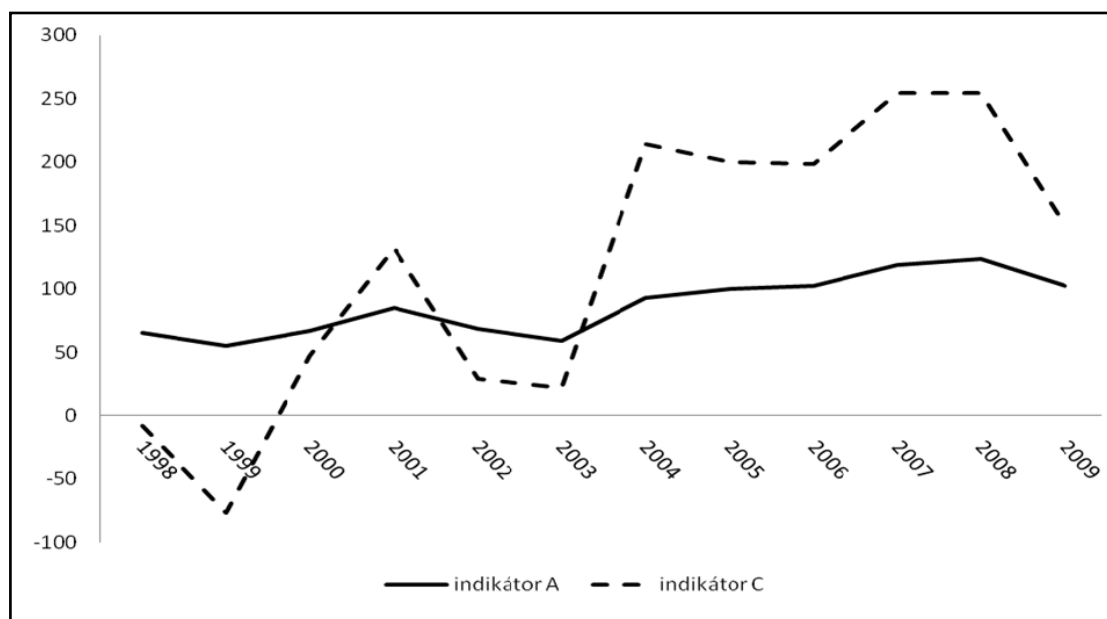
For evaluation of the level and development of incomes from agricultural activity it is preferable to monitor the indicator C which expresses a height of reached net entrepreneurial income per one work unit. Moreover, the net labour income respects also other influencing factors (see the methodology) and has a better evidence ability on efficiency of agricultural activities. Data in the table 2 unambiguously evidence that there has been a continuous decrease of entrepreneurial income in most EU-15 countries since 1998. Nevertheless, in these countries the income height in 2009 was lower than in 1998. Income significantly decreased in Greece, Spain, France, Italy, Luxembourg and above all in Denmark. Exceptions from this tendency were Germany and Great Britain.

Among influencing factors there are (besides the subsidy means) paid wages, paid interests, and paid tenancy. There was an increase in the monitored increase (measured by the basic index, a base = year 1998) in wages by 35 %, in interests by 39 %, and in tenancy by 32 %. In most of new EU member countries, the indicator C development shows a following tendency: after the accession into the EU and adoption of CAP, its value increases in most countries; in some very significantly, e.g. in Slovakia. Since 2005 the indicator values decreases. The table 2 presents differences among particular new countries. Especially interesting is the indicator development in Slovakia and Poland, where the indicator grew quickly and very significantly till 2009 (mainly Slovakia merits the attention), also in Hungary and Malta, where the net entrepreneurial income over the

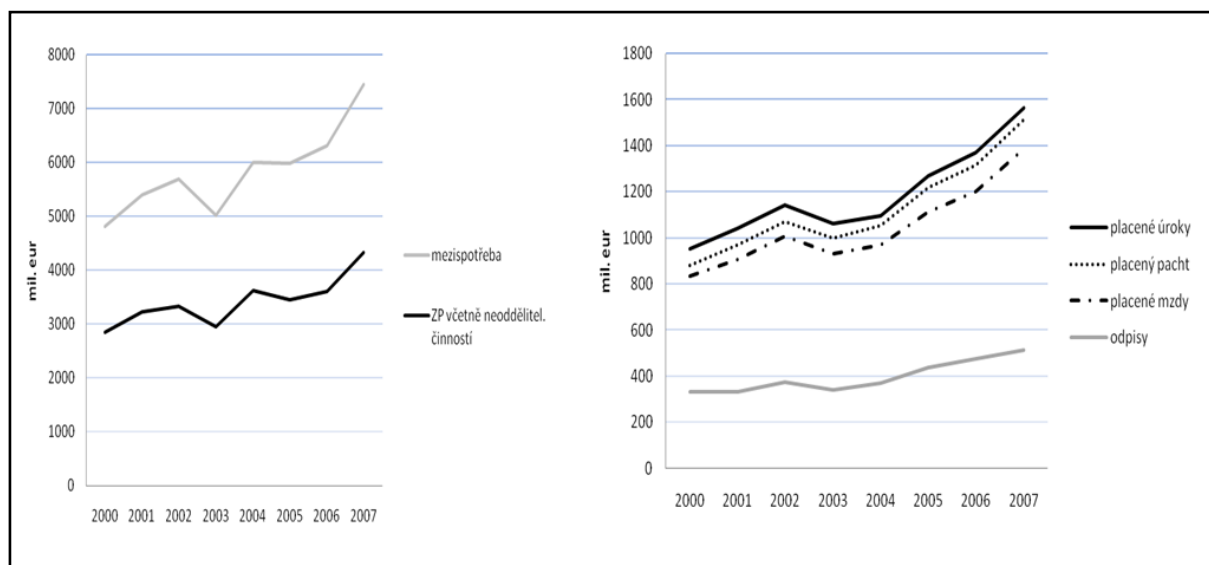
whole monitored period showed decreasing trend. Moreover, Hungary is characteristic with a deep fall of the indicator value in 2009. The mentioned indicator C development in new EU member states was influenced mainly by increase of wages and paid interests. A very high increment was recorded in Baltic republics and in Slovakia (e.g. in 2004, wages in height of 29.5 mil. Euros were paid off there; in 2008 already 442.3 Euros). The tenancy influence was not significant.

Development of indicators of agricultural incomes A and C in the CR is obvious from a graph 1. While the development of indicator A expressing efficiency of production factors can be considered as continuously growing in the monitored period, the development of indicator C, which expresses efficiency of enterprise, showed itself by strong fluctuation.

Till 2004 (the year of accession in the EU), the values of indicators moved below the basic indicator value in 2005, moreover, in the indicator C in negative values in five years (of six). From monitoring of changes (the graph 2) of selected categories influencing the indicators height by the help of the basic index 2007/2000 it resulted: the value of agricultural branch production increased by 52 %. At the same time also the intermediate consumption value increased by 58 %, depreciation by 54 %, paid wages by 75 %, paid tenancy by 166 %, and paid interest decreased by 30 %. So, the production value grew more slowly than expenditure factors. The entrepreneurial income was the most influenced by the growth of volume of paid wages.



Graph 1: Indicators A and C.



Graph 2 : Influencing Factors.

2. Influence of subsidies incomes on agricultural incomes

According to SZÚ methodology, supports influence agricultural income in two steps. At first, as a balance of „other subsidies for production and production taxes in net added value, second, as a balance of production subsidies and taxes in net operation surplus (net mixed income). Data in tables 3 and 4 evidence the significance of subsidies.

Data for making a general evaluation of subsidy influence on agricultural incomes in the EU-15 countries are missing in some member states (they are not available or time series are not complete). Nevertheless, it is possible to state that the representation of subsidies in net entrepreneurial income is very high in some countries of this group. Examples are Germany, Austria and in recent year also Luxembourg and Great Britain. A relatively low representation of subsidies is shown in Greece and Spain. Even with subsidies, the net entrepreneurial income was negative in Denmark and Nordic countries. Without them the negative values would be even higher.

The new member countries do not achieve in the net entrepreneurial income such a high per

cent of subsidies as countries of the former EU-15. An extreme exception is Slovakia where the net entrepreneurial income is negative even in spite of high subsidies. The increase of share of subsidy means is obvious, except Hungary and Cyprus, in 2004 when the countries became EU members.

There are significant differences among countries in the absolute height of subsidies provided to agricultural incomes. In count per one annual work unit, the highest value is reached by subsidies in Finland (24.4 thous. Euros), Denmark (17.6 thous. Euros), Luxembourg (17.3 thous. Euros), and Sweden (14.9 thous. Euros). The lowest subventions in frame of agricultural incomes were recorded in agricultural enterprises in Romania (0.2 thous. Euros),

Lithuania (0.6 thous. Euros) and Bulgaria (0.5 thous. Euros). At average, the country EU-15 reach per one work unit 11.2 thous. Euros, while „the new countries“ only 2.2 thous. Euros.

A situation in the Czech Republic is characterized by data in the table 5. From them it is obvious how strong dependence of incomes of agricultural branch on subsidy means is.

Country	Height of subsidies (mil Euros)				Subsidies in net entrepreneurial income (%)			
	1997	2003	2007	2008	1997	2003	2007	2008
Belgium	:	:	:	:	:	:	:	:
Denmark	123,9	140,8	985,8	995,4	12,1	x	2987	x
Germany	2191,4	1570,8	6436,0	6487,0	49,4	75,7	78,3	89,1
Ireland	391,4	659,3	1928,4	:	x	:	x	:
Greece	:	501,1	2490,5	:	:	8,7	42,8	:
Spain	956,7	2529,8	5518,9	5991,9	5,7	12,0	30,7	36,1
France	:	:	7331,0	7399,6	:	:	46,6	58,8
Italy	:	:	:	:	:	:	:	:
Luxembourg	28,9	32,1	64,9	64,4	39,8	49,0	92,8	112,9
Netherlands	:	:	719,9	:	:	:	27,7	:
Austria	903,8	1141,0	1528,8	1550,6	57,7	67,8	72,5	75,5
Portugal	317,1	430,3	525,2	:	19,2	26,1	:	:
Finland	:	:	1767,1	:	:	:	387,0	:
Sweden	:	417,6	973,2	:	:	86,1	213,1	:
Great Britain	465,2	1048,6	4267,9	3996,6	10,0	21,9	97,3	72,9

: data were not available

x unreal calculation – the value of net entrepreneurial income was negative or zero (even with subsidies) – Denmark, Ireland

Source: according to <http://nui.epp.eurostat.ec.europa.eu> – agricultural accounts according to SZÚ 97 Rev.1.1.

Table 3: Influence of subsidies in height of agricultural incomes in EU-15 countries.

Country	Height of subsidies (mil Euros)				Subsidies in net entrepreneurial income (%)			
	1997	2003	2004	2007	1997	2003	2004	2007
Bulgaria	:	:	67,3	250,5	:	:	5,0	23,2
CR	:	:	224,4	743,6	:	:	83,6	x
Estonia	7,7	6,6	52,5	107,8	15,9	11,9	39,3	50,9
Cyprus	0	3,6	42,1	38,0	0	x	16,7	18,2
Latvia	0	7,9	82,9	202,3	0	6,0	2,9	33,4
Lithuania	0,8	2,5	27,6	115,7	0,2	1,7	10,3	29,3
Hungary	:	1440,5	483,2	901,0	:	x	37,4	76,4
Malta	:	1,4	3,1	10,8	:	2,5	5,5	18,6
Poland	:	:	:	:	:	:	:	:
Romania	:	:	:	491,5	:	:	:	18,8
Slovenia	:	:	:	:	:	:	:	:
Slovakia	:	331,3	418,4	308,9	:	x	x	x

: data were not available

x unreal calculation – the value of net entrepreneurial income was negative or zero (even with subsidies) – Slovakia, Hungary, Cyprus, the CR

Source: according to <http://nui.epp.eurostat.ec.europa.eu> – agricultural accounts according to SZÚ 97 Rev.1.1.

Table 4: Influence of subsidies on height of agricultural incomes in EU-12 countries.

Mil. Euros	2000	2001	2002	2003	2004	2005	2006	2007
Subsidies	146,8	153,2	220,3	228,4	224,4	638,8	745,3	743,6
Net entrepreneurial income								
With subsidies	-21,5	79,9	-87,3	-77,4	268,4	255,5	253,3	360,5
Without subsidies	-168,3	-73,3	-307,6	-305,7	44,0	-383,3	-532,0	-383,1

Source: according to <http://nui.epp.eurostat.ec.europa.eu> – agricultural accounts according to SZÚ 97 Rev.1.1.

Table 5: Influence of subsidies on agricultural incomes in the Czech Republic.

3. Non-agricultural incomes and activity diversification

Agricultural incomes play still the most important role in the total income structure of agricultural enterprises. Namely, despite the fact that their trend is decreasing. However, at present, this kind of incomes is not able even with subvention means (which are a part of agricultural account) to secure prosperity for agricultural enterprises, and concerning family farms – to secure a desirable social standard. So, the attention is still more and more turned to other income possibilities. Undoubtedly, one of active ways of gaining other financial incomes is an implementation of non-agricultural activities.

Historically, agriculture creates inseparable part of the country. This fact is accepted by the European agricultural model in which rural development represents an integral part of the Common Agricultural Policy – it is its second pillar. One of crucial activities, on which attentions is concentrated in the second pillar in frame of development strategies of agriculture and the country, is an activity diversification both in the rural space and the agricultural enterprises. It is supposed that the activity diversification in the countryside can invoke opportunities for diversification of activities of agricultural farms. Usage of these opportunities should subsequently positively influence the income position of farmers. In frame of the 2nd pillar, the development of non-agricultural activities is supported from the European Agricultural Fund for Rural Development (EAFRD) [B]. A sense of subsidies provided for activity diversification in agriculture is:

- to invoke activities leading to increase in total incomes of agricultural enterprises;
- to change the structure of total incomes in a direction of strengthening of non-agricultural incomes;
- a growth of own responsibility of producers for their income situation;
- in dependence on the above mentioned, to decrease the dependence of agricultural farms on subsidies.

Current situation - EU

The main point in frame of the mentioned aims is a change of structure of agricultural farm incomes. A comparison of the current structure shows differences between the „old“ and the „new“ EU member countries. These differences are conditional on different entrepreneurial structure in agriculture. The income structure of farmers in the

„old“ countries is more various than the structure of agricultural farm incomes (except family farms) in most „new“ member countries including the Czech Republic.

Concerning non-agricultural activities – Eurostat presents data on representation of enterprises which operate non-agricultural activities in the total number of agricultural enterprises in particular member countries (see table 6) From the mentioned data it is obvious that there are differences among countries, both in the representation of enterprises with non-agricultural activity and the development of their number (measured by basic index 2007/2003). More than fifth of enterprises with active non-agricultural activity is showed by Denmark, Germany, France, Austria, Finland, Sweden and Great Britain. A higher representation is also in the Netherlands, Luxembourg and Romania. At the same time Romania shows the highest increase.

The Czech Republic with 12.2 % exceeds the EU-12 average. Concerning the development trend, numbers of enterprises with non-agricultural activities grow in most member countries; Bulgaria, Lithuania, Hungary and Portugal are exceptions. The situation almost does not change in France and Malta.

A certain idea on significance of non-agricultural activities for incomes of agricultural farms can be obtained by monitoring of share of non-agricultural activities in the total value of agricultural branch production.

Table 7 shows inseparable non-agricultural incomes over particular member states. As it is seen from the data, the share of non-agricultural activities in the total value created in agriculture does not exceed 10 % in any country. The highest representation on non-agricultural activities belongs to agriculture in Latvia, Estonia, Finland, Sweden, Bulgaria, but also in Romania and Malta. The non-agricultural activity is not shown by Ireland and a small exists in the Netherlands, Germany and Portugal. In other countries, the share moves from 1.1 % (Denmark) to 5.2 % (Austria). In the CR this share of non-agricultural activities in the total production value amounts to 1.9 %. In comparison of the mentioned indicators with identical indicators achieved in 1999 we can state, from data available about particular countries, that there was an increase of the non-agricultural activities in most member countries. This accrual was very significant in Portugal and Malta. An exception was only Estonia, Austria and Slovakia where the share of non-agricultural activities in the total production value over the period 1999-2007 decreased.

Country	2007	2007/2003	Country	2007	2007/2003
Belgium	3,9	1,026	Luxembourg	17,3	1,573
Bulgaria	2,0	0,488	Hungary	5,0	0,446
Czech Republic	12,2	1,506	Malta	3,9	0,975
Denmark	23,4	1,636	Netherlands	18,5	0,623
Germany	21,7	1,119	Austria	21,5	1,149
Estonia	8,3	1,107	Poland	4,8	1,455
Ireland	5,1	1,063	Portugal	7,4	0,748
Greece	1,4	1,077	Romania	15,7	3,738
Spain	3,5	1,522	Slovenia	4,1	1,108
France	23,6	0,956	Slovakia	4,1	1,108
Italy	6,4	1,391	Finland	27,6	1,091
Cyprus	6,6	1,082	Sweden	23,2	1,813
Latvia	9,1	1,071	Great Britain	23,2	1,433
Lithuania	0,7	0,412	EU -27	9,9	1,597

Source: [http:// epp.eurostat.ec.europa.eu/tgm](http://epp.eurostat.ec.europa.eu/tgm)

Table 6 : Agricultural enterprises with non-agricultural activities realized out of enterprise (% of all agricultural enterprises, 2007).

In frame of non-agricultural activities, farmers practice usually processing of agricultural products. 100 % of non-agricultural activities represent processing of agricultural production in Greece, Cyprus, Malta and Romania. Vice versa, Denmark, Germany, Ireland, Austria and Sweden give a value 0 %. The locus of their non-agricultural activities lies in sale of goods and services.

Current situation - CR

To characterize the Czech Republic situation, we can use indicators presented in the table 8. From them it is obvious that in the period 2003-2007 the share of enterprises with non-agricultural activity in the total number of enterprises increased, but at the same time there was a decrease in share of non-agricultural activities in the total production value in the branch and a decrease in share of revenues from non-agricultural activities in the total revenues (both according to the accountancy books and FADN) in enterprises of legal entities and especially in enterprises of individuals. The enterprises of legal entities in the CR have better conditions for non-agricultural activities operation, both in a capital endowment and especially in numbers and qualification of labour forces. Most non-agricultural activities aim at processing of agricultural production even if sale of goods and service operation is still more frequent in entrepreneurial structures of agricultural enterprises since 2003.

Certain differences in inseparable non-agricultural activities can be seen at the regional level. At the level NUTS II (according to Eurostat), the

highest share was shown in 2007 by South-East (2.76 %) and Moravia-Silesia (2.62 %). The least representation of non-agricultural activities was recorded in the region North-West (0.83 %). At the level NUTS III (according to Czech Statistic Office), the most inseparable non-agricultural activities were showed in Moravia-Silesia (2.58 %) and Olomouc region (2.27%), the least in the region Liberec (0.61%), Vysočina (0.71%) and Ústí (0.75%).

Activity diversification in agricultural enterprises has a long tradition in the CR. In the period of central management so called „affiliated production“ represented in their way „an entrepreneurial element“. By means of them agricultural enterprises improved its income and financial situation. There were active in operation of affiliated production both the then United Agricultural Cooperatives and later the state farms. From statistical data over the Czechoslovakian Socialistic Republic (ČSSR) it is possible to derive their significance by the help of indicator - the share of gross non-agricultural production in the total gross production. In 1985 it amounted to 23 % and in 1987 already 26 %. In the privatization (event. transformation) process in agriculture, most of affiliated productions were privatized out of the agricultural branch. The present Common Agricultural Policy unambiguously supports the non-agricultural activities. The State Agricultural Investment Fund (SZIF) provides subsidies for diversification of activities from European Agricultural Fund of Rural Development (EAFRD), the axe III, the Measure III.1. „Measure to country

Country	Non-agri activities (mil Euro)	Share of non-agri activities in production value (%)	Share of processed agri products in non-agri activities (%)	Country	Non-agri activities (mil Euro)	Share of non-agri activities in production value(%)	Share of processed agri products in non-agri activities (%)
Belgium	x	x	X	Luxembourg	14	4,9	28,6
Bulgaria	277	8,4	81,9	Hungary	187	2,9	x
Czech Republic	83	1,9	84,3	Malta	8	6,3	100,0
Denmark	101	1,1	0	Netherlands	132	0,6	32,6
Germany	172	0,4	0	Austria	346	5,2	0
Estonia	50	7,2	28,0	Poland	x	x	x
Ireland	0	0	0	Portugal	33	0,5	x
Greece	494	4,5	100,0	Romania	1 110	6,1	100,0
Spain	1 201	2,8	12,3	Slovenia	x	x	x
France	1 814	2,7	89,5	Slovakia	89	4,6	16,9
Italy	1 390	3,1	46,7	Finland	411	9,2	2,9
Cyprus	30	4,7	100,0	Sweden	384	7,3	0
Latvia	104	9,9	25,0	Great Britain	1 182	4,9	8,8
Lithuania	83	3,9	67,5				

Source: <http://nui.epp.eurostat.ec.europa.eu/nui> - calculations according to Landwirtschaftskonten nach LGR 97 Rev.1.1.
x – data not available

Table 7: Non-agricultural inseparable incomes from secondary activities in EU-27 member countries.

Indicator	2003	2007
Share of enterprises with non-agricultural activities in total number of agricultural enterprises (%)	8,1	12,2
Share of non-agriculture secondary activities in total production value in agriculture (%)	2,6	1,9
Share of processing of agricultural production in non-agricultural secondary activities (%)	96,2	84,3
Share of revenues from non-agricultural activities in total revenues according to accounting books (%) in legal entities	17,8	13,9
Share of revenues from non-agricultural activities in total revenues according to accounting books (%) in individuals	14,9	2,16
Share of revenues from non-agricultural activities in total revenues according to FADN (%) in legal entities	6,23	5,21
Share of revenues from non-agricultural activities in total revenues according to FADN (%) in individuals	13,46	2,05

Elaborated according to data provided by Eurostat and Reports on state of Czech agriculture

Table 8: Non-agricultural activities in CR agriculture.

Indicator	Intentions in frame of measure III.1.1.			
	III.1.1.a	III.1.1.b	III.1.1.c	III.1.1.d
Representation of successful projects (%)	39,7	38,7	5,2	16,4
Share of legal entities (%) (III.1.1)	16,1	55,6	7,2	21,1
individuals (%) (III.1.1.)	86,8	4,4	1,1	7,7
Share in financing (%)	9,9	82,9	1,5	5,7

According to News service from the Rural Development Programme, SZIF, 9 rounds, 2.2.2008-8.3.2010

Note.: III.1.1.a : Diversification of activities of non-agricultural character

III.1.1.b : Building and modernizing of bio-gas station

III.1.1.c : Building and modernizing of boiler plants and heating plants for bio-mass including combined production of heat and electricity

III.1.1.d : Building and modernizing of facilities for production of formed feeds

Table 9: Project activity of farmers in frame of Measure III.1.

management diversification“. The diversification of activities in agriculture is specially treated in the measure III.1.1. „Diversification of activities of non-agricultural character“, but farmers can gain subsidy also from the measure III.1.2. „Support of small productions, crafts and services“ or the measure III.1.3. „Support of agri-tourism“.

The table 9 contains data on use of subsidies provided for introduction of non-agricultural activities in agricultural enterprises at the nationwide level. Differences are obvious at the regional level. At the level NUTS II., the highest project activity (a share in the total number of projects) is shown by South-East (26 %) and South-West (20 %), the lowest North-West (9 %). More projects are sent by legal entities (71 %) than individuals. The reason is their better capital endowment and especially labour force endowment. Individuals submit more projects in the area of introduction of non-agricultural activities in the classification according to OKEČ (Branch Classification of Economic Activities). From the view-point of matter externalization of non-agricultural activities, the most attractive title for farmers is „Building and modernizing of bio-gas station“.

Conclusion

In the present methodologies, the evaluation of incomes from agricultural enterprises is realized above all in such a way that incomes, which are agricultural by their fundamental and origin, are monitored and analyzed.

Currently the situation is following:

- according to income indicators, the development of incomes of agricultural enterprises from agricultural and inseparable activities can be evaluated as growing by the year 2007, than there is a decrease. Growing tendencies of indicators differ; while the indicator A showed a slightly growing trend in the all period, the indicator C considerably fluctuated at the same time. It means that the net added value grew but the entrepreneurial income was influenced in addition by wages, tenancy and interests;
- there are no significant differences in development trend of indicators among the countries EU-15 and EU-12;
- subsidies provided to agricultural incomes have a significant influence on incomes. They grow in the monitored period; also their representation in net entrepreneurial income increases in most countries. The dependence of producers on subsidies raises in this way;

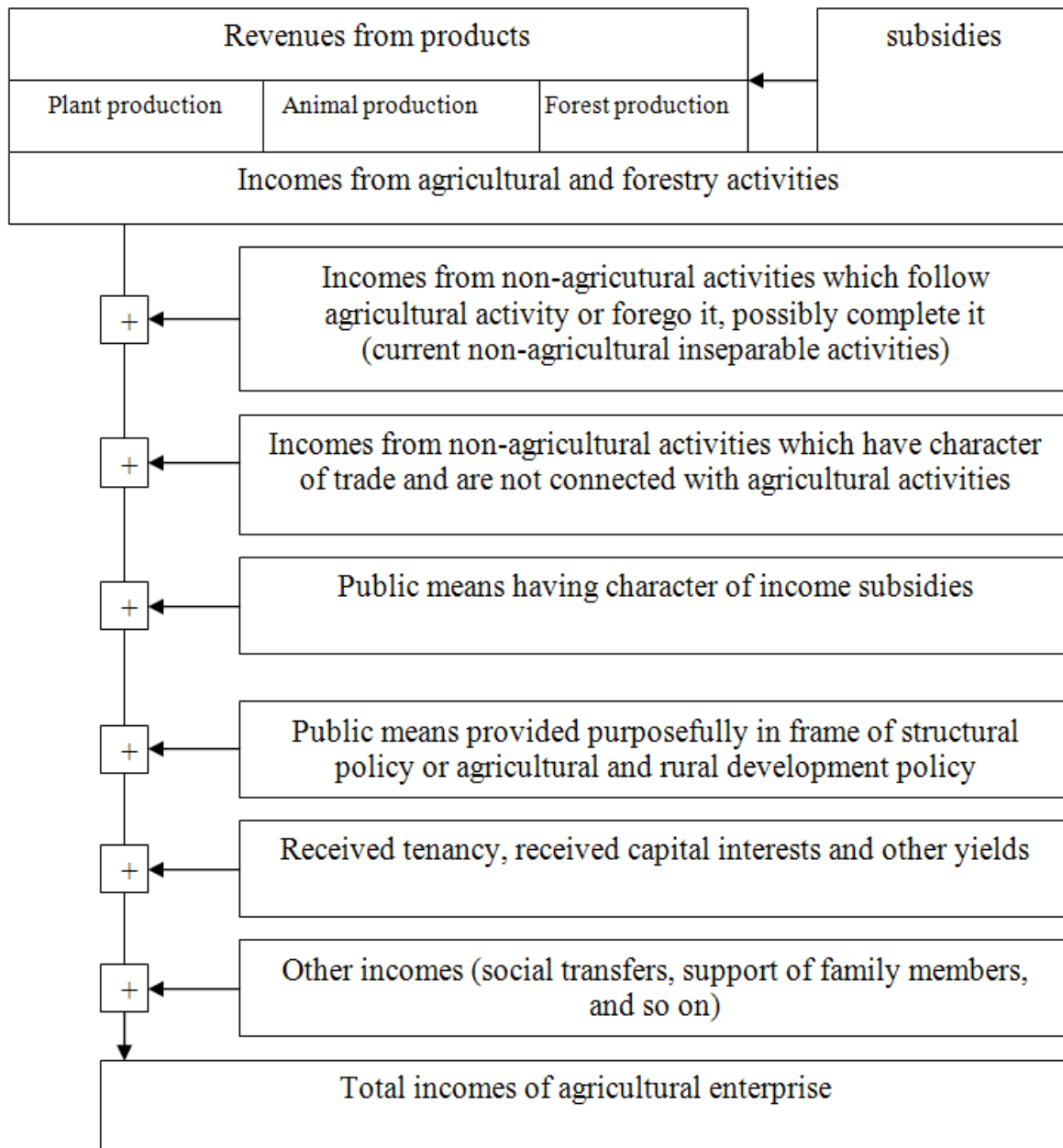
- there are significant differences in providing of subsidies among the countries EU-15 and EU-12; in the countries EU-12 the provided means are lower (in count per work unit);
- in spite of continuing and growing support of implementation of non-agricultural assets in the entrepreneurial structure, the representation of non-agricultural inseparable incomes is low in particular countries for now and differentiated (independently on whether it is dealt with a country of EU-15 or EU-12), also an activity within their introduction differs, again crosswise all EU member states;
- in non-agricultural activities not all alternatives are used, processing of agricultural production or sale of goods and services prevail;
- information on non-agricultural separable activities are limited (or none in some countries), at the same time a methodology for their finding is not elaborated.

If incomes of agricultural enterprises were evaluated only according to agricultural incomes, we would come to a conclusion that these incomes are not sufficient for economy stabilization and level of living security and this fact confirms the necessity to provide financial supports from public resources. However, on the other hand, we know only a part of incomes of the enterprises. The incomes of agricultural branch in most agricultural enterprises are not often the only kind of incomes. If we liked to obtain data on real-total incomes, it would be necessary to monitor all means which the firm gets, e.g. in the division according to the scheme 2. At the same time it would mean to create a similar methodology of their monitoring, including sort division at such a level at what agricultural incomes are now monitored now. The scheme 2 is applicable to both types of enterprises, the legal entity type and the family farms. Some items (e.g. social transfers or a value of products for needs of the owner and his/her family, etc.) concern only the family farms where the firm is financially interconnected with the owner's household. It would be useful to monitor each type of incomes separately (financial income, financial expenditures, final income). The mentioned way could provide a real depiction of income situation of agricultural enterprises and mainly – it would enable to evaluate what the income resources representation is in the total entrepreneurial income of the enterprise. The mentioned way of observation would have a special importance for non-agricultural activities. It would bring information on how non-agricultural activities of agricultural farms share in the total incomes and besides this it would enable to monitor

the efficiency of subsidiary means provided for development of non-agricultural activities.

incomes of agricultural enterprises, not only incomes of agricultural branch.

Income of agricultural enterprises is an important stabilization factor of the entire agrarian sector. Their stabilization role was respected by agrarian-political measures in the CAP history and it will be also in the future. However, to be the measures efficient and purposeful, it is necessary to have undistorted information on the real height of



Scheme 2: Structure of total incomes – proposal for monitoring.

Corresponding authors:

Doc. Ing. Ivana Boháčková, CSc.

Faculty of Economics and Management, CULS in Prague, Kamýčká 129, 165 21 Prague 6-Suchbát,

E-mail: bohackiv@pef.czu.cz

Prof. Ing. Magdalena Hrabánková, CSc.

Economic Faculty at South Bohemian University in České Budějovice

E-mail:hrabanko@ef.jcu.cz

References

- [1] Boháčková I. (2006) Structural changes of income of agricultural producers based on knowledge approach, *AGRIC.ECON.-CZECH*, 52, 2006(3), p.128-132, ISSN 0139-570X.
- [2] Commission of the European Communities, 2002 : Communication from the Commission to the Council and the European Parliament. Mid-term Review of the Common Policy . COM 2002, 394, CEC, Brussels.
- [3] Grega L. (2005) Economic eligibility of agricultural support (in Czech), MZLU Brno, 2005, ISBN 80-7157-829-0.
- [4] Griffin,K.:Agrarian policy : the political and economic context, *World Development*, Volume 1. Issue 11,1973, p.1-11.
- [5] Maye,D., Ilbery,B.,Watts,D: Farm diversification tenancy and CAP reform: Results from a survey of tenant farmers in England,, *Journal of Rural Studies*, Volume 25, Issue 3,2009, p. 333-342.
- [6] Rejzler J. (2007) Economics and management of public sector branch (in Czech), *Express*, Praha, 2007, 52-64, ISBN 978-80-86929-293.
- [7] Rothbard M.N. (2005) Economy of state interventions (in Czech), *Liberal Institute Prague*, 2005, 283-288, ISBN 80-86389-10-3.
- [8] Sanderson, F.H. (1990) *Agricultural Protectionism in the Industrialized World*, Washington, D.C., Resources for the Future, 1990, 324-328, ISBN 0-915707-57-8.
- [9] Schrader,H. Impact assessment of the EU structural funds to support regional economics development in rural areas of Germany, *Journal of rural development* , Volume 10, Issue 4, 1994, p.357-365.
- [10] Šrein Z.(1998), *Economic policy of European Community (in Czech)*, EU Prague, Prague,1998, 71-72, ISBN 80-7079-543-3.
- [11] Tranter, R.B., Swinbank, A., Wooldridge, M.J. etc. Implication for food production, land use and rural development of the European Union's Single Farm Payment. Indication from a survey of farmers intentions in Germany, Portugal and the UK., *Food Policy*, Volume 32, Issue 5-6, 2007 p.656-671.
- [12] Decision of council from February 20, 2006 on strategic directions of Community for rural development in programme period 2007-2013, Council Regulation (EC) from September 20, 2005 No. 1698/2005 on support of rural development from European Agricultural Rural Development Fund.
- [13] *Statistic yearbook of CSSR 1989, SNTL 1989.*
- [14] *GrünerBericht 2007, Lebensministerium, Wien 2007.*
- [15] *Reports on state of Czech agriculture.*
- [16] *Data of Eurostatu, Czech Statistic Office and SZIF.*