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INFLUENCE OF COUPLED SUPPORT ON LIVESTOCK FARMING SECTOR DEVELOPMENT IN ROMANIA

MARIANA GRODEA¹

Abstract

Coupled support is one of the main payment schemes in the category “direct payments”, introduced at EU level in the year 2015, funded from the European Agricultural Guarantee Fund (EAGF). In the EU-28, the highest share of coupled support payments in the year 2019 went to the livestock farming sector (73.2%), of which 39.7% in the beef cattle sector, 20.9% in the dairy cow sector and 12.6% in the sheep and goat sector.

In the period 2015-2019, the livestock farming sector in Romania benefited from coupled support worth 668.9 million euros, out of which 60.7% in the dairy sector, 30.5% in the sheep and goat sector, 7.8% for beef cattle and 1% in the dairy buffalo sector. The results obtained following the analysis of statistical data for the period when this payment scheme was implemented (2015-2020) reveal that in the case of cattle sector, there was a non-significant impact on this sector development, in the sense that the decline continued both in terms of the total number of animals (-217 thousand heads), of meat production (-27.1 thousand tons live weight) and cow milk production (-2.8 million hl). The sheep and goat sector had a positive evolution in the same period, both as regards the number of animals (+629 thousand heads), meat production (+11 thousand tons live weight), yet with the decrease of slaughters in specialized units (-4.7 thousand tons live weight).

Key words: coupled support, beef cattle, dairy cows, buffalo cows, sheep, goats

JEL Classification: Q10, Q13, Q19

INTRODUCTION

In the new CAP 2014-2020, the EU member states had the possibility to allocate part of the direct payment package (up to 13%+2%) to the ***coupled support scheme*** on the basis of Article 68 of previous CAP 2007-2013 (OECD iLibrary, 2020). Coupled support is one of the main payment schemes in the category “direct payments” introduced in the year 2015, funded from the European Agricultural Guarantee Fund (EAGF).

According to Article 52 (paragraph 3), Regulation (EU) 1307/2013 on direct payments, the capacity of Member States to provide ***coupled support*** was been limited to those sectors or regions where certain types of agriculture or agricultural sectors are particularly important for economic, social or environmental reasons and are facing certain difficulties (Matthews 2018) .

In the initial regulation, there was a provision (Article 52 paragraph 5) according to which ***coupled support*** should only be granted to the extent necessary to create an incentive to maintain current levels of production in the sectors or regions concerned; Article 52 paragraph (6) provides that coupled support shall take the form of an annual payment and shall be granted within defined quantitative limits and based on fixed areas and yields or on a fixed number of animals (Matthews 2018).

Subsequently, this paragraph (Article 52 paragraph 5) was removed, and paragraph 6 was modified as follows: “*coupled support is a production-limiting scheme that takes the form of an annual payment based on fixed areas or yields or on a fixed number of animals that are to be established by member states for each measure and notified to the Commission*” (Matthews 2018). In other words, there is no longer any obligation to have a ceiling for the number of hectares or

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animals that can be supported. The only constraint would be the financial limit established in CAP regulation (Matthews 2018).

Member States' options for allocating coupled support vary widely, both in terms of the sectors / products supported and the level of support. On several occasions, member states revised their budgets for coupled support and types of products, yet they made some minor adjustments. All member states (except for Germany) opted for this payment scheme, although the value of support and the sectors covered significantly vary across countries (Diana-Maria Drigă, 2020). Thus, this budgetary limit is 8+2%, up to 13+2%, and an increase from these ceilings is still possible, only if needed, and only by the approval of the European Commission (European Commission 2017).

Thus, since 2015, nine member states have allocated maximum 8% to this scheme (Cyprus, Denmark, Estonia, Greece, Ireland, Luxemburg, the Netherlands, Austria, United Kingdom), three member states allocated more than 8%, but less than 13 (+2)% (Spain, Italy, Romania), eleven member states allocated the maximum percentage of 13 (+2)% (Bulgaria, Czech Republic, France, Croatia, Hungary, Lithuania, Latvia, Poland, Sweden, Slovakia, Slovenia), and three member states (Belgium, Finland, Portugal) needed Commission's approval, given their decision to allocated more than 13% (+ 2%) (European Commission 2019).

More than 70% of the total amount for coupled support was allocated to the three livestock farming sectors (40% for beef, 20% for dairy products and about 12% for sheep and goat meat) (European Commission 2019). At the same time, member states decided to allocated significant amounts for protein crops, fruit and vegetables, sugar beet, rice, grain legumes, potatoes, nuts, hops, hemp, oilseeds, silk worms (European Commission 2019). In the year 2021, after the budget review, the three sectors (beef, dairy products, sheep and goats), have remained the top three beneficiaries of coupled support, with 73% of the total amount dedicated to coupled support (European Commission 2021).

As regards the continuation of coupled support in the period 2021-2027, some experts do not rule out the use of coupled payments, but correlate this support for production with specific environmental benefits, being less convinced that these coupled payments would be justified out of social or economic reasons (Matthews 2018). Therefore, these authors consider that it is very important when analyzing the redistribution of coupled support to Member States, to analyze not only the economic impact of such a measure, but also the environmental impact in terms of climate change and greenhouse gas (GHG) emissions.

As regards the environmental impact, there are studies that show that coupled support may determine harmful environmental changes (increase of greenhouse gas emissions), by stimulating overpopulation and surplus production in the livestock raising sector, with the exception of situations when the coupled support has contributed to raising animals in *extensive system*, to maintaining a high natural value farming system (Hart et al. 2018).

There are also other studies that mention that livestock production is the main contributor to environment pollution in EU agriculture and consequently it has the greatest potential to reduce greenhouse gas emissions (Latka 2021). In this sense, it is interesting to signal out that among the reform proposals of the European Commission for the period 2021-2027, published in June 2008, it is mentioned to introduce an eco-scheme, mandatory to implement by member states under Pillar 1, yet voluntary for farmers, which represents a significant innovation in the current green architecture of the Common Agricultural Policy (Meredith 2019).

Other authors (Jansson et al. 2018) investigated the impact of CAP measures on GHG emissions in a global perspective. Given that the livestock sector (ruminants in particular) has the highest intensity of GHG emissions in agriculture, (Jansson et al. 2018), using the CAPRI model, simulated the effect of eliminating the *Voluntary Coupled Support (VCS)* for the sector of ruminants in the European Union and evaluated the impact on production, prices and gas emissions. The results of the study revealed that removing the *Voluntary Coupled Support (VCS)* for the ruminants in the EU would have a modest impact (-0,4%) on the emissions coming from these. These findings could

contribute to the formulation of CAP measures and strategies aimed at reducing the global GHG emissions and therefore to reaching the objective of limiting global warming.

Having in view the current issues, the paper's main objective is to analyze the distribution of coupled support on the development of herbivores sector in Romania (dairy cows and buffaloes, beef cattle, sheep and goats). The analysis of statistical data for the period 2015-2020 on the evolution of specific indicators for the livestock farming sector results in the assessment of impact, effectiveness and efficiency of coupled support implementation.

MATERIAL AND METHOD

The methodology used for the study on the distribution of coupled support in the period 2015-2019, in the livestock farming sector (dairy cows and buffaloes, beef cattle, sheep and goats) in Romania includes methods that combine the consultation of literature (studies and articles, scientific treatises and other scientific materials published in Romania and abroad) with the processing and analysis of data from national (APIA, MARD, NIS), Community (Eurostat) or international (FAOSTAT) databases, as well as from specialized websites.

The consultation of literature represents the method used for the preliminary analysis of the European context, which highlight the most relevant results, which could be used as benchmarks for a deeper context analysis at national level.

The processing of statistical data on the distribution of coupled support for dairy cows and buffaloes, beef cattle, sheep and goats, in the period 2015-2019, made it possible to calculate indicators such as: total amount authorized for payment to the sector, total number of animals determined for payment, value of payment / head of animal, number of heads / number of farms eligible for coupled support, by size classes. These indicators were analyzed in terms of impact, effectiveness and efficiency of coupled support.

RESULTS AND DISCUSSIONS

Given that in the period 2015-2020, Romania was to benefit from important financial support from the European Union and that the Common Agricultural Policy Reform represented a fundamental change compared to the period 2007-2014, with new regulations that farmers had to take into account urgently in their future activity, as well as for the creation of an adequate and efficient national framework for the management and technical and financial implementation of the Community funds, the Government of Romania adopted the *Emergency Ordinance no. 3 of March 18, 2015 for approving the payment schemes to be implemented in agriculture in the period 2015-2020* (Romania's Official Gazette no. 191/2015).

This emergency ordinance approved the payment schemes in agriculture, as mechanisms to support farmers, as direct payment schemes and transitional national aids, for the period 2015-2020. Thus, Romania decided to introduce the **coupled support** from the category "*direct payments*" and notified the European Commission on the list of crops and animal species affected by difficulties and important in economic, social and environmental terms, to receive coupled support in the period 2015-2020.

In Romania, from the perspective of the sector to which coupled support was granted, it can be mentioned that the sector of herbivores (dairy buffaloes and cows, beef cattle, sheep and goats) received a total amount of 668.9 million euros in the period 2015 - 2019, which increased as share in total coupled support value (crops and livestock) from 52% in 2015 to 67% in 2019 (Table 1).

Table 1. Evolution of the amount authorized for payment (Coupled Support Livestock – VCS) in the livestock sector – million euros

Item	2015	2016	2017	2018	2019	total	%
Dairy cows	68.6	75.6	83.2	86.2	92.3	405.8	60.7
Dairy buffalo cows	1.2	1.3	1.4	1.5	1.6	7.0	1.0
Beef cattle	9.5	10.1	10.7	10.8	10.9	52.0	7.8
Sheep and goats	21.5	25.9	47.3	50.2	59.2	204.1	30.5
Total	100.8	112.9	142.6	148.7	164.0	668.9	100.0

Source: author's calculations based on data from the Agency for Payments and Intervention in Agriculture

The financial support granted to the livestock sector in Romania, through the coupled support scheme, aimed to cover the production costs and increase farm production efficiency, to increase production quality and ensure a competitive level on the market.

The Voluntary Coupled Support to the livestock sector reached 164.0 million euros in 2019, as against 100.8 million euros in 2015 (+62.6%). In the period 2015-2019, the largest amount (405.8 million euros) was allocated to the dairy cow sector (60.7%). The sheep and goat sector comes next, with 204.1 million euros (30.5%), followed by beef cattle with 52.0 million euros (7.8%) and dairy buffalo cows (7 million euros).

As it can be seen in Table 2, the number of animals eligible for coupled support increased as follows: dairy cows from 80.7 thousand heads (2015) to 248.5 thousand heads (2019), buffalo cows from 4.2 thousand heads (2015) to 9.6 thousand heads (2019), beef cattle from 7.5 thousand heads (2015) to 52.6 thousand heads (2019) and dairy buffalo cows from 4.2 thousand heads (2015) to 9.6 thousand heads (2019). The total number of sheep and goats decreased instead, by 1280 thousand heads in 2019, as compared to 2015, from 4.7 million heads to 3.4 million heads.

Table 2. Evolution of the number of animals determined for payment (thousand heads)

Item	2015	2016	2017	2018	2019	total
Dairy cows	80.7	103.7	212.3	250.9	248.5	896.0
Dairy buffalo cows	4.2	6.5	8.4	9.2	9.6	38.0
Beef cattle	7.5	14.0	24.6	36.6	52.6	135.4
Sheep and goats	4709.2	850.1	1941.5	3202.1	3429.1	14132.0

Source: author's calculations based on data from the Agency for Payments and Intervention in Agriculture

The increase of the number of determined animals, of the number of farmers authorized to receive coupled support payments, in the period 2015-2019, was possible by a better information of farmers on the eligibility conditions by the representatives of associations accredited with maintaining the Genealogical Register, as well as by the relaxation of eligibility conditions. The relaxation of eligibility conditions, in the case of dairy cows, consisted in the fact that, since 2017, in the administrative territorial units (ATUs) in the mountain area, coupled support has been granted for a herd of 5 to 250 dairy cow heads, aged maximum 10 years, as against the previous period (2015-2016), when coupled support was granted for minimum 10 to maximum 250 dairy cow heads, aged maximum 8 years at the deadline for submission of single payment request.

In these conditions, the number of farmers in the dairy cow sector increased to 14662 in 2019, from 3447 in 2015, the number of farmers authorized for payment in the buffalo cow sector reached 2594 in 2019, from 1553 in 2015, and the number of beef cattle farmers was 1413 in 2019, as against 198 in 2015 (Table 3).

Table 3. Evolution of the number of farmers authorized for payment

Item	2015	2016	2017	2018	2019	total
Dairy cows	3447	4606	12346	15398	14662	50459
Dairy buffalo cows	1553	2240	2642	2711	2594	11740
Beef cattle	198	394	778	1113	1413	3896
Sheep and goats	18161	2872	6910	11900	12942	52785

Source: author's calculations based on data from the Agency for Payments and Intervention in Agriculture

In the sheep and goat sector, we can notice a decrease in the number of farmers from 18161 in 2015 to 12942 in 2019, with the most significant decrease in the year 2016, as compared to 2015. This because in the year 2015, out of communication and information reasons, the eligibility conditions were not very carefully checked by decision makers. The livestock farmers associations easily issued certificates attesting the belonging to the breed registered in the Genealogical Register, necessary for farmers to complete the files for APIA, so that in the year 2015 a very large number of sheep and goats and farmers respectively benefited from coupled support. After the decrease in the year 2016, the number of animals and farmers eligible for coupled support increased in the next period.

CONCLUSIONS

Even though the introduction of *coupled support* payment scheme was intended to stop the decline of livestock herds and the exit of farms from crisis, together with the increase of livestock farmers' incomes, the bovine herds continued their decline. Thus, in the period 2015-2020, both the total cattle herds and the dairy cow herds decreased by 9.5% and by 4.2% respectively.

The declining trend of **bovine herds**, of **dairy cow herds** respectively, was also reflected in the decrease of beef production (*live weight of slaughter animals for human consumption*) and of cow milk production. Thus, the production of beef and veal was down to 172.6 thousand ton in 2019, from 199.7 thousand tons in 2015 (-13.6%), and cow milk production decreased to 3.7 million tons in 2019, from 4 million tons in 2015 (-7.8%).

From the analysis of the evolution of (*live weight*) beef production obtained *in industrial units*, it results an increase in the period 2015-2017, when the largest volume of animal slaughters was recorded (120.8 thousand tons in 2017). After 2017, production continued to decline, and in the year 2020 production was down to 63.8 thousand tons, from 89.6 thousand tons in 2015.

One of the causes that led to the diminution of bovine herds (mainly of those in the population's backyards) is the insufficient labour force in the rural area (old-aged population and depopulation of rural areas by labour migration from the countryside), diminution of farmers' incomes that are not sufficient for a living standard to motivate them to remain active in the sector, poor organization into farmer associations to sell their production and the prevalence of livestock herds with low genetic value.

Although after Romania's accession to the EU our country has benefited from several forms of support under (CAP) Pillar I and II, from state aids and from the coupled support introduced in 2015, progress in improving the productive potential of dairy cows has been delayed. Thus, the average milk yield in Romania, *the lowest* in the European Union has not increased, but it has even decreased in the investigated period.

As regards the production of raw cow milk delivered to processing, an increase can be noticed in the period 2015-2020 (+22%). However, this evolution, even though not spectacular, reflects an improvement in the organization, collection and processing activities.

In Romania, the low level of production performance is the consequence of technology used, of inadequate maintenance and exploitation conditions, mainly of poor nutrition in terms of quality, which do not allow the expression of the genetic potential of breeds. These add to the fragmented structure of farms, where small-sized holdings prevail that cannot apply performant raising and exploitation technologies (80% of dairy cow farms have 1-2 cow heads and account for 41% of cow herds).

Unlike the cattle farming sector, the **sheep and goat farming sector** in Romania has continued its upward trend since the country's accession to the EU, so that in the investigated period the number of animals increased to 13.7 million heads in 2020, from 12.6 million heads in 2015 (+8.7%). Romania's tradition in sheep raising and the increasing export demand, mainly from the well-established partners of Romania, as well as the increasing consumer demand have represented stability factors of the sheep and goat sector.

The total sheep and goat (*live weight*) meat production had a positive evolution, to reach 120.6 thousand tons in 2020, as against 109.6 thousand tons in 2015 (+10%). An upward trend was also noticed in the production of slaughtered (*live weight*) meat in the period 2015-2019 ; this amounted to 27.9 thousand tons in 2019, as compared to 20.6 thousand tons in 2015.

However, in the year 2020, under the background of the decrease in the total number of sheep and goats slaughtered in slaughterhouses from 842381 heads (2019) to 467838 heads (2020), meat production in industrial units reached 15.9 thousand tons, from 27.9 thousand tons in 2019.

In the trade with milk and dairy products, Romania has constantly had a deficient trade balance. The deficit increased after 2015, with a maximum value (-449 million euros) in 2020. Cheese represented more than half of the structure of imports. Imports almost exclusively originated from the intra-Community area, the main countries being Hungary, Poland and Germany. Exports had as main destination the EU-28 member states, Greece, Germany, United Kingdom as well as Moldova Republic from the extra-Community area.

The balance of trade in live bovines was permanently positive in the investigated period, with the largest balance of trade in the year 2017 (184 million euros), with the highest value of exports at 203.2 million euros.

Imports exclusively came from the intra-Community areas in the year 2020 the main European suppliers (accounting for 65.9% of Romania's imports of bovines) were Hungary (26.7%), the Netherlands (23.6%) and Lithuania (15.7%).

As regards exports, an increase in the exports of live bovines to the extra-Community area could be noticed, alongside with the decrease of exports to intra-Community countries. From the analysis of Romania's exports to non-EU countries, it results that more than half, i.e. 55% of the exports of live cattle had Israel and Turkey as main destinations. We can also mention some other partners outside the EU area, such as Jordan and Libya.

Unfortunately, Romania's exports mainly consist of live animals and less of carcasses and processed meat products, due to the insufficient slaughtering/processing network.

In value terms, according to the calculations made on the basis of EUROSTAT data, in the year 2019, Romania ranked first among the EU-28 countries in the *export of live sheep* with 50.6 million euros (29.6%), followed by Spain with 39.2 million euros (22.9%) and Hungary with 32.4 million euros (18.9%), exports being almost entirely dependent on the demand from the North Africa and Middle East markets. Thus, in the year 2019, three countries in these regions, namely Jordan (26.8%), Saudi Arabia (25.7%) and Libya (21.6%) absorbed 74.1% of total extra-Community exports).

Sheep imports mainly came from EU member states. The main intra-Community suppliers, from which Romania imported live sheep, were Spain, Hungary and France. In the year 2019, the cumulated imports from Spain (70.5%) and Hungary (20.3%) summed up 90.8% of total intra-Community imports.

The insufficient slaughterhouses in many livestock farming areas (in the mountain area in particular) represents a critical problem in Romania. In the event of a blockade on the export of live animals, Romania risks being blocked in terms of exports.

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