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# MAIN SOURCES OF SUBSIDY IN AGRICULTURE

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**Summary:** *Agriculture is a risky and often expensive activity, where due to unpredictable weather conditions, crops may suffer and implicitly farm yields and incomes that may be significantly affected. The paper presents the main sources of subsidies used in agriculture, as well as the role they played in changing areas, production and selling prices of agricultural products. Direct payments through: single area payment scheme, redistributive payment, payment for young farmers, scheme for small farmers, greening payment, coupled support and Transitional National Aid contributed to farm support. The data used in this study come from APIA, and for their analysis the methods of quantitative and qualitative data analysis were used.*

**Keywords:** *financing, agriculture, sources of financing, direct payments, transitional national aid*

**JEL:** Q14, Q18

## INTRODUCTION

Financing is of particular importance for farmers' activities, both for business development through European funds, bank loans, but also to cover any losses caused by adverse weather conditions through direct payments granted under Pillar I of the Common Agricultural Policy. Direct payments also have an additional role to play in contributing to the sustainable management of natural resources.

According to the dex definition, financing is "the allocation of funds from private sources, from the state budget or from international bodies and institutions, for the purpose of setting up and running an enterprise, body or for the implementation of an economic policy".

One of the most important sources of funding is direct payments, which come from the European Agricultural Guarantee Fund (EAGF), created at European Union level, and at national level is coordinated by the Payments and Intervention Agency for Agriculture (APIA). These payments have the role: regulation and support of agricultural markets, granting direct payments to farmers, information and promotion of agricultural products on the internal market of the EU, but also the financial contribution of the EU. to the program to encourage the consumption of fruits and vegetables in schools.

In the 2014-2020 programming period, the main payment schemes that are granted to Romanian farmers are:

The single area payment scheme represents the granting of a single payment per eligible hectare declared by the farmer, totally decoupled from production. The amount of the single area payment shall be calculated by dividing the annual ceiling allocated to the scheme by the total number of eligible hectares declared at national level in that year. SAPS does not provide for payment entitlements - the support is paid only on the basis of eligible hectares declared by farmers, and the level is the same for all hectares in the country.

The redistributive payment is an annual payment to farmers who are entitled to the single area payment and is gradually granted for the first 30 ha of the agricultural holding, regardless of its area. In the case of a transfer of a holding between two farmers, it shall be granted for the total area resulting from the transfer, without exceeding the payment for the maximum area for which it is granted.

The scheme for young farmers refers to the provision of an annual payment to young farmers who are entitled to the single area payment and who are established for the first time on an agricultural

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holding as their chief managers and are at most 40 years of age in year of submission of the application. This payment is granted to farmers for a maximum period of five years.

The small farmer is defined as that farmer who submits a single payment application in 2015 and is eligible for the single area payment scheme entitled to an annual payment of up to EUR 1,250, depending on the area and / or number of eligible animals which he owns on the holding, is automatically included in the simplified scheme for small farmers.

Accessing this simplified scheme for small farmers has been done since 2015, for a period of no more than 5 years, with the possibility of withdrawal in any of the next four years.

The greening payment is granted to farmers who apply practices such as crop diversification, maintenance of existing permanent pastures and the presence of an area of ecological interest on the agricultural area, depending on the specifics of the farm and / or crop structure.

Coupled support benefits active farmers who must meet the general conditions for granting payments to which are added the conditions specific to each type of support. Coupled support is provided in the vegetable sector to active farmers: soybeans, alfalfa, peas, beans, hemp, rice, potato seeds, hops, sugar beet, tomatoes grown in the field, cucumbers grown in the field, vegetables grown in greenhouses and solariums (tomatoes, cucumbers, peppers, cabbage, eggplant) and fruits (plums, apples, cherries and sour cherries, apricots and greens).

## MATERIALS AND METHODS

The analyzed data comes from the Agency for Payments and Interventions for Agriculture, following the written request for data on area payment, redistributive payment, payment for young farmers and payment for the environment for the period 2014-2020. Thus, these data were analyzed using the quantitative and qualitative method, by calculating the main statistical indicators such as: minimum, maximum, average, standard deviation, coefficient of variation.

The arithmetic mean or mean value of a series of values is the ratio of the sum of the values of the series to their number.

$$\bar{X} = \frac{x_1 + x_2 + \dots + x_n}{n} = m$$

The standard deviation is expressed using the same unit of measurement as the values in the series considered and is a very accurate indicator of the spread of the series.

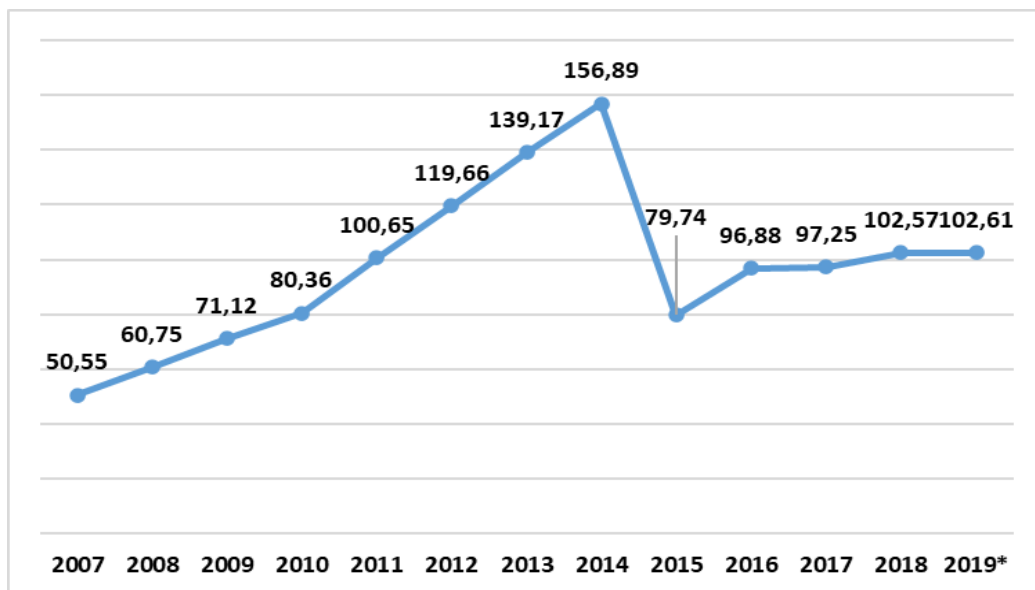
$$\sigma = \sqrt{D} \text{ sau } \sigma = \sqrt{\frac{(x_1 - \bar{X})^2 + (x_2 - \bar{X})^2 + \dots + (x_n - \bar{X})^2}{n-1}}$$

The coefficient of variation represents the ratio between the standard deviation and the average, when the average is different from 0, and the expression is made in percentages.

$$C.V. = \frac{\sigma}{\bar{X}}$$

## RESULTS AND DISCUSSIONS

Agriculture is often a high-risk activity. Crops can be destroyed due to extreme weather conditions, such as drought or floods, which leads to production and thus a reduction in farmers' incomes. Therefore, direct payments are meant to help farmers, being a safe source of income for them.



Source: APIA processed data 27.09.2020;

**Figure 1. Evolution of the amount granted for the single area payment scheme in the period 2007-2019 (year of application) (euro / ha)**

Analyzing the evolution of the amount granted under the single area payment scheme (S.A.P.S.), there is an increase in its value from 2007 to 2014, from 50.55 euro / ha to 156 euro / ha. The year 2014 puts an end to the first CAP program in which Romania participated, once it joined the European Union in 2007, together with Bulgaria. The current CAP program 2014-2020 promoted the reduction of farmers' dependence on subsidies, wanting to gradually reduce this support for them, so that in 2014-2020 the amount granted per ha was much lower (Fig. 1.).

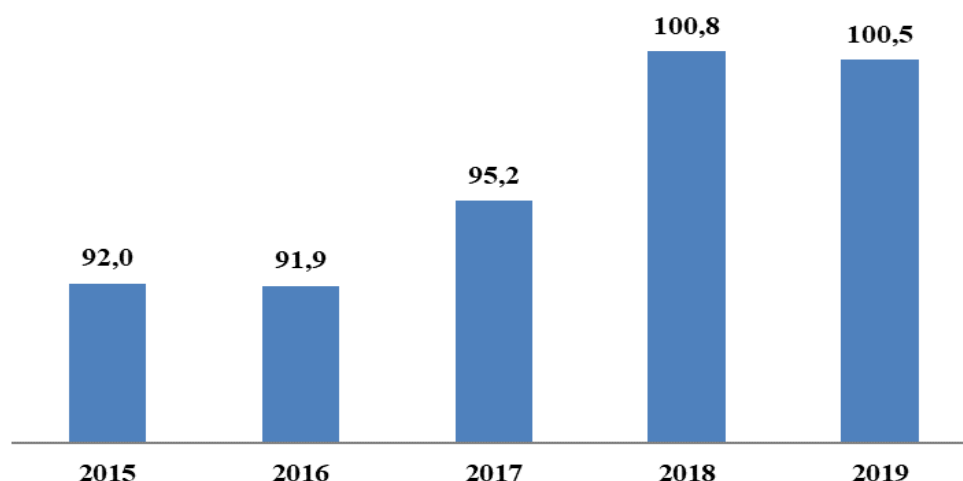
**Table 1. Main statistical indicators related to the single area payment scheme in the period 2014-2019**

Specification	Years					
	2014	2015	2016	2017	2018	2019
No. beneficiaries (thousands)	1012,3	875,0	843,4	830,3	815,7	794,6
Amount (thousand euros)	1354891,7	709225,2	869802,0	897729,7	957612,9	968865,9
Quantum (euro/ha)	156,89	79,74	96,88	97,25	102,57	102,6
Area for which payment was granted (thousand ha)	8635,9	8894,2	8978,1	9231,2	9336,2	9443,1
The size of the average holding that benefited from this support	8,5	10,2	10,6	11,1	11,4	11,9
The main statistical indicators	Min	Max	Average	Annual rhythm	Standard deviation	C.V.
	794,6	1012,3	861,9	-4,7	78,5	9,1
	709225,2	1354891,7	959687,9	-6,5	214906,7	22,4
	97,3	102,6	100,8	-8,1	3,1	3,1
	8635,9	9443,1	9086,5	1,8	304,0	3,3
	8,5	11,9	10,6	6,9	1,2	11,2

Source: APIA processed data 27.09.2020;

There is a decrease in the number of farmers who benefited from the single area payment scheme, which from 1.01 million beneficiaries, in 2014 there was a decrease of 21.5%, reaching in 2019 to 794, 6 thousand beneficiaries. Also, the annual rate has negative values of 4.7%. This can be explained by the measures that have been taken to reduce the fragmentation of agricultural holdings, both by direct payment measures and by measures related to investments in agriculture (National Rural Development Program), which have encouraged farms that took over other holdings (Table 1.).

It should be noted that by determining the average farm that benefited from this type of support, there is an increase, such as from 8.5 hectares in 2014 (the last year in which subsidies were granted through the 2007-2014 programming period) to 11.9 hectares in 2019 (Table 1.).

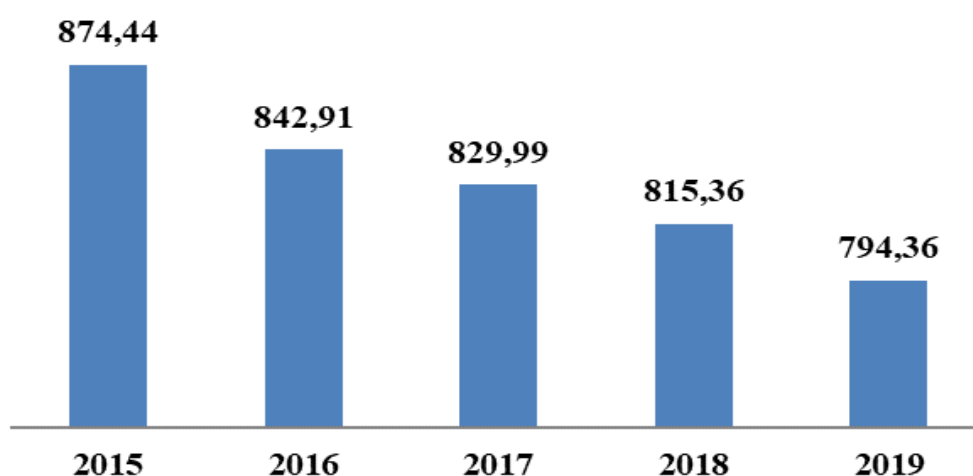


Source: APIA processed data 27.09.2020;

**Figure 2. The amount allocated for the granting of the redistributive payment in the period 2015-2019**

There is an upward trend in the amount allocated for the redistributive payment, so that in 2015 the total value allocated to the redistributive payment was 92 million euros, and in 2019 to be over 100 million euros (Figure 2.) .

Also, the number of farmers who benefited from the redistributive payment is decreasing from 874.44 thousand farmers in 2015, to 794.36 thousand farmers in 2019, representing a decrease of approximately 9% (Figure 3.).



Source: APIA processed data 27.09.2020;

**Figure 3. Evolution of the number of farmers who benefited from the redistributive payment in the period 2015-2019**

There is a slight difference in values between the number of farmers who benefited from SAPS and the number of farmers who benefited from the redistributive payment, so that in 2015 the difference between the two types of payments was 532 beneficiaries, and in 2019 of 190 beneficiaries. Starting from the premise that in case of a farm transfer made between two farmers, the redistributive payment will be granted for the total area resulting from the transfer, so in this situation this aspect can represent the number of transactions made between farmers regarding agricultural land.

**Table 2. Main statistical indicators regarding the payment for young farmers in the period 2015-2019**

Specification		Years				
		2015	2016	2017	2018	2019
No. beneficiaries (thousands)		45,512	45,738	46,668	58,864	59,238
Amount (thousand euros)		9480,742	11737,14	12878,2	17195,17	22238,06
Quantum (euro/ha)		19,93	22,87	24,31	25,84	31,25
Area for which payment was granted (thousand ha)		475,7	513,2	529,7	665,4	711,6
The size of the average holding that benefited from this support		10,45	11,22	11,35	11,30	12,01
The main statistical indicators	Min	Max	Average	Annual rhythm	Standard deviation	C.V.
	45,5	59,2	51,2	6,8	7,2	14,0
	9480,7	22238,1	14705,9	23,8	5059,3	34,4
	19,9	25,8	22,9	11,9	4,2	18,3
	475,7	711,6	579,1	10,6	103,1	17,8
	10,5	12,0	11,3	3,5	0,6	4,9

Source: APIA processed data 27.09.2020;

Regarding the number of beneficiaries of payments for young farmers, there is an increase in their number from 45.5 thousand beneficiaries to 59.2 thousand beneficiaries in 2019, representing an increase of 30%. Also, the annual rate has positive values of 6.8%, and the coefficient of variation has a value of 14% (Table 2.).

And in the case of the average farm that benefited from this support, there is a significant increase from 10.45 hectares in 2015 to 12.01 hectares in 2019, representing an increase of 14%. At the same time, the annual rate has a value of 3.5%, and the coefficient of variation has a value of 4.9%.

The share of beneficiaries of payments for young farmers out of the total number of farmers who benefited from SAPS shows significant increases from one year to another. Thus, at the level of 2019, their share of the total is 7.5%, compared to 2015, when their share was 5.2%. And in the case of the area for which support was granted for young farmers shows a significant increase, so that in 2019, their share of total SAPS beneficiaries, has a value of 7.5%, compared to 5.3% recorded in 2015 (Table 2.).

**Table 3. Main statistical indicators regarding the payment for greening in the period 2015-2019**

Specification		Years				
		2015	2016	2017	2018	2019
No. beneficiaries (thousands)		874,0	843,1	830,1	815,6	794,5
Amount (thousand euros)		508778,2	511958,9	527194,0	541576,8	558505,4
Quantum (euro/ha)		59,12	57,37	57,17	58,24	59,32
Area for which payment was granted (thousand ha)		8605,9	8923,8	9221,5	9299,1	9415,1
The size of the average holding that benefited from this support		9,85	10,58	11,11	11,40	11,85
The main statistical indicators	Min	Max	Average	Annual rhythm	Standard deviation	C.V.
	794,5	874,0	831,5	-2,4	29,9	3,6
	508778,2	558505,4	529602,6	2,4	20793,7	3,9
	57,2	59,3	58,2	0,1	1,0	1,7
	8605,9	9415,1	9093,1	2,3	327,4	3,6
	9,8	11,9	11,0	4,7	0,8	7,1

Source: APIA processed data 27.09.2020;

Regarding the number of beneficiaries who opted for the payment for greening in the period 2015-2019, there is a decreasing trend, so that from 874 thousand beneficiaries in 2015 to 794.5 thousand beneficiaries in 2019 (Table 3. ). Although the amount allocated for this type of support tends to increase, and the amount also shows that the number of beneficiaries decreases, which can be determined by the fact that farmers do not find a market at an appropriate price for the crops they grow. choose for diversification.

## CONCLUSIONS AND RECOMMENDATIONS

Analyzing these data on the number of beneficiaries, the amount allocated, the amount, the area for which the payment was granted and the average size of holdings according to the different types of direct payments granted through Pillar I, such as: single area payment scheme, redistributive payment, the payment for young farmers and the payment on greening, we can see that these types of payments have played an important role in the evolution of agriculture in Romania, so that most of them have fulfilled the role for which they were designed.

One of the main purposes for which these types of payments were introduced was to reduce the fragmentation of agricultural land, so that the result of these measures is reflected in the number of SAPS beneficiaries, which decreased, as well as the size of the average farm that benefited from this support that tends to increase.

Therefore, an increase in the number of young farmers can be attributed to measures aimed at the transfer of holdings between generations, with the role of rejuvenating among generations of farmers, both through direct support for this category of farmers, as well as through the measures established for accessing European funds, in which young farmers are favored. The result of this measure can be seen by increasing the share of the number of young farmers in the total beneficiaries paid per area.

The amount allocated for the payment for greening tends to increase, and the amount also so that it is noted that the number of beneficiaries decreases, which can be determined by the fact that farmers have difficulties in the market at an appropriate price for the crops they grow. choose for diversification. Although this type of support encourages crop diversification, in order to protect arable land, so by providing crop rotation by cultivating legumes can ensure the necessary nitrogen from the soil.

These measures have seriously contributed to the development of Romanian agriculture, but these forms of support will have to continue in the new programming period, so that the effects are visible. At the same time, a form of support that should be implemented in the new programming period should target family farms.

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