AgriPolicy
Enlargement Network for Agripolicy Analysis

AN ASSESSMENT OF THE COMPETITIVENESS OF THE DAIRY FOOD CHAIN IN LATVIA

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The project aims to establish a network of experts involved in agricultural policy analysis and rural development in the 12 New Member States, in 8 Candidate and Potential Candidate Countries. More information on the project can be found at **www.agripolicy.net** .

CONTENT

Introduction

The aim of the report is to assess the overall competitiveness of the Latvian dairy sector and to formulate the main constraints and prospects for the competitive position. The assessment is based upon description and evaluation of the state and the performance of the dairy sector. The report considers competitiveness at the primary, processing and also retail level. The methodology used in the study is based upon internationally accepted definitions, which regard competitiveness as the ability of individual industries to "profitably maintain or increase market share" in either domestic or international export markets. Structure, conduct, and performance concepts are combined with SWOT analysis in assessing the competitiveness of the Latvian dairy chain.

The structure of the report consists of four parts. In section 1, an overview of the state and the current developments of structure, production, trade and consumption patterns of the dairy sector are presented. Section 2 focuses on the main reasons affecting efficiency and competitiveness of the Latvian dairy sector. On the basis of the analysis of the present situation in the dairy sector and the evaluation of the factors influencing efficiency and competitiveness of the dairy chain, SWOT analysis is elaborated in section 3. The report is concluded with the suggestions for policy recommendations in section 4.

1 Overview of the sector

1.1 Sector definition: sector components and importance

Dairy sector is one of the basic agri-food sectors in Latvia with long traditions both in dairy farming and milk processing.

In Latvia, milk is produced by about 40 thsd. farms, which are entirely private-owned. Only a small part of milk producing farms are enterprises, the majority of farms are family farms. The sector is dominated by small and medium farms.

A comparatively large number of enterprises operate at the processing level (52 companies in 2006), but the industry is dominated by 5 large players, which concentrate about 70% of total milk intake.

The main distribution channels of dairy products include shops, wholesalers and the distribution network of retail chains. About ¼ of the dairy production is sold to foreign customers, which mostly include wholesalers and industrial consumers. The total number of food and general stores was 4418 in 2007 (CSB of Latvia, 2008). Retail sales are dominated by 2 large retail chains.

1.1.1 Production and value added

In 2007, agriculture and hunting accounted for 2.1% of the total GDP. Milk production traditionally has been one of the main agricultural sectors in Latvia with increasing importance in recent years. In 2006, milk production accounted for almost ¼ of total agricultural output. Due to a record harvest and an unprecedented rise in prices, the production value of cereals has exceeded the value of milk, decreasing its share to 21.4% and overtaking the first position in 2007. The share of milk in final agricultural production in Latvia is higher than in the EU on average, where it equalled to 13.8% in 2006 (Eurostat, EAA, 2008).

Table 1-1. Milk production and its share in total Gross Agricultural Output in Latvia (1997-2007)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total GAO (Mio EUR)	588.7	543.6	426.7	527.7	599.2	614.4	592.2	677.0	747.0	842.8	1037.0
Gross milk production value at the basic prices	129.4	128.2	96.4	125.4	139.3	143.0	121.1	154.6	181.4	206.1	221.6
Share of milk production in GAO (%)	**22.0%**	**23.6%**	**22.6%**	**23.8%**	**23.2%**	**23.3%**	**20.4%**	**22.8%**	**24.3%**	**24.5%**	**21.4%**

Source: LSIAE, Economic Accounts for Agriculture

The share of food industry in the total GDP was 2.3% and it accounted for 3.2% of the total employment in 2006. Dairy industry created 14.5% of the total value added and provided work for 12.1% of the total number of employees in food industry in 2006. The share was the second lowest in the period (Table 1-2).

Table 1-2. Value added of dairy industry and its share in the total food industry in Latvia (2000-2006)

	2000*	2001*	2002*	2003	2004	2005	2006
Total VA of food industry (Mio EUR)	284.5	275.2	289.1	287.0	261.5	288.5	373.4
VA of dairy industry	46.4	49.0	61.2	40.7	42.1	52.2	54.0
Share of dairy in total VA of food industry (%)	**16.3%**	**17.8%**	**21.2%**	**14.2%**	**16.1%**	**18.1%**	**14.5%**

*data without self-employed physical persons

Source: CSB of Latvia

Manufacture of beverages and other foods are the major sectors of food industry. Dairy industry is the fourth largest after meat processing sector.

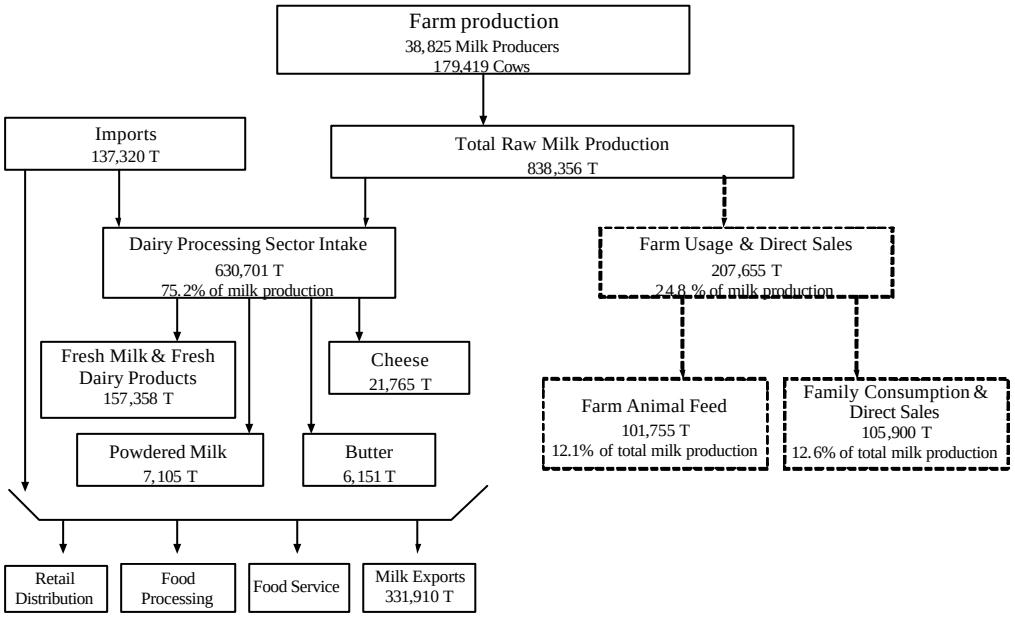
1.1.2 Product flows within the sector

In 2007, the total milk production constituted 838 356 tonnes, 75% of the volume was delivered to cooperatives and processing industry. As compared to the end of 90's, when the share of milk deliveries was slightly below 50%, milk farms have become more market-oriented. Accession to the EU has speeded up structural changes in the sector. Higher standards and rising resource prices have been crucial to semi-subsistence farms, but due to favourable milk purchase price and availability of the EU structural funds milk production has developed in commercial farms resulting in increased deliveries in absolute and relative terms. In the period between 2003 and 2007, the share of milk deliveries has increased by 19.6% points. Despite the considerable improvement in milk utilization structure, milk deliveries in Latvia still comprise comparatively small share, the EU average for this indicator is about 92%.

178 261 tonnes of milk were sold to cooperatives in the quota year 2006/2007, which equals to about ¼ of the total milk deliveries. Importance of milk cooperatives has increased in recent years, though the most part of collected raw milk is sold to Lithuanian dairy industry. Presently milk processing capacities of cooperatives are small, but they are determined to become major players also in processing industry.

207 655 tonnes of milk were retained on farms in 2007. Almost 50% of this volume was used as animal feed, but the rest part – for family consumption and direct sales. According to the review of quota fulfilment, 10 187 tonnes of milk were sold directly from farms in 2006/2007.

Currently, vertical coordination in the chain is poor. Cooperation between milk producers and dairies is of the contractual type and it is revised at least each quota year, so the present contracts do not ensure guarantee for long-term cooperation. Furthermore, the relations between producers represented by cooperatives have become tense because of raw milk export and purchase price. Determination of cooperatives to obtain their own dairy company marks a positive tendency towards the direction of vertical integration. Cooperation between dairy companies and their customers are also mainly based on contracts.



Source: LSIAE based on CSB of Latvia data

Figure 1-1. Overview of milk flows in Latvian dairy sector

1.2 Structural features of the dairy supply chain: present situation and trends overtime

1.2.1 Industry structure at primary level

Over the last decade, the number of farms in milk sector has decreased significantly - from 108.7 thsd. in 1997 to 38.8 thsd. in 2007. The number of farms has fallen mainly because of decreasing number of farms with 1-2 dairy cows. However, the ratio of these farms is still very high (70% of milk producing farms), there are only 1% of market-oriented farms (50 dairy cows and more) in the sector.

As a part of structural changes, the number of dairy cows has increased on market-oriented farms - 29% of dairy cows were concentrated on farms with 50 and more animals in 2007, the respective ratio for 1997 was 16%. Almost 40% of all dairy cows, though, are still held on the farms with less than 10 animals.

Table 1-3 Size structure of dairy farms in Latvia (1997, 2003-2007)

	1997	2003	2004	2005	2006	2007		
Farms with dairy cows	number of farms						% of total	cum.%
1-2 heads	85 870	48 093	47 730	46 243	35 236	26 984	69.5%	69.5%
3-5 heads	18 602	8 793	8 952	8 268	5 884	5 769	14.9%	84.4%
6-9 heads	2 849	2 051	2 273	2 483	2 038	2 406	6.2%	90.6%
10-19 heads	1 044	1 376	1 439	1 704	1 692	2 122	5.5%	96.0%
20-29 heads	112	377	372	396	459	680	1.8%	97.8%
30-49 heads	31	190	223	240	300	427	1.1%	98.9%
50-99 heads	88	124	147	148	206	278	0.7%	99.6%
100 and more heads	129	105	103	112	148	159	0.4%	100%
TOTAL	**108 725**	**61 109**	**61 239**	**59 594**	**45 963**	**38 825**	**100%**	
Dairy cows	number of dairy cows						% of total	cum.%
1-2 heads	119 669	63 715	62 976	60 301	45 891	34 029	19.0%	19.0%
3-5 heads	64 630	36 072	33 979	29 227	22 991	19 948	11.1%	30.1%
6-9 heads	19 629	15 419	16 401	17 557	15 478	16 446	9.2%	39.3%
10-19 heads	13 045	18 158	19 112	21 730	24 171	26 262	14.6%	53.9%
20-29 heads	2 783	9 023	8 669	9 263	11 701	15 159	8.4%	62.3%
30-49 heads	1 204	7 216	8 220	8 755	11 898	14 757	8.2%	70.6%
50-99 heads	6 240	8 565	9 984	10 065	14 755	17 767	9.9%	80.5%
100 and more heads	35 620	26 101	25 883	28 277	35 490	35 051	19.5%	100%
TOTAL	**262 820**	**184 269**	**185 224**	**185 175**	**182 375**	**179 419**	**100%**	
Average number of dairy cows per farms	2.4	3.0	3.0	3.1	4.0	4.6		
Average volume of milk produced per farm, tonnes	9.1	12.8	12.8	13.5	18.3	21.6		

Source: CSB of Latvia, annual farm survey data

For that reason, the average number of dairy cows on the farm is still comparatively small – 4.6 animals. The data available for 2007 show that in the EU-25 the figure is ranging from 101.4 dairy cows in Denmark to 20.6 units in Finland (Eurostat, 2008).

The average milk production was 21.6 tonnes per farm in 2007, but the average volume of sold milk – 32.9 tonnes per farm (quota year 2007/2008). Furthermore, 27% of milk quota holders had the average volume of quota just 10.6 tonnes.

Table 1-4 Milk quota allocation structure

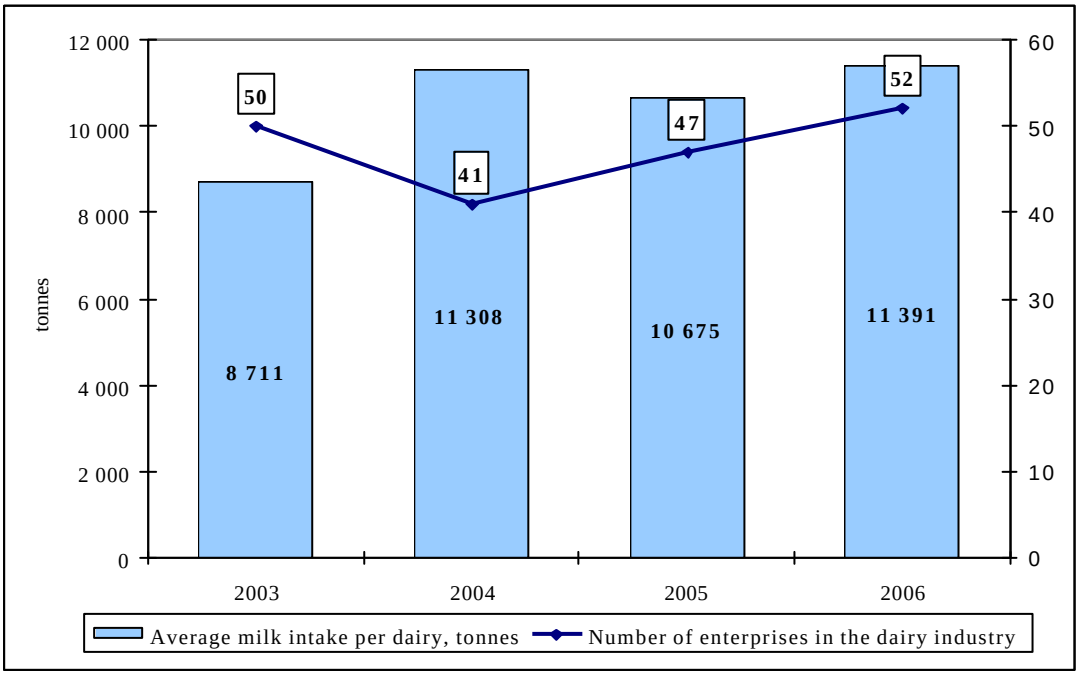
Quota year	2007/2008			
Number of cows in herd	Number of quota holders	Volume of quota allocated, tonnes	% of quota allocated	Volume of quota per holder, tonnes
1-9	17 656	187 048	26.8%	10.6
10-29	2 151	143 448	20.5%	66.7
30-49	359	63 375	9.1%	176.5
50 and more	414	304 660	43.6%	735.9
TOTAL	20 580	698 531	100%	33.9

Source: Agricultural Data Centre, Milk quota review

Current fragmented production structure in the sector gives rise to higher costs, as production in economically larger farms is usually more efficient due to better technological equipment, more productive animals and economy of scale. Milk collection and quality control costs per milk unit are also higher for smaller farms. Having regard of generally increasing oil prices, milk collection costs can be crucial in future cooperation with milk processing companies.

1.2.2 Industry structure at processing level

According to the latest available data, there were 52 dairy companies operating in Latvia in 2006. This is quite a large number in view of the comparatively small capacity of the Latvian market and the total value of processed milk products. Therefore, milk production can be considered as fragmented not only at the primary, but also at the secondary level. There has been no decrease in the number of dairy companies over the past years, even the opposite, some increase was registered, but these changes had no significant affect on production and the market. Having regard of almost perfect competitive conditions in the milk market, minimization of costs through maximal utilization of processing capacities and increasing of production volumes has been among the main strategies in the sector throughout the EU.



Source: CSB of Latvia data

Figure 1-2. Number of enterprises and the average annual milk intake by dairies in Latvia (2003-2006)

The average intake of dairy is only 11.4 thsd.tonnes of milk in Latvia. The respective indicator for Germany, the Netherlands and the UK was accordingly 60.4, 41.1 and 26.3 thsd.tonnes in 2005 (Eurostat, 2008).

There are 5 comparatively large dairy companies in Latvia – Rigas piena kombinats JSC (with affiliated company Limbazu piens JSC), Valmieras piens JSC, Rigas Piensaimnieks, Preilu siers JSC and Tukuma piens JCS. The estimated total milk intake of these companies is close to 70% of the total milk deliveries to the processing sector. Rigas piena kombinats JSC, the largest milk processing company in Latvia, purchases 24% of total raw milk sold to processing industry.

Table 1-5. Turnover and milk intake of 10 largest dairies in Latvia

No.	Company name	Turnover, EUR mio 2006	Estimates milk intake 2007	
			tonnes	% of total intake
1	Rigas piena kombinats JSC	67.7	151 745	24%
	Limbazu piens JSC (affiliated company of RPK)	11.7		
2	Valmieras piens JSC	46.2	n.a.	n.a.
3	Rigas Piensaimnieks Ltd	35.6	n.a.	n.a.
4	Preilu siers JSC	30.8	n.a.	n.a.
5	Tukuma Piens JSC	22.5	n.a.	n.a.
6	Cesvaines piens JSC	9.0*	n.a.	n.a.
7	Smiltenes piens JSC	7.9	n.a.	n.a.
8	Latgales piens JSC	7.4	n.a.	n.a.
9	Bauskas piens JSC	5.9	n.a.	n.a.
10	Talsu Piensaimnieks JSC	5.7	n.a.	n.a.

*data of 2007

Source: Lursoft data; company website

According to the concentration ratio, concentration in milk processing sector is quite high - the market share of the 10 largest dairy companies was 82% in 2006. The 4 largest dairies control 61% of total sales on the market (without regard of milk import). As compared to other main processing sectors of agricultural products, concentration in dairy industry is the second highest after grain industry. However, while Latvia is market with only 2.3 mio potential customers, even the largest dairies in Latvia are small in absolute terms on the EU scale. Lithuanian milk processing sector, which is one of the main competitors to local producers, is about 2 times larger than Latvian dairy industry and there are only 3 major players.

Fragmentation at the product level is even larger, because generally Latvian dairies are not specialized, majority of dairies are producing almost full range of milk products.

Table 1-6. Concentration in Latvian dairy industry (2000-2006), %

Concentration indices	2000	2001	2002	2003	2004*	2005	2006
Market share of 4 largest dairies**	45	47	56	57	61	60	61
Market share of 10 largest dairies**	70	73	77	78	82	80	81

*data without small enterprises (less than 20 employees or turnover less than LVL 300 thsd.)

** Rigas piena kombinats and Limbazu piens considered as one enterprise

Source: LSIAE calculations based on CSB of Latvia prepared data

At the end of quota year 2007/2008, there were 34 milk producers' cooperatives in the sector. The total milk collection of cooperatives comprised about 25% of the total milk deliveries in quota year 2007/2008, and the 2 largest cooperatives – Piena cels and Trikata KS – collected almost half (48.1%) of this volume. There has been considerable development of cooperation in the milk sector in terms of collected volumes during recent years, which is closely related to the rapid growth of the 2 of cooperatives since their foundation in 2003 and 2004. Most part of the raw milk collected by cooperatives has been exported to Lithuanian dairy industry because of more competitive price. Presently, the milk processing capacities of cooperatives are small, but they are determined to increase their role, which is already shown by collaborative agreement of 14 cooperatives on purchase or construction of common milk processing company.

Relations between processing companies and cooperatives are quite tense; cooperatives are blamed for destabilization of the sector, but processing companies – for not paying appropriate price.

1.3 Production, consumption and trade developments

Milk balance sheet summarises the key developments in production, consumption and trade since 1997 (Table 1-7). After considerable drop in 1999, milk production has been rather stable in Latvia, but changing milk production pattern towards stronger market orientation has increased milk supply to the dairy industry. The country traditionally has been net exporter of dairy products. Accession to the EU has facilitated expansion of the exports of dairy products, though imports have also grown notably. Production and imports together, minus exports and stock changes give available supply for domestic consumption. On general there is falling tendency of domestic human consumption in Latvia. Though the consumption of industrially processed products has increased, it has not fully compensated the drop on farm family consumption.

Table 1-7. Balance sheet of dairy products* (in thsd.tonnes milk equivalent)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Production	987.6	951.8	798.7	825.0	848.0	813.7	785.7	786.4	810.3	815.1	841.6
Imports	22.1	36.0	38.2	61.3	69.5	75.9	88.2	85.1	80.5	138.3	137.3
Exports	151.1	190.6	106.9	99.1	94.9	91.8	100.6	144.0	204.4	327.1	331.9
Stock variation	4.0	43.8	-54.0	14.8	-5.5	-18.2	5.6	-5.8	15.8	3.2	0.1
Domestic consumption	854.6	753.4	784.0	772.4	828.1	816.1	767.7	733.0	670.6	623.1	647.0
human consumption	637.4	556.1	616.9	608.9	657.2	640.4	606.2	599.3	542.1	507.4	545.2
animal feed	217.2	197.3	167.1	163.5	170.9	175.7	161.5	134.0	128.5	115.7	101.8
Average consumption per capita (kg)	261	230	257	256	278	273	260	258	235	221	239
Average consumption per capita (kg)**	291	284	288	293	n.d.	332	335	323	324	312	n.a.
Self-sufficiency rate (%)	116%	126%	102%	107%	102%	100%	102%	107%	121%	131%	130%

* including goat milk

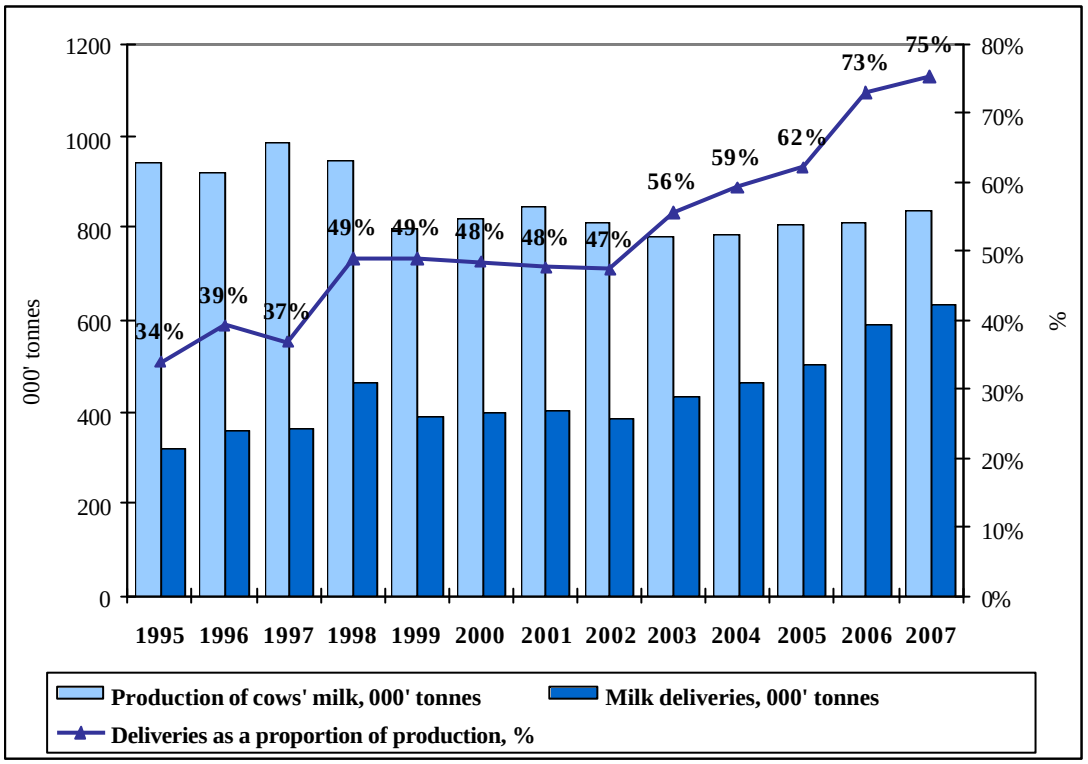
**according to Household Budget Survey

Source: Rural Support Service and CSB of Latvia Household Budget Survey data

Production of raw milk

As compared to 1995, milk production in Latvia has decreased by 11% in 2007. The sharpest drop in production volumes was experienced in 1999. The year was very unfavourable for

agriculture due to bad weather conditions, but mostly because of low prices. Milk purchase price fell to the lowest level in the period, which was mainly caused by decrease in milk prices on global markets and also affected by low purchasing power of local inhabitants. As Russia was an important export market of Latvian dairy products, the situation was worsened also by the Russian crisis of 1998. There have been no considerable changes in production volumes after 1999; in 2003-2004 milk production fell at the lowest level in the period, since then, there has been a small positive development tendency. In 2007, milk production reached 838.4 thsd.tonnes.



Source: CSB of Latvia

Figure 1-3 Milk production and deliveries in Latvia (1995-2007)

Unlike milk production, milk deliveries have increased significantly over the period, that has been achieved at the expense of decline in the total farm consumption in the sector caused by changes in the milk production structure. Favourable market conditions after joining the EU have facilitated development of milk production in market-oriented farms, but higher standards and increasing resource prices have been crucial to semi-subsistence farms.

Table 1-8 Milk quota allocated to Latvia and its fulfilment

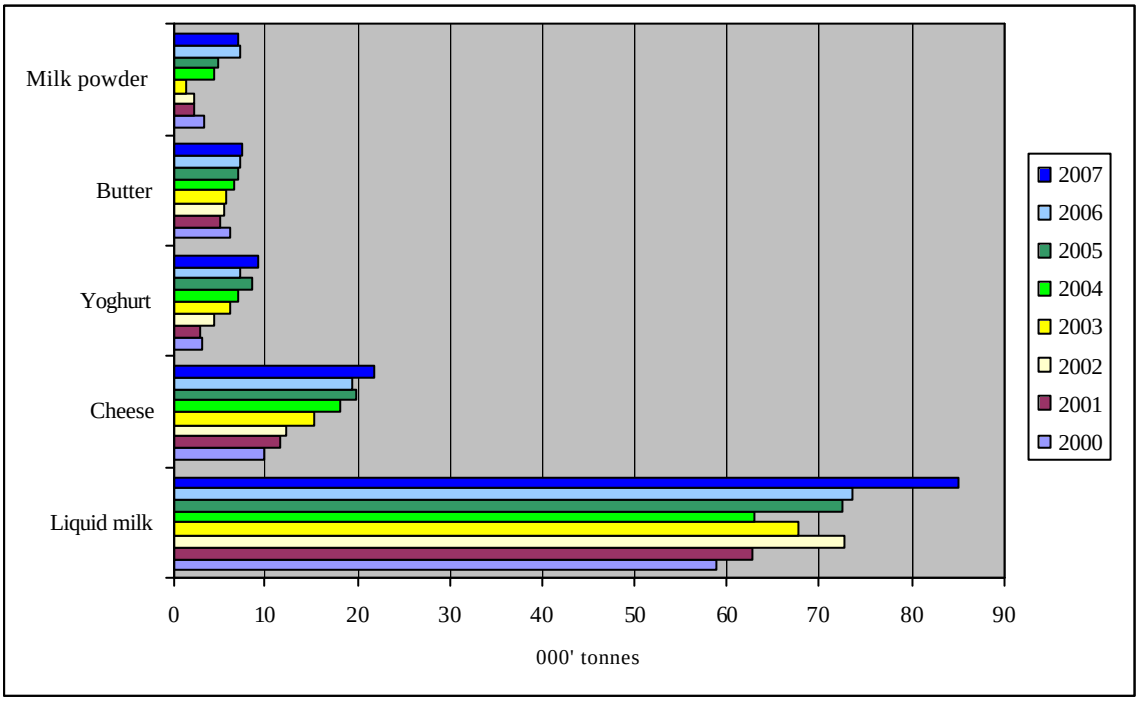
	Deliveries			Direct sales		
Quota year	Quota size, tonnes	Fulfilment, tonnes	Fulfilment, %	Quota size, tonnes	Fulfilment, tonnes	Fulfilment, %
2004/2005 (11 months)	631 856	459 019	72.6%	63 539	10 431	16.4%
2005/2006	677 568	564 365	83.3%	17 827	9 868	55.4%
2006/2007	715 404	632 908	88.5%	13 244	10 119	76.4%
2007/2008	717 342	657 313	91.6%	11 306	10 187	90.1%
2008/2009	731 915			11 306		

Source: Agricultural Data Centre, milk quota review

The fastest growth has been observed since 2003, with the yearly average growth rate of 10%. In 2007, the volume of sold milk to cooperatives and processing industry totalled 630.7 thsd.tonnes, that is, 75% of the total milk production volume. About 20% of total milk deliveries are exported to the Lithuanian dairy industry.
From 2004, availability of raw milk resources to processing industry is restricted by quota. The original milk quota allocated to Latvian dairy farming sector was 695.4 thsd.tonnes, from 2006/2007 it was increased by 33.3 thsd.tonnes (+4.8%). To meet the growing demand for milk products both within the EU and on global markets, milk quotas was increased for all member states by 2% in 2008. It has been suggested to continue gradual increase in quotas before they expire in 2015. Due to high farm consumption, up to now, Latvia has not fully met its milk quota, in 2007/2008 the fulfilment rate for delivery quota was 91.6%.

Production of dairy products

According to the volume index, dairy production was up by 50% in 2007, as compared to 2000. In general, development of production volumes in processing industry has a similar tendency as development of milk deliveries. There was a considerable decrease in production volumes in 1999 as the result of lost markets in Russia and low dairy product prices. Production volumes of dairy industry have increased since then. Opportunities of the EU single market have facilitated development of dairy production, the average annual volume index of manufacture of dairy products has been close to 6% in the membership period, indicating a faster growth than in food industry on the whole.



Source: Latvian Dairy Committee

Figure 1-4 Manufacture of selected dairy products in Latvia (2000-2007)

Cheese is the most important dairy product both in terms of proportion of raw milk processed and output value. According to Latvian Dairy Committee, production volumes of the cheese totalled 21.8 thsd.tonnes in 2007. In comparison with 2000, cheese production has more than doubled. Large local processing capacities of cheese give precondition for further development of cheese production.
Production of yoghurt and milk powder has also grown significantly. Production volumes of yoghurt have almost tripled since 2000, reaching 9.2 thsd.tonnes in 2007. Production of milk powder was at the level of 7.1 thsd.tonnes in 2007, compared to 3.2 thsd.tonnes in 2000.

Responding to the favourable situation on the dairy market, production of skim milk powder more than doubled, though the total volume of milk powder remained almost the same in 2007.

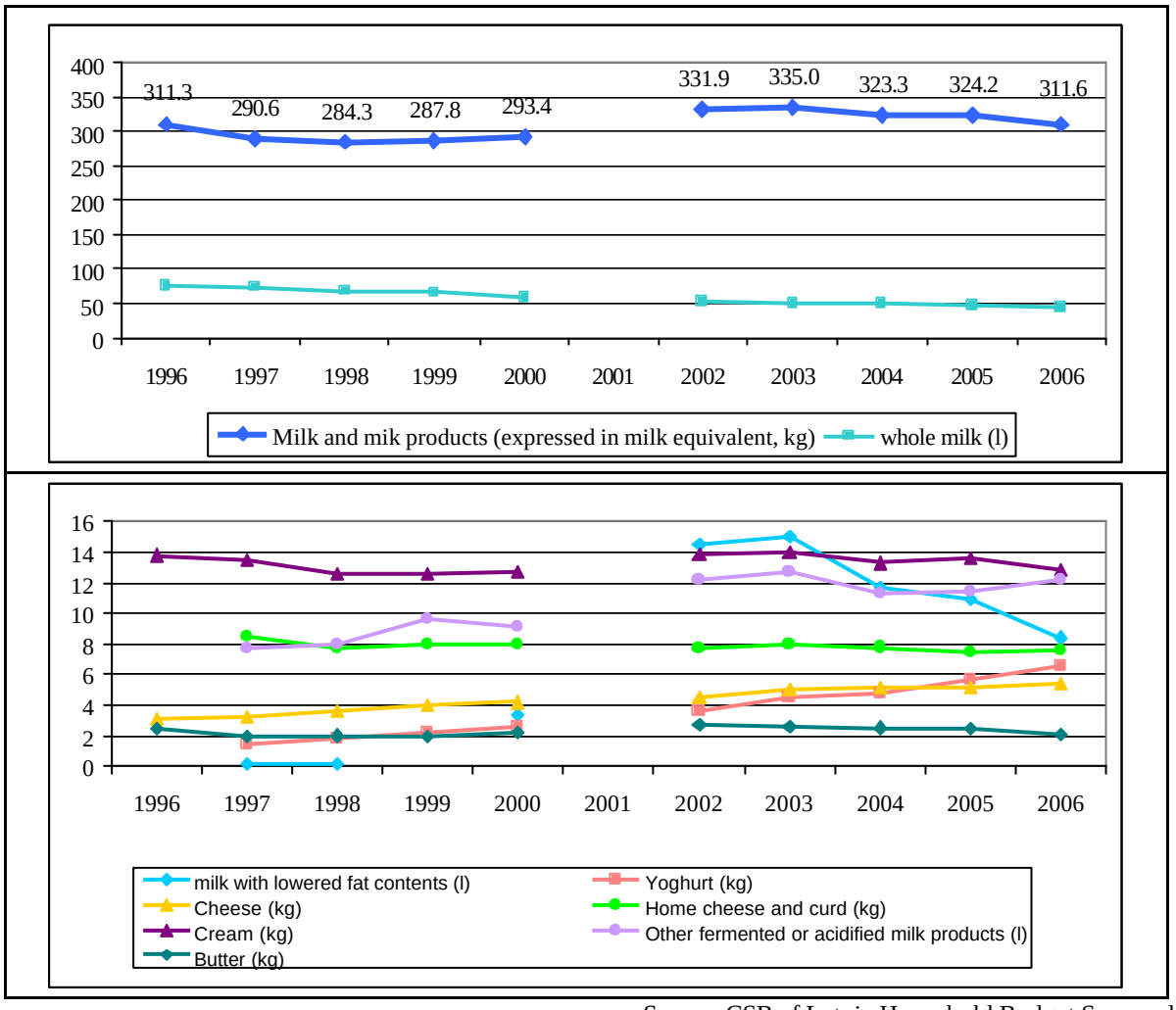
Except 2007, stagnation and even negative development tendency could be observed in production of sour cream, butter and dairy spreads and curd in recent years.

Product with the largest production in physical quantities is liquid milk; in 2007, it was produced in the volume of 85.1 thsd.tonnes. In general there has been a positive tendency in liquid milk production.

In general Latvian dairy products can be characterized as mass production due to lack of uniqueness. There is still free niche for organic products, because presently very small quantities of biological dairy products are produced in Latvia.

Consumption of dairy products

According to milk balance sheet, human consumption of milk totalled 545.2 thsd.tonnes in 2007, which is 239 kg per capita (Household survey data show higher consumption – 311,6 kg per capita in 2006). In general there is falling tendency of domestic human consumption in Latvia. Though the consumption of industrially processed products has increased, it has not fully compensated the drop in farm family consumption due to decreasing number of semi-subsistence farms.



Source: CSB of Latvia Household Budget Survey data

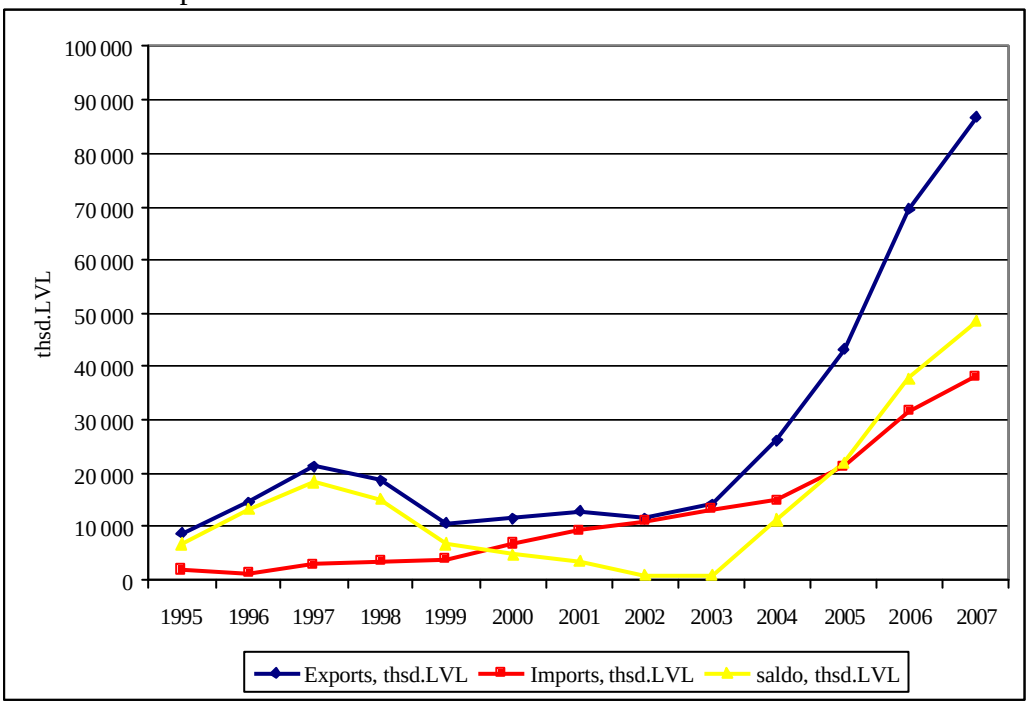
*Household budget data comprise consumption of products by households at home (bought on the market, produced by households or obtained for free), but not including consumption through catering services

Figure 1-5. Per capita consumption of milk products in Latvia (1996-2006)

Household budget survey data show less significant changes of milk consumption over the time (Figure 1-5). There was a decline in the total milk consumption per capita from 1996 to 1998, followed by increase in volumes till 2003, with a slight decrease in consumption of milk afterwards, but remaining almost at the same level than in 1996.
Consumption volumes are falling for liquid milk, cream and butter, but increasing for cheese, yoghurt and other fermented or acidified milk products. As industry data show increase in production of processed liquid milk, declining liquid milk consumption could be explained by drop in farm family consumption, of which most part is consumed as liquid milk. But cream and butter is consumed less mainly because of generally more preference towards products with lower fat contents (though consumption of milk with lower fat contents has decreased lately). The average consumption of cheese was 5.4 kg per capita in Latvia in 2006, which is a much lower level if compared with the average 17.0 kg per capita in the EU on average. As cheese falls into the category of comparatively expensive dairy products, the consumption of cheese and higher value-added dairy products in general should continue to grow in Latvia by increase in disposable income.

Trade in dairy products

The comparatively small capacity of local market determines export orientation of Latvian dairy sector. In 2007, the share of exports in total milk production volume was almost 40% and the self-sufficiency rate of the sector reached 130%. Dairying is among few agricultural sectors in Latvia with positive trade balance.



Source: CSB of Latvia data

Figure 1-6. Development of exports and imports of Latvian dairy products (1995-2007)[1]

After considerable drop in 1999 and the subsequent stagnation in the upcoming years mainly caused by the Russian crisis, starting from 2003, the export value of Latvian dairy products has constantly increased. After accession to the EU, the export growth rates have been exceptionally high - +84% in 2004, +66% in 2005, +60% in 2006 and +25% in 2007. Although the import value of dairy products also rose significantly during this period (in the

[1] Exchange rate LVL/EUR: 1995 - 0.682; 1996 - 0.698; 1997 - 0.693; 1998 - 0.652; 1999 - 0.658; 2000 - 0.560; 2001 - 0.563; 2002 - 0.581; 2003 - 0.645; 2004 - 0.671; and from 2005 - 0.703

period 2004-2007, the average growth rate was 31%), more rapid development of the exports has improved the net export position of the country in dairy products. The total export value of dairy products reached EUR 123.6 mio in 2007, however, the export value per exporting dairy company is small.

The main trade partners for Latvia in dairy products are the EU countries, which accounted for 85% of the total exports and all imports in 2007. The contribution of the EU-27 countries in the total imports of dairy products has been almost unchanged since 1997, the changes have taken place in the distribution of flows between the EU-15 and the EU-12 countries towards increasing dominance of the EU-12 countries. Practically all imports from the EU-12 are made up of flows originated by Lithuania, Estonia and Poland. On the export side, Russia and other CIS[2] countries used to be the main export markets of Latvian dairy products, but in 2007 they accounted only for 7% of the total export value. The EU-27 countries have now taken this position. Starting from 2005, the share of exports to the EU-12 has considerably increased, which was caused by growing exports of raw milk to Lithuanian dairies. The main export country in the EU-15 is Germany; the Netherlands also used to be the most important export market for Latvian dairy products, but its share has decreased in recent years.

Table 1-9. Export and import, major destinations and origins of dairy products (1997-2007)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Exports (mio EUR)											
Total agro-food products	203.7	177.1	97.9	117.5	197.3	247.9	230.2	295.1	478.7	590.4	778.5
of which Dairy	30.8	28.9	16.3	20.7	22.7	20.2	22.1	39.1	61.9	99.2	123.6
EU-15	**26%**	**25%**	**39%**	**61%**	**78%**	**81%**	**79%**	**78%**	**71%**	**49%**	**43%**
Germany	8%	9%	14%	23%	23%	21%	20%	40%	40%	29%	29%
the Netherlands	15%	14%	18%	30%	47%	45%	40%	10%	3%	5%	3%
EU-12	**17%**	**18%**	**15%**	**18%**	**18%**	**14%**	**16%**	**18%**	**25%**	**38%**	**42%**
Lithuania	5%	6%	8%	8%	8%	7%	9%	6%	19%	35%	36%
Estonia	12%	12%	7%	9%	9%	7%	8%	10%	5%	2%	4%
CIS countries	**57%**	**56%**	**44%**	**19%**	**3%**	**3%**	**2%**	**3%**	**4%**	**6%**	**7%**
Russia	46%	38%	27%	6%	1%	2%	1%	2%	3%	5%	6%
Imports (mio EUR)											
Total agro-food products	316.7	383.2	338.6	438.4	502.5	576.6	559.7	642.9	773.1	952.3	1138.1
of which Dairy	4.4	5.6	6.1	11.9	16.6	18.8	20.4	22.2	30.6	45.1	54.5
EU-15	**50%**	**47%**	**36%**	**24%**	**20%**	**20%**	**18%**	**15%**	**14%**	**13%**	**18%**
Germany	30%	25%	27%	19%	18%	16%	15%	12%	10%	8%	12%
EU-12	**44%**	**52%**	**64%**	**76%**	**80%**	**80%**	**82%**	**83%**	**86%**	**87%**	**82%**
Lithuania	31%	42%	29%	46%	55%	58%	58%	61%	43%	30%	33%
Estonia	13%	8%	30%	22%	16%	10%	15%	9%	23%	38%	28%
Poland	0%	2%	5%	8%	9%	11%	9%	14%	20%	19%	22%

Source: LSIAE calculations based on CSB of Latvia data

About half of dairy imports are fresh milk products (milk and cream, fermented or acidified milk products and fresh cheese and curd), including raw milk imports from Estonia (17% of total import value in 2007). Comparatively large amount of fermented and acidified milk products is imported to Latvia (20%) and this is the only position, in which Latvia has negative trade balance. Poland is the main origin of imported fermented and acidified milk products, as well as one of the three largest importers of cheese. Lithuania is the main supplier of cheese and curds to Latvian market, these products are also dominant in the imports from Germany.

[2] CIS - Commonwealth of Independent States (Russia, Ukraine, Kazakhstan, Belarus, Azerbaijan, Uzbekistan, Turkmenistan, Georgia (former member of CIS), Armenia, Tajikistan, Kyrgyzstan and Moldova)

Latvian dairy exports are dominated by raw milk and industrial products. The main products in dairy export traditionally have been cheese (mainly Chedar), milk powder and butter, with the cheese accounting for more than a half of the total export value in recent years. Since the expansion of raw milk exports, the share of cheese exports has decreased. In 2007, the export value of raw milk reached the value of cheese and each of them accounted for about 30% of the total exports. The main export market for cheese is Germany (~40%). Some other important destinations for the recent years include Italy, Denmark, the Netherlands and also Russia. Germany is also the most important export market for milk powder (51% of total milk powder exports in 2007) and butter (68%).

Figure 1-7. Export and import values of the main dairy products (1997-2007)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Exports (thsd.EUR)											
milk and cream	2 018	1 799	136	839	339	258	717	3 075	9 761	31 024	41 383
milk powders	4 115	4 295	3 054	5 115	3 205	3 782	613	7 162	8 749	19 233	18 897
fermented or acidified milk products	835	936	183	182	466	701	698	1 548	3 866	4 555	5 985
butter and dairy spreads	4 369	7 933	3 538	4 373	3 505	3 506	4 285	7 448	7 161	8 265	9 305
cheese and curds	9 312	9 465	5 615	6 292	13 491	11 595	15 529	19 677	32 016	34 322	40 156
Imports (thsd.EUR)											
milk and cream	575	842	1 076	1 862	1 380	1 072	1 962	1 493	4 140	14 360	10 978
milk powders	734	449	336	293	1 049	803	909	920	177	1 546	1 798
fermented or acidified milk products	1 253	1 796	2 098	3 043	4 185	5 412	5 480	6 395	6 234	8 164	10 898
butter and dairy spreads	1 022	1 228	677	1 552	1 362	1 546	1 612	2 136	937	1 388	1 412
cheese and curds	485	1 208	1 670	4 169	7 709	8 720	9 471	10 344	15 485	16 976	25 973

Source: CSB of Latvia data

Competitiveness of industrial products on export markets is generally based on large quantities, constant high quality and low price, but compared to other countries, positions of Latvian dairies are not strong in meeting these requirements. Furthermore, prices of industrial products are directly influenced by developments on the EU and global markets.
The current small dairy export values per exporting company and lack of export coordination on the sector level limits the efficient organization of exports and acquiring of market power.

According to the outlook for EU agricultural markets, published by the European Commission in March, 2008, there are good market prospects for the development of the dairy exports, because the demand for higher value-added dairy products is projected to increase, most notably in *new* Member States in line with increasing disposable income and expected changes in dietary patterns. The increase in global demand for dairy products, caused by growing incomes and changes in consumer preferences towards dairy products, mainly in Southeast Asia, the Far East and North Africa, is also projected (though the significant part of the increase is expected to be met by domestic production). The economic situation since the beginning of the year has deteriorated, however, much lower income and consumption per capita levels still indicate a growth potential in *new* Member States over the medium-term.

1.4 Government policy

1.4.1 Regulatory framework of the dairy sector

The planning and supervision of the development of the dairy sector is the area of responsibility of the Ministry of Agriculture. The competency in entrepreneurial, social and environmental aspects of the sector is shared with the Ministry of Economics, the Ministry of Welfare and the Ministry of Environment. The Food and Veterinary Service controls animal health and food quality.
Latvian legislation has been harmonised with the EU legislation. As a part of CMO, Latvia has introduced milk quota system. Milk quota administration is the responsibility of the State

agency Agriculture Data Centre. According to the national legislation, it is possible to buy, sell, transform, rent, hand over to other farmer (together with the herd) and also renounce milk quota in Latvia. For a short while, renting of milk quota was not allowed; now it is possible to rent milk quota together with land, cows or farm, but in other case the requirement of the minimum volume of 5 tonnes and not more than 30% of total quota allocated must be observed for the transaction to take place. The state reserve is formed by the volumes gained from milk quota deals (denounced volumes and 1% of milk quota volume sold and handed over) and as the result of sanctions (in the cases when the fulfilment of quota is less than 70% the unfulfilled volume is transferred to the state reserve). The quota from the state reserve can be allocated to new dairy farmers and farmers, who have reached 95% quota fulfilment. Farmers, who have renounced milk quota, cannot apply for quota from the state reserve.

Latvia has used its rights to pay national complementary direct payments for produced quota milk, from 2007, these payments are decoupled from production. In order to support the development of dairy sector competitiveness, national aid is provided for participation of farmers in animal breeding and recording programmes. For improvement of the competitiveness of the sector, the EU structural funds as the part or rural development programme are also available. Horizontal cooperation in the sector is promoted by support for setting up of cooperatives and by support to existing cooperatives on the basis of their annual sales volumes up to 5 years.

1.4.2 Other dairy sector relevant policy areas e.g. environment policies, competition policy etc.

Dairy sector is among the agricultural sectors with the most serious pressure on environment. The recognition of the problem has been started recently. The main regulatory requirement for the dairy farms is the obligation to have manure deposit starting from 10 livestock unites, but in nitrate sensitive territory – starting form 5 livestock units (1 dairy cow equals 0.7 livestock units). Comparatively the most restrictive requirement in nitrate sensitive area is the obligation to ensure that the yearly limit of 170 kg of N per ha is not exceeded on farms. If a farm does not have the necessary area, it has to make contract with another farm on the use of the manure. In terms of the availability of land resources, the area in nitrate sensitive region has the potential to absorb considerably higher amount of manure than the production of the current livestock.

At present, requirements for good agricultural and environmental condition are compulsory in Latvia, compliance with the full set of cross-compliance requirements in order to receive direct payments has been postponed till 2013. Further achievement of environmental goals is promoted by taking up voluntary agri-environment commitments in the framework of the national rural development programme.

According to the national competition legislation, any market participant having dominant position is not allowed to misuse this position in any way in the territory of Latvia. Agreements between market participants, having the impact of hindrance, restriction or distortion on competition are prohibited. Market participants, who have decided to merge, have to submit notification about the planned merger to the Competition Council, which is the institution responsible for protection and development of competition in Latvia.

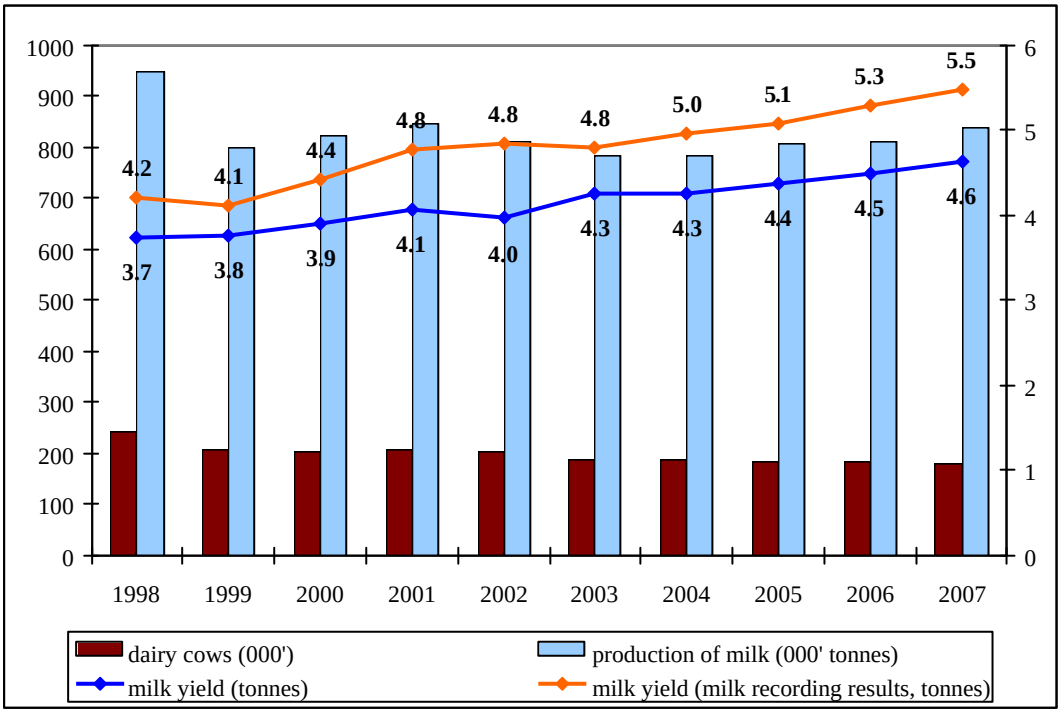
To restrict the power of retail chains, which were dictating rules of cooperation almost unilaterally by forcing producers to render different bonuses, rebates, shelf prices etc., controversial amendments to the Competitions Law has been made. The aim of the amendments is to base relationships between the large retail chains and the producers on fairness, undiscrimination and predictability and to respect the economic interests of both sides. The amendments ensure more equality for both sides in contracting process. The amendments have come into force on the 1 of October, 2008.

2 Performance of the dairy supply chain

2.1 Performance at farm level

2.1.1 Yields

Although the average yield per cow is almost constantly increasing in Latvia, it still considerably lags behind the average productivity in the EU. The average yield per cow in Latvia is only 70% of the EU-25 average level (European Commission, 2007), and it is one of the lowest among the EU countries. The low average productivity can be explained by still comparatively large share of semi-subsistence farms in Latvia, which have less productive animals and not so balanced feed structure. In bigger and more commercial farms the yields are higher (Figure 2-1). According to milk recording results, cow productivity in some farms is comparable with the level observed in the leading milk production countries of the EU.



Source: CSB of Latvia and Agricultural Data Centre milk recording data

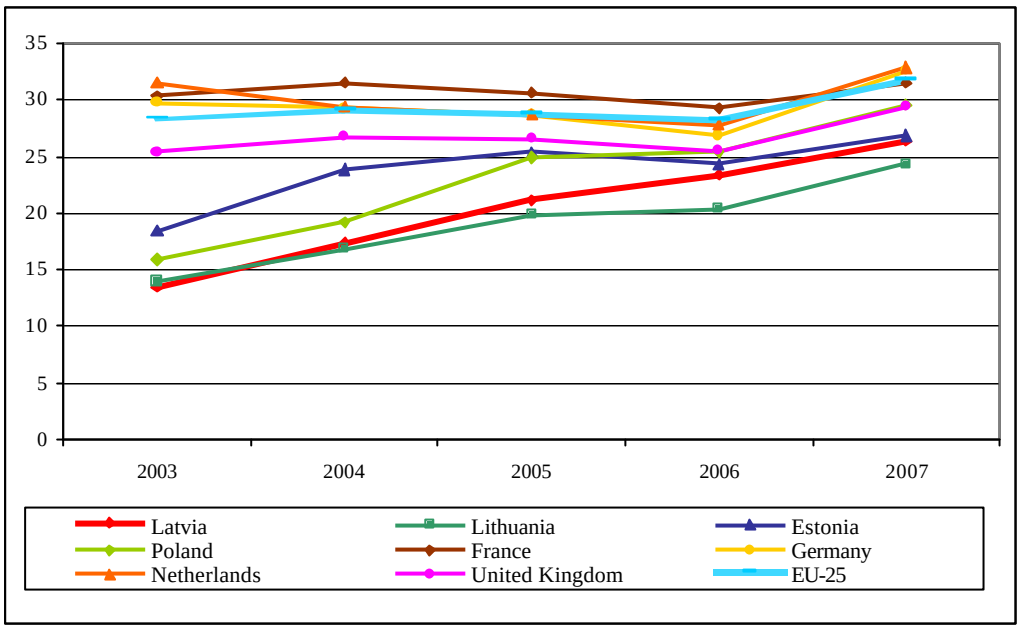
Figure 2-1. Number of dairy cows, milk production and yields in Latvia (1998-2007)

By increase in cow productivity, the number of cows has decreased in Latvia, reducing costs associated with maintenance of animals per unit of milk produced. But still feed costs, which make the most part of maintenance costs, are high in Latvia, which is caused by less productive animals, high conversion rates and inefficiency in feed production.

2.1.2 Prices

After accession to the EU, the average milk purchase price has almost doubled (+91% in period 2003-2007). The rise of milk purchase price was a logical process of price convergence, because at the time of accession, prices in Latvia were the lowest among the EU-25 countries and it was considerably below the EU average level. As in most *new* Member States, the development of milk purchase price in Latvia was opposite to the negative trends observed in most *old* Member States and in the EU-25 on average till 2006. At that time milk prices in Latvia had practically achieved the EU average level for the given quality

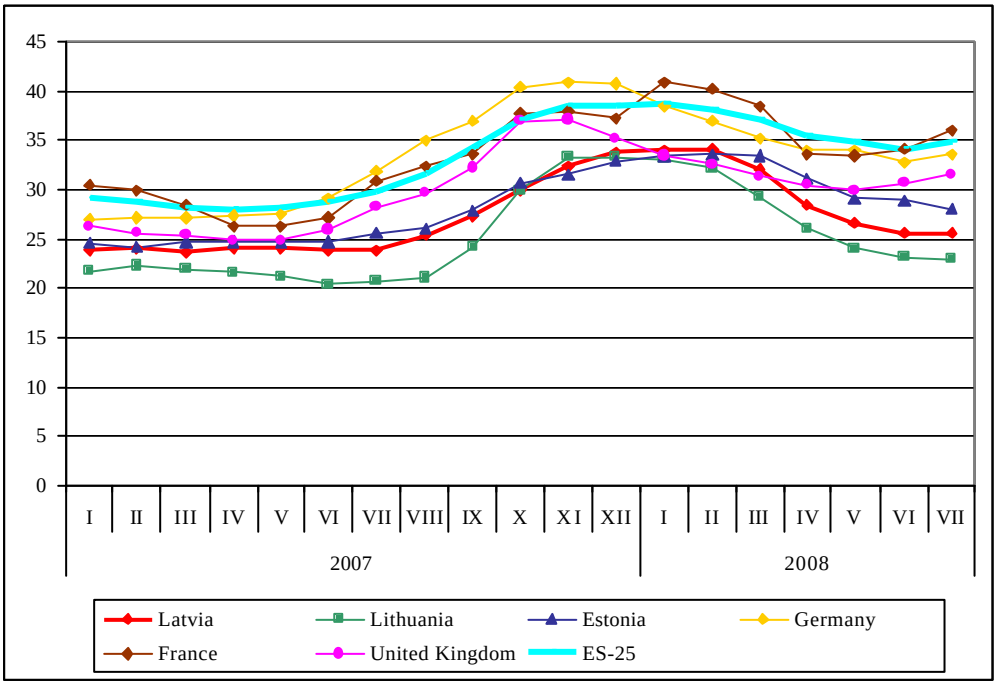
and size of deliveries. Caused by growing demand in combination with limited milk supplies on global market, milk prices rose considerably in all Member States in 2007 (Figure 2-2).



Source: DG Agri

Figure 2-2. Developments of milk purchase prices in Latvia and selected EU countries (2003-2007), EUR/100 kg

Price increase for dairy products strengthened competition for raw milk resources and enabled to pay more. In Latvia, the rapid rise in milk purchase prices started at the second half of the year 2007, from June to December growing by 42%.



Source: DG Agri

Figure 2-3. Development of milk purchase prices by months (2007-2008), EUR/100 kg

Prices of production resources have also risen significantly after accession to the EU. According to the Agriculture Market Centre data, agricultural input price index has increased by almost 55% in 2007, as compared to 2003. The Central Statistical Bureau of Latvia data show that consumer prices have risen by 33% in the period since 2003. During 2008 the

inflation continued to soar, reaching the highest level in May – 17.9% up the previous year. The average compensation for the employees both in agriculture and in manufacturing in 2007 was more than 2 times (2.3 and 2.0 times accordingly) above the level observed in 2003. The feed prices have increased by 65%. Though some of the main production resources are still cheaper in Latvia than in the EU on average (mainly labour, energy and land).

For a while, rising dairy product prices allowed to compensate for growing production costs, but the following decrease of the average milk purchase price at the beginning of 2008 has caused serious problems and frustration in the primary sector (farmers have organized a public demonstration of discontent). The ratio of milk/feed price has fallen to the lowest level in recent years. It was only in 2000 that the ratio was also equally low, but that was the lowest level since 1995.

Compared to other EU-15 farmers, who also face problems caused by drop in producer prices and rising resource prices, the problem for Latvian farmers is more acute because of insufficient technologies that could increase production efficiency. Furthermore, the recent rice in production factor prices has been faster than the increase in productivity.

2.1.3 Gross margins and value added

Calculations based on available FADN data show that with the average yield 5199 kg per cow and the price 23.52 EUR/100 kg, the gross margin per 100 kg of milk of the average dairying specialization farm was EUR 19.4 in Latvia in 2006. The gross margin rate of return on the total output was 51%. Sales accounted for 64% of the total output of these farms. Lack of information on the degree to which the total variable costs relate to production of sold products does not allow calculating the exact gross margin rate on sales.

Table 2-1. Calculation of gross margins of Latvian dairying specialization farms*

	Average dairying specialization farm	Small dairying specialization farm	Large dairying specialization farm
Number of cows	16.55	10.5	107.67
Yield (kg/cow)	5 199	4 494	5 821
Milk price (EUR/kg)	0.24	0.21	0.26
Labour input (AWU)	2.46	1.72	10.35
Values in EUR per 100 kg milk			
Total output (without subsidies)	38.2	41.0	37.1
animal products	27.0	25.2	28.2
- milk	23.5	21.2	25.6
- cattle	3.1	3.4	2.6
crop products	9.5	10.9	7.4
- forage crops	6.3	7.2	5.5
other output	1.7	4.9	1.5
Direct costs	18.8	19.1	18.7
animal production costs	16.6	17.3	16.5
- feeding costs	14.8	15.7	14.4
crop production costs	2.2	1.6	2.1
other output costs	0.0	0.1	0.1
Gross margin per 100 kg of milk	19.4	22.	18.4
Gross margin rate (return on total output)	51%	54%	50%
Gross margin (total output minus direct costs)	16 678	10 368	115 148
Gross margin rate (return on livestock output)	39%	31%	42%
Net value added per AWU	7 077	6 465	10 234

*Latvian FADN sample covers farms starting from economic size of 2 ESU, according to Latvian FADN classification small farms are farms with size of 4 -<8 ESU, but large farms - 40 -<100 ESU

Source: Eurostat, FADN data

Comparison of the gross margin rate, calculated for the total farm production, for farms of different size shows higher rate than on average (54%) on small farms, but slightly lower than the average on large farms (50%). It can be explained by differences in production structures of the farms, with small farms having higher proportion of other output, which yields higher gross margin rates. When gross margin rates are calculated separately for animal output, small farms achieve 31% in comparison with 42% on large farms.
As the effects of economy of scale can be mainly observed on fixed costs, the indicator of net value added per AWU show great disparities between small and large farms, with large farms being about 60% more productive.

Table 2-2. Comparison of gross margin rates and value added in Latvia and other EU countries in 2006

	Gross margin rate	Gross margin rate*	Value added per AWU
Denmark	53%	45%	68 127
Netherlands	70%	72%	55 000
Belgium	67%	72%	39 523
United Kingdom	53%	56%	34 278
France	69%	77%	22 598
Estonia	50%	44%	8 335
Latvia	51%	39%	7 077
Poland	67%	72%	6 784
Lithuania	62%	57%	6 529
EU average**	62%	63%	24 159

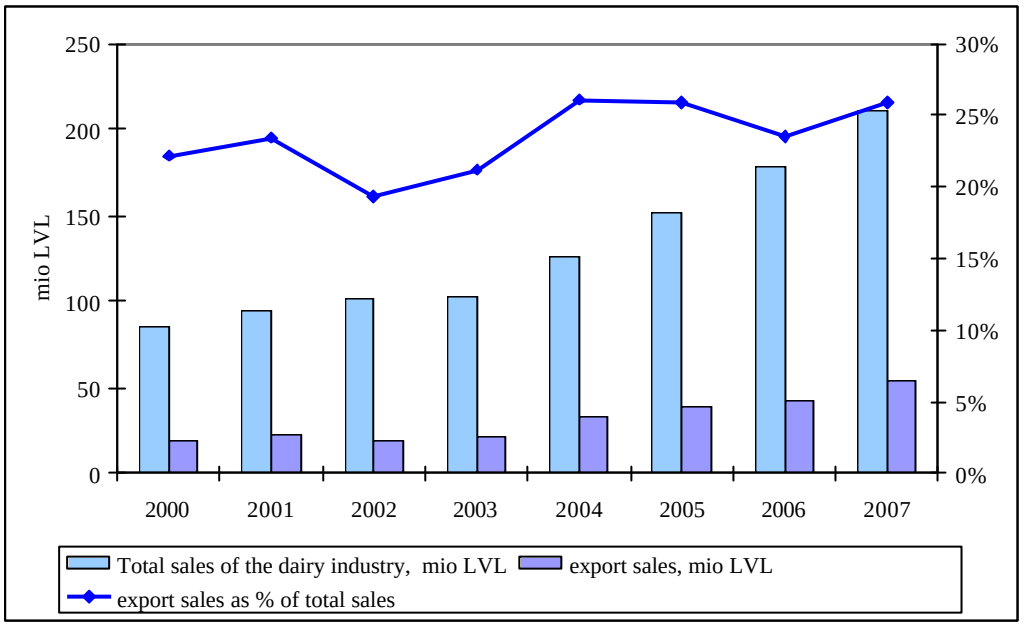
*calculated for animal production
** the average of 20 country data, which where available at FADN public database (the EU-25 countries except Cyprus, Germany, Greece, Slovenia and Spain)
Source: Eurostat, FADN

Poor performance indicators of the Latvian dairy farms in comparison with other EU countries indicate on very low efficiency in the sector (Table 2-2). According to FADN results, the average gross margin rate of the EU dairying specialization farm is 62%, while in some leading milk producing countries it is close to 70%. The value added per AWU in Latvia is only at about 30% of the EU average level, but in comparison with the Netherlands – only 13%.
The low efficiency could be explained by considerably lower economic size of the average Latvian dairy farm (8.8 ESU compared to 54 ESU in the EU on average) and low level of capital investments (depreciation value per UAA is about 5 times less in Latvia than in the EU on average). Along with labour, utilization of feed is also inefficient in Latvia, because feed costs, which make the most part of total production cots, per livestock production value are 1.85 times higher in Latvia than in the EU on average.

2.2 Performance at industry level

2.2.1 Turnover and employment in the dairy industry

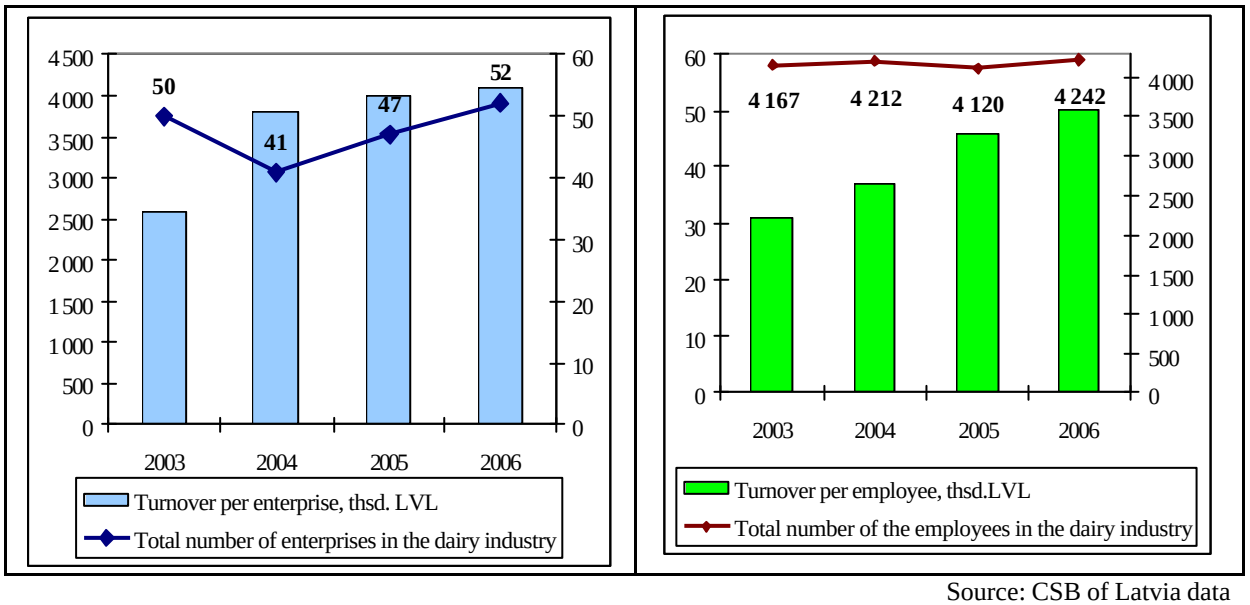
There has been a constant increase of the total sales in the dairy industry in the period 2000-2007 (Figure 2-4). In 2007 the turnover of the dairy products has gone up 2.5 times as compared to 2000, the fastest development could be observed in the period from 2004, with the average yearly growth rate reaching almost 20%.



Source: CSB of Latvia quarterly data on manufacture

Figure 2-4. Total and export sales of Latvian dairy industry (2000-2007)[3]

The increase in the value of sales was mainly determined by rising ex-plant prices as the part of price convergence process and also in response to the recent developments on global dairy markets.



Source: CSB of Latvia data

Figure 2-5. Total number of enterprises, employees and the average turnover per category in Latvia (2003-2006)

[3] Exchange rate LVL/EUR: 1995 - 0.682; 1996 - 0.698; 1997 - 0.693; 1998 - 0.652; 1999 - 0.658; 2000 - 0.560; 2001 - 0.563; 2002 - 0.581; 2003 - 0.645; 2004 - 0.671; from 2005 - 0.703

According to the CSB of Latvia, ex-plant prices have increase by 62% after joining the EU. Except 2006, there has been considerable annual increase in prices, with 13.8% in 2007. Milk producer prices, however, have grown even faster (+91%). Volume indices of production indicate a 25% increase in the period after accession. Sales in export markets accounted for 26% in 2007.

According to the latest available data, the average sales per dairy processing enterprise reached EUR 5.8 mio in 2006. Following growth of the total industry sales, the average indicator has also increased over the past years. (Figure 2-5) As there have been small changes in the number of employees, the average turnover per employee has also increased by almost the same pace as the total sales. With the total number of 4 242 employees the dairy industry generated EUR 72 thsd. per employee in 2006.

2.2.2 Value added and profits

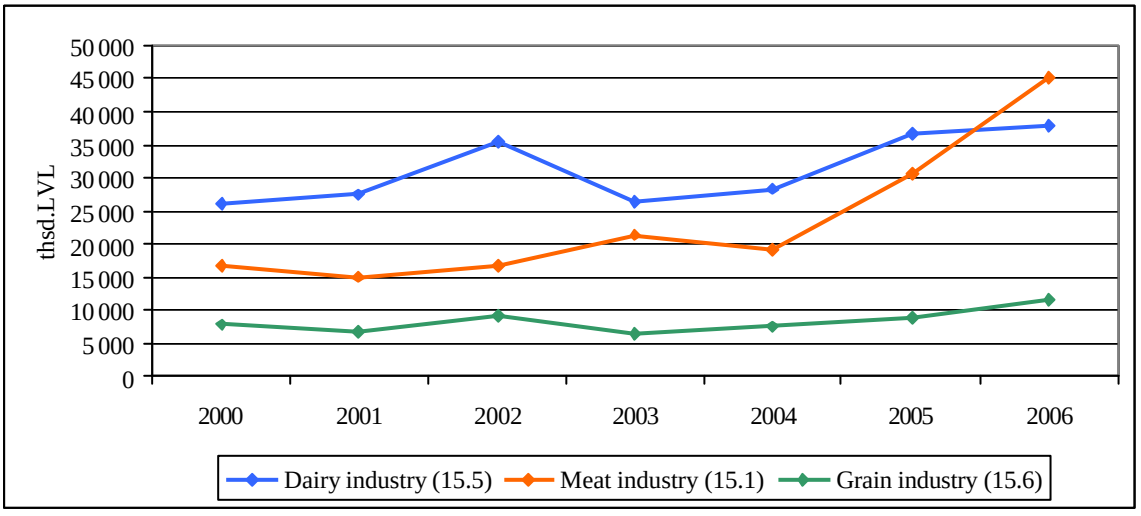
Latvian dairies have been profitable over the past few years (2003-2006), though the net profit earned has fluctuated considerably (Table 2-3).

Table 2-3. Performance indicators of the dairy industry in Latvia (2003-2006)

	2003	2004	2005	2006
Value added of the dairy industry, thsd.LVL	26 241	28 234	36 661	37 974
Net profit, thsd.LVL	3 195	2 424	3 783	2 926
Value added per employee, thsd.LVL	6.3	6.7	8.9	9.0

Source: CSB of Latvia data

There has been positive tendency in the development of the total value added of the dairy industry. Compared to other main branches of food industry, the value added in dairy industry has grown slower. The growth rates have also been slightly below the average development in manufacturing.



Source: CSB of Latvia data

Figure 2-6. The comparison of the development of value added in dairy, meat and grain industries in Latvia in 2000-2006

The productivity of the Latvian dairy industry is increasing - in 2006 the value added per employee was by 42% above the level of 2003. It is also above the average productivity levels of total food production and manufacturing. However, comparison with other main producing countries of the EU indicates on very low efficiency in Latvia (Table 2-4). The available data of *old* Member States suggests than it is almost 5 times larger on average, the Dutch dairy industry is 6.6 times more productive than Latvian.

According to LSIAE studies on formation of the value added in agricultural and food sector, the low productivity of the Latvian dairy industry can be explained by small production volume on product level, that limits the efficient use of production lines; unbalanced utilization of production capacities (present utilization of production capacities is at the level of about 40%); high energy consumption due to insufficient investments in energy and also water supply systems and management; inefficient organization of sales and logistics; and the large number of small milk suppliers, that creates extra consumption of resources for milk collection, quality control and the overall management. The studies reveal that up to now competitiveness of Latvian dairy sector has been mainly based on comparatively cheaper production resources (mostly labour), because the efficiency of the utilization of production resources is low. As prices of production resources have risen very rapidly, this short-term competitive advantage has almost been lost, causing serious problems in the sector.

Table 2-4. Value added per employee in Latvian dairy and food industries, and manufacturing compared to other EU countries in 2005

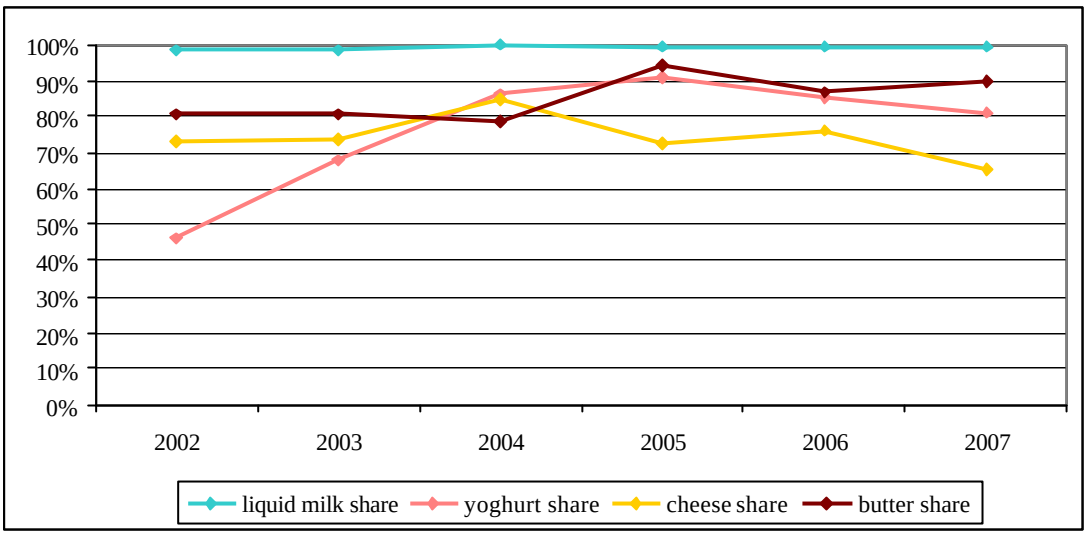
	Dairy industry (15.5)	Food industry (15)	Manufacturing (D)
Netherlands	83.9	n.a	79.5
Germany	70.0	40.7	61.3
Belgium	67.0	67.9	83.3
United Kingdom	54.9	n.a	67.2
France	51.1	n.a	58.4
Poland	15.8	20.2	21.5
Latvia	12.7	10.6	10.8
Estonia	11.6	11.6	12.3
Lithuania	10.6	9.0	9.9

* for Latvia the latest available data used (2006)
Source: CSB of Latvia data and Eurostat data

Increase in energy prices and remuneration for labour has had the most impact on rising production costs. Though the compensation for employees (and also energy) is still considerably lower in Latvia than in the EU on average, already so far the rise in the average salary has not been in balance with the increase in productivity. Ratio of the value added created by an employee of dairy industry and the average annual salary in manufacturing has decreased – in 2006 the value created by 1 salary lat was by 10% less than in 2003. Technological and organizational improvements have not been fast enough to ensure adaptation and change from cheap production resource driven competitiveness to efficiency and investment driven competitiveness.

2.2.3 Market share developments

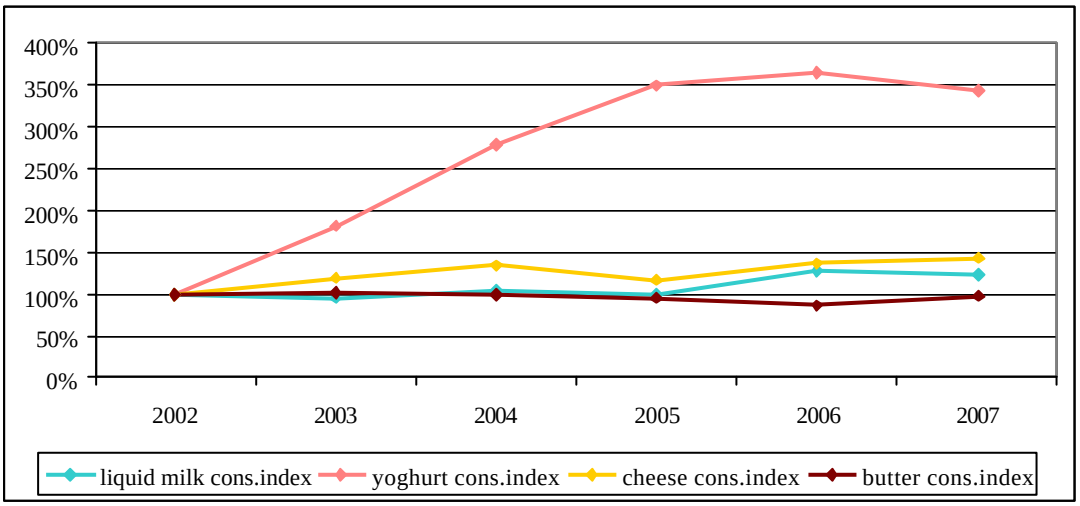
Latvian dairies control almost all domestic market of liquid milk. From the main dairy products the second highest market share is for butter; furthermore, Latvian dairies have been able to win the positions on the market over foreign competitors. Though the previous development of butter consumption suggests that domestic market of butter is not perspective in terms of expansion, because it has been stagnating over the past few years.



Source: LSIAE calculations based on CSB of Latvia data

Figure 2-7. Share of Latvian dairies' sales in the total domestic consumption of selected milk products (2002-2007)

Domestic market of yoghurt has shown a tremendous expansion in recent years and Latvian dairies have managed to take advantages of increasing domestic demand. The share of Latvian dairies in the total domestic consumption of yoghurt has increased from 46% in 2002 to 81% in 2007, though there has been a decrease in market shares for the last two years.



Source: LSIAE calculations based on CSB of Latvia data

Figure 2-8. Consumer index of selected dairy products in Latvia in 2002-2007 (2002=100%)

Local market of cheese is also increasing and 65% of products on the market were of Latvian origin in 2007, compared to the previous years, the share of Latvian dairies has decreased. This is the market with the lowest control of local dairies indicating on the most severe competition with foreign producers. It could be assumed that by continuous increase in the total domestic consumption of cheese, Latvian market will become more attractive for foreign producers. As consumption of cheese per capita is presently comparatively low in Latvia, it has a great development potential.

2.2.4 Competitiveness at retail level

The power of retail sector is very strong and generally characterized by large margins on product prices and stipulation of large amount of requirements to producers. According to the development of the share of each participant of the dairy chain in final prices of the dairy products, power of the retail sector is increasing in Latvia. Calculations for drinking milk show that in 2005 the retail sector accounted for 9% of the final price (without VAT), but in 2007 the corresponding share was 13%. For the products or higher-value added the increase is more explicit.

The survey on customer food buying priorities, which was carried out by Agriculture Market Promotion Centre in 2007, show strong preference by local consumers towards the products of domestic origin. Unlike the situation some years ago, the influence of price is gradually decreasing, that is closely linked to the increasing income of the local inhabitants. The dominant factors currently are quality and taste, local origin as well as customers more often opt for healthy and natural food. Milk products are the second most often used food product group after cereals. 75% of the respondents have indicated on daily use of the dairy products, 21% of buyers consume them every 2-3 days.

Currently almost 60% of purchases are made in supermarkets. Some years ago the shares of supermarkets, small and medium shops and markets in the retail were almost equally distributed, presently markets account only for 7%.

As indicated already by the share of Latvian dairies in the total consumption, retail of liquid milk is almost entirely dominated by products of Latvian origin. The retail private labels are also locally produced. Prices of the comparatively lower price category cheese are slightly lower for the products from Lithuania and also Poland. It is hard to make any comparisons regarding more expensive sorts of cheese, because Latvian dairies generally do not produce them or the products are not of a comparable quality. Yoghurts of Danone are generally more expensive than the local products, but it is also hard to make comparison, as most part of the products offered on the Latvian market are functional or have other unique features. Latvian yoghurts are cheaper than Estonian, but Lithuanian producers are more represented by different kind of desserts. Yoghurts from Germany can be found at more expensive retail stores, and the prices are accordingly about 1.5-2 times higher than for Latvian yoghurts.

3 SWOT

SWOT analysis has been elaborated based on the analysis of the present situation in the dairy sector and the evaluation of the factors influencing efficiency and competitiveness of the dairy chain.

3.1 Strengths and weaknesses

Considering the comparatively small capacity of the local market and the fact that the production of milk already considerably exceeds domestic consumption needs, the further development of the dairy sector is by no means connected with export markets. So far competitiveness of Latvian dairy products on export markets was mainly based on low prices of production factors. As the lack of higher-value added products determines the full dependence of the sector on the EU and global dairy market price setting, the rapid increase in resource prices has deteriorated the competitive position of the sector.

The competitiveness of Latvian dairy chain is limited mainly by inefficient use of production resources both at the primary and at the processing level and by inefficient organization of the dairy exports. The main reasons for low efficiency along with other weaknesses of the dairy chain are summarized in Table 3-1. The presented factors are largely interdependent. The table also shows the main strengths of the dairy chain, which are advantageous for sector performance on domestic and also export markets.

Table 3-1. Strengths and weaknesses of Latvian dairy chain

Level	Strengths	Weaknesses
at primary level	▪ **long-term traditions of dairy farming (accumulated knowledge and experience);** ▪ **still comparatively lower prices of some of the production resources (mainly labour, energy and land)**	▪ **low milk yields;** ▪ **small production volumes per farm;** ▪ **inefficient utilization of production resources, mainly feed and labour;** ▪ **low level of capital investments**
at processing level	▪ **long-term traditions of milk processing (accumulated knowledge and experience);** ▪ **still comparatively lower prices of some of the production resources (mainly labour and energy);** ▪ **large production capacities of cheese;** ▪ **industry is net exporter;** ▪ **better knowledge of local market**	▪ **small production volumes per company;** ▪ **lack of specialization;** ▪ **large collection and quality control costs per milk unit;** ▪ **unbalanced utilization of production capacities;** ▪ **low labour productivity;** ▪ **high energy consumption;** ▪ **poor organization of sales and logistics;** ▪ **export is dominated by industrial products;**

Level	Strengths	Weaknesses
		▪ **Considerable export of raw milk;** ▪ **small export volumes per company**
at retail level	▪ **strong customer preference towards products of local origin;**	▪ **generally large margins that restrict consumption**
the whole chain	▪ **strong horizontal cooperation between milk producers in milk collecting and marketing**	▪ **poor vertical coordination**

As dairy sector has traditionally been one of the main agri-food sectors in Latvia, the basic strength of the sector is related to the traditions, knowledge and experience accumulated over the years.

There is strong horizontal cooperation between milk producers in milk collecting and marketing in the sector, promoting to address the problems caused by sector fragmentation.

Though the rise in production resource prices has been considerable in recent years, the prices of the some of the main production resources are still comparatively lower in Latvia than in the EU on average (mainly labour, energy and land).

The dairy industry has traditionally been net exporter, with the cheese being the main exported processed dairy product. Large local processing capacities of cheese are advantageous for the further development of cheese production and the exports.

Position of the local products on the domestic market is ensured by strong customer preference towards products of local origin and local producers have advantage over foreign competitors in better knowledge of local customers and market in general.

Small production volumes both at the primary and also at the processing level are among the main weaknesses of the Latvian dairy sector, the lack of specialization determines further fragmentation at the product level, because majority of dairies are producing almost full range of milk products. Fragmented raw milk production structure gives rise to larger milk collection and quality control costs per milk unit.

The problem of the sector is also low production factor productivity: low milk yields, low labour productivity both at the primary and at the processing level, as well as inefficient use of other main production resources (mainly feed), what is closely connected to the generally insufficient level of capital investments on the farms. At the processing level, apart from fragmented production structure, inefficiency is mainly related to unbalanced utilization of production capacities (high level of unutilized capacities increases fixed costs per product unit), high energy consumption due to insufficient investments in supply and management systems and poor organization of sales and logistics.

Though the sector is net exporter, the exports are dominated by raw milk and industrial products. The current small dairy export values per exporting company and lack of export coordination at the sector level limits the efficient organization of exports and acquiring of market power.

Collaboration of Latvian cooperatives mainly with Lithuanian dairy sector most notably indicates on poor vertical coordination in the dairy chain. Generally cooperation between milk producers and dairies is contractual and it is revised at least each quota year, so the present contracts does not ensure guarantee for long-term cooperation. Comparatively small processing capacities of cooperatives indicate also on weak vertical integration in the chain.

The retail sector is generally characterized by large margins on product prices that can restrict consumption of dairy products.

3.2 Opportunities and Threats

The main opportunity for Latvian dairy sector is increase of demand for higher-value added products both on domestic and the EU market, as well as development of global demand for dairy products. The EU growth in demand will be mainly determined by increasing incomes in *new* Member States. There is still free niche for organic products, because presently very small quantities of biological dairy products are produced in Latvia. Further increase and final abolishment of milk quota gives preconditions for taking the market prospects.

At the same time the rise in domestic consumption boosts the attractiveness of local market and can result in increased competition. Increase of the EU milk quota will also put pressure on prices. Therefore the rising prices of production resources are crucial for Latvian dairy sector to maintain its competitive position. Furthermore, recent developments on dairy markets have indicated on the increasing price volatility risk for the sector.

Availability of the EU structural funds for promotion of competitiveness increases the opportunity for the sector to solve the problems regarding inefficiency and creation of higher value-added. Summary of the main opportunities and threats for the dairy sector are given in Table 3-2.

Table 3-2. Opportunities and threats for Latvian dairy chain

Opportunities	**Threats**
▪ **further increase in Latvian milk quota;** ▪ **availability of the EU structural funds for promotion of competitiveness;** ▪ **increase in domestic consumption of higher value-added dairy products;** ▪ **increase in the total EU consumption of higher value-added dairy products;** ▪ **increase in global demand for dairy products caused by growing incomes and changes in consumer preferences towards dairy products (mostly in Southeast Asia, the Far East and North Africa)** ▪ **free niche for organic products on domestic market**	▪ **rising prices of production resources;** ▪ **further increase in total EU milk quota (pressure on prices);** ▪ **continuous high volatility of milk prices;** ▪ **increased attractivity of Latvian market for foreign producers by development of domestic consumption**

4 Suggestions for policy recommendations

National level

Along with the existing measures aimed at increasing of the production efficiency at the primary level, additional policy measures are necessary to promote production concentration on farms with modern technology.
For example, the increase of the minimum threshold of the number of cows to be eligible to receive the investment support for modernization (except for quality improvement projects), as well as introduction of additional efficiency criteria for supported eligible costs of the investment projects should be considered. In order to solve the efficiency problems on farms, promotion of the knowledge regarding efficient production solutions is also necessary, because without that, there cannot be real improvement in the efficiency.
It is also necessary to continue to develop the support to the cooperation between milk producers in milk collecting, marketing and input supply activities.

In order to increase the production efficiency at the processing level, additional measures regarding promotion of concentration and modern management of dairy companies are necessary.
For example, the strengthening of the relation between processed quantity of milk and the supported eligible costs of the dairy industry investment projects, as well as progressive increase of the supported eligible costs for dairies, which have merged, should be considered. The support priority should be given to those modernization projects that envisage the development of sales and logistics systems, reduction of energy consumption and the overall improvement of company management.

Policy measures aimed at increasing of the market power of Latvian dairy companies, especially on export markets, are also necessary. To achieve this, the suggestion is to support the complex and coordinated development of higher value-added (including biological) and export products (support to the development of product concept, standards; development of production capacities; sales organization and market promotion).

the EU level

Recent developments on dairy markets have indicated on increasing price volatility risk for the sector. The serious problems not only in the Latvian dairy sector, but also in other EU countries, caused by high feed prices and falling milk prices, have shown that the existing EU market intervention policy has to be revised. The simplest recommend approach could include adapting the fixed intervention price to the current level of production costs. More sophisticated way of solving the problem would be introduction of insurance system.
Comparatively long production cycle in milk sector defines objective necessity for market regulation like safety-net policy instruments to avoid production termination decisions, which can be easily taken under short-term profitability problems. The decisions to resume production has at least 2-year time lag.

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