# Competitiveness of Czech Milk Sector on the EU Market

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## Abstract

After two years of enlarged Single Market performance we can trace and evaluate the main trends in European trade development. The contribution is focused on production and realization of Czech milk and milk products after the EU enlargement and should answer the question if the Czech milk sector found the way for continual functioning in the frame of the EU trade zone and the EU single market organisation and which are its´ chances in the near future.


Keywords: milk, competitiveness, EU market

## Introduction

The middle- and east European countries had to face up to two crucial reversals of production - business environment within last two decades. The fall of the COMECON market caused the essential amendment of economic policy connected, besides of others, with modification of the foreign trade structure. After a certain stabilisation before the end of nineties, the EU enlargement induced another change of business map of Europe. Both these business – environment changes linked with business – policy amendments had to find corresponding reflection in production structure. Impacts of the single market on the Czech milk sector were anxiously awaited as about one third of Czech milk production is being exported.

## 1. Raw milk market

While in the period before the EU enlargement foreign trade in milk branch in the Czech Republic was represented by the trade with milk products almost entirely, the accession of new member states to EU let come into being a trade with raw milk in Central and Eastern Europe. Establishment of the EU 25 single market implied connection of the previous separate markets with the different producer price levels of raw milk. While the price level in the old member states was higher, producer prices of milk in the new countries moved mostly under the EU 15 average. In some countries the average milk price differed from the EU 15 very significantly.

Table 1: Producer price of raw milk in chosen European countries in April 2004

| Country | EUR/100 kg |
|---|---|
| **Germany** | 26,81 |
| **Czech Republic** | 24,60 |
| **Hungary** | 24,08 |
| **Slovak Republic** | 22,74 |
| **Poland** | 16,38 |

*Note: Comparability through various qualities and report posts limited*
*Source: ZMP Marktdaten Ost*

In the Czech Republic, production of milk participates by more than one third on the value of the animal production and its´ share on the value of the rough agricultural production moves round 17 %. There was a clear trend in milk production in the Czech Republic before May 2004. More or less stabilised volume of produced milk, moving round 2 700 mil of litres a year (market production 93 – 96 % of that), was connected with continuous decline of the dairy herd compensated by the average yield increase.

Opening of the market brought the new dynamics to producers´ behaviour and to the development of basic parameters of milk production. The offer of cheaper raw milk in the Czech Republic evoked interest of processors in near countries. Purchase of low-priced raw material was prepared already before May 2004, so that the first shipments were realised just after opening of the boarder. Rather rapid increase of exported quantities followed, the dynamics of exports shows figure 1. Substantial part of exports was realized to Germany, small amounts to Italy or other countries as Slovenia, Croatia and Hungary. The particular columns show exports of raw milk in respective months. For comparison,

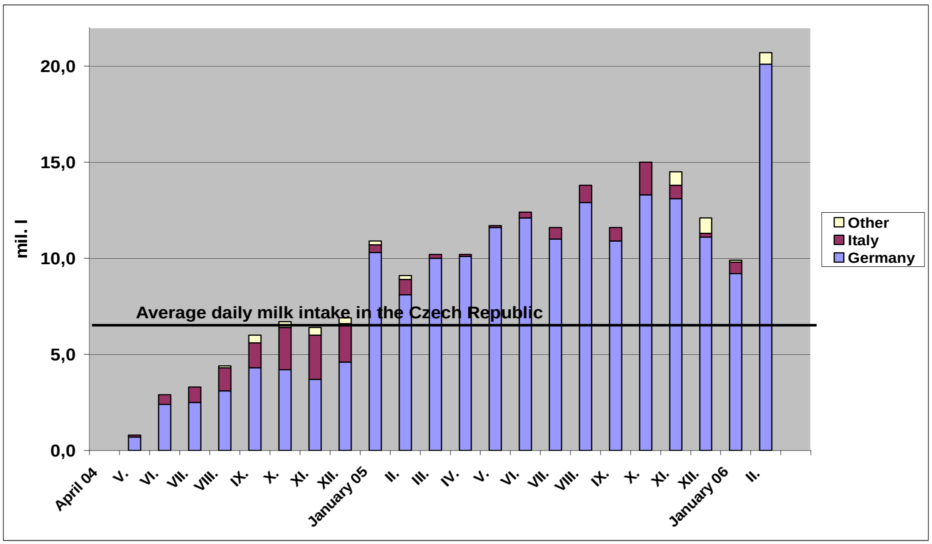
Table 2: Production of milk in the Czech Republic

| Specification | Unit | 2000 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|
| No. of cows | ´000 head | 515,4 | 459,6 | 433,3 | 437,9 |
| Average yeilding | l/head/year | 5 255 | 5 756 | 6 006 | 6 254 |
| Production of milk | mil. l/year | 2 708 | 2 646 | 2 602 | 2 739 |
| Average fat conent in milk | % | 4,03 | 3,98 | 4,00 | 3,90 |
| Average protein content in milk | % | 3,32 | 3,39 | 3,41 | 3,38 |

*Source: ČSÚ; MZe*

the average volume of daily milk intake in the Czech Republic is marked out. Progressive trend of exports is evident.

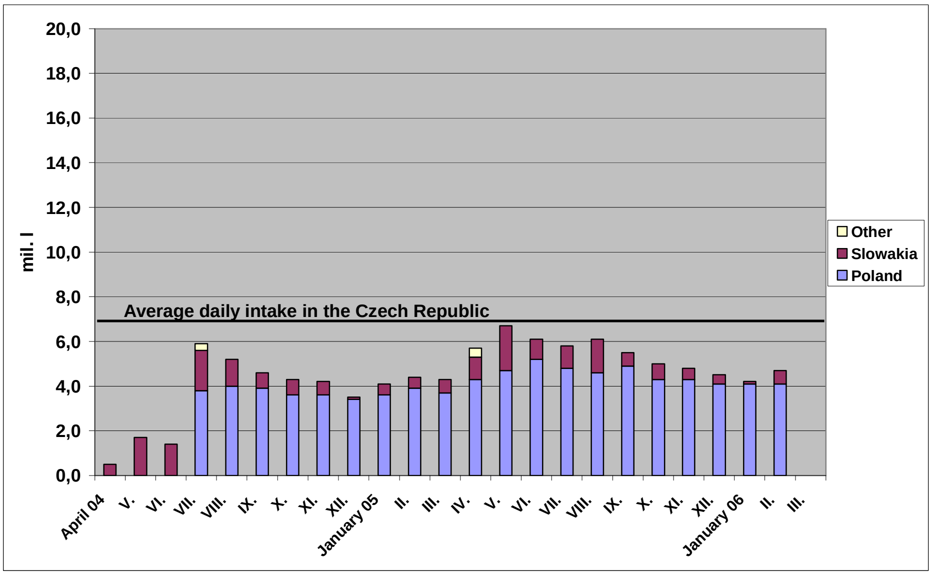
Figure 1: Exports of raw milk (customs item 0401 2099)




*Source: Customs statistics*

On the other side imports of raw milk to the Czech Republic, indicated in figure 2, exhibit much smaller dynamics.

Figure 2: Imports of raw milk (customs item 0401 2099)

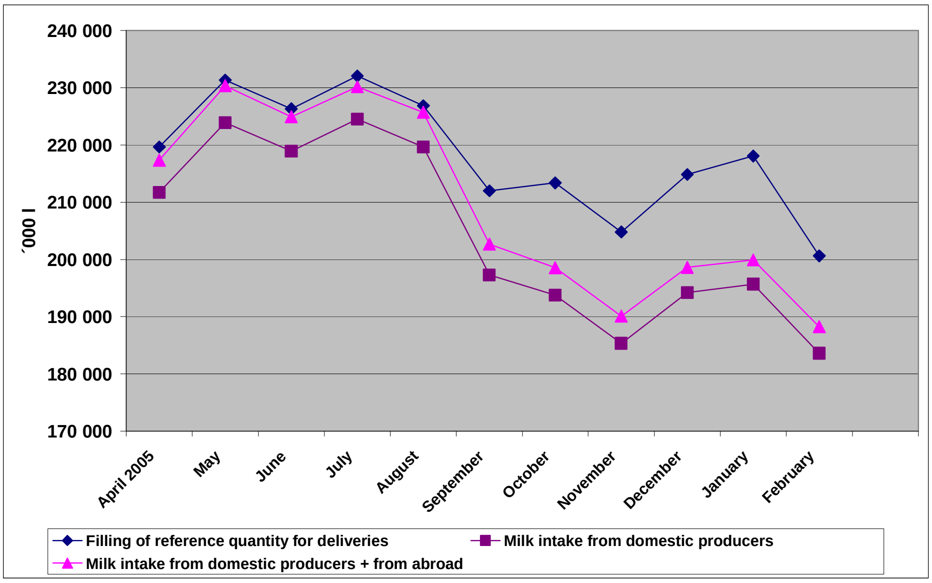



*Source: Customs statistics*

Regional data for milk exports and imports are not being given to publicity but evident is the fact that foreign exchange of raw milk is running in certain regions of the country especially. As a consequence of that, a bigger movement of milk in the frame of the Czech Republic occurred. The interest of foreign and domestic processors in Czech milk induced the interest of Czech milk producers in production of this commodity. A long-term declining trend of dairy cows herd changed in slight increase at the start of 2005. Total production of milk increased in 2005 by 5.2 % compared to 2004 and high market share of Czech milk production represents an analogous dynamics in market production, too. Supply of milk in the frame of the reference quantity for deliveries (milk for further processing) in quota year 2003/04 achieved 2 522.9 mil. l. In the next reference period 2004/05 supply reached 2 538.7 mil. l already and got to the upper level of national quantity for deliveries (fulfilled by 99,72 %). Development in the running reference period 2005/06 tends toward overshooting of national quantity.

However, as results from both figures, development of milk intake by Czech processing plants does not correspond to the development of the Czech market production of milk. Figure 3 demonstrates the difference in the development of domestic market production in the frame of reference quantity for deliveries (i.e. total production for processing incl. quantities exported) and development of milk intake by Czech dairy plants. The difference is being growing. Besides of that it is obvious that the domestic milk intake was complemented by imports of milk approximately to the level of domestic market production till August 2005. Starting from this period the imports of milk do not cover the loss of raw milk on the domestic market.

Figure 3: Comparison of domestic market production and milk intake




*Source: Customs statistics; Resort statistics; the State Agricultural and Intervention Fund*

## 2. Milk products market

Significant dynamics after the EU enlargement exhibits also foreign trade with milk products in the Czech Republic. Within two years exports of milk products expressed in milk equivalent increased by 13 %, imports by 62 %. In table 3 development of foreign trade with milk products is compared to the development of deliveries of milk to Czech processing plants by domestic producers (milk intake).

Table 3: Milk intake and foreign trade with milk products in milk equivalent (mil. l)

| | 2003 | 2004 | 2005 | Index 04/03 | Index 05/04 | Index 05/03 |
|---|---|---|---|---|---|---|
| **Milk intake** | 2530,9 | 2496,8 | 2476,3 | 0,99 | 0,99 | 0,99 |
| **Exports** | 772,3 | 738 | 832,6 | 0,96 | 1,13 | 1,13 |
| **Imports** | 281,4 | 329,6 | 535,4 | 1,17 | 1,62 | 1,62 |

*Source: Customs statistics; Resort statistics*

For the purpose of the territorial point of view, the value of traded goods has been taken for the comparison. From this aspect, a considerable shift of Czech trade to the EU countries in 2004 and 2005 was proved. While in 2003 the share of exports from the Czech Republic to the EU 25 took 46 % of the total value of Czech exports, in 2005 increased this share to 66 %. The imports from the EU participated already before the enlargement by a dominant part on the total value of imports and this share has been further increased in 2005.

The most important export partner for the Czech Republic in 2005 with respect on the value of traded goods was Slovakia (23 % of the total value of exported milk products), Germany (17 %) and Italy (9 %). The foremost importing country was Germany (34 % of the total value of imported milk products), Poland (28 %) and Slovakia (23 %), while Germany exhibits the progress from 25% share in 2004 to above mentioned 34% share in 2005.

Table 4: Territories of Czech trade with milk products

| | | 2003 | | 2004 | | 2005 | |
|---|---|---|---|---|---|---|---|
| | | mil. EUR | Share (%) | mil. EUR | Share (%) | mil. EUR | Share (%) |
| **Exports** | **EU 15** | 42,0 | **22** | 103,9 | **42** | 100,8 | **37** |
| | **EU 10** | 46,0 | **24** | 54,3 | **22** | 79,7 | **29** |
| | **non member** | 103,3 | **54** | 87,7 | **36** | 90,5 | **33** |
| **Imports** | **EU 15** | 43,3 | **35** | 57,6 | **36** | 95,9 | **47** |
| | **EU 10** | 76,4 | **61** | 99,3 | **62** | 106,5 | **52** |
| | **non member** | 4,7 | **4** | 4,3 | **3** | 1,6 | **1** |

*Currency rate: 29,784 CZK/EUR*
*Source: Customs statistics*

In assortment structure of foreign trade with milk products there exist visible amendments after the EU accession, at some items quite significant ones. On the side of exports to the most evident amendments belong:

- growth of exports of drinking milks (both to EU 10 and EU 15),
- growth of exports of creams to EU 15 (to Germany and Italy above all)
- decrease of exports of bulk products (milk powders and butter).

On the side of imports the most significant amendment appeared at the item of:

- natural cheese, imports of which are being growing continuously from 2004.

In 2005 already double quantity of natural cheese was imported to the Czech Republic than in 2003. The essential volume is being coming from Germany, Poland and Slovakia, the share of these countries on the total cheese imports amounted 37 %, 32 % and 15 % respectively. The rest are imports from France, Italy and Greece.

***Positive attributes*** of the development of milk products foreign trade are decrease of exports of bulk products (dependent on export subsidies) connected with decrease of domestic production of these kinds of products. While in 2004 the amount of export subsidies reached 37.9 mil EUR[1] in the Czech Republic, in 2005 this amount dropped by more than 32 %. Decrease of total amount of export subsidies hangs together with

- the drop of their unit rate enabled by the increase of prices on dominant markets
- the drop of butter production being influenced by the increase of demand for creams and utilization of fat in creams
- the drop of slight decrease of milk powders production

***Rather negative aspect*** of foreign trade amendments is the fact that the rise of exports (and domestic production) appeared at such items especially, which do not include much added value, i.e. drinking milks and creams. At the same time exports of high value added milk products – cheese - stagnated and the domestic production dropped.

Moreover, the crucial part of imports increase was realized in high value added goods.

[1] 71.2 % of export subsidies were provided from budget of the Czech Republic before the accession.

Table 5: Exports of main milk products in the Czech Republic (t)

| | 2003 | 2004 | 2005 | Index 04/03 | Index 05/04 | Index 05/03 |
|---|---|---|---|---|---|---|
| **Drinking milk** | 11 126,4 | 36 451,7 | 113 702,3 | 3,28 | 1,00 | 10,22 |
| **Creams** | 2 058,1 | 16 378,2 | 18 207,7 | 7,96 | 3,12 | 8,85 |
| **Yoghurts** | 5 826,9 | 12 396,9 | 19 569,7 | 2,13 | 1,11 | 3,36 |
| **Other saured products** | 879,8 | 4 124,0 | 8 614,2 | 4,69 | 1,58 | 9,79 |
| **Cheese incl.curds, excl.processed** | 18 051,5 | 19 767,4 | 18 886,7 | 1,10 | 2,09 | 1,05 |
| **Processed cheese** | 399,8 | 621,3 | 1 270,1 | 1,55 | 0,96 | 3,18 |
| **Butter** | 23 033,2 | 19 263,3 | 13 133,6 | 0,84 | 2,04 | 0,57 |
| **Skimmed milk powder** | 39 762,0 | 33 902,5 | 30 132,4 | 0,85 | 0,68 | 0,76 |
| **Whole milk powder** | 21 283,7 | 16 927,2 | 15 476,5 | 0,80 | 0,89 | 0,73 |

*Source: Rezortní statistika Mlék(Mze)6-12*

Table 6: Imports of main milk products in the Czech Republic (t)

| | 2003 | 2004 | 2005 | Index 04/03 | Index 05/04 | Index 05/03 |
|---|---|---|---|---|---|---|
| **Drinking milk** | 46 998,0 | 37 385,0 | 40 997,0 | 0,80 | 1,00 | 0,87 |
| **Creams** | 3 701,0 | 4 510,0 | 6 633,0 | 1,22 | 1,10 | 1,79 |
| **Yoghurts** | 20 333,0 | 10 921,0 | 13 490,0 | 0,54 | 1,47 | 0,66 |
| **Other saured products** | 8 876,0 | 18 731,0 | 22 000,0 | 2,11 | 1,24 | 2,48 |
| **Cheese incl.curds, excl.processed** | 15 709,0 | 23 346,0 | 37 706,0 | 1,49 | 1,17 | 2,40 |
| **Processed cheese** | 7 264,0 | 7 814,0 | 8 284,0 | 1,08 | 1,62 | 1,14 |
| **Butter** | 5 008,0 | 4 520,0 | 7 292,0 | 0,90 | 1,06 | 1,46 |
| **Skimmed milk powder** | 151,0 | 434,0 | 1 608,0 | 2,87 | 1,61 | 10,65 |
| **Whole milk powder** | 274,0 | 923,0 | 569,0 | 3,37 | 3,71 | 2,08 |

*Source: Rezortní statistika Mlék(Mze)6-12*

Table 7: Foreign trade with raw milk and milk products (mil EUR)

| | 2004 | 2005 | Index 05/04 |
|---|---|---|---|
| **Raw milk[1)]** | | | |
| **Export** | 11,9 | 41,8 | 3,51 |
| **Import** | 8,8 | 16,9 | 1,92 |
| **Ballance** | 3,1 | 24,9 | 8,03 |
| **Milk products [2)]** | | | |
| **Export** | 245,8 | 271,0 | 1,10 |
| **Import** | 161,2 | 204,0 | 1,27 |
| **Ballance** | 84,6 | 67,0 | 0,79 |

*[1)] Customs item 0401 2099 , fat 3 - 6 %, packing over 2 l*

*[2)] Customs items 0401 - 0406 excl. 0401 2099*

*Source: customs statistics*

Comparison of development of foreign trade with raw milk and foreign trade with milk products shows a negative trend. Presented figures are for 2004 and 2005 because in previous years the exports and imports of raw milk from and to the Czech Republic were carried out at a minimum level. Table 7 exhibits negative trends. Export of raw milk is much more progressive than export of milk products. At the same time milk products imports grow more rapidly than milk products exports. Moreover from the assortment structure of imports is clear that imports rose in value added items above all.

Above mentioned findings represent a rather problematic development for Czech processors of milk. Their contemporary main points of issues may be characterised as follows:

- Competition on the raw milk market grows. Purchase of milk from domestic production becomes more difficult, foreign sources of raw milk are limited, too.
- Competition on milk products market is being strengthening, too. Exports of milk products rise less than their imports. Domestic consumption of milk products is being covered in

increasing manner by imported products. Realization of domestic products on inland market becomes more difficult.

- Exports of milk products tend to items with a small part of value added.
- Share of milk products being sold through market chains stabilised round 70 % in the past four years. However their purchasing conditions graduate. Strengthening competition between particular market chains, together with coming discount outlets and increase of their market position, contribute to graduate their purchase conditions and reflects negatively to processors.
- Previous investments for EU standards accomplishment lead to difficult finance situation of many Czech processing plants. Finance liability does not enable sufficient space for further modernisation to increase production efficiency.
- The assortment saturation of the domestic market is high. The space for detection of market blank spaces is very limited.

Contemporary position of Czech processors puts intense requirements on further produce and business strategy. Formulating uniform strategy and a general way out is difficult. Future strategy depends on many factors from the area of:

- Milk producers´ strategy, development of milk intake and milk price.
- Activities of other market participants – competition between particular processing plants, retailers´ policy.
- Market regulation development – continuing WTO discussions.
- Consumers´ demand development.

In the frame of existing uncertain conditions of production and business environment, Czech producers could focus on following points:

- The question of milk production and milk intake remains open. Development after the EU enlargement is a logical response of price unbalanced market formation. The effort to get cheaper raw milk is being supplemented by the effort to get an overhead source of quoted raw material. For future is not transparent – if, after expected producer price approximation in the frame of the EU, the interest in Czech milk would weaken or if Czech milk would continue to aid to the expansion of processors in near countries.
- Property joint venture of milk producers and milk processors would contribute to better cooperation of both chain links. For the time being starting this kind of cooperation seems to be easier for processors than for milk producers. Processing plants represent in the Czech Republic a greater concentration of capital than those by milk producers, there were 2 953 milk producers and 51 milk processors operating on the market in 2005. First activities of processors in this area were registered already. Investing of milk producers in processing assumes an agreement within existing cooperatives or creation of new ones for this purpose. Existing investments of Czech milk producers in processing come from the period before the EU accession. Unfavourable development in several Czech milk processing plants after 2004 was availed of foreign capital, while Czech marketing cooperatives did not use this chance.
- In realization of milk products there stand strong subjects (market chains) on one side against single processing plants on the other side. Against concentrated demand there should appear a concentrated offer. On condition that Czech processors would find a way how to cooperate in this sphere, concentration of the offer of produced goods would enable to achieve better marketing conditions.
- Continuing WTO discussions suppose decrease of export subsidies and their ending till 2013. Decrease in milk branch is being continuous - in 2004 for this purpose and EU 1,495 bill. EUR was counted, in 2005 1,247 bill. EUR and for 2006 the assumptions is 0,841 bill. EUR, what is 37.2 % of the roofline negotiated. More than probable is the fact that European (and Czech) butter and milk powder could hardly be purchased on world market without any export subsidies. The orientation of processors on production of high value products becomes increasingly important.
- Position of Czech milk processing industry on international premium market is unfavourable. One possible way how to get competition advantage and how to establish oneself on the market could be introducing of regional marks. In this sphere, position of Czech milk industry has many reserves. Until now no Czech product in milk branch was registered by the

European Commission, in Czech food industry there are 3 products registered only and further 31 ones are subjects of negotiation.

- A certain space for realization of milk products on the domestic market may be found in the offer of specialities, organic products and products of healthy nutrition. Nevertheless in the Czech Republic there is missing corresponding retail network for the sale of this kind of products. Investments in this sphere could contribute to better selling of this kind of products.
- At the same time a proper examination of market both from the assortment and territorial points of view is necessary to be done. In this connection, examination of consuming behaviour, retail network development, purchase preferences etc seems to be very important.

Present day situation of both producers and processors of milk is demanding but promising. Till this time, enterprises on both levels of milk branch in the Czech Republic found the space for their continuous functioning. In spite of all existing and expected problems on the milk market being necessary to be faced, there is a good potential for a reasonable future developments in this area.

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