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THE ALLOCATION OF RESOURCES FROM THE FINANCIAL PERSPECTIVE FOR THE AGRICULTURAL SECTOR IN COUNTRIES OF CENTRAL AND EASTERN EUROPE IN 2007-2013

Summary: The membership in the EU offers possibilities of financial support for agriculture and an accelerated economic development of rural areas. This process will continue to be supported from EU funds within the framework of the financial perspective for 2007-2013. It is a chance for further development of agriculture and rural areas in CEEC. It needs to be remembered that a considerable role in the development of the agricultural sector and rural areas is played by the adopted policy concerning them. In the paper, we present the allocation, level, and structure of the financial perspective funds for the agricultural sector in CEEC. What is also compared is the volume of funds in relation to farm, 1 hectare of agricultural area, and 1 person employed in the analyzed sector and their share in GVA. Furthermore, the Ward analysis is conducted.

Keywords: the financial perspective for 2007-2013, agricultural sector, CEEC, EU-25.

1. Introduction

Becoming EU members, Countries of Central and Eastern Europe (CEEC) were granted fuller participation in the budgetary policy of the EU. Thanks to this, they were able to receive financial support, for example, for the agricultural sector and accelerated economic development of rural areas. Farmers in CEEC received not only financial resources, but also access to the common European market. This provides an opportunity for further development of agriculture and rural areas in the new member countries, thus enhancing their integration with the EU.

2. Methodology

The aim of the study was to present the level and structure of the allocation of the resources for the agricultural sector in CEEC, within the framework of the financial perspective for 2007-2013. The allocation of resources was analysed in the global aspect, presenting the structure of resources in relation to the number of individuals employed in agriculture, UAA, and the number of farms. There was also an attempt

to evaluate the volume of received resources in relation to the gross added value. Moreover, cluster analysis was conducted using the Ward approach to cluster both CEEC and EU-27 in terms of the volume of the total support received for agriculture. The investigations were conducted for CEEC and other countries of EU-27. The paper is based on literature sources on the subject and EU statistical data.

3. Discussion and results

When analysing all the resources addressed to the agricultural sector within the framework of the financial perspective for CEEC for 2007-2013, we may observe that their considerable part is received by Poland, which accounts for 7.5% of the total resources in EU-27 for agriculture (see Table 1). It is the amount similar to that obtained for Italy and Great Britain. The smallest amount of resources in the agricultural sector among CEEC was received by Estonia, Slovenia, and Latvia (which accounts for approx. 0.4% of the total resources allocated to that purpose in the entire EU-27).

Table 1. The resources allocated to the agricultural sector for CEEC, within the framework of the financial perspective for 2007-2013, in the form of direct subsidies and the 2nd Pillar of CAP (in billion EUR), their structure (%) and the proportion of resources for individual countries in the total volume of EU-27 resources

	Subsidies	2nd Pillar	Total	Structure (%)		Share in EU-27 (%)		
	(billion EUR)			Subsidies	2nd Pillar	Subsidies	2nd Pillar	Total
Bulgaria	2.5	2.6	5.1	49	51	0.9	3.0	1.4
Czech Republic	4.5	2.8	7.3	62	38	1.6	3.2	2.0
Estonia	0.5	0.7	1.2	41	59	0.2	0.8	0.3
Lithuania	1.9	1.7	3.6	52	48	0.7	2.0	1.0
Latvia	0.7	1.0	1.8	41	59	0.3	1.2	0.5
Poland	15.0	13.2	28.3	53	47	5.3	15.0	7.5
Romania	5.5	8.0	13.5	41	59	1.9	9.1	3.6
Slovakia	1.9	2.0	3.9	49	51	0.7	2.2	1.0
Slovenia	0.7	0.9	1.6	44	56	0.2	1.0	0.4
Hungary	6.5	3.8	10.3	63	37	2.3	4.3	2.7
CEEC	39.7	36.9	76.6	49	51	13.9	41.7	20.5
EU-15	246.2	51.2	297.4	79	21	86.0	58.0	79.4
EU-27	286.2	88.3	374.5	65	35	100.0	100.0	100.0

Comment: in the structure of the resources for CEEC, EU-15, and EU-27, a mean value was calculated.

Source: authors' own study based on: *Implementation and Vision of CAP. CAP in 27 EU Member States*, (date of access: 25.03.2011).

When comparing the structure of these resources, we may observe that in four countries of CEE, – Bulgaria, Lithuania, Poland, and Slovakia – the shares of subsidies and the 2nd Pillar are comparable. In the Czech Republic and Hungary, direct subsidies account for over 60% resources allocated to the agricultural sector. In the other, CEEC resources of the 2nd Pillar of CAP account for a higher proportion of resources. These proportions are different in countries of EU-15, where subsidies amount to the dominant share (approx. 60-90%) in the pool of resources allocated to that purpose for a given country. In view of the above, it may be stated that the 2nd Pillar is relatively minor in importance in countries of EU-15 rather than in CEEC (it amounts to 21 and 51% resources in these groups of EU states). In turn, subsidies play a more important role in countries of EU-15 (79%) than in CEEC (49%). This difference stems from the fact that CEEC are still in the transition phase, during which less than 100% of the planned maximum budget for direct subsidies is available for them from the CAP budget, while it also results from lower reference yields in those countries. In the new EU member countries, direct payments are being introduced gradually, starting from 25% in 2004 and next increasing year by year until 100% is reached in 2013, while in Bulgaria and Romania it will be by 2016. The total level of support (EU resources and auxiliary national resources) granted to the sector may not exceed, in any case during the period leading to full payments, the amount of support which this sector would receive within the framework of the EU system of support used at the same time in the EU-15 countries [Floriańczyk 2006].

In order to present the budgetary policy in the EU and its consequences for CEEC, based on the volume of resources allocated to the agricultural sector, within the framework of the financial perspective for 2007-2013, an attempt was made to

Table 2. Total resources allocated to all the years within the framework of the financial perspective for 2007-2013, per 1 employed individual, per 1 hectare UAA, per a statistical farm and their share in gross added value in CEEC
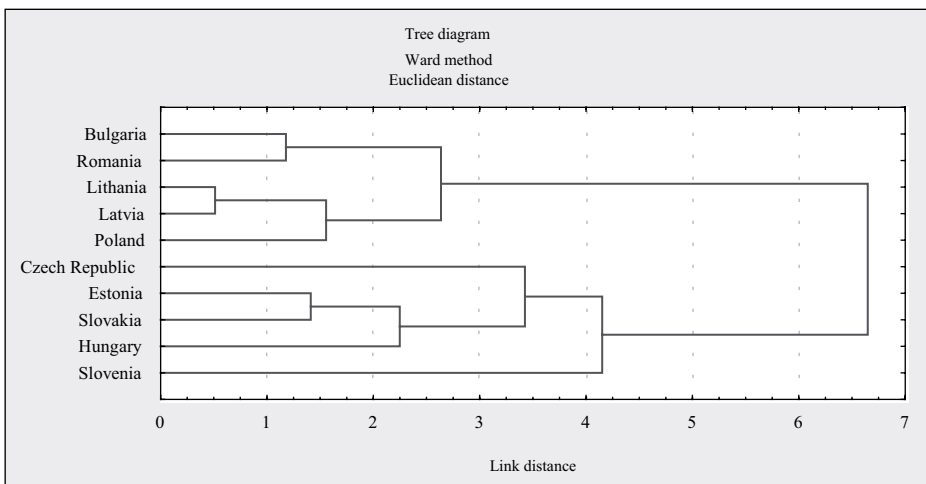
	Volume of resources (in thousand EUR) per:			Share of CAP resources in GVA (%)
	1 employed individual	UAA	Farm	
Bulgaria	20.2	1.0	9.5	46.3
Czech Republic	40.3	2.1	173.2	106.9
Estonia	37.7	1.6	43.6	88.4
Lithuania	19.4	1.3	14.3	87.2
Latvia	14.5	1.0	13.7	91.1
Poland	12.3	1.8	11.4	62.2
Romania	4.8	1.0	3.2	26.4
Slovakia	38.6	2.0	56.8	126.8
Slovenia	17.6	3.3	20.9	49.4
Hungary	54.9	1.8	14.4	61.2

Source: authors' own study based on the data from Table 1 and Eurostat.

group these countries. For this purpose, cluster analysis was applied using the Ward approach with Euclidean distances based on five weakly correlated variables,[1] i.e. the total volume of these resources for all the aforementioned years in terms of:

– the number of employed in the agricultural sector,
– UAA,
– the number of farms,
– the volume of these resources in one year to gross added value generated by agriculture (see Table 2).

CEEC were divided into two characteristic groups (see Figure 1). The first comprised such countries as Bulgaria, Lithuania, Latvia, Poland, and Romania,

	Volume of resources (in thousand EUR) per:			Share of CAP resources in GVA (%)
	1 employed individual	UAA	farm	
I group: Bulgaria, Romania, Lithuania, Latvia, and Poland				
Mean	14.2	1.2	10.4	62.6
v (%)	43.9	28.6	42.9	43.7
II group: Czech Republic, Estonia, Slovakia, Hungary, and Slovenia				
Mean	37.8	2.1	4.4	86.5
v (%)	35.2	31.3	104.5(41.2)	36.8

Fig. 1. The division of CEEC into clusters, depending on the volume of resources allocated within the framework of the financial perspective for 2007-2013

Comment: in all the analyses where the coefficient of variation exceeded 50%, a median was calculated instead of a mean, while the coefficient of variation calculated for position measures is given in brackets.

Source: authors' own study based on the data from Table 2.

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[1] The highest value on the diagonal of the reverse matrix is 1.7.

while the other included countries with a more developed agricultural sector, i.e. the Czech Republic, Estonia, Slovakia, Slovenia, and Hungary. Additionally, within the framework of these groups in terms of the volume of the resources directed to the agricultural sector in these countries in the form of direct subsidies and the 2nd Pillar, we may distinguish further subgroups. In the first group one subgroup is formed by Bulgaria and Romania, the second comprises Lithuania and Latvia, with Poland being classified separately. In turn, in the second isolated group, we may distinguish one subgroup comprising Estonia and Slovakia, while the other countries distinguished here are separate units. In the isolated groups, we may observe marked differences in the mean values of analysed indexes. The biggest diversification (almost 3-fold) is found in the volume of resources per 1 employed worker, while the smallest (1.8-fold) is observed in the case of resources per 1 hectare UAA. The coefficient of variation for the analysed characteristics in the investigated groups of countries ranges from 29 to 44% and indicates high variation in the analysed indices.

When studying the total volume of resources allocated in 2007-2013 to CEEC, we may observe that the highest levels of resources per 1 employed individual are recorded in Hungary at 54.9 thousand EUR. Comparable values are found for Estonia, the Czech Republic, and Slovakia (from 37.7 to 40.3 thousand EUR), similar values are recorded in Bulgaria, Lithuania, and Slovenia (approx. 19 thousand EUR) as well as Latvia and Poland (approx. 13.4 thousand EUR), while the lowest in Romania – only 4.8 thousand EUR.

Less diverse levels of resources are observed in reference to 1 hectare UAA and they range from 1 thousand EUR in Bulgaria, Latvia, and Romania up to 3.3 thousand EUR in Slovenia.

In turn, high variation is found among CEEC in terms of the volume of resources in relation to a statistical farm. The highest level of resources is recorded in the Czech Republic – as much as 173.2 thousand EUR, comparable in Estonia and Slovakia (from 43.6 to 56.8 thousand EUR), as well as Hungary, Lithuania, Latvia, Poland, and Bulgaria (approx. 12.7 thousand EUR), while the lowest in Romania, since it is only 3.2 thousand EUR. Such values of analysed indices are dependent on the existing agrarian structure and employment levels in agriculture of individual countries of CEE.

In the investigated countries, the percentage of resources in terms of gross added value (GVA) is also varied. In Slovakia and the Czech Republic, it exceeded 26.8 and 6.9% of generated GVA. In the Baltic states, it amounted to approx. 90% of GVA. A similar percentage at slightly over 60% of GVA was recorded in Poland and Hungary, while in Slovenia and Bulgaria it reached almost 50%, whereas it was the lowest in Romania, amounting to only 26.4% of GVA.

When presenting the distribution of the resources allocated to the agricultural sector in CEEC for 2007-2013, the position occupied by analysed countries among the other EU states was analysed in terms of the volume of these resources. For

this purpose, cluster analysis was performed for the EU-25 countries[2]. This facilitated a division of these countries into three main groups, in which several subgroups were distinguished (see Figure 2). Thus, in the first cluster, we may find three subgroups, whithin which, in the first subgroup, there were such countries as Austria, Slovenia, Spain, and Italy; in the second subgroup, there were Belgium, Germany, and Netherlands; and Greece constituted a separate subgroup. The other main group consisted of two subgroups. The first one comprised Bulgaria, Romania, Poland, and Portugal, while the other consisted of Estonia, Hungary, Lithuania, and Latvia. The third main group was divided into two subgroups, one formed by the Czech Republic, Finland, Sweden, Ireland, and Slovakia, while the other comprised Denmark, Luxemburg, France, and Great Britain.

Such a position of EU-15 countries in terms of the resources within the framework of the perspective for 2007-2013 results from the fact that, in the isolated main groups, the countries were clustered within the subgroups which were characterised by a similar percentage of workers employed in agriculture. Moreover, the countries of EU-15 from group III within their subgroups additionally have similar numbers of fully employed per 100 hectares UAA. Moreover, countries which formed the second subgroup within the framework of groups I and III may be said to be also characterized by the best structure of farms since, despite the fact that the share of the smallest farms in those countries is varied, these farms do not account for a large percentage of UAA in a given country. Furthermore, in those countries a high concentration of UAA in large farms is recorded, which results in the volume of resources per 1 employed worker and per a statistical farm in those isolated groups of countries.
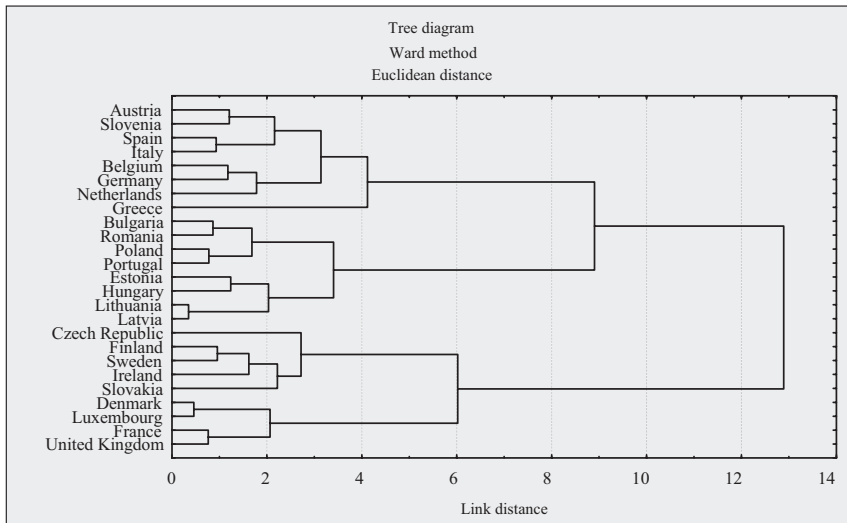
When comparing analysed indices in the three main groups, we may observe that they reached the highest value in states grouped in cluster III, in which among the CEEC there were only the Czech Republic and Slovakia. In contrast, the other CEEC, except for Slovenia, were found in the second main group, in which two subgroups were distinguished.

In group I, the biggest variation of average values of analysed indices was recorded for resources per 1 farm (4.5-fold), while the smallest variation was found for the share of these resources in GVA (1.4-fold). The highest average values of resources per 1 employed worker and per farm were observed in the second subgroup, i.e. in Belgium, Germany, and Netherlands. In the analysed main group, the coefficients of variation ranged from 9 to 72%, while their smallest variation between individual subgroups of this cluster was recorded for resources in relation to 1 hectare UAA.

In the second distinguished group of states, the average values of analysed indices were from 1.4 do 2.2 times higher in subgroup II (in Estonia, Hungary, Lithuania, and Latvia), except for resources per 1 hectare UAA, which were similar in both subgroups. Moreover, subgroup II in the case of most analysed indices was characterised by lower coefficients of variation.

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[2] The highest value on the diagonal of the reverse matrix is 2.2.

	Volume of resources (in thousand EUR) per:			Share of CAP resources in
	1 employed individual	UAA	farm	GVA (%)
I group				
I subgroup: Austria, Slovenia, Spain, and Italy				
Mean	34.2	2.5	32.9	36.6%
V (%)	33.4	28.9	47.7	45.3
II subgroup: Belgium, Germany and Netherlands				
Mean	45.5	3.2	97.9	27.6%
V (%)	36.8	9.2	24.1	71.6 (77.8)
III subgroup: Greece				
	34.1	5.6	21.8	38.7%
II group				
I subgroup: Bulgaria, Romania, Poland, and Portugal				
Mean	12.7	1.5	10.5	44.2%
V (%)	50.2 (32.1)	39.6	73.6 (55.4)	33.3
II subgroup: Estonia, Hungary, Lithuania, and Latvia				
Mean	28.5	1.4	14.3	82.0%
V (%)	58.4 (51.5)	23.2	68.5 (52.3)	17.0
III group				
I subgroup: Czech Republic, Finland, Sweden, Ireland, and Slovakia				
Mean	61.0	2.3	99.6	105.4%
V (%)	42.4	14.2	43.7	12.9
II subgroup: Denmark, Luxembourg, France, and United Kingdom				
Mean	83.2	2.4	127.1	45.2%
V (%)	14.4	20.3	16.9	16.9

Fig. 2. The division of EU-25 countries into clusters, depending on the volume of allocated resources, within the framework of the financial perspective for 2007-2013

Comment: in all the analyses where the coefficient of variation exceeded 50%, a median was calculated instead of a mean, while the coefficient of variation calculated for position measures is given in brackets.

Source: authors' own study based on the data from Table 2.

In the last isolated group of countries, the average values of analysed indices were higher in Denmark, Luxemburg, France, and Great Britain, i.e. in subgroup II. The situation was different only in the case of the share of analysed resources in GVA, where it was over two times higher in subgroup I, i.e. the Czech Republic, Finland, Sweden, Ireland, and Slovakia. In all the countries of this group (both subgroup I and II), very uniform and relatively low coefficients of variation were observed for most analysed indexes (approx. 16%). The only exception in this respect was found for the volume of resources per 1 employed worker and per farm, for which the coefficient of variation in countries clustered in subgroup I was approx. 43%.

It results from the conducted analysis that thanks to the means collected within the framework of financial perspective, considerable chances for adaptation to the group of EU-15 countries with the most developed agricultural sector are seen for the Czech Republic and Slovakia, while to the group of countries characterised by an average level of development – Slovenia and Hungary. In turn, the other investigated CEEC formed one common group together with Portugal, included in the group of countries in which agriculture is characterised by numerous structural problems.

An opinion is voiced that in relation to agriculture and rural areas, the financial perspective structure proposed by the EC contributes to their enhanced cohesion with EU countries. These regions in many aspects (e.g. income, infrastructure, access to services, etc.) are considerably backward in comparison to urban areas. A significant position in CAP programmes is occupied both by the promotion of permanent and environmentally-friendly farming practices for the needs of environment protection and – in the context of the Lisbon Strategy – the enhanced competitiveness of European agriculture so that it would contribute to the adaptation of CEEC to the EU.

Some authors are of an opinion that the new financial framework includes the resources required for the realization of the challenges resulting from the disproportions in the standards of development in the extended EU [*Perspektywa finansowania*… 2006] and promote adaptation to the EU. In turn, others are of an opinion that the budget for 2007-2013 adopted by the Council is small and does not take into consideration the needs of the EU connected among other things with its enlargement. This budget is much lower than the EC proposal, thanks to which net payers reached their objective, reducing contribution to the EU budget [Sajdak 2006]. Moreover, it is believed that costs of the EU enlargement, which is to be faced in a fair and sustainable manner, should be seen as minimal if we consider political, social, and economic benefits, provided by Europe becoming cohesive and offered to the entire EU [*Wyzwania polityczne*… 2005].

4. Concluding remarks

With the progress in the adaptation processes and uniformity of potentials of agriculture in individual countries of CEE, the regions requiring financial support will be changing. Thus, it is important and essential for the financial resources within

the framework of the budgetary policy of the EU to be allocated to those areas where they are most needed so that individual countries could take optimal positions in the EU structures.

Summing up, it needs to be stated that CAP within the framework of the perspective for 2007-2013 is seen mainly as an instrument to support the functions and structure of European agriculture and chances for an increased cohesion of agriculture in CEEC within the agricultural sector of the EU. A broader importance of CAP is also stressed, taking into consideration the needs of the entire rural population for the development of rural areas and their adaptation to the EU. A search for the mechanisms which may support the system of agriculture, which supplies public goods such as landscape, biodiversity, typical cultural traits, and the entire ecosystem, is also essential from the point of view of the adaptation of CEEC to the EU. However, it needs to be remembered that changes in agriculture in CEEC, even when supported by the financial perspective funds, will not take place from day to day, since a period is required giving farmers a sufficient amount of time for the adaptation of their activity to the new situation within the EU.

Literature

Floriańczyk Z., *Wpływ Wspólnej Polityki Rolnej na poziom i zróżnicowanie dochodów rodzin rolniczych w Polsce*, "Zagadnienia Ekonomiki Rolnej" 2006, nr 2(307).
Implementation and Vision of CAP. CAP in 27 EU Member States, (date of access: 25.03.2011).
Perspektywa finansowa na lata 2007-2013, "Monitor Unii Europejskiej" 2006, nr 1(18).
Sajdak K., *Negocjacje w sprawie nowej perspektywy finansowej na lata 2007-2013 i ich znaczenie dla Polski*, "Wspólnoty Europejskie" 2006, nr 1(170).
Wyzwania polityczne i środki budżetowe (2007-2013). Rezolucja Parlamentu Europejskiego w sprawie wyzwań politycznych i środków budżetowych w rozszerzonej Unii w latach 2007-2013, Komisja Europejska, Bruksela 2005.

ROZDYSPONOWANIE ŚRODKÓW Z PERSPEKTYWY FINANSOWEJ, PRZEZNACZONYCH DLA SEKTORA ROLNEGO W KRAJACH EUROPY ŚRODKOWEJ I WSCHODNIEJ NA LATA 2007-2013

Streszczenie: W pracy przedstawiono poziom i strukturę alokacji środków finansowych, przeznaczonych dla sektora rolnego w ramach Perspektywy Finansowej 2007-2013 dla krajów UE-27 ze szczególnym uwzględnieniem krajów EŚiW. Porównano także wielkość tych środków w odniesieniu do liczby pracujących w sektorze rolnym w danym kraju, ha wykorzystywanych UR i na statystyczne gospodarstwo oraz ich udział w wartości dodanej brutto wytwarzanej przez sektor rolny.