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Profitability of Dairy Industry in Slovenia, Croatia and Serbia

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Summary

EU membership status strongly affects the profitability of dairy industry. With the EU accession, the relations between farmers and the dairy industry are changing. In addition to this, the dairy industry itself will be exposed to foreign competition. Depending on the current relations, pace and intensity of this change will depend also on the effects of the EU accession for the dairy industry. However, the Serbian dairy industry will be challenged in the future by the accession to the EU, as is Croatian dairy industry at the moment. This process has been concluded for the Slovenian dairy industry. Dairy industry in Serbia is more profitable than the Slovenian and Croatian dairy industry, despite comparatively worse conditions of the business environment. The profitability of dairy industry in Serbia is a consequence of high prices, lower production costs and lack of EU legislative regarding competition and free market. In all three countries under observation, there is the dominant influence of the leading companies. Consolidated data suggest that market leaders are regional players that greatly exceed national boundaries.

Key words: dairy industry, profitability analysis, comparative analysis, EU accession

Introduction

Despite the high growth of dairy industry in South America and New Zealand, Europe is still the largest exporter of dairy products in the world, even when trade within the EU is excluded. According to the FAO (Grbić et al., 2010) the consumption of milk measured by milk equivalent in developed countries has stabilized. The EU's consumption of milk per capita in 1990 was 363 litres, and in 2007 was 382 litres, while in the U.S. for the same years, consumption per capita was 274 liters and 295 liters respectively. Dairy companies are getting larger and the resulting gains from economies of scale have increased their profit margins. Between the years 2000 and 2003, the average size of large businesses decreased; but in the last five years, the trend was reversed and large EU dairy companies have grown year by year. The growth was driven by the mergers and acquisitions activity (Tacken et al., 2009). These activities - mergers and acquisitions - are also characteristic for dairy industry in Croatia and Serbia. Foreign investors, as well as domestic ones, recognized the dairy industry potential. Not only some market leaders, but also other dairy companies have been taken over by foreign companies. Moreover, some dairy companies enlarged their business by acquiring dairies in neighbouring countries.

The aim of this research is to establish relationship between EU accession process and profitability of dairy industry in Slovenia, Croatia and Serbia.

Materials and Methods

The research focus addressed in this paper is to compare profitability and perspective of dairy indus-

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try in Serbia, Croatia and Slovenia, and to identify their causes.

The basis of the research are financial statements published on Stock Exchanges' web pages, Serbian Business Registers Agency (SBRA), financial internet tool involving registers and data records Artemis (Croatia) and financial internet database Ibon (Slovenia).

The unit of analysis is a nonconsolidated financial statement. It has been used with the aim to assess not only the state of each company but also of the dairy industry in each of the three countries. Separately, the subjects of analysis have been consolidated financial statements of the market leaders because of their size and cross-border business.

In each compared country the subject of analysis is the market leader (Ljubljanske Mlekarne in Slovenia, Dukat in Croatia and Imlek in Serbia), its consolidated data, but also some additional companies in order to create a broader picture of the dairy industry in a particular country. Selected companies employ altogether approximately 8,300 workers - 3,400 in Croatia, 1,000 in Slovenia and 3,900 in Serbia, so they must be seen as significant for local economies. Representativeness of the sample confirms the fact that it covers over 90 % of total assets, added value, EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization) and net results of the companies that are categorized in the dairy industry of these countries.

For dairy industry representatives in Slovenia, the following companies have been analysed: Ljubljanske mlekarne, Mlekarna Celeia (Celje), Pomurske mlekarne (Murska Sobota) and Mlekarna Planika (Kobarid).

In Croatia, a few more companies were chosen, namely: Dukat Zagreb, Vindija Varaždin, Meggle - Hrvatska Osijek, Zdenka - mliječni proizvodi, KIM Mljekara Karlovac (as the biggest five), then MILS Mljekara Split, Ludbreška mljekara Antun Bohnec, Mini mljekara Veronika, Euro Milk Bedenica, Mljekara Staro Petrovo selo, Mljekara Latus Žmilj, Križevačka mljekara Zagreb and Mljekara Vodopijevec Sv. Ivan Zelina.

The research sample from Serbia consists of the following companies: Imlek, Mlekara Šabac, Somboled, Mlekara Subotica, Mlekoprodukt Zrenjanin (as the biggest five), then, Niška mlekara, Mlekara Mladost Kragujevac, Milkop Raška, Kuč-Company Kragujevac, Mlekara Granice Mladenovac, Kikindska industija mleka, Mlekara Lazar Blace, Valletta Kotraža, Mlekara Plana, Mlekara Loznica and Mlekara Leskovac.

It is important to take into consideration that for some of above listed companies, dairy business in not their *core business*. Therefore, they are not considered to be market leaders in their country, even if their financial data outperforms the data of the chosen market leader.

Business environment in Slovenia, Croatia and Serbia - country background

Selected countries have common heritage. They were all part of the same country - Yugoslavia - until 20 years ago. However, today there are some political differences: Slovenia is a member of the EU and Euro zone; Croatia has finished negotiation and will become EU member on July 1st 2013, whereas Serbia is currently a potential candidate country. Demographic data also show differences in the research sample. Taking into account the number of inhabitants, Serbia is the largest with approximately eight million, followed by Croatia with more than four million, and the smallest is Slovenia with close to two million inhabitants.

Economic data show the greatest differences among the selected countries. Inflation is an important part of the business environment, showing the rate at which the general level of prices for goods and services is rising, and, subsequently, purchasing power is falling. According to the EUROSTAT and National Bank of Serbia, the annual rate of inflation in Slovenia in 2008 was 5.5 %, compared to 3.3 % in the EU, 5.8 % in Croatia and 8.6 % in Serbia. In the following year, 2009, the annual rate of inflation in Slovenia was 0.9 %, compared to 0.3 % in the EU, 2.2% in Croatia and 6.6 % in Serbia.

Among economic indicators real GDP is the one that says the most about the health of the economy. The general consensus is that 2.5-3.5 % per year growth in real GDP is the range of best overall benefit; enough to provide for corporate profit and jobs growth yet moderate enough to not incite undue inflationary concerns. Since GDP growth remains the single most conclusive piece of information on the economy as a whole, a research provides an insight

into this category as well. In 2008, real GDP growth in the EU zone was 0.4 %, followed by negative -4.1 % in 2009. Due to the economic crisis, similar trend was also observed in Slovenia (3.7 % in 2008 and -8.1 % in 2009), Croatia (2.4 % in 2008 and -5.8 % in 2009) and Serbia (3.8 % in 2008 and -3.5 % in 2009).

Since GDP per capita is especially useful when comparing one country to another, showing the relative performance of the countries, this indicator was analyzed as well. A rise in per capita GDP signals growth in the economy and tends to translate as an increase in productivity. Considering GDP per capita, in 2009, as an indicator of standard of living in each country, the highest is in Slovenia 27,600 USD/pc, then in Croatia 17,500 USD/pc and the lowest is in Serbia 10,600 USD/pc.

Considering the measure of economic freedom, published by The Wall Street Journal and The Heritage Foundation, as measured by Index of Economic Freedom, Slovenia has been evaluated as Moderately free and Croatia and Serbia as Mostly unfree countries.

Dairy industry in Slovenia, Croatia and Serbia - industry background

The importance of dairy industry for national or regional economy is quite significant. However, for global economy this significance is limited by the fact that most milk products are consumed in the region where they are produced. The Opinion of the European Economic and Social Committee (2010) shows that around 8 % of global dairy production is traded on the world market. Small change in global production can therefore have a significant influence on the world market. (A 2 % gap between global production and global consumption is the equivalent to about 25 % of the world dairy market trade). Also it was proved (Kandžija and Donadić, 2009) that international agricultural trade is not a relevant factor of the global economic growth, but does to some extent, however, exert its impact.

Dairy industry in Slovenia

Ljubljanske mlekarne is by far the largest dairy company in Slovenia. Annually it processes about 200 million litres of milk, which represents about 50 % of total buy-out of milk in the country. Other important buyers are Mlekarne Celeia (about 25 %) and Pomurske mlekarne (about 16 %), followed by others (about 9 %). 2008 and 2009 were years of stagnation in milk production and dairy products (except cheese) in the whole EU. Within the researched sample of dairies in Slovenia, the market leader Ljubljanske mlekarne has a 50 % market share in Slovenia according to the three criteria: total revenue, operating result and net result. Taking the fact that it "only" employs 30 % of total workforce of Slovenian dairy industry into account, we can say that it is a dairy company with higher productivity than industry average. (Table 2). Today in the dairy farming association GIZ (Gospodarsko interesno združenje mlekarstva Slovenije) there are seven dairies affiliated: Ljubljanske mlekarne, Mlekarne Celeia, Celje, Pomurske mlekarne, Mlekarna Planika, Kobarid, Agroind Vipava, Kranj KGZ and Kele & Kele Logatec. Since the last three Cooperatives are engaged in other activities, they are not taken into consideration in this research.

According to Statistical Office of the Republic of Slovenia, the quantity of milk collected in Slovenia decreased by more than 1 % in 2009 in comparison with 2008. Almost 517,000 tonnes of milk were collected (cca 80 % of total production), of which almost 356,000 tonnes (or almost 2% less than in the previous year) by Slovenian dairies. Compared to the previous year, in 2009 production of all dairy products in Slovenian dairies has decreased. The production of drinking milk has decreased by more than 8 %. Despite that fact, milk production in Slovenia has been constantly exceeding domestic consumption. Self-sufficiency in recent years is around 114 % (Ministry of Agriculture, Forestry and Food of Slovenia). Number of dairy cows has been almost stable counting around 125,000. Dairy cow's yield in EU 25 is 6,000 thousand kg per head per year. In Slovenia it is slightly above the EU 25 average. During one decade (1997-2007) the milk yield in Slovenia has increased by more than 50 % (Milk and milk products in the European Union, 2006; Kuhar et al., 2009).

In Slovenia, sources of funding (cost of money) are the cheapest compared to those in Croatia and Serbia, mostly because of the higher rate of country risk in the latter. According to the data from the Annual Report of Ljubljanske mlekarne for the year 2008, interest rates on term loans ranged from 2.52 % to 5.68 %, while the average rate in 2009 dropped

to just 2.08 %. At the same time, Mlekarna Celeia paid EURIBOR (Euro Interbank Offer Rate) + 1.25 % p.a. to 1.7 % p.a.. The average weighted interest rate on short-term loans for Ljubljanske mlekarne in 2008 was 5.69 % and 4.73 % in the following year, compared to Mlekarna Celeia, which paid from 5.8 % p.a. to 6.75 % p.a. (2008) and EURIBOR + 1.10 % p.a. to 2 % p.a. in 2009.

Dairy industry in Croatia

In Croatia, there are forty dairies currently active. Dukat is the biggest buyer of milk in the country, with a market share of 42 % (of total 675 million kg in 2009 (Jakopović, 2010)). With 35 %, it holds a leading position in the market of dairy products in Croatia, and is quite strong in Bosnia-Herzegovina (26 %) and Serbia (10 %) as well. According to the criterion of total revenue, the Croatian market leader, Dukat, in total revenue of dairy industry has a share of 34 % in the dairy industry. Its share in the researched sample of the dairy companies in Croatia according to the operating result was 86 % in 2008 and 66 % in 2009. And according to the net result the Dukat's share within Croatian dairy industry was 101 % in 2008 and 71 % in 2009. Since it employs 40 % of total workforce of Croatian dairy industry, it can be concluded that its productivity is higher than industry average (Table 2).

In May 2007, the last major change in the ownership structure of this company took place, when a French company Lactalis bought Dukat from Luka Rajic. There are several dairy companies from all over former Yugoslavia in the assets of Dukat, e.g. Sirela from Bjelovar. In 2003, Dukat bought Somboled from Sombor in Serbia, and invested a total of 26 million EUR in its production and business development. Somboled is now the most modern dairy in entire southeast Europe. During 2007, Dukat also aquired dairies Inmer from Gradačac in Bosnia and the Ideal Bar from Bitola (Macedonia). Furthermore, in 2008, Dukat bought Karlovačka industrija mlijeka - KIM from the Croatian Privatization Fund and became its 91.46 % owner.

Vindija Varaždin and Meggle - Hrvatska Osijek are also among the biggest companies in the buy-out and processing of milk in Croatia. However, it has to be noted that Vindija also performs some other activities besides dairy industry (e.g. poultry, beverages etc.).

Besides the big five, there were also another eleven smaller dairy plants included into research. All these smaller dairies taken together reached total revenues in the amount of 20 million EUR in 2009, which is less than 10 % of the revenues of the market leader.

There have also been changes in the milk production. According to the Croatian Agricultural Agency, the number of dairy cows has been almost stable (ranging from 233,954 in the year 2003 to 226,000 in 2009). But average milk production per cow increased from 2,784 kg in 2003 to 3,873 kg. Moreover, in the same period, number of milk producers declined from 58,815 to 23,630. The most important is the fact that the share of higher quality milk (EU milk standards) increased form 22.7 % in 2003, to 79.9 % in 2009 (Jakopović, 2010). Self-sufficiency increased to 95 % in 2009 (Kovačić and Mesić, 2009).

Research that has been made considering farming in Croatia (Möllers et al., 2009) showed that, compared to Slovenian dairy farmers, Croatian milk producer use feed, especially feed concentrates, in an inefficient way. Research emphasises the importance of the improvements by investing in better breeds and cowsheds, and improvements needed for reaching EU hygiene standards in the coming years.

Dairy industry in Serbia

According to the Serbian Chamber of Economy survey (ICP, 2010), annual milk consumption in Serbia is merely 200 litres per person, compared to approximately 300 in Slovenia, 200 in Croatia, 900 in Denmark, 400 in Sweden, and more than 300 in Finland, Ireland and Holland. In the consumption structure, raw milk dominates with more than 50 %, and not dairy products. Consumption of such products as butter, cheese and yoghurt in the developed countries reaches up to 80 %.

In Serbia, there are more than 200 dairies, with average capacity usage up to 60 %. Big dairies own 90 % of total capacity, medium sized 6 %, whereas small dairy companies only have 4 % of total capacity (Vlada Republike Srbije, 2010). From more than 200 registered dairies, only 123 are active. That most probably means that others operate in grey economy - nonregistered analytical zone.

From annual milk production in the EU, 93 % is bought by dairy industry. In Serbia, this figure reaches 60 % (825 tonnes). Big dairies in Serbia buy out around 1.3 million litres daily, or 61 % from total buy out (Vlada Republike Srbije, 2010).

Market leader is the one having a dominant position. Furthermore, the owner of the market leader, Danube Foods Group, also owns Novosadska Mlekara (which was incorporated into Imlek) and Mlekara Subotica. Danube Foods Group is not only the biggest company but also the only one which buys out milk on the whole Serbian territory. Research made in 2008 (Petković, 2008) proved that Serbian market is a highly concentrated one. Herfindahl-Hirshman's index, which is a commonly accepted measure of market concentration (calculated by squaring the market share of each firm competing in a market, and then summing the resulting numbers), reaches a value more then 2,200. In January 2011, the Serbian Commission for Protection of Competition charged a 306 million RSD (Serbian Dinars) fine to Danube Foods Group (Imlek and Mlekara Subotica) for abusing the dominant market position. Other dairy companies are active mainly on local markets. According to the criteria operating result, net result and total revenue the Serbian market leader, Imlek, has share of up to 50 %. Because it employs a lower share of employees (35 %) within the dairy industry in Serbia, one can say that their productivity is higher (Table 2).

Despite the fact, that yield per milking cow in Serbia in period from 1976 to 2007 has increased for 86 % (Stevanović, 2009), it is still 18 % lower than the world average and 50 % lower than the European average.

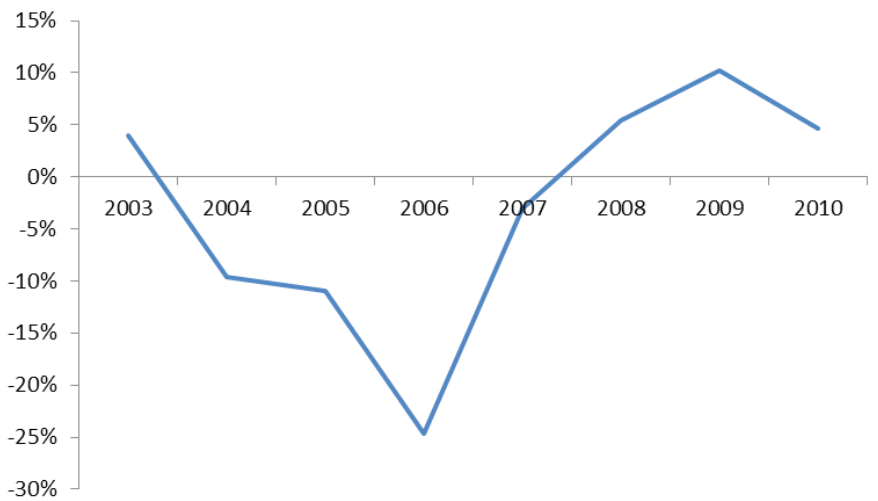
In Serbia, there are on average 0.34 head of cattle per hectare of arable land, compared to the 2.2 cows per hectare of arable land in the EU. In the creation of Serbian GDP, agriculture accounts livestock is 30.5 %, while in the developed countries this share reaches 60 %. Number of dairy cows in Serbia fell from 938,000 in the year 1989 to just 585,000 in 2009. To maintain its dairy sector and allow for the prosperity of dairy farmers, the output per unit of land and labour must considerably grow, not only in Serbia but in Croatia as well.

Results

Profitability and Indebtedness of Slovenian dairies

Analysis of dairy plants in Slovenia indicates that dairy industry in Slovenia is not an especially attractive activity.

Because they were not prepared well, in four years after joining EU (2004-2007), profitability, measured by Return on equity (ROE) - indicating how well equity capital was invested, of Slovenian dairy plants was very poor (Chart 1). The accumulated four year loss was 35 mil. EUR. At the same time, the number of employees dropped for 20 %.



Source: authors' calculations

Fig. 1. ROE of the Slovenian Dairy Industry

The situation has been compared with the situation when the Former Yugoslavia split. However, the difference this time was that the government did not mitigate the negative influence. (Annual report Ljubljanske mlekarne, 2006). After Slovenia joined the EU, Slovenian dairy plants were faced with the competition from EU dairies in milk collection (buy-out). Slovenian farmers made agreements with foreign dairies, mostly Italian. According to Slovenian Ministry of Agriculture, Forestry and Food, 13.5 thousand tonnes per month were sold to Italy in 2008 and 2009. Over the whole year 2008 (and 2009) just over 160 thousand tonnes of raw milk was sold to non-Slovenian dairies, which represented 31 % of the total quantity of milk collected from farmers in 2008 and 2009. This has strongly affected the profitability of Slovenian dairy industry.

In 2008, return on assets ROA, as a key ratio of profitability, indicating how efficiently a company's assets are employed, was 4.84, which decreased to only 0.84 in 2009. One can notice that the smallest dairy, which employs the least personnel (47 employees in 2009), achieves only satisfactory profitability and is in a position to use the positive effect of financial leverage. In 2009, a decline could be seen in the profitability of the companies in the sample. The only exception is Mlekarna Celeia which managed to escape the zone of loss. This in turn created an illusion that there was an improvement in profitability of other big companies in the sample, whereas really their profitability has remained unsatisfactory. A leading company suffered the largest decline in ROA in 2009. Its return on equity ROE was also relatively high (10.26 in 2009). This cannot be attributed to the effect of financial leverage, but primarily to the high financial revenues of the leading company (market leader). Among Slovenian dairies, only Mlekarna Celeia in 2008 had a loss of 0.6 million EUR.

A look at the indebtedness of all dairy companies in the research sample in Slovenia in the observed period shows that its degree is decreasing. Average financial leverage, measured by debt to capital ratio, improved from 1.66 in 2008 to 1.26 in 2009. This is important because a company with high debt-to-capital ratios, compared to a general or industry average may show weak financial strength because the cost of these debts may weigh on the company and increase its default risk. One sees that the market leader has the lowest debt ratio. While debt to capital ratio of the company leaders was 0.99 in 2009, the other companies' charge a minimum ratio was 1.81. It is noticed that the standard deviation was the lowest in a sample of Slovenian dairy plants. In 2009, the most strongly indebted dairy company's debt to capital ratio was 2.4, whereas its financial position can be estimated as "reasonable" given the high ROA.

Profitability and Indebtedness of Croatian dairies

At first glance, the average profitability of the economy (measured by return on assets) of big and medium-sized dairies in Croatia during the reporting period can be estimated as satisfactory (6.45 in 2008 and 7.31 in 2009). However, a deeper analysis suggests that the dairy industry in Croatia is not a profitable activity. Specifically, this is a highly profitable business only for the market leader company that achieved ROA of 15.43 in 2008 and 13.52 in 2009; and ROE of 21.76 in 2008 and 17.54 in 2009. Other companies' ROA was 1.42 in 2008 and 3.86 in 2009. One of the five big dairies operated with a loss in 2008, which led to low profitability of the whole observed sample. A tendency of a declining profitability of the leading company and rising profitability of other large dairies could be noticed, although the yield of the leader companies remain extremely high, while the yield of other big dairy companies is still relatively low. Analysis of the profitability of medium-sized dairy shows that dairy companies, included in the research, concluded the years 2008 and 2009 with a loss. A tendency noticed can be to reduce the loss, but the situation is by no means encouraging because the dairy industry in the observed sample achieved not only a negative net financial result, but also negative operating result in 2009. It is the result of increasing participation obligations in 2009, probably as a consequence of the loss in 2008.

In the observed period, the profitability of own capital exceeded the profitability of the economy as a whole. But, similar to the situation in Serbia, in Croatia a higher ROE cannot be attributed to the effects of financial leverage, because some dairies enjoyed significant financial income which led to the fact that net income was higher than operating income.

In Croatia, the three companies in the sample made a loss in 2008 (KIM dairy concluded the year with a loss of 3 mln EUR, Mljekara Staro Petrovo

Selo 1.5 mln EUR and MILS Split 0.5 mln EUR.). Two out of the mentioned three also concluded the year 2009 with a loss (MILS Split - 1.2 mln EUR and Mljekara Staro Petrovo selo - 1 mln EUR). Market leader Dukat has the best performance in sense of ROE and ROA indicator. In 2008, the whole amount of net result - profit, of the observed sample, was contributed by the market leader.

In the observed period, the level of indebtedness of large dairy producers in Croatia decreased. From 1.55 in 2008 their debt to capital ratio improved to 1.30 in 2009. Market leader had a lower share of debt in equity (0.99) than other large dairy companies (2.07) in 2008. In 2009, a tendency was seen to reduce the level of indebtedness of the market leader and other big dairies. Medium-sized dairy companies have far less favourable capital structure then the big dairies and tend to further increase the level of indebtedness (1.67 in 2008 and 2.7 in 2009). Large standard deviation indicates that unfavourable capital structure of companies in the sample is probably a consequence of inadequate capital structure and loss of some companies in the sample.

Profitability and Indebtedness of Serbian dairies

Profitability analysis of big and medium-sized dairies indicates that the dairy industry in Serbia is a highly profitable activity. Comparative analysis of the companies from dairy industry and companies that compose BELEX15 (index of most liquid shares on Belgrade Stock Exchange) and BELEXline (benchmark index on Belgrade Stock Exchange) index indicates that the dairy industry is in better shape than the Serbian economy in general. Investments to total asset ratio in dairy industry in 2008 and 2009 were higher then the same indicator for companies in BELEX15 (Pavlović et al., 2011). Big dairies achieved high levels of profitability, measured by the return on assets ratio in 2008 already (9.70 %), which even increased in 2009 (to 11.33 %) despite the crisis in Serbia, which further escalated in 2009. If market leader is excluded from the analysis, the profitability of the economy in 2009 is even more impressive with 11.53 %. It is interesting that in 2009, despite growing economic profitability (ROA), ROE indicator declined - from 12.36 to 9.58. One sees that the market leader was less profitable than the average return of other big dairies. ROE of other dairy companies in the sample was 16.07 in 2008 and 10 in 2009. Market leader's ROE amounted to 9.99 in 2008 and 9.29 in 2009. ROA of other dairy plants in the sample was 11.10 in 2008 and 11.53 in 2009, while the ROA of the leaders was 8.67 in 2008 and 11.19 in 2009. From all the 16 observed dairy plants, only one dairy plant made a loss in 2008.

Surprisingly, the profitability of the medium-sized dairy industry was significantly higher than the one achieved by big dairies. Furthermore, while big dairies, including the market leader, recorded a decrease of ROE in 2009, medium sized dairy companies' ROE increased to 6.72, and achieved an average ROE of 18.41 in 2009. A correlation between ROA and the number of employees can also be noticed. In 2008 and 2009, four dairies with the highest ROA employed up to 125 employees each. As a consequence of high profitability of dairy industry in Serbia, the dairies have also invested significantly. In the year 2009, 25 dairy plants invested a total of 2.02 billion RSD, which is just slightly less than in 2008 (2.07 billion RSD). This is in sharp contrast with the amounts invested by the companies included in BELEX15 index; these have namely invested 3.15 billion RSD in 2008 and 2.30 billion RSD the following year.

Table 1. Business Efficiency (Operating income / operating expenses)

	Industry		Market leader		Industry without Market leader		Market leader - consolidated data	
	2008	2009	2008	2009	2008	2009	2008	2009
Slovenia	1.030	1.027	1.041	1.031	1.013	1.021	1.026	1.039
Croatia	1.046	1.057	1.122	1.118	1.010	1.028	1.107	1.109
CRO/SLO	2 %	3 %	7 %	8 %	0 %	1 %	7 %	6 %
Serbia	1.086	1.111	1.081	1.125	1.091	1.099	1.042	1.103
SRB/CRO	4 %	5 %	-4 %	1 %	7 %	6 %	-6 %	-1 %
SRB/SLO	5 %	8 %	4 %	9 %	8 %	8 %	2 %	6 %

Table 2. Dairy industry summary data

		Total revenue		Operating result		Net result		Number of employees		Total debt / Capital		ROE		ROA	
		2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009
Serbia	Market leader - consolidated data	248,051,568 €	199,570,550 €	9,289,318 €	20,259,193 €	3,538,977 €	7,543,480 €	1,561	1,469	0.80	0.82	3.37%	7.68%	4.90%	9.99%
	Market leader	219,510,932 €	171,345,180 €	15,110,023 €	20,758,045 €	10,237,375 €	8,678,150 €	1,330	1,246	0.70	0.75	9.99%	9.29%	8.67%	11.19%
	Industry	**437,082,716 €**	**366,858,440 €**	**32,421,159 €**	**40,267,670 €**	**22,434,909 €**	**18,151,260 €**	**3,908**	**3,896**	**0.88**	**0.81**	**12.30%**	**10.41%**	**9.45%**	**11.21%**
	Standard deviation	51,756,907	40,309,158	3,741,594	5,039,682	2,786,018	2,135,123	304	284	2.29	1.48	0.18	0.15	0.08	0.09
	Average	27,317,670	22,928,653	2,026,322	2,516,729	1,402,182	1,134,454	244	244	2.13	1.47	12%	16%	9%	12%
	Sample	16	16	16	16	16	16	16	16	16	16	16	16	16	16
	Maximum	219,510,932	171,345,180	15,110,023	20,758,045	10,237,375	8,678,150	1,330	1,246	6.90	5.34	0.62	0.55	0.27	0.23
	Minimum	2,407,955	1,928,170	-91,080	-812,443	-113,500	3,900	58	56	0.16	0.13	-0.12	0.00	-0.01	-0.14
	Mediana	7,665,136	7,867,935	470,000	701,460	116,705	346,085	122	132	0.92	0.76	0.04	0.14	0.09	0.13
	Market leader share	50 %	47 %	47 %	52 %	46 %	48 %	34 %	32 %						
Croatia	Market leader - consolidated data	349,420,690 €	344,386,207 €	33,779,310 €	33,820,690 €	23,875,862 €	25,751,724 €			1.12	0.77	23.37%	20.37%	15.59%	15.09%
	Market leader	254,346,050 €	245,679,599 €	27,732,932 €	25,856,510 €	19,643,336 €	19,193,968 €	1,379	1,381	0.99	0.75	21.76%	17.54%	15.43%	13.52%
	Industry	**741,795,406 €**	**730,253,940 €**	**32,222,805 €**	**39,090,351 €**	**19,428,259 €**	**26,951,588 €**	**3,410**	**3,371**	**1.55**	**1.34**	**9.93%**	**11.79%**	**6.45%**	**7.31%**
	Standard deviation	118,558,978	115,918,110	7,564,907	7,166,578	5,422,426	5,315,836	419	420	13.85	4.01	4.08	0.40	0.11	0.09
	Average	57,061,185	56,173,380	2,481,754	3,006,950	1,494,481	2,073,199	262	259	7.82	2.39	-107%	20%	1%	3%
	Sample	13	13	13	13	13	13	13	13	12	13	12	13	13	13
	Maximum	397,915,090	391,321,726	27,732,932	25,856,510	19,643,336	19,193,968	1,379	1,381	51.58	12.91	0.72	1.10	0.15	0.14
	Minimum	221,186	404,943	-2,307,980	-1,110,250	-3,102,895	-1,241,228	2	8	0.17	-5.77	-14.57	-0.62	-0.24	-0.24
	Mediana	4,382,726	4,498,445	30,978	82,197	7,743	60,196	63	62	2.23	1.64	0.08	0.17	0.03	0.04
	Market leader share	34 %	34 %	86 %	66 %	101 %	71 %	40 %	41 %						
Slovenia	Market leader - consolidated data	186,461,551 €	160,638,061 €	4,681,423 €	5,867,383 €	4,273,167 €	7,187,462 €			1.38	0.99	8.94%	13.18%	4.12%	5.42%
	Market leader	172,877,362 €	148,503,775 €	6,641,626 €	4,375,835 €	3,380,367 €	5,782,231 €	628	618	1.30	0.99	7.24%	11.12%	6.17%	4.23%
	Industry	**284,187,644 €**	**247,360,974 €**	**8,096,165 €**	**6,365,592 €**	**3,439,677 €**	**7,211,874 €**	**1,044**	**1,031**	**1.66**	**1.26**	**5.46%**	**10.26%**	**4.84%**	**4.00%**
	Standard deviation	61,707,708	52,474,421	2,731,539	1,646,472	1,509,397	2,328,246	219	215	0.77	0.58	0.19	0.10	0.04	0.03
	Average	71,046,911	61,840,244	2,024,041	1,591,398	859,919	1,802,969	261	258	2.51	1.90	11%	13%	5%	5%
	Sample	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Maximum	172,877,362	148,503,775	6,641,626	4,375,835	3,380,367	5,782,231	628	618	3.38	2.40	0.43	0.28	0.11	0.10
	Minimum	7,014,670	7,521,864	-213,848	248,873	-621,892	126,916	50	47	1.30	0.99	-0.09	0.02	-0.01	0.02
	Mediana	52,147,806	45,667,668	834,194	870,442	340,601	651,364	183	183	2.67	2.10	0.06	0.11	0.05	0.04
	Market leader share	61 %	60 %	82 %	69 %	98 %	80 %	60 %	60 %						

Table 3. Dairy industry summary data divided by company size - big dairies

		Total revenue		Operating result		Net result		Number of employees		Total debt/ Capital		ROE		ROA	
		2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009
Serbia	Market leader - consolidated data	248,051,568 €	199,570,550 €	9,289,318 €	20,259,193 €	3,538,977 €	7,543,480 €	1,561	1,469	0.80	0.82	3.37%	7.68%	4.90%	9.99%
	Market leader	219,510,932 €	171,345,180 €	15,110,023 €	20,758,045 €	10,237,375 €	8,678,150 €	1,330	1,246	0.70	0.75	9.99%	9.29%	8.67%	11.19%
	Industry (bigest five)	**369,582,295 €**	**300,135,850 €**	**29,360,886 €**	**35,663,727 €**	**20,712,705 €**	**15,138,070 €**	**2,778**	**2,712**	**0.81**	**0.75**	**12.36%**	**9.58%**	**9.70%**	**11.33%**
	Standard deviation	73,501,230	56,425,179	4,799,942	7,058,300	3,704,193	3,042,121	391	356	0.95	0.81	0.09	0.10	0.01	0.03
	Average	73,916,459	60,027,170	5,872,177	7,132,745	4,142,541	3,027,614	556	542	1.10	0.90	14%	11%	10%	11%
	Sample	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Maximum	219,510,932	171,345,180	15,110,023	20,758,045	10,237,375	8,678,150	1,330	1,246	2.97	2.50	0.27	0.30	0.13	0.15
	Minimum	18,411,648	15,290,100	1,452,716	1,095,841	600,125	227,560	307	315	0.40	0.35	0.04	0.02	0.09	0.07
	Mediana	44,248,205	35,258,700	4,141,102	5,503,932	2,897,455	2,608,400	358	360	0.70	0.50	0.10	0.09	0.10	0.11
	Market leader share	59 %	57 %	51 %	58 %	49 %	57 %	48 %	46 %						
Croatia	Market leader - consolidated data	349,420,690 €	344,386,207 €	33,779,310 €	33,820,690 €	23,875,862 €	25,751,724 €			1.12	0.77	23.37%	20.37%	15.59%	15.09%
	Market leader	254,346,050 €	245,679,599 €	27,732,932 €	25,856,510 €	19,643,336 €	19,193,968 €	1,379	1,381	0.99	0.75	21.76%	17.54%	15.43%	13.52%
	Industry (bigest five)	**720,742,685 €**	**709,934,107 €**	**33,336,240 €**	**39,979,973 €**	**21,199,180 €**	**29,006,917 €**	**3,094**	**3,066**	**1.55**	**1.30**	**11.34%**	**13.04%**	**7.00%**	**7.82%**
	Standard deviation	155,612,922	151,536,182	10,956,634	9,636,253	7,987,129	7,102,520	499	503	0.91	0.60	0.08	0.05	0.13	0.04
	Average	144,148,537	141,986,821	6,667,248	7,995,995	4,239,836	5,801,383	619	613	1.51	1.17	9%	13%	0%	8%
	Sample	5	5	5	5	5	5	5	5	4	5	4	5	5	5
	Maximum	397,915,090	391,321,726	27,732,932	25,856,510	19,643,336	19,193,968	1,379	1,381	2.60	2.09	0.22	0.18	0.15	0.14
	Minimum	12,629,724	16,148,677	-2,307,980	738,500	-3,102,895	594,944	182	161	0.31	0.50	0.00	0.05	-0.24	0.04
	Mediana	38,493,691	39,643,796	576,348	1,431,146	1,199,457	1,168,799	249	241	1.57	0.87	0.08	0.14	0.03	0.07
	Market leader share	35 %	35 %	83 %	65 %	93 %	66 %	45 %	45 %						
Slovenia	Market leader - consolidated data	186,461,551 €	160,638,061 €	4,681,423 €	5,867,383 €	4,273,167 €	7,187,462 €			1.38	0.99	8.94%	13.18%	4.12%	5.42%
	Market leader	172,877,362 €	148,503,775 €	6,641,626 €	4,375,835 €	3,380,367 €	5,782,231 €	628	618	1.30	0.99	7.24%	11.12%	6.17%	4.23%
	Industry (bigest four)	**284,187,644 €**	**247,360,974 €**	**8,096,165 €**	**6,365,592 €**	**3,439,677 €**	**7,211,874 €**	**1,044**	**1,031**	**1.66**	**1.26**	**5.46%**	**10.26%**	**4.84%**	**4.00%**
	Standard deviation	61,707,708	52,474,421	2,731,539	1,646,472	1,509,397	2,328,246	219	215	0.77	0.58	0.19	0.10	0.04	0.03
	Average	71,046,911	61,840,244	2,024,041	1,591,398	859,919	1,802,969	261	258	2.51	1.90	11%	13%	5%	5%
	Sample	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Maximum	172,877,362	148,503,775	6,641,626	4,375,835	3,380,367	5,782,231	628	618	3.38	2.40	0.43	0.28	0.11	0.10
	Minimum	7,014,670	7,521,864	-213,848	248,873	-621,892	126,916	50	47	1.30	0.99	-0.09	0.02	-0.01	0.02
	Mediana	52,147,806	45,667,668	834,194	870,442	340,601	651,364	183	183	2.67	2.10	0.06	0.11	0.05	0.04
	Market leader share	61 %	60 %	82 %	69 %	98 %	80 %	60 %	60 %						

In order to really comprehend the relative size of this in the dairy industry, it has to be pointed out that the value of total assets in 2009 was 31.59 billion RSD, while the value of the total assets of companies included in BELEX15 totalled to 100.16 billion RSD. High investments are affected to a greater extent on the deformation of ROA in the year when the investments are done, or will result in a reduced comparability of ROA. Since there was no capital increase and investments were mostly financed with debt, there has been a significant increase in property values, while the effects of investment were not shown (fully) in the year of its realization.

The relationship between ROA and ROE cannot be significantly attributed to the level of indebtedness, the average interest rate, or to the results of investments. Some small number of dairy plants realized higher net income than operating income, primarily as a result of significant financial income. In Serbia, in the observed period the level of indebtedness of big dairies decreased. Their debt to capital ratio improved from 0.81 in 2008 to 0.75 in 2009. Generally speaking, one can notice that the biggest and smallest companies from the sample (with the exception of Šabačke mlekare and Mlekara Valetta) have the lowest share of debt financing. The biggest dairy companies among those categorized as medium-sized companies are also indebted companies. They create an illusion that medium-sized dairies have greater participation of debt then big dairies (1.73 in 2008 and 1.38 in 2009). In 2009 a general downward trend in the level of indebtedness was followed by reduced standard deviation of indebtedness.

Business efficiency measured by operating revenue to operating expenses ratio (Table 1) shows that Serbian dairy industry operates with a better mix of lower cost and higher prices, compared to the Croatian and Slovenian ones. It has the highest values of operating income to operating expenses ratio. This was also confirmed in Serbian National Argicultural Programme 2009-2011 (Nacionalni program poljoprivrede Srbije 2009-2011.) by the fact that the prices of milk buy-out in Serbia are the lowest in the whole region, and retail prices are the highest in the region. In 2008, Serbian dairies outperformed Croatian for 4 % and Slovenian for 5 %. The following year, this difference was even higher; Serbian dairies namely outperformed Croatian for 5 % and Slovenian for 8 %. It is interesting that Serbian market leader outperformed the Slovenian one in that same period (4 % and 9 % in 2008 and 2009), however it did not beat the Croatian market leader (-4 % and 1 % respectively). Business efficiency of dairy industry without market leader in Slovenia and Croatia was almost the same in both tested years. However, both were outperformed by Serbian dairy industry without market leader for 8 % in 2008 and 2009 as well. According to the consolidated financial data, Croatian Market leader outperformed both Serbian and Slovenian Market leader.

Results of the analysis should be taken with caution, because the analysis is based on financial statements, and financial statements often do not provide a fair and true image due to the potential accounting manipulations. The evidence shows that accounting manipulations are very common praxis in Croatia, especially in area of depreciation policy, write-off of accounts receivable, asset impairments and long-term investments in financial instruments (Aljinović Barać and Klepo, 2006). Surveys in Serbia and Slovenia, according to our knowledge, were not done. But it is a reasonable assumption that the situation does not differ significantly in comparison with the Croatia.

Creative accounting practice has shaken confidence in the financial reports in the most developed country in the world-USA, which has resulted in change of regulations in the U.S. and the EU. "Creative accounting; is at the root of a number of accounting scandals, and many proposals for accounting reform - usually centring on an updated analysis of capital and factors of production that would correctly reflect how value is added. Newspaper and television journalists have hypothesized that the stock market downturn of 2002 was precipitated by reports of accounting irregularities at Enron, Worldcom and other firms in the United States" (Ghosh, 2010). These scandals, which cost investors billions of dollars when the share prices of affected companies collapsed, shook public confidence in the nation's securities markets. The Sarbanes&Oxley Act of 2002 was a reaction to a number of major corporate and accounting scandals including those affecting Enron, Tyco International, Adelphia, Peregrine Systems and WorldCom.

Table 4. Dairy industry summary data divided by company size - medium sized dairies

		Total revenue		Operating result		Net result		Number of employees		Total debt / Capital		ROE		ROA	
		2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009
Serbia	Industry (medium sized)	**67,500,420 €**	**66,722,590 €**	**3,060,273 €**	**4,603,943 €**	**1,722,205 €**	**3,013,190 €**	**1,130**	**1,184**	**1.73**	**1.38**	**11.69%**	**18.41%**	**7.61%**	**10.40%**
	Standard deviation	2,255,113	2,500,776	334,019	458,446	296,958	233,870	28	28	2.55	1.63	0.21	0.16	0.10	0.10
	Average	6,136,402	6,065,690	278,207	418,540	156,564	273,926	103	108	2.60	1.73	11%	18%	9%	13%
	Sample	11	11	11	11	11	11	11	11	11	11	11	11	11	11
	Maximum	9,324,375	9,816,670	900,841	849,670	848,761	750,860	147	147	6.90	5.34	0.62	0.55	0.27	0.23
	Minimum	2,407,955	1,928,170	-91,080	-812,443	-113,500	3,900	58	56	0.16	0.13	-0.12	0.00	-0.01	-0.14
	Mediana	7,164,511	6,779,620	159,091	577,580	19,330	312,140	101	104	1.71	1.39	0.03	0.20	0.05	0.14
Croatia	Industry (medium sized)	**21,052,720 €**	**20,319,834 €**	**-1,073,435 €**	**-889,622 €**	**-1,770,921 €**	**-2,055,329 €**	**316**	**305**	**1.67**	**2.70**	**-20.10%**	**-32.68%**	**-4.57%**	**-3.82%**
	Standard deviation	2,013,040	2,029,993	416,195	379,995	503,260	523,714	31	28	16.05	4.93	4.89	0.50	0.10	0.09
	Average	2,631,590	2,539,979	-134,175	-111,203	-221,365	-256,916	40	38	10.98	3.16	-165%	25%	1%	-1%
	Sample	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	Maximum	6,242,334	6,443,774	73,943	115,226	111,927	124,727	98	88	51.58	12.91	0.72	1.10	0.15	0.07
	Minimum	221,186	404,943	-1,211,395	-1,110,250	-1,459,638	-1,241,228	2	8	0.17	-5.77	-14.57	-0.62	-0.23	-0.24
	Mediana	2,579,113	1,770,534	12,071	13,913	7,341	13,124	37	32	3.71	3.36	0.14	0.19	0.03	0.02

Source: authors' calculations

The Perspective of the Dairy Industry in Slovenia, Croatia and Serbia

The perspective of the dairy industry in Slovenia, Croatia and Serbia is connected to their stage in the path to European integration.

The EU dairy policy, with which the EU member states must comply, dates from the 1960s. It helps to create stable market conditions for EU dairy producers and processors. The policy has been continuously updated and is increasingly targeted at encouraging producers to be more market-oriented. It operates in three areas: internal market support, using trade instruments and making direct payments to farmers (Milk and milk products in the European Union), all of which have an influence on the dairy industry.

The EU dairy regime has undergone many changes since its beginning; most significant of these were introduction of milk quotas in 1984 and the 2003 and Common Agricultural Policy (CAP) reform. The dairy sector is now set to become more market-oriented. In practical terms, support prices are being reduced, market intervention is scaled back, and export subsidies are going down. These policies influence the business environment the dairy companies operate in.

The milk quota regime was established in order to bring stability to the EU dairy sector and the regime has been extended to 31 March 2015. Total milk quotas for EU-25 was 137,340,928 tonnes, for 10 new Member States 18,327,895 tonnes (Milk and milk products in the European Union).

However, as research show (Grbić et al., 2010), quota system has proven to be inefficient in terms of production costs reduction. The increase of production costs has been manifested in stagnation of exports and higher prices of milk and dairy products. There are indications that the quota system will be abandoned in 2015. The system is strongly supported by EDA (The European Dairy Association), EMB (European Milk Board), CPE (European peasant coordination) and EFS (The European Platform on Food Soverignity). On the other hand, it is opposed by COCERAL (Comité du Commerce des céréales, aliments du bétail, oléagineux, huile d'olive, huiles et graisses et agrofournitures).

According to the Eurostat data, in 2009 as in 2008 six EU states (Germany, France, United Kingdom, Netherlands, Italy and Poland) together contributed more than 70 % of the cows' milk collected in the EU. Milk collection and processing activities are more or less concentrated in the hands of a few large enterprises. This is evident in the most specialised activities like milk powder production requiring heavy investment. As the first among the selected countries, Slovenia finished negotiations and entered the EU in 2004. By joining the EU, Croatia and Serbia will take over entirely common EU agricultural policy (CAP). Regarding dairy industry the important chapters in negotiations are Chapter 11 - Agriculture and rural development and Chapter 12 - Food Safety, Veterinary & phytosanitary Policy. The agricultural sector and food processing chain are core issues within the negotiation process. Taking into account the Slovenian experience, it is to be expected that accession to the EU will also heavily influence the operating conditions and the profitability of the Serbian and Croatian dairy industry.

Croatia has finished the negotiations with the EU for the accession. It is estimated that Croatia will enter the EU on July 1st 2013. Croatia started this long process in 2001 with signing the Stabilization and Association Agreement with the EU and the EU member states. Croatia opened Chapter 11 and Chapter 12 on October 2nd 2009. Negotiations regarding Chapter 11 were closed on 19 April 2011 and for Chapter 12 on 27 July 2010. Among others, milk quota for Croatia has been defined at 750,000 tonnes and the level of state aid was agreed. Quota system will definitely have some influence on Croatian dairy industry due to its near entry into the EU.

On 29th April 2008, the EU and Serbia signed the Stabilisation and Association Agreement. EU member states decide to start the ratification process of the SAA on 14th June 2010. Becoming the EU candidate country, Serbia will start the same process as Slovenia finished and Croatia is finishing and will be faced with similar challenges. That means to present its implementation plan for the establishment of an Integrated Administration and Control System (IACS), Land Parcel identification system (LPIS), and the setting up of a Paying Agency; present an implementation plan in order to be fully prepared for the application of the single Common Market Regulation in the areas of Sugar, Fruits & Vegetables and Milk, and demonstrate sufficient progress towards the setting up of the Single Common Market Organisation. All that is needed in order to fully implement the CAP by the day of accession. It is possible that the quota system will be abandoned by the time Serbia become the member of the EU. However, it can be expected that some other regulations in this field will be implemented, because CAP is one of the main EU issues.

Beside the EU legislation, there is the possibility that dairy companies in Croatia and Serbia will be faced with the competition from EU dairies in milk collection (buy-out) after joining EU as Slovenian dairy companies have been.

If the same will also happen in Croatia and Serbia, depends on the average size of milk farms and on price differences of raw milk. Small farms are not interesting to the foreign dairies as suppliers. For example, in Serbia only 9 % of the total milk production was produced on big farms (Popović and Knežević, 2010). In Croatia 43.36 % of the total milk production was produced on farms capacity more than 100,000 kg in 2009 (Jakopović, 2010). The differences in milk prices in mentioned countries and the price level convergence process within the European economic area are also significant. In EU it is 0.34 €/L; in Croatia 0.43 €/L and in Serbia 0.23 €/L. Milk production in Serbia receives state aid in amount of 0,014 €, and in Croatia in the amount of 0.14 €, which is 10 times more than the Serbian counterparts. (Budimović and Gagić, 2010).

With the EU accession, established relations between farmers and the dairy industry are changing. Depending on the current relations, pace and intensity of this change will depend also on the effects of

the EU accession for the dairy industry. In any case, it can be expected that the move closer to the EU will increase the formal milk market, and that will be advance for milk production on farms. The only question that remains is the intensity of the advancement. The lower level of the milk production means that lower or less negative effects on dairy industry in the short term can be expected. More favourable conditions for development of the farms (and this also depends on the active state policies such as subsidies and soft loans) will quickly find dairy industry at a disadvantage. Since the individual producers of the milk are most developed in Slovenia, or in other words, they are in the most favourable position (and the most supported by the state), the negative effects have been seen there immediately. In Serbia, probably the worst conditions and negative effects on dairy industry will not occur quickly, but they should still be expected.

However, the adoption of EU standards will not be sufficient to maintain and increase competitiveness and profitability. It is important to follow the world trends. The leading world dairy companies (The Top 10 Dairy Companies) are focussing innovation on organic and functional dairy. Other latest developments have included products that are low fat, contain natural ingredients and have no preservatives.

It can be assumed that the number of dairies will decrease, especially in Serbia, due to inability to conform to the EU standards (Budimović and Gagić, 2010) that will increase the market share for big and small dairies. In Croatia, some of the small dairies are already bankrupt (E.P. Mljekara d.o.o, Istarska mljekara, Mljekara Staro Petrovo Selo...). Support of the government for the transition period and investment process to adopt EU standards is very important.

Conclusion

Looking at the data in the Tables 2, 3 and 4, especially the profitability and market share as the most important indicators of competitiveness, it can be concluded that the leading companies have a dominant influence in all three compared ex Yugoslavian countries. Moreover, consolidated data suggest that market leaders are regional players that greatly exceed national boundaries.

It has been shown that the dairy industry as a whole (large and medium companies together) is a highly profitable activity only in Serbia, whereas in Croatia, only a market leader achieved a satisfactory rate of profitability (ROA). In Serbia, the market leader recorded a lower profit rate than the average of other companies included in the research. On the contrary, in Slovenia the highest ROA was achieved by the smallest companies, while most other companies reached a maximum ROA of 4 in 2009. Excluding the market leader, it is evident that dairy industry in Croatia and Slovenia is not nearly as profitable as in Serbia. In addition, the average profitability of the economy (measured by ROA) of dairy industry declined in 2009 in both Croatia and Slovenia, while in Serbia has increased.

The data from the consolidated financial statements of the market leaders also show an interesting picture. While in Slovenia and Croatia the leading company shows a higher level of ROA (or similar in 2008) according to the consolidated data than based on individual financial statements, in Serbia the story is just the opposite: ROA of the market leader based on the consolidated data was lower than based on nonconsolidated data. Moreover, it was also lower than average of the entire dairy industry. Despite comparatively worse macroeconomic conditions of business environment in Serbia (with higher inflation rate, relatively small GDP growth and low level of economic freedom) than in Croatia and Slovenia, the dairy industry in Serbia is more profitable.

This profitability of the dairy industry is a consequence of natural monopoly arising from the fact that the most dairy products are consumed in the region where they are produced. In Serbia market leader is in real monopoly position. According to the common sense logic, other dairies should be "strangled" by the monopoly of the market leader and not profitable. However, other diaries in Serbia are more profitable than the market leader. The reason behind their profitability is in high prices of dairy products (in some cases very close to the EU level), lower production costs (Table 1) (e.i. high margins) and lack of EU legislative regulating competition and free market.

Nevertheless, the Serbian and Croatian dairy industry will be challenged with the country's approach towards the EU, with EU standards applicable as well as larger EU-wide "national" market. EU

accession, but also WTO regulations, prevents the country to ban imports and stimulate exports, and stimulate reduction tariff protection. The Slovenian dairy industry, on the other hand, has already gone through this process.

Therefore, for the perspective of the dairy industry, investments, restructuring process and following the world trends are the most important factors to maintain and increase competitiveness and profitability, facing the EU membership status. These factors will strongly affect profitability of Serbian and Croatian dairy industry, as it did it in Slovenia.

The above mentioned threat could be one of the reasons that have been recognized by the Danube Foods Group as well. They have announced that they are selling their investment in Serbia in 2012.

Profitabilnost mljekarske industrije u Sloveniji, Hrvatskoj i Srbiji

Sažetak

Status u postupku pridruživanja EU snažno utječe na profitabilnost mljekarske industrije. S jedne se strane približavanjem EU mijenjaju i uspostavljeni odnosi između farmera i mljekarske industrije, dok se s druge strane i sama mljekarska industrija izlaže inozemnoj konkurenciji. O trenutnim odnosima tempa i intenziteta promjena ovisit će i efekti pristupanja Europskoj uniji na mljekarsku industriju. Mljekarska industrija u Srbiji suočit će se s istim izazovima s kojima se slovenska mljekarska industrija suočila prilikom ulaska Slovenije u EU, dok se hrvatska suočava već sada. Mljekarska industrija u Srbiji profitabilnija je negoli ona u Hrvatskoj i Sloveniji, unatoč komparativno slabijem poslovnom okruženju. Profitabilnost mljekarske industrije u Srbiji posljedica je visokih cijena, niskih proizvodnih troškova i nedostatka EU zakonodavstva glede konkurencije i slobodnog tržišta. U sve tri promatrane države dominantan je utjecaj tržišnog lidera. Konsolidirani podaci ukazuju da su tržišni lideri regionalni igrači čiji značaj nadilazi nacionalne okvire.

Ključne riječi: mljekarska industrija, analiza profitabilnosti, komparativna analiza, pridruživanje EU

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