# The milk market trends in Romania

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#### ABSTRACT

The dairy market is well developed in Romania, having a high production of milk and products derived from it and increasing values in the last five years. Despite the high production, sales fluctuate being affected by the food safety issues in a negative way and positively by new methods of distribution for milk through automatic dispensers and the intense marketing methods companies practice it in our country. This article aims to analyze the dairy market in Romania making reference to milk production, consumption and price.

Keywords: milk market, production, consumption, price

#### **INTRODUCTION**

Milk and dairy products market has certain characteristics in Romania, such as uniform demand throughout the year, territorial dispersion of supply, with large regional differences and seasonal fluctuations; highly perishable product, different levels of consumption between urban and rural areas.

The main characteristics of the product chain are:

- Milk production is oscillating , registering significant differences between the quantities delivered during summer and winter , although our country's pastures and natural grasslands hold 32.94 % of the farming land. The demand of milk is generally uniform throughout the year, we can only notice unsatisfied demands during the cold season , when the milk supply is low;
- Traditional milk production areas are generally those of hills and mountains ;
- Consumption and production is not evenly distributed , so, in general, the large urban centers have high consumption ;<sup>1</sup>
- National production holds a value of 91.72% and represents most of the milk resources available on the market in Romania.

<sup>&</sup>lt;sup>1</sup> Rahoveanu Turek Adrian , Analiza filierei sectorului lapte în România, Editura ARS Academica, București, 2009, pag.25

The usable part of the production goes to export and for different uses such as: feed consumption, industrial processing and human consumption. Most of the milk and milk products are for human consumption, representing a rate of 80.17% in terms of total resource value of milk.

Almost all indicators fluctuate, but we can notice a notable downward trend from 2008 to 2011. Exports of milk and milk products have increased every year from 2008 to 2011 showing an increase of 120.13%.

Table no. 1

			- In	ousands of hi-
	2008	2009	2010	2011
A. Resources	68.304	63.346	59.759	61.270
1. Usable production	64.923	62.195	55.434	56.201
2. Import	3.381	1.151	4.325	5.069
B. Uses	68.304	63.346	59.759	61.270
3. Export	421	646	884	930
4. Domestic deposits for consumption	67.883	62.700	58.875	60.340
5. Intermediary consumption	7.704	7.475	6.696	6.746
Animal feed consumption	6.319	5.725	4.922	4.762
Industrial transformation	1.385	1.750	1.774	1.984
6. Loses	5.464	5.068	4.781	4.902
7. Variation of stock	-46	94	-600	76
8. Available for human consumption	54.761	50.063	47.998	48.616
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The food balance for milk and milk products in equivalent of milk 3,5% fat.

Source: Supply balance, 2009-2011, Romanian National Institute of Statistics

#### **1. THE OFFER OF MILK AND MILK PRODUCTS**

The offer is part of the market and represents the amount of an economic good that sellers are willing to sell it on the market, based on an equivalent, over a period of time.<sup>2</sup>

The sector of milk and dairy products is one of the most important sectors for the Romanian agriculture. Milk provides through its complex composition and its nutritional quality, the necessary elements for a complete and balanced diet. For the population it represents a food product indispensable especially for children, the elderly, sick and those who work in toxic environments. Easiness of use of milk and dairy products for preparing meals, constitute a reliable premises for an upward trend in the consumption of milk and dairy products.

Table no. 2

*Cow milk production on the eight regions of Romania* Thousands of tons

inousanas or tons						
Region	2007	2008	2009	2010	2011	
Nord-West	895.000	948.000	788.100	730.000	820.000	
Centre	692.000	777.000	666.900	610.000	618.000	
Nord-East	1.130.000	1.125.000	1.094.800	927.000	931.000	

<sup>&</sup>lt;sup>2</sup> Manole Victor, Piața Produselor Agroalimentare în România, Editura Tribuna Economică, București, 2010

South-East	540.000	633.000	480.000	417.000	443.000
South Muntenia	785.000	839.000	782.100	547.000	546.000
South-West	507.000	574.000	441.400	356.000	366.000
West	410.000	456.000	363.000	331.000	337.000
Bucharest-Ilfov	38.000	42.000	37.600	26.000	14.000
Source: http://epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/main_tables					

From the table above we can see that the Nord-West region has the highest production achieved over the five years analyzed, followed by the North-East and lowest production was recorded in Bucharest-Ilfov, followed by Western region.

North-West had the highest production in 2008, amounting to 948 million tons, and the lowest value in 2010, the difference between these periods being 33%.

Production values in each region shows a fluctuating trend during the five years analyzed, all regions showing increases and decreases from 2007 until 2011. In 2010, milk production was the lowest in all regions.

Table no .3

*Total resources of milk and dairy equivalent for 3,5% fat milk.* Thousands of hl

	2008	2009	2010	2011	
Total resources	70.777	65.773	62.389	63.300	
Initial Stock	2.473	2.427	2.630	2.030	
Production	64.923	62.195	55.434	56.201	
Import	3.381	1.151	4.325	5.069	

Source: Supply Balance, 2009-2011, Romanian National Institute of Statistics

From the total resources of milk, the production has the highest rate with a higher percentage of 90%. During 2008-2010, both total resources and the production of milk experienced a downward trend until 2011 when they started to recover.

Imports of milk decreased in 2009 compared to 2008 with 65.95% in the next year knowing an increase of more than 2.5 times, maintaining and increasing trend until 2011. The amount of imported milk has little value compared to national milk production.

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	2007	2008	2009	2010	2011
Cow milk collected by	79.645	81.303	79.257	68.737	63.003
processing units.					
Consumption milk	16.826	16.473	19.130	19.120	20.219
Consumption cream	3.960	4.244	4.407	4.174	4.052
Sour milk	11.448	13.008	13.771	14.040	12.912
Butter	488	556	778	722	651
Cheesetotal -	4.603	4.762	5.139	4.753	4.484
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Table no. 4 Evolution of milk production in the period 2007 – 2011. -Tons-

Source: http://www.insse.ro/cms/rw/pages/comunicate/arhivaLapte.ro.do

Cow milk collected shows fluctuations over the five years analyzed, so we can notice the highest value in the year 2008 and the lowest in 2011, between the two years there a difference of 22.50%.

The drinking milk indicator value remains relatively equal in 2007 and 2008, experiencing after a 16.12% increase from 2008 to 2009, maintaining its value in the coming years, not suffering major changes.

Cream consumption shows an increase from 2007, when it had the lowest value, until 2009 when it reaches the maximum value of the five years analyzed being 7.17% higher. In other years analyzed it maintains its value with small changes, but not more than 5%.

Sour milk indicator increased until 2010, reaching a value of 22.64% higher than in 2007, when it has the lowest value. In 2011 we can notice again a slight decrease.

Butter the lowest in 2007 and highest in 2009 between the two years being a difference of 32.41%. After 2009 it started to drop but not with very significant quantities.

Cheeses increased in the first three analyzed years, followed that in 2010 and 2011 to decline reaching the lowest value recorded in the five years analyzed.

# 2. THE DEMAND FOR DAIRY PRODUCTS IN ROMANIA

The size of the demand depends mainly on milk price level and on the buyer's income, respectively on the part of income that can be directed towards the purchase of dairy products. Rational behavior of the buyer is reflected by the structure of consumption expenditures.<sup>3</sup>

2009 2008 2010 2011 Internal 67929 62606 59475 60264 consumption Animal feed 6319 5725 4922 4762 consumption Industrial 1385 1750 1774 1984 transformation 54761 47998 Available for human 50063 48616 consumption Losses 5464 5068 4781 4902

Table no. 5 Internal consumption of dairy in equivalent of 3,5% fat milk. (Thousands of hl)

Source: Supply Balance, 2009-2011, Romanian National Institute of Statistics

Internal consumption of milk and dairy shows a decrease of 8% in 2009 compared to 2008, 6% in 2010 compared to 2009, rising to 1.3% in 2011 compared to 2010. Compared to 2008, in 2011, domestic consumption has decreased by 12%.

<sup>&</sup>lt;sup>3</sup> Manole Victor, Piața Produselor Agroalimentare în România, Editura Tribuna Economică, București, 2010

Regarding feed consumption, it decreased throughout the period analyzed, so that by the year 2011 compared to 2008 it fell by 25%.

The amount of milk that goes to industrial transformation increased with 26.35% in 2009 compared to 2008, following an increase of 1.37% in 2010 compared to the previous year, and in with 11.83% in 2011 compared to 2010. Compared to 2007, in 2011, the amount of milk to be industrially processed increased by 43.27%.

The amount of milk for human consumption represents 80% of total internal consumption. Compared to 2008, the amount of milk for human consumption has decreased each year with an average of 10%, by 2011 recording a value 12% lower.

Losses of milk are the 12th part of internal consumption and values decreased until 2010, only which in 2011 they were 2.5% higher.

Table no. 6

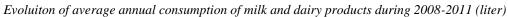
Annual average consumption of dairy in equivalent of 3.5% fat milk.

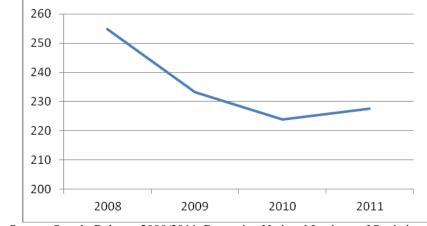
0					
	2008	2009	2010	2011	
Liters	254,7	233,2	224,0	227,7	
Kilograms	262,3	240,2	230,7	234,5	
Source: Supply belonce 2000/2011, Remanica National Institute of Statistics					

Source: Supply balance 2009/2011, Romanian National Institute of Statistics

Consumption and demand for milk and dairy products are the trigger element for the high traffic of these products. For the entire agricultural sector, milk production is dominated by farms that produce only for their own consumption and sell surplus of milk to collection centers or through the traditional markets.

Chart no.1.





Source: Supply Balance 2009/2011, Romanian National Institute of Statistics

Average annual consumption of milk and dairy decreased in 2009 and 2010 compared to 2008 with an average of 5%, recording in the following year a slight increase of 1.6%. In 2011 the average consumption decreased by 11.60% over the reference period.

### **3. THE PRICE OF MILK AND MILK PRODUCTS**

Integration of farmers in dairy chain requires the knowledge of certain issues, namely: how to produce quality milk, to deliver it in large quantities and to fit into delimited quantities by quotas. The result of these sides is synthesized by the price that dairy farmer receives. Pricing is based on internal and external factors that priority is low cost, market conditions, raw material and material consumption, labor, general expenses, transportation, distribution, etc.<sup>4</sup>

Table no.7

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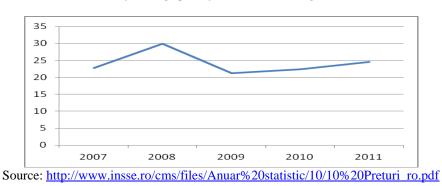
				Euro/100kg
2007	2008	2009	2010	2011
2007	2000	2009	2010	2011
22.71	29,93	21,23	22,32	25,48
22,71	27,75	21,23	22,32	25,10

The average price of cow milk

Source: http://www.insse.ro/cms/files/Anuar%20statistic/10/10%20Preturi ro.pdf

The price is determined by supply and demand of cow milk on the market in a given period of time and is influenced by a number of factors such as the price of milk from sheep and goats, the price of other dairy products, time period and so on.

*Evolution of average price for cow milk during 2007-2011* 



Over the five years analyzed, the average price for cow milk has increased from 2007 until 2008 with 31.79%, following a period in which decreased by 30% in 2009 over the previous year. In the next two years, the average price of milk increased slightly to  $\notin$  25.48 Euro/ Kg, respectively with 20% in 2011 compared to 2009.

Table no.8

Ine consumption price indicator, for major dairy groups					
	2007	2008	2009	2010	
Cow milk	107,75	118,99	108,78	100,77	
Cottage	105,73	115,34	110,52	100,99	
cheese					
Goat cheese	105,35	115,14	111,02	101,37	
Butter	104,39	109,86	102,77	103,04	

The consumption price indicator, for major dairy groups

Source: http://www.insse.ro/cms/files/Anuar%20statistic/10/10%20Preturi ro.pdf

(euro/100kg)

Chart no. 2

<sup>&</sup>lt;sup>4</sup> Rahoveanu Turek Adrian , Analiza filierei sectorului lapte în România, Editura ARS Academica, Bucharest, 2009, pag.25

The consumption price indicator for each category of dairy products show their evolution in a certain period of time, their change is determined by the supply, demand and other factors affecting the price of a product.

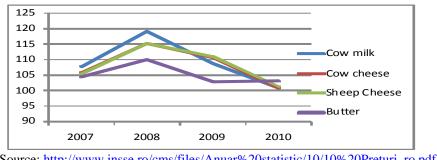


Chart no. 3 Evolution of price indicator for the main dairy products during the period 2007-2010

The price for consumption indicator began to increase in 2007 for all dairy products, reaching the maximum value in 2008. The following year, price indices decreased by approximately 10% in all categories of dairy products in 2009 compared to 2008, maintaining a downward trend with a value almost equal to that of last year, so that from 2008 to 2010 price indices decreased by approximately 20% for the above dairy product categories.

# **CONCLUSIONS**

According to the analysis of data we have seen that the milk market was seriously affected by the economic crisis witch shown symptoms in our country since 2009. Since this year the majority of the milk market indicators began showing a slight decrease until 2011 when they started to recover. Dairy products are consumed by people of all ages, from children to the elderly. These products are used in various forms such as fresh milk, yogurt, cheese and other products. The most frequently consumed raw milk, plain yogurt or fruit, buttermilk, Sana and cheese. Women are easily influenced by the intense marketing that the dairy companies approach. They choose to purchase a dairy product that is advertised just for testing it, these advertisements stimulate their curiosity and interest in products.

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Source: http://www.insse.ro/cms/files/Anuar%20statistic/10/10%20Preturi\_ro.pdf