

THE ADJUSTMENT FACTORS OF THE DAIRY FARM SUB-SECTOR IN ROMANIA

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Abstract

The transformations in the dairy farm sub-sector in Romania, in the first three years after the accession to the EU, were produced under the milk quota system constraints, with the contribution of certain factors of structural nature, such as the farm size or milk collection organization, as well as of conjunctural nature, among which the raw milk acquisition price or the size of support provided from EU and national funds. The paper presents the main factors contributing to the sub-sector adjustment, reaching the conclusion that the dairy farms evolution after the accession was determined by the inadequacy between the sophisticated supply management tools, specific to the European single market, and the difficulties of partial market integration of the dairy farms with surplus labour. Thus, the number of the quota holders has significantly decreased in recent years, both in the case of milk delivery quota (from 228 thousand to 136 thousand farmers), and in the case of direct sales quota (from 1.4 to 0.9 million farmers). At the same time, the fulfillment of the quota allocated to Romania reached about 70% in the quota year 2009-2010, continuing the decreasing trend of the previous year.

Key words: dairy farms, milk quota, milk collection, policy instruments.

At the moment of Romania's accession to the European Union (EU), the dairy farm sub-sector was dominated by about 1 million extremely small-sized farms, on which a large part of milk

production was used under the form of self-consumption. This situation resulted in an average size of the holding with dairy cows smaller than 2 heads (*tab. 1*).

Table 1

Evolution of the number of dairy farms and of the dairy cow and buffalo cow herds

	2007	2008	2009
Total farms (number)	1052028	945860	849851
Livestock herds (heads)	1710432	1593535	1499434
Average farm size (heads/farm)	1.63	1.68	1.76

Source: MARD

Three years after the accession, this size was maintained, while the number of holdings

decreased, mainly those with less than two cows (*tab. 2*).

Table 2

Structure of dairy cow and buffalo cow farms, by size classes

	2007	2008	2009
1 - 2 heads	969896	863830	757799
3 - 5 heads	66653	65817	73436
6 - 10 heads	9614	9852	11227
11 - 15 heads	2433	2468	3105
16 - 20 heads	1391	1586	1620
21 - 30 heads	942	1028	1202
31 - 50 heads	587	634	795
51 - 100 heads	321	409	432
over 100 heads	191	236	235

Source: MARD

As a positive fact, the number of holdings with more than 3 cow heads increased, for each size class.

However, the situation of milk production use per total country remained almost unchanged in the last three years: out of about 5 million tons of milk produced in Romania, about half went to self-consumption, one quarter to direct sales and only one quarter to deliveries for processing. The question to which we are trying to answer by the present paper is whether the current problems on the milk chain in Romania, mainly the non-fulfillment of the allocated quota under the European Single Market, result from the deficient milk collection system, or maybe from the diminution of the support provided by the state, both from European or national funds, or from other conjunctural or structural causes.

The milk collection specificity in Romania derives from the command economy experience, when the integrating role of the milk chain was played by the large state companies (in general, a large processing company in each county). The different evolution of these units in the transition period resulted in milk not being collected by any processor in certain areas, while in other areas, several processors, both small and large-sized, with a long existence on the market or newly established, competed for raw milk. After the accession to the EU, with the strict milk hygiene requirements, the large processors came to prefer the collaboration with the large producers of raw milk, while the medium and small-sized processors collected the raw milk from the small farmers.

This division into two categories of players on the milk market was the result of the support provided in the pre-accession period, when Romania's agriculture benefited from the SAPARD financial support, which funded the investments on dairy farms through Measure 3.1 (Sub-measure Dairy cow farms), while the investments for processing through Measure 1.1 (Sub-measure Milk and dairy products). As a first estimation of the effects, it can be mentioned that almost all the large processors that are active at present in Romania benefited from SAPARD funds. At the same time, most farmers who produce conform milk on specialized farms were beneficiaries of the SAPARD funds. Under the Sub-measure Milk and dairy products, 89 milk processing projects were funded totaling about 50 mil. Euro, which means only 57% of initial allocation consumption. Under the Sub-measure Dairy cow farms, a total amount of 31 million euro were provided for 221 farms, which means 87% allocation consumption. This adds to other 21 milk processing projects funded under the Romanian

SAPARD and 78 dairy farm projects funded under the same program.

As a result of the difficult situation of the dairy market in 2009, the Commissioner Fisher-Boel created, in October last year, a high-level group of experts, with the purpose to discuss the medium and long-term measures that have to be taken in this sector, taking into consideration that the milk quotas will be removed on April 1, 2015. Among the 7 recommendations that the high level group presented to the European Commission (EC) in June 2010, a special focus was laid on the contractual relations between the milk producers and processors, in the sense of encouraging the use of formal written contracts, concluded in advance, for the raw milk deliveries, as well as the increase of the producers' collective negotiation power by permitting the producers' organizations, consisting of dairy farmers, to negotiate on collective basis the clauses of contracts concluded with the dairy factories.

A still non-definitive report of the Competition Council reached the conclusion, published in press, that the Romanian milk producers are found in an unfavourable position from the negotiation power point of view, as they conclude delivery contracts on individual basis and do not hold shares in the processing companies. According to the document, the segment of processors is quite concentrated, so that in the year 2008, the first ten economic operators, out of 481 in total, cumulated 56% of the sector turnover. It is true that Romania's situation does not favour the farmers, but it is not the processors that are to blame for the lack of producers' organization. On the other hand, the integration on the product chain starting from the raw milk producer is much more difficult than that in the case of processor and, which is more important, it takes a longer time and a mobilization of financial resources that are not available for the Romanian farmers.

MATERIAL AND METHOD

In our analysis we used three main data sources: the information from the Farm Accountancy Data Network (FADN), the data from the Milk Quota Administration Department under the Agency of Payments and Intervention in Agriculture (APIA) and the information referring to the support policy implementation for the milk sector from the Ministry of Agriculture and Rural Development (MARD).

The FADN sample from Romania contains both farms specialized in milk production and non-specialized farms, which produce milk. According to the FADN methodology, the specialized farms are those on which the share of milk value in the

farm output exceeds 50%. The non-specialized farms produce, in general, less milk than those specialized, but on a systematic basis. In Romania, the non-specialized farms produce 28% of the milk production, while the specialized farms the remaining 72%. The number of farms that are considered non-specialized farms totals about 313 thousand, while the specialized farms total 687

thousand, according to the Farm Structure Survey from 2007.

When the milk quota was introduced in Romania, the quota holders totaled about 1.6 million farmers, out of which only about 228 thousand with deliveries quota for processing. Both figures were down in the post-accession period (*tab. 3*).

Table 3

Number of milk quota beneficiaries			
Quota years	2007-2008	2008-2009	2009-2010
Producers with delivery quota	228257	179079	136735
Producers with direct sales quota	1425284	1273518	991210
Buyers for processing	429	478	477

Source: Milk quota administration department - APIA

As regards the agricultural policies, these used both European and national funds. The support for the milk sector under the European Agricultural Guarantee Fund (EAGF) is mainly under the form of direct payments to farms, in the context of the milk Common Market Organization, which also provides the possibility of certain interventions at processor level through the acquisitions of butter and milk powder, as well as through certain storage subsidy measures. However, the main instrument regulating the milk market remained the milk quota system. Complementary to the support to production, by the European Agricultural Fund for Rural Development (EAFRD), the investments of the private beneficiaries on dairy farms are also funded under the NRDP, through Measure 121 – Modernization of agricultural holdings. The support

from the state budget was available under the form of state aid in agriculture.

RESULTS AND DISCUSSIONS

Cow milk production on specialized and non-specialized farms. According to the FADN data from 2007, centralized at EU level, the farms specialized in milk production from Romania (*tab.4*) have the lowest forage area, as well as the lowest number of animals per farm among all the EU-27 Member States.

At the same time, the average milk yield per cow head (*tab. 5*) is the lowest in Romania among the European states (3883 kg/cow).

Table 4

Structural characteristics of the inputs on the specialized dairy farms (FADN, 2007)			
	Average forage area (ha)	Average number of dairy cows (LU)	Average labour force (AWU)
EU-15	46	51	1.9
EU-10	22	18	2.1
Romania	3	4	1.9

Source: EU dairy farms report 2010 based on FADN data, EU FADN – DG AGRI

Table 5

Structural characteristics of the outputs on the specialized dairy farms (FADN, 2007)			
	Average milk yield (kg/cow)	Milk production on the farm (tons)	Milk price (euro/ton)
EU-15	7019	355	349
EU-10	5567	102	283
Romania	3883	17	330

Source: EU dairy farms report 2010 based on FADN data, EU FADN – DG AGRI

The average price per ton of milk (330 euro/t) is below the EU-15 average (Old Member States), yet above the average of the New Member States (EU-10).

Another important aspect is that a labour surplus on dairy farms exists in Romania. From *table 4* we can notice that 1.9 AWU (annual work units) are used on the average on a specialized dairy farm, which take care of 4 LU (livestock

units, adult dairy cow equivalent. The average in EU-15 is also 1.9 AWU per farm, for the labour force, yet the livestock herds total 51 LU on the average.

The situation is quite similar on the non-specialized farms. In Romania, the non-specialized farms have an average milk yield per cow lower than in the specialized farms (which is according to expectations), and receive a lower price for milk than the specialized farms, due to the lower milk quality and in general to the lack of experience in milk production. At EU-27 level, the largest differences between the price received by the specialized farms and the price received by the non-specialized farms are found in Portugal (220 euro/t on non-specialized farms, versus 306 euro/t

on specialized farms) and in Romania (258 euro/t on non-specialized farms versus 330 euro/t on specialized farms).

The analysis of the Standard Gross Margin. The farms specialized in milk production in Romania had the highest standard gross margin in EU-27. The price received by the specialized farms for the milk delivered to processing was quite good (330 euro/ton), which added to the 15 Euro/ton subsidy from national funds received for conform milk. At the same time, the operation costs in Romania are by 29% lower compared to the EU average, as certain inputs are cheaper in Romania (e.g feed). Thus, the gross margin of specialized farms reached a maximum level in Europe in 2007 (*fig. 1*).

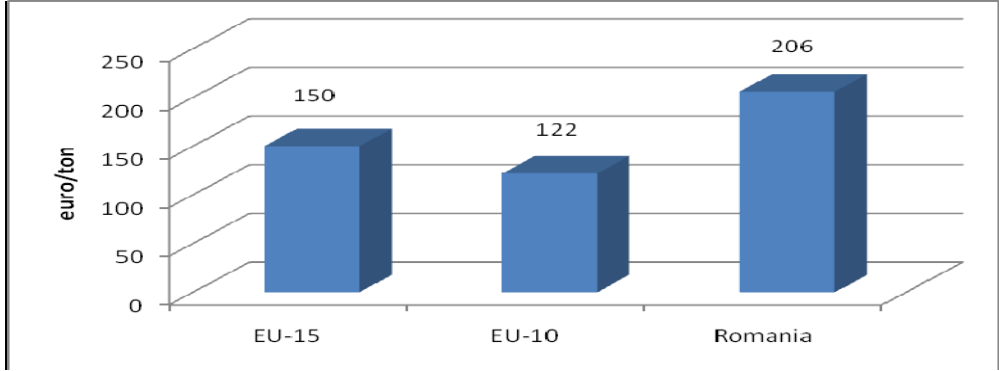


Figure 1 Gross margin per ton of milk, on specialized dairy farms, in the year 2007

However, the incomes of farms specialized in milk production are low in Romania, due to the very low size of farms. After Romania, the next gross margin in size was that of Italy (199 euro/ton); this was due to the very high price of milk in this country (385 Euro/ton – the highest value in EU-27 in the year 2007).

Milk quota fulfillment by Romania. Although at the moment when the negotiations were completed the milk quota available for Romania (2.1% of total quota at EU level) was considered under the country potential, the

evolution of its fulfillment in the first three quota years reveals that the sector is still under restructuring, and the milk deliveries to processing are under the expected level. At the same time, the number of quota holders dramatically decreased in the last years, both in the case of delivery quota and in the case of direct sales quota. The ratio of the two quota components, i.e. deliveries and direct sales, was maintained almost unchanged (*tab. 6*), the two outlets having quite similar shares, with the share of direct sales still higher than that of deliveries.

Table 6

Evolution of the milk deliveries – direct sales ratio in Romania

Quota years	2007-2008	2008-2009	2009-2010
Total national quota (thou. t)	3057	3118	3149
Milk deliveries share (%)	43.2	45.8	46.8
Direct sales share (%)	56.8	54.2	53.2

Source: Milk quota administration department - APIA

The detailed data by counties in the quota year 2008-2009 reveal certain differences in quota fulfillment; in the case of delivery quota, there are three counties that exceeded the quota (Prahova with a 152% quota fulfillment, Dolj with 133% and Mehedinți with 105%). In the case of direct

sales quota, two counties exceeded the quota (Bistrița-Năsăud with 112% quota fulfillment and Maramureș with 108%). Thus, at national level, the direct sales quota fulfillment is under stronger decline in the case of delivery quota (*tab. 7*).

Table 7

Milk quota fulfillment per total and by components

Quota years	2007-2008	2008-2009	2009-2010
Total quota fulfillment (%)	77.5	74.9	60.9
Delivery quota fulfillment (%)	71.5	74.4	62.9
Direct sales fulfillment (%)	82.1	75.4	59.2

Source: Milk quota administration department - APIA

These evolutions suggests that in the next years a large national reserve might be available as regards the milk quota, which could facilitate the emergence of new performant dairy farms.

The support policies for the dairy farms. At the moment of accession to the EU, Romania opted for the simplified variant of the direct payments, i.e. SAPS, which somehow disadvantaged the dairy farms, as well as the whole livestock sector, as the EU subsidies under the form of direct payments were received according to the utilized agricultural area by each farmer. In the case of the dairy cow farmers, the support was received only on an indirect basis, through the direct payments for the farmers' land areas, which provided them with the necessary fodder, pastures included. The subsidies under the simplified variant will continue until late 2013, according to the possibility for the New Member States to prolong SAPS application, following the negotiations under CAP Health-Check. The level of direct payments per area paid from EAGF gradually increased each year after the accession and it is scheduled to gradually increase until 2015. The flat rate payment according to SAPS for the year 2009 (paid in 2010 in most cases) amounted to 71 euro/ha, to reach 81 euro/ha in 2010. In both years, part of the amounts available to farmers could be paid in advance, starting with October 15 of the year for which the subsidy is received.

The end of the transitory period and the new state aids. The late 2009 meant the end of the three-year period when Romania could provide state aids to farmers without the European Commission (EC) notification, as those aids existed at the moment of accession. As regards the milk producers, the main state aid was the financial support worth 0.3 RON/liter, received for the conform quality milk delivered to the collection centers. Starting with 2010, this support is no longer received, and no other aids specific to other sectors are received either. Part of those aids could be replaced by other forms of state aids, approved by EC. Among those aids benefiting the dairy cow farmers is the diminution of the excise tax for the Diesel oil used in agriculture (by 1.16 RON/liter), under the measure run through APIA. Other state aids are related to the possibility of having access

to production credits with subsidized interest. However, the year 2010 is under tough budget constraints, which results in a lower level and number of state aids; we also have to take into consideration here the fact that the complementary national direct payments (CNDP) must be also paid from the same low MARD resources.

CNDP payments. As a result of the accession negotiations, Romania is allowed to top up the direct payments to farmers provided from EAGF funds, by a component funded from the state budget (named CNDP) in the period when the payments from EU funds are under the level of a 100% allocation. The complementary payments received by the dairy farms in the year 2009 amounted to 140 euro/bovine head. For the year 2010, the envisaged level is the same, but it is very likely that the limited budget resources will result in the diminution of this amount. The calculation of these payments, approved by EC, had in view per total country both the milk and the meat production, but it does not make any difference between the bovines for meat and the bovines for milk. These funds are run through APIA, as a payment set at farm level (according to the livestock herds on January 31, 2008) and which is no longer modified each year (being a fully decoupled payment); one of the conditions for receiving this payment is a minimum number of 3 bovine heads per holding.

Specific payment according to Art. 68. Following the Health-Check negotiations in late 2008, Romania opted for a subsidy for the cow milk producers from the less-favoured areas (mountain areas), in conformity with the provisions of Article 68 from (EC) Regulation no. 73/2009. The idea of this aid, funded from EAGF and run through APIA, was to compensate the specific disadvantages of the area (defined in Annex 4A a of the NRDP), by providing a specific aid per holding, under the form of an additional payment, calculated and provided each year, according to the number of dairy cows on the holding, ranging from 2 to 15 cows (for those with more than 15 cows, the payment ceiling is set at 15 cows). The value of the aid is derived from relating the maximum ceiling approved for the entire country to the number of eligible dairy cows,

without exceeding 100 euro/cow head. These payments are made starting with December 1, each year, the first year being 2010. The beneficiaries of this type of support must be registered in the milk quota administration system and to have a milk quota allocated (be it delivery or direct sales quota). One of the conditions, rather constraining, demanded from this support beneficiaries, was to register as authorized natural person until September 30, 2010 at latest, in case they are physical entities.

The crisis support. In the year 2010, at EU level an additional aid was provided to the milk producers, considered as seriously affected by the crisis in the dairy sector. As approved in late 2009, this support provided for Romania the distribution of an amount of 5.01 million euro to the milk producers registered in the quota system, who were in operation on the date of March 31, 2010 and who had delivered more than 10 thousand kg of milk in the quota year 2008-2009. The amount calculated per holding was allocated according to a grid, depending on the delivered milk quantity (not sold directly) starting from 200 euro for the holdings with milk deliveries ranging from 10 thousand to 20 thousand kg, and reaching 2000 euro for the holdings with milk deliveries from 200 thousand to 500 thousand kg. For the delivered quantities ranging from 20 thousand to 200 thousand kg, the amount to be received was calculated on a proportional basis. For the farms with over 500 thousand kg, the amount to be received was limited at 1200 euro. In the case of this subsidy as well, the natural person beneficiary had to be registered as an authorized natural person, however the short term (the payments had to be made until June 30, 2010) resulted in giving up this condition.

CONCLUSIONS

The transformation of the dairy cow farms sub-sector in Romania, in the first three years after the accession to the EU, was produced under the milk quota system constraints, with the differentiated contribution of certain factors of both structural and conjunctural nature.

The result of the interaction between these factors is reflected in the poor economic

performance of the dairy farms from Romania: these obtain the lowest net value added per annual work unit among all the EU Member States (2441 euro/AWU); this situation is the result of the small farm size, in combination with the labour surplus on these farms.

The review of the main factors that influenced the sub-sector adjustment reveal that the evolution of dairy farms after the accession was determined by the inadequacy between the sophisticated management tools of the supply specific to the European Single Market and the partial integration on the markets of the holdings with surplus labour.

However, the structural changes that took place in the dairy farm sub-sector in this period could determine a re-launching of the milk production in Romania.

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