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CHAPTER VI

INTEGRATING INTO THE EU: CHALLENGES FOR THE SERBIAN DAIRY SUPPLY CHAIN

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CHAPTER VI

INTEGRATING INTO THE EU: CHALLENGES FOR THE SERBIAN DAIRY SUPPLY CHAIN

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1. Introduction

On December 22 2009 Serbia submitted its candidacy for EU membership to the European Commission. The EU now has to decide on a starting date for accession negotiations. The opening of the talks on accession depends on whether Serbia's political and economic development meets EU membership criteria as stated in the Copenhagen criteria¹. As agriculture plays an important role in the Serbian economy, much attention will be paid during the accession process to the socio-economic situation in the sector. This article evaluates the structural features and economic performance of the dairy supply chain in Serbia in a comparative overview including recent EU members in Eastern Europe and several other countries in the Western Balkan region².

The structure of this article is as follows. Section 2, 3 and 4 pictures the policy and market context in the EU in which the Serbian dairy sector has to act and perform when being part of the Union. Section 2 provides a short description of the evolution of the EU dairy policies over time, while section 3 and 4 shows the structural change in the dairy supply chain in the 'old' EU member states.

Following sections 5 to 11 focus on the structural features and performances of the Serbian's primary (milk) production and (dairy) processing sectors, as well as those in the new member states (NMS) and other countries in the West Balkans. Based on these analyses, section 12 concludes on the main challenges the dairy supply chain in Serbia face with the eye on the country's possible EU membership.

2. The evolution of EU dairy policies and market trends

The EU common organization on milk and dairy products has been established in the 1960s. Milk production typically was strongly supported by the market regime applied. Farmers were guaranteed minimum prices for their milk, the level of which was based on butter and skimmed milk powder prices agreed upon as part of the dairy policy. These EU prices were significantly above international market prices. Variable import levies prevented products coming into the internal EU market at lower price levels than those of the EU dairy products. Exports were possible by restituting exporters the loss occurring on exports (against world market prices) compared to selling the product at the internal market against (guaranteed) EU prices. As the EU was a dominant player on world dairy markets, this system distorted international trade in dairy products significantly. Increasing stocks of butter and skimmed milk powder was a main reason to set production limits in 1984 and introduce a milk quota system in order to keep budget outlays manageable and to prevent further distortions at the internal market.

¹ At the Copenhagen summit of June 1993, the EU member states agreed that: "*Accession will take place as soon as an associated country is able to assume the obligations of membership by satisfying the economic and political conditions required. Membership requires that the candidate country has achieved stability of institutions guaranteeing democracy, the rule of law, human rights and respect for and protection of minorities, the existence of a functioning market economy as well as the capacity to cope with competitive pressure and market force within the Union. Membership presupposes the candidate's ability to take on the obligations of membership including adherence to the aims of political, economic and monetary union.*" (Bulletin, EC 6 – 1993: 13). These criteria have from then on been referred to as the Copenhagen criteria.

² EU institutions and member states define the "Western Balkans" as Albania and the constituent republics of the former Yugoslavia, minus Slovenia. See: "*Western Balkans: Enhancing the European Perspective*". Communication from the Commission to the European Parliament and the Council. 2008-03-05

During the 1990s and the early years in the new millennium the level of guaranteed EU prices and support to the dairy sector has been reduced as part of agricultural policy reform packages. An important policy decisions have been made in 2003 by reducing guaranteed prices of both butter and skimmed milk powder significantly over a period of three years. This decline in price support was partly compensated by granting farmers direct income payments. Whereas the level of the payments was linked to the milk production of the farmer, these payments are now included in an overall single farm payment. The latest changes in the dairy market regime have been announced as part of the Health Check decisions (2008). First, there will be a further reduction of market price support, implying that the EU is only using the instrument of intervention buying as 'safety net', when prices are really low, while export support is eliminated following a WTO Doha agreement. Further the agricultural ministers of the EU have decided to gradually expand the milk quota which then will be abolished in 2015.

All in all the changes in the EU dairy market regime illustrate the process of further market orientation that applies to all agricultural sectors, which has been initiated in the early 1990s. As a consequence the EU market is less sheltered from the international market than before, with the effect that EU prices of dairy products and milk are much more fluctuating. As recent years have shown, the volatile milk prices in 2007, 2008 and 2009 create good times and real challenges for dairy farmers. After a price spike in 2007 alongside the high food prices in general, prices have dropped substantially since mid-2008, affecting EU dairy producers' income first very positively but then strongly negatively.

In terms of consumption quantities not much expansion may be expected on the EU-15 market. Although several international organizations like OECD, FAO and FAPRI are rather optimistic about international markets developments for dairy products, growth of demand will largely be in developing countries and not in the saturated (old) EU member states. In terms of products, there is a difference between the still increasing demands for cheese and 'other fresh dairy products' like yoghurts and other deserts, and the further decline of demand for commodities, like fresh milk, butter and milk powder. Consumers in the EU-15 are highly demanding in terms of quality, safety and convenience, and at the same time they are cost conscious. These trends at the demand side require huge investment by the supply chain in product and process developments.

3. Structural trends in the dairy sector in EU-15 member states

The decline of price support and rather stagnant demand at the internal EU market has caused increasing price pressure and competition, causing significant structural change at primary and processing level. Indeed, structural change has been significant in the EU dairy sector over time: the number of dairy farmers went down by around 80% in countries like Italy, France and Denmark in the period 1980-2007 (Eurostat), while the average number of cows per farm has been increasing from 10-30 to 30-50 in most 'old' EU member states. Behind these averages there are large differences in farm size in each country. In Denmark and the UK, for instance, more than half of the dairy farms have over 100 milk cows. Also in Italy and Germany a substantial share of cows is on farms with more than 100 cows, but at the same time a relatively large share of the farms has less than 30 cows. In the Netherlands, most cows are on farms with 50 to 100 cows.

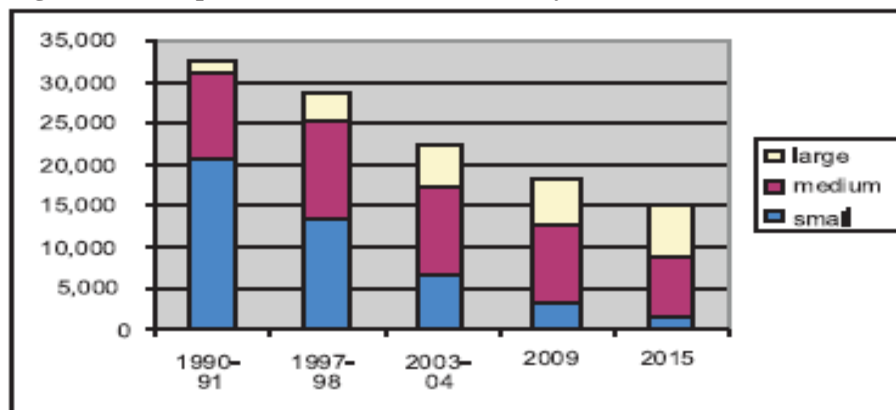
The process of structural change in the Netherlands may be illustrative for the developments in all 'old' member states (see Table 1). In 1975 over 90,000 dairy farms were producing milk. These farms had about 2.2 million milking cows. The number of farms declined year after year with 3% to 4% on average. The structural change has been quite rapid in the 1980s when part of the smaller farmers had major difficulties in complying with the requirements set by the industry when applying the milk quota system. Structural development has been following a rather stable path in the years that followed. In 2008 there are still 21,000 dairy farms left in the Netherlands. The cow herd declined too as due to the milk quota system the production was limited while yields per cow increased. The size of the present specialized dairy farms is on average much bigger than the average size in the 1970s, reaching 74 cows per farm in 2008.

Table 1. Structural change in the Dutch dairy sector

Farms with cows (x1000)	1975	1985	1990	2000	2008
Farms with cows (x1000)	92	58	47	29.5	21
Specialized dairy farms	n.a.	45	40	26	19
Dairy cows (x 1000)	2.218	2.367	1.878	1.504	1.466
On spec. farms:					
% of the dairy cows			90	93	94
Ave. number animals	24	40	43	52	74

Source: LEI/CBS, Agricultural and horticultural figures, several years.

Figure 1 presents the development in the structure in the Netherlands based on size classes, indicating the strong decline especially in the number of the small farms between 1990 and 2003/04. Extrapolating this trend to 2015, the number of (specialized) dairy farms in the Netherlands would fall from 22,000 to about 15,000. The share of small farms would decrease from over 60% in 1990 to 10%, while the share of the 'large farms' would increase from 5% to 40% in 2015 (Van Berkum and Helming, 2006).

Figure 1. Development of number of Dutch dairy farms, size classes, 1990-2015

Note: Definition of small, medium and large: Small is farm producing < 350,000 kg milk/year; Medium: production between 350,000 and 650,000 kg milk/year; Large: over 650,000 kg milk/year.

The increasing scale of production is a development not specific to dairy farming but general to agriculture. Agricultural production is rather price inelastic, especially the production bound to land like dairy and crop farming. Furthermore, production increases due to application of technology developments, which are rather independent from price developments. As production increases more than demand, prices are decreasing. Productivity growth is necessary to reduce production costs per unit but investments in technology are only economical at a large(r) scale of production. This technological treadmill based on productivity increases is resulting in a continuous process of increasing scale of production in agriculture.

4. Structural developments in the EU dairy industry

A similar development of increasing scale of production at primary level has occurred in the dairy industry in EU-15. The process of concentration and consolidation that began before the introduction of milk quotas has continued after 1984. In order to remain profitable companies rationalized their production by closing factories and concentrating processing in larger scale plants. Also companies merged to increase efficiency in operations. Since the mid-1970s the number of dairy factories

decreased from 7,500 to 3,500 in 1997 (Mahon, 2005). Since then the process of consolidation has continued: in 2003 40 dairy companies processed two-thirds of the raw milk produced in the EU-15. The top-10 biggest European dairy companies process almost 40 million tons out of the 130 million tons of milk produced in EU-25 (Jansen, 2008).

In some EU member states the concentration in the dairy industry is rather extreme. In Sweden Arla processes 93% of the raw milk production and virtually has a monopoly. The same holds for the company in Denmark. In the Netherlands the two biggest dairies (Friesland Foods and Campina) merged in 2009 and account for around 80% of the country's milk production. Three big players dominate the dairy market in Ireland. In the major production countries Germany, France, the UK and Italy the industry is less concentrated, yet in all countries there are a number of large players. Further consolidation takes place or is forthcoming, for instance in Germany. Reasons are increasing international competition and increasing market power of the retail. Especially the latter plays an important role in Germany, forcing the industry to remain (price) competitive, which can be achieved by reducing costs through increasing scale of production. The dairy sector in the UK struggles with overcapacity and inefficiencies. In France several large internationally operating companies dominate but there are still many small(er) dairies too, leaving room for further consolidation. Mergers and consolidations have taken place manifold in the new member states in Eastern Europe. Many West-European companies have leading market positions in these countries.

5. Consequences of developments in the EU for the Serbian dairy supply chain?

The previous part of this article indicates that over the years EU dairy policy has changed drastically. These days price support is a marginal instrument while it has been key in former days. Now a single farm direct payment is the major policy instrument supportive to dairy farmer's income development in the EU. Due to market and policy developments, both the internal EU and the international competition among dairy producers have increased. As a consequence, the process of increasing scale of production extends in order to reduce costs of production and to enhance the possibilities to invest in quality improvements and product differentiation. Consolidation and restructuring of the sector – at primary and at industry level – seem to be an inherent consequence of market and policy developments and are therefore expected to continue.

The developments as indicated in the current EU may be a forerunner of what might happen in Serbia, when the country becomes part of the Union. The experiences of the member states in Eastern Europe that entered in 2004 and 2007 may act as examples of how EU membership may impact on the dairy supply chain in Serbia. Therefore, this second part of the article reviews key dairy market and sector developments in Serbia and evaluates these against those in the new member states (NMS) as well as against neighbouring countries.

6. Structural changes in the dairy sector in NMS³

Most countries that entered the EU recently exhibit a strong dual dairy farm sector, with a large number of relatively small-scale producers and a small percentage of large producers which still handle a large share of the total dairy herd. The structure of the dairy farms is dominated by the category of holdings, with 1-5 cows (see Table 2). This group includes farms with 1 or 2 cows producing exclusively for own consumption or limited direct sales. The sector's structure in Cyprus, the Czech Republic, Slovakia and Malta is quite different, however; here the average dairy farm is far above the EU-15 average size of 37 cows. The number of dairy farms in the four countries mentioned is less than 4,000, which is a very small part of all dairy farmers in the NMS, CC and PCC combined.

³ This section and following sections referring to the situation in NMS and Western Balkans draw heavily on Van Berkum, 2009.

Table 2. Farm size structure – average number of dairy cows per farm and share of dairy cow farms per size classification (2007, if not stated otherwise)

NMS	Average heads/farm	% farms < 5 cows	% farms with 5-19 cows	% farms ≥ 20 cows	Dairy herd (000 heads)	Farms with dairy cattle
Bulgaria	2.7	91.5	6.8	1.7	336	122,711
Cyprus 1)	228.2	5.3(? 10)	6.1 (11-50)	88.6(>50)	56	245
Czech Republic	165	4.3(? 10)	13.7(11-50)	82 (>50)	423	2,562
Estonia	14.5	65 (1-2)	25 (3-19)	10	104	7,174
Hungary 1)	19.8	56 (1-2)	33 (3-10)	11 (>10)	321	16,249
Latvia	4.6	84.4	11.7	3.9	179	38,825
Lithuania	3.3	90.5	8.3	1.2	396	120,982
Malta	50.6	5 (1-2)	29.5 (3-29)	65.5 (?30)	7.5	149
Poland	4.2	88.4(<10)	10.2(10-30)	1.4 (>30)	2,787	656,300
Romania	1.6	98.7	0.7 (5-10)	0.6 (>10)	1,700	1,100,000
Slovakia	183	23(? 10)	10 (11-50)	67 (>50)	181	992
Slovenia	6.5	60	33.5	6.5	124	19,200
Western Balkans						
Albania	1.5	99	1 (>5)		396	270,930
Bosnia&Herzegovina	2.3	94	5.5 (5-10)	0.5(>10)	58	25,057
Croatia 2)	3.1	85	13 (5-10)	2 (>10)	237	77,039
FYROM	3.2	n.a.	n.a.	n.a.	164	50,617
UNMIK -Kosovo	1.7	94	5 (5-10)	1 (>10)	140	83,289
Montenegro 3)	2.9	90	9.8	0.2	78	26,277
Serbia	2.7	90(1-2)	9 (3-10)	1 (>10)	602	221,625
EU-15 5)	37.3	25 (<10)	16 (10-19)	59	17,974	482,250

Source: Van Berkum, 2009

Notes: 1) 2005 data; 2) 2003 data; 3) 2008 data; 4) Eurostat (Farm Structure Survey); n.a. = not available

In all NMS, the number of agricultural holdings with cows dropped significantly in the last decade. For instance, the number of dairy farms in Poland dropped by 50% between 1996-2007. In Hungary, the number of dairy farmers dropped from 52,000 in 2000 to only 20,000 in 2007. In Lithuania and Slovenia, this number dropped by 50% and 33%, respectively, from 2000 to 2007. However, it is remarkable that the number of farms in Slovenia has not changed since the country has become a member of the EU, especially since 2004, Slovakia and the Czech Republic have faced an annual 3.5% decline of dairy farmers. The latter pace of structural change is similar to what is happening in many Western European countries.

Considering the share of subsistence farmers, it is very likely that the primary dairy sector in many NMS will face further radical structural changes. Especially the small farmers have difficulties in complying with veterinary, sanitary and food safety regulations, which is essential for dairy farmers to be a part of the commercially-oriented dairy chain. However, the small(er) farmers lack (access to) the capital necessary for these investments and hence many of the small-scale producers will (have to) leave the sector in due time. The speed of this process depends largely on the general economic growth in the countries at hand, which determines both the level of social services (pensions, unemployment benefits, education, etc.) and alternative employment opportunities.

7. Structural features of the primary dairy sector in Serbia and Western Balkans

Major milk producers in Serbia are family farms as well as commercial farms both private and state-owned. Cow milk is the principle milk type produced with a share of about 99% of the total milk production in Serbia (Bozic et al, 2009). Cow milk (approx. 92%) but also most of the sheep and goat milk production predominates in the private sector on family farms and privatized commercial farms. The share of agricultural enterprises and agricultural cooperatives (social sector) in the total milk production has been declining (from 11% in 1990 to about 8% in 2006). Currently there are only a few state-owned dairy farms.

In 2007 total milk production amounted to 1.548 million tons. According to figures provided by the Ministry of Agriculture about 52% was delivered to dairy plants for further processing (Bozic et al., 2009)⁴. Most of the quantity was sold on the green market as processed products (into cheese, cream etc.) on farms or as raw milk (25%) whereas 15% was consumed by household members. The remaining 8% of the total milk production was used as livestock feed.

The typically little integration of milk producing farmers in Serbia is closely linked to their size of operation. The average head per farm is 2.7 cows, a size of farming which is close to subsistence as on average the yield of a cow is around 2700 kg/year, implying a daily production of less than 10 liters per cow (Bozic, 2009). 90% of farms with milking cows are in the size category of 1-2 cows (see table 2). The average size of the dairy farms is in the range of farm sizes comparable to EU members Bulgaria, Lithuania and Romania.

Milk production in the other Western Balkan countries is equally strong characterized by a significant fragmentation of dairy farms as in Serbia (see Table 2). Only a small percentage of the farms in these countries are commercially-oriented and sell milk to processors all over the year. This is most likely the category of farms able to make the necessary investments for business expansion and operational improvements in order to comply with increasing quality and food safety requirements. Small-scale producers typically have problems acquiring external finance for buying land and/or animals or making other investments. Support programs from the EU may be a source of finance for such investments, but eligibility criteria may rule out the smallest farmers, as their prospects of building economically viable farms are generally considered to be low. The strong fragmentation of the dairy sector in these countries indicates that an immense structural change has to take place in order to meet EU membership criteria, i.e., of a viable economic sector able to compete on the internal market.

8. Industry structure at processing level in NMS

In most new members states significant structural changes have occurred in the dairy industry: the number of milk processors in 2007 is much less than it was ten years ago, as many small companies have left the sector or have been taken over by others. Together with automation and the introduction of new technologies, the number of employees in the industry has declined significantly. The trend is that the largest companies have increased their share of the total milk production processed. The dairy industry in the NMS appears most concentrated in the Baltic countries, Cyprus, Malta and Slovenia, where the top 5 dairies process over 60% of the milk (Table 3).

With the increasing plant size of operation and the increasing concentration, trends in the dairy industry in the region counters developments that took place in the 1990s. The dairy processing industry was generally very concentrated during the communist period. The privatization process in the 1990s and the establishment of new plants led to a substantial increase in the number of dairies in most countries. However, many have disappeared again in the build up to EU membership. The remaining companies have been forced to undertake ample innovation and improvements by incorporating hygiene (HACCP) and quality (ISO)⁵ systems. EU SAPARD⁶ funds helped to finance

⁴ Whereas the Republic Office of Statistics in Serbia estimates 40% of milk production is being processed.

⁵ HACCP = Hazard Analysis Critical Control Points; ISO = International Organisation for Standardisation, which develops standards for all industry sectors on all kind of themes, among others on quality.

⁶ SAPARD = Special accession programme for agriculture and rural development.

the introduction of these systems, as well as foreign investment in the NMS dairy industry. Finance is, however, still a major problem for many dairies to invest in quality-improving technology.

Especially in Romania and Bulgaria numerous small-scale processing units use too much outdated and unsuitable technology to comply with the presently required hygienic and quality standards. In Bulgaria, only 27 companies (out of 229) met the requirements of 853/2004/EU on health and hygiene, and are permitted to export dairy and cheese products to the EU (see Table 3). The majority of the dairies are simply too small to attract the necessary capital for expanding and updating their equipment to comply with quality and food safety standards. By 2010, all dairies will have to comply with the EU rules. Further reorganization of the Bulgarian dairy industry therefore seems very plausible, just as in Romania where it is very unlikely that many of the over 800 small-scale dairies will be able to operate according to EU standards.

There has already been a comprehensive reconstruction in the dairy industry in Poland, where the number of companies decreased from over 400 in 1993 to 230 in 2007. Still, the country's dairy industry is fragmented, with relatively small plants compared to EU-15 standards. Finance for restructuring the industry has largely come from the domestic private sector: farmers' cooperatives are the owners of Poland's two largest dairy companies. Foreign investment in Poland's dairy industry entered the country in the early 1990s, yet its scale has remained modest. In Romania, on the other hand, foreign investors and multinational dairy companies have been important for the sector's development. Entering mainly between 1998-2000, the multinationals invested in and took over several Romanian ex-state dairy companies, which have been transformed into competitive companies and are among the larger dairy processors in Romania: three foreign-owned companies (DANONE, Friesland and Hochland) are among the top 5 processors.

Table 3. Concentration of milk processing (2007)

NMS	Intake by Top 5 as % of milk production processed (est.)	Total number of dairies in operation	Dairies with less than 50 employees
Bulgaria	20%	229	184
Cyprus	n.a.	82	77
Czech Republic	Top 3: 35%	40	n.a.
Estonia	68%	29	n.a.
Hungary	Top 10: 81%	50	41
Latvia	Top 4: 61%	52	31
Lithuania	Top 4: 90%	32	18
Malta	1: 100%	1	0
Poland	Top5: 26	232	76
Romania	n.a.	876	818
Slovakia	n.a.	45	23
Slovenia	Top 3: 90%	22	17
Western Balkans			
Albania	n.a.	416	5 dairies >20
Bosnia&Herzegovina	42%	53	42
Croatia	81% (Top 2: 67%)	37	27 (?20)
FYROM	Top 4: 90%	85	81
UNMIK Kosovo	Top 7:23%	19	n.a.
Montenegro	63%	19	16
Serbia	67%	250	230

Source: Van Berkum, 2009

Note: n.a. = not available.

9. Processing industry in Serbia

Milk processing in Serbia takes place in about 20 bigger (industrial) dairy plants and in an estimated 230 small and medium dairy plants (see table 3). Total milk volume processed is about 800 million liters (approx. 52% of the total production). The processing part of the dairy supply chain is rather concentrated. Bozic et al (2009) report that 25 dairy company members of the Business Association for Livestock purchase and process about 600 million liters of milk annually. Five dairy plants, members of the Danube Food Group, process most of the purchased quantities of milk (about 380 million liters, or nearly a quarter of all milk produced in Serbia). One dairy plant of this Group - Imlek-Beograd - processes by far the bulk of this quantity. On the other hand, about 86% of dairy plants process less than 10 tons of milk per day and can thus be classified as small dairy plants.

Foreign investments dominated the process of privatization in the dairy industry. Most of the industrial dairy plants in Serbia were taken over by the English Investment Fund Salford – known as Danube Food Group (DFG) - which currently owns the three biggest dairy plants (Imlek, Mlekara-Subotica and Novosadska mlekar) and two medium dairy plants (Zemunski and Zaječarski). The French firm Bongren has bought Mlekoprodukt from Zrenjanin and the Croatian Lura has taken over Somboled from Sombor. Other, mostly smaller dairy plants were bought by domestic firms. Bozic et al (2009) emphasize the importance of foreign investments for sector development, as it brings in technical and technological innovation and introduces systems to apply strict quality standards.

10. Dairy industry in Western Balkan

A general feature of the industry is its small-scale and seasonal operation (Van Berkum, 2009). Technology applied in the majority of the dairy plants is rather primitive, while the mechanization grade is low. Many of the small processing establishments do not comply with modern food safety standards. These plants produce cheese, butter, curd and yoghurt for the local markets. Typically the industry in Albania, UNMIK Kosovo, FYROM and Montenegro is very small-scale, fragmented and technically underdeveloped, although in the latter two countries there are a few relatively large companies that account for the majority of the milk processed (see table 3).

Foreign companies have shown limited (FYROM) or no interest to invest in Western Balkan countries mentioned in the previous paragraph. Presently, six of the larger dairies in Bosnia and Herzegovina are foreign-owned (in a majority), which made the inflow of foreign capital contribution important to the dairy industry's post-war reconstruction. This already provides positive effects on product assortment and improving quality levels, as these foreign-owned companies bring in marketing and management expertise. Through recent investments in quality assurance systems (HACCP, ISO, export licensing), the sector exhibits efforts to upgrade quality management, but at the same time it is clear that this process is only in its initial stage. Also in Croatia, foreign investment plays an important role in the country's dairy sector primarily by introducing technical improvements and the application of quality standards. Milk processing in Croatia is dominated by two companies – one of which is foreign-owned. These dairy companies have modern production technology and comply with EU quality and hygiene standards. Other dairies in Croatia are relatively small, and most of them can be categorized as handicraft dairies producing dairy products for the local market. Many of these dairy plants operate at very small scale and would have great difficulties complying with today's international quality and hygiene requirements.

11. Performance of the dairy industry in Serbia and other Western Balkan countries

Official data on the performances of the dairy processing industry are scarce in Serbia and other Western Balkan countries. This fact prevents an accurate evaluation of the dairy industry's performance in the countries concerned. Based on the (little) available statistics, a few company interviews and small surveys the industry performances in Serbia are, however, assessed more promising than in most of its neighboring countries. For instance, Serbia's dairy industry has shown a strong increase of sales in the domestic market since 2000, while productivity in the dairy industry

increased faster than productivity in other sectors of the food industry. In the retail shops, the domestically produced dairy products prove to be competitive with foreign brands, as quality is evaluated to be of a similar level, but Serbian products are cheaper than most imported dairy products. Import penetration of dairy products such as fresh dairy products and cheese is estimated to be around 5% of total consumption which is relatively low. Furthermore, trade figures indicate that Serbia's exports of dairy products are increasing, especially since Montenegro became an export market in 2006. Other major export markets of Serbia are Macedonia and Bosnia & Herzegovina. In the latter countries, milk production has increased in recent years, but as consumption also grows, imports tend to increase. In Croatia the dairy processing industry is dominated by two large companies (accounting for two-thirds of the milk intake). These two companies use modern technology, comply with EU quality and hygiene standards and have a strong domestic market position, which indicates that these companies perform rather well. The performance of the dairy industry in Albania, Bosnia & Herzegovina, FYROM, UNMIK Kosovo and Montenegro suffers from the low quality of raw milk supplied, while the industry itself is technologically underdeveloped and operates on a very small scale. The great majority of the dairy industry in these countries does not comply with universally used food safety standards, health and hygiene standards. The Bosnian and Kosovar markets are dominated by foreign supply, and dairies in FYROM and Montenegro also face fierce competition with foreign suppliers in their national markets.

12. Conclusions

Important to the Serbian dairy sector for preparing for EU membership is to take note of some of the major trends in policies and markets in the Union. This article identifies three major trends. One is that the EU dairy policy regime has become much more market oriented. This implies that dairy farmers' income development is much more dependent on market price developments. Second, total demand for dairy products in the EU is rather stagnant, though there is still scope for increase in demand for processed products. And third, and mainly as a result of the first two trends, the dairy supply chain is in a process of continuously restructuring and consolidation, both at primary and industry level.

EU membership of Serbia, hence, would imply fierce competition to sell dairy products to a demanding consumer. An essential requirement is to comply with EU standards with respect to quality, hygiene and food safety. If not, basic rules of the game are not fulfilled and the production units (farms and/or plants) are not allowed to produce for other than subsistence purposes. Although a number of dairy companies are technically up to date and apply quality standards, a large part of the Serbian processing industry may need many investments in product and process innovations as well as in quality improvement systems. At the farm level, investments in quality and scale of operation would be necessary to enhance the integration with the processing industry. Such investments should result into an economically viable sector, able to cope with the 'competitive pressure and market force within the Union' which is part of the Copenhagen criteria. However, given the current structure of the dairy supply chain, one would also expect a rapid and considerable structural change at farm and industry level.

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