COMPARATIVE STUDY REGARDING THE EVOLUTION OF THE MAIN TECHNICAL-ECONOMIC INDICATORS REALIZED IN THE ROMANIAN MILK PRODUCTION AND THE WALLONIE REGION OF BELGIUM

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Abstract

In Romania the milk production occupies second place after meat and in agriculture represents 8% from the value of agricultural production. Thus 849.851 exploitations exist presently which own a total number of milk cows of 1.593.530 which produce 4.7 mil. tones of milk, from which 3.3 mil. represent the national milk quota. The majority of exploitations (89%) have small dimensions. The milk branch in the Wallonia Region has a special importance for the Wallon agriculture because the production in this sector represents 25% of the value of agricultural production, 3% of the quantity of milk produced in the region being sold directly at "the farm gate" as cheese, yogurt and cream. The milk production in the Wallonia Region is of 1.3 mil tones produced in 5049 exploitations which own 217.700 milk cows. On December 31st 2010, 67% of Wallon milk producers owned QFL certificates (milk branch quality). The indicators most used in appreciating the economic efficiency of animal growth technologies are: average production per rationed animal, cost per animal and produce unit, per diem expenses with fodder, per animal and per produce unit, energy consumption per animal or per place, man-hours consumption per produce unit, profit per animal.

Key words: production, price, milk, economic efficiency

The first destination of any household`s incomes is for food, this being the first priority in ensuring human existence. In human alimentation, milk and dairy products occupy an important place together with products like meat, eggs, and vegetables, these composing the daily food „basket". Regarding food products, the consumer is confronted with a hostile market, in a permanent change, disequilibrium's adaptations and overcoming stages during which an accentuated inflation process is still manifesting (Chiran A et al., 1994; 2006; 2007).

MATERIAL AND METHOD

The study was realized in Romania and Belgium, respectively in the North-East Development Region and Wallonia, focusing on the following elements: milk and dairy products prices, production and consumption (Chiran A. et al., 2007; Marian C. et al., 2009).

RESULTS AND DISCUSSIONS

The economic indicators are cifric measures which help us to get an idea from an economic point of view. The economic appreciation and efficiency indicators are obtained through calculus and information processing contained in the technical-economic documentation, specific mathematic methods being used.

The diagnosis analysis of the economic-financial situation serves to enlighten the exploitation`s economic value. It has as a basis the information taken from:

- ✓ Balance sheet, completed at the end of the financial year;
- ✓ Income statement which comprises the incomes and expenses grouped after the firms activity;
- ✓ The calculus is realized for a three years period.

The drinking milk market in Romania is near to 1.5 billion litters. It offers three major types of products:

- ✓ Ultra pasteurized milk (UHT);
- ✓ Pasteurized milk which together with the pasteurized milk sums up approximately 10% of the drinking milk quantity sold in Romania;
- ✓ Unprocessed industrial milk, risky for the consumers` health, but preferred in the traditional way and still holding a

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huge share (90%) on the milk sold in Romania.

The last product has an important share in the subsistence commerce of individual producers, being totally foreign from the present modern commerce.

In Romania, the annual per capita milk consumption is still reduced in comparison with the rest of the European counties: 6.7 litters of processed milk in comparison with the European average of 65-70 litters (figure 1).

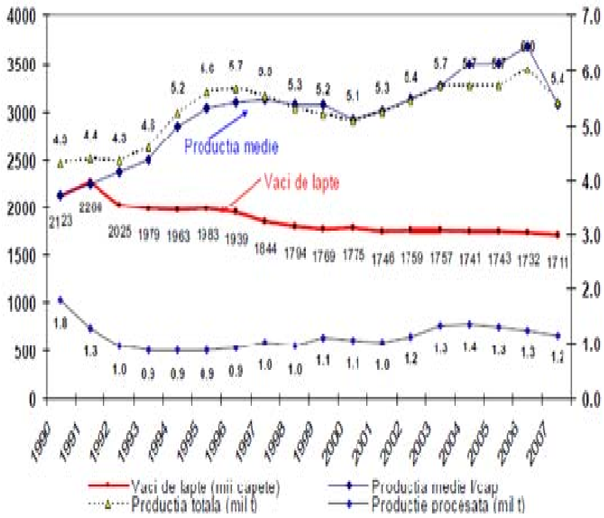

Figure 1 **Consumption of milk and milk products in Romania (***Source: I.N.S.)*

The share of Romanian milk products sold through large stores has diminished by 15.6 times in 2009 in comparison to 2005 according to the Report of the Romanian Competition Council. The report indicates the fact that in 2009 approximately 850,000 milk cows' farms in Romania produced for auto consumption (40%) more than for capitalization (22%).

The milk and dairy products production costs in Romania are much lower than those in other EU states such as Hungary, Poland or the Slovak Republic (table 1).

Table 1

Milk price in some UE countries

Country	Average purchase price in April (eurocents/kg)	Average purchase price in July (eurocents/kg)	Average purchase price in September (eurocents/kg)
Romania	23,9	21,2	23,3
Poland	28,2	25,8	26,9
Slovenia	27,9	26,6	26,0
Hungary	26,7	24,3	25,6
Bulgaria	28,4	25,5	25,9

Source: Eurostat

Romania is in the top 10 in the milk production chapter, but only 1 out of 5 litters are delivered towards processing and industrialization.

The trend in the first half of this year when purchasing a litter of milk in the North-East region of Romania is fluctuant as it can be seen in the figure below (table 2):

Table 2

Average purchase prices of milk total development area

Nomenclatorul de produse agricole achiziţionate de la producatorii agricoli	Regiunea de dezvoltare	Unitati de masura	Clasificarea perioadelor					
			Luna ianuarie 2011	Luna februarie 2011	Luna martie 2011	Luna aprile 2011	Luna mai 2011	Luna iunie 2011
Lapte proaspat de vaca	Regiunea de Nord-Est	Lei/litru	1.11	1.14	1.14	1.12	1.1	1.09

Source: I.N.S.

The lowest purchasing price for a litter of milk was registered in June at 1.09 lei/litter and the highest prices was registered in February and March, respectively 1.14 lei/litter.

In the chart below the dairy products structure on the Romanian market of milk and dairy products is presented, and you can notice clearly that pasteurized milk occupies a pretty large share of the milk and dairy products market with 45% and at the opposite pole, with only 5% it is sour crème (figure 2).

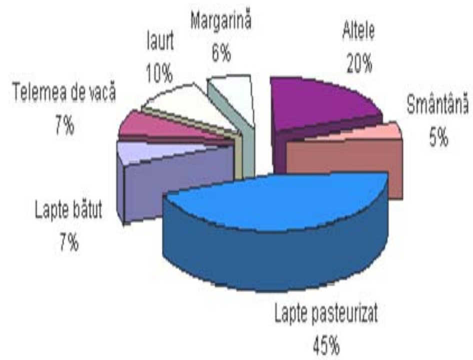

Figure 2 **Structure on the Romanian doiry milk and milk products**
(Source: Land O' Lakes)

In 2010, the number of QFL certified Belgian producers decreased. This evolution is tied with a decrease of 2.4% in the percentage of milk given to Walloon QFL certified producers. In 2010, 65.2% of farmers in Wallonia and 96.0% of milk and dairy producers in Flandre obtained QFL certificates. Meanwhile, the Wallon dairy industry adopted new measures, in a relative short term, to lead to a significant growth of the participation rate.

The turnover in the Belgian milk industry is estimated at around 4 billion Euros per year. However, because of the financial crisis, this varied. For example in 2009 it had a value of approximately 3.9 billion Euros in comparison with 2007 when you could talk of a 4.5 billion Euros turnover.

Table 3

Sector development milk in Walonia

	1990	2000	2005	2008	2009	2010	% 10/09
- CHIFFRE D'AFFAIRES (mio euro) (1)							
a. Industrie laitière	3.025	3.344	3.756	4.378	3.891	4.190 (*)	7,7
b. Industrie alimentaire	18.913	27.252	31.510	40.363	38.774	38.942 (*)	0,4
c. Part du secteur laitier (%)	16,0	12,3	11,9	10,8	10,0	10,8	7,2
- EMPLOI							
a. Industrie laitière (2) (3)	7.595	5.248	5.458	5.578	5.540	5.723	3,3
b. Industrie alimentaire	90.572	86.477	89.518	87.697	–	–	–
c. Part du secteur laitier (%)	8,4	6,1	6,1	6,4	–	–	–
- INVESTISSEMENTS (1.000 euro) (1)							
a. Industrie laitière	62.692	84.424	85.178	75.695	95.217	89.522 (*)	-6,0
b. Industrie alimentaire	1.000.771	1.036.043	1.055.989	1.364.718	1.156.983	1.002.273 (*)	-13,4
c. Part du secteur laitier (%)	6,3	8,1	8,1	5,5	8,2	8,9	8,5

(1) Suite à une modification de la nomenclature NACE, les statistiques de l'industrie laitière comprennent à partir de 2000 également les données de l'industrie de la glace de consommation
(2) Industrie laitière = fabrication de produits laitiers, industrie de la glace de consommation exclue
(3) Jusqu'en 2000 situation au 30 juin; à partir de 2005 situation au 31 décembre
(*) Les données du 4ème trimestre 2010 sont encore provisoires
–: non disponible
Source: Conseil Central de l'Economie (CCE) sur base des déclarations mensuelles et trimestrielles à la TVA et des statistiques décentralisées de l'emploi de l'ONSS (statistiques centralisées en 2009 et 2010)

Source: CBL

The investment realized in the Belgian milk and dairy products industry in 2010 is estimated at 96 million Euros, with 20 million Euros more than in 2009. The milk sector in the overall agri-food industry has a value of 10-12% in the turnover.

Table 4

Investments in the dairy sector in Belgium

(en 1.000 €)			1990	1995	2000	2009
Total des capitaux engagés			418	530	637	814
Par l'exploitant			235	315	352	451
Dont :	Capital foncier		141	208	231	275
	Capital d'exploitation		93	107	121	176
	Dont :	Cheptel vif	62	70	78	98
		Cheptel mort	28	34	39	74
		Capital circulant	3	3	4	4
Fonds propres			167	210	237	269
Emprunts			68	105	116	182
Taux de solvabilité			71,2	66,6	67,2	59,6
Capital total par UT			279	353	424	536

Source: CBL

The Belgian milk and dairy products productions are varied. In 2010 you can talk about:

- ✓ 772 million litters of milk consumed;
- ✓ 523 million of kilograms of fresh dairy products;
- ✓ 77.000 tones of butter;
- ✓ 144.000 tones of powder milk;
- ✓ 105.000 tones cheese.

After it can be observed in the following figure, in the Wallonia region of Belgium the price evolution for milk and dairy products knows a rising trend starting with 2007.

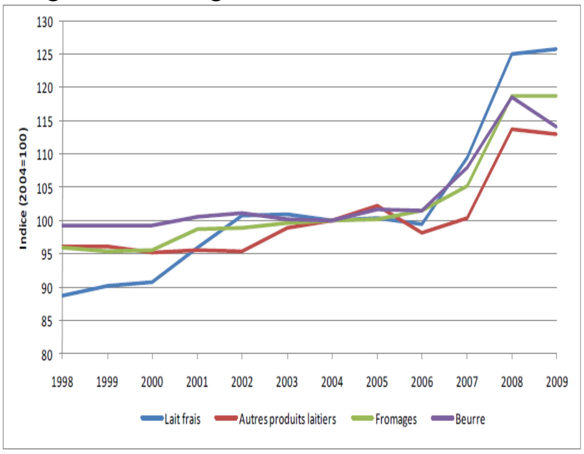

Figure 3 **Price developments for milk and dairy products in Belgium**

Sources: OCA, GxABT după SPF-Economie, PME, Classes moyennes et Energie

Milk and dairy products processing in Wallonia and Belgium can offer a wide range of products:

- ✓ Milk;
- ✓ Powder milk;
- ✓ Fresh dairy products;
- ✓ Butter;
- ✓ Ice cream;
- ✓ A wide variety of cheeses.

In Wallonia there is an average consumption per year and per capita of:

- ✓ 53 kg of milk;
- ✓ 21 kg of cheese;
- ✓ 16 kg of yogurt;
- ✓ 7 kg of butter;
- ✓ 10 kg of fresh dairy products (whipped cream, sour cream, ice cream, etc).

In general, the autonomy rate in the milk and dairy products sector in Belgium is sufficient, with exception for cheese, which is only at 30% (because 70% of the cheese consumed in Belgium is imported). The 2010 production year can be resumed through the following tendencies:

- ✓ The milk and milk drinks production increase easily;
- ✓ The fresh dairy products, with the exception of fermented milk, increased;
- ✓ The production of butter decreased;

- ✓ The total powder milk production increased;
- ✓ the cheese production increased.

The total milk production increase with 0.9% which is contrary with the decline registered in 2009, but doesn`t regain the level from 2008. Only whole milk and semi-fat milk are increasing (respectively 1.4% and 3.1%) The semi-fat milk quota in the milk production continues to increase constantly. The milk drinks production (chocolate milk, vitamin milk) continues to drop. A decrease is seen also in the chocolate milk.

CONCLUSIONS

The milk sector is subjected to one of the most powerful liberalization processes in the EU. The reduction of the level of internal aids, the decoupling of direct payments and of the milk quota, the progressive elimination of external protection measures , as well as eliminating the milk quota systems, foreseen for 2015 represent major challenges for the milk producers and dairy products factories both in Romania and the Wallonia Region.

It is expected that once with the liberalization of the milk market a higher volatility of prices to exist, that would contribute to serious uncertainties regarding production planning at the level of milk producers.

The milk and dairy products branch is very important for the Belgian economy.

The milk production occupies in Romanian agriculture the second place as importance after meat production and represented in 2010, 21% from the value of animal production and 8% from the value of agricultural production according to the data published by the National Statistics Institute.

Obtaining milk productions according to European standards represents a stringent problem in Romania for all producers` categories regardless of their size. Meeting these demands assumes adopting modern exploitation technologies.

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