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of the International Dairy Federation
458/
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The World Dairy Situation 2012

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The World Dairy Situation 2012

Foreword

One of the most prominent trends of the past decade has been the increasing globalisation of the dairy industry. The emergence of significant demand for dairy products in large emerging economies, many of which cannot fully service this domestically, has increased the magnitude of global dairy trade. This growth has been further enabled by domestic and international agricultural policy reform and trade agreements which have facilitated commerce.

Another key driver impacting supply and demand dynamics has been global weather and geological patterns. Historical droughts in Europe (summer of 2011) and the US (2012), tragic earthquakes – particularly affecting Japan's Tohoku region – and instances of devastating floods in several dairy producing regions illustrate this point. For many countries, however, 2011-2012 was notable for weather that was highly conducive to milk production, as demonstrated by season on season production increases through to mid-2012 in India, USA, Brazil, Argentina, Oceania and the EU.

The effect of extreme weather events and natural disasters on the global dairy market is pronounced. From the supply side, constraints are placed on primary inputs (such as feed) while logistical challenges may interfere with the free flow of goods. As consumption patterns are altered, so too the demand for dairy products is affected. While the OECD-FAO Agricultural Outlook 2012-2021 predicts modest growth in international dairy prices to 2021, continued strong demand due to economic and population growth along with political and macro-economic instability suggest the overall trend is up, but increased volatility is also expected. The market based tools and policies that develop for managing this volatility will profoundly impact the economic sustainability of the dairy sector for decades to come.

In such a volatile environment, having access to accurate, informative and digestible analysis is critical. In line with IDF's mission to represent and support the dairy sector worldwide, its Standing Committee on Dairy Policies and Economics produces the World Dairy Situation report annually to describe and map trends across the dairy industry.
The IDF World Dairy Situation 2012 analyses the global dairy market in depth. At all stages – from milk production to end consumption – the report provides valuable insights backed by thorough data collection and analysis.

We would like to thank all organisations, members and experts, especially the team of Productschap Zuivel and CNIEL, who actively contributed to the development of this report. The financial support of our partners Saputo and Tetra Pak is gratefully acknowledged.

Sarah Paterson
Chair of IDF Standing Committee on Dairy Policies and Economics

Nico van Belzen
IDF Director General

Message from the WDS team

For the third consecutive year CNIEL and PZ have produced the IDF World Dairy Situation Report. Again this year we carried out suggestions we got from users of the report. We thank readers for these suggestions. This year's improvements have mainly to do with providing more consumption figures and more analysis throughout the report. The last chapter, the one on Dairy Outlook, is a prime example of the latter. But we also revamped the country reports changing the order of the items to a more logical one.

Again we gave the floor to international experts to contribute to the Forum chapter. The first contribution is on the African dairy situation, showing Africa's growing dairy importance. Next, and in line with this, an analysis of milk production and feeding systems worldwide in order to understand better the existing feeding systems on different farms. Volatility appears more and more to be an inseparable feature of price formation in the dairy sector. The third contribution is from an action team of the IDF's Standing Committee on Dairy Policies and Economics that studied volatility, more precisely the level of price variability among farm gate prices for a selected set of countries. The next contribution is about the strong growth in investments for dried dairy products subsequent to the spectacular growth in imports of these products in emerging dairy countries. The final contribution is about water as a finite and vulnerable resource of the planet. Studies on this issue only began recently and the issue is still in its infancy. The contribution: Water footprint - water assessment or accounts, reports on the present state of affairs.

The country reports are based on questionnaires filled in and returned by the National Committees of IDF. Our utmost thanks go to the National Committees who provided us with this data. The country reports are a significant feature of the World Dairy Situation Report, allowing us to provide the most complete and detailed overview of the global dairy situation as possible. It also provides the opportunity for individual nations to present information on their own dairy sectors in the country report. If there is no country report available you can still find, in most cases, a breakdown of data on that nation's dairy sector in Annex 3 (compiled using our own extensive data base). The section "key developments" in the country report is the responsibility of the National Committee. This year for the first time you will find information on Colombia, Rumania, Mongolia and Nigeria in the report.

The report has been produced under contract with IDF by Productschap Zuivel (PZ) and Centre National Interprofessionnel de l'Economie Laitière (CNIEL). The two organizations shared their data sources to make this report as complete as possible. As always we welcome suggestions for improvement and invite you to communicate any suggestions for improvement to info@fil-idf.org.

On behalf of the WDS team
Adriaan Krijger
Responsible editor.

WDS team

A word from our partners

At Saputo, we value consumers' ever-changing expectations and their growing appetite for innovative products. That is why we support the IDF World Dairy Situation Report which brings to light dairy information from all regions of the world. This useful resource enables us to remain in the forefront of the dairy industry.

Tetra Pak is pleased to have been invited to partner with IDF for this important publication – a source of invaluable data for the whole dairy industry. In times when society is looking for healthy food, all of us active in the value chain of milk production and distribution, have a responsibility to educate all stakeholders about the tremendous value that the dairy industry brings to people. We trust this publication will form an integral and important part of increasing the knowledge about the importance of the dairy industry.

Summary

2011 was a great dairy year. Both global dairy markets and the weather situation were extremely favourable. High producer prices stimulated milk production and world milk production jumped by 2.5% to 749 million tonnes. The extra 18.5 million tonnes compared to 2010 were easily absorbed by the market, resulting in favourable price developments.

Cow milk production, 83% of total milk production, increased by 2.4% to 621 million tonnes. A significant improvement compared to the 2.0% increase in 2010. Production increased almost everywhere but especially in the southern hemisphere. Buffalo milk production, 13% of total milk production, kept increasing much faster than cow milk production with 3.7% to 97 million tonnes in 2011. Steady developments continued the first half year of 2012. But things changed in late spring. Output is expected to slow down further during the second half of 2012 as a consequence of lower prices, higher feed costs and an adverse weather situation in most parts of the world.

World output increased last year for every dairy product, but growth was especially sharp for butter and skim milk powder (SMP). SMP production recovered strongly after a drop in 2010. World butter production kept growing in 2011, with a rise largely above previous years owing to exceptional growth in the United States and New Zealand. As for cow's milk cheese and whole milk powder (WMP), industrial output followed the trend of the last decade. Liquid milk output was more dynamic in 2011, according to limited data, than for the last few years, while production growth remained sustained for fermented products

Turnover of almost all dairy companies, expressed in USD, increased in 2011. The high historical levels of 2008 were reached again. Mergers and acquisitions were again a strong driver for extra turnover especially in Europe, but also for example in Brazil.

Global per capita consumption of milk was 107.3 kg, an increase of more than 1 kg. Asia is still the most important consuming region with a 39% share of total world consumption, followed by Europe (28%) and North America (13%). In recent years the strongest growth occurred in South America, Africa and Asia, respectively 26%, 22% and 13% (growth 2005-2011).

World dairy trade amounted to 58.2 million tonnes; an increase of 10%. It was well above the average growth rate of the last decade (4%). All exporters benefited from this boost in demand. Solid economic development in some of the key regions of the world, e.g. Middle East and South East Asia supported expansion of demand. World cheese trade amounted to more than 2.2 million tons (+6.6%). Most major cheese exporters, except for New Zealand, expanded trade volume. World trade in WMP increased by more than 7%, up to 2.2 million tonnes. While more than half of this was channeled into Asia and the Middle East, the growth focused on Latin America and Africa. World trade in SMP was most dynamic in 2011. Worldwide exports amounted to 1.7 million tons (+19%). Main destinations were in South East Asia, but also trade to various key markets in the Middle East, South America and Africa increased. SMP exports are rather concentrated on the supply side: 75% of supply originates from EU, USA and New Zealand. World trade in butter was fairly stable at 813 thousand tonnes (+0.5%).

In the first six months of 2011, global dairy markets developed well, mostly due to continued strong demand from Asia. Global dairy prices slowly lost ground in the third quarter and reflected deterioration in demand conditions in the EU and the USA. Nevertheless for the whole year international dairy commodity prices have been rising to levels reminiscent of the 2008 record year. Producer prices in Europe, New Zealand and the United States reached record levels in 2011. Milk prices in the first half of 2012 have fallen due to lower revenues on the dairy markets.

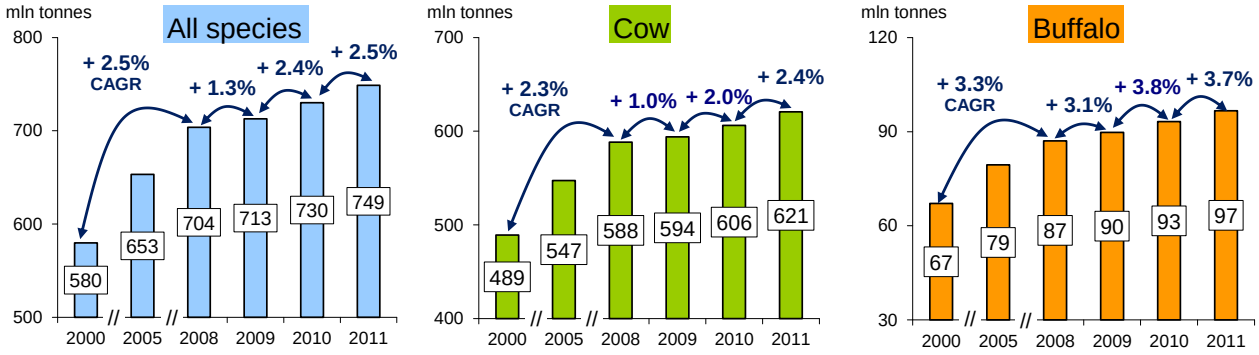
Demand is the key factor of dairy market balance today and tomorrow. Emerging countries are the driving force of world wealth growth. The BRIC (Brazil, Russia, India and China) countries alone accounted for almost 40% of world growth from 2005 to 2010. This impressive growth came with a strong rise in dairy products consumption. Another factor for rising consumption is population growth. Africa and Asia will accommodate 90% of the 2.4 billion additional people expected by 2050. OECD/FAO expects that the consumption of dairy products will increase only slightly in developed countries in the next decade, whereas in developing countries demand is expected to grow by 30% or more.

1. Milk Production

1.1. Overview

In 2011, dairy farmers took advantage of the good market situation for the second year in a row. Upward milk prices everywhere, with exceptional levels in the southern hemisphere, notably in Argentina, Brazil and New Zealand, stimulated milk output. Furthermore, weather conditions have been favourable to milk production in most parts of the world. Consequently, world milk production jumped by 2.5% in 2011, above the 2010 growth level (+2.4%) and also above the average growth observed since 2000 (+2.4%).

Milk production growth between 2000 and 2011

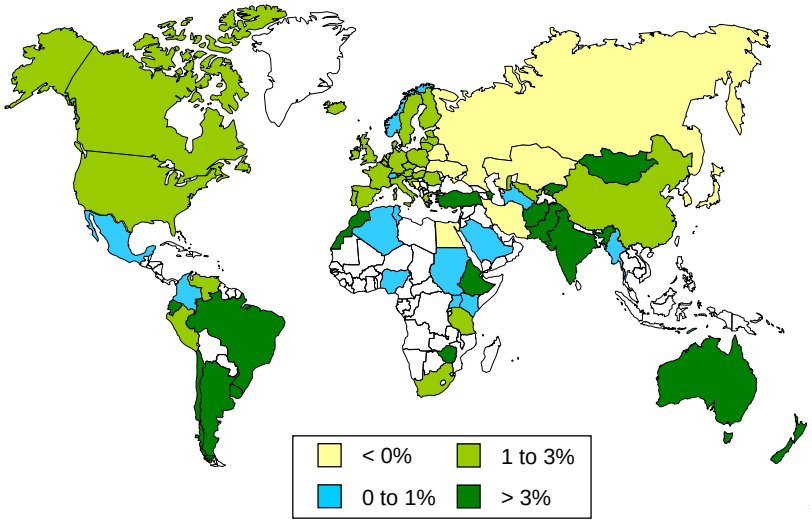


Source: CNIEL, PZ, FAO, IDF National Committees.

1.2. Cow milk

Cow milk production still represents 83% of the total world milk production. Its growth rate was estimated at +2.4% in 2011, a significant improvement compared to 2010 (+2.0%). With Eastern Europe (Russia, Belarus and Ukraine) as one of the few exceptions, milk production increased strongly last year almost everywhere. Growth was especially dynamic in the southern hemisphere, either in South America (Chile, Argentina, Brazil and Uruguay) or Oceania, where weather conditions were ideal for pasture and the abundant rainfall replenished depleted water supplies in Australia.

Cow milk production annual growth in 2011



Ranking of the main producers

mln tonnes	2011	Annual growth 10/11 (%)
EU 27	151.8	**1.8**
United States	89.0	**1.8**
India (A)	57.7	**5.1**
China	36.6	**2.2**
Brazil (A)	32.9	**4.0**
Russia	31.6	**-0.6**
New Zealand	19.0	**10.5**
Turkey	13.8	**11.1**
Pakistan	13.4	**3.8**
Argentina	11.9	**12.5**
Mexico	11.1	**0.6**
Ukraine	10.8	**-1.5**

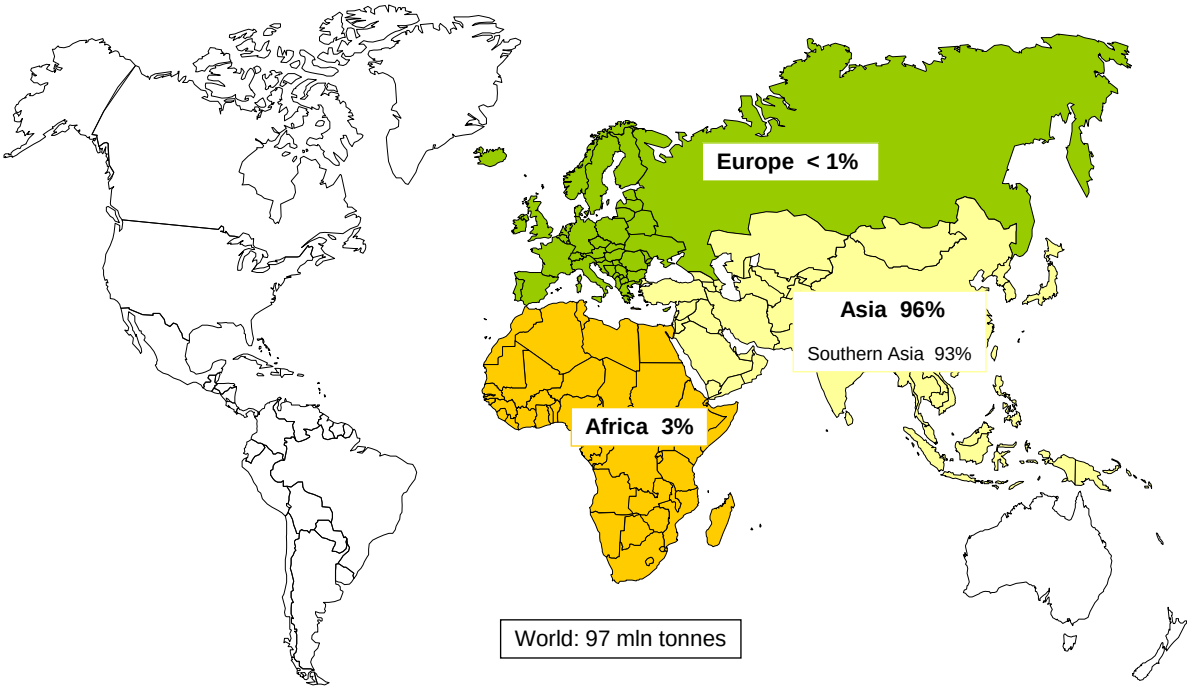
(A) Estimates.

Source: CNIEL, PZ, FAO, IDF National Committees.

1.3. Buffalo milk

In 2011, buffalo milk production kept increasing much faster than cow milk production. The world production of buffalo milk was estimated at 97 million tonnes in 2011. It constituted 13% of the total world milk production, compared to 8% in 1990. Buffalo milk is produced in few countries. More than 90% of the total volume is produced in India and Pakistan. Outside Southern Asia, smaller volumes are also available in Egypt, China, Iran and Italy.

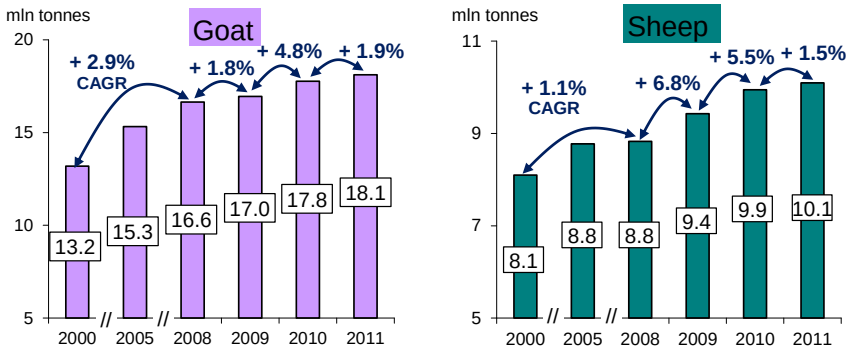
Buffalo milk production - Geographical breakdown in 2011



Source: CNIEL, PZ, FAO, IDF National Committees.

1.4. Milk from sheep, goats and other animals

Goat and sheep milk production development



Source: CNIEL, PZ, FAO, IDF National Committees.

Goat milk constitutes around 2.4% of total milk production, sheep milk 1.3% and camel milk 0.4%. According to FAO data for 2010, goat milk was mainly produced in Asia (58% of world production), in Africa (24%) and in Europe (15%), whereas sheep milk production is located in Asia (46%) and Europe (32%), and camel milk mostly in Africa (92%).

Goat milk production has been increasing regularly over the last few years, but this growth tends to be slowing in comparison with 2010. In 2011 the increase narrowed to 1.9%. As for sheep milk, world production has been increasing slightly (+1.5%) in 2011.

1.5. Trends for 2012

1.5.1. Official figures for the first half of 2012

The steady development that had occurred in 2011 continued during the first half of 2012. Among the main producers, milk output increased almost everywhere with the exception of Chile (-1.5%) and Kazakhstan (-11.5%). Even in countries like Russia and Japan, where a structural decline was recorded over the last few years, a significant recovery occurred during the first half of 2012. As in 2011, milk production continues its double-digit growth in New Zealand (+10.4%) and Uruguay (+16.3%).

Trend in milk production (or deliveries) in 2012

1 000 tonnes Country	Production or Deliveries	Time period	2012	Growth '11/12 (%) [B]
European Union	D	Jan-June	73.2	+2.3%
Switzerland	D	Jan-June	1.8	+2.5%
Croatia	D	Jan-May	0.3	+4.4%
Turkey	D	Jan-June	4.2	+12.9%
Russia	P	Jan-June	16.1	+2.5%
Kazakhstan	P	Jan-June	2.4	-11.5%
Belarus	P	Jan-June	3.4	+4.7%
Ukraine	P	Jan-June	5.5	+2.3%
Canada	D	Jan-June	4.1	+2.7%
United States	P	Jan-July	54.0	+2.7%
Mexico	D	Jan-June	5.4	+0.8%
Argentina [C]	D	Jan-June	3.7	+7.9%
Brazil	D	Jan-Mar	5.9	+3.3%
Chile	D	Jan-June	1.0	-1.5%
Uruguay	D	Jan-June	0.9	+16.3%
Japan	P	Jan-June	3.9	+2.2%
Australia	P	Jan-June	4.3	+4.7%
New Zealand	P	Jan-June	8.2	+10.4%

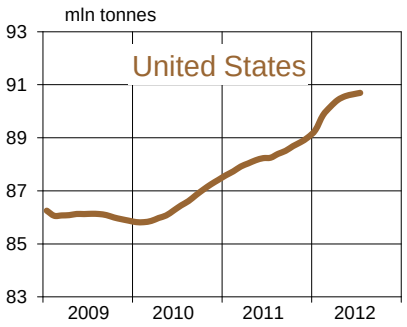
[B] Growth calculation adjusted for Leap Year.
[C] Deliveries to 20 dairies which process 64% of national volumes.

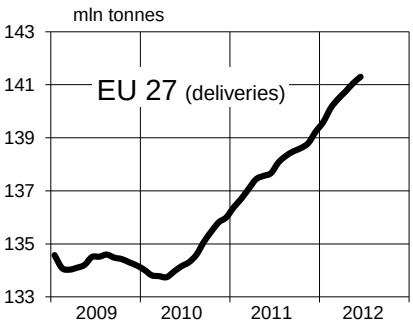
Source: CNIEL, ZMB, USDA, DCANZ, ALIC.

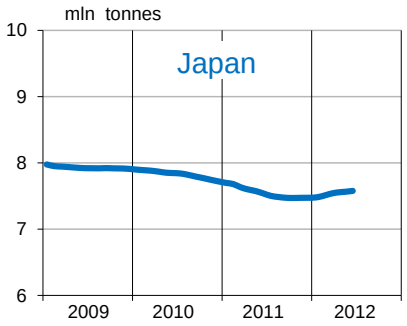
Nevertheless, this strong start will not last in the second part of the 2012. The context is not as favourable to milk production as it was since spring 2011. High feed costs, lower return from milk price and severe weather conditions (drought in the United States and in Russia; start of the monsoon delayed in India) tend to slow down the output in most parts of the world.

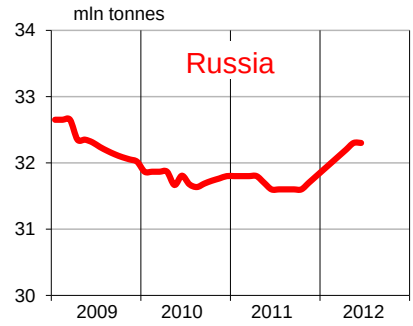
Milk production development (12 months rolling)

Northern hemisphere

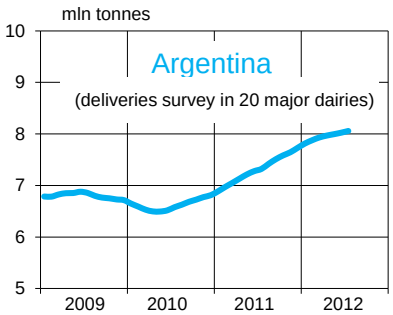


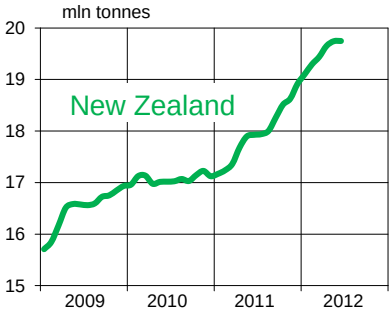


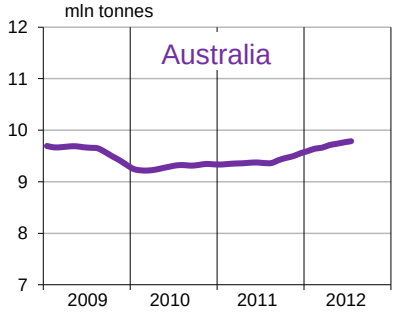




Southern hemisphere







Source: CNIEL, PZ, national statistics, international press.

By way of example, mid-August 2012, the USDA modified its forecast for the whole year domestic production: +1.9% against +2.9% predicted in May 2012. Drought has seriously affected the major corn growing regions and the monthly milk feed ratio, which measures dairy profitability, stood at its lowest levels since the early 1980's. Furthermore, because of heavy culling, USDA even considers that milk production will decrease by 0.5% in 2013.

In Oceania, the beneficial effects of the "La Niña" weather pattern may be coming to an end. Recent weather predictions suggest that there are early but as yet inconclusive signs of a shift to an "El Niño" weather pattern towards the end of 2012. If confirmed, this would likely result in drier weather conditions which could impact local dairy production.

1.5.2. Forecast for 2012 from the USDA and the FAO

The USDA and the FAO each publish twice a year a special report containing short term forecasts for the dairy sector. Hereafter are summed up the main figures concerning milk production from the FAO 'Food Outlook' report published in May 2012 and the USDA "Dairy: World Markets and Trade" report issued in July 2012.

The FAO survey provides forecasts on global milk production (all species taken together) for thirty five selected countries and for each continent. The USDA study supplies forecasts for cow milk production in thirteen selected countries.

The main trends described in those two reports are rather similar. They are both foreseeing sustained growth in Argentina, China, India and Oceania. They also agree on a small increase in milk output in the EU, Mexico, Canada and Japan, and they both anticipate a rise in the United States. Their analyses do not match up perfectly for Eastern Europe: FAO forecasts sustained growth for Russia and a slight increase for Ukraine, while USDA appears to be much less optimistic.

Comparison of USDA and FAO forecasts for milk production in 2012

	FAO All species milk production (%)	USDA Cow milk production (%)
Canada	stable	+ 0.6
Mexico	stable	+ 0.7
United States	+ 1.8	+ 2.7
Argentina	+ 4.2	+ 7.0
Brazil	+ 3.1	+ 2.3
EU 27	+ 0.8	+ 1.3
Russia	+ 3.1	+ 1.1
Ukraine	+ 0.9	- 2.3
India [D]	+ 4.3	+ 4.8
China	+ 4.8	+ 5.4
Japan	+ 1.3	+ 1.6
Australia [E]	+ 3.3	+ 4.6
New Zealand [F]	+ 8.9	+ 4.8

[D] Year ending in March 2012 for FAO; calendar year for USDA
[E] Year ending in June 2012 for FAO; calendar year for USDA.
[F] Year ending in May 2012 for FAO; calendar year for USDA.

Source: FAO Food Outlook May 2012, USDA World Dairy Markets and Trade July 2012.

2. Milk Processing

2.1. Cow milk deliveries

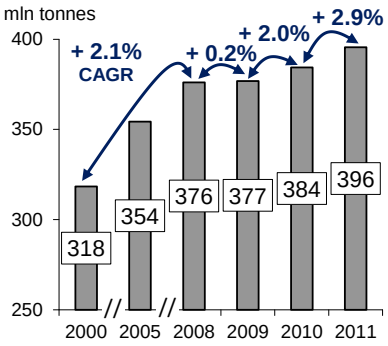
According to the data collected from IDF National Committees and other bodies, cow milk deliveries increased globally by 2.9% in 2011. This rate was largely above the average observed for the last decade (+1.9%).

Milk deliveries soared in the southern hemisphere, showing a double-digit rise in New Zealand (+10.5%), Argentina (+12.5%) and Uruguay (+19.3%). In the northern hemisphere, growth was also sustained in several Asian countries, such as China (+4.9%), Iran (+5.7%), Israel (+6.8%) and Turkey (+4.9%). After a drop in 2009, deliveries increased in the European Union and the United States for the second year in a row.

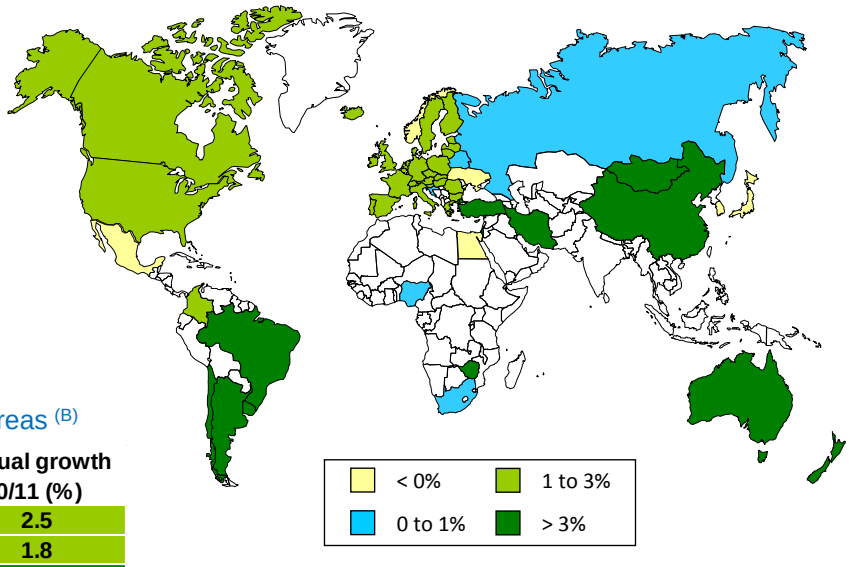
Set-backs were recorded only in a few countries such as Japan, South Korea and the Ukraine, which have been facing such a decline for years. This structural contraction was unfortunately strengthened in South Korea (-8.9%) by a violent foot-and-mouth disease outbreak and in Japan (-3.9%) by the Fukushima catastrophe.

Cow milk deliveries development in 2011

Global development 2000-2011 (A)



(A) In 50 selected countries



Main countries and areas (B)

mln tonnes	2011	Annual growth 10/11 (%)
EU 27	139.2	**2.5**
United States	88.6	**1.8**
China	27.4	**4.9**
Brazil	22.4	**3.9**
New Zealand	18.9	**10.5**
Russia	16.8	**0.6**

(B) India not ranked.

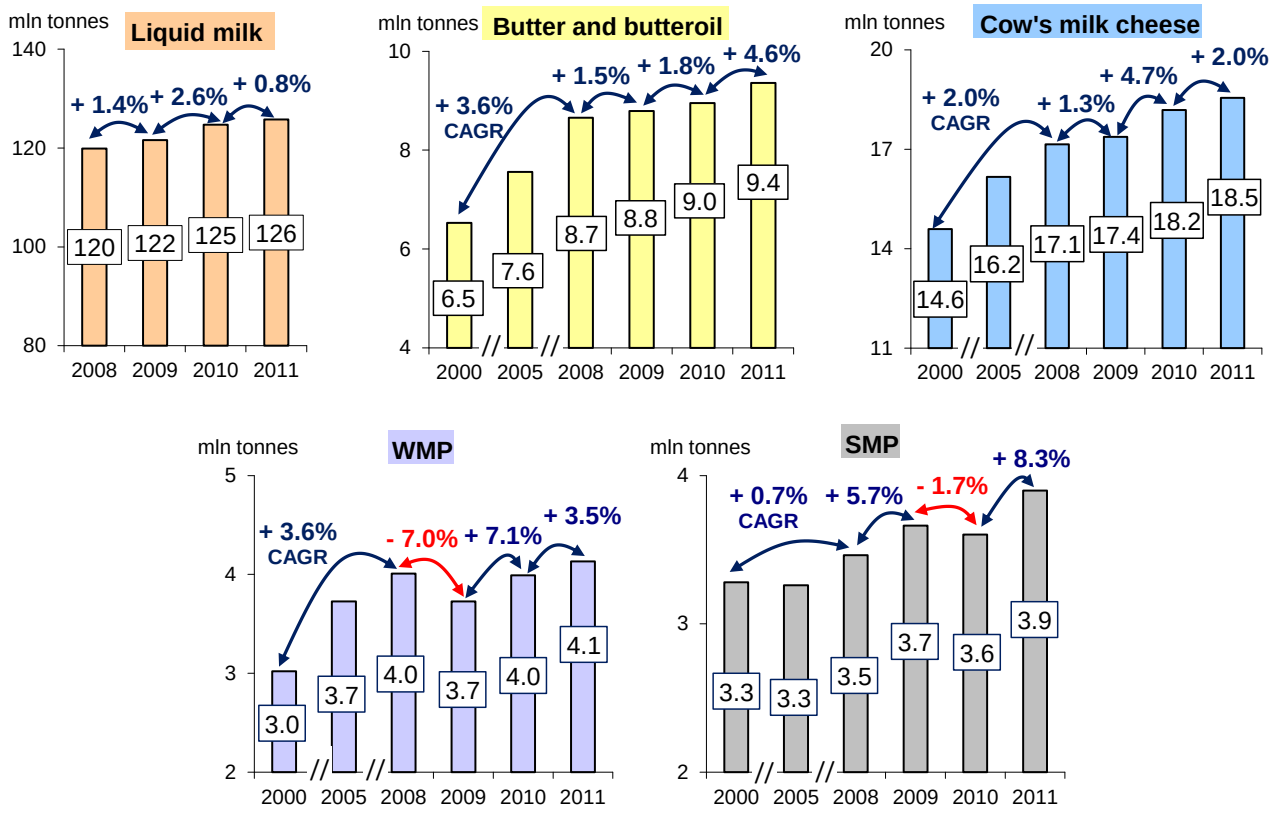
Source: CNIEL, PZ, FAO, IDF National Committees.

2.2. General overview of dairy product output

World output increased last year for every dairy product, but growth was especially sharp for butter and milk powder.

Last year SMP production recovered strongly after a drop in 2010. In opposition to the previous year, stocks were rather small in 2011 while sustained international demand stimulated production. World butter production kept growing in 2011, with a rise largely above previous years owing to exceptional growth in the United States and New Zealand. As for cow's milk cheese and whole milk powder, industrial output was globally in line with previous data observed for the last decade.
Consolidated and exhaustive figures are not available for fresh dairy products. Only global trends are derived from national statistics. However, according to the data collected for this report, liquid milk output was more dynamic in 2011 than for the last few years, while production growth remained sustained for fermented products.

Dairy products output development in selected countries [(C)]



Source: CNIEL, PZ, FAO, IDF National Committees, USDA.

[(C)] Total for each product determined by the compilation of data issued by 50 selected countries, representing at least 90% of the world production for butter, cow's milk cheese and milk powders, and 75% for liquid milk.

2.2.1. Liquid milk and fresh dairy products

According to data collected from IDF National Committees and other bodies, world liquid milk production increased by 0.8% in 2011. This result as a whole covers wide variations among countries. Sustained growth continued in China (+12.3%), Ukraine (+11.2%) and Belarus (+10.0%), while variations were moderate in Russia (-0.2%), the European Union (+0.3%) and in most countries in the Americas.

With a few exceptions like the European Union (-0.4%), production of fermented products increased in most parts of the world. This growth was especially impressive in Japan (+7.1%), in Russia (+9.9%) and in China (+9.0%). The tremendous development of fermented milk output in Iran last year (+110%) came with a drastic decline in liquid milk production (-50%), due to the removal of subsidies allotted to the latter.

Liquid milk and fermented products - Output development in selected countries

Liquid milk

mln tonnes	2011	Annual growth 10/11 (%)
EU 27	33.2	0.3
United States	24.4	-1.7
China	16.7	12.3
Brazil	11.3	0.3
India (D)	8.6	4.2
Russia	4.9	-0.2
Mexico	4.4	-0.6
Japan	3.8	-2.5

(D) Figures only for cooperatives.

Fermented products (E)

mln tonnes	2011	Annual growth 10/11 (%)
EU 27	8.3	-0.4
China	3.9	9.0
Russia	2.5	9.9
Iran	2.0	110.5
United States	1.9	2.2
Turkey (F)	1.5	12.2
Japan	0.9	7.1
Argentina	0.5	5.5

(E) No data available for India.
(F) Kefir excluded.

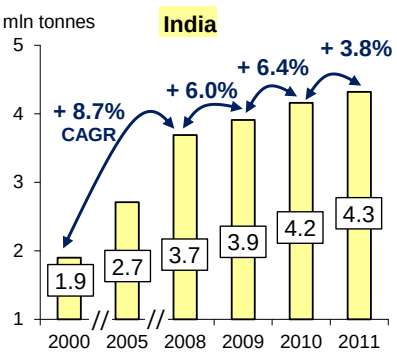
Source: CNIEL, PZ, Eurostat, IDF National Committees, ZMB.

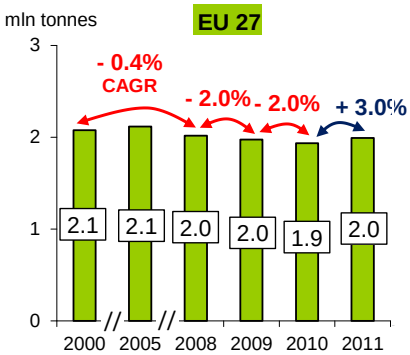
2.2.2. Butter and other milk fats

World output of butter and other milk fats (butteroil, ghee) is estimated at around 10 million tonnes. According to the data collected, this output increased by 4.6% between 2010 and 2011. In India, growth was not as sustained as in previous years, but an unusual rise occurred in New Zealand (+11.6%) and in the United States (+15.7%). Also, after years of continuous decrease, production recovered firmly in the European Union (+3.0%) and Russia (+4.6%).

Butter and butteroil output development

Global development 2000-2011 for the two main players





Development in 2011 for the main countries and areas

mln tonnes	2011	Annual growth 10/11 (%)
India	4.3	3.8
EU 27	2.0	3.0
United States	0.8	15.7
Pakistan (G)	0.6	-
New Zealand	0.5	11.6
Russia	0.2	4.6

(G) estimate

Source: CNIEL, PZ, FAO, FAPRI, IDF National Committees, ZMB.

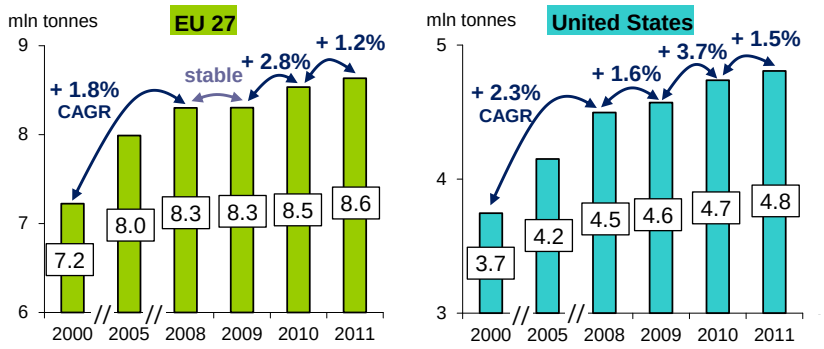
2.2.3. Industrial cheese

World production of natural cheeses (i.e. all cheeses excluding processed cheeses) is slightly over 20 million tonnes. Cow's milk cheeses produced from milk delivered to dairies (i.e. industrial cheeses) represent more than 80% of the global natural cheese production. The rest is made up of farm and home-made products, but also cheeses from other milks (sheep, goat and buffalo). Europe and North America still dominate more than 70% of the world natural cheese production.

Cheese production was less dynamic than in previous years in the three main suppliers of the dairy world market (New Zealand, the European Union and the United States) which deliberately oriented their processing activities more towards milk powder (SMP in the EU and the US; WMP and SMP in New Zealand) in order to take advantage of the steady demand in emerging countries. Stimulated by dynamic local demand, cheese production increased strongly last year in Brazil (+4.2%) and Australia (+5.0%).

Cow's milk cheese output development

Global development 2000-2011 for the two main players



Development in 2011
for the main countries and areas

mln tonnes	2011	Annual growth 10/11 (%)
EU 27	8.6	1.2
United States	4.8	1.5
Brazil	0.7	4.2
Argentina	0.5	3.0
Russia	0.4	-1.8
Canada	0.3	-4.1
Australia	0.3	5.0
New Zealand	0.3	-4.1

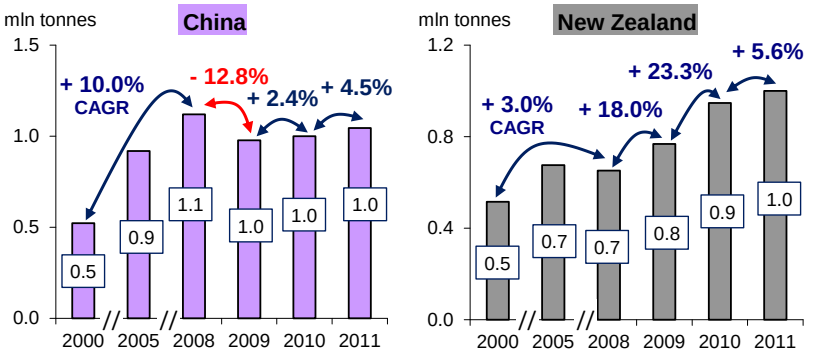
Source: CNIEL, PZ, IDF National Committees, ZMB.

2.2.4. Milk powders

World production of WMP is estimated at around 4.5 million tonnes. The two main players, China (+4.5%) and New Zealand (+5.6%) increased their production firmly, but the most impressive growth occurred in Argentina (+35.8%), where the important additional volumes of milk produced in 2011 were processed mainly into WMP. The structural decline of WMP production in Europe continued (-2.4%).

WMP output development

Global development 2000-2011 for the two main players



Development in 2011
for the main countries and areas

mln tonnes	2011	Annual growth 10/11 (%)
China	1.0	4.5
New Zealand	1.0	5.6
EU 27	0.7	-2.4
Brazil	0.5	2.0
Argentina	0.3	35.8
Australia	0.2	5.0

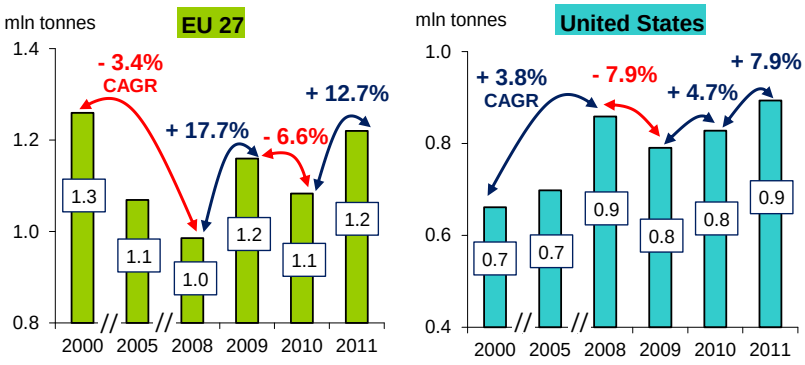
Source: CNIEL, PZ, IDF National Committees, USDA, ZMB.

World production of SMP is estimated at around 4 to 4.5 million tonnes. Stimulated by firm demand the output of skim milk powder increased in most parts of the world between 2010 and 2011. SMP has been playing a growing role for the last two years in exports from the European Union and the United States, in so far as there is no longer a price gap between those two blocks and New Zealand. Since 2010, North American and European processors have been competitive all year long on the SMP world market, which is not the case for butter and WMP. This convergence in terms of price is corroborated by the participation of American (Dairy America) and European (Arla Foods) companies in the SMP auction on the GlobalDairyTrade platform.

In New Zealand, Fonterra diversified its exports last year and did not focus its growth only on WMP. As a consequence, national production of butter (+11.6%) and SMP (+27.9%) soared.

SMP output development

Global development 2000-2011 for the two main players



Development in 2011
for the main countries and areas

mln tonnes	2011	Annual growth 10/11 (%)
EU 27	1.2	12.7
United States	0.9	7.9
India	0.4	7.9
New Zealand	0.4	27.9
Australia	0.2	2.0
Japan	0.1	-11.9

Source: CNIEL, FAPRI, PZ, IDF National Committees, ZMB.

2.2.5. Condensed milk

The geographical breakdown of condensed milk production changed considerably during the last three decades. World production, which, in the eighties, was dominated by the EU, the United States and the ex-USSR, is now much more scattered with significant contributions in the Far East (Malaysia, Thailand, Singapore and China) and South America (Brazil, Peru, Chile). FAO estimated world production to be rather stable between 2008 and 2010 at around 4.8 to 4.9 million tonnes.

According to the data collected among IDF National Committees and other respondents, world condensed milk production seemed to be rather stable in 2011. Decline observed in the European Union (-4.1%) and in the United States (-0.5%) was compensated by growth in other parts of world, such as Russia (+3.0%) and Peru (+2.3%).

2.2.6. Whey products, casein and other dairy ingredients

In 2011 casein production increased in most countries where statistics are available. In the EU, output was estimated at around 145 000 tonnes, that is to say 15 000 tonnes more than in 2010. This trend is apparently continuing in 2012.

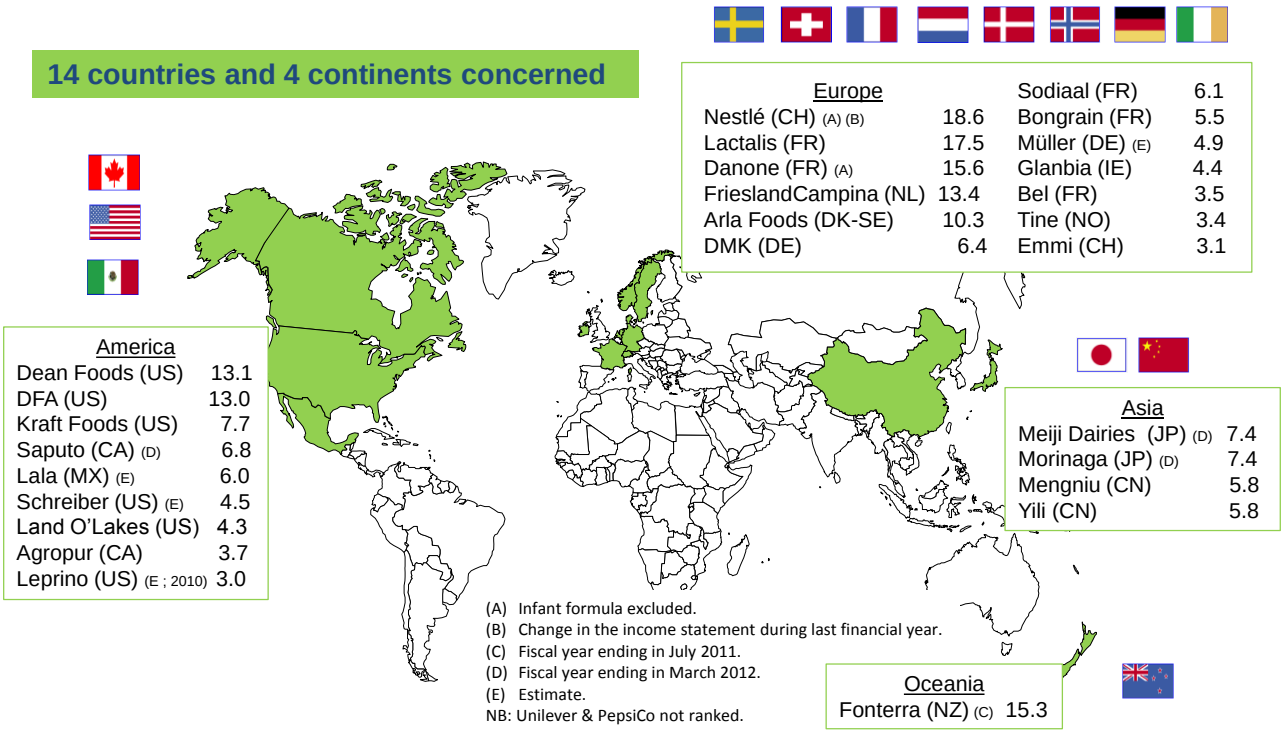
Liquid whey production results mainly from the industrial production of cheese, which generates more than 80% of the total whey available, and secondarily from casein output. For this reason, the major processors of whey are located in Europe, North America and Oceania, which correspond to the major cheese production areas. Compared to 2010, no significant changes occurred last year in the United States; production remained rather stable with 500 000 tonnes of whey powder and condensed whey, as well as 195 000 tonnes of whey protein concentrates and almost 30 000 tonnes of whey protein isolates. The production of whey powder within the EU is estimated at around 1.9 million tonnes. It increased slightly (+1.6%) in 2011.

3. Dairy Industry

3.1. Steady growth in 2011

Without taking into account Pepsico and Unilever, for which neither official figures nor consistent estimates are available concerning their dairy activities, twenty seven companies generated a dairy turnover exceeding 3 billion USD in 2011. There were 25 in 2010. One group left this ranking: Parmalat was bought last year by Lactalis. Three newcomers joined the table: the German Müller, the Irish Glanbia and the Swiss Emmi, which have been achieving steady growth for the last few years through major investments abroad. Those 27 dairy leaders come from 14 countries located on 4 continents.

Main dairy leaders in 2011 (Dairy turnover exceeding 3 billion USD)



Source: CNIEL, company reports, international press.

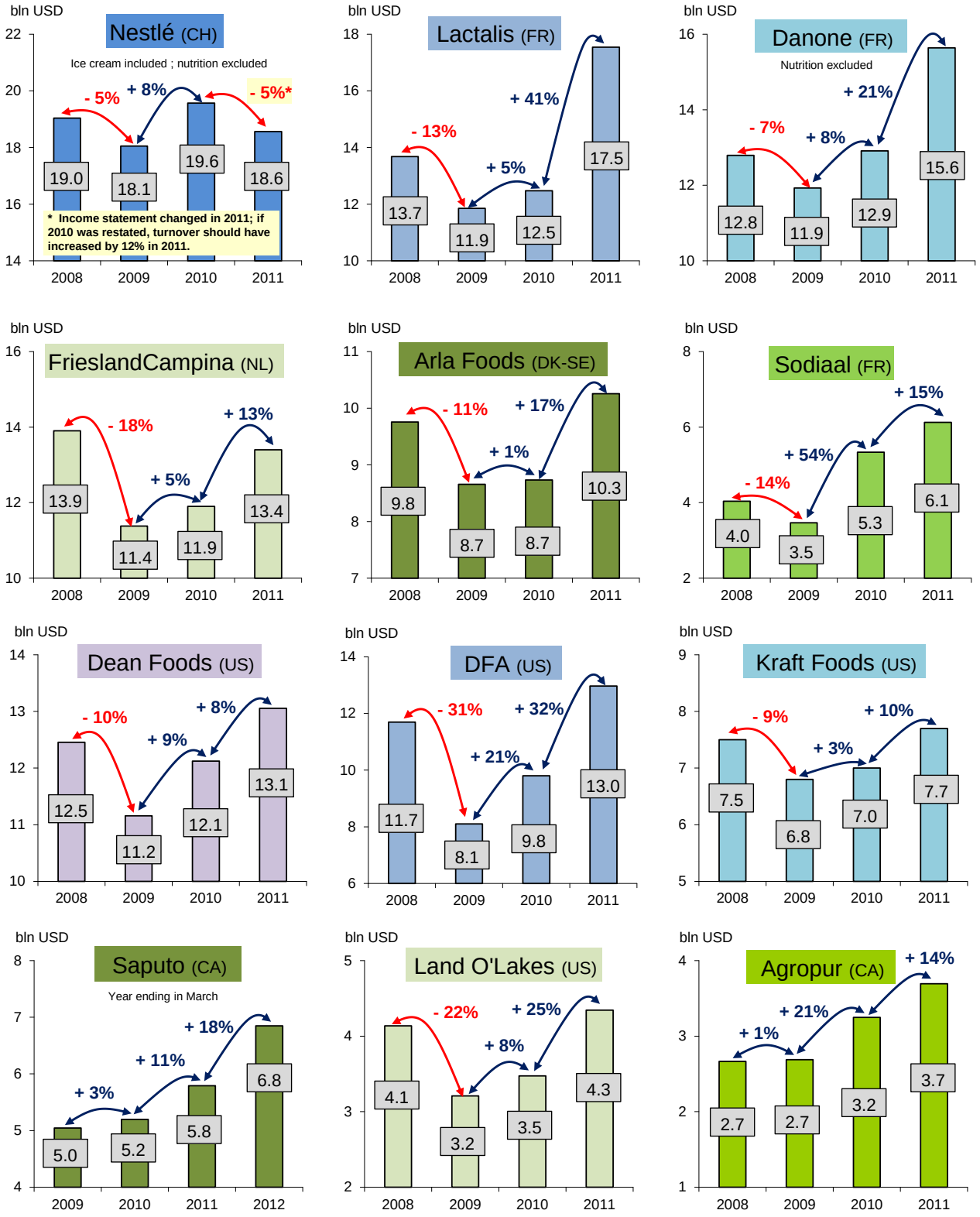
After a general recovery in 2010, which followed the depressed context of 2009, most dairy companies experienced growth in their turnover in 2011 when expressed in USD. With the exception of Nestlé and FrieslandCampina, dairy leaders recovered the historical level of their turnover obtained in 2008. Some of them largely exceeded this previous level. The main causes for this sustained growth differ from region to region.

In Europe, competitors' buy-outs and mergers have been the main growth driver for the four following groups:

- Lactalis (acquisition of Forlasa and the dairy branch of Ebro Puleva in 2010; then Parmalat in 2011),
- Danone (partnership set up with Unimilk in 2010),
- Sodiaal (acquisition of Entremont in 2010),
- Arla Foods (merger with Milko and Hansa-Milch, acquisition of Allgäuland Käsereien in 2011).

In the United States, co-op dairy turnover increased in line with milk price variation (+24%), generating a double digit growth for DFA (+32%) and Land O'Lakes (+25%). The rise was slightly less sustained for private companies such as for Dean Foods (+8%) and Kraft Foods (+10%).

Dairy turnover development of the main leaders in Europe and America [F]



Source: CNIEL, company reports, international press.

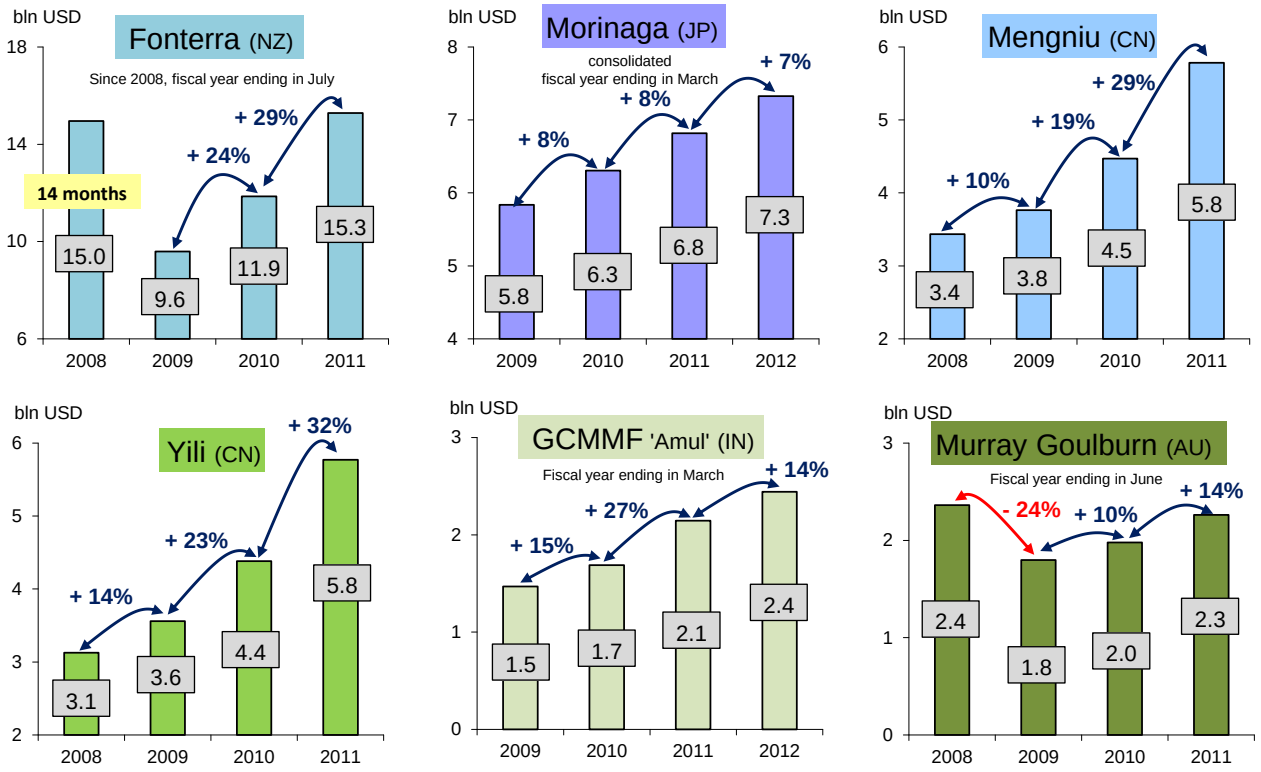
[F] No complete data for Schreiber (US) and Lala (MX) available during the whole period 2008-2011.

Canadian groups Saputo and Agropur present a specific development, because their activities on the Canadian domestic market were moderately impacted by the global recession that occurred in 2009, and furthermore because the CAD, unlike the EUR, has improved its value against the USD during the last three years. Those factors, combined with external growth generated through the purchase of several companies, led the two Canadian leaders to increase strongly their dairy turnover expressed in USD: +36% for Saputo and +39% for Agropur between 2008 and 2011.

Expressed in USD, the dairy turnover of the main Asian leaders increased sharply during the last few years, but the reasons for this growth differ from country to country. In Japan, the dairy turnover of Morinaga expressed in national currency has been rather stable (around 580 billion JPY) since 2007, but the JPY value against the USD improved strongly by 44% between 2008 and 2011. In China, leaders Mengniu and Yili have been benefiting from the combined effect of growth in their turnover expressed in national currency and of the slight improvement of the CNY value against the USD (+7% during the last three years). In India GCMMF, better known through its major brand Amul, increased its turnover sharply when expressed in national currency, but this growth was slightly less when converted to USD, because the INR lost 4% of its value in three years' time.

In Oceania, Fonterra experienced sustained growth during the last two years, to such an extent that its turnover is exceeding the level of its 2007-2008 fiscal year despite the fact that it exceptionally covered 14 months. Murray Goulburn, the first Australian processor in terms of milk intake, also increased strongly its turnover during the last two years, but has not yet recovered its 2007-2008 level. Even if important variations occurred over the last 3 years, the rate of conversion of NZD to USD was similar on average during marketing years 2007-08 and 2010-11. As for AUD, the rate of conversion to USD increased by 10% over this period.

Dairy turnover development of the main leaders in Asia and Oceania (G)



Source: CNIEL, company reports, international press.

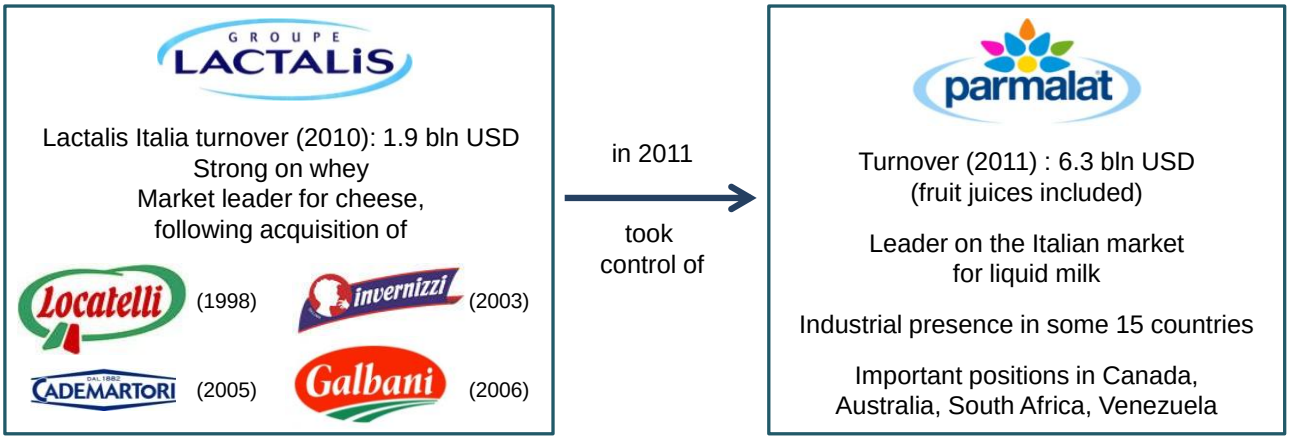
(G) No complete data for Meiji (JP) and Lion Nathan National Foods (AU) available during the whole period 2008-2011.

3.2. Consolidation/mergers and acquisitions in 2011 and early 2012

In 2011, Lactalis, which was already a very strong player in Italy, took control of Parmalat, the leader on the Italian market for liquid milk and also one of the main world dairy processors. Like this, Lactalis gained a strong international network with significant industrial positions in major countries such as Australia, Canada, South Africa and Venezuela. According to Lactalis, the consolidation of Parmalat activities for a full year raised its global turnover in 2011 above 20 billion USD, that is to say above Nestlé's dairy turnover excluding nutrition activities.

Early in 2012, Lactalis entered the Swedish dairy sector, following the acquisition of Skånemejerier, which posted sales of 570 million USD in 2011.

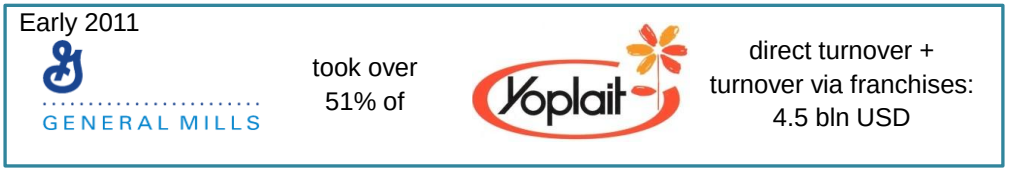
The expansion of Lactalis in Italy and the further strengthening of its international positions



Source: CNIEL, company reports, international press.

Western Europe was the scene of other major operations. Early in 2011, the American General Mills took over 51% of Yoplait S.A.S for 1.2 billion USD, the rest of the capital still belonging to Sodiaal. General Mills was already using the Yoplait franchise in the USA for decades. In 2011, this activity generated sales of 1.5 billion USD on the American retail market.

General Mills becomes an international player on the yoghurt market



Source: CNIEL, company reports, international press.

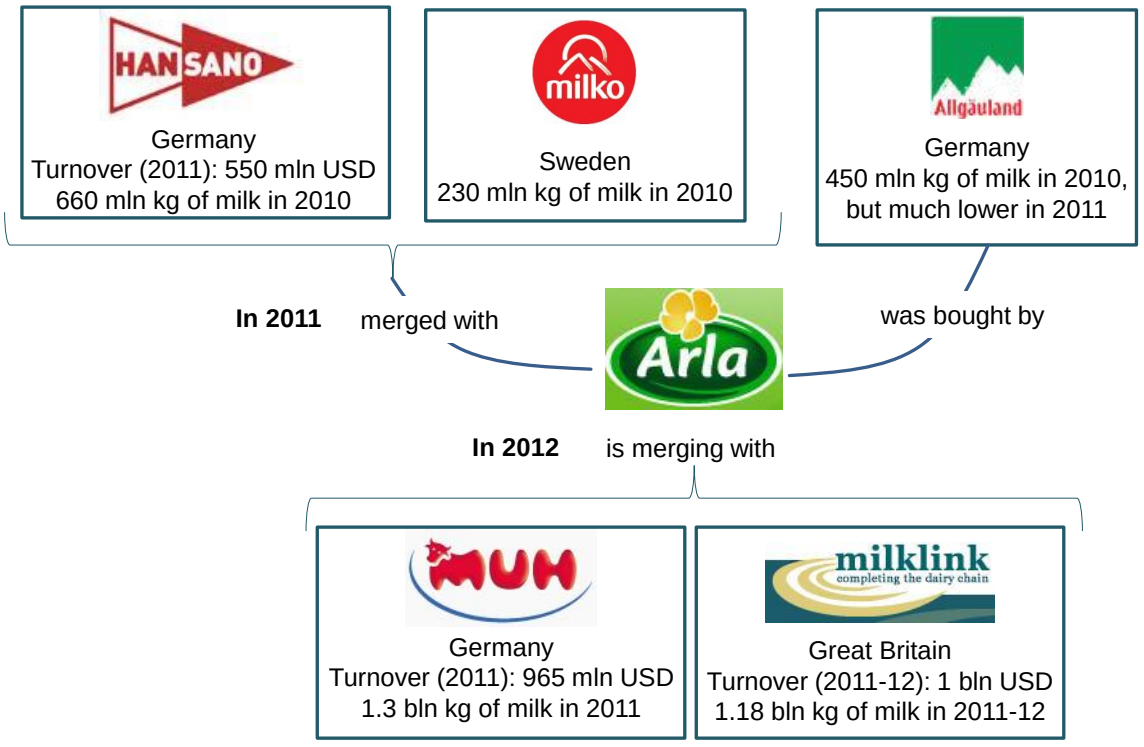
In Germany, Nordmilch and Humana, which, in 2009, already merged their commercial activities, cleared a new step in 2011 with a total merger of their operative businesses into a new structure called Deutsches MilchKontor (DMK). In 2012, restructuring continues on the farmers' side: the co-owners of DMK, that is to say the cooperatives Nordmilch and Humana, which were still independent, decided to merge.

In Germany, birth of a new national champion

Source: CNIEL, company reports, international press.

Arla Foods has also been very active for the last two years. First of all, in 2011 it merged with two cooperatives, the German Hansa-Milch and the Swedish Milko, and bought the assets of the German Allgäuland-Käsereien. Then, in June 2012 Arla Foods merged also with two other cooperatives: the German MilchUnionHocheifel (MUH) and the British Milk Link. As a matter of fact, Arla Foods controls a milk pool of 13.5 billion litres, positioning itself as the first dairy in the UK and the third one in Germany.

The expansion of Arla Foods in Northern Europe



Source: CNIEL, company reports, international press.

The German group Müller carried out two important operations in 2012. First of all, it bought the Scottish group Robert Wiseman for 430 million USD. Then it set up a partnership with PepsiCo in order to produce and commercialize yoghurt on the American market.

Two important operations carried out by Müller in 2012

müller	buy	Robert Wiseman Dairies	United Kingdom Turnover (2010-11): 1.43 bln USD 1.8 bln litres of milk
müller	set up a partnership with	PEPSICO	206 mln USD invested in a yoghurt factory located in Bavaria, NY (USA)

Source: CNIEL, company reports, international press.

The Swiss Emmi increased its international assets in 2011 and early 2012, building a new cheese factory in the United States and taking control of the Spanish Kaiku and the Italian A-27 SpA, renowned for its Bontá Divina branded dairy desserts. During the same period, the Irish Glanbia strengthened its positions in the United States, purchasing nutritional product makers BSN and Aseptic Solutions Inc.

Outside Europe, consolidation is still very active in Brazil. Early 2011, two outsiders, Monticiano Participacões and Bom Gosto, merged to form a new n°2 national dairy called Lácteos Brasil, just behind Dairy Partners Americas, the joint-venture between Fonterra and Nestlé.

In Brazil, birth of a new n°2 in the dairy sector

LeitBom Monticiano Participacões	+	merger early 2011	BOM GOSTO Laticinios	= LBR Turnover: ~1.7 bln USD ~1.8 bln litres of milk

Source: CNIEL, company reports, international press.

Early 2012, FrieslandCampina took control of the Philippines' Alaska Milk Corp., investing 302 million USD to increase its interest to 68.9% from the previous 8.1%. Alaska, which is one of the main players on the domestic market for condensed milk and milk powder, posted sales of 270 million USD in 2011.

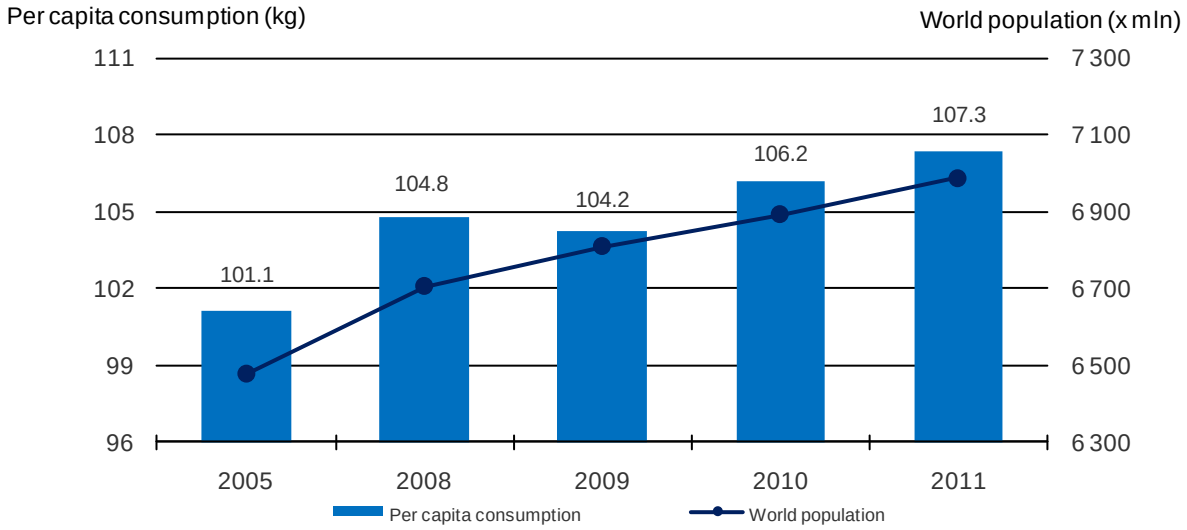
A major operation occurred on the nutrition market. Early 2012, Nestlé bought Pfizer's infant nutrition business for 11.85 billion USD. This structure generated sales of 1.9 billion USD in 2010, 60% of which in Asia.

4. Consumption

4.1. Global dairy consumption

Global dairy consumption is measured by total world milk production and adjusted for stock changes. World milk production increased by 2.5% in 2011 and reached a level of almost 749 million tonnes. Compared to the year 2005, total volume was 15% higher (+96 million tonnes). Because of the worldwide strong dairy demand, world dairy stocks on balance fell in 2011 to a lower level for the second year in a row. Dairy stocks in the EU decreased by 1.6 million tonnes milk equivalents [(A)], while in the United States stocks increased by only 209 thousand tonnes milk equivalents. Consequently, more dairy products were available on the market for consumption. With an estimated population amounting to 7 billion people, on average global per capita availability of milk in 2011 was 107.3 kg (+1%). Global per capita milk consumption grew by 6% (+6.2 kg) in the last six years. It should be noted however, that the custom of milk consumption varies greatly between developed and less developed countries as will be shown in this chapter.

Per capita milk consumption versus development in world population



Source: own calculation based on world milk production and population (PRB).

4.2. Consumption of individual products

Consumption figures in this report are mainly based on balance sheets compiling the apparent consumption by country. It should be noted that the national figures used for this calculation method are hard to get and are no more than an indication. Countries where other dairy products are popular, like India, are undervalued and informal production of milk products is not always included in data.

The use of milk in the traditional diet varies considerably in different regions of the world. It is known that most countries in Europe, Oceania and North America have high per capita dairy consumption. However differences exist between these continents for the consumption of the various dairy products. But also within these continents consumption differences between countries can be seen. With more modern diets e.g. through fast food sector and policies to encourage milk consumption, differences tend to weaken globally.

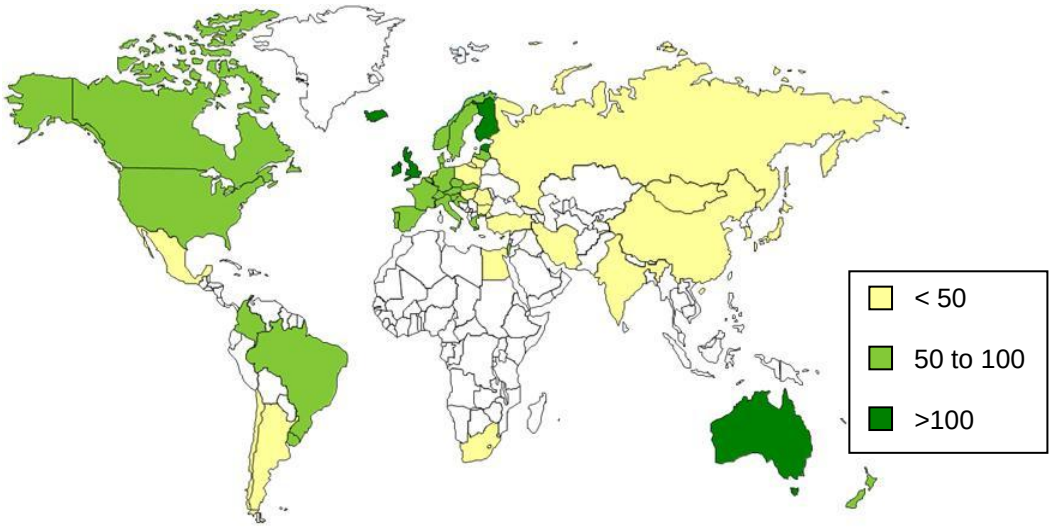
4.2.1. Liquid milk

The world map below illustrates the differences in per capita liquid milk consumption between countries. The liquid milk consumption per person varies widely from highs in Europe and Oceania to lows in Asia and Africa. The map shows clearly that countries in Northern Europe like Ireland, Estonia, Finland, the United

[(A)] Conversions of product volumes into milk equivalents are based on the non-fat solid content methodology.

Kingdom and the non-EU country Iceland have the highest per capita liquid milk consumption at more than 100 kg. The first three countries mentioned even have consumption quantities two times higher than the average liquid milk consumption in the EU as a whole. Australia has a high liquid milk consumption as well. The per capita milk consumption is the lowest in African and Asian countries. China especially has one of the lowest levels of per capita milk consumption in the world.

Per capita consumption of liquid milk in kg per capita (2011)

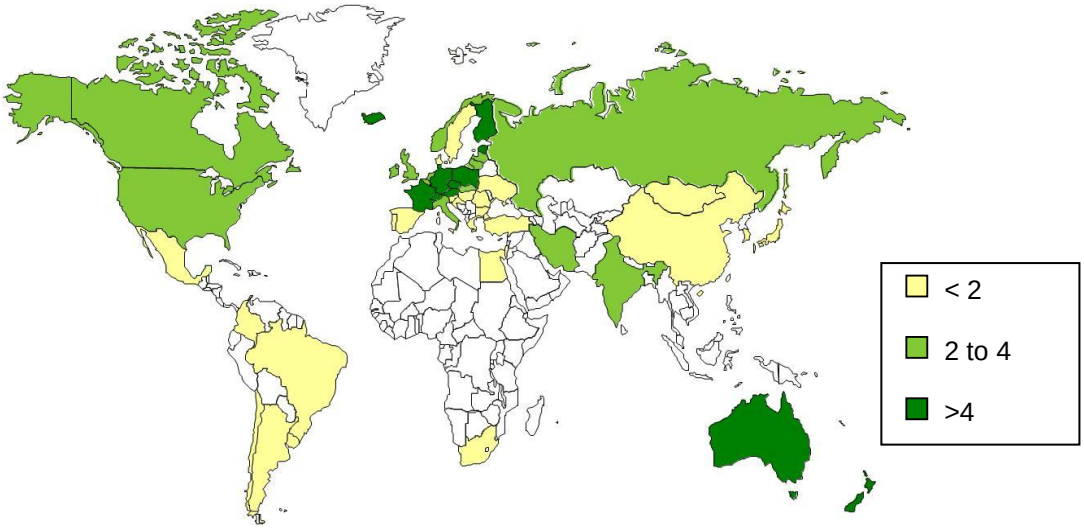


Source: National Committees IDF, FAPRI, Eurostat.

4.2.2. Butter

Butter consumption per person varies widely from highs in Europe and Oceania to lows in Africa and South America. Countries in Western Europe, like France, Luxembourg, Germany, Austria, Czech Republic, Switzerland and Oceania have the highest per capita butter consumption at more than 4 kg. France has the highest butter consumption in the world at 7.5 kg per capita, which is more than two times higher than the average butter consumption in the EU as a whole. The countries in Africa and South America have the lowest per capita butter consumption, especially in Colombia, South Africa and Brazil. Just like consumption of milk, China also has one of the lowest levels of per capita butter consumption in the world.

Per capita consumption of butter in kg per capita (2011)

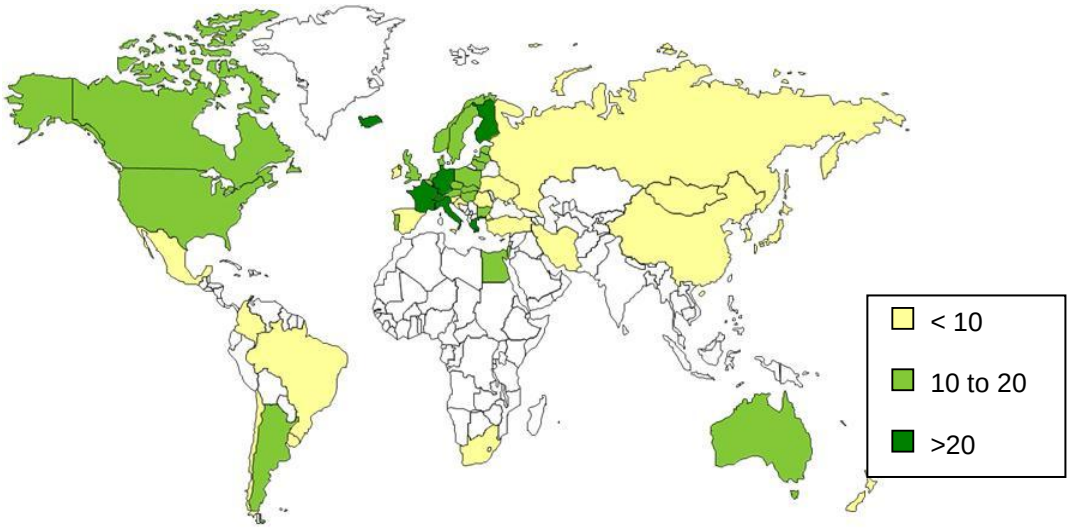


Source: National Committees IDF, FAPRI, Eurostat.

4.2.3. Cheese

Cheese consumption per person varies from highs in European countries to lows in Asian countries. Just like butter, the map illustrates that countries in Western Europe, like France, Luxembourg, Germany and Switzerland have the highest per capita cheese consumption at more than 20 kg. The average cheese consumptions in Luxembourg and France are the highest, which are more than 40% higher than the average cheese consumptions in the EU as a whole. But also several countries in the other parts of Europe like Greece, Iceland, Finland and Italy have high per capita cheese consumption. The countries in Asia have the lowest per capita cheese consumption, especially China. Most countries in South America, with the exception of Argentina, have low average cheese consumption as well.

Per capita consumption of cheese in kg per capita (2011)



Source: National Committees IDF, FAPRI, Eurostat.

4.3. Regional consumption

Note: the figures used in this paragraph are from the FAO Food Outlook 2012. These differ from the figures that have been used to calculate the per capita milk consumption in paragraph 4.1.

Regional dairy consumption is measured by the regional milk production and trade of dairy products. The FAO Food Outlook (May 2012) provides these figures.

Asia is the most important consuming region with 39% of total world consumption, followed by Europe (28%) and North America (13%). However, Asian per capita consumption at 67 kg is low compared to the other regions. Within Asia large consumption differences can be seen e.g. between China and India. Indian per capita consumption is almost three times that of China. The EU per capita consumption is the highest in the world and more than four times higher than in Asia. This is because more developed dairy regions like Europe, North America and Oceania have traditionally consumed far more milk and milk products in their diets and consider dairy products as staple foods. While in other regions, India being the exception, dairy products are not a traditional part of the diet and are often considered to be luxury goods.

When a region has a self-sufficiency rate of less than 100%, imports bridge the gap with demand. Asia, Africa and Central America are examples of regions with high net dairy imports. South America and non-EU Europe are self-sufficient, being small net exporters. The European Union and North America are, compared to the two regions just mentioned, relatively large net exporters. Oceania however is the only region in the world where consumption is lower than the net exports volume. Almost 70% of production is exported outside Oceania, which results in a self-sufficiency rate of almost 300%.

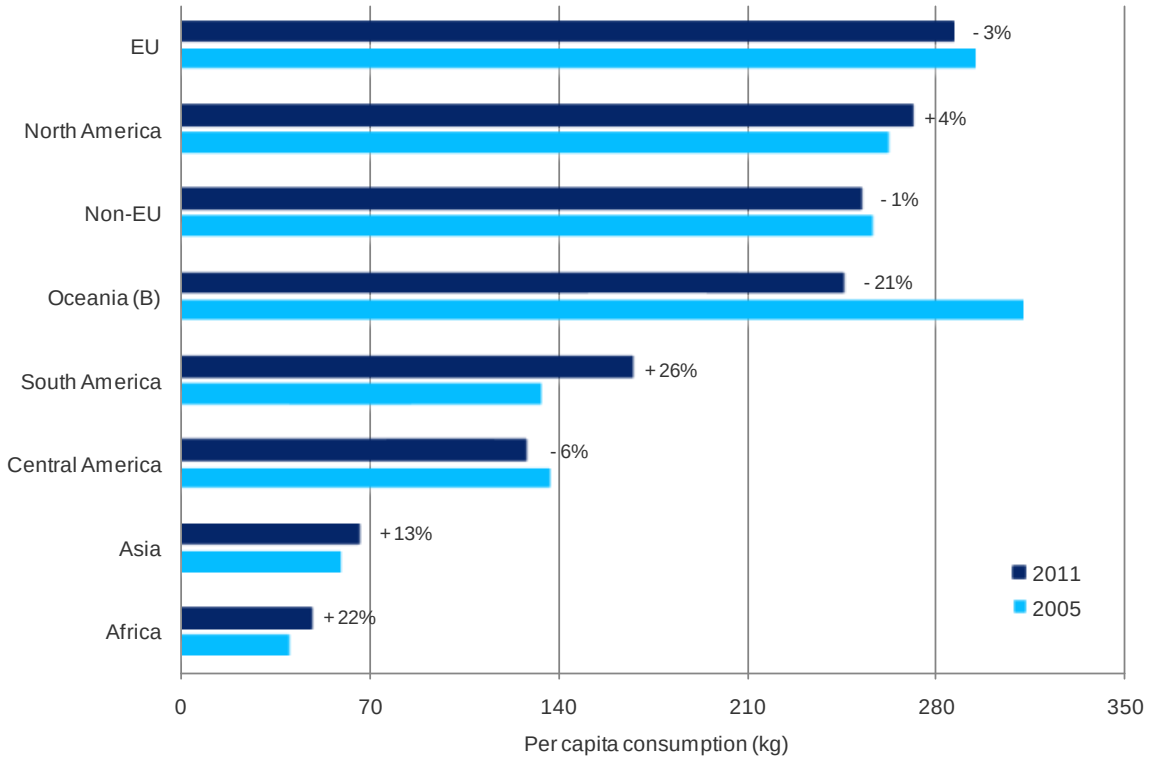
Global consumption by region in 2011

	Consumption (mln tonnes)	Per capita consumption (kg)	Share (%) world consumption	Share (%) world production	Self-sufficiency rate (%)
Asia	283.6	67.3	38.9%	36.0%	93%
Europe	204.1	275.8	28.0%	29.6%	106%
EU	*143.9*	*286.7*	*19.7%*	*21.3%*	*108%*
Non-EU	*60.2*	*252.9*	*8.2%*	*8.3%*	*101%*
North America	94.0	271.7	12.9%	13.3%	104%
South America	66.5	167.9	9.1%	9.2%	102%
Africa	52.3	49.8	7.2%	5.9%	83%
Central America	20.3	128.5	2.8%	2.2%	81%
Oceania	9.1	245.9	1.2%	3.7%	297%
World	729.9	105.1	100.0%	100.0%	100%

Source: own calculations based on FAO Food Outlook May 2012.

Comparing the regional per capita consumption volumes in 2011 with the volumes in 2005 gives an indication of the development in regional consumption. Strongest growth occurred in South America. Consumption in this region increased by 26%. Uruguay, Venezuela and Brazil especially contributed to this increase. Consumption growth in these countries was fuelled by increasing local production. Strong growth also occurred in Africa (+22%) and Asia (+13%). North America showed a slight rise in consumption. The per capita consumption in Central America decreased by 6%. Growth in population has been greater than total consumption growth. European consumption is also declining. Both the European Union and non-EU Europe show a negative trend.

Development regional per capita dairy consumption 2011 compared to 2005



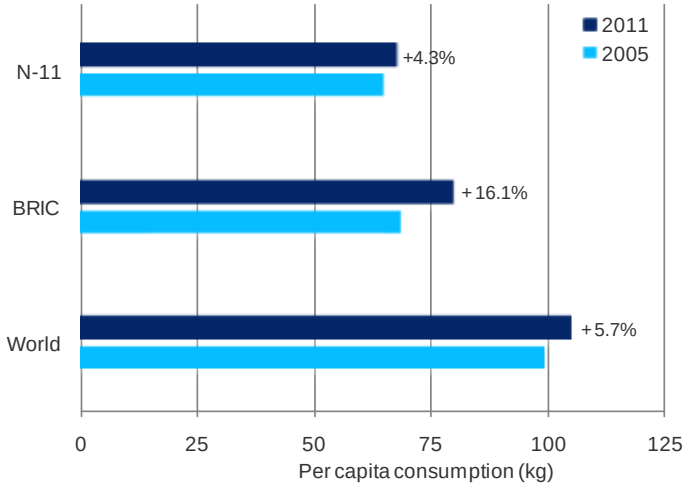
Source: own calculations based on FAO Food Outlook.

(B) The decline in Oceania is not a correct representation of reality. Production volumes refer to a different period than the trade figures. This results in a consumption level that is too high for the reference years.

4.4. BRIC and N-11 countries

In this part countries will be outlined that contribute the most to dairy consumption growth. The N-11 (Bangladesh, Egypt, Indonesia, Iran, Mexico, Nigeria, Pakistan, Philippines, Turkey, South Korea and Vietnam) and BRIC countries (Brazil, Russia, India and China) have a high potential for fast growth in dairy consumption. The economic development in these countries is higher than in the rest of the world. Increasing gross domestic product (GDP) along with fast growing population lead to surging dairy demand. In the period 2005-2011 the per capita dairy consumption growth in the BRIC countries (+16.1%) was almost three times higher than the world's growth rate (+5.7%). The N-11's growth rate for the period 2005-2011 was 4.3%. However this percentage is undervalued because the population growth in these countries was higher than the world's population growth rate. The N-11 and BRIC countries together represent 44% of total world dairy consumption.

Development per capita consumption N-11 and BRIC (2005-2011)



Source: own calculations based on FAO Food Outlook, FAPRI, Comtrade.

5. World Dairy Trade

Important note: the figures in this chapter can differ from the figures in the tables of annex 3 because different sources and moments of data collection have been used.

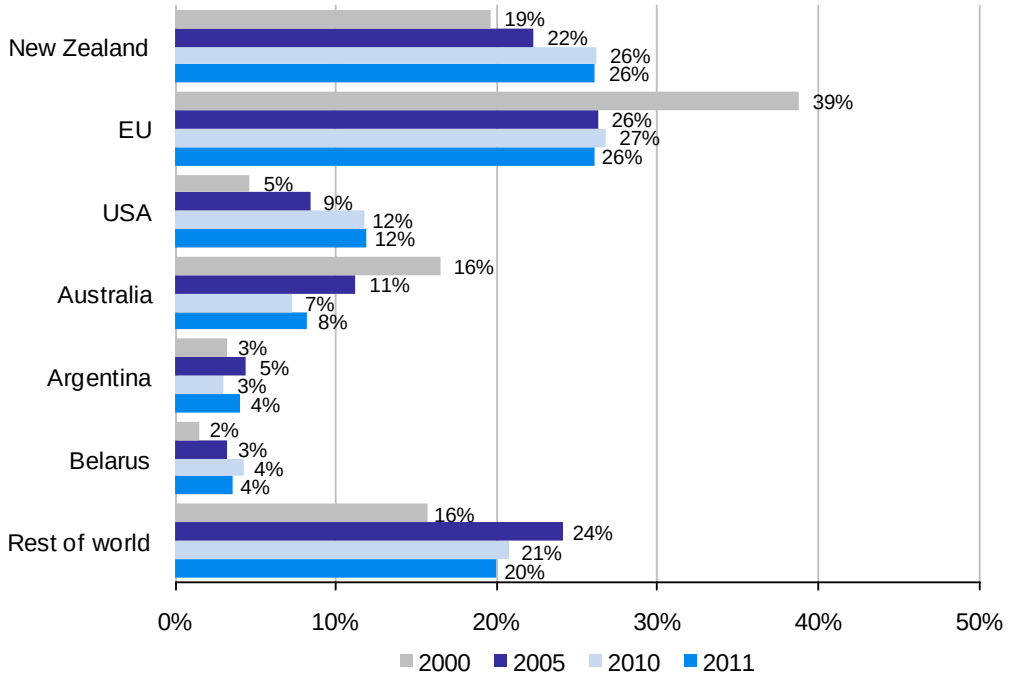
5.1. Introduction

World dairy trade is subject to various dynamics. Milk production, dairy demand and economic development in the various regions of the world all have their impact and are often inter-related. Furthermore, developments in the national and international political environment interact with market opportunities and company strategies, thus shaping the international scene of dairy trade flows.

5.2. World trade volume shows further expansion

In 2011, world dairy trade [A], which excludes the EU-intra trade [B] volume, showed a lively development and amounted to about 58.2 million tonnes milk equivalents [C]. This meant a 10% increase compared to the previous year level. This growth rate well exceeded that of the annual average over the last decade (4%). Apparently, solid economic development in several key regions of the world, e.g. Middle East and South East Asia, resulted in a further expansion of worldwide demand for dairy products. Hence, a generally good price level in international dairy markets spurred global production and fueled global exports. This led to substantial increases in world trade volumes for most basic dairy commodities.

Export share [D] development of key exporters on the world dairy market (milk equivalent basis, period 2000-2011)



Source: PZ/Comtrade.

[A] In this chapter, world dairy trade is defined as the global export volume minus the EU-27 intra-trade volume: volumes are based on total trade flows of the following commodities: butter and butteroil, SMP, WMP, condensed milk and cheese;

[B] EU is defined as the EU-27 territory. In 2011, the volume of EU-intra trade of said commodities amounted to 37.6 million tonnes (or 39% of total global trade volume);

[C] In the analysis, conversions of product volumes into milk equivalents are based on the non-fat solid content methodology;

[D] As part of total world trade volume: reference volumes used were (expressed in million tonnes):
2000: 38.2 / 2005: 43.9 / 2010: 52.7 / 2011: 58.2

5.3. All main exporters benefit from boost in demand

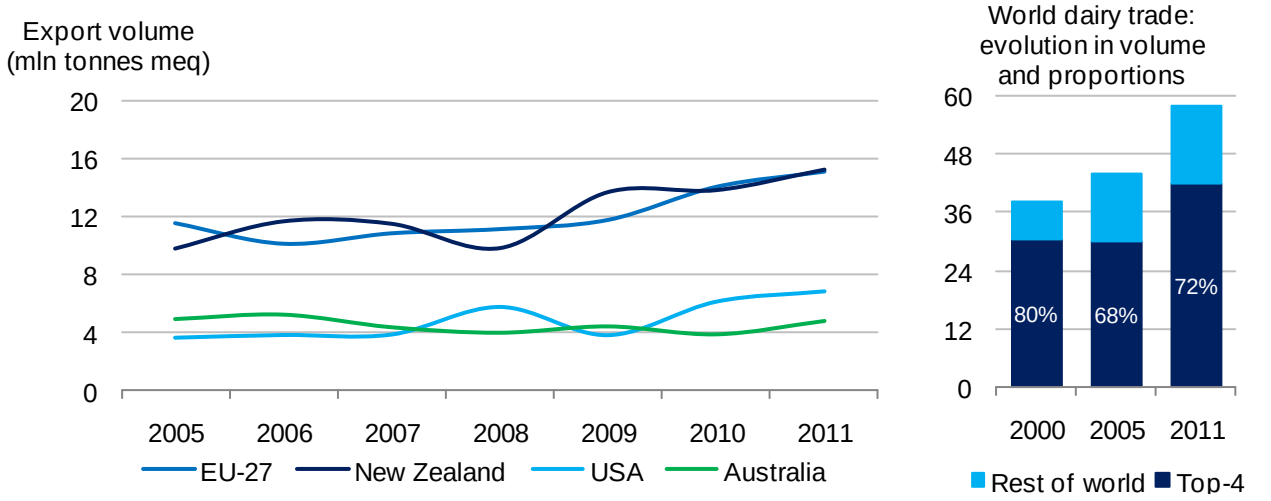
The strong development in world dairy trade in 2011 was fuelled by expanding exports by all main exporters, in particular New Zealand, EU and Australia. In New Zealand, a strong production development translated itself into export expansion. Triggered by export opportunities in a.o. Asia (China!), the country held to a strong focus on WMP, the exports of which again climbed to a record high. As a result, New Zealand came close to covering half of the total 2011 WMP world trade volume. Later in the year butter and SMP also took off, allowing these categories a partial recovery from the 2010 downturn. In the end, New Zealand's overall export volume, as expressed in milk equivalents, expanded by more than 10%. This was more or less in line with the 2011 world's average and the reason why its share in world dairy trade remained stable (26%).

Overall EU exports expanded for the fifth consecutive year. The growth rate was well above that of the past decade. The growth focused on milk protein, illustrated by increasing exports of SMP, whey powder and casein. As for milk fat, the situation was different. In that category, the EU still often lacks competiveness. In 2011 this was reflected by both a further reduction in WMP exports and a strong drop in butter exports. The EU's overall export growth lagged behind the world's average, which led to a slight drop in the EU's export share in world dairy trade (26%). In line with recent years, exports outside the EU, at least for the products covered by this analysis, expanded more than EU-intra trade, which is now 71% of total EU trade. This illustrates the fact that third country exports remain vital for the EU dairy economy.

Benefiting from favourable weather conditions and spurred by high price levels in international markets, Australian dairy exports in 2011 showed strong recovery from another disappointing year in 2010. This resulted in double digit growth for export of both milk powders and cheese. Meanwhile, butter exports suffered from the expansion in WMP and cheese. In the end, Australia reclaimed a share of about 8% of the global export pie, more than in the previous year, albeit still far from the share it had ten years ago.

Also in 2011, the presence of US exporters on international markets substantialized further. This became particularly notable in the export of butter, SMP and cheese. Though overall export growth flattened slightly compared to the previous year, it still was substantial, thus retaining US export share at 12%.
High price levels on international markets in combination with favourable weather conditions did not fail to trigger potential export volume in South America. Argentina, Uruguay and, to a lesser extent, Chile, all stepped up their export activities. Argentina especially revitalised exports of WMP, butter and cheese, increasing its export volume by almost half. After New Zealand, EU and Australia, the country contributed the most of all countries to the overall volume increase in world dairy trade in 2011.

General export development of the top-4 (E) players in world dairy trade (2005-2011)



Source: PZ/Comtrade.

(E) As represented by the EU, New Zealand, the USA and Australia.

5.4.Trade volume development by product category

5.4.1. Cheese

Overview of the main global exporters

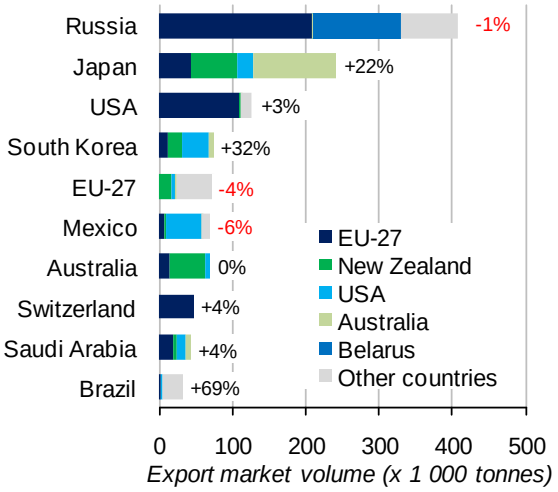
1 000 tonnes	2011	Share in world trade (%)	Annual growth 11/10 (%)
EU-27*	680.2	30.5	0.9
Germany	128.8	5.8	-12.5
Netherlands	103.0	4.6	4.9
France	96.9	4.3	6.9
New Zealand	245.9	11.0	-4.3
USA	224.3	10.1	29.3
Australia	207.0	9.3	29.2
Belarus	122.1	5.5	3.0
Egypt	98.2	4.4	-37.9
Ukraine	80.3	3.6	1.2
Switzerland	59.9	2.7	2.6
Argentina	58.8	2.6	39.6
Uruguay	46.6	2.1	15.5
World trade	2 228.7	100.0	6.6

*intratrade excluded

Source: PZ/Comtrade.

Top-10 leading international markets

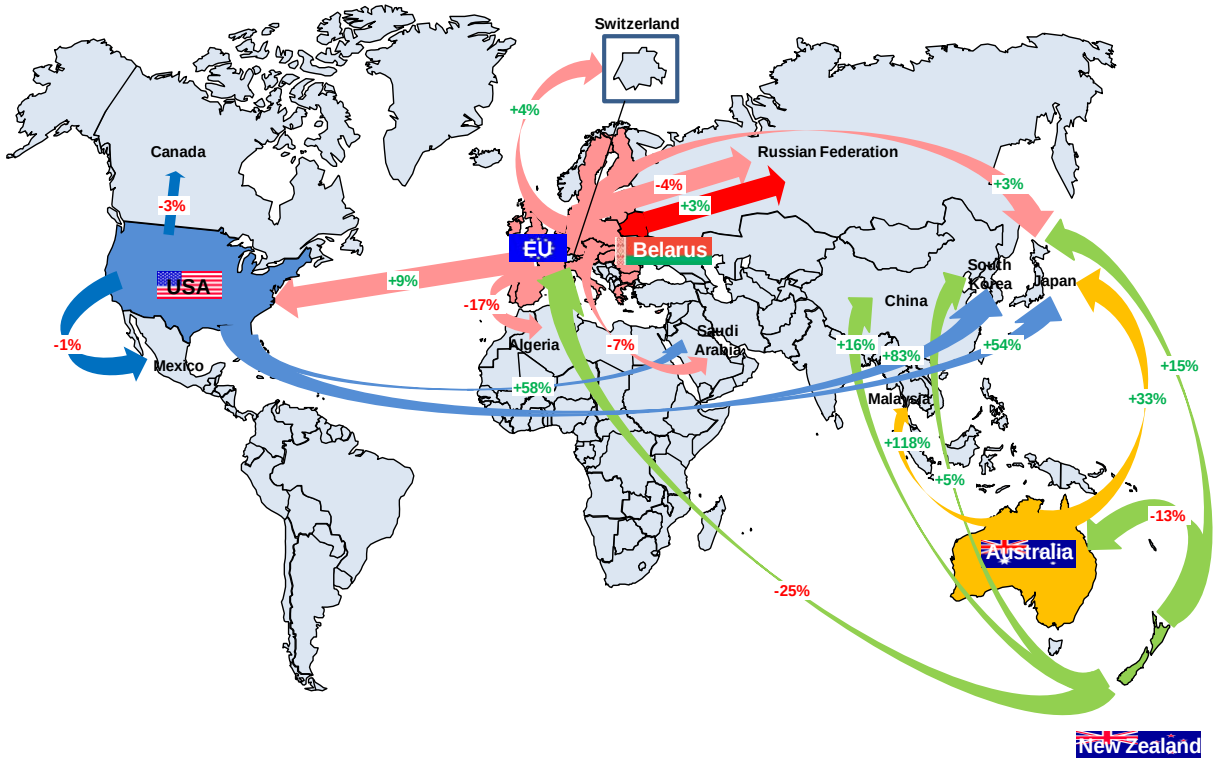
(Position of top-5 global exporters indicated, as well as the export market volume development 2011/10 (%))



World cheese trade in 2011 amounted to more than 2.2 million tonnes, well ahead of the previous year's level (+6.6%). Most major cheese exporters, except for New Zealand, expanded their trade volumes.

World trade: dynamics in main export markets of the top-5 cheese exporters

(Top-5 export markets per exporter > 10 000 tonnes, development 2011/10 as indicated in %)



Source: PZ/Comtrade.

The global cheese market is characterised by the fact that several of the leading producing and exporting countries are also among the world's largest cheese importers, like EU, USA, Australia and Switzerland.

In 2011, the EU held its leading position on the world market, though its growth rate was rather limited and far below average. Sales to Russia, which remain crucial for the supply and demand balance of EU cheese, were disappointing. This mainly resulted from problems in the approval of cheese plants in several member states by Russian authorities, which temporarily disrupted export activities. The drop in trade to Russia was compensated for by an increase in trade to key markets like the US, Switzerland and Japan.

The most eye catching export developments came from USA and Australia, who together added nearly a hundred thousand tonnes to world trade volume. Fueled by sound production development, both countries benefited from export opportunities, especially in Asia, where growth in demand from Japan and South Korea were key.

A rather significant development also took place in South America. There, substantial export increases in several leading exporting countries reflected positive production developments. Argentina, recovering from a disappointing 2010, experienced the biggest export increase in years. Uruguay continued a growth path already visible for several years. For both countries, the geographical focus for growth was their own region, where Brazil, Mexico and Venezuela remained major destinations.

5.4.2. WMP

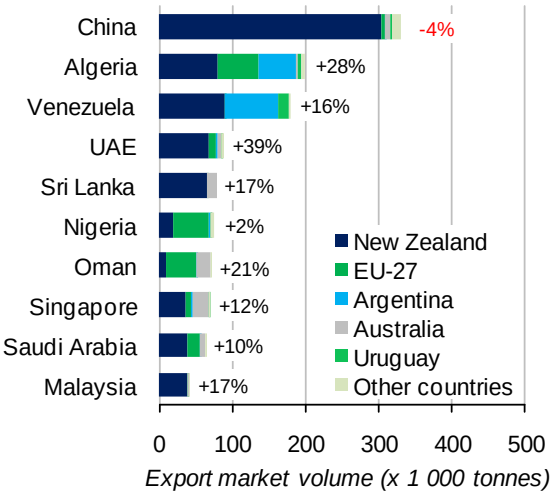
Overview of the main global exporters

1 000 tonnes	2011	Share in world trade (%)	Annual growth 11/10 (%)
New Zealand	1 080.8	48.8	17.0
EU-27*	390.0	17.6	-12.7
Netherlands	126.7	5.7	-11.1
Denmark	87.0	3.9	-6.8
Belgium	53.2	2.4	-24.1
Argentina	199.1	9.0	61.1
Australia	143.2	6.5	24.9
Uruguay	58.2	2.6	-7.1
Philippines	44.4	2.0	17.6
Belarus	26.7	1.2	-30.8
USA	21.6	1.0	-59.2
World trade	2 216.9	100.0	7.4

**intratrade excluded*

Top-10 leading international markets

(Position of top-5 global exporters indicated, as well as the export market volume development 2011/10 (%))

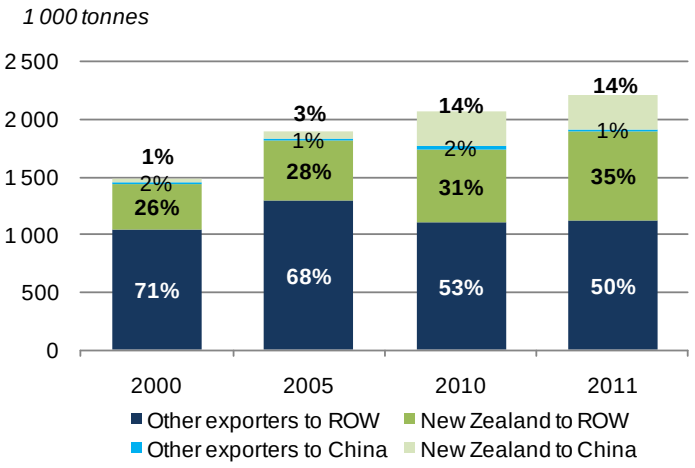


Source: PZ/Comtrade.

World trade in WMP increased by 7%, up to 2.2 million tonnes. While more than half of this was channeled into Asia and the Middle East, the growth focused on Latin America and Africa, where key markets like Algeria, Venezuela, Brazil and Mexico all stepped up imports significantly.
New Zealand strengthened its position as the leading WMP supplier to the world market (49%). The country achieved another milestone, for the first time breaking through the border of one million tonnes of exports. The geographical focus for New Zealand remained the Middle East and Asia. Exports to all major destinations in these regions expanded, including those to China, despite the fact that the enormous surge in WMP flows to that country came to an end in 2011. China alone absorbed about 28% of New Zealand's total exports. Meanwhile, New Zealand also benefited from better export opportunities in Algeria. On the other hand, it lost share on a key market like Venezuela, because of renewed competition from within South America, notably Argentina.

Argentina showed a most remarkable increase in export volume in 2011. With a massive, additional 75 thousand tonnes the country was, after New Zealand, the largest contributor to world trade expansion. Spurred by favourable production circumstances and high price levels on international markets, the country's dairy sector more than recovered from the previous year export slump, attaining a level which stayed not far from its historical height of five years ago.

Evolution of New Zealand as leading exporter and of China as its major market (2000-2011)



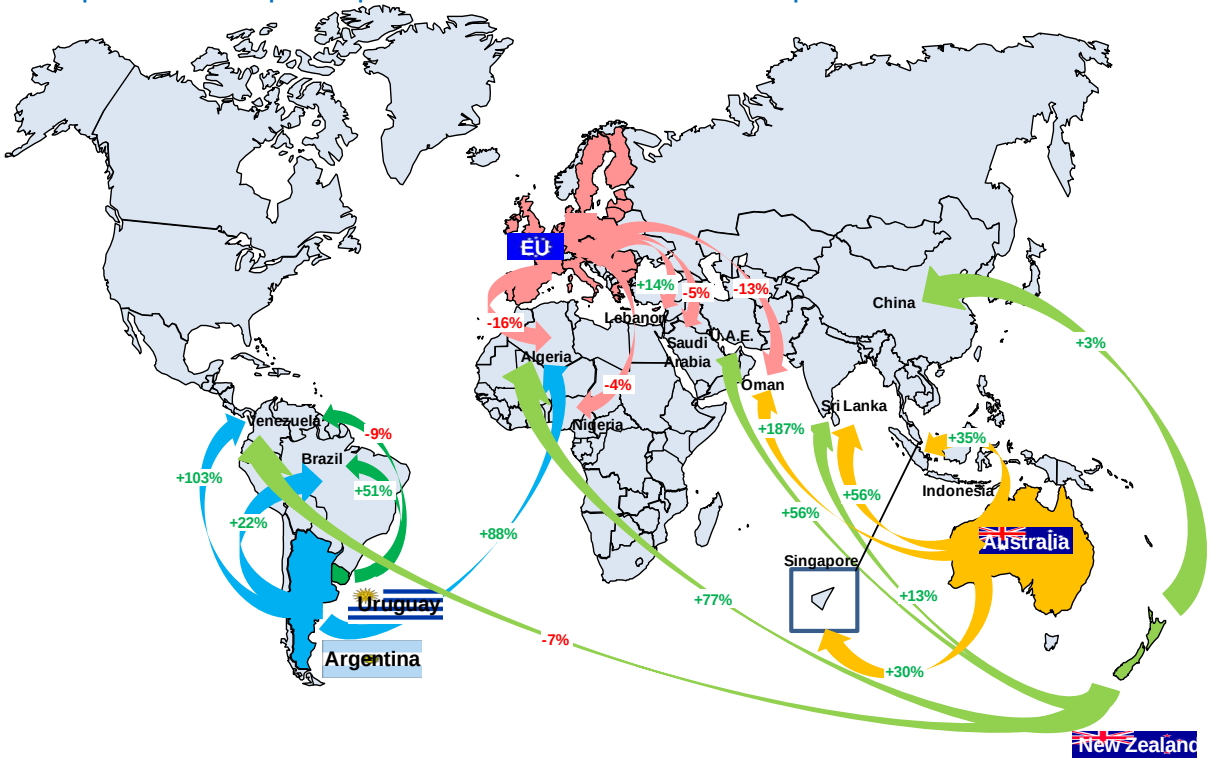
Source: PZ.

Besides New Zealand and Argentina, of all the major exporters only Australia and the Philippines managed to increase export volumes in 2011. By contrast, exports from the EU dropped for the third consecutive time, as a result of lack of competiveness on international markets. The fact that the EU lost ground to New Zealand, Argentina and Australia in a number of its traditional key markets, like Algeria, Nigeria and the Middle East, is illustrative of this.

Unlike its neighbour, WMP exports by Uruguay were down after years of expansion. Apparently, this is due to a priority switch in the export portfolio in favour of product categories like butter, cheese and SMP, which absorbed the additional milk available in 2011.

World trade: dynamics in main export markets of the top-5 WMP exporters

(Top-5 export markets per exporter > 10 000 tonnes, development 2011/10 as indicated in %)



Source: PZ/Comtrade.

5.4.3. SMP

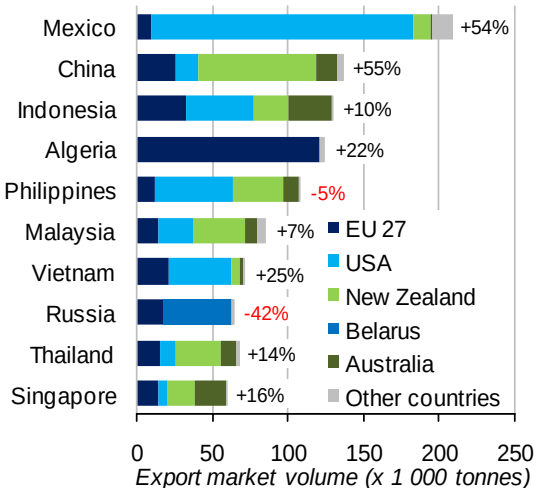
Overview of the main global exporters

1 000 tonnes	2011	Share in world trade (%)	Annual growth 11/10 (%)
EU-27*	517.6	29.8	36.7
Belgium	124.2	7.1	23.8
Germany	103.9	6.0	106.2
France	95.7	5.5	47.1
USA	435.7	25.1	13.4
New Zealand	349.8	20.1	4.8
Australia	165.9	9.6	25.6
Belarus	55.2	3.2	-9.9
Uruguay	28.3	1.6	140.2
Ukraine	22.3	1.3	60.5
Argentina	18.4	1.1	-5.3
World trade	1 737.0	100.0	18.7

**intratrade excluded*

Top-10 leading international markets

(Position of top-5 global exporters indicated, as well as the export market volume development 2011/10 (%))



Source: PZ/Comtrade.

World trade in SMP in 2011 reflected very dynamic development. Worldwide exports for this category soared, up to over 1.7 million tonnes (+19%). After a period of weakening interest, this was the fourth consecutive year that world trade volume increased. All major exporters expanded exports, benefiting from demand growth in the various regions. The main basis for this was developments in South East Asia, but also trade to various key markets in Middle East, South America and Africa increased. Mexico remained the world's largest single SMP market, but the expanding export volume channelled into that country was mainly a privilege for American exporters, facilitated as they are by NAFTA arrangements, which is the reason why the USA now holds nearly 90% of that market.

The SMP export market is rather concentrated on the supply side, since effectively 75% of world trade volume is supplied by only three exporters: EU, USA and New Zealand. This situation was again reaffirmed in 2011, when the EU re-established its position as the leading exporter. International price developments in combination with internal dairy policy in recent years have contributed to EU's competitiveness in milk protein on the world market.

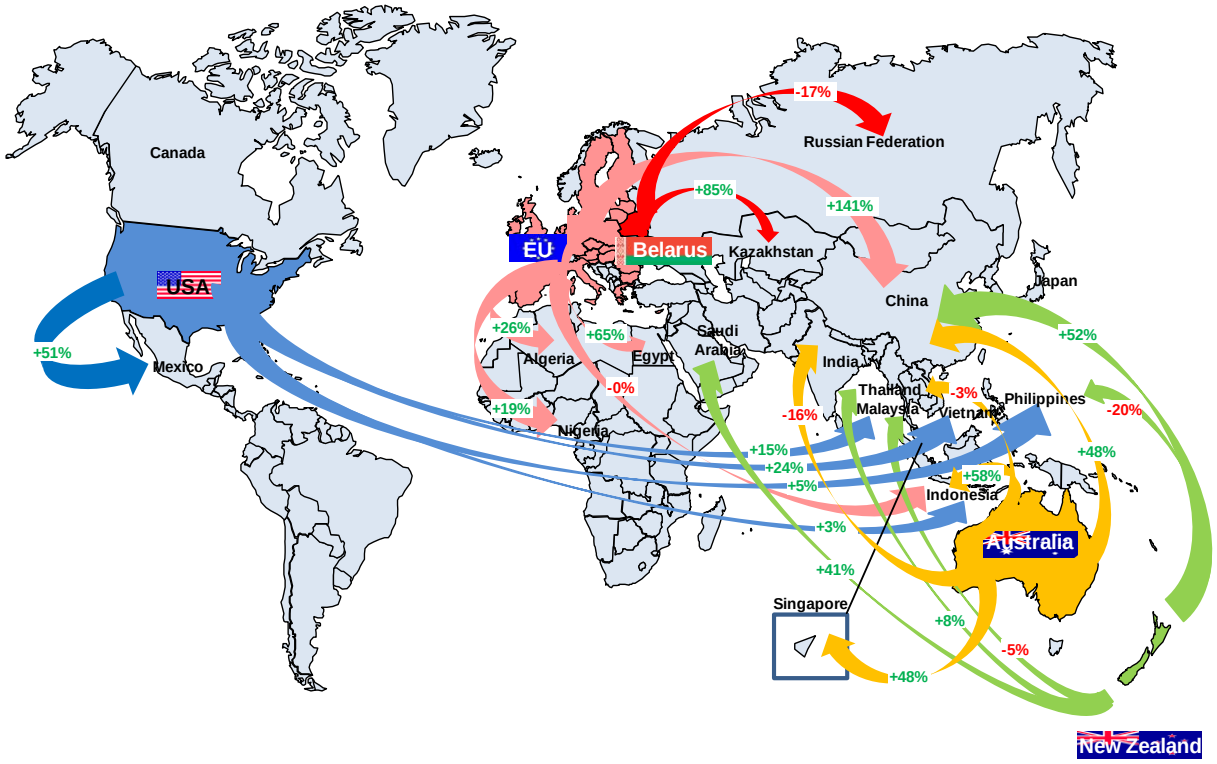
Destinations in (Northern) Africa remain very important to EU exporters, as do several key destinations in Asia, like Indonesia and China. Meanwhile, they also picked up opportunities in India, South Korea and Mexico, while on the other hand the 2010 surge in exports to the Russian market was reversed.

Though not expanding to the extent of the EU, the USA remained by far the second largest global SMP supplier. As mentioned, its exports are closely linked to trade with Mexico that took an additional 59 thousand tonnes of US milk powder in 2011 and absorbed nearly 40% of total US exports. Besides, US exporters have developed substantial markets in Asia, which allowed them to also benefit from the growth in that region.

Of the minor suppliers, Australia, Uruguay and Ukraine all noted significant progress, recovering from weak export results in 2010. At the same time, exports from Belarus and Argentina were down. As for Belarus, this re-affirms a downward trend since the previous year, closely related to reduced demand from Russia.

Global trade: dynamics in main export markets of the top-5 SMP exporters

(Top-5 export market per exporter > 10 000 tonnes, development 2011/10 as indicated in %)



Source: PZ/Comtrade.

5.4.4. Butter and butteroil

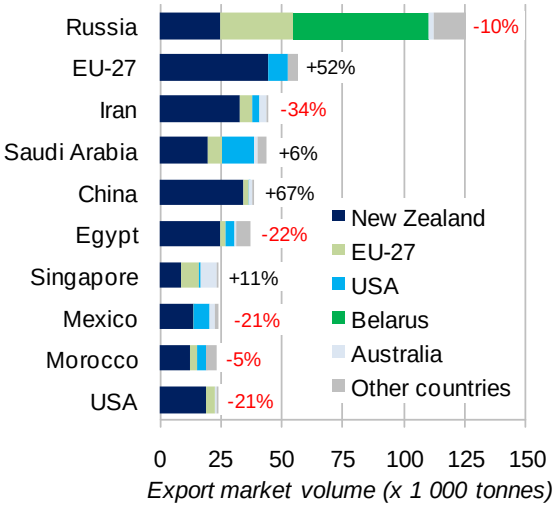
Overview of the main global exporters

1 000 tonnes	2011	Share in world trade (%)	Annual growth 11/10 (%)
New Zealand	401.3	49.3	4.6
EU-27*	123.9	15.2	-19.8
France	27.8	3.4	5.8
Netherlands	26.7	3.3	-34.9
USA	63.7	7.8	12.0
Belarus	61.9	7.6	2.9
Australia	50.0	6.1	-11.8
Argentina	26.2	3.2	88.5
Uruguay	17.8	2.2	71.4
World trade	813.4	100.0	0.5

**intratrade excluded*

Top-10 leading international markets

(Position of top-5 global exporters indicated, as well as the export market volume development 2011/10 (%))



Source: PZ/Comtrade.

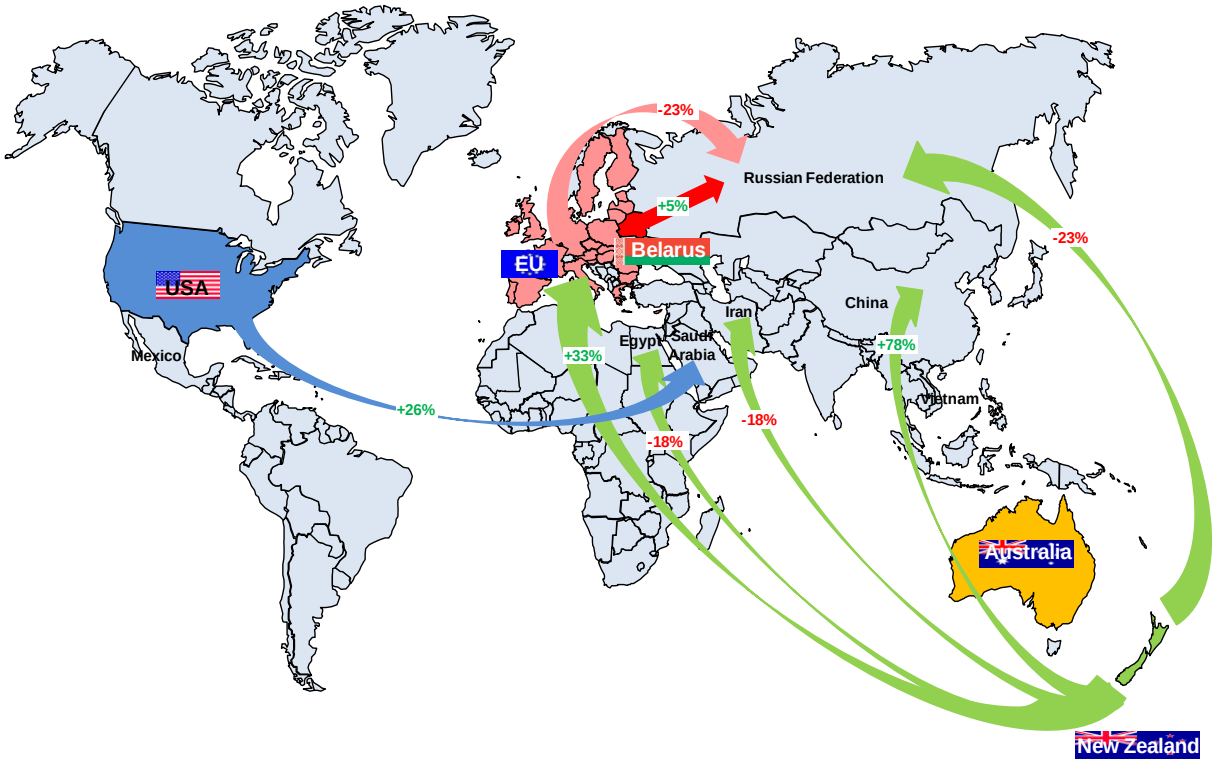
World trade volume in butter and butteroil remained fairly stable in 2011, at a volume of 813 thousand tonnes (+0.5%). Nearly 90% of this volume is being supplied by only six major exporters, which illustrates the bias towards concentration in supply in the international market for butter and butteroil.

New Zealand strengthened its dominant position, holding nearly half of the market. As a consequence, the country partly recovered from the setback in 2010. The picture for its major export flows was, however,

mixed. Traditional supplies to the EU flourished and exports to China boomed, to make the country become one of New Zealand's major markets in 2011. Moreover, China developed into the fifth market worldwide, with exporters from New Zealand covering nearly 90% of its imports. Furthermore, New Zealand made significant progress in Algeria too. In contrast, trade to key destinations like Iran, Egypt and Russia fell back.
Meanwhile, exports from the EU tumbled, to reach an all time low (-20%). Still, it remained by far the second supplier to the world market. In 2011, EU exporters suffered from a sharp drop in demand from key market Russia and also saw significant trade opportunities with Iran melt away.

The expansion in US butter exports continued, though growth flattened to a more normal pace in comparison with the previous year. Still, export levels stayed far from those in record year 2008, but by now have recovered significantly from the low point in 2009. US exporters increasingly serve a wide range of destinations. In 2011, exports to leading markets like Saudi Arabia, EU, Canada and Japan increased, while those to Mexico fell back. The USA overtook Belarus as the third worldwide exporter.
Belarus exports increased only slightly and as such did not recover much from 2010. Still, in 2011 the country was among the few exporters that managed to expand trade to Russia. Argentina was also successful in Russia, but not only there. In fact, the South American country proved to be the biggest grower, relatively, almost doubling its (limited) export volume. It stepped up trade to a wide range of countries. This reflected production growth in combination with competitiveness in international markets.

Global trade: dynamics in main export markets of the top-5 exporters of butter & -oil
(Top-5 export markets per exporter > 10 000 tonnes, development 2011/10 as indicated in %)



Source: PZ/Comtrade.

5.4.5. Whey powder and whey products

World trade in whey powder and whey products in 2011 continued its dynamic development, stepping up to a volume of over 1.5 million tonnes (+11%). This business remains dominated by exports from the EU and the USA, which represented two thirds of total world trade. While exports from the former enjoyed substantial increases, mainly on the waves of expanding export opportunities in China and other Asian destinations, exports from the latter stabilized as a result of reduced exports to neighbouring markets and from mixed results in Asia. China is by far the largest and the most dynamic market, absorbing 22% of world trade after a 36% growth.

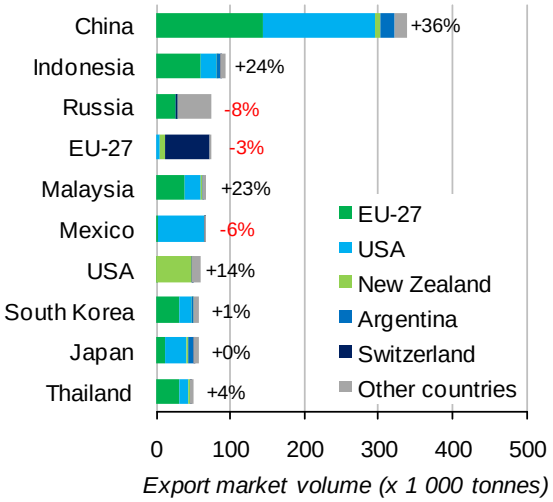
Overview of the main global exporters

1 000 tonnes	2011	Share in world trade (%)	Annual growth 11/10 (%)
EU-27*	526.1	34.2	16.3
France	155.0	10.1	9.7
Netherlands	99.1	6.4	24.9
Poland	67.4	4.4	14.8
Germany	58.0	3.8	9.1
USA	463.5	30.1	-0.5
New Zealand	89.1	5.8	10.2
Argentina	69.0	4.5	58.3
Switzerland	62.8	4.1	-5.2
Belarus	46.5	3.0	77.7
Canada	41.5	2.7	9.7
Australia	37.1	2.4	-8.7
Ukraine	26.4	1.7	39.3
World trade	1 539.9	100.0	11.0

**intratrade excluded*

Top-10 leading international markets

(Position of top-5 global exporters indicated, as well as the export market volume development 2011/10 (%))

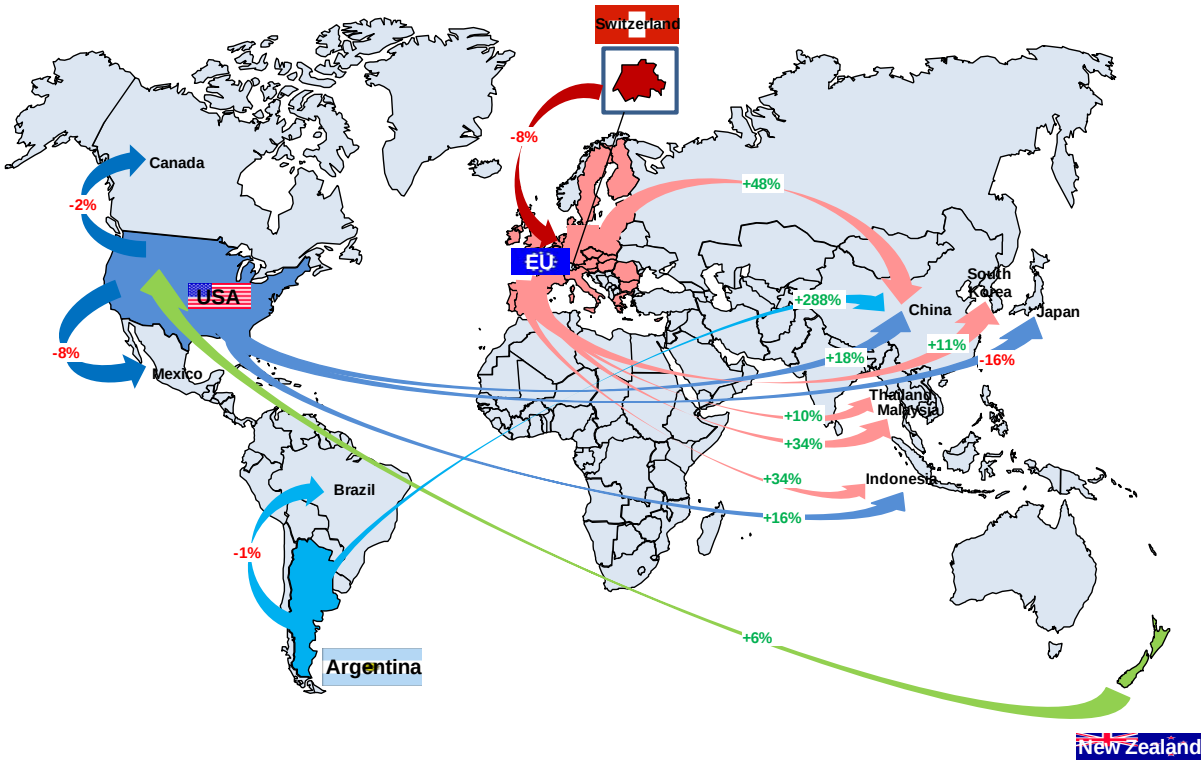


Source: PZ/Comtrade.

Except for Switzerland and Australia, all other significant whey exporters increased their exports. In absolute terms, Argentina expanded the most, after EU, mainly thanks to Asia in general and China in particular. In relative terms, Belarus showed the highest export increase, which reflected recent investments in whey processing. As usual, most of its product went to Russia, ousting competitors from a contracting market.

Global trade: dynamics in main export markets of the top-5 exporters of whey products

(Top-5 export markets per exporter > 10 000 tonnes, development 2011/10 as indicated in %)



Source: PZ/Comtrade.

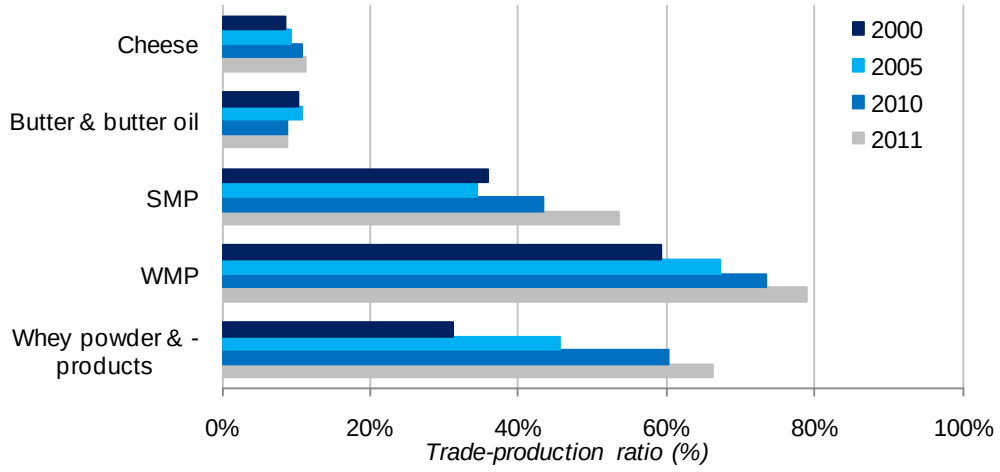
5.5. Trade development outpaces production

Since 2000, world trade volume, with ups and a few downs, has shown growth of on average a little less than 4% per year. World trade thus increased more than production, which over the same period stepped up by around 2% per year. This is basically a logical phenomenon, since it always takes time for milk production to react to changing demand patterns in the world. Moreover, the fact remains that some areas in the world are, by definition, more suitable for milk production than others, not necessarily following the same patterns in demand. Meanwhile, international trade is used to fill up the gap between demand and supply. In 2011, the overall share of world dairy trade in the global milk pool slightly exceeded 8%, which is still modest but definitely more than a decade ago. This puts into perspective the role of international trade and underlines the fact that the vast majority of the world's milk never crosses any border, with the main focus in dairy remaining local, at most regional.

5.6. The thinness of dairy commodity markets

Global trade development varies significantly between the different product categories. As presented above, all main categories stepped up volumes in 2011 compared to the previous year. Growth was most significant in SMP (+19%), followed by whey powder and whey products (+11%). In contrast, growth in butter(fat) trade was almost stagnant (+0.5%), while that of WMP and cheese (both around +7%) ended up in-between.
Despite the fact that world trade consists of only a minor part of global production, the role of international trade of some commodities is much more significant. This goes especially for the categories SMP, WMP, whey powder and whey products, which by definition are typical international trading commodities. Between an estimated 50 and 80% of the global production of these commodities was subject to international trade in 2011. This was much more than a decade ago, which indicates that for these commodities, international trade opportunities have been a major trigger for investment and production growth in the past few years.
For cheese and butter(fat) this relation is less clear, with shares varying around 10%. As for cheese, it is obvious that the main producing areas are also the main consuming areas. In 2011, (intra)trade among EU-Member States alone, for instance, was about five times as much as the EU export volume, which in itself consisted of only 8% of total EU cheese production. This illustrates a situation in which, basically, internal consumption patterns determine production developments, more than trade opportunities. In general, the same goes for butterfat, a category for which the main driver for global production nowadays is consumption growth in India, a development which does not have any interference with international trade whatsoever.
It follows that, especially for those product categories with a relatively high trade/production ratio, a relatively small change in the supply-demand balance of milk may have a substantial impact on traded dairy products. Furthermore, the relative thinness of the world dairy market in general, which is further enhanced by restrictions on market access through border measures and by export support, forms an important driver for volatility in dairy markets.

World trade in relation to global production: evolution of the share of world trade in global production volume for various dairy commodities (2000 - 2011)



Source: FAO/PZ.

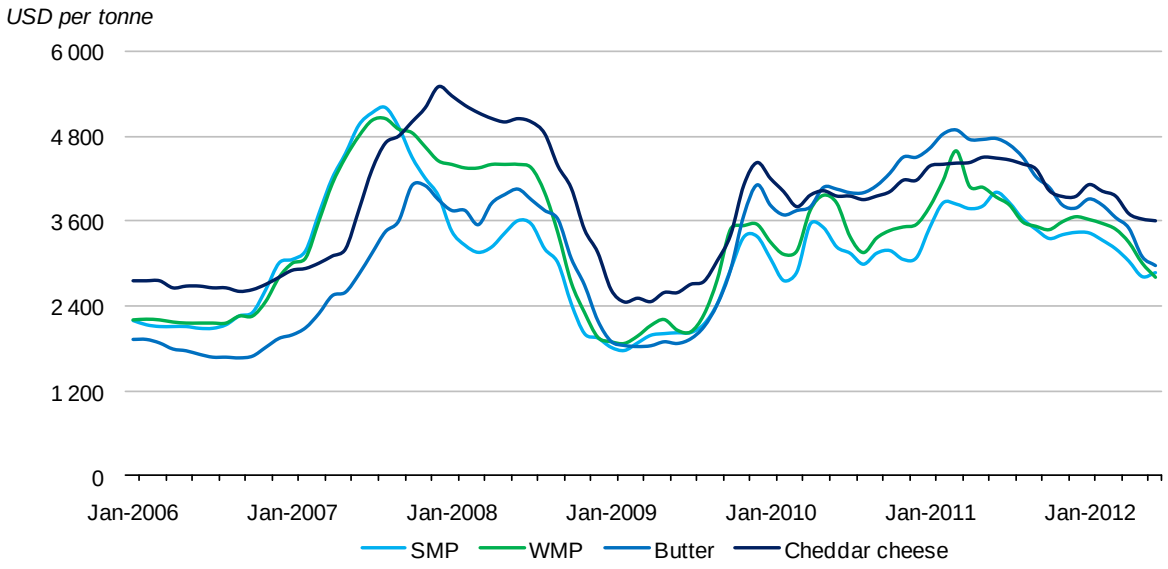
6. Prices

6.1. Dairy market prices

6.1.1. Year 2011

Over the year 2011 the global dairy market has transitioned from demand-driven price increases, experienced during the years 2007, 2008, to more supply-driven price declines, due to extremely high milk prices. Dairy farmers responded on the latter by increasing milk output rapidly. This growth slowly translated into an increase in exportable supplies, which had been a factor in pressuring prices during the second half of the year. Notwithstanding, over the first six months of 2011, global dairy markets have developed quite well, mostly due to continuing strong demand in Asia. As a consequence international dairy commodity prices have been rising to levels reminiscent of the 2008 record year.

World market price development (FOB port, USD per tonne)

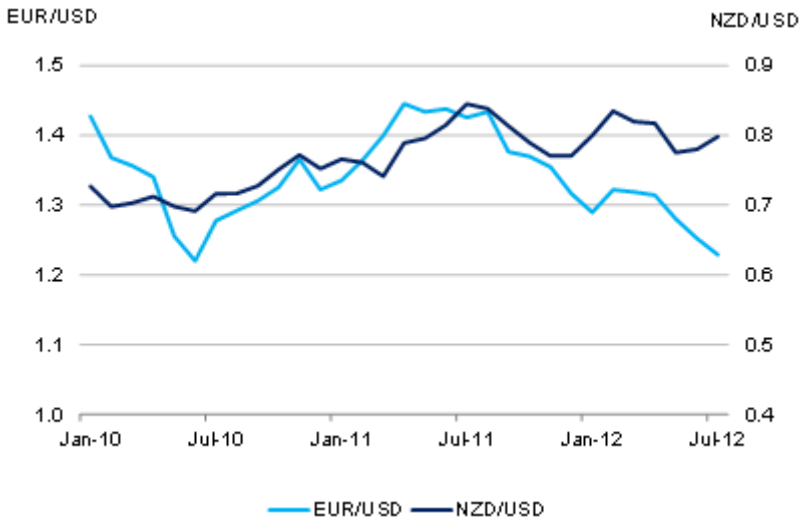


Source: USDA.

Most of the gain was realized in the first quarter. Tight supplies and uncertainty over future output prior to the start of the dairy season in the northern hemisphere, combined with the virtual absence of private and public stocks, caused prices to jump in the first quarter. Global dairy prices slowly lost ground in the third quarter and reflected deterioration in demand conditions in the EU and US. More exportable supply was expected to come to the market as rising surpluses from the northern hemisphere collided with a strong start of the southern hemisphere season. Besides that, lower import purchases from China and Russia were not sufficient for absorbing the solid supply growth. As a result price weakness for all products accelerated during August. This price slide continued well into the last quarter. Global economic unrest, unstable financial markets and expectations that the southern hemisphere production continued their strong advance and should run well ahead of last season had undermined confidence, sending most prices lower. Dairy buyers worldwide had reacted and adopted a wait-and-see approach, held off new orders in an attempt to buy at still lower prices. Under these circumstances WMP gradually slipped back from a level of 4 088 USD in April to 3 478 USD in October, whereas SMP declined during the same period from 3 769 USD to 3 346 USD.

World dairy trade continued to expand during 2011 and the dairy trade growth amounted to 10% compared to 2010. The good export availabilities and a fall in value of the euro against the US dollar as well as the NZD since July, led to several price declines as exporters competed for sales.

EUR/USD and NZD/USD exchange rate development



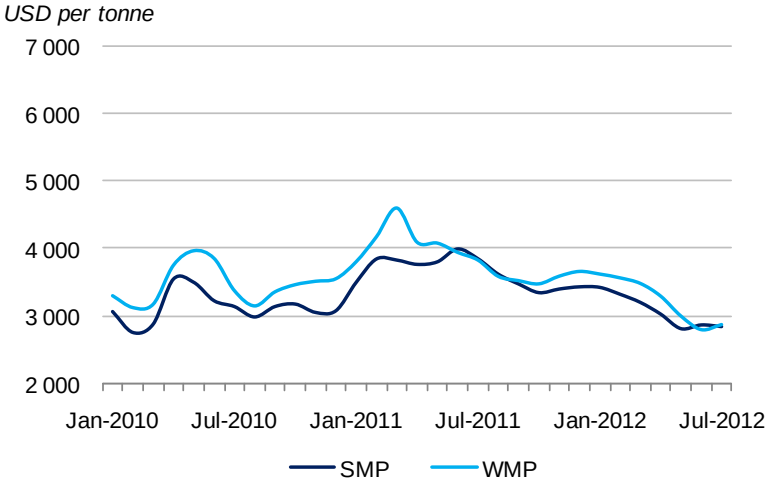
Source: ABN AMRO.

Despite the fact that prices started to come down in the second half of 2011 - measured on a 12-month-average basis - all dairy product prices ended the year higher on international markets compared to 2010, SMP showed the strongest gains and was up more than 17% at 3 660 USD per tonne compared to the start of the year. Butter and WMP were both up 11% on the year at 4 500 USD and 3 900 USD respectively, while cheese prices saw a single digit advance of 7% at 4 300 USD per tonne.

6.1.2. Per product

The volume of milk powder traded has risen sharply, despite prices being at their highest since 2007. WMP prices remained above average and rising during the first part of 2011. In March, they hit their highest level since December 2007 at 4 592 USD per tonne, before falling back in April and May. SMP prices also rose strongly from the start of the year and reached its peak level of 4 000 USD in June. China, helped by a low tariff trade agreement with New Zealand, was the biggest market with WMP imports up by more than 60% in the first quarter, but also SMP imports went up by 36%, thus underpinning international dairy prices in early 2011. Demand from China eased during the latter part of the second quarter as the market had to work its way through the large quantities imported from January to April.

Milk powder prices in 2011



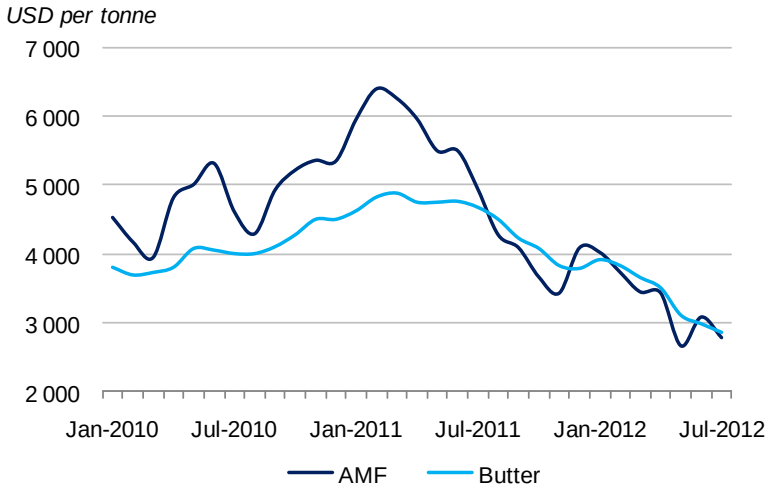
Source: USDA.

To cope with the higher milk flows in New Zealand during its seasonal peak, more SMP was manufactured instead of WMP and this attracted sufficient buyers as global stocks of SMP were not particularly high. As a result during August and September SMP prices were often equal or above WMP prices. Milk powder prices bounced back in the last 2 months and ended the year at 3 658 USD (WMP) and 3 433 USD (SMP) respectively.

In the end, China's import demand in 2011 was less than expected. From July the pace of their imports had been slowing. The high price of WMP can be attributed as a major factor in the drop in import demand as smaller processors were sourcing their WMP from domestic producers. Most of the imported WMP is used for the manufacture of infant formula and processed foods such as yoghurt, UHT milk and other recombined beverages. However SMP in combination with AMF is rapidly becoming an important competitor in this respect, mainly due to very low prices of AMF in the course of the second half of 2011. AMF was even priced below butter, despite the higher milk fat content. In 2011 China imported 350 000 tonnes of WMP, an increase of just 7.5% from the previous year and 118 000 tonnes of SMP or 33% more than in 2011. However economic growth prospects for China being gradually revised downwards could have a negative impact on still growing imports of WMP.

Butter prices reached a new record at more than 4 883 USD per tonne in March, after surpassing in October 2010 the historic highs seen in late 2007. Prices dropped somewhat in April and May, but remained at high levels owing to still limited supplies in both New Zealand and the EU.

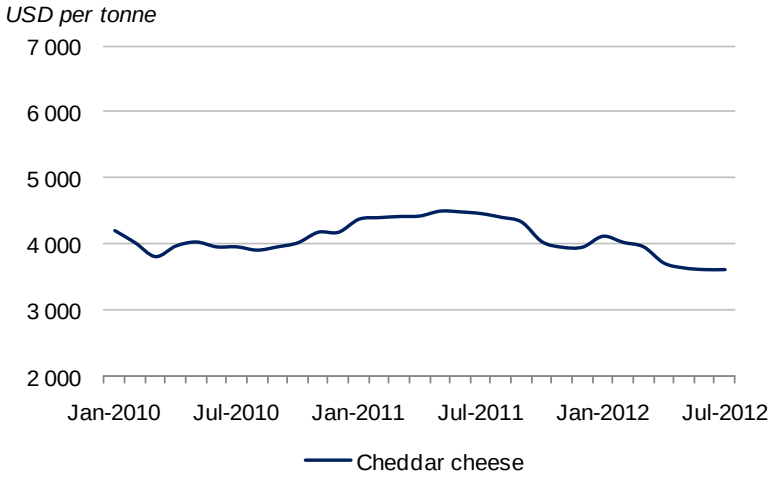
Butter and AMF prices in 2011



Source: USDA.

Cheese prices remained stable before regaining some ground at the end of the second quarter to 4 500 USD.

Cheese prices in 2011



Source: USDA.

6.1.3. Developments in 2012

As global production continued to rise, the first couple of months of 2012 saw an extension of the gradual softening of international dairy prices. The attractive milk prices and favourable weather conditions in almost all milk producing regions had boosted milk supply growth, which channelled more product to the export markets. As consumption in western markets remained flat, export markets did better, with China entering the market again to buy significant quantities after a six month layoff. This can probably be attributed to the FTA (Free Trade Agreement) between China and New Zealand, which allowed China each year to import 115 .473 tonnes of milk powder at a tariff rate of 5.8% instead of the normal 10% once this quota has been exceeded. Despite this, the volume of WMP imported by China in the first half year of 2012 was 10% less than imported during the same period last year.

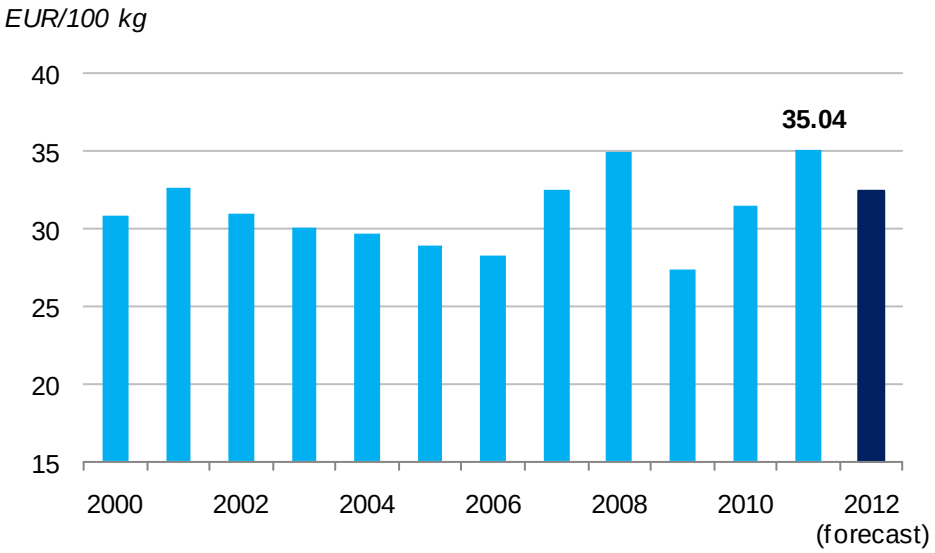
Strong demand from buyers in South East Asia, the Middle East and North Africa also supported market prices. However the increase in demand was not sufficient to soak up the rising surplus, produced in the export regions. The extra milk was processed into more butter and milk powder and stocks started to rise, forcing downward pressure on dairy commodity prices in the course of the second quarter. In the first half of 2012 butter prices fell 1 000 USD back to 2 970 USD, SMP and WMP approximately 600 USD and 800 USD to 2 860 USD and 2 800 USD respectively, while cheese prices saw a price correction of 500 USD to 3 600 USD.

6.2. Milk producer prices

Milk prices in Europe, New Zealand and the United States reached record levels in 2011. Milk prices in the first half of 2012 have fallen due to lower revenues on the dairy markets.

European milk prices soared in 2011 continuing the sharp rise from 2010 after the deep fall in 2009. The milk prices calculated for the 17 European dairy companies surveyed by LTO increased on average by 11.3% over those in 2010, to a record 35.04 EUR per 100 kg in 2011.

Average European milk prices from 2000 to 2011

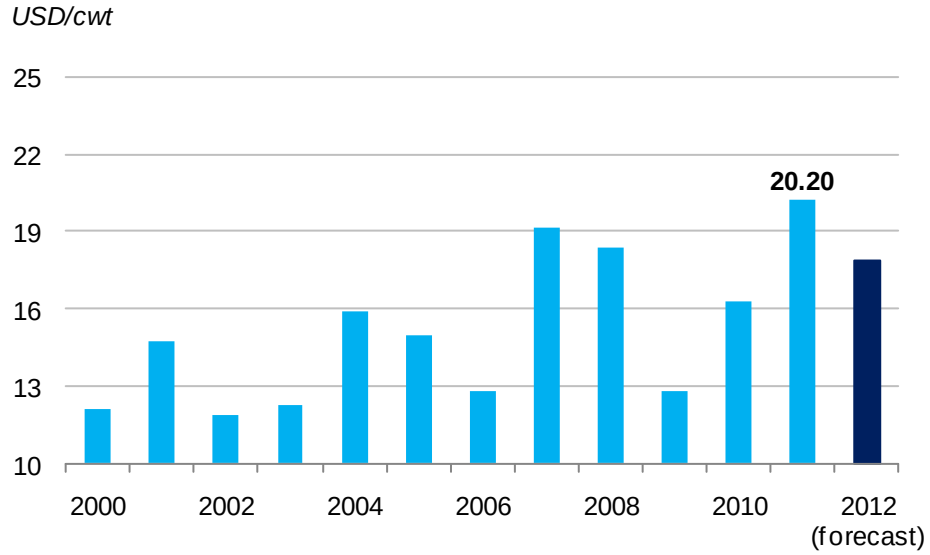


Source: LTO International Milk Price Comparison.

Based on the development of the milk prices in the first half of the year, a fall in milk price of between 5 and 10% for the whole of 2012 should be expected.

An indicator of U.S. milk prices is the “mailbox” price. Mailbox prices reflect the average prices paid for milk based at average fat test results and including premiums and cost deductions. The mail box prices are based on a weighted average excluding California. U.S. mailbox prices set a new record in 2011 at 20.20 USD per hundredweight (cwt). The all milk price for 2012 is forecast at 17.80- 18.00 USD per cwt.

USA mailbox prices

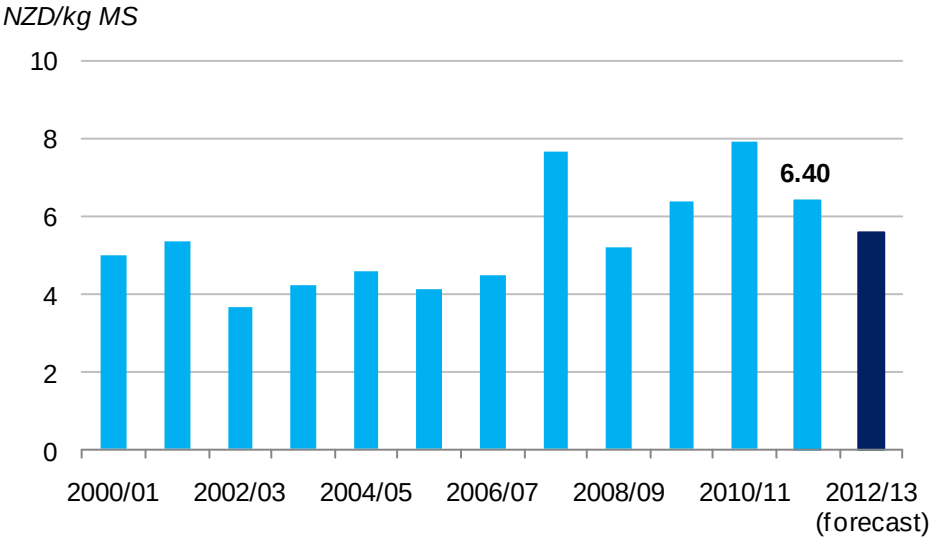


Source: USDA.

New Zealand dairy company Fonterra paid a record milk price (including dividend) to its member farmers in 2010/11 season of 7.90 New Zealand dollars (NZD) per kg of fat and protein milk solids (MS). The payout price for 2011/12 is 6.40 NZD per kg MS including a farm gate milk price of 6.08 plus 0.32 dividend which is 19% lower than the previous year.

For 2012/13 Fonterra announced an pay out forecast milk price of 5.25 NZD per kg MS. Taking into account an estimated dividend of 31-32 cents, this price is converted to 5.57 NZD per kg MS.

Fonterra milk prices 1998/99 to 2012/13



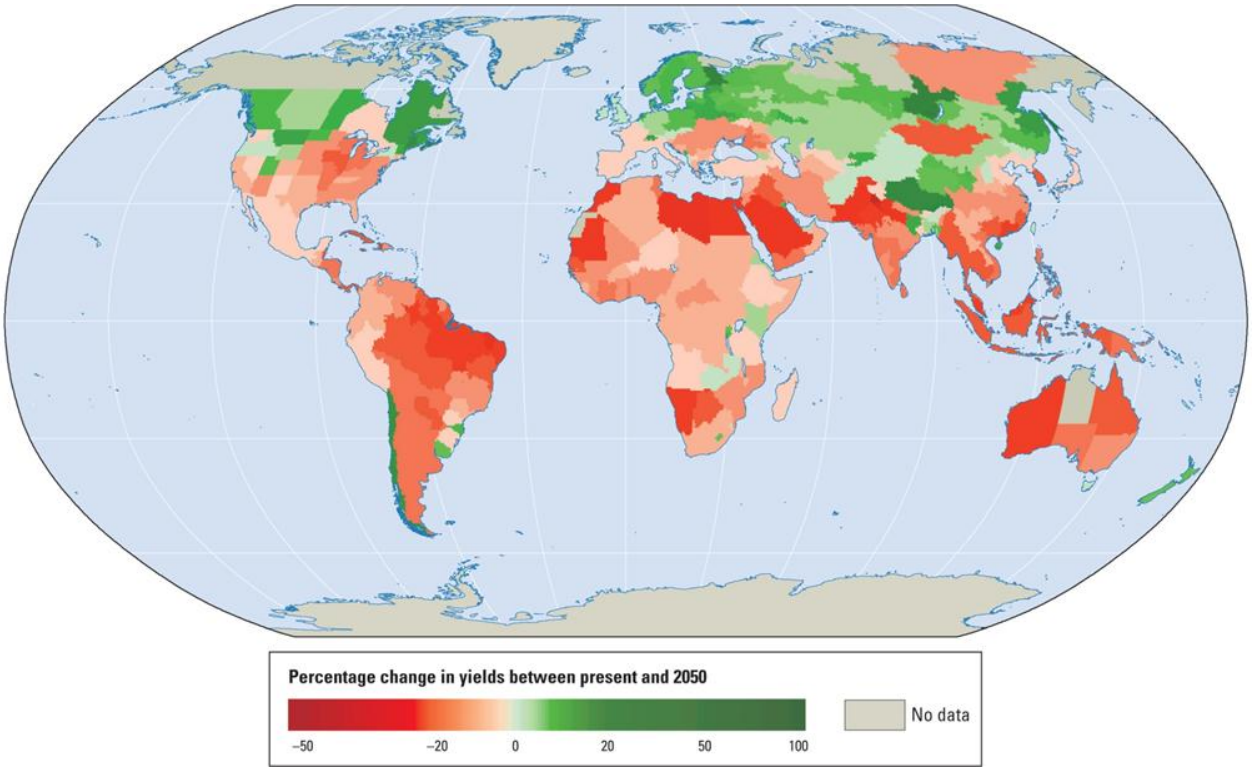
Source: Fonterra.

7. Dairy Outlook

Most forecasters consider that long-term balance between food supply and demand is above all a challenge in terms of resources. The main question is how to feed the 2.4 billion additional people expected on earth by 2050 according to the United Nations (median scenario in its long-term forecast). The equation is especially difficult to solve since climate changes and resource (water, fossil energy, new arable land) exhaustion might not allow the leaps in productivity enjoyed during last decades.

According to the World Bank, tackling this immense and multidimensional challenge demands extraordinary ingenuity and cooperation. Improvement in energy efficiencies, development and deployment of clean technologies must be carried out on a global scale. Consequently, as we will see in this chapter, dairy outlook appears to be far less uncertain for demand than for supply.

Projected percentage in agricultural yields by 2050 given current agricultural practices and crop varieties



Source: World Bank (World Development Report 2010).

While long term demand appears to be immense, occasional surpluses of food in general and milk in particular, may nevertheless occur in the coming years, leading to spectacular price collapses. Indeed, regulation is no longer a strategic axis in the agricultural policy of both Europe and the United States. Those two blocks are focusing their efforts on the best way to cope with volatility rather to struggle against it. Following this renunciation, no country has filled the void, leaving agricultural products without any significant tool to ease price variations on the world market.

More than most other food sectors, the dairy sector is expected to face erratic development of prices in the coming years. It is especially prone to volatility for two main reasons. First of all, the level of stocks is very small in comparison with consumption, limiting the means of adjustment between supply and demand. Second, the world market is thin and the suppliers come in very small numbers. The four main ones (New Zealand, the European Union, the United States and Australia) contribute to 72% of global trade. Any variation in milk production in these countries is bound to have a strong impact on world prices.

7.1. Long term demand is rather clearly identified

World economy has experienced crucial changes during the last few years. One of the most impressive developments is the leadership taken over by emerging countries in terms of world wealth growth. According to the World Bank, developed countries were still in the lead over the period from 2000 to 2005. But five years later, between 2005 and 2010, BRIC (Brazil, Russia, India and China) became four out of the five main contributors to world GNI (Gross National Income) increase.

This transfer has a colossal impact on the dairy market. Indeed, the growing dispersal of wealth between countries comes with an increase in the standard of living in emerging countries and a fast growing development of households belonging to the middle class, who can afford to buy more costly food than grains, that is to say fruits, vegetables, meat and dairy products.

Emerging countries are the new driving force of world wealth growth

(BRIC countries are displayed in green)

From 2000 to 2005	
World GNI growth	+ 13 940 billion USD
Main contributors (%)	
United States	24.1
China	**7.9**
United Kingdom	5.9
Germany	5.7
France	5.1
Italy	4.3
Japan	4.2
Spain	3.5

From 2005 to 2010	
World GNI growth	+ 16 340 billion USD
Main contributors (%)	
China	**21.2**
United States	8.9
Brazil	**6.7**
Russia	**4.7**
India	**4.5**
Germany	4.0
France	3.4
Canada	2.5

Source: CNIEL, World Bank.

7.1.1. Demand, the key factor of dairy market balance today and tomorrow

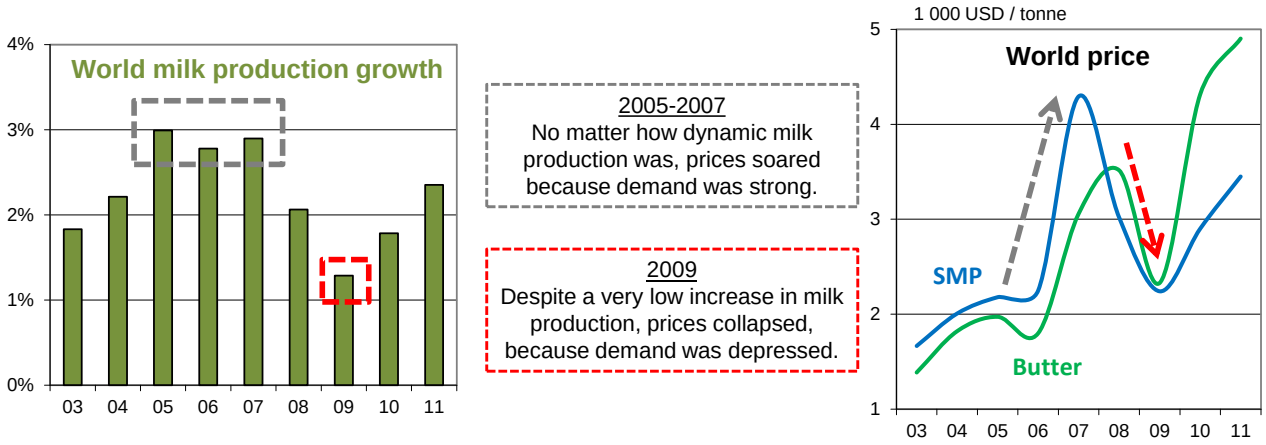
Demand, rather than output, has been the key factor of dairy market balance for the last few years. In other words, when consumption was severely upset, as in 2009 when it was strongly impacted not only by worldwide economic recession but also by the Chinese melamine crisis, dairy product prices collapsed. Even with a very small increase (+1.3%), well below the average growth of the previous 10 years (+ 2.2%), milk production was actually still too high in 2009, because demand was depressed at the time.

Likewise, between 2005 and 2007, while world milk production achieved very consistent growth approaching 3% per year, world prices nevertheless increased regularly, because demand, especially in emerging countries, depleted all these additional quantities.

As a matter of fact, if no severe health or economic crisis lingers, milk oversupply is likely to crop up rather rarely in the coming years. Indeed, even the exceptional weather conditions between spring 2011 and spring 2012 which led to historical growth of milk production in New Zealand and Argentina, but also to steady rise elsewhere, actually unsettled the dairy market in a quite restrained manner and only for a few months.

World milk production and world milk prices

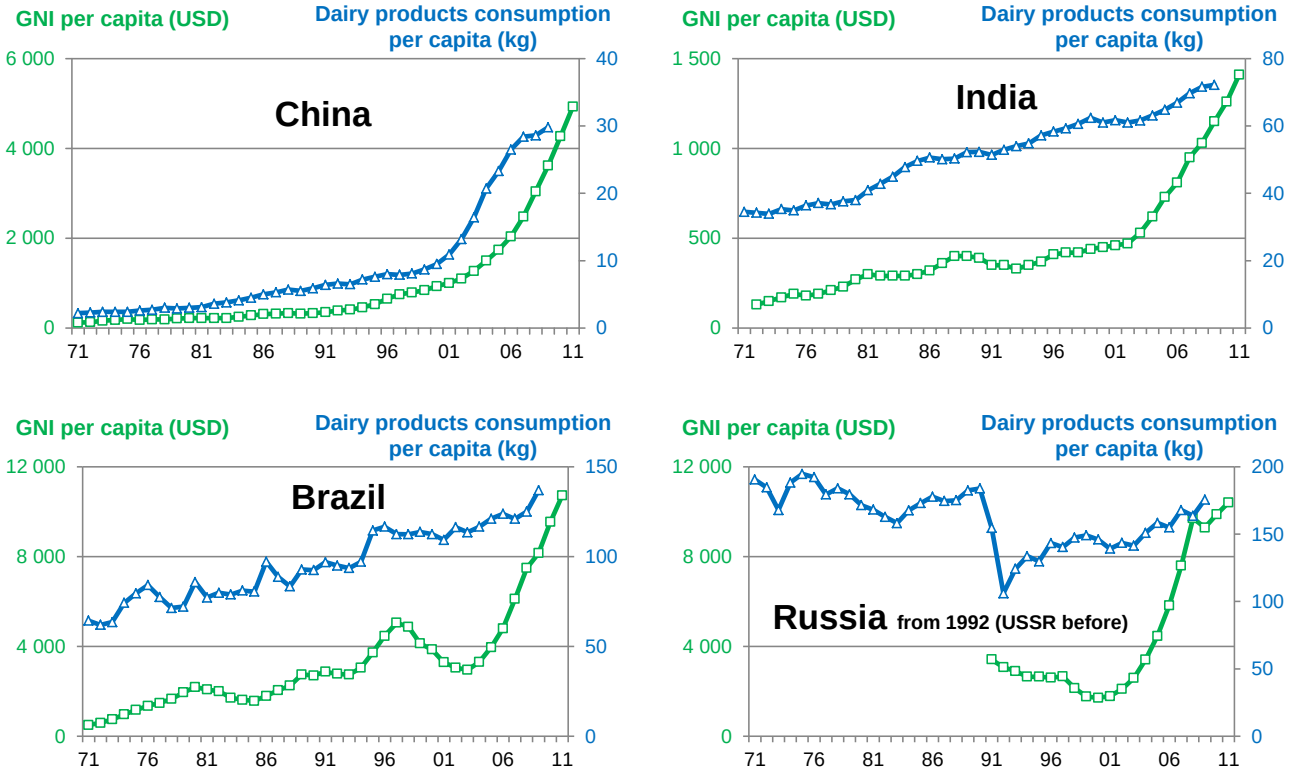
Development during the last few years



Source: CNIEL, IDF, FAO, ZMB.

7.1.2. Forecasting per capita consumption through GNI per capita development

Development of GNI and dairy products consumption in BRIC



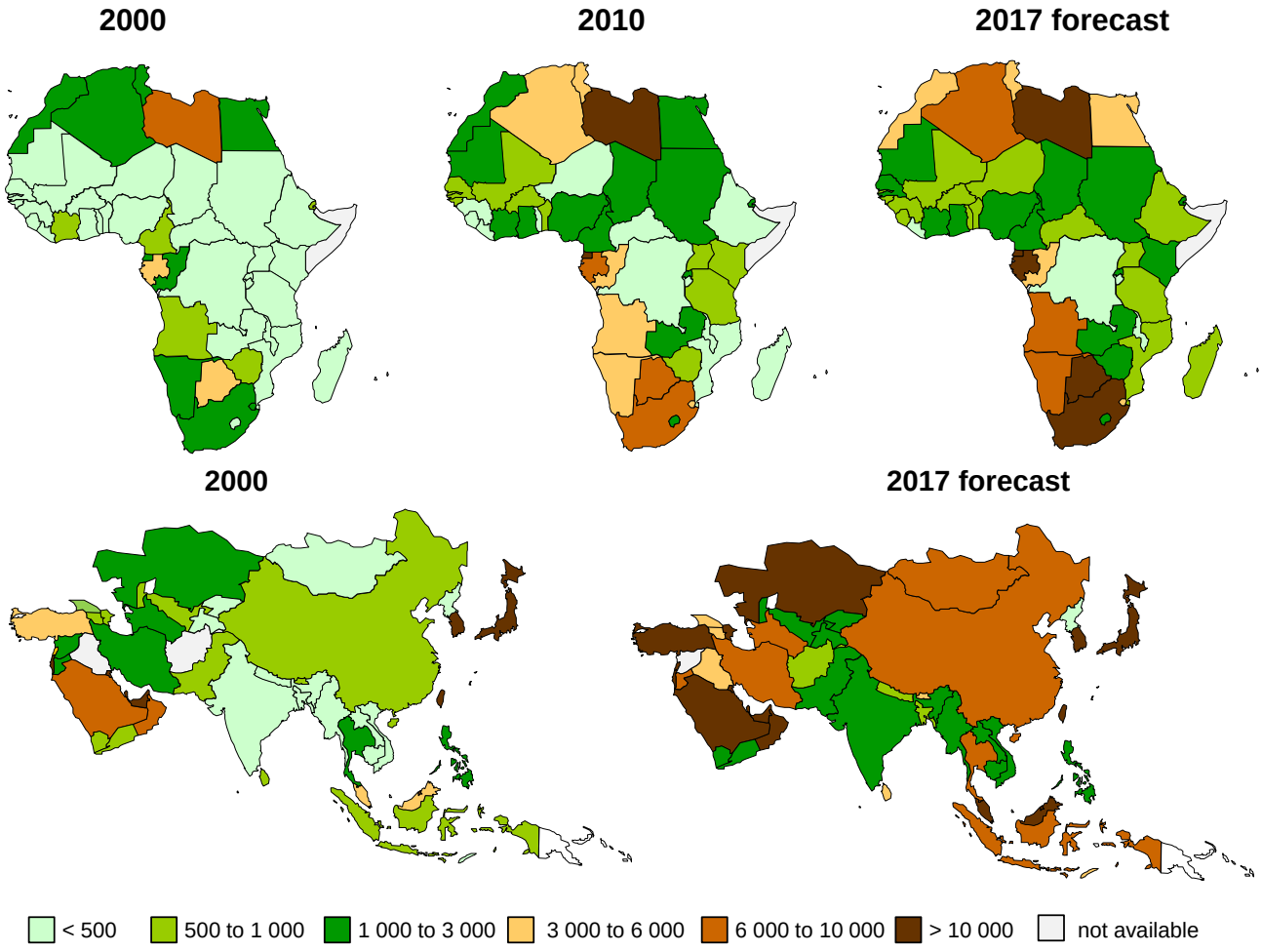
Source: CNIEL, World Bank, FAO.

With very few exceptions, per capita GDP or GNI and dairy consumption are highly correlated in emerging countries. In so far as food absorbs a large share of the household budget (more than 30% in India and China in 2009), any change in purchasing power has a strong impact on the composition of the diet. The BRIC provide a striking illustration of this link. The impressive growth of GNI registered for the last ten years came with a strong rise in dairy products consumption.

According to the IMF, economic progress recorded in most African countries during the last decade is expected to continue for the next few years. Unfortunately, some countries such as Burundi, Democratic Republic of Congo, Liberia and Malawi will still remain extremely poor in 2017, with GDP per capita below 500 USD a year. But a few countries are expected to record dramatic changes between 2000 and 2017. By way of illustration, it is believed that GDP per capita will have grown during this period by six times for Ghana, seven times for Zambia and more than ten-fold for Angola and Equatorial Guinea.

This strong economic growth helps reduce poverty and increase the size of the middle class. According to the African Development Bank, the middle class population increased in Africa by 3.1% a year over the period 1980 to 2010, compared with a growth rate of 2.6% in the continent's overall population over the same period. In 2010, the middle class had risen to 34% of Africa's population, or nearly 350 million people.

Development of GDP per capita in Africa and Asia between 2000 and 2017 (current USD)



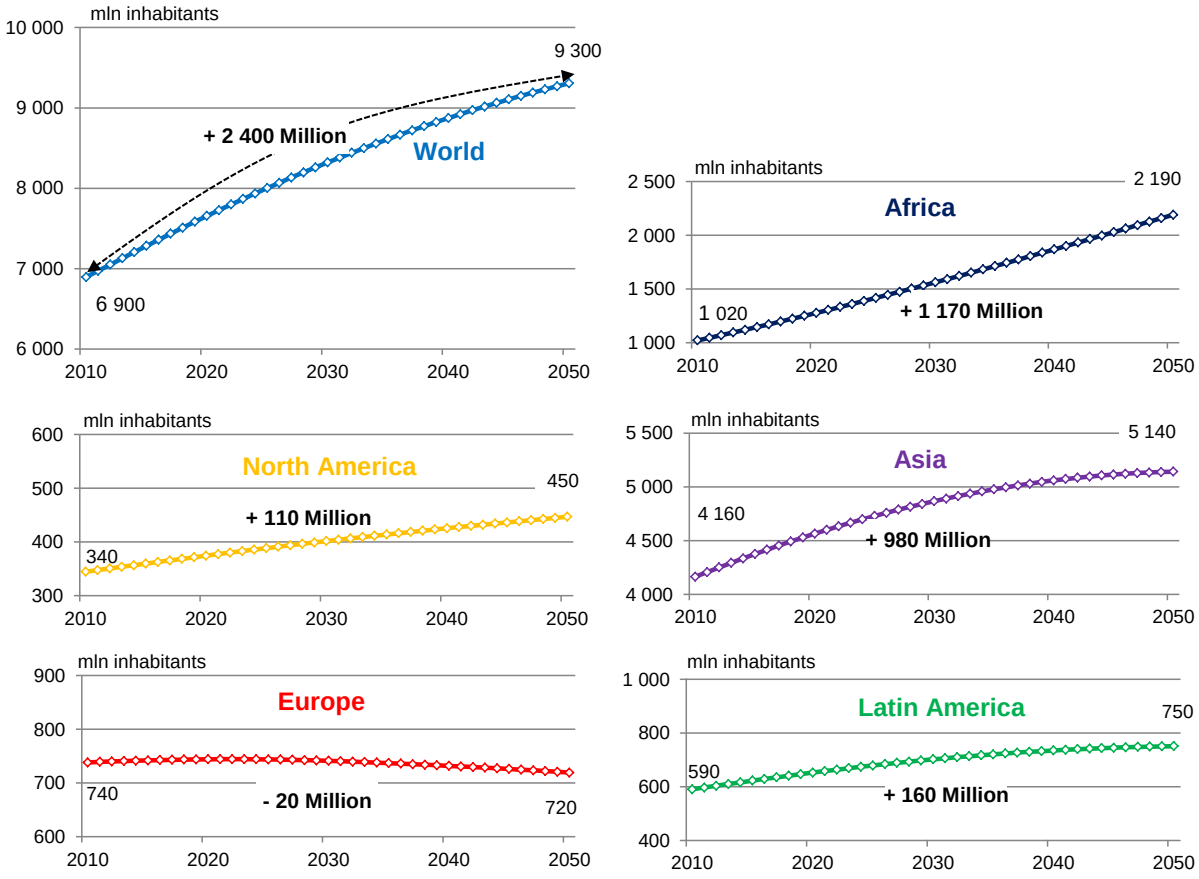
Source: CNIEL, International Monetary Fund.

The trend is similar in Asia, with even more impressive growth. Countries which are expected to increase their GDP per capita at least tenfold between 2000 and 2017 are the following: Azerbaijan, Kazakhstan, China, Mongolia and Timor-Leste. Those five countries count currently 1.4 billion inhabitants. A few countries, which represent 250 million people, are almost achieving a similar feat: Armenia (x7), Georgia, Tajikistan (x8), Indonesia and Turkmenistan (x9).

7.1.3. Impact of population development on demand

Dairy consumption in Africa and Asia is going to increase strongly in the coming years because of the impressive development of GNI per capita, but also because population is expected to grow considerably. According to a UN median scenario, Africa and Asia will accommodate 90% of the 2.4 billion additional people expected on earth by 2050.

World population development between 2010 and 2050
(UN median scenario – 2010 revised data)



Source: UN (median scenario – 2010 revised data).

7.1.4. OECD-FAO forecast on demand for the next decade

In its annual report Agricultural Outlook 2012-2021, FAO and OECD consider that consumption of dairy products will increase only slightly (with cheese as an exception) in developed countries during the next decade, whereas in developing countries, demand for each kind of dairy products is expected to grow by 30% or more.

Projections for dairy product consumption to 2021

1 000 tonnes	Cheese		Butter		Skim milk powder		Whole milk powder	
Country	2021	'11-'21 (%)	2021	'11-'21 (%)	2021	'11-'21 (%)	2021	'11-'21 (%)
World	**23 678**	**19**	**13 086**	**26**	**4 186**	**22**	**5 545**	**26**
Developed countries	17 715	15	4 030	7	1 775	5	705	14
United States	5 799	25	880	24	564	16	21	5
EU 27	8 935	9	2 016	1	592	-2	349	9
Russia	906	14	487	7	140	24	149	22
Developing countries	5 963	32	9 056	38	2 411	39	4 839	29
Brazil	823	24	95	20	190	39	669	27
China	433	37	182	28	227	53	1 701	32
India	n.a.	n.a.	6 071	42	235	22	17	143
Least advanced countries	488	34	276	46	136	48	322	44

NB: 2011 refers to the average 2009-11. n.a.: not available.

Source: FAO, OECD.

7.2. Long term supply, a tricky subject

Stimulated by steady demand in Africa and Asia, world milk production is expected to increase rather strongly in the coming years. An increase slightly above 2% per year seems to be rather plausible. Nevertheless, the precise extent of this growth and the location of these additional quantities are difficult to determine. Indeed, a large gap between potential and effective growth could exist in many parts of the world, notably depending on the attractiveness of dairying compared with crops. If biofuel and green electricity continue to be supported with incentive policies, milk production will not be as dynamic as expected in countries like Germany or Brazil. In addition, some countries, like China or Russia, are operating very ambitious dairy policies, coming with sustained financial support from their government. Could these orientations continue for a long time on the same level, in so far as those nations keep tight commercial links with very competitive and export oriented countries, such as Belarus for Russia and New Zealand for China? However, according to FAO and OECD, milk production gain by 2021 would be mainly (70%) attributable to developing countries, notably China and India. From 2013 onwards, total milk production in developing countries is expected to exceed production in developed countries.

Projections of milk production by 2021

1 000 tonnes	Milk production	
Country	2021	'11-'21 (%)
World	**880 350**	**24**
Developed countries	411 426	13
United States	103 383	18
EU 27	157 612	6
Russia	35 969	13
Developing countries	468 925	34
Brazil	38 440	23
China	60 432	41
India	165 632	42

Source: FAO, OECD.

8. World Dairy Market Forum

8.0. Contents

8.1. Africa's growing dairy importance

By Koos Coetzee, Milk Producers' Organisation, Pretoria, South Africa.

8.1.1. Economic growth

African economies grew on average by 4.9% per year from 2000 to 2008. Africa's total GDP was estimated at USD 1.6 trillion in 2008. It is now roughly equal to Brazil or Russia's GDP. The 2008 recession impacted negatively on economic growth in the developed world and to a lesser extent in developing countries. African economic growth recovered at a faster rate after the 2008 recession than the recovery in developed countries. In its April 2012 World Economic Outlook report, the International Monetary Fund predicts growth of 5.4% and 5.3% for Sub-Saharan Africa in 2011 and 2012.

Africa's share of global natural resources was a main trigger of growth. The sharp increase in oil and other commodity prices during the past decade had a huge impact on the African continent's growth. However the availability and higher prices for commodities was not the only driver of fast economic growth. A recent research report (McKinsey, 2010) shows that commodities only account for 32% of Africa's GDP growth from 2000 to 2008. The rest of the growth came from wholesale and retail trade (13%) agriculture (12%), transport and telecommunications (10%) and other factors.

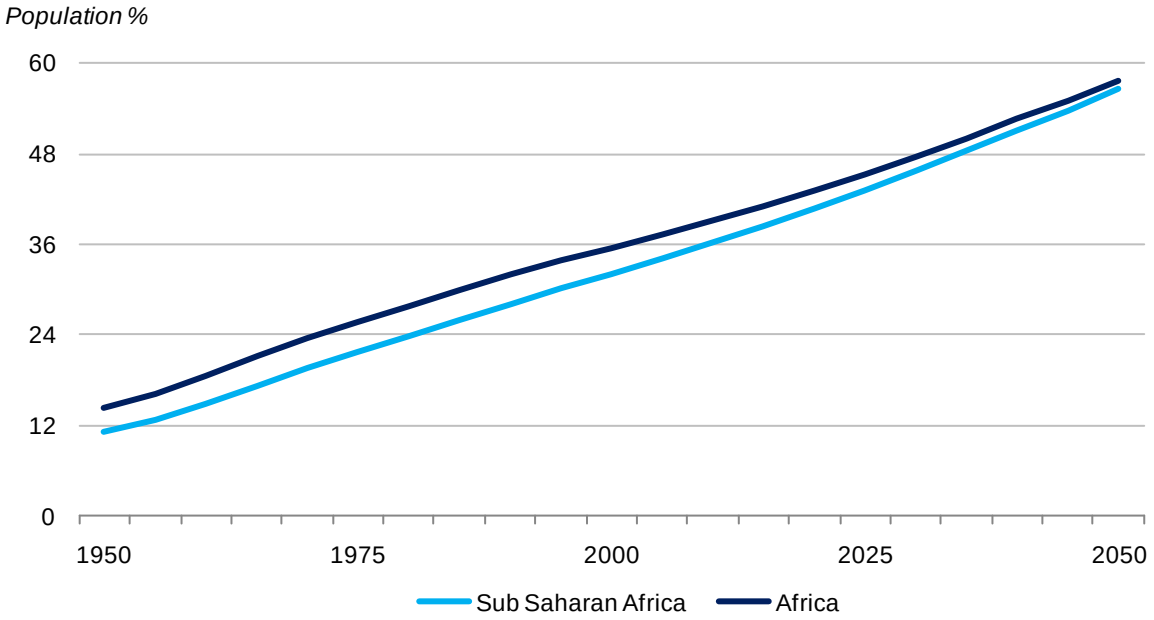
Improved political stability, macro-economic conditions and micro-economic reforms by African governments created better business climates. Lower inflation and reduced foreign debt also contribute to the sustainability of economic growth in Africa. The African continent will continue to benefit from the global demand for oil, natural gas, minerals, food and arable land. The growing demand for commodities in the developing countries has resulted in African trade with developing countries increasing to more than 50% of total trade. Population growth and urbanisation are further drivers of economic growth in Africa (discussed in the next section).

8.1.2. Population growth and urbanisation

The total African population reached 1 billion by 2011 and is expected to increase to 3.6 billion by 2100. In 2011 only 15% of the global population lived in Africa with 60% living in Asia. Africa's population is estimated to grow at 2.3% during 2010 – 2015, a rate more than double that of the Asian population. The African population is expected to add another billion by 2044 even as its birth rate decreases. By the turn of the century Africa's population which currently is equal to 60% of the population of the Americas, Europe and Oceania together might exceed their population by 83%. In 2100 five times more people may live in Africa than in North America and four times more than in either Europe or Latin America and the Caribbean area.

African population growth takes place in conjunction with increased urbanisation. The following graph shows the increase in the percentage of the total African population that will live in cities in coming years. Increased urbanisation will put severe pressure on African governments to supply basic services to urban dwellers. The demand for food will also increase and the decreasing rural population will not be able to meet the growing food demand.

Percentage of African population living in cities, 1950 – 2045



Source: UN World Urbanisation Prospects 2011.

At present 40% of the African population already lives in cities. This will increase to 50% in 23 years. Urbanisation has continued steadily both in Africa as a whole and in Sub-Saharan Africa.

8.1.3. Development of the retail infrastructure

The retail sector in Africa was for many years largely based on informal trade with a few larger shops in urban areas. However the bulk of trade was still handled by informal traders. Since the late 1990's the structure of the retail sector in Africa has changed. The supermarket industry initially developed in South Africa and Kenya and from there spilled over into other African countries. The South African supermarket chains played a major role in rolling out the supermarket industry in other African countries. By 2003 the South African supermarket industry already had investments in 13 other African countries.

Growing urbanisation and westernisation are the major drivers of retail demand in African countries and the main reason for the fast development of the retail sector in Africa. This has resulted in the formalisation of what in the past were informal markets. The old and probably exaggerated belief that it is easy to export products to Africa but very difficult to get paid for those products is no longer true.

The Shoprite Group of Companies is Africa's largest food retailer and operates 1 116 corporate and 270 franchise outlets in 16 countries in Africa, namely Angola, Botswana, Ghana, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Nigeria, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. Other South African retailers are active in the African market. Pick 'n Pay, Spar and Massmart are active in African countries. Massmart is active in 14 African countries outside South Africa. Through its purchase of Massmart US-based Wal-Mart has also now gained an entrance into the African market.

8.1.4. African dairy industry

In 2009 the FAO estimated total milk production in Africa at 31 million tonnes (4.7% of global production) and total consumption at 36.4 million tonnes, thus leaving a shortage of 5.4 million tonnes to fill this gap. By 2010 FAO estimates total African production at 5.8% of global production or about 37.7 million tonnes. Information on the dairy sector in selected African countries is summarised in the table below.

African dairy industry statistics, selected countries

Country	Milk production (2010) (mln tonnes ECM [A])	Number of dairy farms (1 000)	Number of dairy cows (1 000 cows)	Production growth (%) (2006-2010)
Algeria	1.5	20	822	0.8
Egypt	6.3	975	3 600	1.7
Cameroon	0.1	4.03	270	0.0
Ethiopia	3.0	22 456	9 628	6.1
Kenya	3.9	1 725	6 904	2.8
Morocco	2.2	261	1 835	7.5
Nigeria	0.5	325	4 252	1.4
South Africa	2.8	2.6	530	2.6
Sudan	5.6	-	14 450	0.2
Uganda	1.2	1 663	4 293	5.5
Rwanda [B]	0.35	-	-	-
Zimbabwe [B]	0.047	-	22	-72.0

Source: IFCN, Dairy Mail Africa.

8.1.4.1. Factors that limit dairy development in Africa

The low production density is a major problem for small-scale producers in African countries. Lack of transport facilities result in huge milk losses and limit individual farmer's saleable production. It is estimated that less than 30% of milk production reaches markets. Small-scale production is also limited by limited access to quality roughage and access to credit facilities.

According to a joint study done by the FAO and IFCN, small-scale producers produce milk at production cost lower than production cost of large-scale commercial producers, mainly as a result of the much lower opportunity cost of own labour and very limited fixed cost. The study also showed that is possible to improve milk production efficiency for small-scale producers with limited technical inputs.

8.1.4.2. Dairy processing industry in Africa

The dairy processing industry in Africa is generally well-developed and produces a large variety of dairy products. In the Common Market for Eastern and Southern Africa (COMESA) and East African Community (EAC) countries the total processing capacity is not utilised and surplus capacity exists in many countries. The following products are processed in COMESA and EAC countries namely: milk powder, UHT milk, pasteurised milk, cheese, butter, yoghurt, ghee, cream, ice cream and flavoured milk. The same is largely true for the Southern African Development Community (SADC) countries. A large variety of products are processed. The range of products on supermarket shelves is wide.

[A] ECM = Energy Corrected Milk (4% Butterfat, 3.3% Protein).
[B] 2009 figure.

8.1.4.3. Dairy trade

South Africa is a major exporter of dairy products to other African countries. Zimbabwe is the major destination for South Africa dairy products, importing 59% of all liquid milk and large quantities of other products. On a mass and value basis more than 95% of South Africa's total imports are destined for other African countries. This trade has grown substantially in the last decade. The total value of South African exports to other African countries increased from USD 16.6 million in 2010 to USD 21.5 million in 2011, an increase of 30%.

8.1.5. Conclusion

In spite of the recession the African continent still shows positive economic growth and further growth is expected in coming years. The African population grows at a fast rate and will exceed the population in other continents within the next 50 years. The fast growing African population is also becoming more urbanised and dependent on commercially produced food.

The primary dairy sector in African countries has improved in recent years and further growth is expected. However, small-scale producers will not be able to supply in the growing demand for dairy products. Dairy trade in Africa was for many years limited by the lack of retail infrastructure. Largely through the actions of major South African retailers the formerly informal markets in Africa have been formalised and opened up to dairy processors. African countries with existing commercial dairy industries like South Africa and to a lesser extent Kenya, Zambia and Malawi will be able to fulfil a part of the African demand. However Africa will remain a net importer of dairy products at least for the next decade.

8.2. Analysis of milk production and feeding systems world wide

By Torsten Hemme, Othman Alqaisi, Asaah Ndambi, IFCN Dairy Research Center, Kiel, Germany.

8.2.1. Introduction

Worldwide, milk is produced on around 141 million dairy farms keeping 350 million milking cows. This means that the average farmer in the world keeps fewer than 2.5 cows with an average annual milk yield of approximately 2 000 kg/cow/year. Of course figuring averages is an oversimplification. There is a wide range of dairy farms in the world with, on one end of the scale, small farms keeping fewer than 2.5 cows per farm and, on the other end, in many countries, much bigger dairy farms keeping over 1 000 cows per farm.

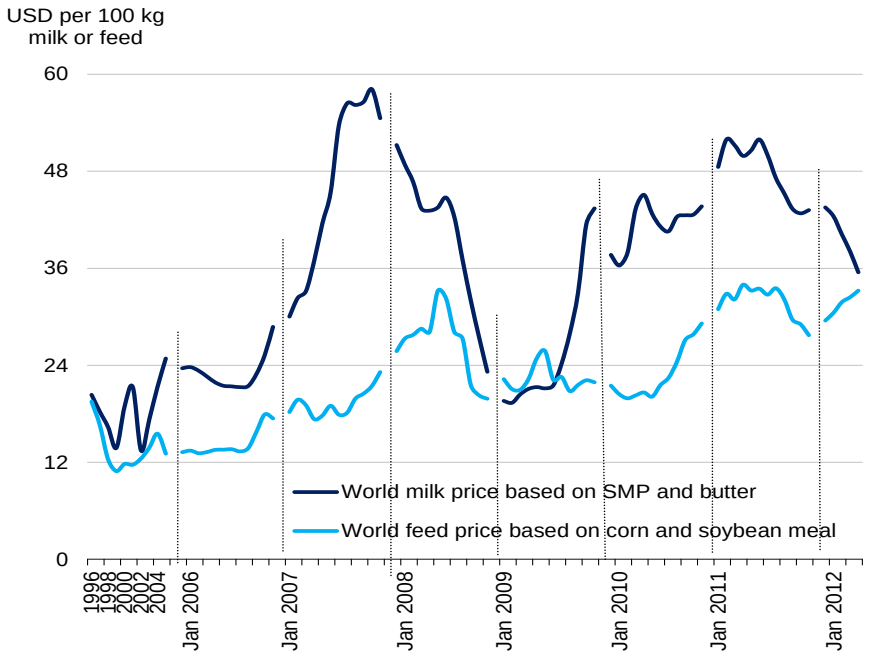
This simple example shows that milk production is performed differently in different countries and their dairy regions. Dairy farming systems differ significantly in terms of farm size, housing, milking and feeding systems. As feed is the major cost component in milk production, this article focusses on describing the differences in feeding systems and analysing their economics.

This article follows the approach of the IFCN. It is a global network of dairy researchers, from over 85 countries. The network is focussing on analysing dairy farming systems and their milk production costs. It is coordinated by the IFCN Dairy Research Center at CAU University Kiel, Germany (www.ifcndairy.org).

8.2.2. Milk and feed price development 1996 - 2012

The figure below describes the developments of the world market prices for milk and feed. The world milk prices are based on butter and skim milk powder prices traded on the world market. The calculated IFCN feed price indicator is based on the price for a diet comprising 70% corn (energy feed) and 30% soybean meal (protein feed). During the time frame between 1996 and 2005 both prices were below the level of 20 USD/100 kg. For the same period, milk price was at a level of 16 USD/100 kg ECM milk (energy corrected milk), while feed price was at level of 14 USD/100 kg feed which indicates that the gap between the two price levels was quite low.

World market prices for milk and feed 1996 – May 2012



Source: IFCN.

At the beginning of the year 2006, the milk price indicator showed a rollercoaster behaviour as it reached a peak of 58 USD/100 kg ECM milk in November 2007. However, the increase in milk price was not associated significantly with feed price where the gap between the two prices increased in 2007 reaching 27 USD.

In 2008, milk price was fluctuating strongly and fell from a high level of 51 USD/100 kg ECM milk in January 2008 to a low level of 19 USD/100 kg ECM milk in February 2009. Nevertheless, the price increased to a level of 43 USD at the end of year 2009. In 2010, the peak price was 45 USD and the amplitude of price fluctuation was lower than in the two previous years. In the year 2011 the price hit two peak levels of 52 USD, almost reaching a peak similar to the level of 2007.

Since the beginning of the year 2012, the milk price followed a downward trend reaching 36 USD in May 2012. In contrast to milk price, the feed price increased at the end of 2010 and beginning of 2011, reaching a level of 31 USD/100 kg feed. The price was also fluctuating at low levels and increased in 2012 reaching a level of 33 USD, meanwhile the gap between milk and feed prices reduced to a low level of 3 USD.

8.2.3. Method background - analysis on farming systems

The methodology applied for data collection, economic analysis and results validation was developed by the International Farm Comparison Network (IFCN) using TIPI-CAL (Technology Impact Policy Impact CALculation model) and the concept of typical farms. A typical farm represents the most common production system which produces a significant proportion of milk in a country or a region. Usually, two farm types are used per dairy region – the first represents an average farm and the second a larger farm type. The typical farms were built and validated by a combination of accounting statistics and a panel of dairy experts. For this analysis the feed module of the model TIPI-CAL was used. This module combines both physical and economic aspects of feeding systems globally; the model analyses feed efficiency, intake data, feed economics, feed prices, nutrients use efficiency and land productivity on dairy farms. The results of this study represent average typical dairy farms in different countries/dairy region in 2009.

8.2.4. Comparative analysis of feeding systems

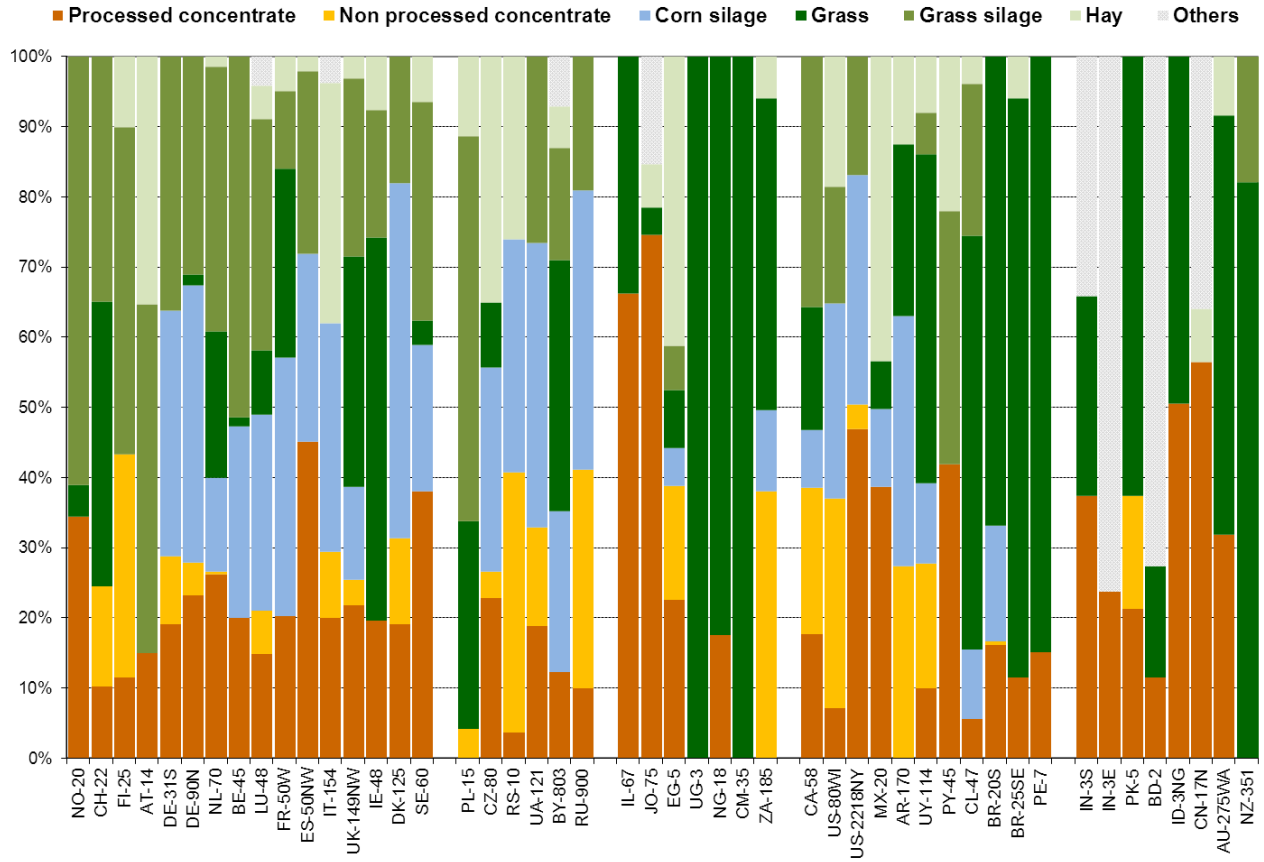
Dairy feeding systems are globally diverse and differ between countries and farms within a country; however, in order to understand better the existing feeding systems on different farms, the next figure shows the ration composition (% of DM intake) for lactating cows on typical dairy farms in 44 countries (47 regions). The chart shows the IFCN characterization of the most dominant feeds on dairy farms which include the major groups of concentrates both processed and non-processed, corn silage, grass, grass silage, hay, and other feeds.

On a regional basis, the EU farms can be divided into two categories, grass based feeding systems which include grass silage and corn silage based diets. In countries with either little arable land or a substantial amount of permanent grassland, the feeding system is mainly based on grass and grass silage, e.g. shown by the farms NO-20, CH-22, FI-25 and AT-14 as well as UK-149 and IE-48. On the IE-48 farm, the land is used for grazing; however a little concentrate feed is supplemented to the cows. On the UK-149NW farm, only a little fresh grass is fed, but more grass silage and also a small amount of maize silage is used. On the other EU farms, the major feed components are maize and grass silage. On all farms, concentrate feed is added as a supplement in different proportions to the diet which is made up of less than 30 % concentrate (with a few exceptions in Finland, Spain, and Serbia feeding 40 % concentrate or more).

In the Middle East region, feeding systems can be classified as feedlot systems, dominant on the IL-67 and JO-75 farms, which depend on imported concentrate feeds due to water shortage and limited arable land. Concentrate feeding in this region is highest compared to all studied farms and typically exceeds 65% of the total ration.

In the African farms, the feeding system is very different; grazing on pasture is the most common system. The dominance of this system is due to the fact that arable land is used to produce grain for human consumption. Additionally, farming is based on a dual purpose system; the cows have a low productivity and therefore are only fed very little amounts of concentrates.

Ration compositions on typical average sized farms, based on share of DM percentage



Explanations
Country codes: The farm name is made up of the country code followed by a number indicating the number of dairy cows of the respective farm. For example, NO-20 represents a 20 cow farm in Norway.
Ration composition on typical average sized farms: figures are calculated as follows: the estimated dry matter intake (DMI) from each single feed item was divided by the total estimated dry matter intake from the ration.
Non processed concentrate include all types of energy and protein rich grain cereals produced on farm.
Processed concentrates all feed concentrates rich in energy and protein which pass through an industrial or processing stage (dehydration, heating, grinding, mixing, extracting etc.) as well as pelleted feeds, this also includes by-products originating from energy and protein rich feedstuff as well as pelleted feeds which pass through an extraction process.

Source: IFCN.

Feeding systems are quite similar in the North American farms, where about 40% of the diet is composed of concentrate feed, and the CA-58 feeds a large proportion of grass silage while the US farms feed large proportion of maize silage. This is dominant due to the availability of arable land used for crop production. Furthermore, the high milk yield on the US farms requires additional supplements of concentrate feed.

In Latin America, grass based systems are dominant on average sized farms, a cut and carry system was noted in the Brazilian farms, while a grazing system was practiced on the CL-47 farm, where the share of grass exceeded 85% of the diet, and the remaining 10-15% made up of processed concentrate. In Latin America, most of the arable land is used to produce cash crops for export, while other lands, such as the Pampas, are used for grass production and grazing.

The South East Asian farms have different feeding systems. The ration is composed of low quality concentrate and agricultural by-products, in addition to that, low quality grass from pasture or cut and carry grass was also available for lactating animals. On the CN-17 farm, the feedlot system is dominant as there is no land allocated for crops or forage. The basic components of the diet are purchased concentrate and whole plant maize straw.

In Oceania, grazing systems are dominant. On the AU-275WA farm, feeding is based on grass from pasture with a 30% concentrate supplementation in the diet, while on the NZ-351 farm, no concentrate is fed and the total diet is based on ryegrass from pasture lands (more than 80%). This is attributed to the favorable climatic conditions for grass production.

Grass feeding is common in nearly all diets and is dominant in many counties in Europe, Africa and Latin America and New Zealand. The intake of grass varies between 10% in the Jordanian farm up to 90% in the New Zealand farm (Sample ø= 45%).

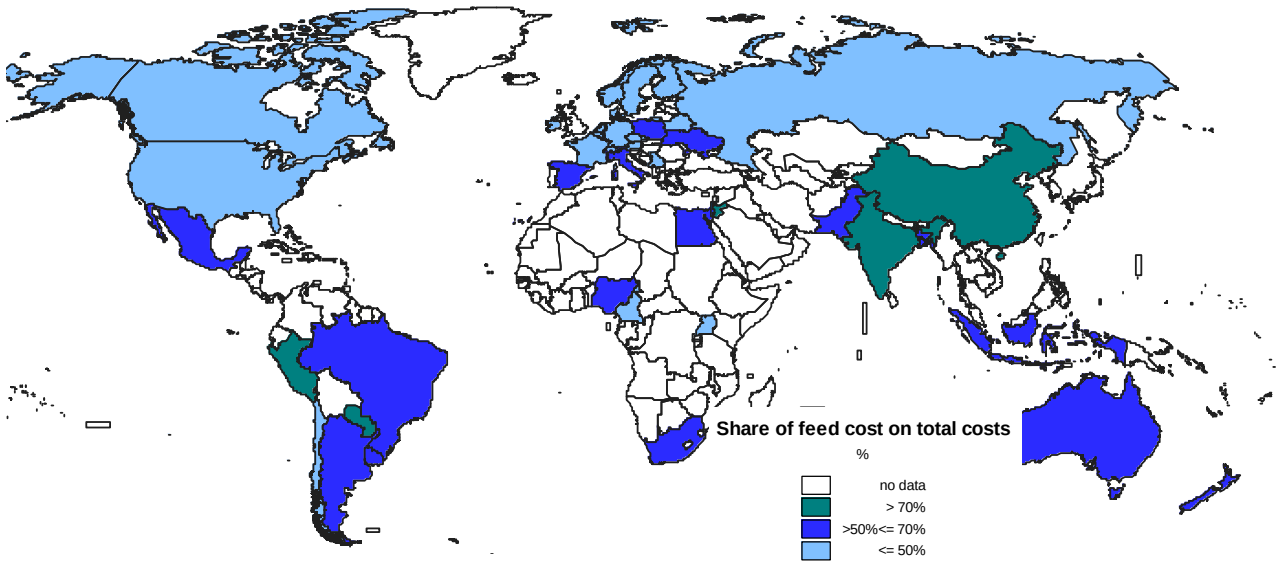
Within the studied countries, corn silage composes part of the diet in 26 countries: corn silage is mostly dominant in a large number of countries in the EU and North and Latin America (all farms sample ø =14%) and ranged between 51% and no corn silage in the African and South East Asian farms.

However, when considering all types of grasses (cut and carry grass, fermented and dried grasses), the basic component of forage is grass and corn feeds. The major forage components; corn, corn silage, grass and grass silage accounted on average for 69% of the diets. Under this concept, the share of grass is the highest on the SE-60, UK-149, IE-48, BR-25S, CL-47, CM-35, UG-3, PK-5, AU-275, and NZ-351 farms with a share of more than 60% of the diet, while moderate grass intake (30-60% of the diet) was fed on the farms FR-50W, DE-90N, US-80WI and CA-58. Meanwhile, little grass (less than 30% of the diet) was fed in ES-50W, RU-900, CN-17, IN-3S farms.

These results indicate that in a majority of the countries, the biggest component of the diets is based on grass (all types of grass), and that concentrate represents only a small share of dry matter intake. This indicates that grass is the main feed base to produce milk in the world.

8.2.5. Share of feed cost on total costs of milk production

Share of feed costs on total costs of milk production for typical average sized farms



Source: IFCN.

Feed cost usually constitutes the biggest share of the cost of milk production; therefore digging deeper into feed cost analysis can improve on farm profitability. Feed cost (USD/100 kg ECM) was calculated by using the IFCN Activity Based Costing method, where variable costs for feed production and the purchased feed, labour, land used for feed production and other on-farm inputs related to feed were allocated to feed cost with values from zero (i.e. no machinery used in feeding process) to 100% (i.e. purchased concentrate). This cost was then divided by the total cost of milk production to get the share of feed cost as a percentage. Based on this method and the average typical farms analyzed in the year 2009, the share of feed cost on total costs of milk production was 50% (see map above). The farms can be clustered in three categories, high, average and low share of feed cost on total costs. High share of feed cost: this is dominant in farms

located in East Asia, parts of Latin America and in the Middle East where the share is usually higher than 70% of total milk production cost. This could be attributed to the high amounts of roughage and concentrates purchased, while other costs like labour and machinery are very small and don't play any major role. Moderate share of feed cost: in this category at least 50 to 70%, of total costs are allocated to feed, majority of farms in middle and South America, Africa, Oceania and southern parts of Europe belong to this category.

The moderate share of feed cost could be related to the lower amounts of purchased feeds and higher proportion of feed produced on-farm with lower production cost. While other inputs like labour and machinery represent a higher portion of the cost of milk production compared to the first category. Low share of feed cost: with 40-50% feed costs on total milk production costs. This is dominant in farms located in North Asia, Europe and North America. The share of feed cost in this system is the lowest as it could be related to higher input prices such as labour, large capital investments and quota costs. Meanwhile higher costs are dedicated to feeding and manure handling cost.

It should be mentioned that the increase in feed prices from 21 USD/100 kg feed in 2009 to 31 USD/100 kg feed in 2011 will lead to an increase in the share of feed costs on milk production. Therefore, it becomes very essential to focus on the analysis of feeding systems, their efficiencies and also the cost of feed production. Moreover, a remaining key question for the future developments of dairy feeding systems is: what will be the best milk yield level that fits to the feeding systems?

8.2.6. Conclusion

The findings of this article can be summarised in the following points:

Strong diversity in farming systems: Dairy feeding systems are very diverse in terms of 1) farm size, which varied between 2 cows in Bangladesh and 2 218 cows in USA, 2) the feed items used, even within a country; every farm has its own specific system. This analysis is a simplification of a very complex reality.

Feed price increased by 150% from 2006 - 2012: Feed price (corn/soybean meal based) increased from a level of 13 USD per 100 kg in the beginning of 2006 to a level of 33 USD per 100 kg in June 2008. This has significant impacts on the cost of milk production.

Forage dominates over concentrates in most feeding systems: The basic component of forage is grass and maize feeds. The average share of forage in the diet on all farms is 69% where the major feeds were grass/hay/grass silage and corn silage.

Grass is the main feed base to produce milk in the world: Grass was found in all diets and was dominant on European farms, the African, Latin American and New Zealand farms. The intake of grass varied between 10% on the Jordanian farm up to 90% on the New Zealand farm. (Sample average 45%).

Concentrate is the second most important feed and represents 30% of the diets: Concentrate intake ranged from 0% in the New Zealand farm up to 75% in feedlot farms in Jordan (Sample average 30%). High share of concentrate feeds is usually processed: Processed concentrate feeds represent about 74% of concentrate intake on average, meanwhile a high share of home grown concentrate (> 75%) was found in 6 countries.

Maize silage is part of the diet in 26 countries: Maize silage is mostly dominant in a large number of countries in the EU and North and Latin America (all farms sample average 14%). It ranged between 51% on the farm with the highest share and 0% on the African and South East Asian farms.

In 2009, feed costs ranged between 30-75% of the total costs of milk production in the farm types analyzed. The rise of feed prices from 2009 – 2011 has led to a significant increase in the share of feed costs on total costs of milk production.

A look ahead: This analysis should be seen as a starting point of a very complex and diverse reality. Besides analyzing the status quo in each dairy region there is a rising need to develop future farming/feeding system to be competitive in the future.

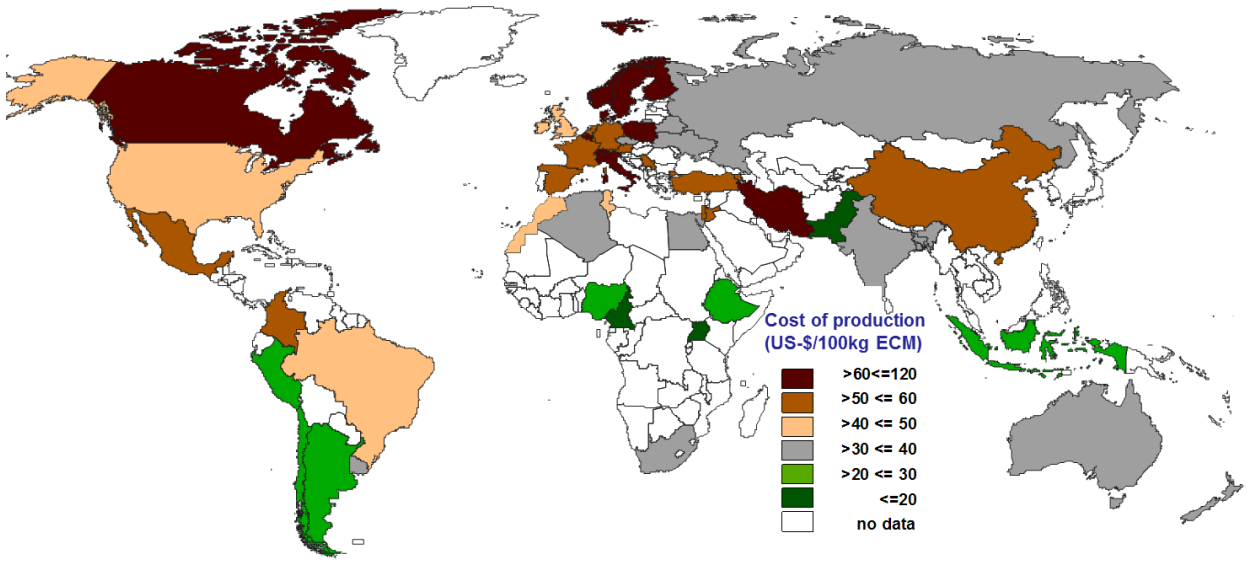
8.2.7. Annex: IFCN costs of milk production analysis in 2011

This annex illustrates the latest IFCN analysis on cost of milk production worldwide. This analysis was done in 2012 and shows the situation in the year 2011, covering 51 countries. The analysis is based on the concept of typical farms and uses the model TIPI-CAL to have a standardised calculation across the countries. The data collection and validation was done by researchers in the represented countries, researchers in the IFCN Dairy Research Center and also during the IFCN Dairy Conference held in June 2012 in Kiel.

Cost indicator: The IFCN uses the cost indicator of milk production only which can be directly related to a milk price. This cost includes all costs from the profit & loss account from the farm and also opportunity cost for own labour, land and capital. From this cost level the non-milk returns from sales of cull cows, heifers, calves, manure, etc. and also direct payments have been deducted. For creation of the world map the average size farm from each country has been used.

ECM correction: As the dairy farms operate with milk of very different fat/protein content, the IFCN uses the energy correct milk (ECM) approach to standardise milk volumes to 4% fat and 3.3% protein. The following formula is used: ECM milk = (milk production * (0.383 * % fat + 0.242 * % protein + 0.7832) / 3.1138).

Cost of milk production in average sized farms per country in 2011



Source: IFCN.

Cost comparison results 2011:

Cost range: Cost of milk production ranges from 4 USD per 100 kg milk in extensive farming systems in Cameroon to 101 USD for an average sized farm type in Switzerland. The average cost over all countries analysed was 40.6 USD/100 kg milk.

The countries can be grouped in the following cost categories:

- Costs below 30 USD: Argentina, Chile, Peru, Indonesia, Pakistan, and countries in central Africa.
- Costs 30 -40 USD: Oceania, South Africa, India, selected countries in Northern Africa and Eastern Europe.
- Costs 40 -50 USD: USA, Brazil, UK, Ireland and Tunisia.
- Costs > 50 USD: A wide number of countries in Western Europe, Poland, Mexico Colombia, Morocco, Israel, Jordan, Iran, Turkey and China. Most likely the countries Japan and Korea are in this segment too.

It should be mentioned that there was a significant variation in farm sizes and quite high economies of scale in all countries. This is especially the case for Western Europe.

Key developments in 2011: Cost of milk production increased on average by 5 USD in 2011.
In the year 2011 the costs have increase on average by 5 USD per 100 kg milk compared to 2010. A key driver was the increasing price for feed by 38% (based on the IFCN world feed price indicator). Moreover, in emerging dairy countries, dairy farms face strongly increasing wages. A third driver is the increase in energy and fertilizer costs.

8.3. Measuring and ranking price volatility

Analysis and comparison of farm gate milk prices in selected countries

By Brad Gehrke, USDEC, Arlington, USA.

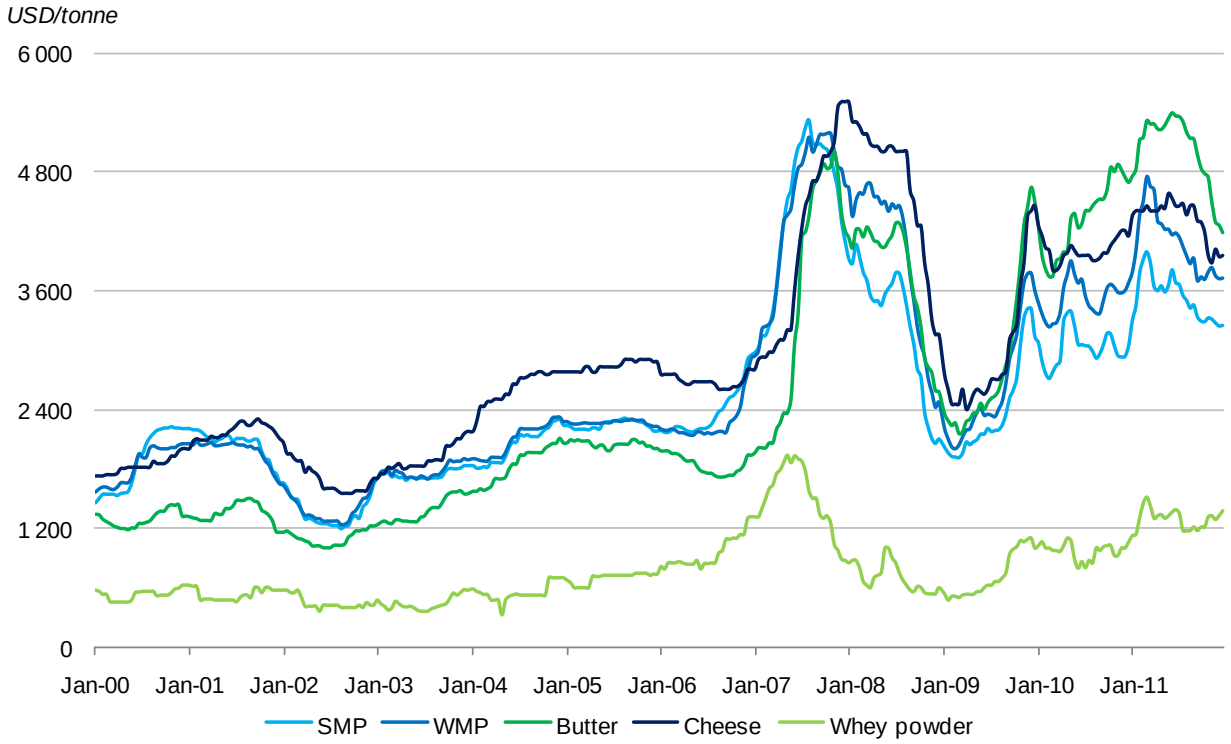
8.3.1. What is price volatility?

A 2011 report to leaders of the G20 countries simply described volatility as variation in economic variables over time[(A)]. The report suggested that not all price volatility is problematic, such as movement along a smooth and well-established trend reflecting market fundamentals or well-known seasonal patterns. Price variability may, however, be problematic when it is large and unanticipated. In certain situations, price variability creates uncertainty and increases risk at various points along the milk and dairy product supply chain and may result in sub-optimal decisions.

8.3.2. Background

The objective of this study is to measure, evaluate, and compare the level of price variability among raw or farm gate milk prices for a selected set of countries subject to varying commercial, economic, and policy conditions. Milk price variability at the farm gate is influenced not only by local or domestic supply and demand situations, but also by the level of price variability among internationally traded dairy commodities and the degree to which international dairy commodity price variability is transmitted to domestic markets. Charting international dairy commodity prices suggests that international price variability has changed during 2000–11 (see figure below), the period for which milk prices were evaluated.

International dairy commodity prices, 2000–2011



Source: USDA.

During 2006–07, international dairy commodity prices broke out of historic long-term ranges, approaching, and in most cases achieving, all-time highs. Into 2008, prices began to moderate and then rapidly deteriorated as global financial crisis and ensuing global recession slowed global demand. During 2010–11,

(A) Price Volatility in Food and Agricultural Markets: Policy Responses, Policy report including contributions by FAO, IFAD, IMF, OECD, UNCTAD, WFP, the World Bank, the WTO, IFPRI and the UN HTLF, 2 June 2011, p. 6, section 1.2.4.

prices recovered and have continued to trade in ranges above 2000–06 historic averages. Comparing two periods, 2000–06 and 2007–11, means commodity prices were 70–150% greater during 2007–11 than during 2000–06, minimum prices were 46–95% greater, maximum prices were 47–155% greater, and price ranges were 48–211% greater (table below).

Export prices for internationally traded dairy commodities, summary statistics 2000–06 and 2007–11

	SMP		WMP		Whey Powder		Butter		Cheese	
USD/tonne	'00-'06	'07-'11	'00-'06	'07-'11	'00-'06	'07-'11	'00-'06	'07-'11	'00-'06	'07-'11
Mean	1 954	3 319	1 942	3 715	592	1 037	1 553	3 888	2 247	3 997
Minimum	1 194	1 913	1 231	2 000	325	475	1 006	1 963	1 550	2 400
Maximum	2 950	5 325	2 950	5 188	1 315	1 938	2 109	5 388	2 900	5 500
Range	1 756	3 413	1 681	3 188	990	1 463	1 103	3 425	1 350	3 100
Std. Dev.	358	833	320	846	185	371	345	1 031	442	839

Source: USDA.

Correspondingly, average variability in farm gate milk prices also appeared to be greater during 2007–11 than during 2000–06 (see figure further on entitled *Annual Percentage Change in Milk Price Index*), though not universally. Increased price variability is of concern because it increases the variability of revenue, income, and risk throughout the dairy supply chain. To better understand raw milk price variability, the International Dairy Federation's Standing Committee on Dairy Policies and Economics (IDF SCDPE, hereafter the Committee) appointed an action team to execute this analysis.

8.3.3. Measuring price volatility

Annual average raw or farm gate milk price data were collected from several sources [(B)]. Milk price observations for 25 countries, including the weighted average of the European Union (EU) as a whole, were included in the analysis. Data from most countries covered the entire period from 2000 through 2011. Several countries, however, were missing various observations; data from India covered 2000–09; data from South Africa and Mexico covered 2000–10; data from Hungary and the Czech Republic covered 2002–11; and data from Poland covered 2003–11. For ranking and some comparison purposes across countries, average annual milk prices were indexed to the mean value for each country [(C)].

In a report to the European Dairy Association, Keane and O'Connor characterized volatility as substantial variation in price from the long-term trend [(D)]. Keane and O'Connor defined substantial variation as any observed price that fell outside a ±10% range around the long-term trend. For this study, the long-term trend was defined as the least-squares linear estimate for each observed price by country.

Applying Keane and O'Connor's ±10% range resulted in 15.3% of observed milk prices exceeding the upper bound, while 11.8% of observed milk prices were less than the lower bound. Consequently, based on a 20% range around the long-term trend, 72.8% of observed prices from 2000 through 2011 were within the ±10% range of the long-term trend. Thus, by this methodology, average annual milk prices among the selected countries could be characterized as demonstrating very little volatility as only 27.2% of observed prices were outside the ±10% range.

To evaluate the sensitivity of this method to the bounds on the range, observed prices were also evaluated within a ±5% range around the long-term trend. On this basis, 28.6% of observed prices were greater than the upper bound, while 33.1% of observed milk prices were less than the lower bound. Thus, at the ±5%

(B) Data were collected by various Committee members as well as collected from independent sources including: Centro de Estudos Avancados em Economia Aplicada (CEPEA or Center for Advanced Studies on Applied Economics) and Instituto Nacional de la Leche (INALE); Milk Management Committee Statistics; Agriculture and Livestock Industries Corporation.

(C) Index values were created to avoid additional variation associated with conversion to a common currency and a standard composition.

(D) Keane, Michael and O'Connor, Declan; *Price Volatility in the EU Dairy Industry: Causes, Consequences and Coping Mechanisms*, Report prepared for the European Dairy Association; October 2009.

bound, 56.1% of observed prices could be characterized as volatile. Each 1% narrowing of the range increased the number of observed milk prices considered to be volatile by 2.9%; thus, suggesting that determination of whether a price is volatile is relatively sensitive to the width of the range. Results varied greatly by country and period.

At least 50% of observed prices were outside the ±10% range for four countries: New Zealand (83%), the United States (58%), Poland (56%) and Uruguay (50%). Consequently, milk prices in these countries could be considered volatile regardless of the width of the range. Ten additional countries, including the EU average, had between 25 and 50% of observed prices outside of the 10% range: Germany (42%), Hungary (40%), South Africa (36%), the Netherlands, Sweden, and Australia (33%), Austria, Ireland, Denmark and EU average (25%). Less than 20% of price observations were outside the 10% range for India, Italy, the United Kingdom, France, Finland, Greece, and Brazil. Canada and Japan had no average annual milk prices outside of the ±10% range around the long-term trend. Based on the ±10% range, prices in this last set of countries might not be considered volatile.

At the narrower ±5% range, five countries had more than 75% of observed milk prices outside the range: Brazil, New Zealand, Poland, United States and Uruguay. The milk prices in these five countries could be characterized as highly volatile. Fifteen countries (including the EU average) had 50 to 75% of observed prices outside ±5% range. The milk prices in these countries might be characterized as moderately volatile. Of the remaining five countries, four (France, Finland, Greece, and Japan) had 25% of observed milk prices outside the ±5% range while only Canada had no observed prices outside the ±5% range of the long-term trend. Milk prices in these final five countries could be characterized as exhibiting very little volatility.

This analysis, however, has given equal weight to observed prices that are above and below the long-term trend. If the impact on milk producers is the item of consideration, an analysis that places greater weight on prices below the long-term trend might be more appropriate as prices below the trend would be more likely to be associated with a negative impact on producers. Moreover, if the focus of consideration was processors or consumers, observed prices above the long-term trend might be more likely to be associated with negative up-stream impacts and should receive greater weight. This analysis did not consider whether different weights should be applied to upper bound or lower bound prices.

During 2000–06, 18.1% of observed prices were outside the ±10% range whereas 39.7% of observed prices during 2007–11 were outside the range. Thus, the earlier observation that volatility has increased between the time periods is supported. At ±5% of the long-term trend, the percentage of observations outside the range increased to 51.2 for 2000–06 and to 62.8 for 2007–11, still supportive of the observation that volatility increased between the two time periods, but to a lesser degree.

Four years (2006, 2008, 2009, and 2011) accounted for more than 65% of all observed prices outside the ±10% range. More than half the countries had milk prices outside the long-term range in only two years. The most volatile years were 2008 and 2009 with 76 and 56% of the observed country prices outside the range in each year, respectively. All 2008 observations were greater than the upper bound while all 2009 observations were less than the lower bound. Thus, note again that the direction of the volatility is likely to have different effects on different segments of the dairy supply chain.

On average, milk prices in the 19 countries outside the range increased by an average of 16% from 2007 to 2008; whereas, in countries within the range, prices increased by an average of only 7% between 2007 and 2008. Between 2008 and 2009, milk prices in those countries outside the lower bound decreased by nearly 28%; whereas prices in countries within the range decreased by an average of only 5%.
Considering the narrower ±5% range, 2006 jumped over 2008 to be the most volatile year with 22 of the 25 countries having milk prices less than the lower-bound (95%) of the long-term trend. Canada and the Czech Republic had prices within the range. Surprisingly, the raw milk price in Poland was greater than the upper bound (105%) of the long-term trend. At this narrower range, six years had at least 50% of countries with raw milk prices outside the long-term trend range, 2001 (62%), 2006 (92%), 2007 (56%), 2008 (84%), 2009 (80%) and 2011 (68%). In four of these six years (2001, 2007, 2008 and 2011), raw milk prices that were outside of the long-term trend were also more likely to be greater than the upper bound rather than less than the lower bound.

8.3.4. Country ranking

Raw milk prices were indexed by normalizing annual prices by the 11-year average price for each country (countries with less than 11 years of data were indexed to the average for the data that were available) and then multiplied by 100. For this comparison, the index values were differenced between consecutive years. Absolute values of the differences were averaged so that negative and positive values did not offset [E]. The countries (as well as the average for the European Union countries) were ranked from most variable (lowest rank) to least variable (highest rank) by the average annual percentage change in the index value:

Ranking of countries by the average annual percentage change in milk price index,

2000-10, 10-year average = 100 (unless otherwise specified)

Rank	Country	Average Annual Percentage Change in Milk Price Index			
		'01-'11	'01-'11	'07-'11	% change
1	New Zealand	24.5	14.7	36.2	21.4
2	Uruguay (2002–11)	22.0	10.0	31.6	21.6
3	United States	18.9	13.5	25.4	11.9
4	Poland (2003–11)	15.0	12.8	16.3	3.6
5	Hungary (2002–11)	14.4	5.9	21.3	15.4
6	Australia	13.8	9.3	19.2	9.9
7	Czech Republic (2002–11)	12.9	4.8	19.3	14.5
8	Germany	11.1	5.5	17.9	12.4
9	Brazil	11.0	8.3	14.2	5.8
10	Ireland	10.9	3.8	19.4	15.6
11	Sweden	10.9	5.2	17.7	12.5
12	South Africa (2000–10)	10.4	7.1	15.3	8.2
13	Netherlands	10.2	4.3	17.3	13.0
14	Austria	9.7	4.6	15.8	11.2
15	Denmark	9.3	3.6	16.1	12.6
16	EU Average	9.1	4.4	14.6	10.2
17	United Kingdom	8.7	6.1	11.8	5.7
18	Italy	8.1	5.4	11.4	6.0
19	France	6.6	3.2	10.7	7.5
20	Mexico (2000–10)	6.5	3.0	11.7	8.7
21	India (2000–09)	6.4	3.3	12.6	9.3
22	Greece	6.2	2.2	10.9	8.6
23	Finland	5.2	2.2	8.7	6.4
24	Canada	2.9	2.9	2.9	0.0
25	Japan	2.3	1.1	3.7	2.6
	Overall Average	10.5	5.8	16.2	10.4

Source: USDEC.

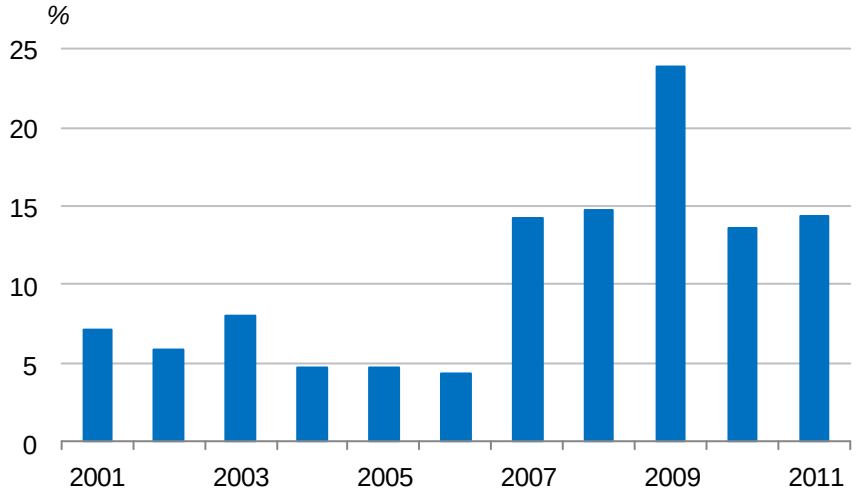
Only six countries had an average annual percentage change in milk price index that was greater than the mid-point (13.4%): New Zealand (24.5%), Uruguay (22.0%), the United States (18.9%), Poland (15.0%), Hungary (14.4%) and Australia (13.8%). Japan (2.3%) and Canada (2.9%) ranked lowest in average annual change in price, followed by Finland (5.2%), Greece (6.2%), India (6.4%) and Mexico (6.5%). The EU Member States overall ranked 16th with an average annual change in price of 9.1%, ranging from a high of 15.0% in Poland to a low of 5.2% annually in Finland. Milk prices in New Zealand could be characterized as

[E] This is not meant to imply that the direction of change is not important. Nonetheless, given the study's objective, ranking was more appropriately based on the magnitude of change, not the direction.

being 10 times more variable than Japanese milk prices and 8 times more variable than Canadian milk prices.

Between 2006 and 2007, variability, as measured by the difference in the average percentage change in the index between 2000–06 and 2007–11, increased (see figure below) substantially [F]. Overall, the milk price index changed by an average of 5.7% during 2001–06 and an average of 15.7% during 2007–11. The average year-to-year change in the index across all countries did not exceed 10% before 2006. Since 2006, the average year-to-year change in the index ranged from a 13.2% change between 2009 and 2010 to an 18.8% change between 2009 and 2008. During 2001–06, average variability ranged from 3.8% between 2004 and 2005 to 8.3% between 2002 and 2003.

Annual average percentage change in milk price index, 2001–2011



Source: USDEC.

8.3.5. Factors affecting transmission of price volatility

The extent to which price shocks, and therefore volatility in one market are transmitted to another market depends on how strongly those markets are integrated. Various factors such as import duties, export taxes, non-tariff barriers or domestic policies all influence the extent to which price changes in one market mirror those in other markets. Countries that insulate their own markets export instability onto international markets, especially if they are major players in terms of consumption or production. The degree of processing of final consumption goods also affects price transmission. Lack of domestic infrastructure and generally undeveloped or inefficient market structures can also significantly obstruct price transmission due to high transport and transactions costs [G].

For example, consider Canada which, as shown earlier, has the least volatile milk prices of those countries evaluated. This is not surprising given that Canada has implemented measures that highly insulate the Canadian market from international as well as neighboring markets such as the US and Mexico where prices were shown to be more volatile. Canadian milk prices are not determined by market forces, but by the authority of marketing boards and provincial governments and adjusted by formula, mostly driven by the cost of production and not demand. Maintenance of these fiat prices requires additional measures to control the supply of dairy products in the Canadian market, including milk production and imports controls.

At the other extreme, consider New Zealand where raw milk prices were among the most volatile. From a domestic perspective, New Zealand's pasture-based milk production system makes milk production highly sensitive to weather/climatic conditions. Within the period of evaluation, New Zealand milk production has been shocked to near double-digit percentages in both directions by drought as well as by optimal pasture

[F] The difference between the average change during 2000–06 and 2007–10 was statistically greater than zero at a 5% level of significance.

[G] *Price Volatility in Food and Agricultural Markets: Policy Responses*, Policy report including contributions by FAO, IFAD, IMF, OECD, UNCTAD, WFP, the World Bank, the WTO, IFPRI and the UN HTLF, 2 June 2011, p. 8, section 1.4.

production conditions. In addition, New Zealand exports approximately 95% of its milk production, resulting in a very high level of integration with international markets. Consequently, New Zealand milk prices are highly subject to shocks on both the supply and demand sides of the equation.

8.3.6. Conclusions

Results generally show that the level of milk price volatility varied by country, year, and period. In general, the magnitude of year-to-year changes in average annual raw milk prices increased between 2000–06 and 2007-11. This result generally corresponds to structural change in global markets; the earlier period was generally characterized by structural surpluses; whereas the later period was generally dominated by structural deficit. Volatility was greatest in a few selected years associated with policy, weather and macroeconomic shocks: 2006 was characterized by policy-driven depletion of government owned stocks in the EU and United States; 2007 and 2008 were characterized by weather related production short falls in the Southern Hemisphere, and 2009 was characterized by the global financial crisis and ensuing recession.

Regardless of the period, there was a high level of difference in milk price volatility among individual countries. Several countries such as New Zealand, United States, and Uruguay demonstrated generally greater levels of milk price volatility across all times and market conditions. Meanwhile other countries such as Canada, Japan, Finland, and Greece demonstrated much lower levels of volatility regardless of the time and external market shocks and conditions. Even within the European Union and its generally harmonized policy structure, milk price volatility varied greatly among the individual EU countries with Finland and Greece having some of the least volatile milk prices while Poland and Hungary had some of the most volatile milk prices.

These results suggest opportunities for additional analysis. This analysis did not address whether the distribution of prices is as much or more important than deviation from expectations. That is, should milk prices that are greater than expected be given the same weight when evaluating volatility as milk prices that are less than expectations? Furthermore, this analysis did not address those factors that caused very different levels of volatility among EU countries that generally face the same level of insulation from international markets.

8.4. Burgeoning investments for dried dairy products

By Benoît Rouyer, CNIEL, Paris, France.

8.4.1. Introduction

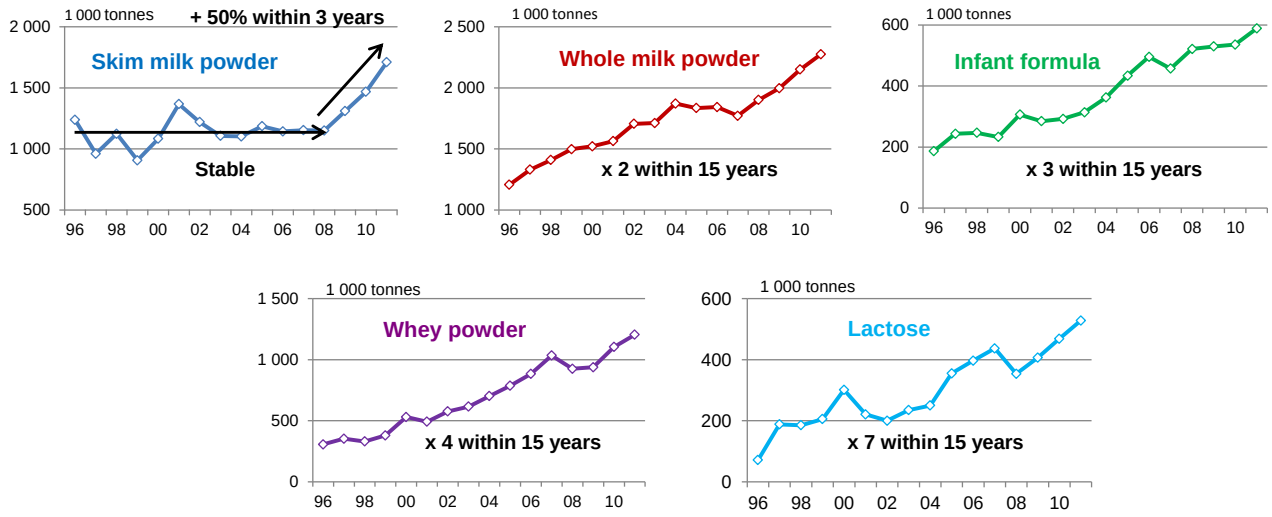
The economic boom occurring in emerging countries, especially in Asia and Africa, stimulates local milk production, but growth of domestic dairy consumption is even bigger, leading to a spectacular growth in their imports, which mainly concern dried dairy products. This growing outlet encourages investments both in emerging countries (valorisation of local milk and recombination of imported dried dairy products) and in dairy exporting countries, where processors have adapted their production to growing international demand. This trend proved to be rather new. Between 1990 and 2005, dried dairy products were only a top priority for the most competitive dairy exporters, that is to say New Zealand, Australia, Uruguay, Chile and Argentina, at least for the latter before the severe economic crisis it faced from the late nineties onwards. At the same time, North American and European dairy processors showed little interest in this kind of products. Domestic demand for dried dairy products was lethargic in comparison to soaring consumption of cheese and fresh dairy products. Furthermore, North American and European processors were not competitive enough to consider a clear development of their exports on the world market.

The situation appears to be rather different today. The most competitive suppliers on the world market still belong to the southern hemisphere, but buoyant demand on the world market also offers clear outlets for numerous suppliers elsewhere. Hence, dried dairy products are still the key axis of development and investment in New Zealand, but they are also passing cheeses as the top priority of products for many European processors involved on the world market.

8.4.2. Buoyant demand for dried dairy products

The trade in dried dairy products has been growing strongly for the last fifteen years. During this period world trade doubled in terms of volume for whole milk powder, tripled for infant formula and is currently four times bigger for whey powder and seven-fold for lactose.

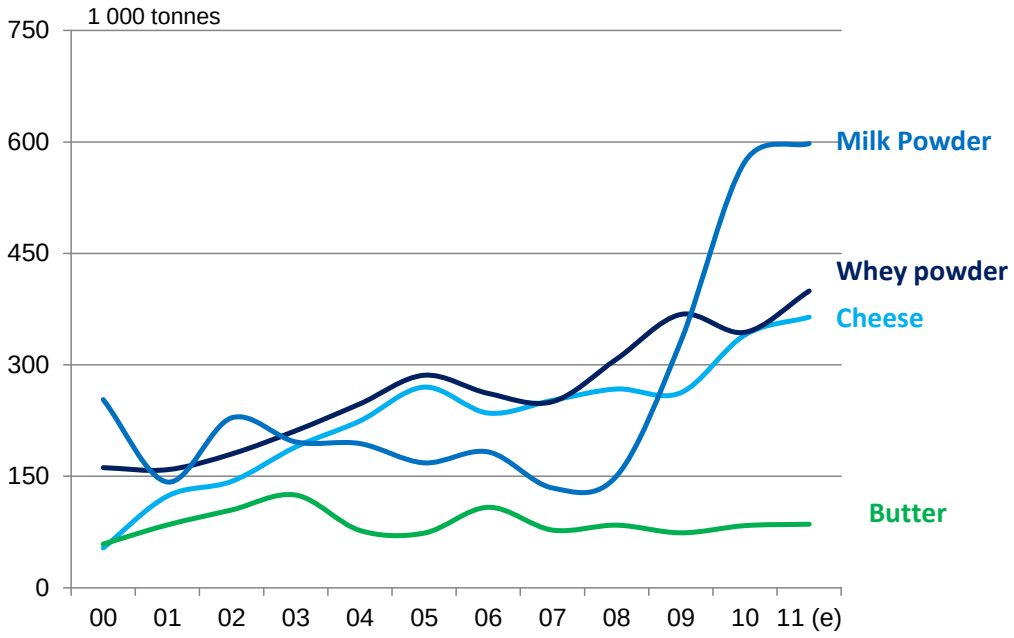
World trade development for dried dairy products (EU intra-trade excluded)



Source: CNIEL, FAO and national statistics.

This exceptional growth is a direct consequence of the economic boom occurring in emerging countries, especially in Asia, which stimulated dairy consumption and therefore imports of dried dairy products. China is a remarkable example of these commercial changes. Its imports of dried dairy products were close to one million tonnes in 2011.
As a matter of fact, international trade has been much more dynamic for dried products than any other dairy products for the last few years. The development of BRICS' cumulative imports illustrates perfectly this trend.

Total imports for the BRIC countries
Variations according to dairy products



Source: CNIEL, FAO, Comtrade and national statistics.

8.4.3. Worldwide growing interest in new driers

The processors interest in new driers is also growing because demand in emerging countries for dairy products, and especially dried dairy products, is expected to soar in coming years, generating a sharp increase in the net trade deficit in Africa and Asia in the coming decades (see: FAO - World agriculture: towards 2030/2050).

The lack of ambiguity when defining markets with high growth potential leads companies' strategies to converge on similar targets. Thus, investments announced or finalized in 2011 and during the first six months of 2012 concerning dried dairy products are particularly impressive. 54 projects in 28 countries involving 47 companies and totalling investments of more than 3 billion USD were related by the press during this period.

Thus, even if demand in emerging countries is soaring, an overcapacity of dried dairy products in the coming years could occur.

Global amount invested worldwide in dried dairy products in 2011 and during the first six months of 2012

	mln USD
Africa	25
America	650
Asia	700
Europe	1 470
Oceania	430
World	**3 275**

Source: CNIEL, international press.

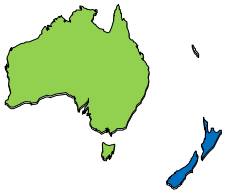
Description according to geographical zones

☐ Investments announced
■ Investments finalized

} in 2011 and early 2012 (6 months)

Company
Kind of products and annual capacity (1 000 t)
Amount invested
Location

Oceania



430 mln USD

Australia

☐ **Tasmanian Dairy Products** milk powder (33 000 t) / 43 mln USD / Smithton

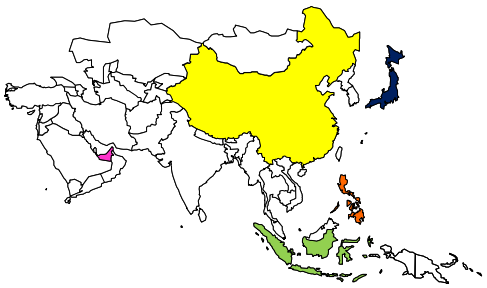
New Zealand

■ **Miraka** milk powder (32 000 t) / 72 mln USD / Mokai (North Island)
■ **Synlait (Bright Dairy)** infant formula (50 000 t) / 80 mln USD / Dunsandel (South Island)
☐ **Fonterra** milk powder (2.2 Ml per day) starting production in August 2012 / 52 mln USD / Darfield (South Island)
☐ **Fonterra** milk powder (4.4 Ml per day) starting production in August 2013 / 91 mln USD / Darfield (South Island)
☐ **Gardians (Sutton Group)** infant formula (20 000 t) / n.a. / Balclutha (South Island)
☐ **Arapuni Milk** milk powder / 81 mln USD / Putaruru (North Island)
☐ **Innovation Waikato** dried dairy products (1.5 t / h) / 9 mln USD / Waikato (North Island)

n.a. : not available

Asia

700 mln USD



UAE

■ **Nestlé** milk powder + other food products* / 136 mln USD / Dubai

Japan

☐ **Yotsuba** skim milk powder / 21 mln USD / Hokkaido

China

☐ **Abbott** infant formula / 230 mln USD / Jiaxing
☐ **Murray Goulburn** infant formula packing / n.a. / Qingdao

Philippines

■ **Nestlé** milk powder (64 000 t) / 95 mln USD / Batangas

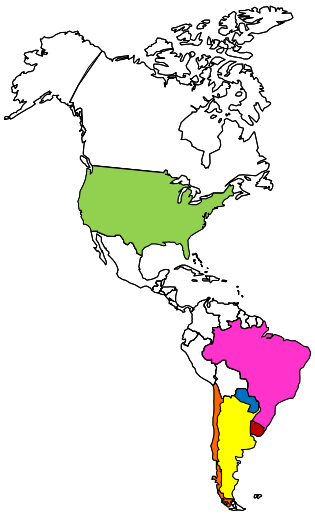
Indonesia

☐ **Nestlé** milk powder + other food products** / 200 mln USD / Java
☐ **Fonterra** milk powder packing / 21 mln USD

n.a.: not available
* : Kit Kat chocolate, Pure life bottled water; beginning in December 2010
** : Cerelac infant cereals + Milo chocolate malt drink

America

650 mln USD



United States
☐ **DFA** whole milk powder (40 000 t) / 85 mln USD / Fallon (Nevada)

Brazil
☐ **Laticínios Porto Alegre** whey powder (0.5 Ml / day) / 26 mln USD / Ponte Nova
☐ **Nestlé** demineralized whey / 31 mln USD / Carazinho (Rio Grande do Sul)

Paraguay
■ **La Holanda** skim milk powder (8 000 t) / 8 mln USD

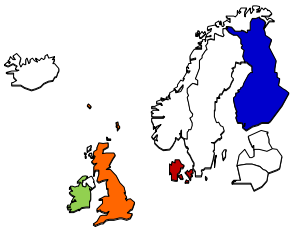
Uruguay
☐ **Bom Gosto** skim milk powder (20 000 t) / 40 mln USD / San José
☐ **Estancias del Lago** milk powder (16 500 t) / 65 mln USD / Durazno

Argentina
☐ **Mastellone Hermanos** whey powder (0.5 Ml / day) / 15 mln USD / Trenque Lauquen
☐ **Mead Johnson & Sancor** infant formula / 245 mln USD

Chile
■ **Nestlé** milk powder (30 000 t) / 140 mln USD / Osorno

Northern Europe

350 mln USD



Finland
☐ **Valio** demineralized whey powder / 72 mln USD / Lapinlahti

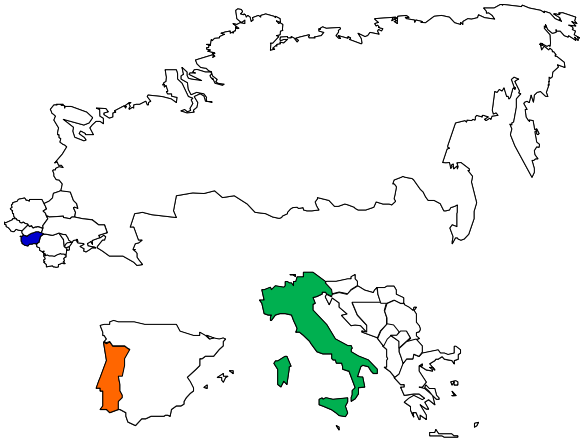
Denmark
☐ **Arla** whey (WPC) / 12 mln USD / Nr Vium

Ireland
☐ **Danone** infant food / 65 mln USD / Macroom
☐ **Dairygold** milk powder (15 t / h) / 170 mln USD / Mallow

United Kingdom
■ **Irish Dairy Board** milk powder packing (+ 10 000 t) / 17 mln USD / Leek
☐ **Milk Link & Volac** whey / 18 mln USD / Taw Valley
☐ **First Milk & Fonterra** whey (WPC 80) / n.a. / Apastria

n.a.: not available

Eastern & Southern Europe



40 mln USD

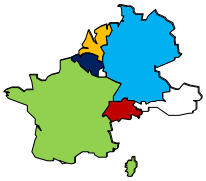
Hungary
☐ **Tolnatej** whey powder (3 000 t) / 10 mln USD

Italy
■ **Inalpi** milk powder (15 000 t) / 26 mln USD

Portugal
☐ **Nestlé** milk powder (+ 3 500 t) / 2 mln USD / The Azores

Western Europe

1 080 mln USD



Belgium
☐ **Milcobel** milk powder / n.a. / Kallo

Switzerland
■ **Nestlé** infant formula / 213 mln USD / Konolfingen

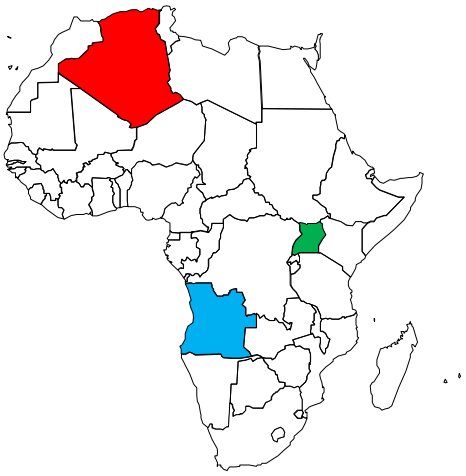
Netherlands
☐ **FrieslandCampina** infant formula, milk powder / 186 mln USD / Leeuwarden + Beilen + Bedum

Germany
■ **Nestlé** infant formula / 152 mln USD / Biessenhofen
■ **Fude + Serrahn** milk powder (36 000 t) / 33 mln USD / Gransee
☐ **Uelzena & 3 coop*** milk powder (570 Ml) / 83 mln USD / Neumünster
☐ **MUH** milk powder (5 t / h = 450 Ml / y) + butter / 78 mln USD
☐ **DMK** whey / 46 mln USD / Nordhackstedt
☐ **Müller** whey / 91 mln USD / Leppersdorf
☐ **DMK & Arla** milk powder / n.a. / North Germany
☐ **Ammerland** whey / n.a.

France
■ ☐ **Isigny Ste Mère** infant formula / 3 + 33 mln USD
☐ **Ingredia** milk powder / 33 mln USD / Saint Pol-sur-Ternoise
☐ **Lactalis** new drier / 52 mln USD / Craon
☐ **Sill** infant formula (+ 15 000 t) / 29 mln USD / Plouvien
☐ **Laïta** dried dairy products / 23 mln USD
☐ **Eurosérum** milk powder / 2 mln USD / Onet Le Château
☐ **Coralis** milk powder (200 Ml / y) / 20 mln USD / Cesson-Sévigné

n.a.: not available
* : Meierei Barmstedt, Meierei Wasbek, Schmafeldt-Hasenmoor

Africa



25 mln USD

Algeria
☐ **Nestlé** milk powder / n.a. / Oued Smar

Angola
☐ **Nestlé** milk powder packing / 10 mln USD / Luanda

Uganda
☐ **Midland Group** poudre de lait (0.5 Ml / day) / 15 mln USD

n.a.: not available

Source: CNIEL, international press.

8.5. Water footprint – Water assessment or accounts

By Stanislav Jaš, IDF, Brussels, Belgium; Marcin Preidl, VDM, Berlin, Germany; Sophie Bertrand, CNIEL, Paris , France.

8.5.1. The water challenge

It is no surprise that some of this year's major environmental events have been dedicated to the issue of water as a finite and vulnerable vital resource for the planet. As examples, may we mention the EU Green Week held in Brussels in May 2012 and the United Nations Conference on Sustainable Development (Rio+20) held in Rio de Janeiro in June 2012. Water scarcity is an increasing problem which affects society, environment and production of food. Pressure on farm water supplies is likely to intensify with climate change. Droughts in turn put stress on both surface and groundwater sources to abstract water for human and animal needs. At the same time, the FAO highlights that world agricultural production will have to increase by 70% by 2050 if we are to adequately feed the world. And the issue of water and agriculture are intertwined: without water there is no farming. So to tackle the challenge of food security, the challenge of water has to be met first.

Globally, approximately 70% of the world's freshwater withdrawals go for agricultural use. Therefore food production including dairying has impacts on water resources. However, the need to reduce humanity's water footprint does not arise from an absolute shortage of freshwater in the world. It is the result of the current pattern of freshwater use, which is directed substantially toward highly stressed watersheds.

8.5.2. Assessing local environmental impacts of water consumption

In the context of global water scarcity and food security concerns, water footprints are emerging as important sustainability indicators in the agriculture and food sectors.

Water is a topic that requires careful analysis. Different methodological approaches to measure and assess water consumption and use in farming exist. This makes it difficult for stakeholders such as farmers, industry and governments to address the impacts. A first step forward is to establish a shared understanding about water assessment based on reliable quantitative data as the evidence base from which further benchmarking of progress will be done and optimisation strategies defined.

Water assessment (water accounts) typically estimates the total consumption of water (in m3) at different parts of the product supply chain. However, the consumption figure will say little about the impact on the environment to enable adequate decision making. Depending where the water was sourced, a product with a higher water consumption figure can even be less damaging than another product characterized by lower water consumption.

The scoping of the assessment is crucial as it determines the result and the interpretation in context. Unlike carbon footprint, water is a global issue with different local significance. The meaning of 'local' is critical. The scoping must include setting of the limits (boundaries) for the water assessment exercise. The limits may vary depending on the goal of the study, for instance from feed production to farm gate, from feed production to dairy factory gate of for the whole dairy supply chain from feed production downstream to the consumer. Another important factor is the definition of reporting unit to express the impact of water consumption. In dairy assessment, the result may be reported as quantity of water in litres per kilogram (or litre) of dairy product.

In water impact assessment, both water quantity and water quality can be evaluated. The results of both assessments may be combined and presented as one single figure. Water quantity is associated with the general availability of water or with the water intensity of a given practice. In dairy, water is used mostly for irrigation of crops for dairy feed, providing water for dairy cattle and dairy farm operations such as cleaning, and as technological water in dairy plants. Water quality is associated with nutrients found in water discharged back to ground or surface waters. Manure and fertilizer application to crops represent dairy's greatest impacts to watersheds. If not managed properly, nutrients such as nitrogen and phosphorus in different forms leak to the local watershed and water supplies through ground and surface water runoff, potentially causing environmental damage such as eutrophication with impact on water fauna and flora.

8.5.3. Uncertainties in water assessment

Major uncertainties in estimating water consumption stem from the huge variability of water impacts across the global dairy industry. The greatest challenge of water assessments is availability, integrity and quality of input data. Collecting and analysing data on water use on farms and in dairy plants goes beyond looking at the water meter from public supplies. Data validation must be a part of the water assessment and models are being developed to ensure this.

8.5.4. The need for an international assessment framework in the dairy sector

Why is the IDF doing this work right now?

- Water has become a priority issue for most major industrial sectors and organizations worldwide, including production of food. The significance of water goes beyond environmental concerns.
- The dairy sector can still improve its impact on water; there is a need to identify hotspots.
- Different methodological approaches to assess water consumption and use in farming exist or are under development which is confusing for the consumer.

What is the purpose of IDF work on industry guidelines?

By incorporating this approach, with a global relevance for all countries around the world, the methodology developed in the guidelines aims to:

- Increase understanding of the water footprint (assessment or accounting) concept.
- Provide clarity on the issue of the product's water profile within its life cycle.
- Support use of common language, reduce confusion.
- Enable monitoring, quantification and evaluation of potential environmental impacts related to water use from cradle to the manufacturing gate out (not including retail and consumer impacts), both in terms of water quantity and quality.
- Enable identification of particular areas ("hotspots") where there is a potential for reducing water consumption if it is particularly large or the reductions are easy to realise (optimizing resource and cost efficiency).
- Create a relatively easy-to-use benchmark basis to:
    - Measure progress in actions aiming to improve efficiency, thus *driving identification and adoption of better management practices and opportunities for improvement in dairy farming and manufacturing*, be it at the level of the sector or individual businesses.
    - Ensure consistency for various policies/strategies designed to optimise water consumption and use.

Who is the intended end user of the IDF guidelines methodological framework?
The IDF guide is being developed for use by the dairy farming and dairy manufacturing sector, and for all those who are interested in defining a water footprint of their production systems and products using an LCA (life cycle assessment) approach, trying to drive a change for better water use efficiencies. Policy makers may equally find interest in referring to the guide in their work.

8.5.5. The process of building the international dairy guidance with other organisation

The FAO and the International Organization for Standardization (ISO) are also working on building international guidance on water footprint. Ultimately, the IDF work on sector-specific water assessment will represent a major contribution to the FAO-lead multi-stakeholder partnership on the environmental benchmarking of the livestock supply chain. This three-year initiative started in July 2012. International institutions, governments, NGOs and private sector livestock organisations including IDF will mutually develop science-based methods and guidelines on quantification of environmental performance addressing greenhouse gas emissions, water consumption, nutrient losses (water quality) and biodiversity. The partnership will also enable IDF to promote and improve its existing expertise in the area of life cycle assessment.
IDF Guidelines will still be a working document and will be adapted according to international ISO standard if this is adopted later than the IDF Guide.

8.5.6. Preliminary findings regarding the dairy's water footprint

For the sake of IDF work, it is important to learn from available science and build on existing knowledge. Compared to a significant number of studies on carbon footprint, there are still a fairly limited number of scientific papers about water assessment applied to the dairy sector.

Available research studies indicate that assessment of the water profile is fairly complex and unique for each dairy facility. Crop production represents a major part of the final water footprint per unit of final product.

Analysis of the water footprint of a farm operation or dairy manufacturing plant must take into account local water availability and sources, water stress and quality of water source. On top of that, soil properties, weather patterns, seasonality and agricultural management practices have an influence on the result.

Careful consideration must be paid to which type of water is accounted for in water assessment and how much relevance it has for the environment. Environmental relevance is the key to understanding water assessment and it must be taken into account if water assessments are to inform wise decision making and policy development.

Furthermore with regard to water quality, the inclusion of polluted water into the assessment can bring additional challenges. The term pollution must be clearly defined and pollutants which are considered in the assessment clearly mentioned. Environmental pollutants to water can be diverse (e.g. organic and inorganic). However, the environmental relevance of pollutants is not the same and their environmental damage is dependent on the concentration of the pollutant in water streams.

With regard to freshwater consumption on farms, especially for irrigation purposes, some governments in countries experiencing water stress situations introduced regulations which limit water withdrawal from catchments in volume and time. These withdrawals are often subject to licensing requirements. In this way, farmers also participate in the environmental management of river basins. Other policies encourage farmers to capture rainwater during the rainy season when water is in excess and to use it during the drier season, thus alleviating the risk of water stress on environment and optimising the use of water in agriculture. The question here is again to how to reflect the impact of these regulations and practice in water accounting.

In order to ensure consistency in methodological approach which the international dairy sector chose to address carbon footprint from the industry, the dairy-specific water assessment framework wants to build on the LCA methodology. Given this path, the IDF guidance will seek alignment with the international water footprint standard that is currently in development by the International Organization for Standardization (ISO 14046). IDF participates in the ISO process as an observer.

8.5.7. Driving industry improvements

An international assessment framework alone cannot solve the water challenge. IDF is aware that practical tools and additional knowledge transfer must be added to reach out to dairy producers and processors to help them manage and improve their water efficiencies. However, scientifically-grounded and internationally-agreed guidelines alone will not be sufficient to drive efficiencies. Development of practical applications and tools together with dissemination and take-up of knowledge will ensure this.

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Annex 1: Country reports

General remarks

- The following country reports are based on information sent by IDF National Committees and by other national organisations.
- The IDF National Committees (and other national organisations) are responsible for the text in the key development sections of the corresponding Country Reports.
- Other sources used: CNIEL, Comtrade, European Commission, Eurostat, FAO, FAPRI, IFCN, PZ, PRB, USDA, ZMB, FED, ECB, DNB, UN, National Statistics.
- 2011 data are preliminary.
- The ranking in the list of main processors in the country reports is based on the quantity of milk processed. If not, it is specified.
- Processing and trade/summary table: products may not have the same definition in the production section and in the trade section, therefore figures should not be compared. For example trade of liquid milk and cream can include trade in bulk, and trade figures of cheese include processed cheese.
- The '-' sign is used when figures are not available, confidential or senseless (as a numeric result from calculations).
- The value '0' (zero) is used when volume is < 500 tonnes or null.
- The ranking in this annex is based on the quantity of cow's milk production per country group (and then in alphabetical order):

    1. Asia;
    2. EU 27;
    3. North and Central America (A);
    4. South America;
    5. Other Europe;
    6. Africa;
    7. Oceania.

    (A) Including Caribbean

Contents:

CHINA

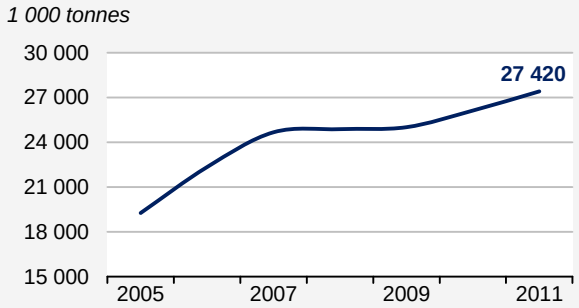
DAIRY FARMING

Key figures

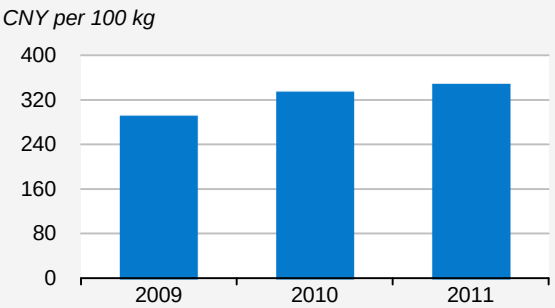
• Cow milk production (x 1 000 tonnes)	36 560	• Number of dairy cows (x 1 000 head)	14 402
% of worldwide milk production	5.9%	• Number of dairy farms (A)	213 632
• % cow milk deliveries	75%		

(A) Farms with more than 10 cows.

Cow milk deliveries



Cow milk prices (B)



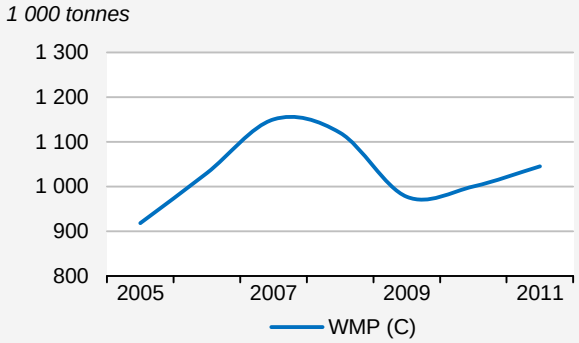
(B) Real fat and protein contents.

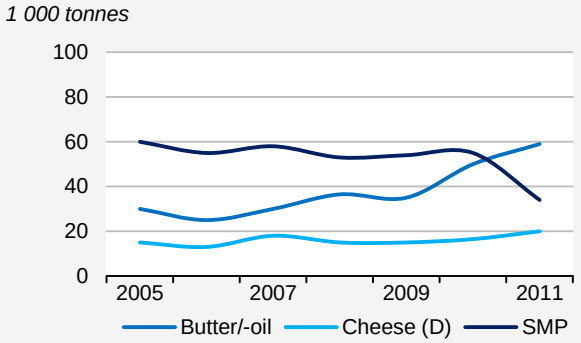
PROCESSING INDUSTRY

Main processors

• Mengniu Dairy Group	www.mengniu.com.cn
• Yili Dairy Group	www.yili.com
• Wahaha Group	www.wahaha.com.cn
• Bright Dairy Group	www.brightdairy.com
• Vivi Group	www.vvgroup.com

Production

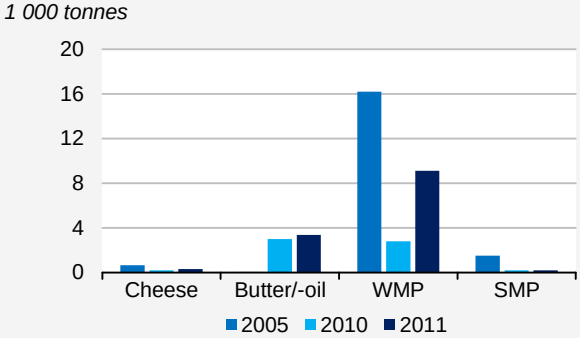




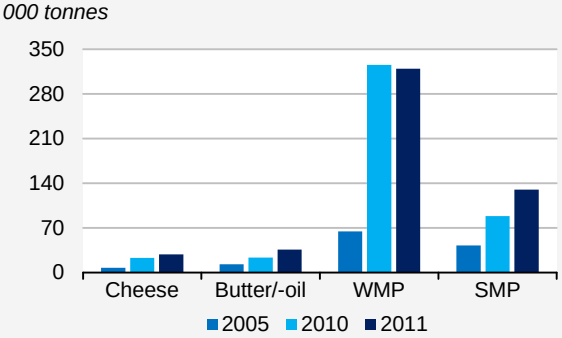
(C) Including infant formula. (D) Including processed cheese, made from imported natural cheese.

TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	16 684	112	30	347	25	111
• Fermented products	3 924	109	3	207	1	73
• Cream	-	-	11	146	1	131
• Butter and butteroil	59	118	36	153	3	112
• Cheese (E)	20	121	29	125	0	150
• Whole milk powder (F)	1 045	105	320	98	9	325
• Skim milk powder	34	62	130	147	0	100

(E) Including processed cheese, made from imported natural cheese. (F) Production of infant formulas included.

CONSUMPTION

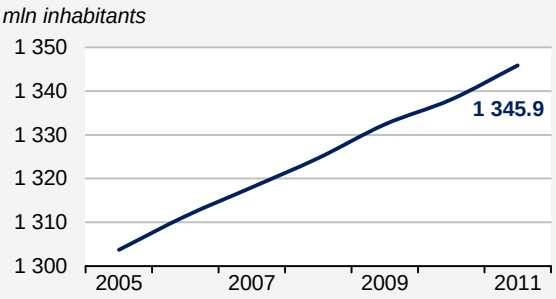
Consumption (x 1 000 tonnes)

• Milk	12 600
• Butter	-
• Cheese	-

Consumption (kg per capita)

• Milk	9.4
• Butter	-
• Cheese	-

Population



KEY DEVELOPMENTS

Production
Total milk production in China reached to 36.56 mln tonnes in 2011 and increased 0.8 mln tonnes compared to 2010. The growth of production was mainly due to the construction of large scale farms. And at the same time, the price of raw milk was increased 4.2%, which means dairy companies are facing much higher cost pressure.

Consumption
As for the continued increase of CPI, the proportion of expenditure for the life necessities scaled up. The share of urban per capita dairy consumption expenditure was 4.1% of the aggregate expenditure for food in 2010, which was lower than 2009.

Trade
Chinese dairy product import further increased in 2011: imported milk powder at 450 thousand tonnes, increased 8.6%, while liquid milk and fermented milk were the fastest growing imports, increasing more than 100%. Export continued recovering, the export of liquid milk reached 25 thousand tonnes which was 11.9% higher than in 2010.

Development
The chinese government completed the full clean-up and rectification of dairy companies, carried strict inspection of each dairy company and reissued production licenses to dairy processors. After this, and considering a slight lag of technology, some small scale dairy processors were obsoleted which made significant improvement in processing equipment, processing condition, the level of management, product quality control and monitoring capability.

Source: National Committee of the IDF, China Dairy Industry Association (www.cdia.org.cn), national statistics, Comtrade, FAO, USDA, FAPRI, PRB.

INDIA (A)

(A) Dairy years ending March of the following year.

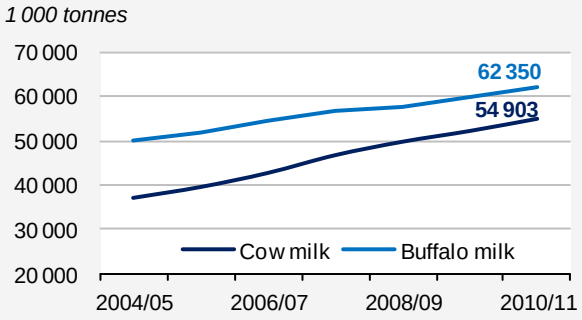
DAIRY FARMING

Key figures (B)

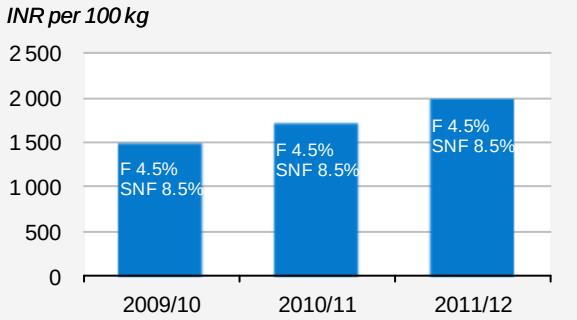
• Cow milk production (x 1 000 tonnes)	54 903
% of worldwide milk production	9.1%
• Buffalo milk production (x 1 000 tonnes)	62 350
% of worldwide milk production	66.9%
• Number of dairy cows (x 1 000 head)	42 755
• Number of buffaloes (x 1 000 head)	37 131

(B) Year 2010/11.

Milk production



Milk prices (F = fat%, SNF = Solid Non Fat %) (C)



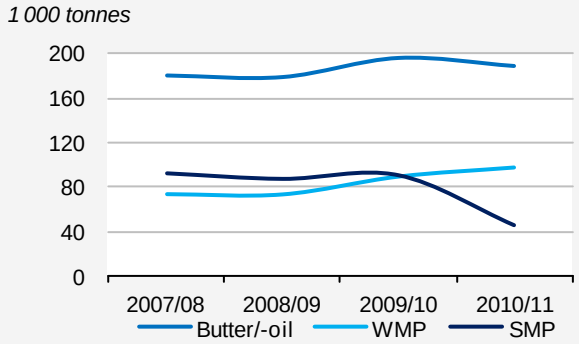
(C) Mixed (cow and buffalo) milk refers to cooperative dairies only.

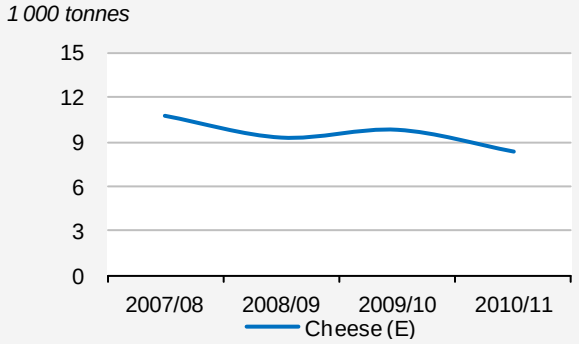
PROCESSING INDUSTRY

Main processors

• Mother Dairy	www.motherdairy.com
• Banaskantha District Cooperative	www.banasdairy.coop
• Mehsana District Cooperative	www.dudhsagardairy.co.in
• Hatsun Agro Product	www.hatsun.com
• Gujarat Cooperative Milk Marketing Federation	www.amul.com

Production (D)

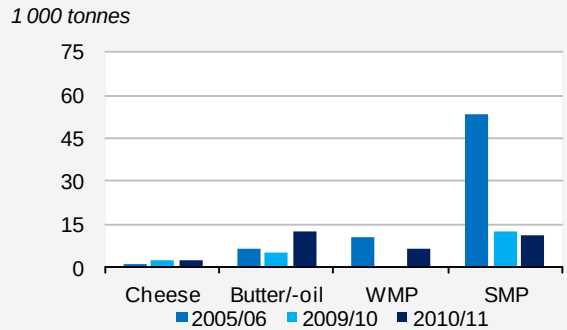




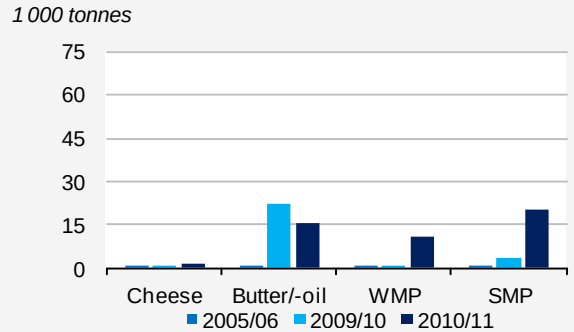
(D) Refers to cooperative dairies only. This may not reflect the development for the total Indian dairy industry. (E) Incl. processed cheese.

TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production (F) 2010/11	Production (F) (09/10=100)	Import 2010/11	Import (09/10=100)	Export 2010/11	Export (09/10=100)
• Liquid milk	8 265	104	0	28	3	49
• Butter/-oil (ghee)	189	96	16	72	12	244
• Cheese (G)	8	86	1	132	3	93
• Whole milk powder	98	109	11	>1 000	7	929
• Skim milk powder	45	50	20	576	11	92

(F) Refers to cooperative dairies only. This may not reflect the development for the total Indian dairy industry. (G) Including processed cheese.

CONSUMPTION

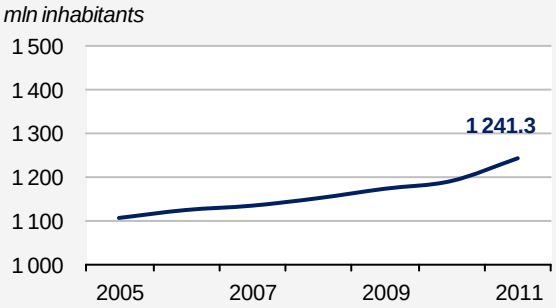
Consumption (x 1 000 tonnes)

- Milk -
- Butter -
- Cheese -

Consumption (kg per capita)

- Milk -
- Butter -
- Cheese -

Population



KEY DEVELOPMENTS

The GDP for 2011/12 is estimated at 52 025 billion INR, as against 48 859 billion during the previous year, an annual growth rate of 6.5%. The growth rate in 'agriculture, forestry & fishing' sector, contributing around 14% to overall GDP, is estimated at 2.8%.

India produced 122 million tonnes of milk in 2010/11 (incl. goat milk), an increase of 4.66%. In terms of value of output, milk is the single largest agricultural commodity.

Dairying has become an important secondary source of income for millions of rural families.

The yearly average increase in farm level milk prices (paid by dairy cooperatives) was around 16.5% in 2011/12 over 2010/11. During 2011/12, average food inflation stood at about 12%.

The Indian dairy sector acquired substantial growth momentum from the Ninth 5-Year Plan (1997/2002) onwards. This represents sustained growth in the availability of milk and milk products for the growing population. The per capita availability of milk has increased from 112 grams per day in 1968/69 to 281 grams per day in 2010/11.

The food consumption expenditure pattern during the period 1987/88 to 2009/10 shows a shift towards milk and milk products, egg, fish, meat, and vegetables both in rural and urban areas. As per the 66th Round of National Sample Survey (June 2009-July 2010) Report, milk and milk products commanded a share of 16-19% of food expenditure in rural and urban areas.

The Government accorded its approval for implementation of the National Dairy Plan (investment INR 22 420 million) for a period of six years from 2011/12 to 2016/17 with the objectives to help increase productivity of milk animals and provide rural milk producers with greater access to the organized milk processing sector. These objectives would be pursued through the adoption of focused scientific and systematic processes supported by appropriate policy and regulatory measures. In addition, adequate investments would be made in setting up dairy processing and cattle feed plants.

Source: National Committee of the IDF, Comtrade, PRB.

ASIA

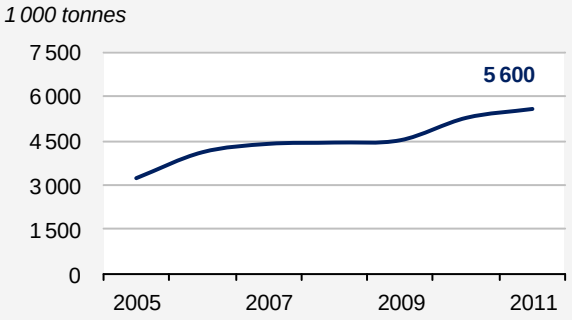
IRAN

DAIRY FARMING

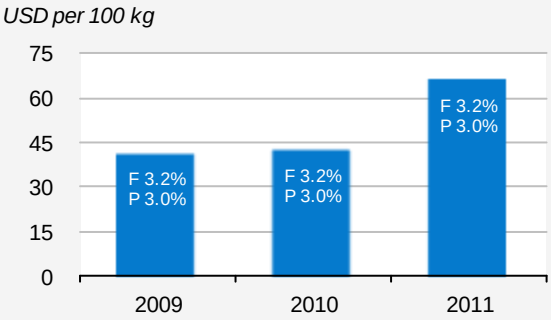
Key figures

• Cow milk production (x 1 000 tonnes)	7 240	• Number of dairy cows (x 1 000 head)	3 950
% of worldwide milk production	1.2%	• Number of dairy farms	14 494
• % cow milk deliveries	77%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

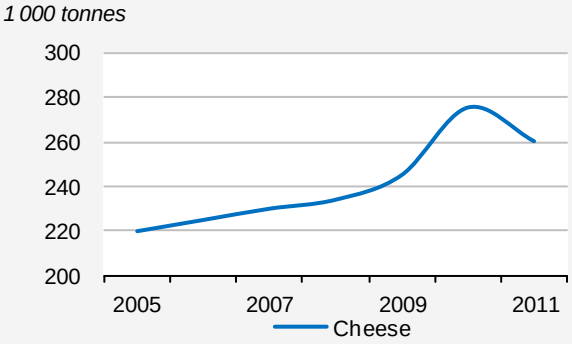


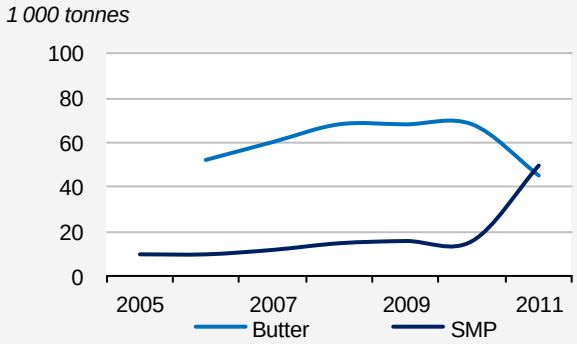
PROCESSING INDUSTRY

Main processors

• IDIC	www.irandairy.ir
• Sahar Dairy	www.sahardairy.com
• Kalleh	www.kalleh.com
• Mihan	www.mihan-dairy.com
• Pak Dairy	www.pakdairy.com

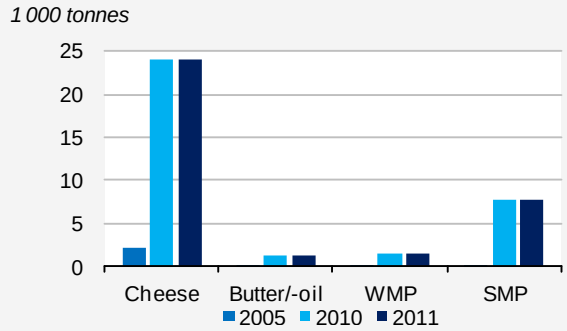
Production



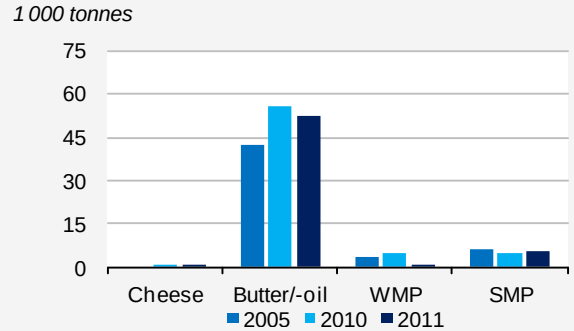


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	1 200	50	0	-	-	-
• Fermented products	2 000	211	0	-	-	-
• Cream	110	129	0	-	-	-
• Butter and butteroil (A)	45	66	52	94	1	100
• Cheese	260	95	0	100	24	100
• Whole milk powder	-	-	1	16	1	100
• Skim milk powder	50	313	5	110	8	100

(A) Production of butter only.

CONSUMPTION

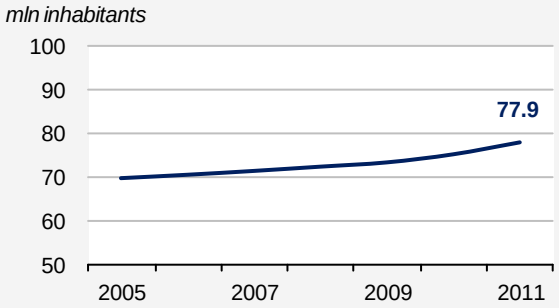
Consumption (x 1 000 tonnes)

• Milk	1 550
• Butter	226
• Cheese	360

Consumption (kg per capita)

• Milk	19.9
• Butter	2.9
• Cheese	4.6

Population



KEY DEVELOPMENTS

Structural changes in farming and industry
Fortunately, in recent years, Iran has enjoyed improvement in the extension of Industrial Farms and hence of Dairy Plants owing to the quality of its milk.

Iran now has almost 900 dairy plants that have been equipped with the best, modern technology to produce dairy products.

Price trends at both farm, wholesale and retail level
Unfortunately the 2011 price was not constant because of animal feed costs. The price of feed with through a series of ups and downs and so the price of raw milk was affected strongly.

Consumption trends
As mentioned at the IDF Summit in 2010 in Italy, Iran has a good programme to encourage dairy products consumption which is expected to reach 180 kg per capita.

Economic situation
Not bad and it is hoped the situation in 2012 will be better.

Source: National Committee of the IDF, Iran Dairy Industries Co. (www.irandairy.ir), Comtrade, PRB.

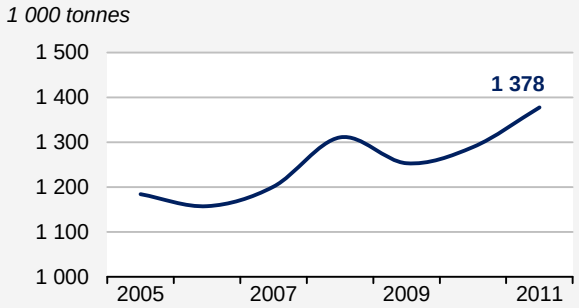
ISRAEL

DAIRY FARMING

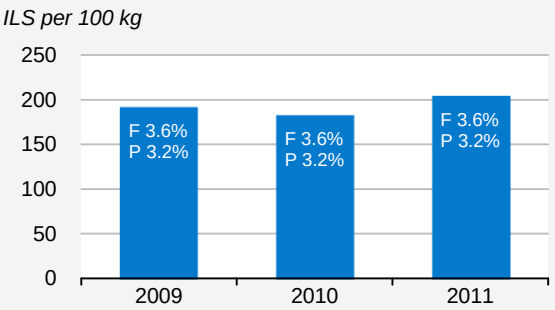
Key figures

• Cow milk production (x 1 000 tonnes)	1 378	• Number of dairy cows (x 1 000 head)	123
% of worldwide milk production	0.2%	• Number of dairy farms	954
• % cow milk deliveries	100%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

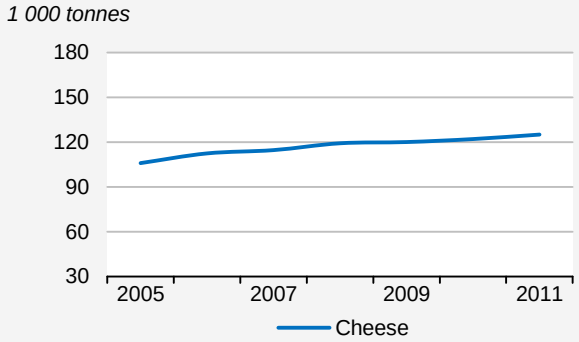


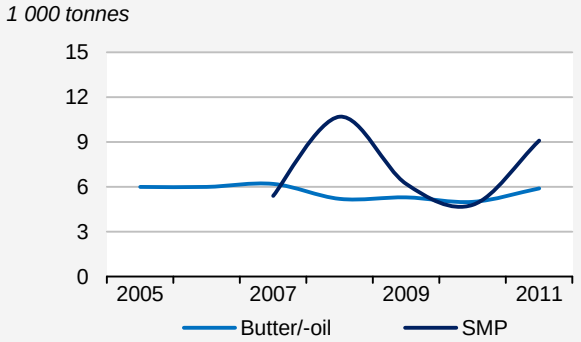
PROCESSING INDUSTRY

Main processors

• Tnuva	www.tnuva.co.il
• Milko-tara	www.tara.co.il
• Strauss group	www.strauss-group.com
• Gad	www.gad-dairy.co.il
• Golandairy	-

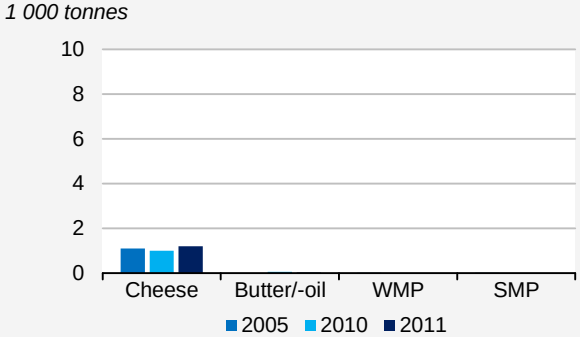
Production



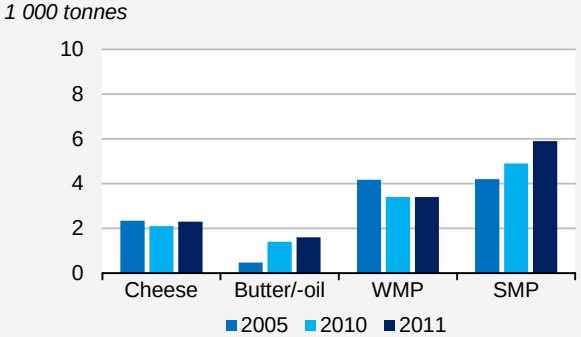


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	424	100	-	-	0	100
• Fermented products (A)	181	101	-	-	1	200
• Cream	-	-	-	-	-	-
• Butter and butteroil	6	118	2	114	0	44
• Cheese	125	102	2	110	1	120
• Whole milk powder	0	-	3	100	0	-
• Skim milk powder	9	190	6	120	0	-

(A) Production: including dairy desserts.

CONSUMPTION

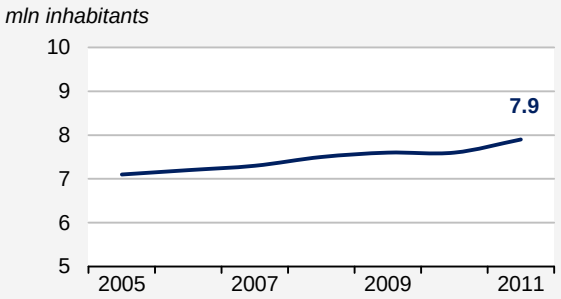
Consumption (x 1 000 tonnes)

• Milk	424
• Butter	8
• Cheese	127

Consumption (kg per capita)

• Milk	53.7
• Butter	0.9
• Cheese	16.1

Population



KEY DEVELOPMENTS

Cows' milk production in 2011 was 1 337 mln litres, 86 mln (7%) more than 2010. (Goat and sheep: about 20 mln litres per year) 99% is marketed through dairies (rest used for domestic consumption and calves). Milk is produced on 951 farms. 163 cooperative farms produce 58% of the milk, 773 family farms 41%, and 15 agricultural schools 1%. Average production in a cooperative farm is 4 725 000 litres. In a family farm it is 717 000 litres. Average yield in a cooperative farm is 12 033 kg/cow/year, and in a family farm 11 208 kg/cow/year.

The number of farms decreased, from 1 250 in 2001 to 951 in 2011, while the average yield per cow increased from 10 581 to 11 767 kg in 2011, like the average farm size: from 939 000 to 1 406 000 litres per farm. Milk quality and solids contents (fat and protein) continuously improve.

In Israel three major dairies cover 90% of the dairy market, and more than 80 small dairies cover the rest. The biggest dairy became privately owned in 2008.

The basic milk price is agreed upon between the government, farmers and dairies. The price reflects the average production cost plus an agreed compensation for farmers' labour and invested capital. The average price grew from 1.89 ILS in 2010 to 2.1 ILS in 2011, due to the increase in feed prices. Weighted price index of dairy products decreased by 1%, CPI by 2%. The price of drinking milk did not change.

In 2011, most product categories sales showed a 2.2% average increase. The average annual population increase is 1.8%. Per capita consumption increased by 0.4%.

Milk in Israel is produced under a quota system. Milk, together with other agricultural products, enjoys high custom protection. But because of trade treaties, the custom rate is in decline. At the end of 2010 the "Dairy Law" passed and came into force in October 2011. The law regulates the dairy industry, states the principles of the quota regime, establishes the guaranteed price for milk (target price) and defines the objectives of the Israel Dairy Board.

Source: National Committee of the IDF, Israel Dairy Board (www.israeldairy.com), Comtrade, PRB.

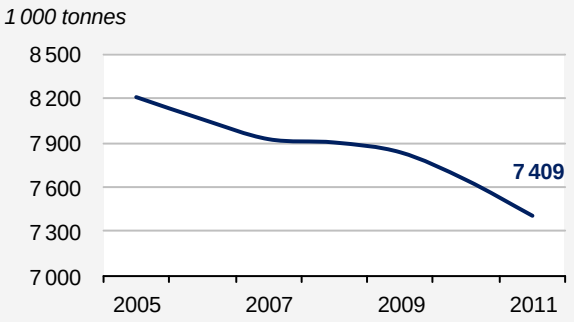
JAPAN

DAIRY FARMING

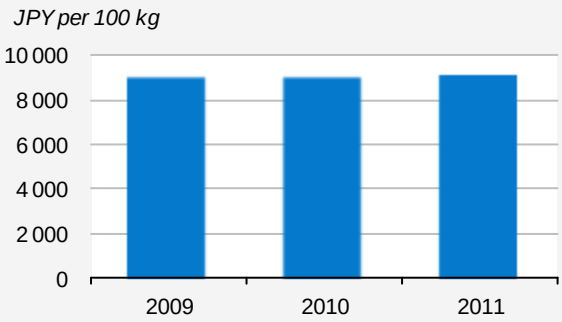
Key figures

• Cow milk production (x 1 000 tonnes)	7 474	• Number of dairy cows (x 1 000 head)	933
% of worldwide milk production	1.2%	• Number of dairy farms	21 000
• % cow milk deliveries	99%		

Cow milk deliveries



Cow milk prices (A)



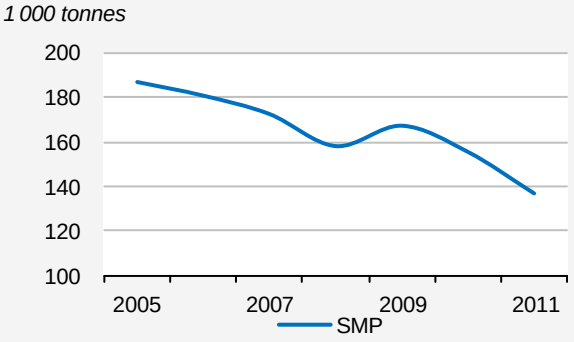
(A) Real fat and protein contents.

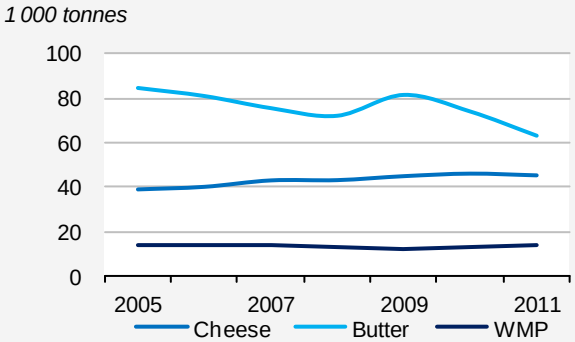
PROCESSING INDUSTRY

Main processors

• Meiji	www.meiji.co.jp
• Megmilk Snow Brand	www.meg-snow.com
• Morinaga Milk Industry	www.morinagamilk.co.jp
• Yotsuba Milk Products	www.yotsuba.co.jp
• Takanashi Milk Products	www.takanashi-milk.co.jp

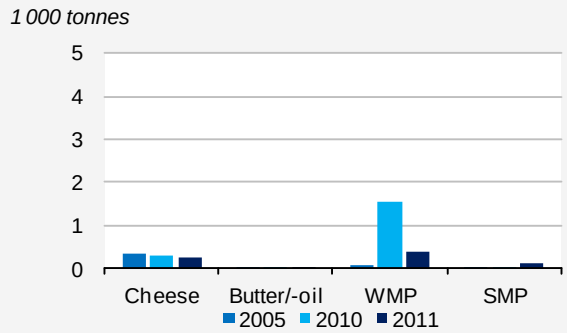
Production



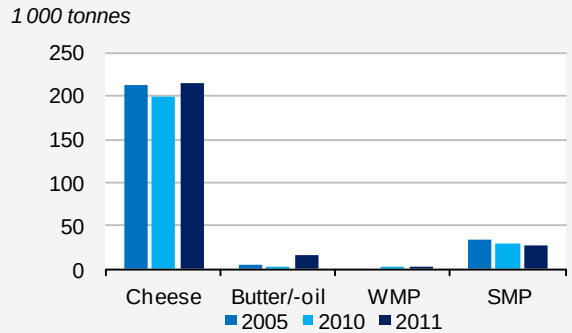


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	3 763	97	0	-	2	63
• Fermented products	-	-	0	101	0	55
• Cream	112	104	0	860	0	14
• Butter and butteroil (B)	63	85	17	480	0	66
• Cheese (C)	45	98	215	108	0	85
• Whole milk powder	14	108	0	25	0	26
• Skim milk powder	137	88	27	90	0	593

(B) Production of butter only. (C) Production of natural cheese in the fiscal year 2011 (period April 2011-March 2012).

CONSUMPTION

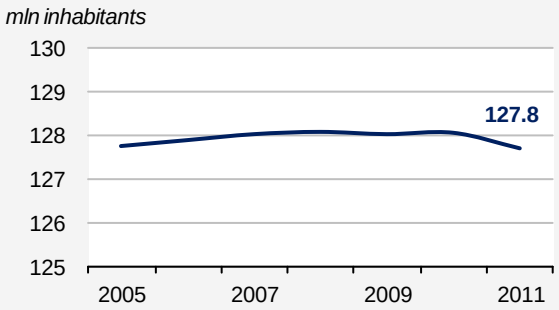
Consumption (x 1 000 tonnes)

• Milk	4 066
• Butter	84
• Cheese	245

Consumption (kg per capita)

• Milk	31.8
• Butter	0.7
• Cheese	1.9

Population



KEY DEVELOPMENTS

In 2011 milk production decreased by 1.3% over the previous year. While the production decreased in Hokkaido, the main milk producing district in Japan, it also decreased in other regions, primarily due to the decrease in the number of dairy cattle.

Milk production of Hokkaido accounted for about 40% of Japan's total production 15 years ago. Hokkaido then increased its share, and in 2011, the production amount reached the level of circa 52% of the total amount produced in the other regions of the country.

Liquid milk production decreased in 2011 due to the continued decline in consumption. While the production of whole milk soared by 1.2%, the production of reconstituted milk and reduced fat milk (produced from whole milk) decreased by 14.3%.

The production of skimmed milk powder (SMP) and butter decreased by more than 10% in 2011.

The wholesale price of SMP and butter were rather high in 2011 The prices of SMP and butter in December 2011 were 4.0% and 8.3% higher respectively than in the same month of the previous year.

Japan has been steadily fulfilling its commitments made in the 1995 GATT Uruguay Round Agreement. The commitment of current access import opportunities for dairy products is implemented under the state trading by Agriculture & Livestock Industries Corporation (ALIC). In fiscal year 2011, ALIC has fulfilled the commitment by importing butter, butteroil, dairy spreads and whey.
ALIC held an additional import tender of 2 000 tonnes butter in August 2011 to meet the demand increase toward the year end.

Source: National Committee of the IDF, national statistics, Comtrade.

ASIA

KOREA, REPUBLIC OF

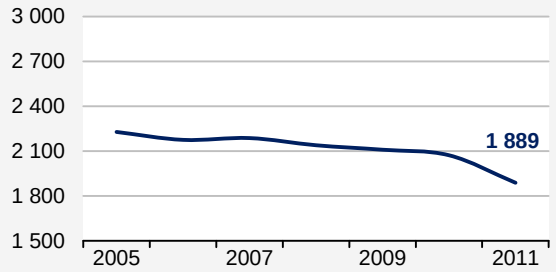
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	1 889	• Number of dairy cows (x 1 000 head)	229
% of worldwide milk production	0.3%	• Number of dairy farms	6 068
• % cow milk deliveries	100%		

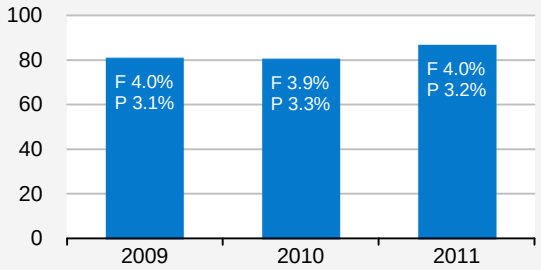
Cow milk deliveries

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

x 1 000 KRW per 100 kg



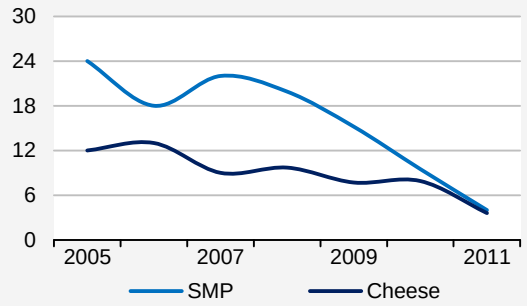
PROCESSING INDUSTRY

Main processors

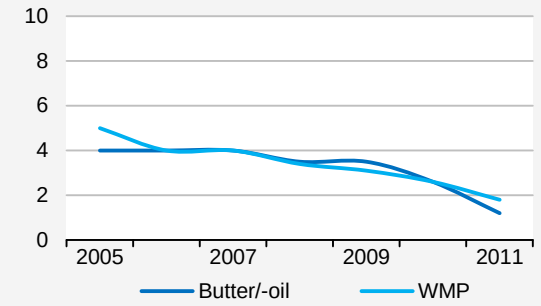
• Seoul Dairy Cooperative	www.seoulmilk.co.kr
• Namyang Dairy Products	company.namyangi.com
• Maeil Dairies	www2.maeil.com
• Binggrae	www.bing.co.kr
• Busan Milk Corporation	www.busanmilk.com

Production

1 000 tonnes



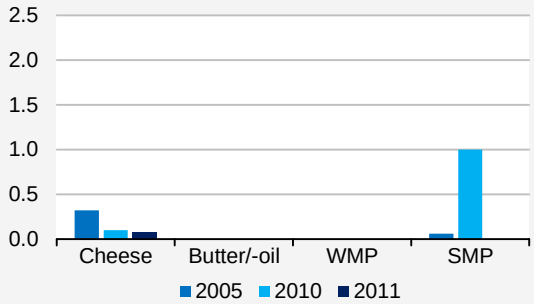
1 000 tonnes



TRADE

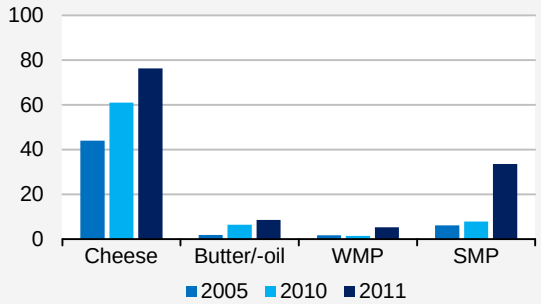
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	1 626	99	0	-	0	77
• Fermented products	523	104	0	135	5	99
• Cream	19	90	19	254	0	-
• Butter and butteroil	1	46	9	134	0	-
• Cheese	4	46	76	125	0	78
• Whole milk powder	2	69	5	377	0	-
• Skim milk powder	4	42	34	424	0	1

CONSUMPTION

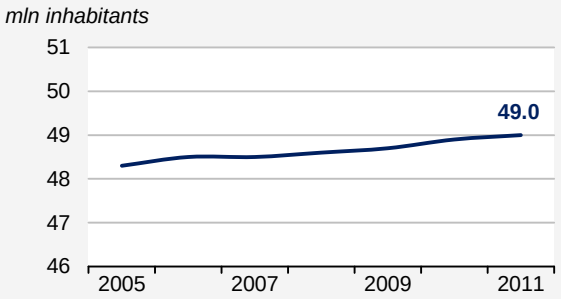
Consumption (x 1 000 tonnes)

• Milk	1 626
• Butter	10
• Cheese	100

Consumption (kg per capita)

• Milk	33.2
• Butter	0.2
• Cheese	2.0

Population



KEY DEVELOPMENTS

Milk production decreased in 2011 by 8.9% to 1 889 thousand tonnes compared to the previous year.

Major factors for this decrease are the dairy cows slaughtered due to FMD (36 thousand head, -8.5%), the increased price of feed and the abnormally high temperature during the summer.

Milk production in 2012 is recovering fast thanks to the policy for increased milk production through the increased price of milk (7.7%) to cope with the increased international grain price and the temporary suspension of the quota system until milk production meets the 2010 level, that is to say before the outbreak of FMD.

Consumption in 2011 increased due to the increased consumption of cheese and others as compared to the previous year. It increased by the rate of 7.2% to 3 294 thousand tonnes.

Shortage of domestic milk: replaced by imported dairy products.

Consumption of milk drinks produced with domestic milk decreased partially, but as EU FTA took an effect on 1st July 2011, the imported duty free products (cheese, milk powder, butter, etc.) also increased which led to an increase in consumption of whole dairy products.
The increase in consumption is mostly affected by the increase of imported duty free cheese products along with the consumption of them.

It is expected to increase in the future as the imported duty free products will be increased due to FTA effects.

Source: National Committee of the IDF, Korea Dairy Committee (www.dairy.or.kr), Comtrade, PRB.

MONGOLIA

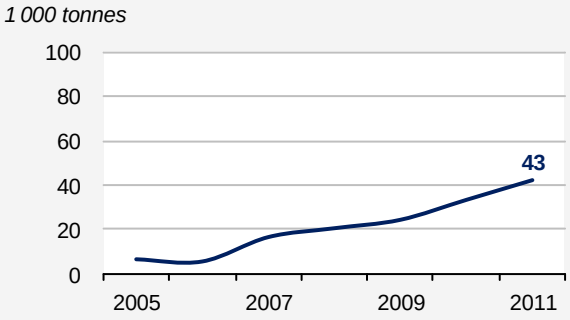
DAIRY FARMING

Key figures

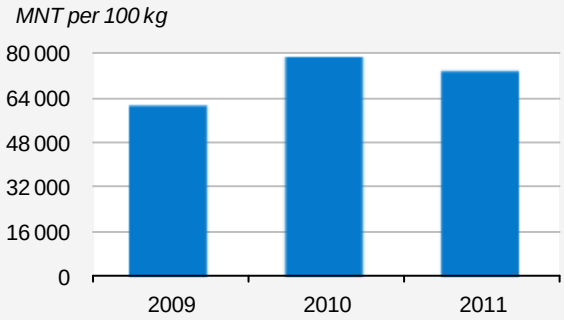
• Cow milk production (x 1 000 tonnes)	299	• Number of dairy cows (x 1 000 head)	503
% of worldwide milk production	0.0%	• Number of dairy farms (A)	901
• % cow milk deliveries	14%		

(A) Dairy farms established in centrally located areas and areas close to big cities and provincial centres.

Cow milk deliveries



Cow milk prices (B)



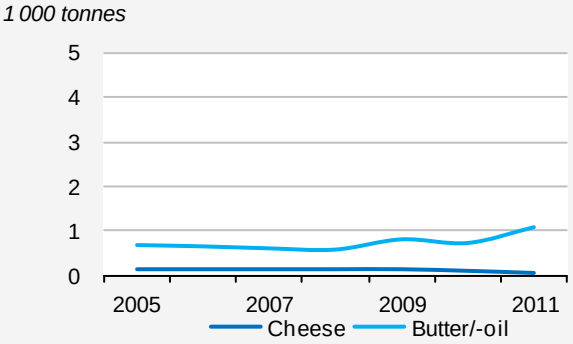
(B) Real fat and protein contents.

PROCESSING INDUSTRY

Main processors

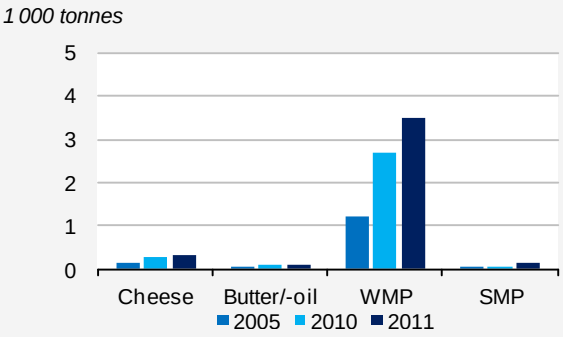
• Suu	www.mongolmilk.mn
• APU	www.apu.mn
• Monfresh	www.monfresh.mn
• Vitafit	www.vitafit.mn
• Teso	www.teso.mn

Production



TRADE

Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	21	119	0	63	0	-
• Fermented products	8	133	1	104	0	-
• Butter and butteroil	1	148	0	100	0	-
• Cheese	0	64	0	122	0	-
• Whole milk powder	0	-	4	130	0	-
• Skim milk powder	0	-	0	478	0	-

CONSUMPTION

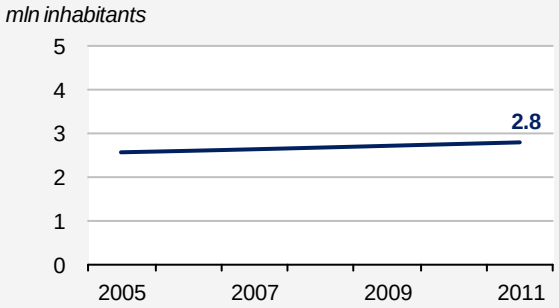
Consumption (x 1 000 tonnes)

• Milk	21
• Butter	1
• Cheese	0

Consumption (kg per capita)

• Milk	7.5
• Butter	0.4
• Cheese	0.1

Population



KEY DEVELOPMENTS

For centuries, Mongolians reared five species of livestock and utilized their milk to make various traditional dairy products. Cow milk occupies 65-67% of total milk production.

The number of small scale family owned dairy farms reached 901 in 2011, the average number of dairy cows increased to 31 per farm in 2011. The milk yield reached 2 500 - 2 900 kg per year, which is 4 times less than developed dairy countries.

Due to seasonal production (80% of milk produced during May-October months) the milk price fluctuates. 1 litre of milk costs 1 200-1 500 MNT in winter, while in summer it drops to 500-600 MNT. As the cost for collection, transportation and delivery of raw milk to dairies is reasonably high, the big domestic dairies deal with imported milk powder, mainly from New Zealand. Powder is converted into recombined sterilized milk packed into Tetra pack cartons. Due to favorable conditions for small and medium enterprise development in recent years, many small business entities have been established in rural and urban areas, and the number of employees in dairies has increased steadily.

Mongolians have no tradition of drinking milk directly. Fermented raw beverages from mare and camel milk are the most popular drinks. Tea with milk is also one of the popular drinks. Fat and protein rich products are consumed in bigger quantities in rural areas. But nowadays, due to rapid urbanization and movement of rural people to cities, and the fact that 60% of the population is under 45 years, the demand for dairy products made by modern technologies has increased. Pasteurised liquid milk and yoghurt are the most popular products in the urban market. The demand for fresh soft and semi-hard cheeses has increased too. The demand for milk and dairy products is met by 6% from import and 94% from local production.

Source: National Committee of the IDF, Ministry of Food, Agriculture and Light Industry (www.mofa.gov.mn), Comtrade, PRB.

ASIA

PAKISTAN (A)

(A) Dairy years ending June of the following year.

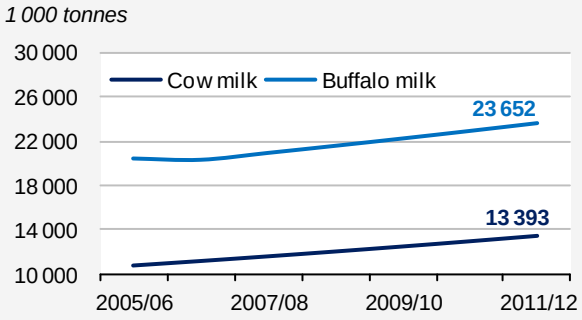
DAIRY FARMING

Key figures (B)

• Cow milk production (x 1 000 tonnes)	13 393	• Number of dairy cows (x 1 000 head)	10 456
% of worldwide milk production	2.2%	• Number of buffaloes (x 1 000 head)	11 200
• Buffalo milk production (x 1 000 tonnes)	23.652	• Number of dairy farms (x 1 000) (C)	7 399 000
% of worldwide milk production	24.5%		

(B) Year 2011/12. (C) Year : 2010.

Milk production (D)



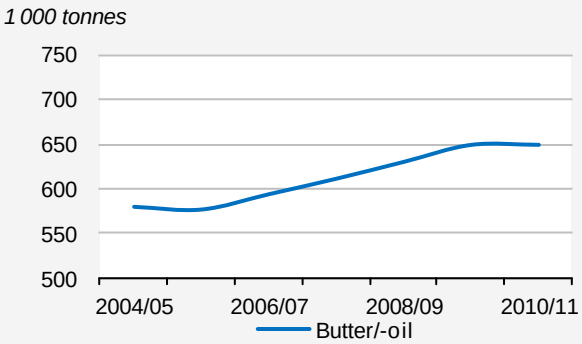
(D) Milk production for human consumption.

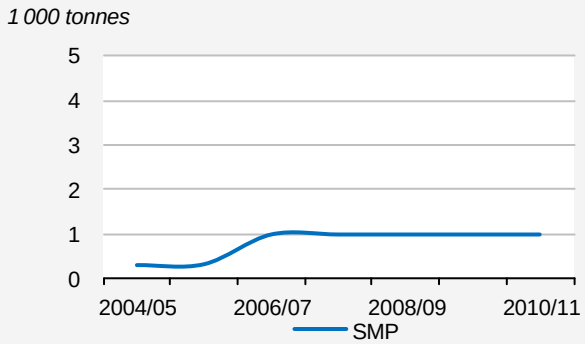
PROCESSING INDUSTRY

Main processors

• Nestle Pakistan	www.nestle.pk
• Haleeb Food	www.haleebfoods.com
• Engro Foods	www.engro.com
• Shakarjang Food	www.shakarganj.com.pk
• Idara -e-Kissan	www.foods.thevisioncorporation.biz

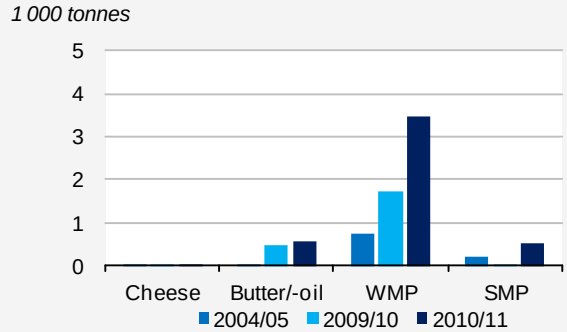
Production



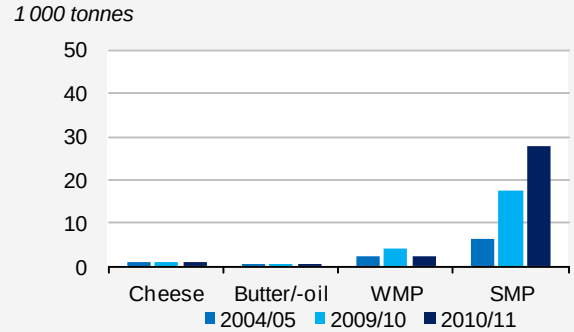


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production (E) 2010/11	Production (E) (09/10=100)	Import 2010/11	Import (09/10=100)	Export 2010/11	Export (09/10=100)
• Liquid milk	-	-	0	286	40	141
• Fermented products	-	-	0	150	3	135
• Cream	-	-	0	27	0	>1 000
• Butter/-oil (ghee)	649	100	0	88	1	120
• Cheese	-	-	1	109	0	306
• Whole milk powder	-	-	2	55	3	203
• Skim milk powder	1	100	28	156	1	>1 000

(E) Production: year 2009/10.

CONSUMPTION

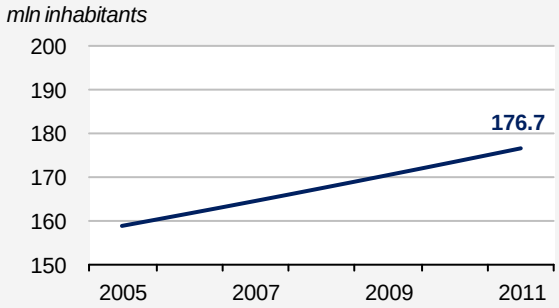
Consumption (x 1 000 tonnes)

• Milk	-
• Butter	649
• Cheese	-

Consumption (kg per capita)

• Milk	-
• Butter	3.7
• Cheese	-

Population



KEY DEVELOPMENTS

Milk production has increased 3 to 4 percent in 2011-2012 in Pakistan. However due to consumer food inflation the increase in prices during the year 2011-2012 remained 10 to 19 percent correspondingly.

Moreover, there is no significant change observed in per capita milk consumption during the reported year in Pakistan.

Source: Agricultural Census Organization (www.statpak.gov.pk), Comtrade, FAO, IFCN, UN.

TURKEY

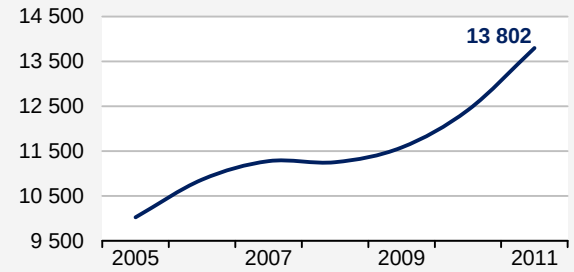
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	13 802	• Number of dairy cows (x 1 000 head)	4 761
% of worldwide milk production	2.2%	• Number of dairy farms	1 739 433
• % cow milk deliveries	51%		

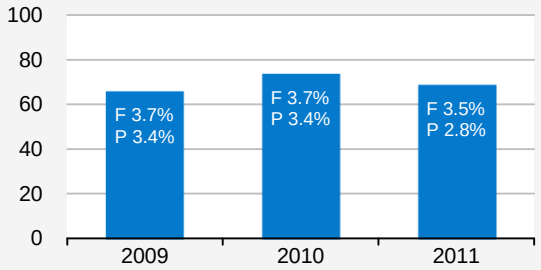
Cow milk production

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

TRY per 100 kg



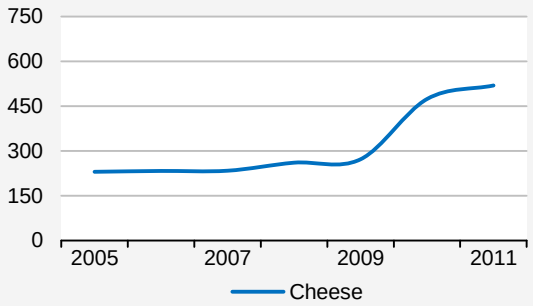
PROCESSING INDUSTRY

Main processors

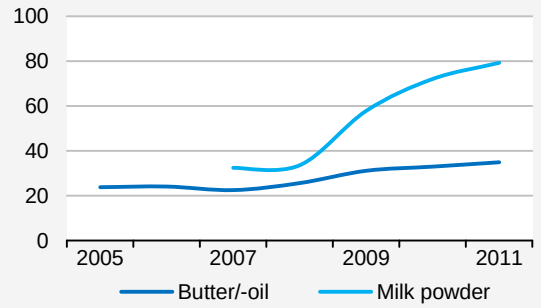
• Ak Gida	www.ulker.com.tr
• Sütaş	www.sutas.com.tr
• Yörsan	www.yorsan.com.tr
• Pinar	www.pinar.com.tr
• Akova	www.akova.com

Production

1 000 tonnes



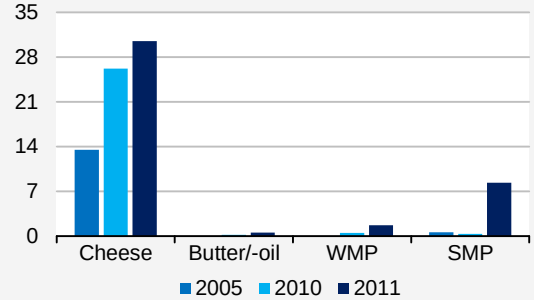
1 000 tonnes



TRADE

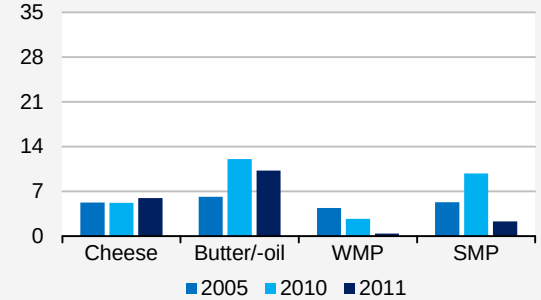
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	1 165	107	0	-	16	132
• Fermented products (A)	1 466	112	0	-	10	81
• Cream	-	-	0	0	1	108
• Butter and butteroil	35	106	10	85	1	261
• Cheese	519	110	6	114	31	116
• Whole milk powder	24	-	0	15	2	341
• Skim milk powder	56	-	2	23	8	>1 000

(A) Kefir excluded.

CONSUMPTION

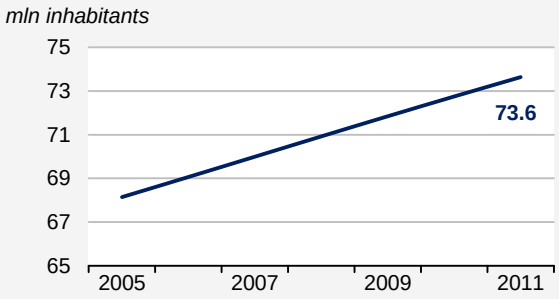
Consumption (x 1 000 tonnes)

• Milk	1 149
• Butter	45
• Cheese	494

Consumption (kg per capita)

• Milk	15.6
• Butter	0.6
• Cheese	6.7

Population



KEY DEVELOPMENTS

The number of dairy animals in Turkey is figured to be 18.6 mln head and the total milk output from all species is 15.02 mln tonnes in 2011, which has risen 10.6% compared to the previous year. This percentage of development in milk production is, by contrast, well above the dairy animal population increase rate in 2011. This growth rate difference comes from improvement in the feeding and maintenance systems. There is also a significant increase in goat milk production while the demand for milk products made from goat milk has flourished for the last two years. There is another study on one of the traditional fermented dairy products called “ayran”. Turkey has been taking an active part in the Codex Meetings to establish an international standard for ayran covering safety, quality and hygiene. CCEURO held a meeting in Turkey, in Istanbul, for “ayran”. Apart from this, Turkey’s total amount of export volume in dairy products rose by 34.5 % in 2011 while the import rate decreased by 20.7%.

The major problem for Turkey’s dairy sector in the previous years was farm gate price volatility. For the purpose of preventing price fluctuation, Turkish Food, Agriculture and Livestock Ministry put some regulations into practice including having milk powder produced from surplus milk caused by seasonality and a School Milk Project that encompasses the whole country.

The School Milk Program in Turkey provides 200 ml packaged milk to all students aged 6-12, which accounts for 7.2 mln in total. Through this project not only can the children in question make a habit of drinking milk everyday but also demand can be created for milk during the high milk production periods.

Source: National Committee of the IDF, National Dairy Council, national statistics, Comtrade, FAO, UN.

EU 27

EUROPEAN UNION

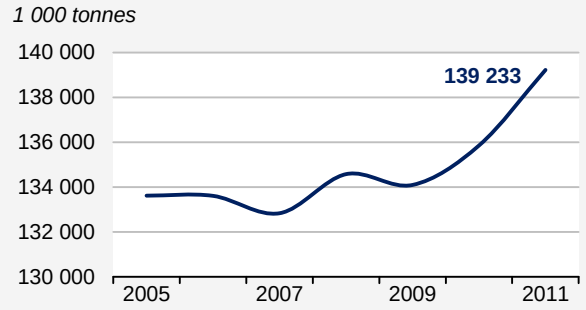
DAIRY FARMING

Key figures

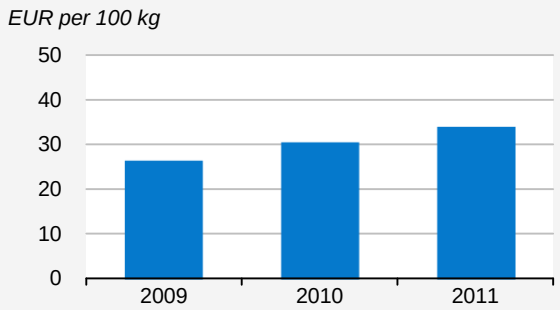
• Cow milk production (x 1 000 tonnes)	151 840	• Number of dairy cows (x 1 000 head)	22 995
% of worldwide milk production	24.4%	• Number of dairy farms (A)	712 292
• % cow milk deliveries	92%		

(A) Number of delivery quota holders.

Cow milk deliveries



Cow milk prices (B)



(B) Weighted average, real fat and protein contents.

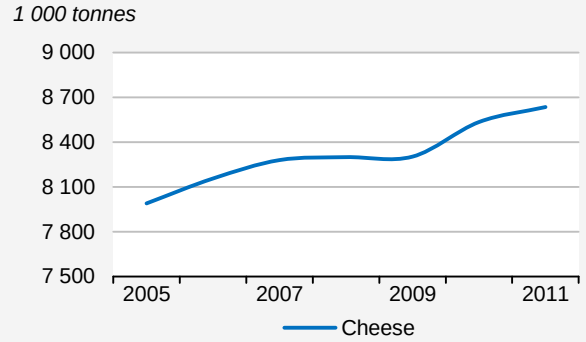
PROCESSING INDUSTRY

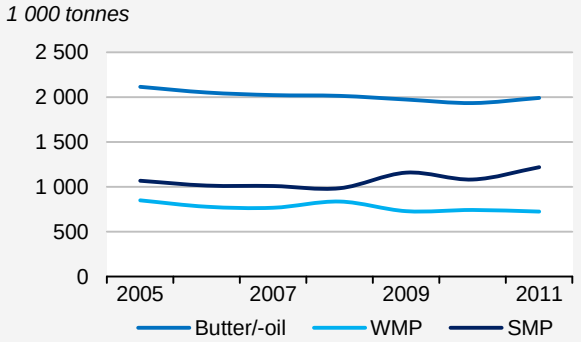
Main processors (C)

• Danone	www.danone.com
• Lactalis	www.lactalis.fr
• FrieslandCampina	www.frieslandcampina.com
• Arla Foods	www.arla.com
• DMK	www.dmk.de

(C) Ranking based on dairy turnover.

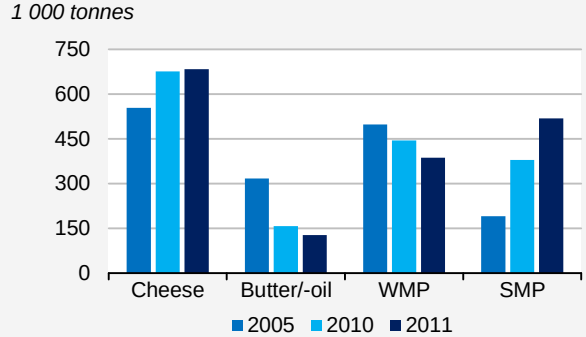
Production



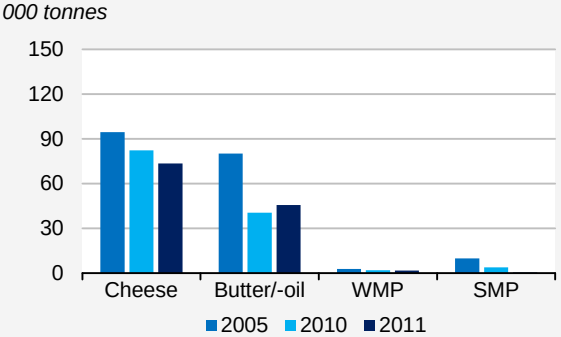


TRADE

Export



Import



PROCESSING AND TRADE

Summary

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	33 194	100	7	143	282	130
• Fermented products	8 255	100	8	83	150	121
• Cream	2 456	100	5	139	88	116
• Butter and butteroil	1 993	103	46	113	127	81
• Cheese	8 634	101	74	90	683	101
• Whole milk powder	725	98	2	89	387	87
• Skim milk powder	1 220	113	0	10	518	137

CONSUMPTION

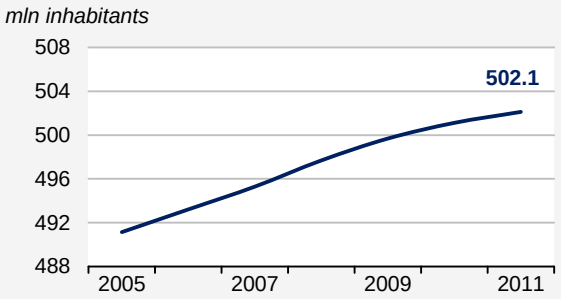
Consumption (x 1 000 tonnes)

• Milk	32 589
• Butter	1 803
• Cheese	8 581

Consumption (kg per capita)

• Milk	64.8
• Butter	3.6
• Cheese	17.1

Population



KEY DEVELOPMENTS

Consequent to the good market situation since 2009, and in spite of a period of dry weather in the spring 2011, European milk production progressed in comparison with 2010, by around 2%. Farm gate milk prices also increased in most EU Member States, and were above last year's level, just like dairy product prices which took advantage of strong export demand. Output of dairy products also increased in 2011, specifically SMP and butter. Public stocks of these products are still at a very low level, and are exclusively dedicated to "the most deprived persons programme" for 2011-2012.

The new European Agricultural Policy is still under discussion. Milk deliveries continue to be subjected to quotas (+1% this year), and private storage of butter is still subsidized. However, market tools like intervention and export refunds were not activated.

In terms of structural changes at industry level, the following can be cited: Bavarian processor Zott bought Polish Bacha Polska, which produces fruit yoghurts and desserts. British coop First Milk allied with Fonterra in order to produce WPC80 in Cumbria County, like German DMK and Danish Arla Foods who created a joint venture to valorise whey products. The latter also merged with Hansa-Milch, based in Northern Germany and which produces packaged milk and fresh products. Italian dessert-maker A-27 spA (known for its brand Bontà Divina) was bought by Swiss Emmi. Chinese group Austnutria based in Hong-Kong and specialised in infant nutrition, acquired two Dutch processors: Hypocra and Lyempf. French dairy processor Lactalis acquired a major position in Italian giant Parmalat, thus becoming the first dairy group in the world. Dairy cooperative Agrial (a few months after merging with Elle-&-Vire) and fresh dairy products processor Senoble created a joint-venture called Senagral. Also, American group General Mills, already owner of Yoplait brand in the USA, acquired 50% of the brand in France.

Other current new developments in industry include new niche markets like prairie milk and GM-free dairy products, following a growing trend in European customers' expectations.

Source: National Committees of the IDF, European Commission, Eurostat.

EU 27

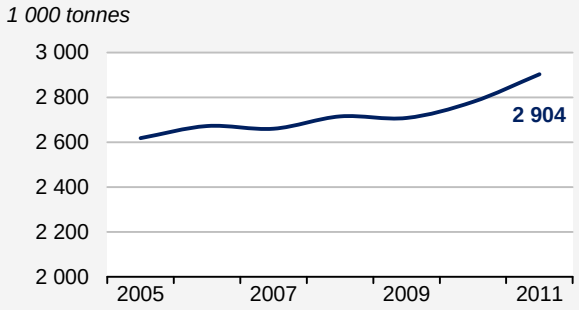
AUSTRIA

DAIRY FARMING

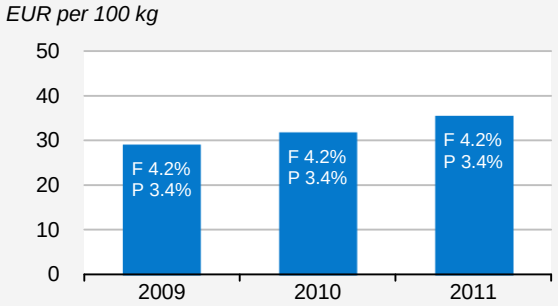
Key figures

• Cow milk production (x 1 000 tonnes)	3 307	• Number of dairy cows (x 1 000 head)	531
% of worldwide milk production	0.5%	• Number of dairy farms	35 947
• % cow milk deliveries	88%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

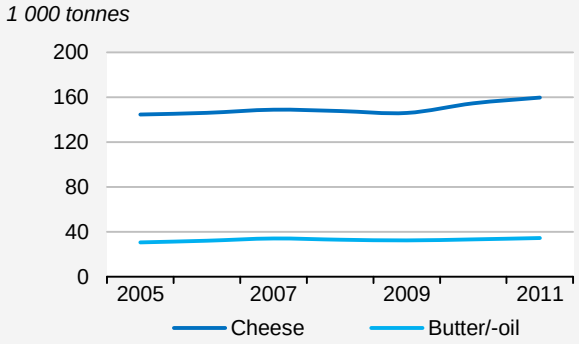


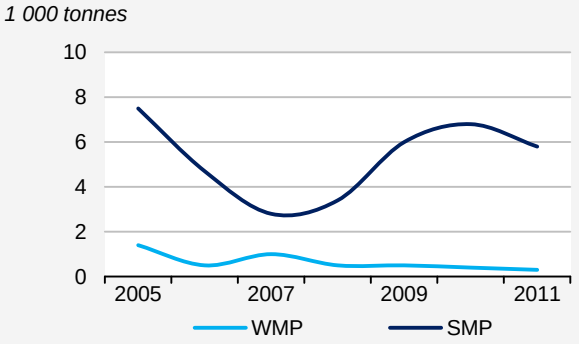
PROCESSING INDUSTRY

Main processors

• Berglandmilch	www.berglandmilch.at
• NÖM	www.noem.at
• Gmundner Molkerei	www.gmundner-milch.at
• Alpenmilch Salzburg	www.milch.com
• Obersteirische Molkerei	www.oml.at

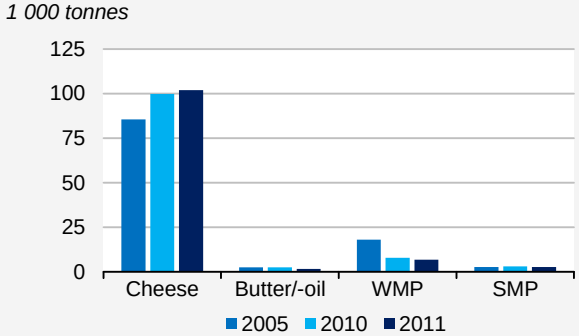
Production



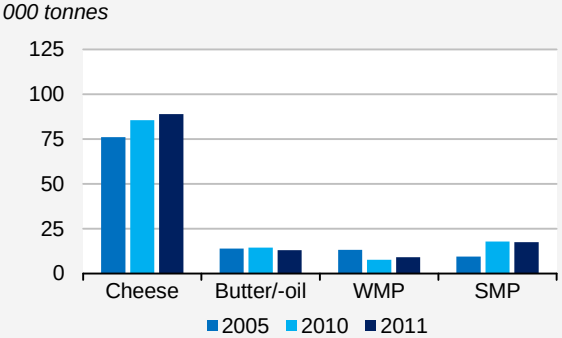


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)			Import		Export	
	2011	(2010=100)	2011	(2010=100)	2011	(2010=100)
• Liquid milk (A)	751	103	59	137	347	107
• Fermented products	273	99	36	88	132	92
• Cream	63	103	12	118	10	64
• Butter and butteroil	34	104	13	90	2	60
• Cheese	160	103	89	104	102	102
• Whole milk powder	0	75	9	118	7	86
• Skim milk powder	6	85	17	97	3	87

(A) Import and export: excluding bulk milk.

CONSUMPTION

Consumption (x 1 000 tonnes)

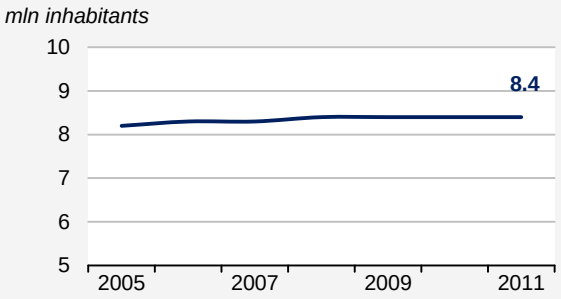
• Milk (B)	679
• Butter	42
• Cheese	167

Consumption (kg per capita)

• Milk (B)	80.7
• Butter	5.0
• Cheese	19.9

(B) Including milk drinks and fermented products.

Population



Source: National Committee of the IDF, Eurostat, PRB.

BELGIUM

EU 27

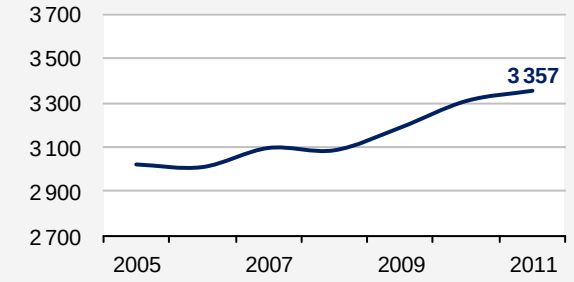
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	3 507	• Number of dairy cows (x 1 000 head)	488
% of worldwide milk production	0.6%	• Number of dairy farms	9 145
• % cow milk deliveries	96%		

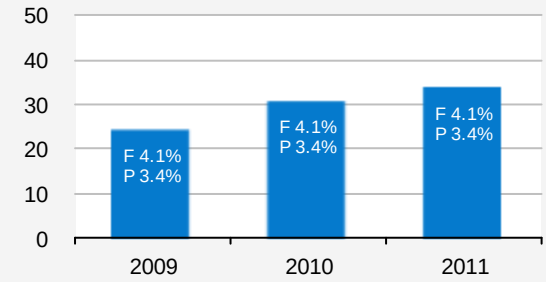
Cow milk deliveries

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

EUR per 100 kg



PROCESSING INDUSTRY

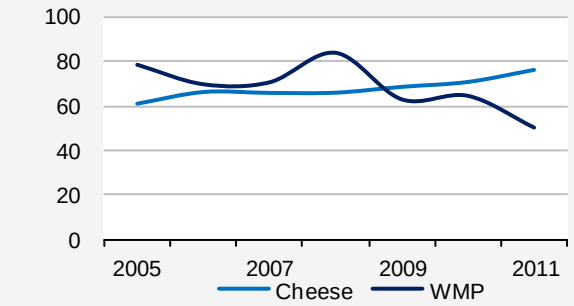
Main processors (A)

• Danone	www.danone.com
• Milcobel	www.milcobel.be
• FrieslandCampina	www.frieslandcampina.com
• Corman	www.corman.be
• Laiterie des Ardennes	-

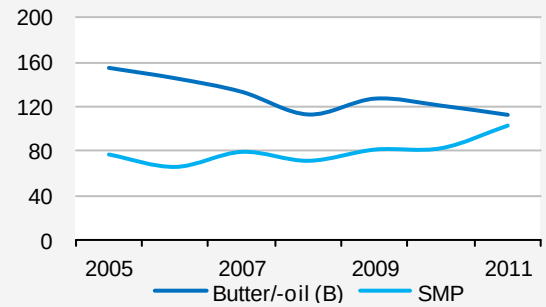
(A) Ranking based on turnover.

Production

1 000 tonnes



1 000 tonnes

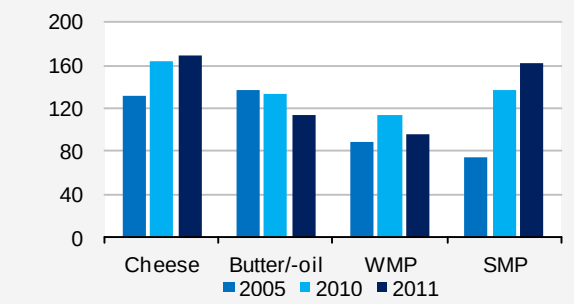


(B) Including reprocessed butter. Years 2007-2011: calculated.

TRADE

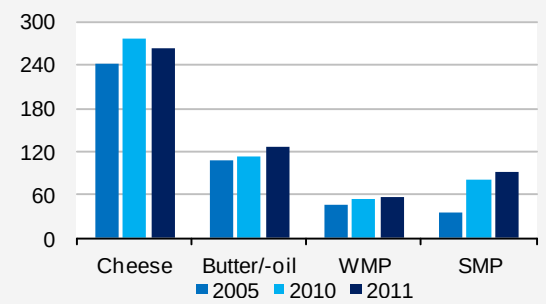
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	639	98	755	111	864	104
• Fermented products	295	95	153	110	289	96
• Cream	151	102	114	92	84	118
• Butter and butteroil (C)	113	93	127	112	115	86
• Cheese	76	108	264	95	169	103
• Whole milk powder	50	78	56	106	96	85
• Skim milk powder	104	125	91	113	162	118

(C) Production of butter and butteroil, including reprocessed butter (years 2010 and 2011: calculated).

CONSUMPTION

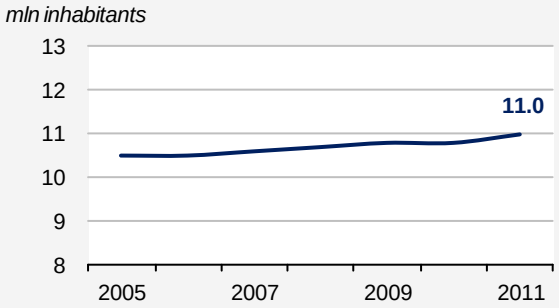
Consumption (x 1 000 tonnes)

• Milk	568
• Butter	26
• Cheese	168

Consumption (kg per capita)

• Milk	51.6
• Butter	2.4
• Cheese	15.3

Population



KEY DEVELOPMENTS

Between December 2010 and December 2011, 4.1% of Belgian milk producers stopped their activity. At the same time, the volume of milk deliveries increased by about 1.4% (+/- 45 million litres). As a result, the average volume of milk produced per farmer reached 356 000 litres/year in 2011. This represents a growth of 5.7% versus 2010. Over the last three years, the average deliveries per producer increased by about 25%.

In 2011, the milk price paid to producers was 34.55 EUR/100 litres (fat content: 41.82 g/litre and protein content: 34.81 g/litre). This is 10% above the level of 2010 and the second highest milk price since 2000.

Overall consumption of dairy products is going down. Only chocolate milk, cream and butter are not concerned by a decrease in consumption.

The Belgian dairy industry is most influenced by European legislation. For the Regulation on nutrition and health claims, nutrient profiles are still not clear. This is a topic of great concern for the dairy industry. Another important topic is the new Regulation on Food Information to Consumers which was published at the end of 2011. This should harmonise the food labelling requirements throughout the EU, yet for the implementation of this regulation, a lot points are still unclear. Moreover, the impact assessments on the origin labelling and the labelling of trans fatty acids to be provided by the EU Commission in relation to the new Food Information to Consumers Regulation are of great importance for the dairy industry. Salt reduction remains an important health topic in Belgium. The salt reduction plan, launched by the Belgian government, targeted a reduction in the use of salt with the goal of -10% in 2012. Therefore the food industry established salt reduction targets on a voluntary basis. For Belgian branded cheeses, the salt level will be reduced by on average 8.22%.

Source: National Committee of the IDF, Belgische Confederatie van de Zuivelindustrie (www.bcz-cbl.be), Eurostat, national statistics, PRB.

EU 27

CYPRUS

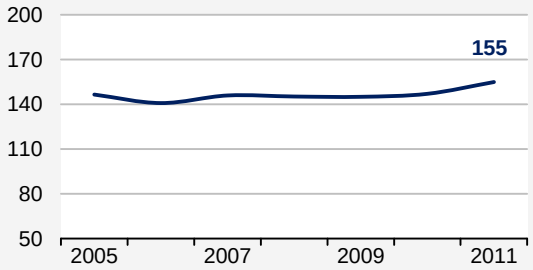
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	161	• Number of dairy cows (x 1 000 head)	24
% of worldwide milk production	0.0%	• Number of dairy farms	219
• % cow milk deliveries	96%		

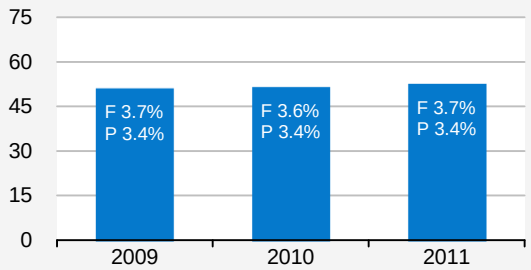
Cow milk deliveries

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

EUR per 100 kg



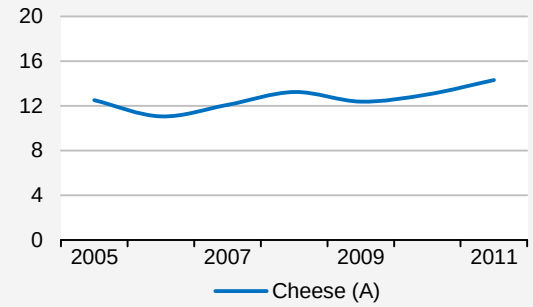
PROCESSING INDUSTRY

Main processors

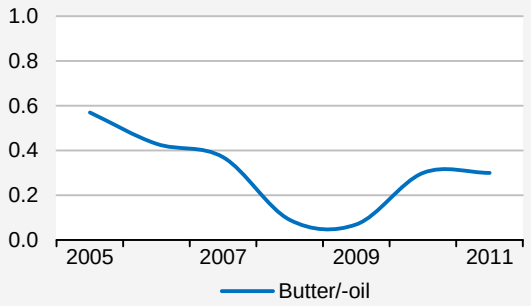
• Vivartia Cyprus	www.vivartiacyprus.com.cy
• Lanitis Bros	en.coca-colahellenic.com.cy
• Pittas Dairy Industries	www.pittas.com
• Petrou Bros Dairy Products	www.petroubros.com.cy
• K.G. Souroullas & Sons	-

Production

1 000 tonnes



1 000 tonnes

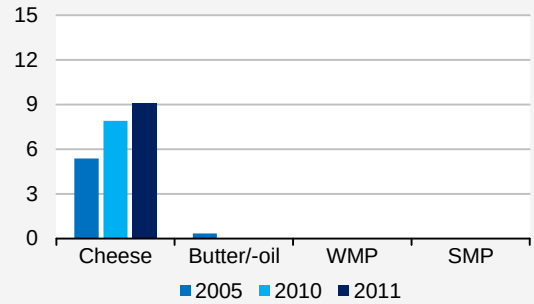


(A) All kinds of milk.

TRADE

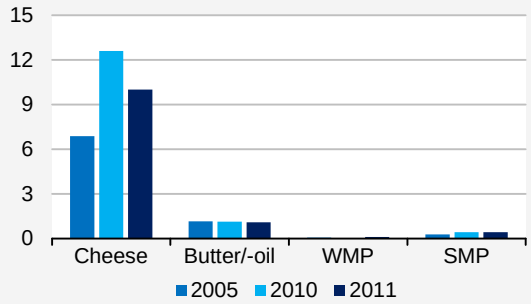
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	80	99	3	125	0	-
• Fermented products	9	99	2	130	0	0
• Cream	11	99	2	506	0	0
• Butter and butteroil	0	100	1	96	0	0
• Cheese	14	110	10	79	9	115
• Whole milk powder	0	-	0	-	0	-
• Skim milk powder	0	-	0	97	0	-

CONSUMPTION

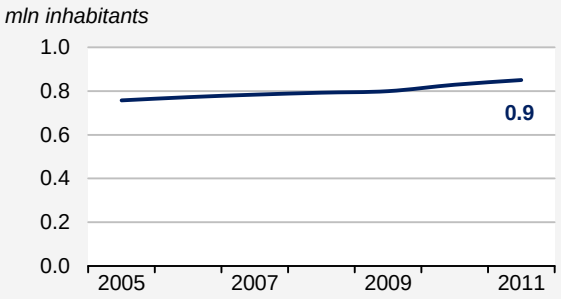
Consumption (x 1 000 tonnes)

• Milk	82
• Butter	1
• Cheese	15

Consumption (kg per capita)

• Milk	96.8
• Butter	1.6
• Cheese	17.9

Population



KEY DEVELOPMENTS

Production of cow's milk has shown a steady increase during 2011 in comparison to a significant rise in the production of sheep and goat's milk.
The production of liquid milk, yogurts and cream for consumption has declined slightly in 2011 in contrast to an increase of about 10% in the production of cheese.

Farm gate and retail prices are following an upward trend in Cyprus compared to other European countries where prices are falling due to the economic crisis.
The economic situation in Europe had its impact in the trade of dairy products and as a result imports of cheese have declined.

Consumption of liquid milk and butter has remained steady in the past year but cheese consumption has declined justifying the decrease in cheese imports.

Source: National Committee of the IDF, Cyprus Milk Industry Organisation (www.cmio.org.cy), Eurostat.

CZECH REPUBLIC

EU 27

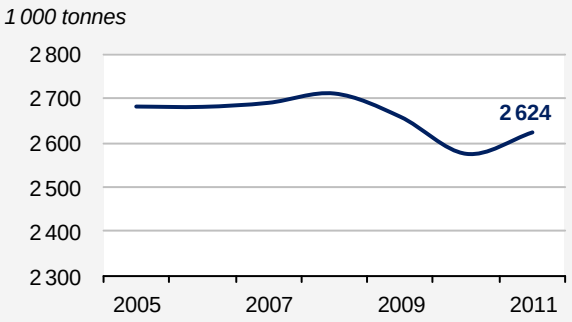
DAIRY FARMING

Key figures

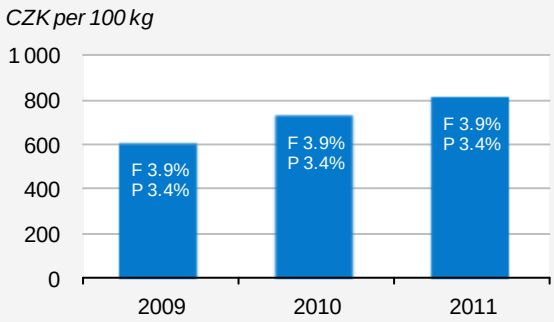
• Cow milk production (x 1 000 tonnes)	2 736	• Number of dairy cows (x 1 000 head)	374
% of worldwide milk production	0.4%	• Number of dairy farms (A)	2 182
• % cow milk deliveries	96%		

(A) Number of delivery quota holders.

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

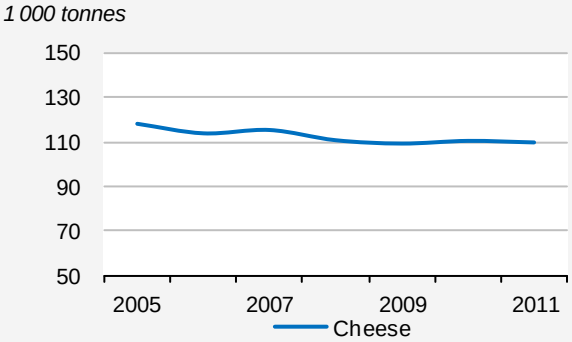


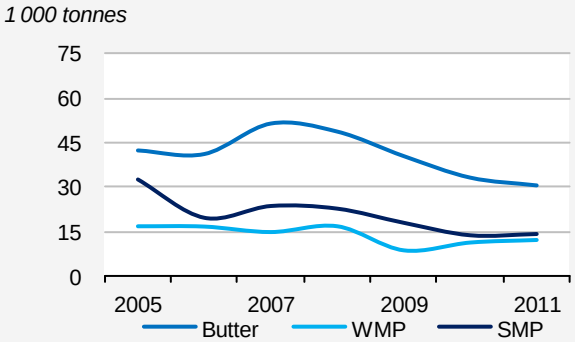
PROCESSING INDUSTRY

Main processors

• Madeta	www.madeta.cz
• Mlékárna Pragolaktos	www.alimpex.cz
• Mlékárna Hlinsko	www.tatramleko.cz
• Olma	www.olma.cz
• Orrero	www.orrero.cz

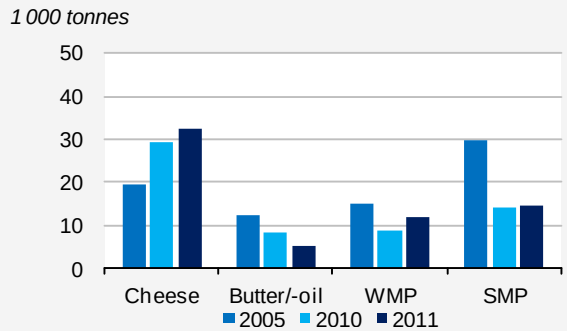
Production



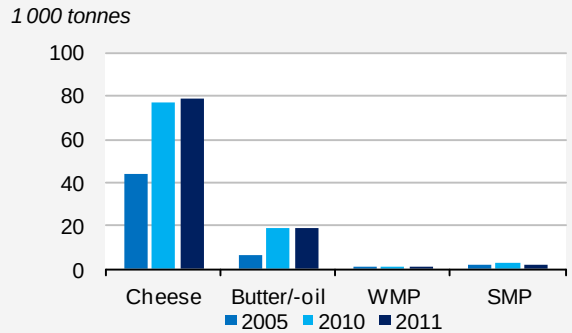


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	644	101	57	99	610	108
• Fermented products	173	96	42	99	70	102
• Cream	47	92	16	110	26	139
• Butter and butteroil (B)	31	92	19	98	5	63
• Cheese	110	99	79	102	33	112
• Whole milk powder	12	107	1	76	12	141
• Skim milk powder	14	103	2	70	15	102

(B) Production of butter only.

CONSUMPTION

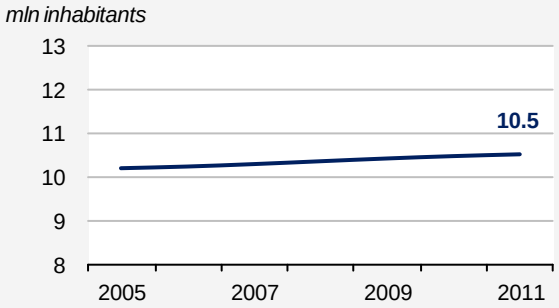
Consumption (x 1 000 tonnes)

• Milk	558
• Butter	52
• Cheese	172

Consumption (kg per capita)

• Milk	53.0
• Butter	4.9
• Cheese	16.3

Population



KEY DEVELOPMENTS

The situation stabilized in 2011 especially in the primary production of milk. The increasing price of raw milk motivated farmers to increase production, which had the effect of halting the decline in the number of dairy cows. The sector has witnessed further decline in the number of producers and further concentration of primary production, while the number of small farmers with the production of milk intended for direct sale increased slightly.

Milk deliveries for processing in the industry underwent a slight increase; however, the allocated national quota was not used fully, with a margin of -7.3%. A major problem is the transfer of raw milk for processing abroad, which in 2011 represented 17% of national milk production. The reason for this export is the better price and long-term contractual relationship offered by operators, especially in Germany.

The manufacturing recession continued, which was caused mainly by reduced consumer demand (-3.2%), but especially by the fact of high imports of milk products. The share of imported dairy products on domestic consumption is already 40% and is influenced by mode of operation by foreign retail chains on the Czech market.

There was again a reduction in processing capacity. Currently there are 36 dairy companies processing milk in the Czech Republic and the top 10 dairies are processing more than 70% of Czech milk. The largest dairy companies are still purely Czech owned (e.g. Madeta, Olma, Tatramleko), but major global companies (e.g. Lactalis, Müller, Danone, Bongrain, Bel, Brazalle) are also operating on the market. Their share in the processing of milk accounts for more than 45%.

Price development for both raw materials and consumer products and commodities followed the trends on international markets. Prices for butter and cheese have grown significantly and the higher price was reflected in lower demand by consumers.

Source: National Committee of the IDF, Czech & Moravian Dairy Association (www.cmsm.cz), Eurostat, UN.

EU 27

DENMARK

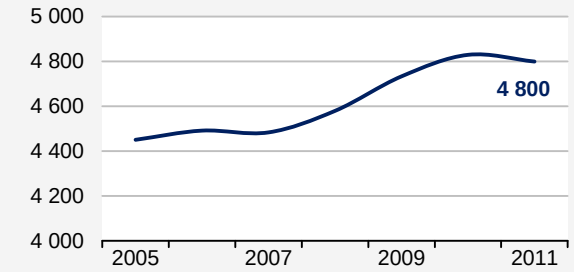
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	4 935	• Number of dairy cows (x 1 000 head)	579
% of worldwide milk production	0.8%	• Number of dairy farms	3 953
• % cow milk deliveries	97%		

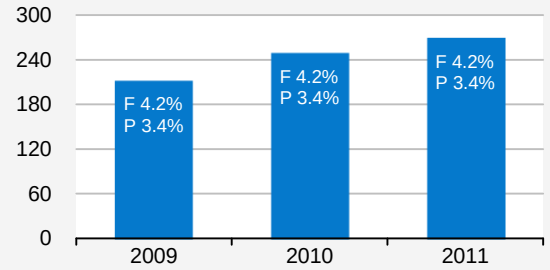
Cow milk deliveries

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

DKK per 100 kg



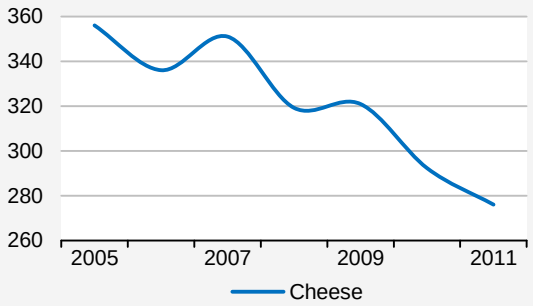
PROCESSING INDUSTRY

Main processors

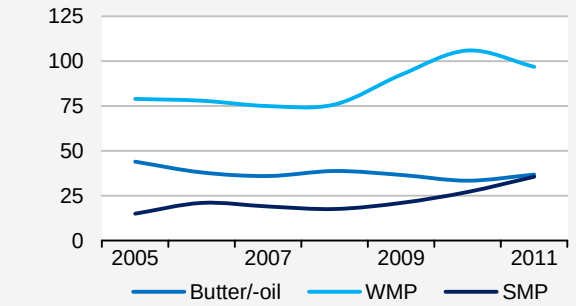
• Arla Foods	www.arlafoods.dk
• Mammen Mejeri	www.mammenost.dk
• Thise Mejeri	www.thise.dk
• Them Andelsmejeri	www.them-andelsmejeri.dk
• Bornholm Andelsmejeri	www.st-clemens.dk

Production

1 000 tonnes



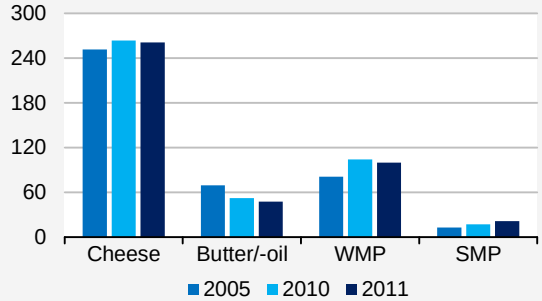
1 000 tonnes



TRADE

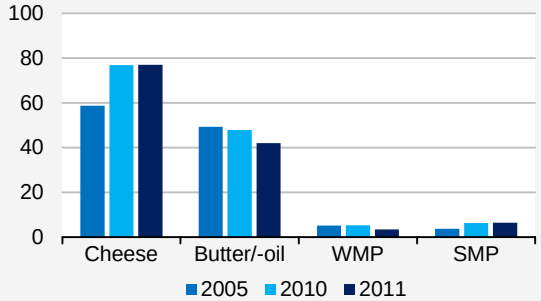
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	471	100	47	103	22	182
• Fermented products	108	103	20	106	24	111
• Cream	56	97	3	90	12	91
• Butter and butteroil	37	110	42	88	48	91
• Cheese	276	94	77	100	261	99
• Whole milk powder	97	91	3	64	100	96
• Skim milk powder	36	131	6	102	21	126

CONSUMPTION

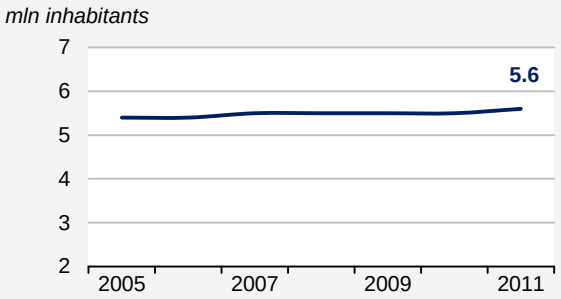
Consumption (x 1 000 tonnes)

• Milk	496
• Butter	10
• Cheese	92

Consumption (kg per capita)

• Milk	88.6
• Butter	1.8
• Cheese	16.4

Population



KEY DEVELOPMENTS

The number of dairy farms has decreased from 3 953 in 2011 to 3 794 in 2012, whereas milk deliveries have increased slightly from 4 830 in 2010/2011 to 4 800 in 2011/2012 (1 000 tonnes). The total milk production of Denmark was 4 935 (1 000 tonnes).

The number of dairy cows has increased slightly from 573 to 579 (1 000 head) between 2010 and 2011.

Co-op dairies account for 96.5% of the milk deliveries, whereas private dairies account for 3.5% of the milk deliveries.

The number of dairy enterprises is 29 with a total of 59 processing plants – no change from 2011 to 2012.

Milk price ex-farm for milk with 4.20% fat and 3.40% protein was 269 (DKK per 100 kg whole milk) in 2011.

The tax on saturated fat came into force on the 1 October 2011. Dairy products, meats and oils will be taxed 16 DKK per kg of saturated fat. The new social-democratic government in Denmark has decided to include a list of products containing added sugar in the current tax on chocolate- and sugar products. As a consequence, added sugar in dairy products such as yoghurts etc. is expected to be included as a tax object.

Source: National Committee of the IDF, Danish Agriculture & Food Council (www.lf.dk), Eurostat, PRB.

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ESTONIA

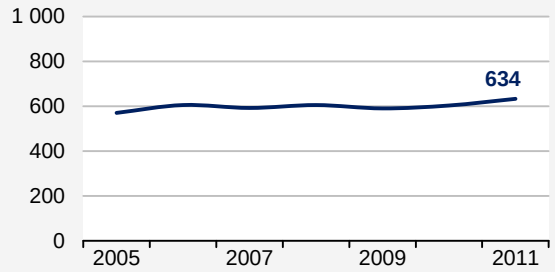
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	695	• Number of dairy cows (x 1 000 head)	96
% of worldwide milk production	0.1%	• Number of dairy farms	919
• % cow milk deliveries	91%		

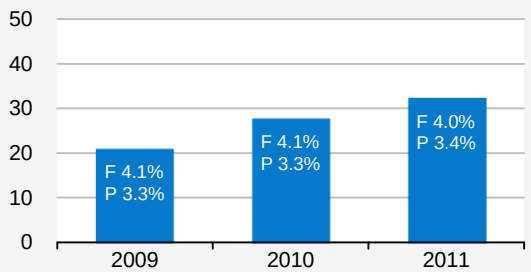
Cow milk deliveries

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

EUR per 100 kg



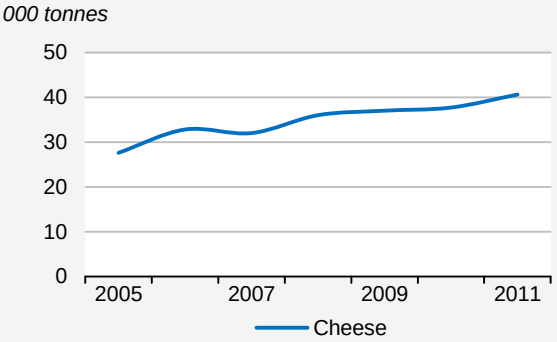
PROCESSING INDUSTRY

Main processors

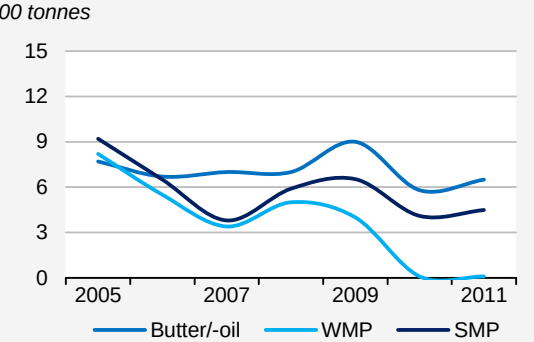
• Valio Eesti	www.valio.ee
• Tere	www.tere.eu
• Coop E-Piim	www.epiim.ee
• Maag Piimatööstus	www.maag.ee
• Saaremaa Piimatööstus	www.saarejuust.ee

Production

1 000 tonnes



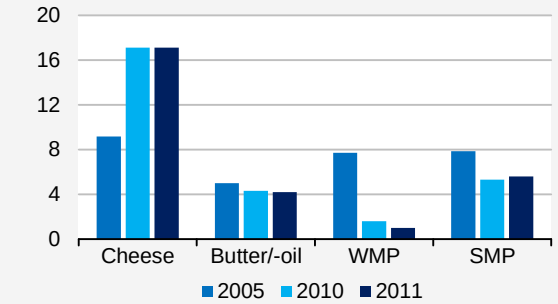
1 000 tonnes



TRADE

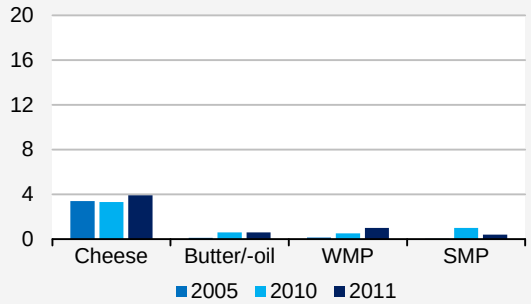
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	89	95	23	271	109	127
• Fermented products	42	99	5	107	14	159
• Cream	28	83	3	106	4	91
• Butter and butteroil	7	112	1	100	4	98
• Cheese	41	108	4	118	17	100
• Whole milk powder	0	-	1	200	1	63
• Skim milk powder	4	110	0	40	6	106

CONSUMPTION

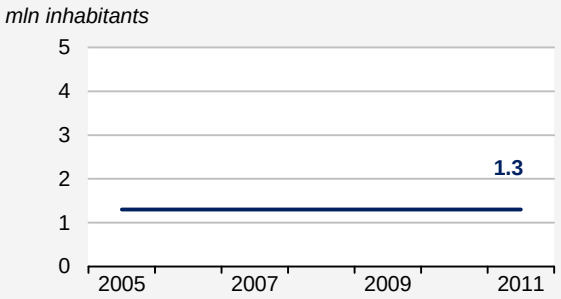
Consumption (x 1 000 tonnes)

• Milk (A)	173
• Butter	6
• Cheese	26

Consumption (kg per capita)

• Milk (A)	132.8
• Butter	4.3
• Cheese	19.6

Population



(A) Including milk drinks and fermented products.

KEY DEVELOPMENTS

The Estonian economy was growing faster than expected during the first three quarters of 2011. Now the growth impetus is waning and uncertainties in the external environment are on the rise. Further developments in Estonia as well as in Europe depend on how problems in several euro-area sovereign bond markets are solved. Therefore, Eesti Pank forecasts that Estonian economic growth will decelerate sharply in 2012. The Estonian labour market had come up with several positive surprises in year 2011. Employment has increased and unemployment has dropped. In 2011 the robust economic growth had been accompanied by a faster-than-expected inflation rate. This was caused by a rapid hike in the price of energy and food commodities in the global market. In Estonia consumer prices have increased a total of 5.5% a year, but food prices rose even more rapidly: 10.8%. Food and motor fuel are the two most important factors pushing inflation.

In year 2011 30.4% of raw milk was produced in large herds (more than 600 cows). Compared to the previous year, milk production in these herds increased by 8.5%. The price of raw milk has increased by 16%.

The share of milk processing in GDP was 2.1% and it remains stable. According to the Estonian Statistical Office 40% of milk products produced in Estonia were exported. The share of milk processing in total food industry output was 33%. The balance of foreign trade was positive; export was 3.4 times higher than import.

Source: Estonian Dairy Association, Statistics Estonia, Comtrade, Bank of Estonia, PRB.

FINLAND

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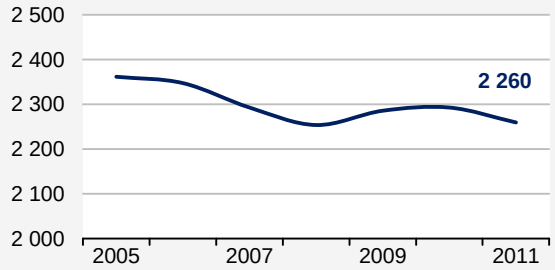
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	2 306	• Number of dairy cows (x 1 000 head)	284
% of worldwide milk production	0.4%	• Number of dairy farms	9 938
• % cow milk deliveries	98%		

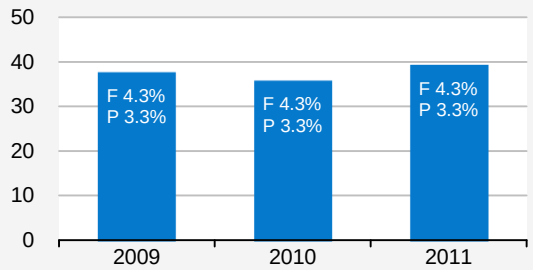
Cow milk deliveries

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

EUR per 100 kg



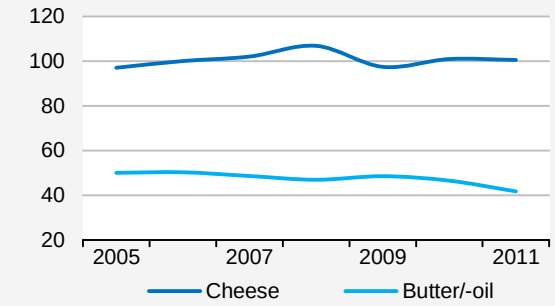
PROCESSING INDUSTRY

Main processors

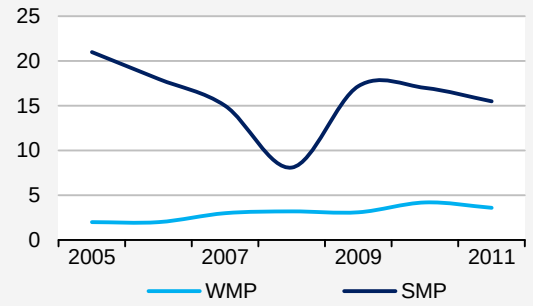
• Valio	www.valio.fi
• Arla Ingman	www.arlaingman.fi
• Cooperative Satamaito	www.satamaito.fi
• Cooperative Maitokolmio	www.maitokolmio.fi
• Juustoportti Food	www.juustoportti.fi

Production

1 000 tonnes



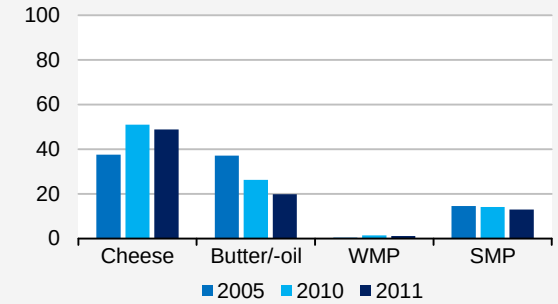
1 000 tonnes



TRADE

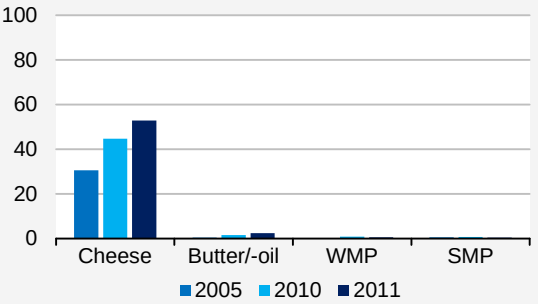
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	726	99	58	107	11	148
• Fermented products	207	102	37	100	31	108
• Cream	38	108	0	-	0	-
• Butter and butteroil	42	90	2	160	20	76
• Cheese	101	100	53	118	49	96
• Whole milk powder	4	86	1	63	1	79
• Skim milk powder	16	91	0	57	13	92

CONSUMPTION

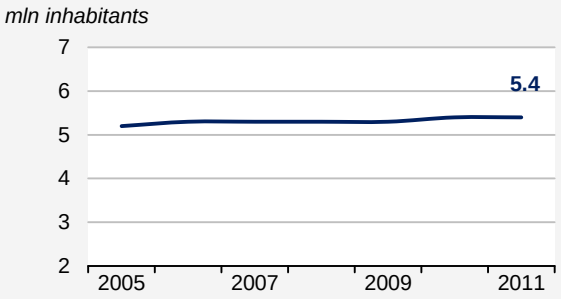
Consumption (x 1 000 tonnes)

• Milk	708
• Butter	22
• Cheese	121

Consumption (kg per capita)

• Milk	131.1
• Butter	4.1
• Cheese	22.5

Population



KEY DEVELOPMENTS

Milk production fell by 1.5% after two years of slight growth. For the first time the number of dairy farms fell below 10 000 as 650 farmers stopped milk production. The number of cows continued to decrease and last year the average yield per cow decreased slightly due to seasonal conditions. Meanwhile the average number of cows / farm grew by 5% being on average 28. The national quota was fulfilled to 89%. Imports of cheese increased substantially.

The consumption of milk products containing more fat continued to rise. Butter consumption increased most, by roughly 20% followed by fat spreads and cream. Cheese consumption continued to increase whereas drinking milk consumption decreased.

On average year 2011 producer price for class I milk (containing 4.3% fat and 3.3% protein) was 0.37 EUR/l. This is 11% higher than a year before. Consumer prices for milk products increased less (3.6%) than prices for all food products (5.5%).

Source: National Committee of the IDF, Finnish Food and Drinks Industries´ Federation (www.etl.fi), Valio Ltd, Eurostat, PRB.

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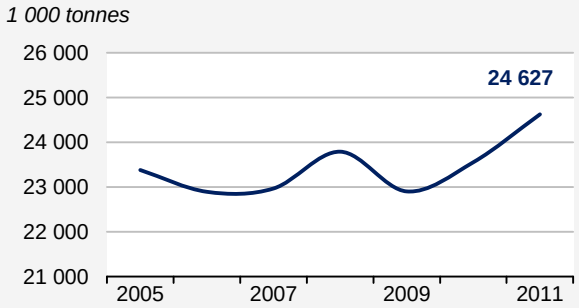
FRANCE

DAIRY FARMING

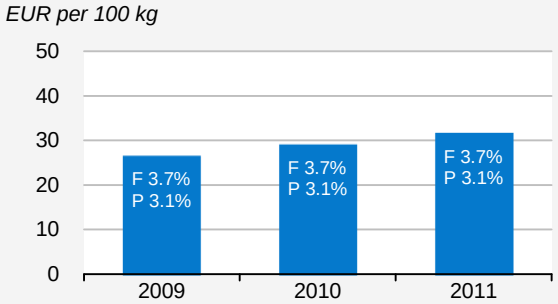
Key figures

• Cow milk production (x 1 000 tonnes)	25 116	• Number of dairy cows (x 1 000 head)	3 686
% of worldwide milk production	4.0%	• Number of dairy farms	72 732
• % cow milk deliveries	98%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)



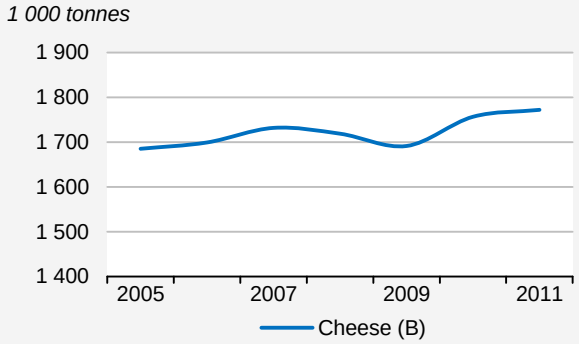
PROCESSING INDUSTRY

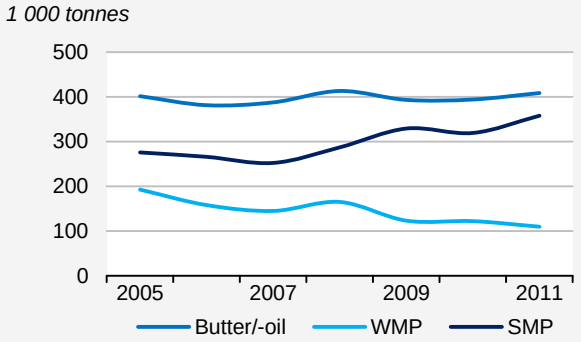
Main processors (A)

• Groupe Lactalis	www.lactalis.fr
• Danone	www.danone.com
• Sodiaal	www.sodiaal.fr
• Bongrain	www.bongrain.com
• Fromageries Bel	www.groupe-bel.com

(A) Ranking based on dairy turnover.

Production

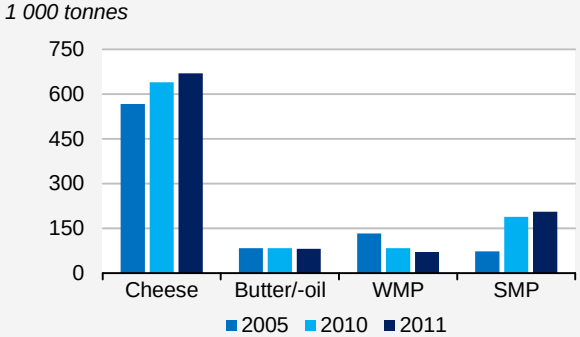




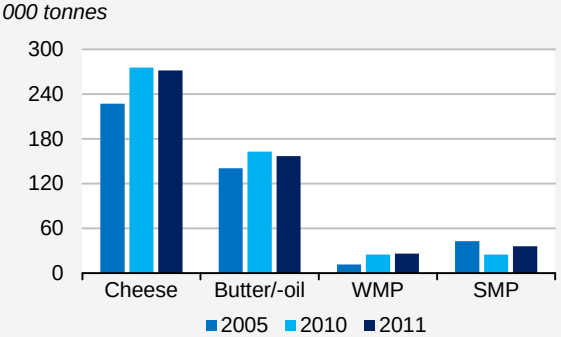
(B) Cow's milk cheese.

TRADE

Export



Import



PROCESSING AND TRADE

Summary

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	3 590	98	409	107	899	106
• Fermented products	1 668	101	108	99	464	103
• Cream	364	106	164	83	354	148
• Butter and butteroil	409	104	157	96	82	97
• Cheese (C)	1 772	101	272	99	669	105
• Whole milk powder	110	90	26	104	71	85
• Skim milk powder	358	112	36	144	206	109

(C) Production: not including goat's milk cheese (99 970 tonnes) and sheep's milk cheese (57 564 tonnes).

CONSUMPTION

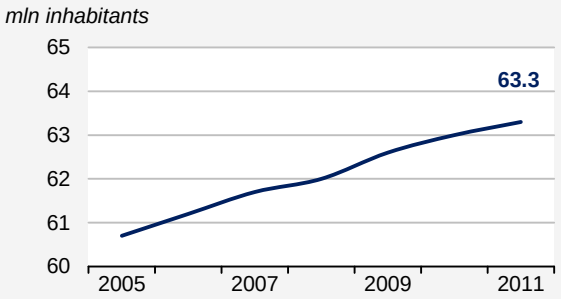
Consumption (x 1 000 tonnes)

• Milk	3 626
• Butter	477
• Cheese	1 665

Consumption (kg per capita)

• Milk	57.3
• Butter	7.5
• Cheese	26.3

Population



KEY DEVELOPMENTS

For the third year in a row in 2011, French milk deliveries continued to increase, this time by +5%. They reached a record high of over 24 billion tonnes. However France still did not fulfill its quota during the 2011-2012 dairy year and the quota underuse was estimated at around -3%. Increased production of milk resulted in slightly stronger output of dairy products over 2011, especially of butter and skimmed milk powder. In terms of milk prices, the average price paid to farmers grew from 29.17 EUR/100kg in 2010 to 31.71 EUR/100kg in 2011. However, costs of production also reached a record high, making milk production particularly expensive this year.

On average in 2011, retail sales were on a positive trend in total value. The growth was driven by retail prices more than by volumes, for which the picture was mixed: stable sales volumes for yoghurts and desserts, development for cream and cheese, decrease for liquid milk and butter.

In order to prepare the end of the quota system and the future of the dairy sector in general, the European Commission's "Milk Package" proposal was discussed throughout 2011, before being definitely adopted in the spring of 2012. The Package encourages contracts between farmers and processors, interbranch organisations, producers' organisations, and market transparency, within the European Union. In France, by April 2011, written contracts were presented by processors to farmers for negotiation, as per the implementing legislation of the law for the modernisation of agriculture dated 30th December 2010.

As far as industrial structural changes were concerned, French dairy processor Lactalis acquired a major position in Italian giant Parmalat, thus becoming the first dairy group in the world. Dairy cooperative Agrial (a few months after merging with Elle-&-Vire) and fresh dairy products processor Senoble created a joint-venture called Senagral. Also, American group General Mills, already owner of Yoplait brand in the USA, acquired 50% of the brand in France.

Source: National Committee of the IDF, CNIEL (www.cniel.com), Eurostat, PRB.

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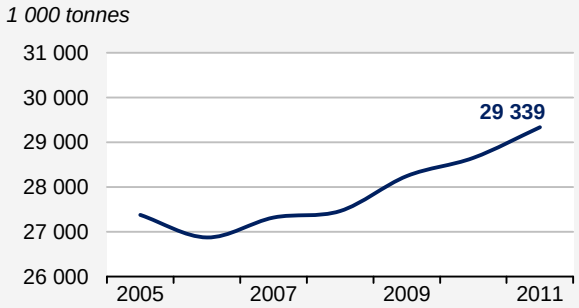
GERMANY

DAIRY FARMING

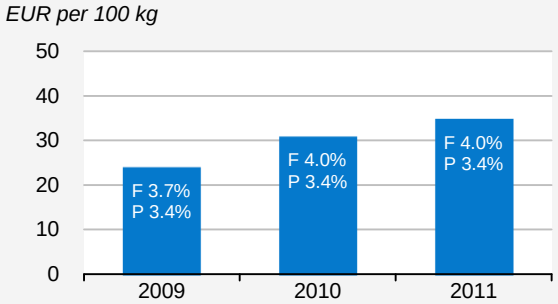
Key figures

• Cow milk production (x 1 000 tonnes)	30 340	• Number of dairy cows (x 1 000 head)	4 190
% of worldwide milk production	4.9%	• Number of dairy farms	87 162
• % cow milk deliveries	97%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

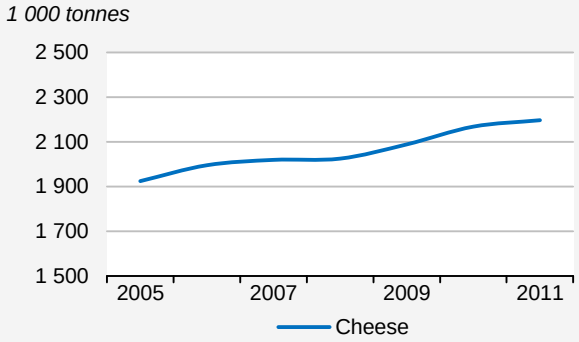


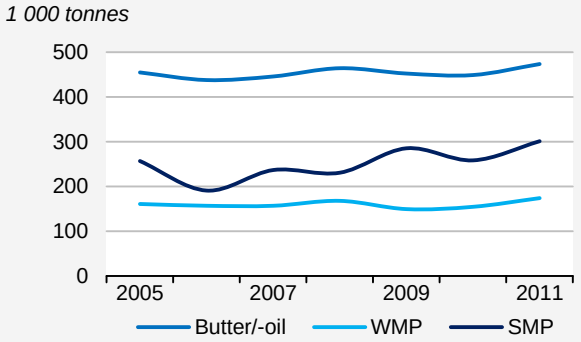
PROCESSING INDUSTRY

Main processors

• DMK	www.dmk.de
• Hochwald	www.hochwald.de
• Müller Gruppe	www.muellermilch.de
• MUH	www.muh.de
• Molkerei Ammerland	www.molkerei-ammerland.de

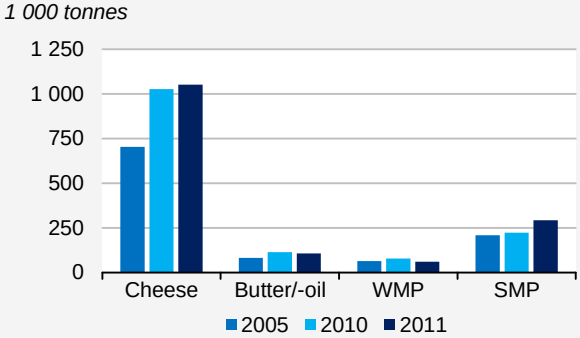
Production



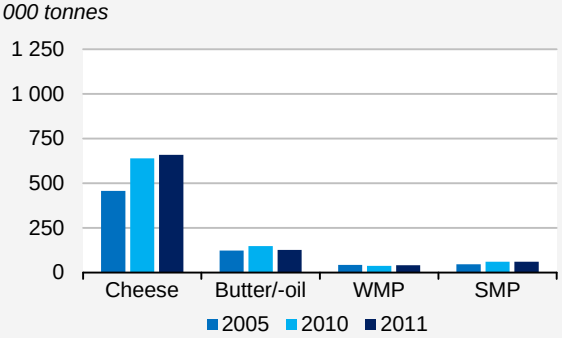


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk (A)	5 238	99	1 751	108	2 425	98
• Fermented products	1 912	101	147	82	532	92
• Cream	547	98	10	142	94	94
• Butter and butteroil	474	105	126	86	107	94
• Cheese	2 196	101	658	103	1 052	103
• Whole milk powder	174	113	42	111	61	77
• Skim milk powder	301	117	61	102	292	131

(A) Production of containers <2 litres only.

CONSUMPTION

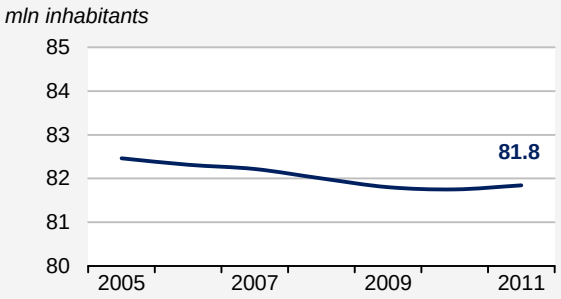
Consumption (x 1 000 tonnes)

• Milk	4 379
• Butter	482
• Cheese	1 878

Consumption (kg per capita)

• Milk	53.5
• Butter	5.9
• Cheese	22.9

Population



KEY DEVELOPMENTS

The macro-economic situation in Germany was favourable in 2011. The GDP-growth of 3.0% stimulated private consumption, which grew by 1.4%, following an increase of 0.6% in 2010. The unemployment-rate decreased to 7.1%. The German population stabilized for the first time after eight years of decrease.

2011 was a record year for the German dairy industry. Milk deliveries reached the highest level ever at 29.8 mln tonnes. The average milk producer price, at 34.83 EUR/100 kg, exceeded the record of 2008. For the first time the turn-over of selling milk to dairies was more than 10 bln EUR.

The number of dairy cows increased only marginally to 4.19 mln cows. The main production gains are the result of increasing yields per cow. The structural change in milk production is gaining speed. The number of cow holdings decreased by 4.8% to 87 162. The average cow number per holding reached 48 cows.

The quota year 2011/12 ended with an overshot of quotas of 0.13%, the first exceeding of quotas for 3 years. The cheese production increased only modestly, while more milk was converted into butter and skim milk powder.

Retail prices for dairy products went up in 2011, for butter at most. The household consumption of yoghurt and cheese increased further, while the consumption of liquid milk and butter decreased.

After the nuclear disaster in Fukushima the German government decided phasing out of nuclear power until 2022 and the promotion of renewable energy. This caused increasing costs for electric power. The competition for arable land is increasing because of the growing production of bio-energy.

Source: National Committee of the IDF**,** Zentrale Milchmarkt Berichterstattung (www.milk.de), Eurostat.

GREECE

EU 27

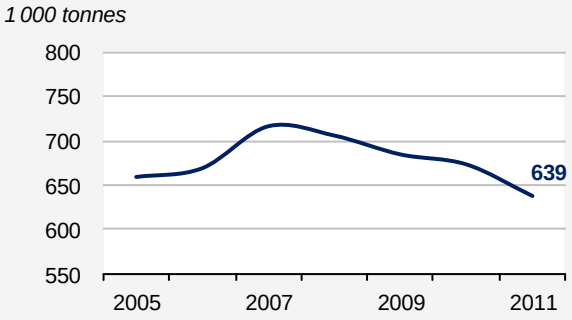
DAIRY FARMING

Key figures

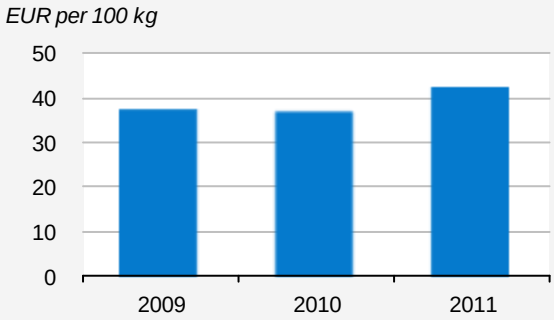
• Cow milk production (x 1 000 tonnes)	744	• Number of dairy cows (x 1 000 head)	130
% of worldwide milk production	0.1%	• Number of dairy farms (A)	4 254
• % cow milk deliveries	86%		

(A) Number of delivery quota holders.

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%) (B)



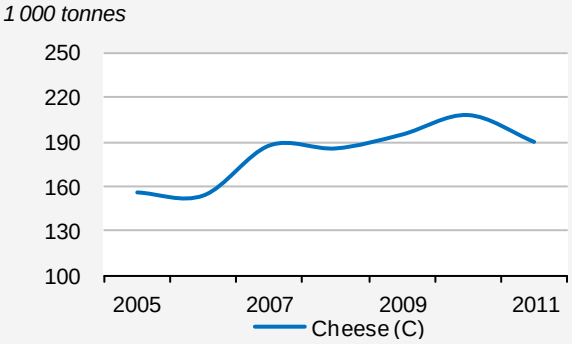
(B) Real fat and protein contents.

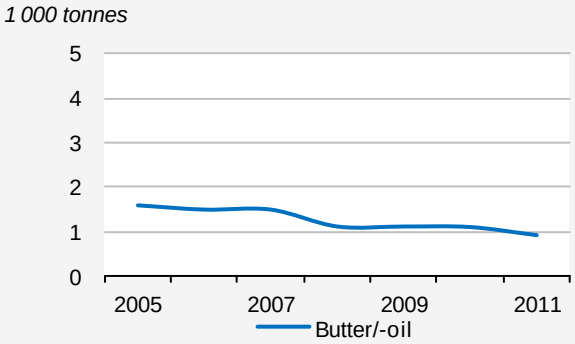
PROCESSING INDUSTRY

Main processors

• Vivartia	www.vivartia.com
• Mevgal	www.mevgal.gr
• Fage	www.fage.gr
• Agno	www.agno.gr
• Kolios	www.kolios.gr

Production

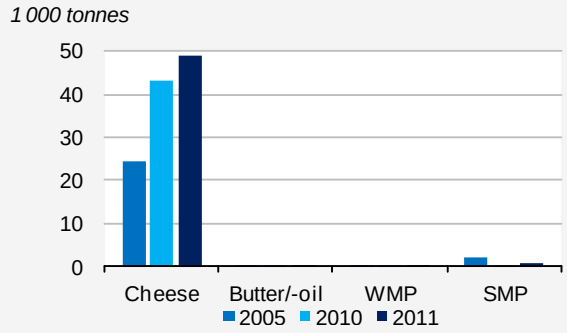




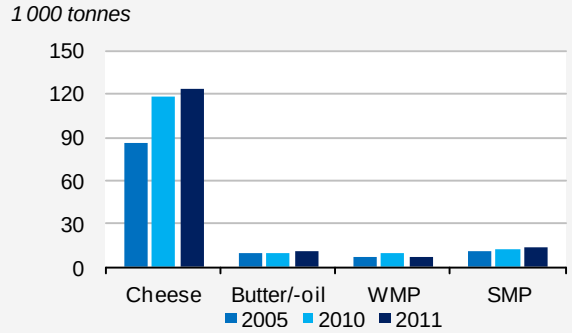
(C) Of all kinds of milk.

TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	467	101	155	93	1	47
• Fermented products	101	99	17	76	26	99
• Cream	12	69	38	121	0	46
• Butter and butteroil	1	83	11	115	0	81
• Cheese (D)	190	91	123	104	49	113
• Whole milk powder	-	-	6	65	0	105
• Skim milk powder	-	-	14	115	1	183

(D) Of all kinds of milk.

CONSUMPTION

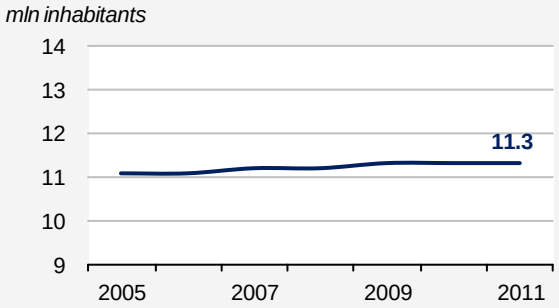
Consumption (x 1 000 tonnes)

• Milk	573
• Butter	8
• Cheese	265

Consumption (kg per capita)

• Milk	50.7
• Butter	1.0
• Cheese	23.4

Population



Source: National Committee of the IDF, Eurostat, PRB.

HUNGARY

EU 27

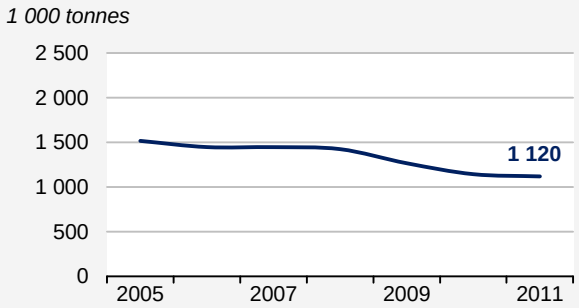
DAIRY FARMING

Key figures

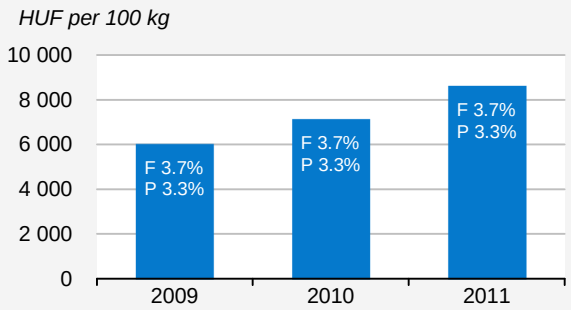
• Cow milk production (x 1 000 tonnes)	1 576	• Number of dairy cows (x 1 000 head)	251
% of worldwide milk production	0.3%	• Number of dairy farms (A)	3 121
• % cow milk deliveries	71%		

(A) Number of delivery quota holders.

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

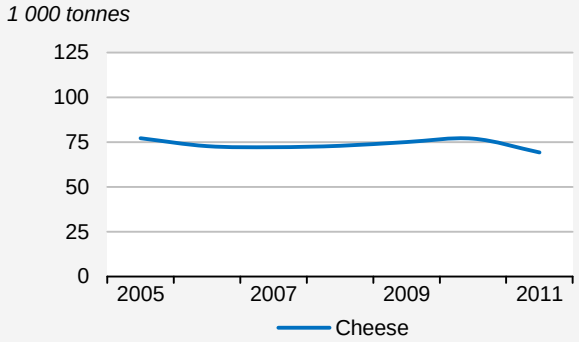


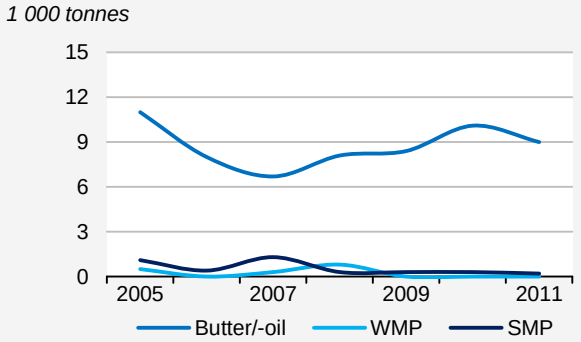
PROCESSING INDUSTRY

Main processors

• Alföldi Tej	www.alfolditej.hu
• Sole-Mizo	www.solemizo.hu
• Tolnatej	www.tolle.hu
• FrieslandCampina	www.frieslandcampina.com
• Köröstej	www.korostej.hu

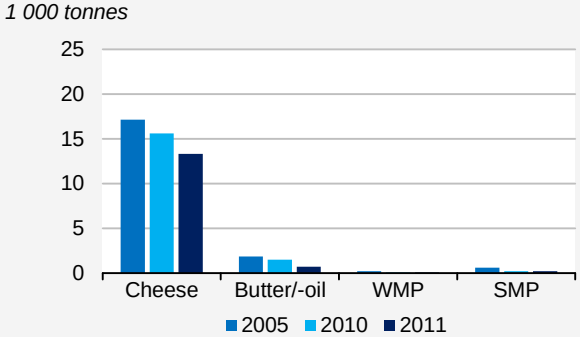
Production



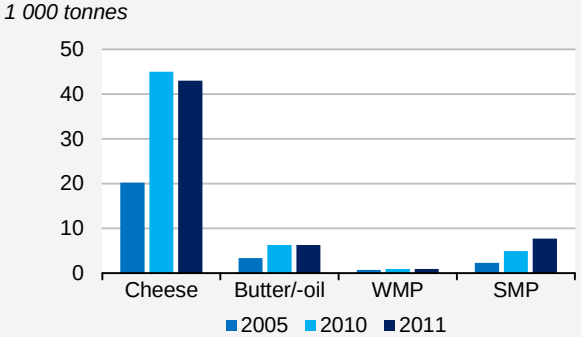


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	367	98	194	105	398	114
• Fermented products	148	92	37	102	11	62
• Cream	5	78	14	87	3	30
• Butter and butteroil	9	89	6	100	1	47
• Cheese	69	90	43	96	13	85
• Whole milk powder	0	-	1	100	0	95
• Skim milk powder	0	67	8	157	0	100

CONSUMPTION

Consumption (x 1 000 tonnes)

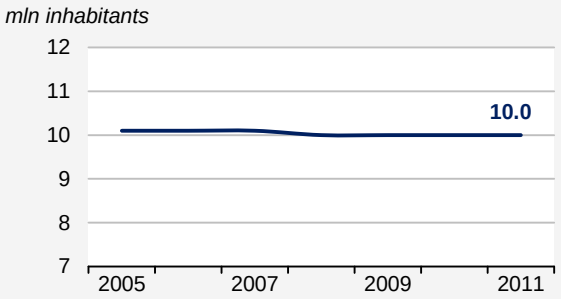
• Milk	486
• Butter (B)	9
• Cheese	110

Consumption (kg per capita)

• Milk	48.6
• Butter (B)	0.9
• Cheese	11.0

(B) Excluding industrial use.

Population



KEY DEVELOPMENTS

Due to the increasing milk prices through the year the number of cows increased.

In the second half the milk production trend changed: after years of continuous reduction, increasing production was detected in the last months. However, the total annual production was again less compared to the previous year. About one quarter of the milk produced was delivered to other EU Member States, most of it in bulk as raw material (full cream and skim milk) to Italy. Import of liquid drinking milk (UHT) increased further.

In line with milk prices the wholesale and retail prices for milk and dairy products also increased, but due to strong competition with cheap imported products, the Hungarian processors could not pass their cost increase on entirely to the consumers.

In order to moderate increase of retail prices, the VAT on milk and dairy products was maintained at the previous level (18%) and not increased as for other products. Still consumption was less than in the previous years.

Source: National Committee of the IDF, Hungarian Dairy Research Institute (www.mtki.hu), Comtrade, Eurostat, PRB.

IRELAND

EU 27

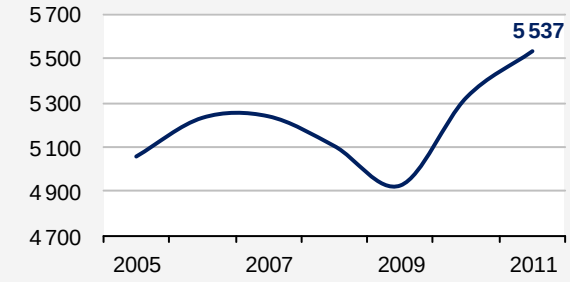
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	5 650	• Number of dairy cows (x 1 000 head)	1 055
% of worldwide milk production	0.9%	• Number of dairy farms	18 300
• % cow milk deliveries	98%		

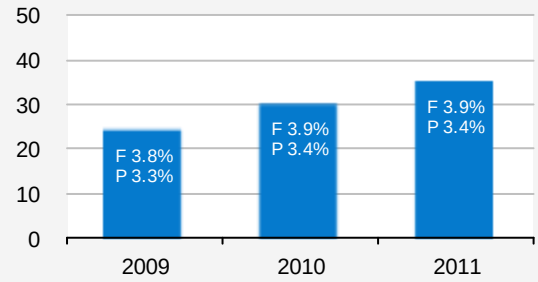
Cow milk deliveries

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

EUR per 100 kg



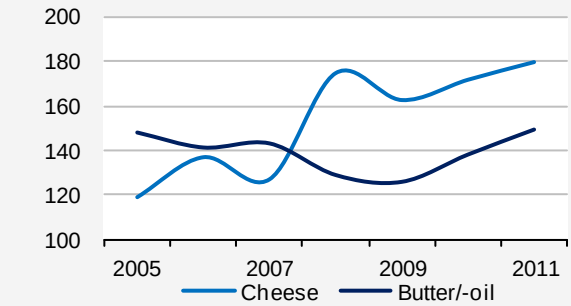
PROCESSING INDUSTRY

Main processors

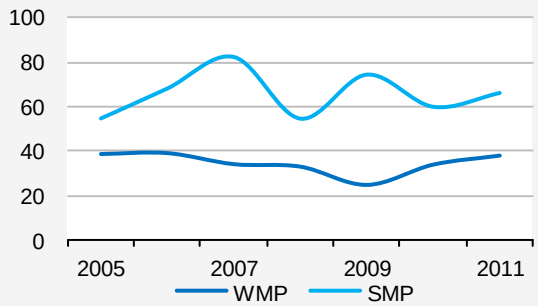
• Glanbia	www.glanbia.com
• Kerry Group	www.kerrygroup.com
• Dairygold	www.dairygold.ie
• Lakeland Dairies	www.lakeland.ie
• Carbery	www.carbery.ie

Production

1 000 tonnes



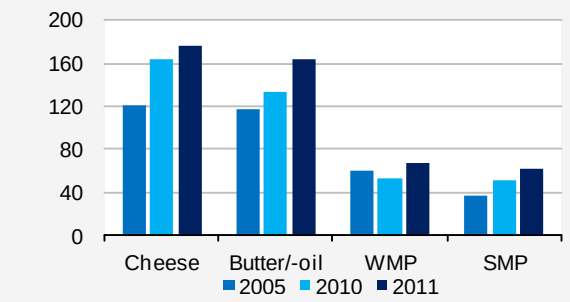
1 000 tonnes



TRADE

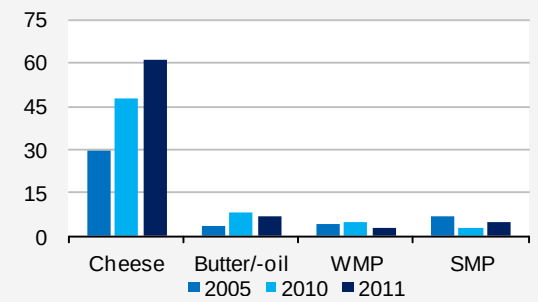
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	509	100	297	117	184	118
• Fermented products	-	-	56	118	20	102
• Cream	21	100	6	100	3	100
• Butter and butteroil	149	108	7	83	164	122
• Cheese	180	105	61	127	176	108
• Whole milk powder	38	112	3	60	67	126
• Skim milk powder	67	110	5	192	61	118

CONSUMPTION

Consumption (x 1 000 tonnes)

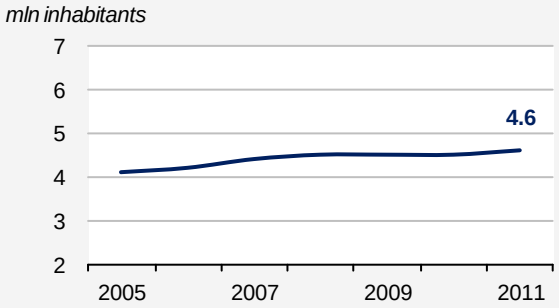
• Milk (A)	644
• Butter (B)	11
• Cheese	31

Consumption (kg per capita)

• Milk (A)	139.9
• Butter (B)	2.4
• Cheese	6.7

(A) Including buttermilk. (B) Excluding industrial use.

Population



KEY DEVELOPMENTS

Ireland exceeded its EU milk quota by 0.7% during the 2011/12 quota season and is expected to fill its total quota annually for the next three years prior to the abolition of the EU quota system in April 2015. Ireland's milk output in 2012 is expected to rise modestly in line with quota. Domestic demand for dairy products has remained broadly stable, despite a large decline in general economic activity.

Farm-gate milk prices in 2012 are forecast to decline from the 2011 highs of approximately 0.34 EUR/l, with some further price reductions anticipated in the short term. Prices for dairy products have fallen in line with declines in European markets.

Ireland exported record levels of dairy products in 2011, with total exports up 32% in value and 11% in volume on 2010. Key increases were recorded in butter and powder exports, both up some 22% in volume terms, while cheese export volumes were stable.

The dairy industry is seeking an exemption for dairy products, and in particular cheese, from a proposed new Children's Commercial Communications Code. The Code, by the Broadcasting Authority of Ireland (BAI), would classify cheese as "less healthy" and ban broadcast advertising of cheese to children under 18 years of age. The BAI is consulting with a large number of stakeholders. A final decision is awaited.

Source: National Committee of the IDF, Irish Dairy Board (www.idb.ie), Eurostat, PRB.

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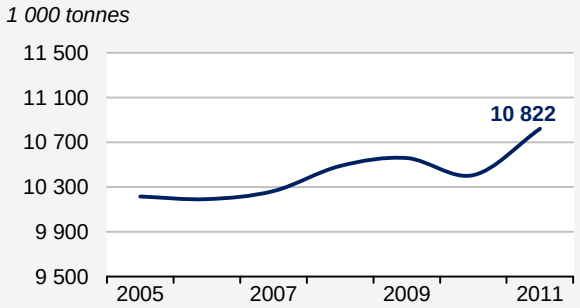
ITALY

DAIRY FARMING

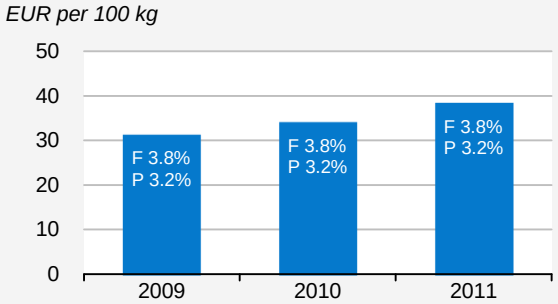
Key figures

• Cow milk production (x 1 000 tonnes)	11 093	• Number of dairy cows (x 1 000 head)	1 755
% of worldwide milk production	1.8%	• Number of dairy farms	35 580
• % cow milk deliveries	98%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

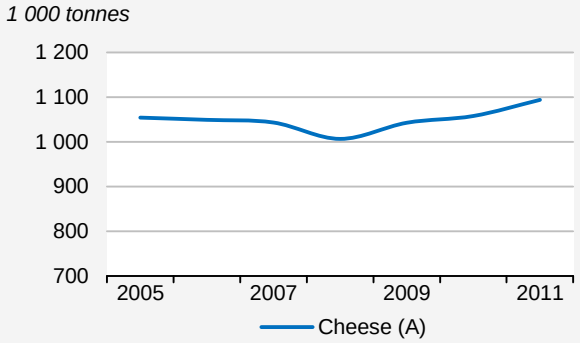


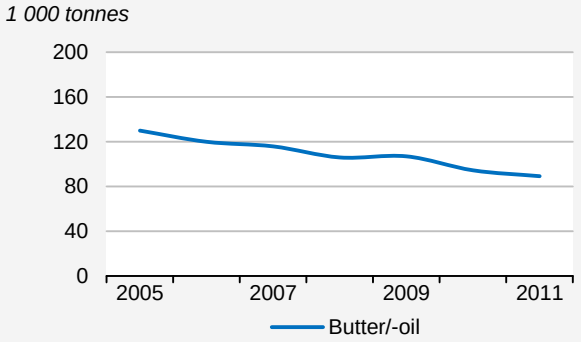
PROCESSING INDUSTRY

Main processors

• Lactalis/Galbani	www.galbani.com
• Parmalat	www.parmalat.com
• Granarolo	www.granarolo.it
• Cooperlat	www.cooperlat.it
• Zanetti spa	www.zanetti-spa.it

Production

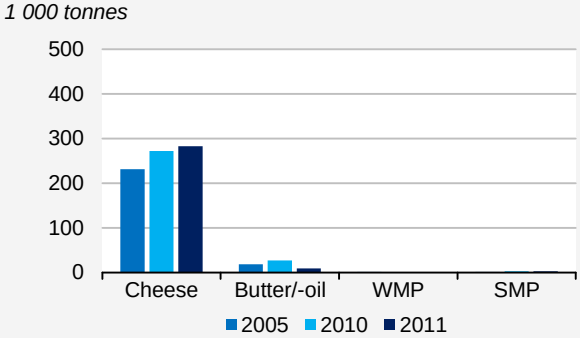




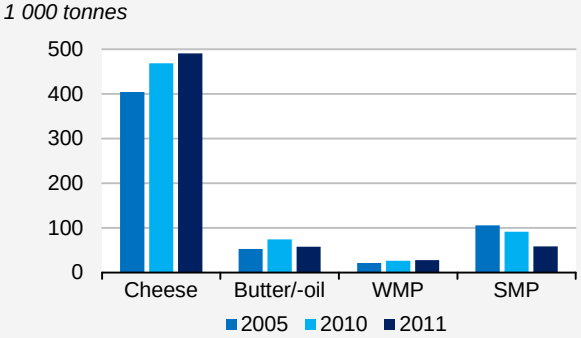
(A) Cow's milk cheese.

TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	2 808	97	2 538	108	12	75
• Fermented products	230	100	200	96	5	82
• Cream	126	101	112	95	14	224
• Butter and butteroil	89	94	58	78	9	35
• Cheese	1 094	103	490	105	283	104
• Whole milk powder	0	-	28	106	1	88
• Skim milk powder	0	-	58	64	3	100

CONSUMPTION

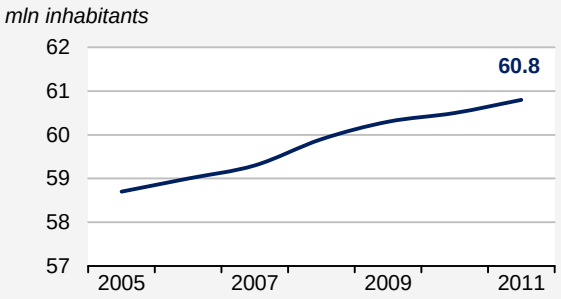
Consumption (x 1 000 tonnes)

• Milk	3 398
• Butter	138
• Cheese	1 327

Consumption (kg per capita)

• Milk	55.9
• Butter	2.3
• Cheese	21.8

Population



KEY DEVELOPMENTS

There were clear signals of difficulties on the domestic market, pressure on prices of dairy products (decreasing) and increase of consumption of private label products.

ISTAT data on industrial production: for the whole year 2011 industrial production for the dairy sector showed +0.1% compared with the previous year (for the food industry as a whole it was -1.4% for the same period of reference). Data for 2011 indicate a tendency to -0.1% in food products sales.

There is an ongoing restructuring process of Italian companies, with merger and acquisition activities on the Italian market. On 8 July 2011 French dairy company Groupe Lactalis confirmed the acquisition of 83.3% of Parmalat SpA's stock capital on the conclusion of a 3.4 bln EUR takeover bid.

Source: National Committee of the IDF, Assolatte, LatteArborea (www.lattearborea.com), Istat, PRB.

LATVIA

EU 27

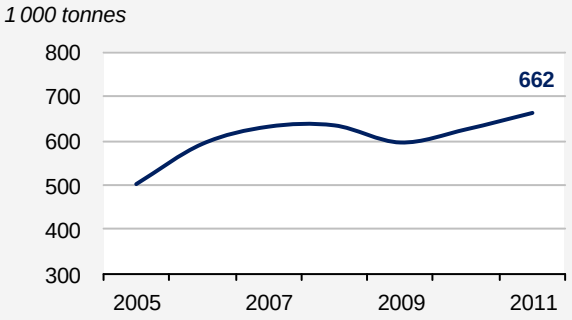
DAIRY FARMING

Key figures

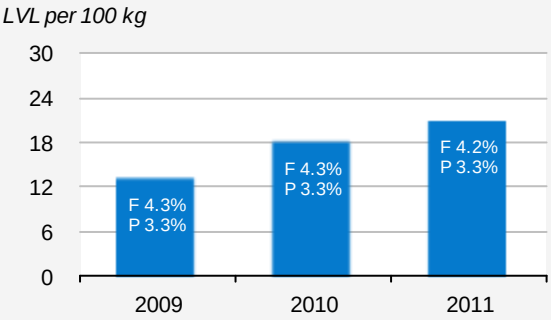
• Cow milk production (x 1 000 tonnes)	842	• Number of dairy cows (x 1 000 head)	164
% of worldwide milk production	0.1%	• Number of dairy farms (A)	10 832
• % cow milk deliveries	79%		

(A) Number of delivery quota holders.

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

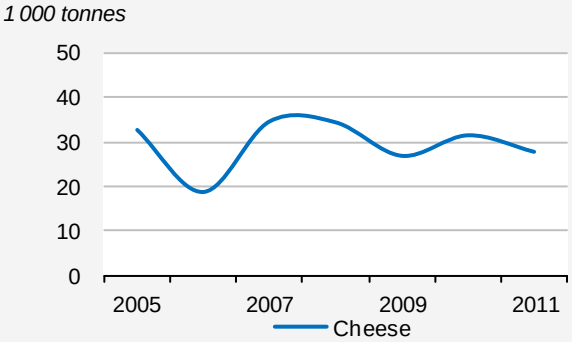


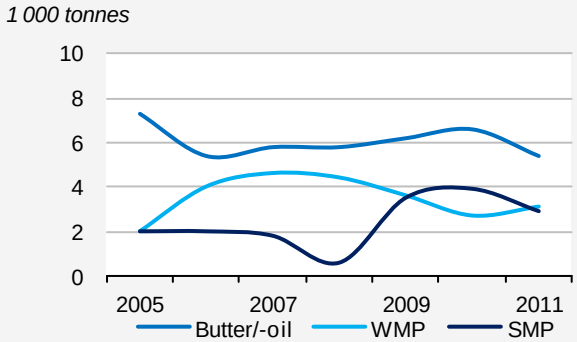
PROCESSING INDUSTRY

Main processors

• Rigas piena kombinats	www.rpk.lv
• Valmieras piens	www.valmieraspiens.lv
• Preilu siers	www.preilusiers.lv
• Tukuma piens	www.baltais.lv
• Rigas piensaimnieks	www.karums.lv

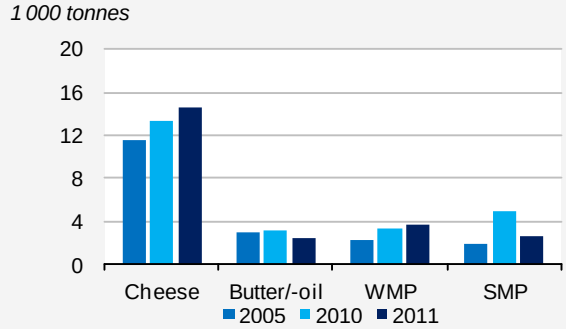
Production



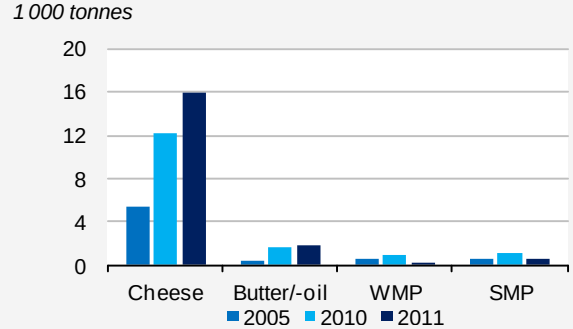


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	65	88	27	71	215	128
• Fermented products	39	93	12	90	5	54
• Cream	26	82	4	>1 000	5	589
• Butter and butteroil	5	82	2	112	3	78
• Cheese	28	88	16	131	15	110
• Whole milk powder	3	115	0	33	4	109
• Skim milk powder	3	74	1	45	3	53

CONSUMPTION

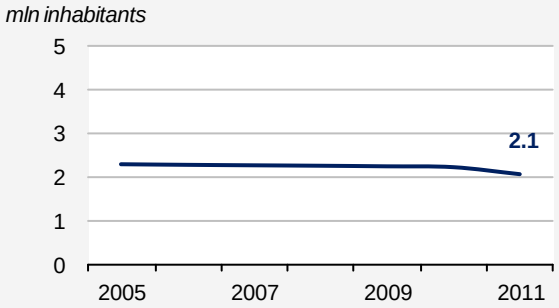
Consumption (x 1 000 tonnes)

• Milk	185
• Butter	5
• Cheese	30

Consumption (kg per capita)

• Milk	83.0
• Butter	2.4
• Cheese	13.5

Population



KEY DEVELOPMENTS

In 2011, 841 700 tonnes of cow milk were produced, which is 1.3% more than in 2010. Production of goat milk in Latvia is insignificant (3 000 tonnes per year). Structural changes in the sector are on-going – number of small farms (1-9 cows) is decreasing and number of medium and big farms (more than 30 cows) is increasing. The average herd size in Latvia in 2011 was 22 cows (herds under milk recording), 15% higher than in 2010. The average milk yield per cow is constantly increasing and in 2011 it was 6 128 kg per cow (under milk recording), 2.4% higher than in 2010.

The milk price was increasing in the first quarter of the year, followed by a slight reduction in the second and third quarters. From September, the price was increasing until the end of the year.

For the moment all (provisional) production data show reduction compared to 2010, except for whey powder where a significant increase of 850% has occurred.
In milk equivalent, around 40% is exported. In terms of products, the largest increases in exports have been for cream (480%) and whey powder (260%), but also exports of liquid milk (incl. raw milk) and cheese increased. The rest of the products faced reduction in export volumes. Main export markets are the EU countries - Lithuania, Germany, Estonia, the Netherlands and Italy - as well as Russia and Azerbaijan in the third countries. Lithuania is the largest market but the main exported product is raw milk (approx. 25% from all raw milk deliveries).

Dairy product imports come only from the EU, the main origins being Lithuania, Estonia, Germany and Poland. The main imported products in 2011 were cheeses, fermented milk products, liquid milk and cream. The import volumes for all products, except cheese, butter and cream, were less than in 2010.

Source: National Committee of the IDF, SIA Piensaimnieku Laboratorija (www.pienslabs.lv), Eurostat, national statistics.

LITHUANIA

EU 27

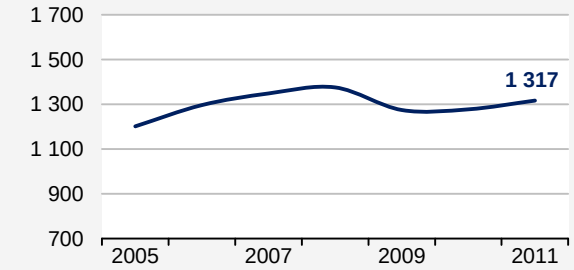
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	1 754	• Number of dairy cows (x 1 000 head)	350
% of worldwide milk production	0.3%	• Number of dairy farms	39 571
• % cow milk deliveries	75%		

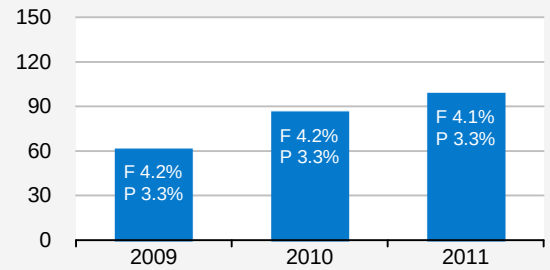
Cow milk deliveries

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

LTL per 100 kg



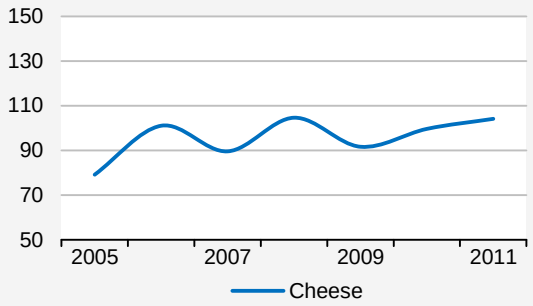
PROCESSING INDUSTRY

Main processors

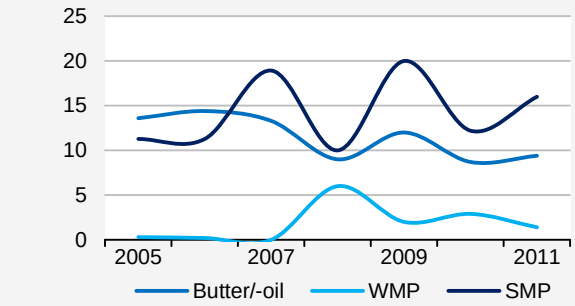
• Pieno žvaigždės	www.pienozvaigzdes.lt
• Rokiškio sūris	www.rokiskio.com
• Žemaitijos pienas	www.zpienas.lt
• Vilkyškių pieninė	www.suriai.lt
• Marijampolės pieno konservai	www.milk.lt

Production

1 000 tonnes



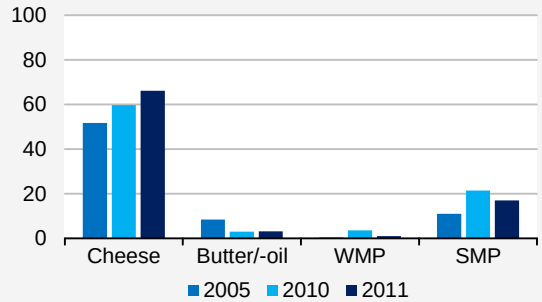
1 000 tonnes



TRADE

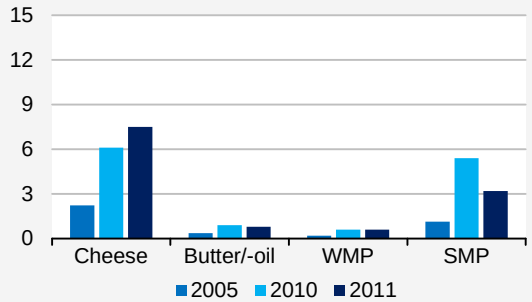
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	89	103	301	141	92	289
• Fermented products	69	100	13	118	10	196
• Cream	2	115	1	163	49	112
• Butter and butteroil	9	108	1	89	3	103
• Cheese	104	105	8	123	66	111
• Whole milk powder	1	48	1	100	1	28
• Skim milk powder	16	131	3	59	17	79

CONSUMPTION

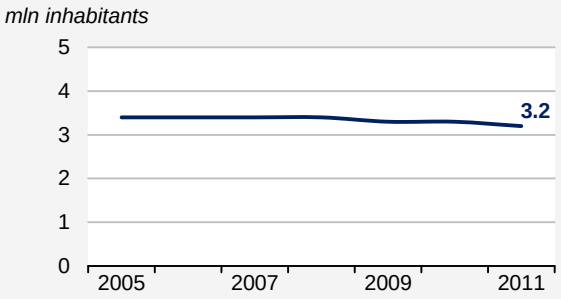
Consumption (x 1 000 tonnes)

• Milk	89
• Butter	7
• Cheese	46

Consumption (kg per capita)

• Milk	27.9
• Butter	2.2
• Cheese	14.2

Population



KEY DEVELOPMENTS

In 2011, the Lithuanian economy began to recover: GDP grew by 5.8%; gross wages and salaries increased by 2.7%; unemployment rate fell by 2.4% to 15.4%; retail trade, except trade of motor vehicles, increased by 9% and exports rose by 29%.

Into 2011, compared to 2010, exports of dairy products grew by 10% and exports of raw milk rose threefold. During 2011, average prices for dairy products exported by the Lithuanian milk processing industry did not change and prices for dairy products sold on the domestic market, increased by 9.5%. In 2011, compared to 2010, the average milk (3.4% fat, 3.0% protein) purchase price rose by 14%.

In 2010, compared to 2009, per capita consumption of dairy products, expressed in milk equivalent, dropped by 9.3% and was 262 kg per year, but per capita consumption of some dairy products, sold through retail trade chains, even increased slightly. In 2010, the consumption of these products rose by 1-5%.

The development of milk production is not restricted by milk production quotas. During 2010-2011 quota year, the implementation rate of the total national milk sales quota for processing was 77% and for direct consumption 55–60%. Up to 2011, Lithuanian milk processors mainly took advantage of export refunds, applied for dairy products exported to third countries; however, in 2011 export refunds were abolished since the situation improved in the overall dairy world.

The average dairy farm in Lithuania is small. In 2011, the average dairy farm had 4.2 cows. But dairy farms are becoming larger. The number of farms with 1–9 cows is rapidly decreasing and number of farms with more than 20 cows is increasing. The milk processing industry is highly concentrated. In 2011, 4 groups received more than 70% of total dairy sector revenue.

Source: National Committee of the IDF, Lithuanian Institute of Agrarian Economics (www.laei.lt), PRB.

EU 27

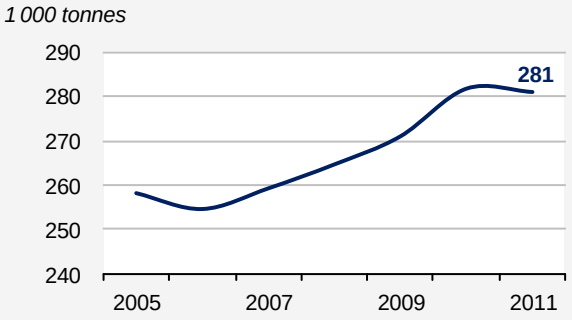
LUXEMBOURG

DAIRY FARMING

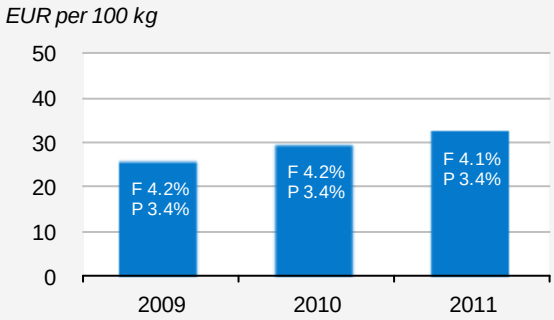
Key figures

• Cow milk production (x 1 000 tonnes)	292	• Number of dairy cows (x 1 000 head)	40
% of worldwide milk production	0.0%	• Number of dairy farms	787
• % cow milk deliveries	96%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)



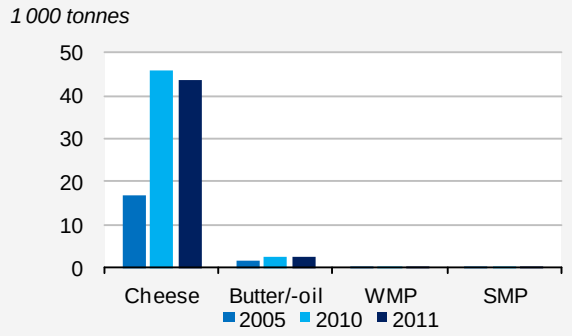
PROCESSING INDUSTRY

Main processors

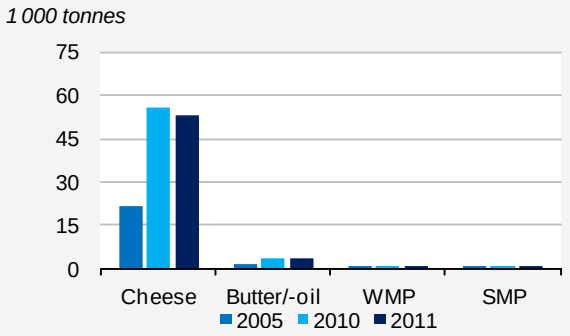
• Luxlait	www.luxlait.lu
• Fromagerie de Luxembourg	-

TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production (A) 2011	Production (A) (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk (B)	-	-	12	99	12	194
• Fermented products	-	-	7	104	21	111
• Cream	-	-	3	96	2	193
• Butter and butteroil	-	-	4	101	3	105
• Cheese	-	-	53	95	44	96
• Whole milk powder	-	-	0	94	0	235
• Skim milk powder	-	-	0	118	0	148

(A) Confidential. (B) Trade of liquid milk in small package.

CONSUMPTION

Consumption (x 1 000 tonnes)

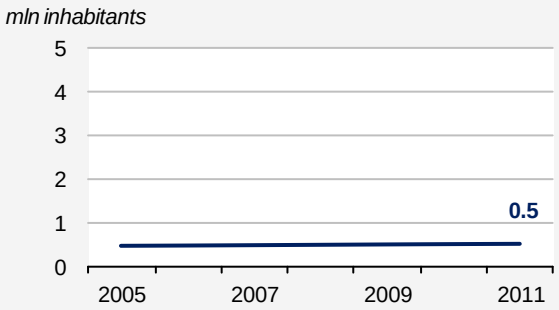
• Milk (C)	15
• Butter	3
• Cheese	12

Consumption (kg per capita)

• Milk (C)	28.5
• Butter	5.9
• Cheese	24.1

(C) Including buttermilk.

Population



KEY DEVELOPMENTS

Structural changes in the dairy sector have led to a decrease in the number of dairy farms and an increase in total quota per farm. The observed trend of growth of dairy herds that began in 2007, reflecting the linear increase in milk quotas, still continues in 2011. In the dairy sector, investment planning is marked by the planned abolition of the milk quota system.

The year 2011 was characterized by relatively high milk prices. However, in the same period of time a high rise in fertilizer and feed prices was observed. Compared to 2010, the average milk price rose by 10%. Although 2011 was marked by a drought period in spring and beginning of summer, the observed impact on the dairy sector was leveled out by the end of the year due to an overall good corn silage harvest.

Increases in market prices resulted in an increase in milk prices paid to producers. After 2009 – the year of historically low levels - the milk price paid out to dairy producers continued to rise, but farmers had to face rising investment costs (feed, fertilizer).

Source: National Committee of the IDF, Service d'Economie Rurale (www.ser.etat.lu), Eurostat, UN.

NETHERLANDS

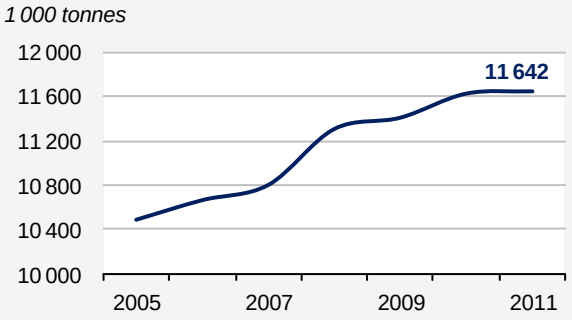
EU 27

DAIRY FARMING

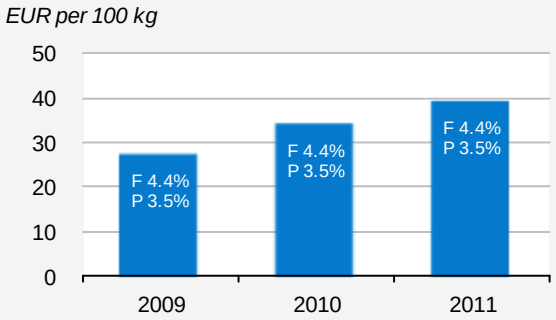
Key figures

• Cow milk production (x 1 000 tonnes)	11 851	• Number of dairy cows (x 1 000 head)	1 470
% of worldwide milk production	1.9%	• Number of dairy farms	19 250
• % cow milk deliveries	98%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

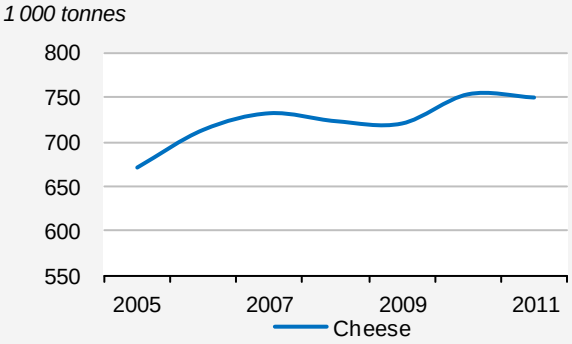


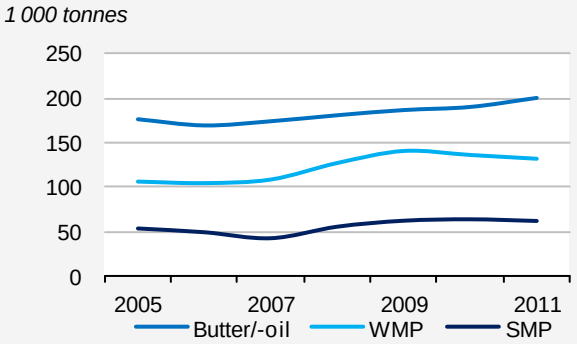
PROCESSING INDUSTRY

Main processors

• Royal FrieslandCampina	www.frieslandcampina.com
• DOC Kaas	www.dockaas.nl
• Bel Leerdammer	www.belgroup.nl
• Vreugdenhil Dairy Foods	www.vreugdenhil.nl
• Cono Kaasmakers	www.cono.nl

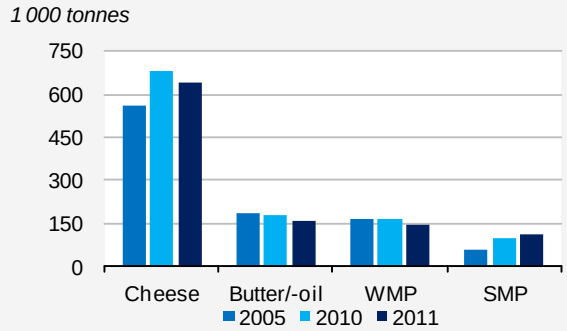
Production



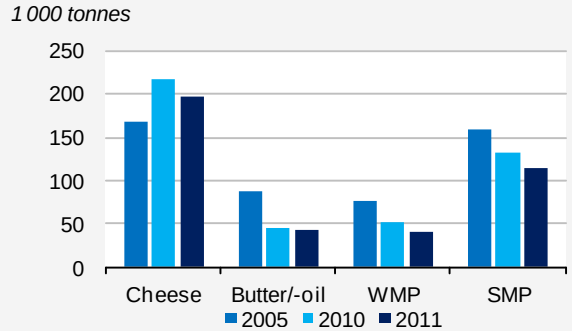


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	527	97	633	122	544	112
• Fermented products (A)	396	97	168	88	57	116
• Cream	7	42	82	137	144	100
• Butter and butteroil	200	105	44	99	161	89
• Cheese	750	100	197	91	642	94
• Whole milk powder	131	97	41	79	145	89
• Skim milk powder	62	97	115	88	114	115

(A) Production volume excluding added ingredients.

CONSUMPTION

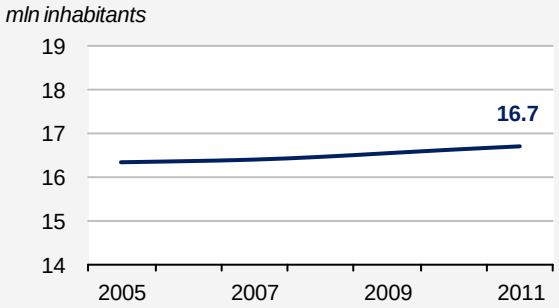
Consumption (x 1 000 tonnes)

• Milk	818
• Butter	55
• Cheese	324

Consumption (kg per capita)

• Milk	49.0
• Butter	3.3
• Cheese	19.4

Population



KEY DEVELOPMENTS

Market recovery continued in 2011
After the drop in prices in 2009 there was an overall market recovery in 2010 which continued in 2011. The average prices for non-skimmed milk powder, skimmed milk powder and butter, as well as the average indicative price for Gouda cheese, were all well above the 2010 level. This led to an increase of the average milk price pay-out to farmers. The average milk price in 2011 finally amounted to 38.78 EUR per 100 kg of milk, 15% higher than in 2010.

Scaling up in dairy farming also continued
Milk production in 2011 was with 11.9 billion kg almost equal to that of 2011. The total number of Dutch quota holders decreased by 2.6% to 18 500. The average milk quota per quota holder was 637 000 kg. As a result, the average production per farm stepped up to 616 000 kg, reflecting further scale enlargement.

In line with production, Dutch deliveries to factories were almost the same. Nevertheless in the 2011/2012 quota season, deliveries to factories exceeded the EU reference quantity for the Netherlands by about 0.5%, resulting in a super levy bill of 16.4 million EURO.

FrieslandCampina started construction innovation centre in Wageningen
In December 2011 FrieslandCampina kicked of construction of its new Innovation Centre. Total investment amounts to 60 million EURO. The new building will house approximately 400 FrieslandCampina employees, giving them access to approximately 4 600 m2 of laboratories, areas for taste tests and a pilot plant.

Dutch Dairy Board under serious pressure
In December 2011 Dutch Parliament voted in majority for abolishment of the legal framework that forms the basis of the Dutch Dairy Board. This in spite of broad support from both industry and farmer's organisations. The final result is yet unclear. Meanwhile, in the dairy sector discussions take place to look at alternatives, to guarantee continuation of (part of) the Board's activities, if necessary.

Source: National Committee of the IDF, Productschap Zuivel (www.prodzuivel.nl), national statistics.

POLAND

EU 27

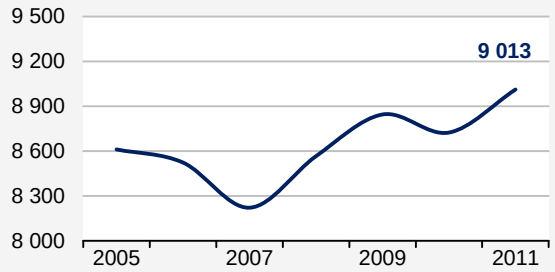
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	12 405	• Number of dairy cows (x 1 000 head)	2 446
% of worldwide milk production	2.0%	• Number of dairy farms	168 000
• % cow milk deliveries	73%		

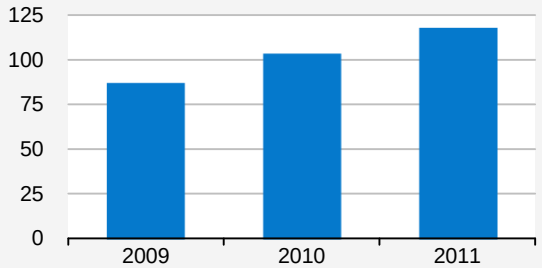
Cow milk deliveries

1 000 tonnes



Cow milk prices (A)

PLN per 100 kg



(A) Real fat and protein contents.

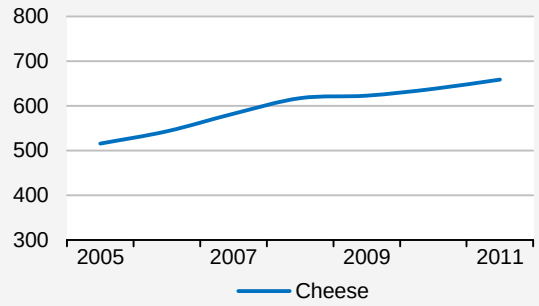
PROCESSING INDUSTRY

Main processors

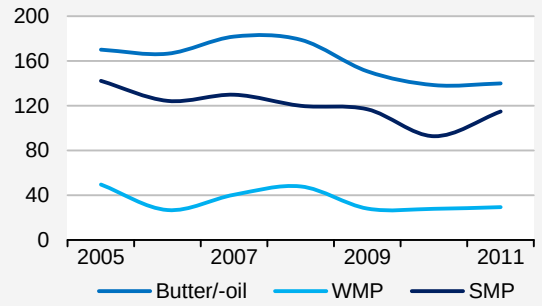
• Mlekpol	www.mlekpol.com.pl
• Mlekovita	www.mlekovita.com.pl
• Polmlek	www.polmlek.com
• Danone	www.danone.pl
• Hochland	www.hochland.pl

Production

1 000 tonnes



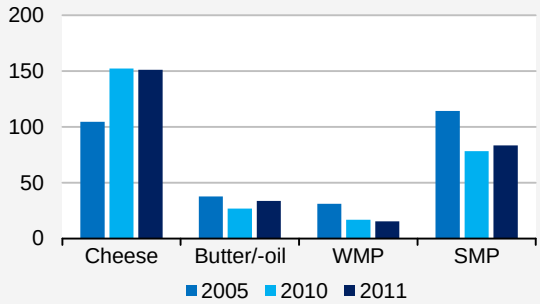
1 000 tonnes



TRADE

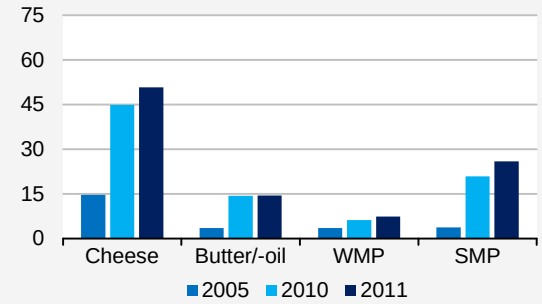
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	2 857	102	56	123	180	97
• Fermented products	627	101	37	119	121	95
• Cream	338	98	23	110	75	104
• Butter and butteroil	140	101	14	101	34	125
• Cheese	659	103	51	113	151	99
• Whole milk powder	29	105	7	120	15	91
• Skim milk powder	115	124	26	124	83	106

CONSUMPTION

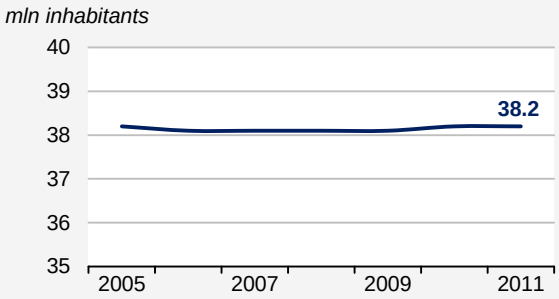
Consumption (x 1 000 tonnes)

• Milk	1 621
• Butter	162
• Cheese	434

Consumption (kg per capita)

• Milk	42.4
• Butter	4.2
• Cheese	11.4

Population



KEY DEVELOPMENTS

The favourable economic situation on the global market and slowly growing domestic demand stimulated milk production in 2011. Milk production increased by over 1% and exceeded 12.4 mln tonnes, despite further reduction of milk cow population. This had a 3.9% impact on the growth in milk cows' productivity, which amounted to nearly 5 000 kg of milk and its surplus compensated the drop in the milk cow population. The high procurement prices for milk and the variety of good-quality livestock feeds were the main factors contributing to the restructuring of milk production and the improvement in cows' milk production.

Total sales of milk reached 9.75 bln litres in 2011, increasing above the figure of the previous year by 2.4%. However consumption of milk by farms has decreased slightly.

Bigger purchases and growing milk deliveries to dairies resulted in higher production of many dairy products. High export prices were the cause in 2011: more skimmed milk powder was produced as compared to the previous year (by 23.8%). The production of butter and milk fats was also higher, similarly to whole milk powder, ripened cheese, curd, ice cream, white cheese and fermented milk drinks other than yoghurts. On the other hand the production of processed cheese, condensed milk, drinking milk, cream and yoghurts dropped.

High prices on global markets, and depreciation of the PLN in the second half of previous year resulted in a considerable improvement of the value-rated results of foreign trade in the dairy industry. The value of exports in 2011 rose by almost 15% against the previous year to EUR 1.36 bln. The rise of imports was more pronounced: 23% to over EUR 474 mln, but the foreign trade balance in dairy products increased from EUR 799.6 mln to more than EUR 887.9 mln.

Source: National Committee of the IDF, Foundation of Assistance Programmes for Agriculture (www.fapa.org.pl), Comtrade, PRB.

EU 27

ROMANIA

DAIRY FARMING

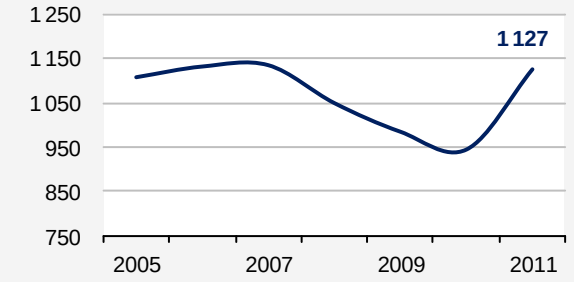
Key figures

• Cow milk production (x 1 000 tonnes)	4 500	• Number of dairy cows (x 1 000 head)	1 266
% of worldwide milk production	0.7%	• Number of dairy farms (A)	112 162
• % cow milk deliveries	25%		

(A) Number of delivery quota holders.

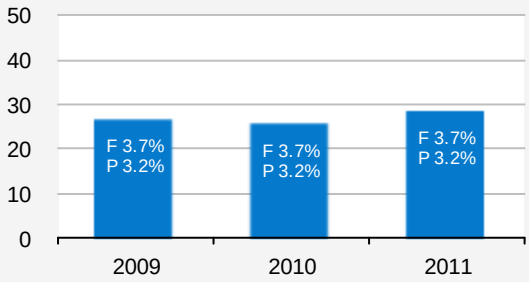
Cow milk deliveries

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

EUR per 100 kg



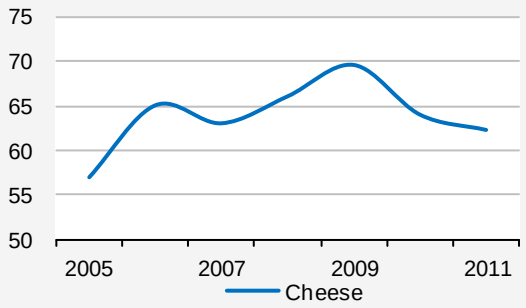
PROCESSING INDUSTRY

Main processors

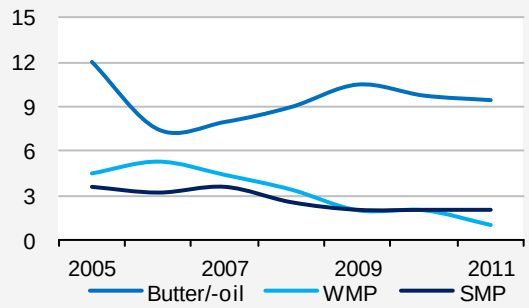
• Danone	www.danone.ro
• FrieslandCampina	www.frieslandcampina.com
• Albalact	www.albalact.ro
• Hochland	www.hochland.ro
• Napolact	www.napolact.ro

Production

1 000 tonnes



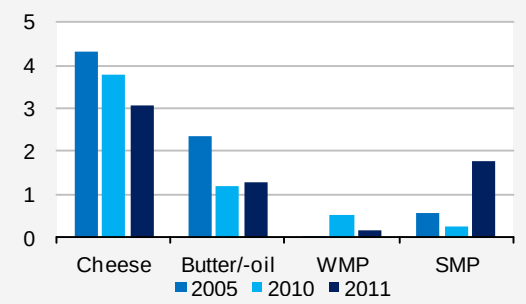
1 000 tonnes



TRADE

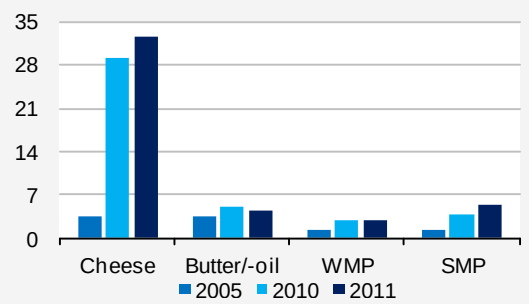
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	221	99	121	103	5	379
• Fermented products	147	99	18	90	4	150
• Cream	47	101	7	111	1	142
• Butter and butteroil	9	97	5	88	1	107
• Cheese	62	97	33	112	3	82
• Whole milk powder	1	50	3	105	0	27
• Skim milk powder	2	100	5	144	2	657

CONSUMPTION

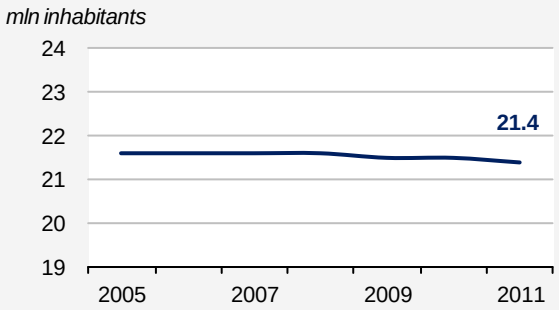
Consumption (x 1 000 tonnes)

• Milk	259
• Butter	13
• Cheese	92

Consumption (kg per capita)

• Milk	12.1
• Butter	0.6
• Cheese	4.3

Population



Source: FrieslandCampina Romania (www.frieslandcampina.com), Eurostat, PRB.

SLOVAKIA

EU 27

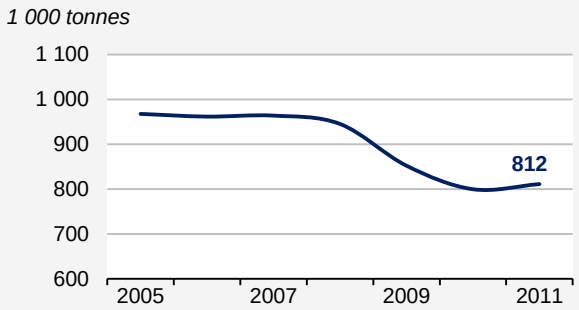
DAIRY FARMING

Key figures

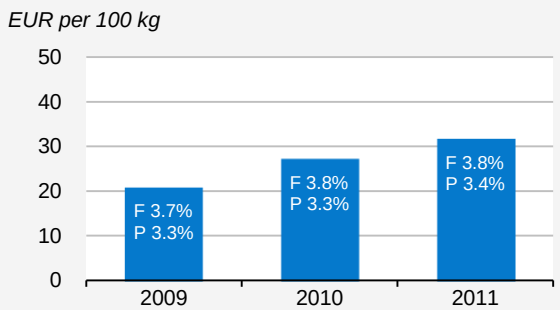
• Cow milk production (x 1 000 tonnes)	928	• Number of dairy cows (x 1 000 head)	156
% of worldwide milk production	0.1%	• Number of dairy farms (A)	638
• % cow milk deliveries	87%		

(A) Number of delivery quota holders.

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

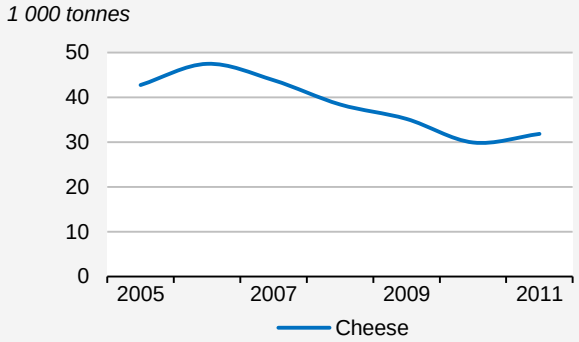


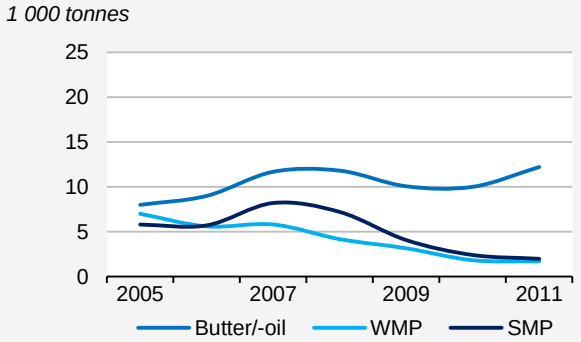
PROCESSING INDUSTRY

Main processors

• Rajo	www.rajo.sk
• Agro Tami	www.agrotami.sk
• Tatranskámliekareň	www.tami.sk
• Euromilk	www.euromilk.sk
• Koliba	www.koliba.sk

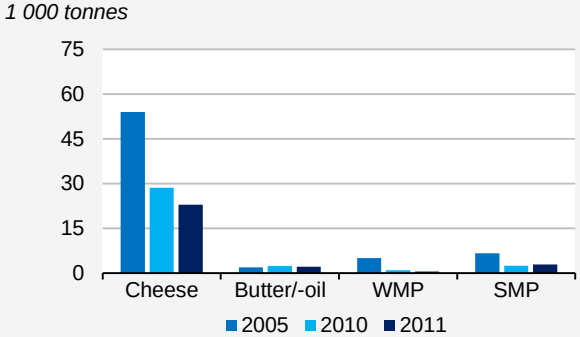
Production



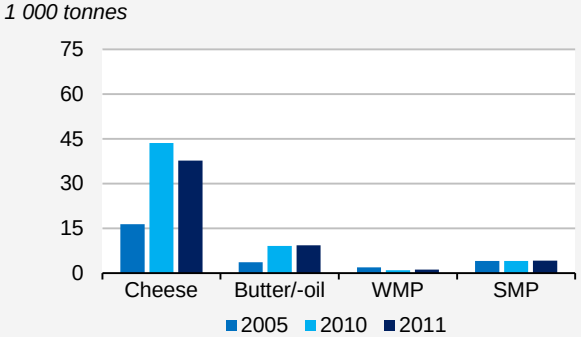


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	297	111	111	102	256	120
• Fermented products	54	37	37	97	19	109
• Cream	35	15	15	105	9	61
• Butter and butteroil	12	122	9	103	2	93
• Cheese	32	106	38	87	23	80
• Whole milk powder	2	93	1	123	1	56
• Skim milk powder	2	82	4	105	3	117

CONSUMPTION

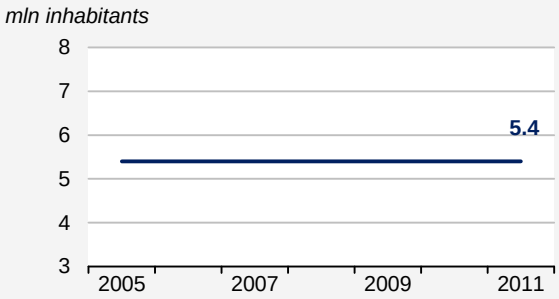
Consumption (x 1 000 tonnes)

• Milk	282
• Butter	14
• Cheese	56

Consumption (kg per capita)

• Milk	52.2
• Butter	2.6
• Cheese	10.3

Population



KEY DEVELOPMENTS

In 2011 the number of dairy farms was 1 521 (Statistical Office). Dairy cow numbers have been continually falling by 3.2%. Average yield per cow declined by 4.5% to 5 945.9 kg. Annual milk production increased by 1.1%, and deliveries to industries (87.4% of total milk) by 1.4%. Of the purchase by approved buyers, 97.4% of milk met parameters of quality class Q and I. In quota year 2011/12 Slovakia used only 78 % of the 1 093 771 tonnes national quota.

The average milk price in 2011 was 31.62 EUR/100 kg, +16.1% vs. 2010. Processor prices for selected products increased: Edamer cheese (45% fat) by 6.3%, butter (consumer packing) by 12.8%, WMP by 7.4%, SMP by 10.1% and butter blocks by 14.7%. Consumer prices for milk products increased between 2.7% (unsweetened condensed milk) and 14.5% (liquid milk 1.5% fat).

In 2011 per capita consumption of dairy products (preliminary Statistical Office figures) declined by 3.1% to 157.7 kg milk equivalent (butter excluded). Consumption of liquid milk declined by -4.2% and butter by -7.1%; cheese increased by 4.0%, fermented dairy products by 0.7%. Cream consumption declined the most (-10.7%) to 2.5 kg.

The policy in the Slovak dairy sector is governed by Community law and national legislation. In 2011 2 959.4 tonnes of dairy products (equivalent to 2 014.1 thousand EUR) were supported in the “school milk” programme.

In 2011, investment in the dairy sector declined by -0.8% to 44.99 mln EUR, 22% of the overall food industry investment. Employment in the dairy sector reached 4 590 people, 14.6% of the food industry.

In 2011 production of the following important dairy products increased significantly: liquid milk by 7.5%, natural cheese by 6.4%, butter and other milk fats by 21.9%, cream by 18.9% and processed cheese by 3.6%. Production of the following has decreased: SMP by 17.6%, WMP by 7.3%, sheep cheese by 1.8%.

In 2011 dairy imports decreased to 259.5 mln EUR (-6.5%) and exports increased to 240.3 mln EUR (+6.3%). The only positive trade balance was liquid milk and cream (CN 0401) with 55.9 mln EUR. The milk and dairy products trade balance (CN 0401-0406) was negative, -19.2 mln EUR.

Source: National Committee of the IDF, Agricultural Paying Agency (www.apa.sk), Comtrade, PRB.

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SPAIN

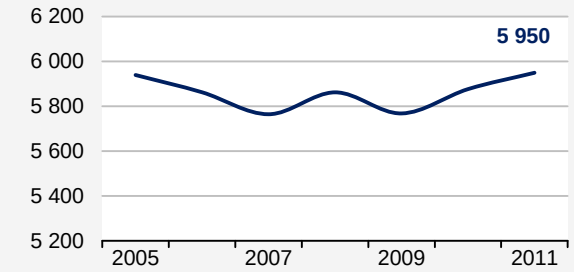
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	6 400	• Number of dairy cows (x 1 000 head)	837
% of worldwide milk production	1.0%	• Number of dairy farms	21 486
• % cow milk deliveries	93%		

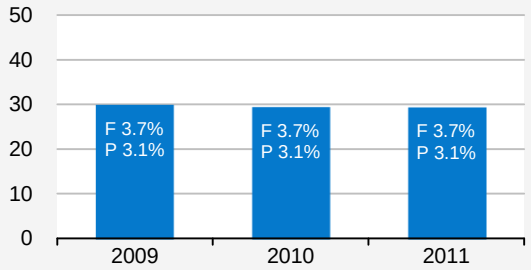
Cow milk deliveries

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

EUR per 100 kg



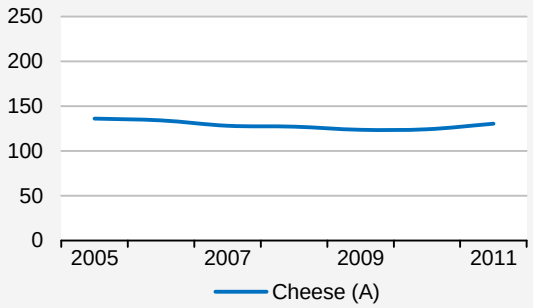
PROCESSING INDUSTRY

Main processors

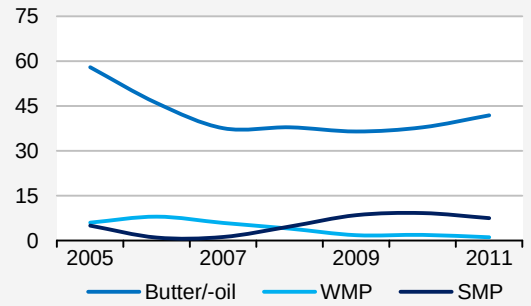
• Lactalis Iberia	www.lactalis.com
• Capsa	www.capsa.es
• Leche Pascual	www.lechepascual.es
• Leche Celta	www.lechecelta.com
• Ilas	www.renypicot.es

Production

1 000 tonnes



1 000 tonnes

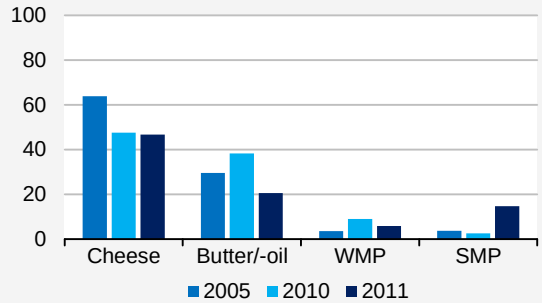


(A) Cow's milk cheese.

TRADE

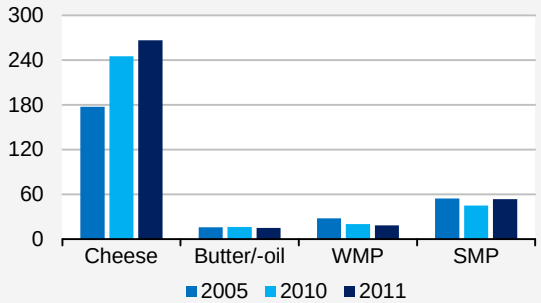
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	3 689	103	397	65	127	92
• Fermented products	781	103	253	121	104	101
• Cream	137	116	106	>1 000	37	127
• Butter and butteroil	42	111	15	93	21	54
• Cheese (B)	130	105	266	109	47	98
• Whole milk powder	1	58	18	91	6	64
• Skim milk powder	8	82	54	119	15	588

(B) Production: cow's milk cheese only (all milk cheeses: 306 800 tonnes in 2011).

CONSUMPTION

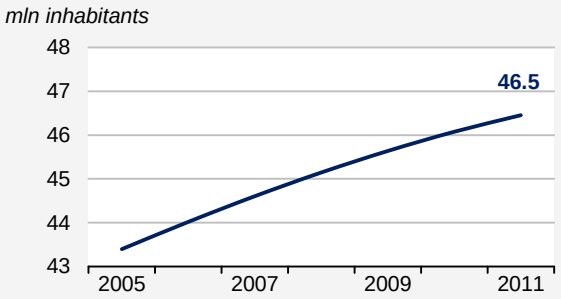
Consumption (x 1 000 tonnes)

• Milk	4 035
• Butter	25
• Cheese	445

Consumption (kg per capita)

• Milk	86.9
• Butter	0.5
• Cheese	9.6

Population



KEY DEVELOPMENTS

Structural changes in farming and industry
During 2011 the number of milk production farms continued to decrease. However the volume of production increased. There were no structural changes in the industry, except for some companies closures for economic reasons (e.g. CLESA Group).

Prices trends at both farm and retail levels
The price paid to farmers fell from January to May, a rise starting from July ended the year at a level 8% higher than in December 2010.
The costs of feeding cattle remain at a high level.
The sale prices of milk for consumption and cheese fell and those for yoghurts and desserts increased over the previous year. The tendency is to remain stable or decrease.

Consumption trends
Fluid milk consumption in 2011 fell by 3%. But consumption of dairy products increased by 2 to 3% depending on the type. In the short term overall consumption is not expected to increase.

Dairy policy
Significant decrease in imports of liquid milk, both bulk and packaged. But increase in imports of most dairy products. Exports declined widely, except skimmed milk, yoghurt and cream.
No significant changes in dairy policy as a result of the ending of the legislature and the change of government.

Economic situation
Economic activity during 2011 remained sluggish, especially since the fourth quarter.

Source: National Committee of the IDF, Federación Nacional de Industrias Lácteas (www.fenil.org), national statistics, Comtrade, UN.

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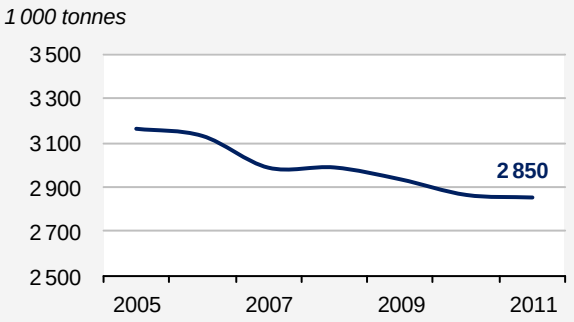
SWEDEN

DAIRY FARMING

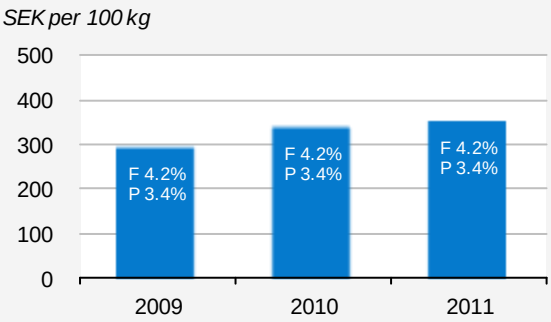
Key figures

• Cow milk production (x 1 000 tonnes)	2 887	• Number of dairy cows (x 1 000 head)	347
% of worldwide milk production	0.5%	• Number of dairy farms	5 341
• % cow milk deliveries	99%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

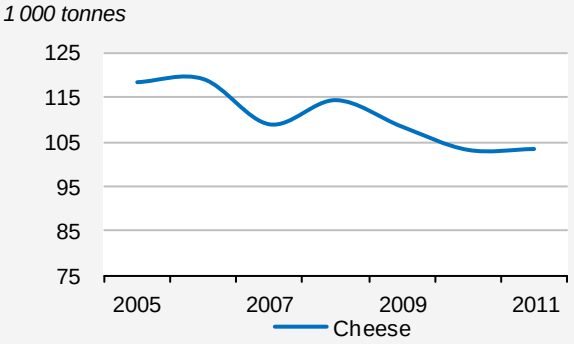


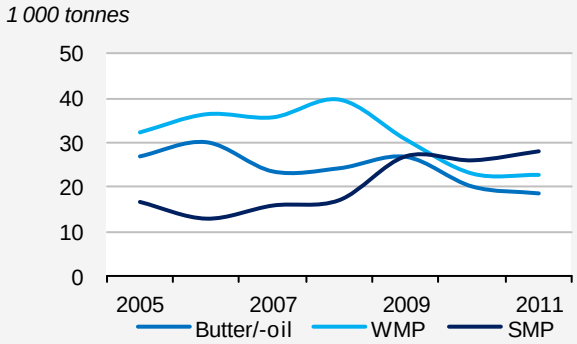
PROCESSING INDUSTRY

Main processors

• Arla Foods	www.arlafoods.se
• Skånemejerier	www.skanemejerier.se
• Norrmejerier	www.norrmejerier.se
• Falköpings Mejeri	www.falkopingsmejeri.se
• Gäsene mejeriförening	www.gasenemejeri.se

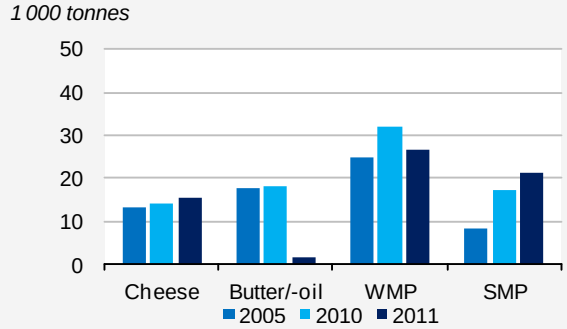
Production



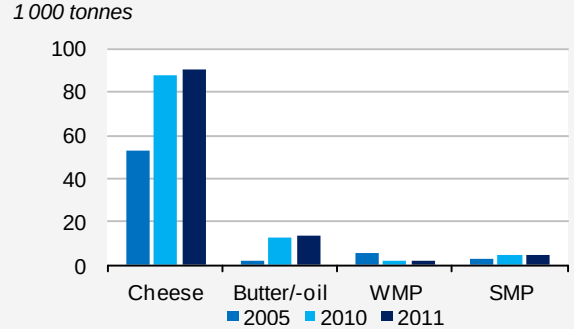


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	877	96	64	83	96	100
• Fermented products	263	100	76	104	7	104
• Cream	110	100	28	128	3	62
• Butter and butteroil	19	93	14	111	18	97
• Cheese	103	100	90	103	13	93
• Whole milk powder	23	99	2	83	26	82
• Skim milk powder	28	108	5	106	21	122

CONSUMPTION

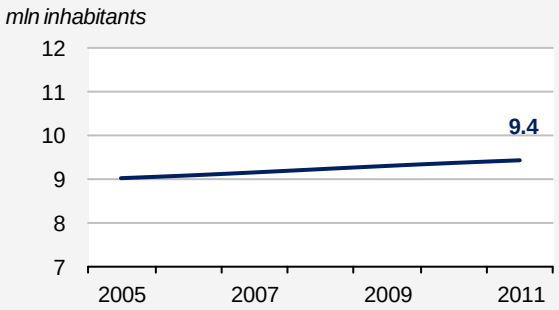
Consumption (x 1 000 tonnes)

• Milk	878
• Butter	16
• Cheese	180

Consumption (kg per capita)

• Milk	93.0
• Butter	1.7
• Cheese	19.1

Population



KEY DEVELOPMENTS

The average herd consists of 66 milking cows. Former dairy company Milko has merged with Arla Foods. Higher producer prices than 2010, but falling prices at the end of 2011. Lower consumption of drinking milk; higher consumption of cream, butter and cheese. Stable consumption of fermented milk products.

Source: National Committee of the IDF, Swedish Dairy Association (www.svenskmjolk.se), Eurostat, UN.

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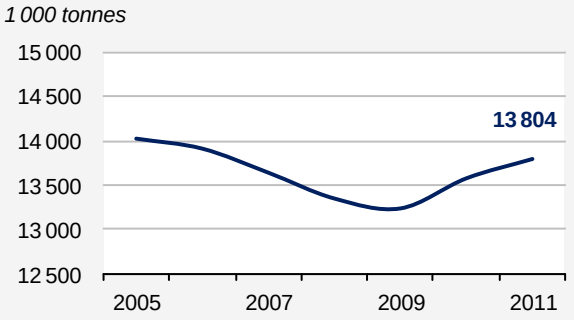
UNITED KINGDOM

DAIRY FARMING

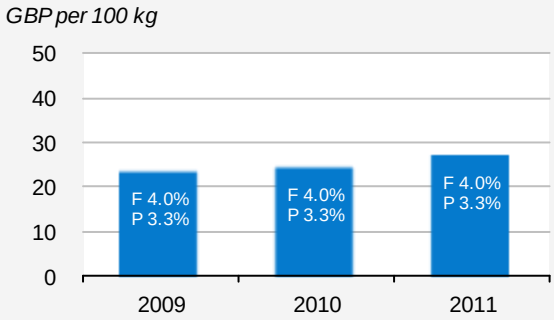
Key figures

• Cow milk production (x 1 000 tonnes)	14 081	• Number of dairy cows (x 1 000 head)	1 814
% of worldwide milk production	2.3%	• Number of dairy farms	15 146
• % cow milk deliveries	98%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

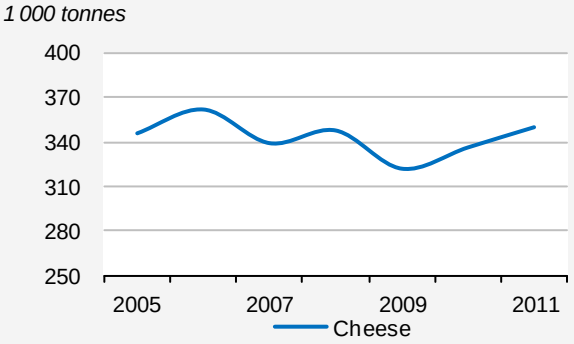


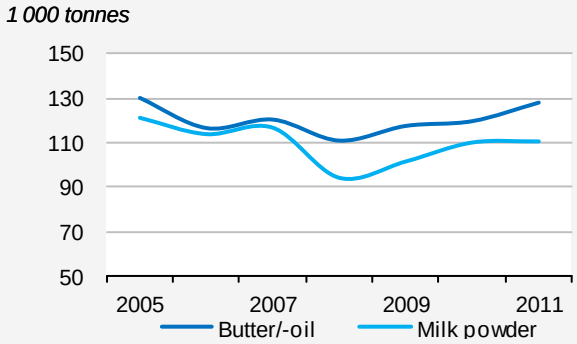
PROCESSING INDUSTRY

Main processors

• Dairy Crest	www.dairycrest.co.uk
• Robert Wiseman Dairies	www.wiseman-dairies.co.uk
• Arla Foods UK	www.arlafoods.co.uk
• Milk Link	www.milklink.com
• First Milk	www.firstmilk.co.uk

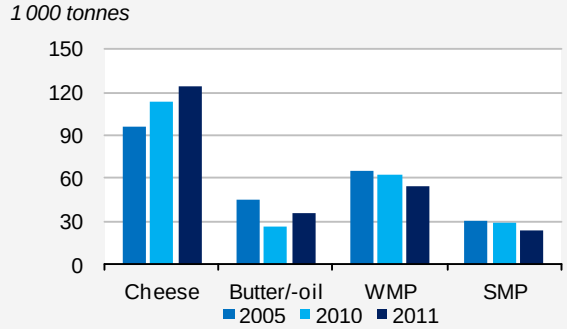
Production



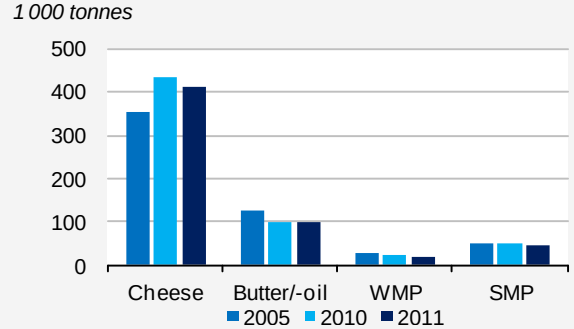


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	7 067	102	158	123	576	118
• Fermented products	377	92	315	103	37	92
• Cream	248	96	56	87	73	101
• Butter and butteroil	128	107	100	98	36	133
• Cheese	350	104	414	95	124	110
• Milk powder	111	101	65	87	79	86
- Whole milk powder	-	-	21	88	55	88
- Skim milk powder	-	-	44	87	24	83

CONSUMPTION

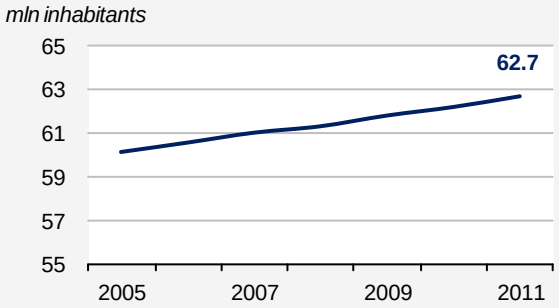
Consumption (x 1 000 tonnes)

• Milk	6 852
• Butter	191
• Cheese	681

Consumption (kg per capita)

• Milk	109.3
• Butter	3.0
• Cheese	10.9

Population



KEY DEVELOPMENTS

Structural changes in farming and industry
The UK dairy industry is subject to major rationalisation with Robert Wiseman Dairies, one of the largest dairy companies, subject to a takeover from German dairy group Müller in January and the European co-operative Arla Foods Amba and the UK co-operative Milk Link, announcing in late May that they are in discussions re a proposed merger.
Following the upturn in production seen in the 2010/11 year, production rose again (by 0.9%) during 2011/12 with levels in Northern Ireland especially strong.

Price trends
UK wholesale prices dropped away dramatically from the recent peaks seen in the middle of 2011. In May, Butter, (-43%), Cream (-48%) and SMP (-24%) were all down on the high levels recorded in June 2011. These falling market returns affected milk producers as a number of the major buyers announced price cuts in their contracts with farmers from April and May. Producers had been benefitting from 10-12% higher farm gate prices during 2011/12, compared to 2010/11.

Consumption trends
Liquid milk consumption is on the rise (+1.2% in the year to April 2012) and the household cheese market also performed well in 2011 with a 2% increase. The organic milk sector, though, experienced a difficult year with dairy sales down by 8.9% in 2011, reflecting the economic downturn with consumers giving price as their main determinant of product choice.

Dairy policy
The industry is committing to the Responsibility Deal, a partnership between the Department of Health and the food industry to improve public health, by which companies can sign up to take action is areas such as *trans* fat, salt and calorie reduction.
The dairy industry is also examining the development of a Voluntary Code of Best Practice for Contracts as an alternative to regulation of contracts under the EU Dairy Package.

Source: National Committee of the IDF, Dairy UK (www.dairyuk.org), national statistics, PRB.

CANADA

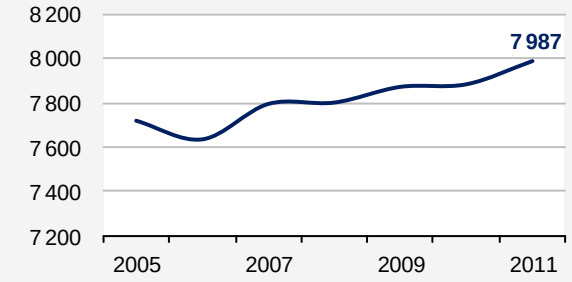
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	8 546	• Number of dairy cows (x 1 000 head)	983
% of worldwide milk production	1.4%	• Number of dairy farms	12 746
• % cow milk deliveries	93%		

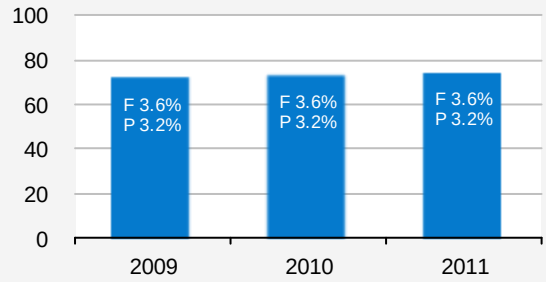
Cow milk deliveries

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

CAD per 100 kg



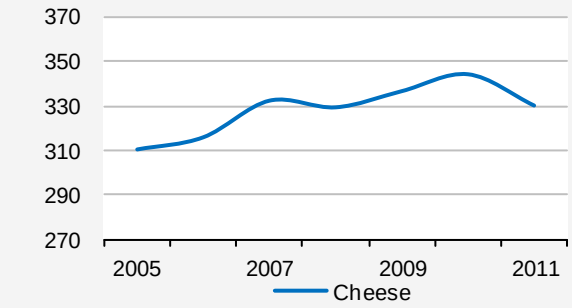
PROCESSING INDUSTRY

Main processors

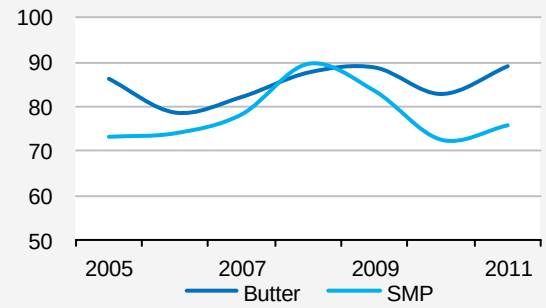
• Saputo	www.saputo.com
• Agropur Cooperative	www.agropur.com
• Parmalat	www.parmalat.ca
• Kraft Foods	www.kraftcanada.com
• Danone	www.danone.ca

Production

1 000 tonnes



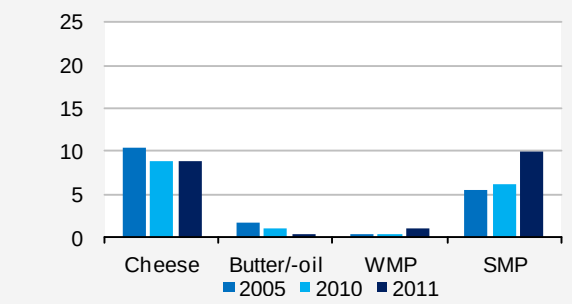
1 000 tonnes



TRADE

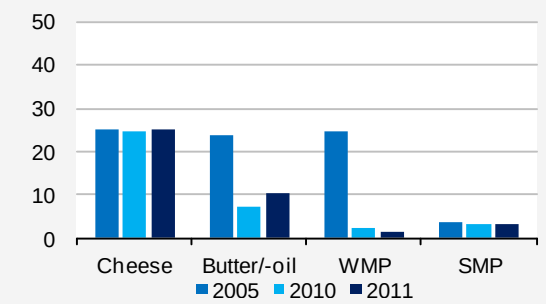
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk (A)	2 791	102	33	77	4	200
• Fermented products	328	105	1	8	4	139
• Cream	312	108	7	120	1	63
• Butter and butteroil (B)	89	107	10	141	0	28
• Cheese	330	96	25	102	9	99
• Whole milk powder	-	-	2	63	1	322
• Skim milk powder	76	105	3	103	10	162

(A) Including chocolate milk and eggnog. (B) Production of butter and whey butter only.

CONSUMPTION

Consumption (x 1 000 tonnes)

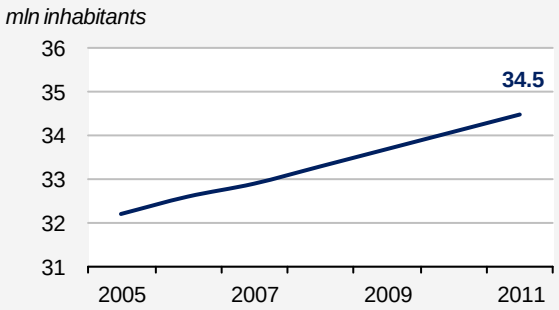
• Milk (C)	2 791
• Butter	96
• Cheese	424

Consumption (kg per capita)

• Milk (C)	80.9
• Butter	2.8
• Cheese	12.3

(C) Including chocolate milk and eggnog.

Population



KEY DEVELOPMENTS

Canada's economy remains stable and among the strongest of the G8/G20. Interest rates are low.

Dairy product prices in Canada have remained stable at the retail level despite price increases in some other food product categories. Demand for dairy products is following typical trends of the Western world; flat consumption in low fat fluid milk products (skim and 1%), declining consumption in 2% and whole milk products, a near double in per capita yoghurt consumption and a significant increase in cheese consumption. The rapid growth in yoghurt is also complemented by the recent popularity of high protein low-fat Greek-style yoghurt. Demand for dairy protein ingredients is also growing as technology permits increasingly diversified dairy product applications and favourable functional properties.

Canadian milk producers are taking steps towards establishing a national all milk pool. The focus this past year has been on taking a national approach to milk allocation in order to meet the needs of growing markets and creating more flexibility for new investments and product innovation.

The federal government introduced in June 2012 the Safe Food for Canadians Act. The proposed legislation will consolidate food provisions enforced by the Canadian Food Inspection Agency under four statutes into the Safe Food for Canadians Act. The objective is to strengthen oversight of food commodities being traded inter-provincially or internationally and improving food safety to protect consumers better.

Food quality and sustainable farming have also taken a front seat on the agenda of Canada's dairy farmers. The implementation of a full traceability system remains a priority. After full animal identification we are now working on premises identification and movement reporting.

Source: National Committee of the IDF, Agriculture & Agri-Food Canada (www.dairyinfo.gc.ca), PRB.

MEXICO

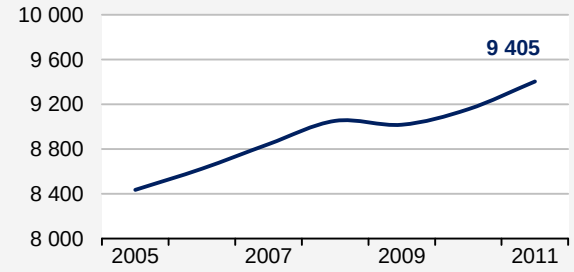
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	11 065	• Number of dairy cows (x 1 000 head)	2 374
% of worldwide milk production	1.8%	• Number of dairy farms	133 671
• % cow milk deliveries	85%		

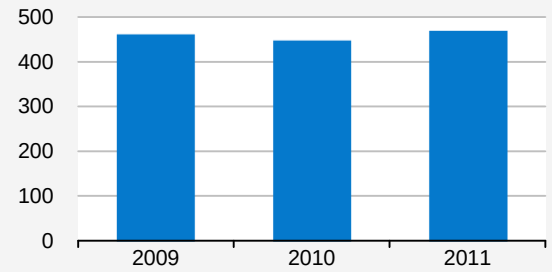
Cow milk deliveries

1 000 tonnes



Cow milk prices (A)

MXN per 100 kg



(A) Real fat and protein contents.

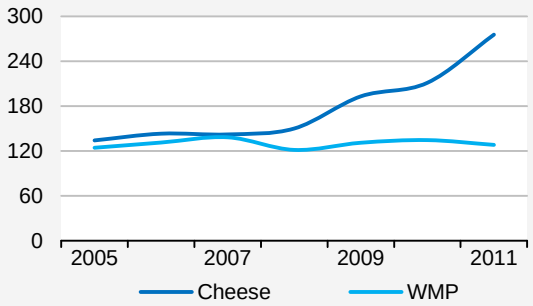
PROCESSING INDUSTRY

Main processors

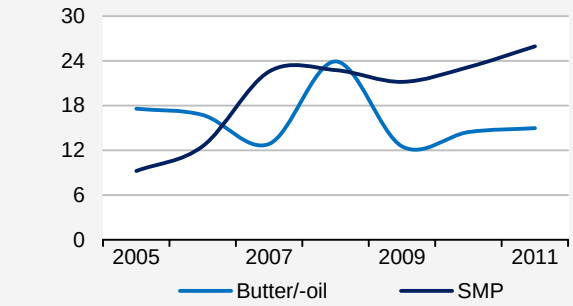
• Grupo Lala	www.lala.com.mx
• Nestlé	www.nestle.com.mx
• Alpura	www.alpura.com.mx
• Grupo Agroindustrial Zaragoza	www.aiz.com.mx
• Lechera Guadalajara	www.sellorojo.com.mx

Production

1 000 tonnes



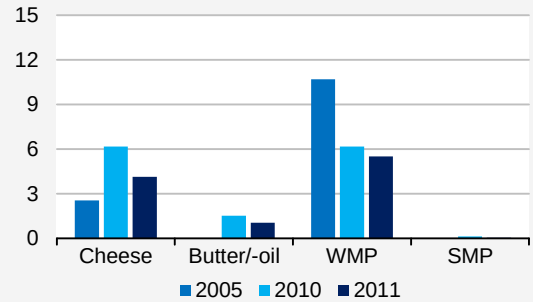
1 000 tonnes



TRADE

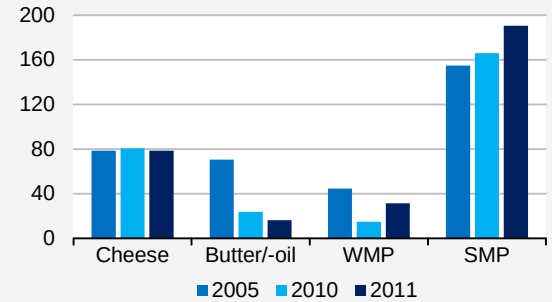
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	4 352	99	25	100	7	124
• Fermented products	603	113	14	111	10	128
• Cream	107	102	10	67	2	49
• Butter and butteroil	15	104	16	69	1	70
• Cheese	275	131	79	98	4	67
• Whole milk powder	128	95	31	213	5	89
• Skim milk powder	26	112	191	115	0	29

CONSUMPTION

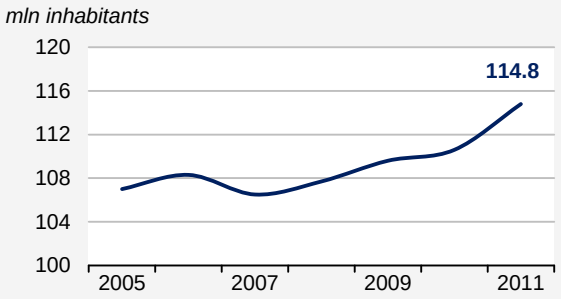
Consumption (x 1 000 tonnes)

• Milk	4 357
• Butter	31
• Cheese	354

Consumption (kg per capita)

• Milk	38.0
• Butter	0.3
• Cheese	3.1

Population



KEY DEVELOPMENTS

In small and medium industries there have not been any structural changes. It is not the same with the big industries that are in optimum technology, raw materials, additives, etc.

The milk producer's herd has not grown in numbers but has remained stable and imports for reproduction are close to zero. The cost of grains is growing nationally and internationally. The dairy market became difficult because of low prices for imported milk and intake by the industry; Liconsa provides support, but only for part of the market that is subsidised.

Prices in the industry are rising because of the high prices for imported milk, powdered milk, cream, fat, and cheese. Additionally, national milk prices are also rising.

Livestock survives but at the high cost of grains and despite a drought, which is expected to stay for a while, due to the climate change that has affected the whole country.

Source: National Committee of the IDF, FAPRI, IFCN, PRB.

UNITED STATES OF AMERICA

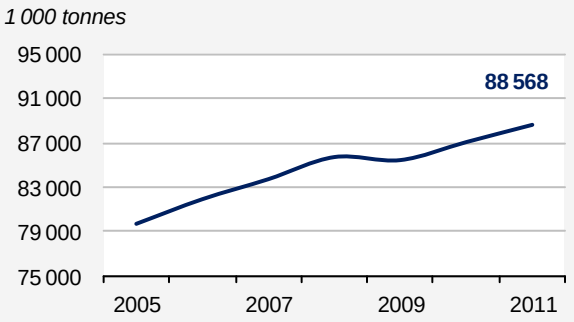
DAIRY FARMING

Key figures

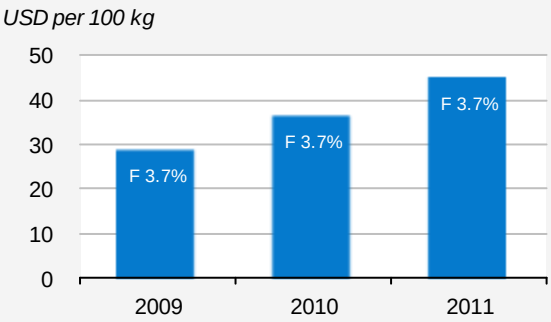
- Cow milk production (x 1 000 tonnes) 89 015
  % of worldwide milk production 14.3%
- % cow milk deliveries 99%
- Number of dairy cows (x 1 000 head) 9 194
- Number of dairy farms (A) 51 481

(A) Farm operations with a licence to market milk.

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

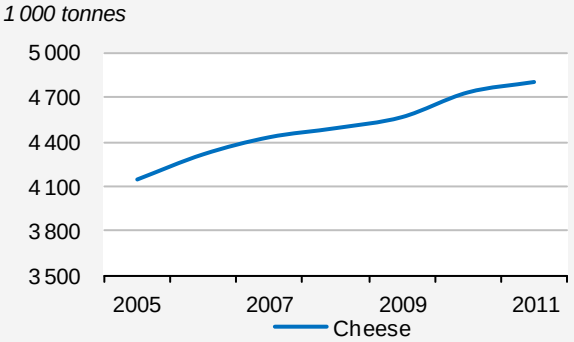


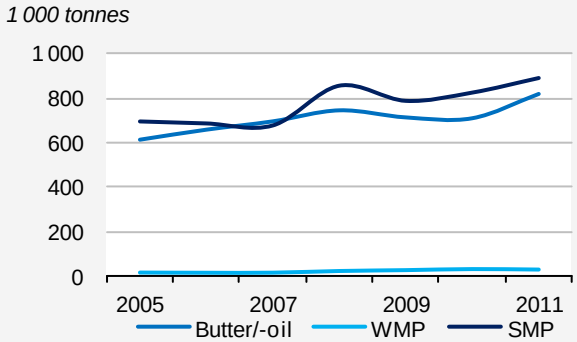
PROCESSING INDUSTRY

Main processors

- Dean Foods Company www.deanfoods.com
- Nestle www.nestleusa.com
- Saputo www.saputo.com
- Kraft Foods www.kraftfoodscompany.com
- Land O'Lakes www.landolakes.com

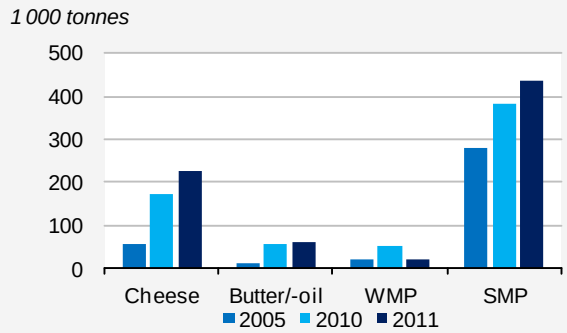
Production



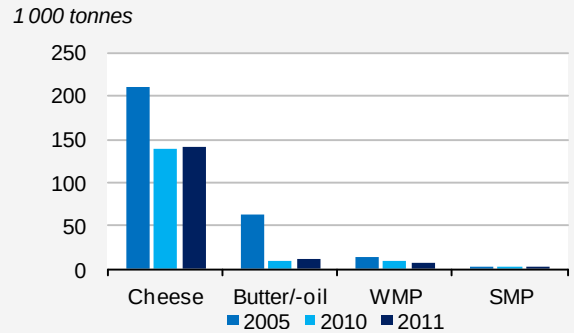


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	24 376	98	7	252	52	110
• Fermented products (B)	1 938	102	5	142	12	103
• Cream	1 687	100	4	65	24	107
• Butter and butteroil	821	116	11	122	63	112
• Cheese	4 807	101	142	103	224	129
• Whole milk powder	30	93	8	99	22	41
• Skim milk powder	893	108	1	250	436	113

(B) Production of yoghurt only.

CONSUMPTION

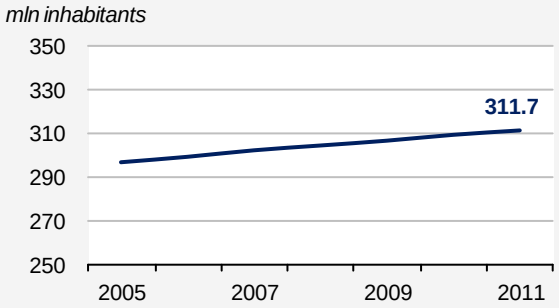
Consumption (x 1 000 tonnes)

• Milk	24 376
• Butter	764
• Cheese	4 718

Consumption (kg per capita)

• Milk	78.2
• Butter	2.5
• Cheese	15.1

Population



KEY DEVELOPMENTS

The number of dairy farms in the United States continues to fall while the average dairy farm size continues to grow. In 2011, 2.9% of U.S. dairy farms had 1 000 or more dairy cows, but those farms owned over 46% of the dairy cows and produced just over 50% of the total amount of milk produced in the country.

Dairy farmers in the United States received the highest ever nominal level of milk prices during calendar year 2011, but they also paid the second highest ever nominal level of costs to produce the milk they marketed that year.

The U.S. Congress is in the process of enacting a new Farm Bill in 2012. The only dairy proposal being considered in this process would make major changes to current U.S. dairy policy. This dairy legislation would terminate the long-standing price support (intervention) program, provide a margin protection program to supplement farmers' incomes from milk sales during times when volatile milk and feed market forces drive margins between milk prices and feed costs below certain levels, and establish a dairy market stabilization program to speed the rebalancing of milk supply with demand during periods of depressed milk-feed margins.

Source: National Committee of the IDF, National Milk Producers Federation (www.nmpf.org), USDA, PRB.

ARGENTINA

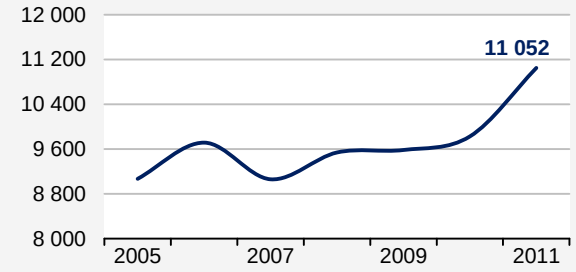
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	11 948	• Number of dairy cows (x 1 000 head)	1 884
% of worldwide milk production	1.9%	• Number of dairy farms	11 646
• % cow milk deliveries	93%		

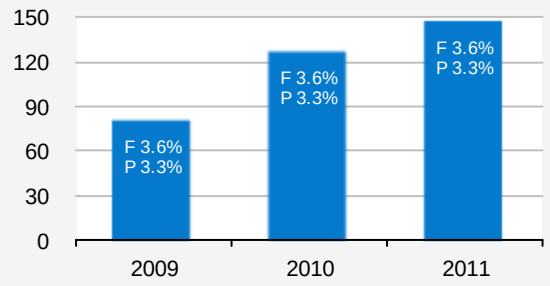
Cow milk deliveries

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

ARS per 100 kg



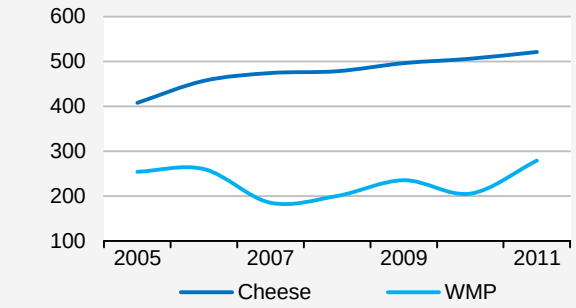
PROCESSING INDUSTRY

Main processors

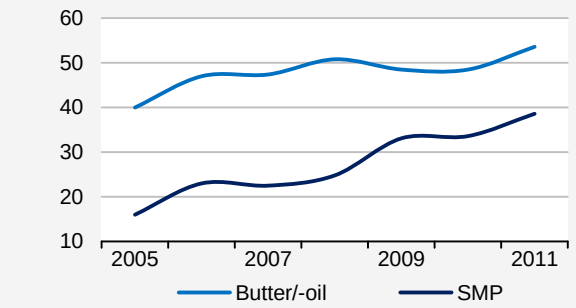
• Mastellone	www.laserenisima.com.ar
• SanCor Cooperativas Unidas	www.sancor.com.ar
• Molfino	-
• Danone	www.danone.com
• Sucesores Alfredo Williner	www.williner.com.ar

Production

1 000 tonnes



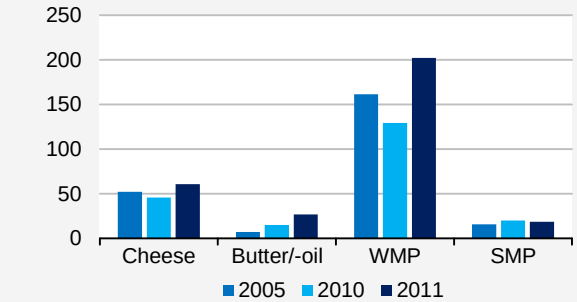
1 000 tonnes



TRADE

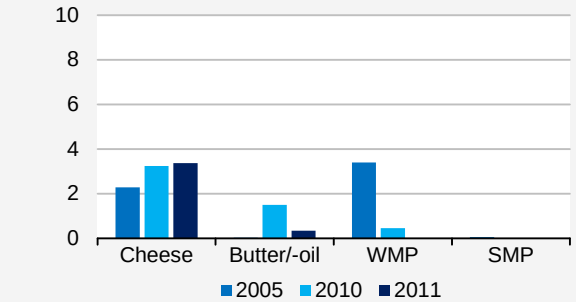
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	1 815	101	-	-	15	83
• Fermented products	517	105	-	-	7	87
• Cream	41	103	-	-	1	149
• Butter and butteroil	54	111	0	22	27	179
• Cheese	521	103	3	104	61	133
• Whole milk powder	279	136	0	0	202	156
• Skim milk powder	39	115	0	-	19	94

CONSUMPTION

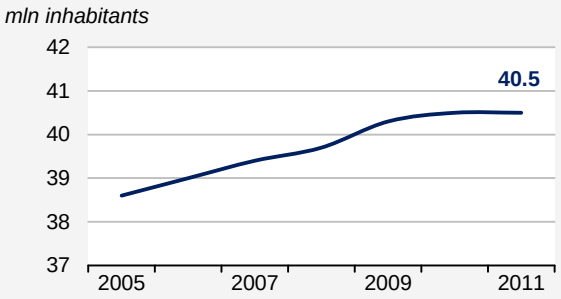
Consumption (x 1 000 tonnes)

• Milk	1 800
• Butter	27
• Cheese	464

Consumption (kg per capita)

• Milk	44.5
• Butter	0.7
• Cheese	11.5

Population



KEY DEVELOPMENTS

At farm level, the trend towards an increased use of concentrates and grains in the diet has been maintained, increasing dairy cow productivity, now at about 17.5 litres/cow/day. The average dairy farm now has about 135-140 milking cows. 18 % of the farms, producing more than 4 000 litres per day, now account for 45% of the milk produced. At the manufacturing level, no significant structural changes.

Producer prices averaged 0.365 USD/litre in 2011. Retail prices followed trend.

Consumption in 2011 reached 210 litres (of milk-equivalent) per person per year. This does not show great changes in aggregate values or in the mix of products consumed.

No significant change in dairy policies. No formal intervention in the domestic or foreign markets, but some ad hoc, minor, controls remain.

The economic situation is reasonable, given the uncertain situation of the world economy.

Source: Centro de la Industria Lechera (www.cil.org.ar), Dairy Cooperatives Association, PRB.

BRAZIL

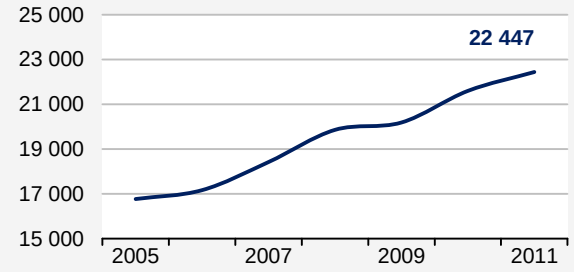
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	32 900	• Number of dairy cows (x 1 000 head)	23 513
% of worldwide milk production	5.3%	• Number of dairy farms	1 126 200
• % cow milk deliveries	65%		

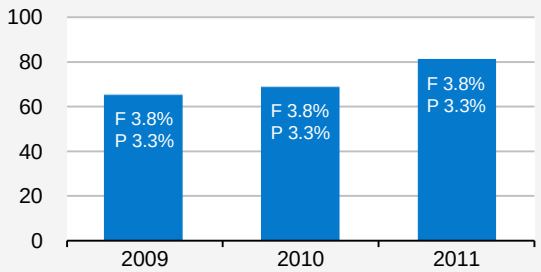
Cow milk deliveries

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

BRL per 100 kg



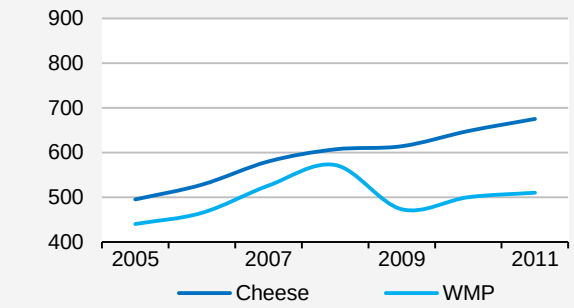
PROCESSING INDUSTRY

Main processors

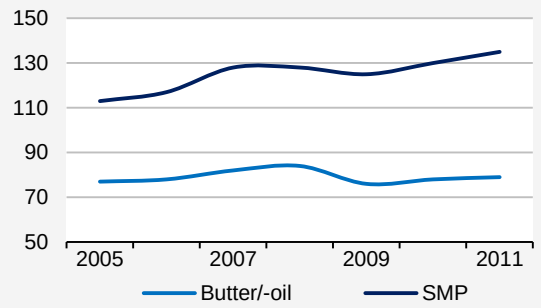
• DPA/Nestlé	www.nestle.com.br
• LBR	www.lacteosbrasil.com.br
• Itambé	www.itambe.com.br
• Italac	www.italac.com.br
• Laticínios Bela Vista	www.piracanjuba.com.br

Production

1 000 tonnes



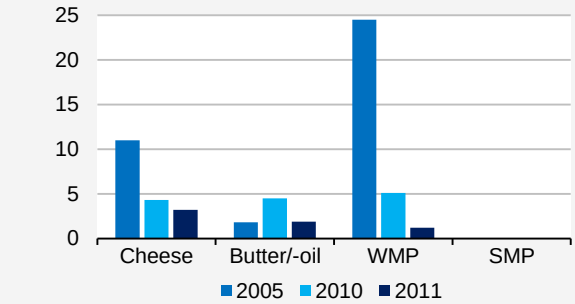
1 000 tonnes



TRADE

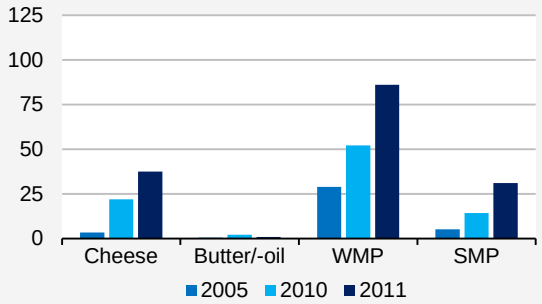
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	-	-	15	269	0	100
• Fermented products	-	-	0	67	2	100
• Cream	-	-	-	-	-	-
• Butter and butteroil	79	101	1	43	2	42
• Cheese	675	104	37	171	3	74
• Whole milk powder	510	102	86	165	1	24
• Skim milk powder	135	104	31	219	0	-

CONSUMPTION

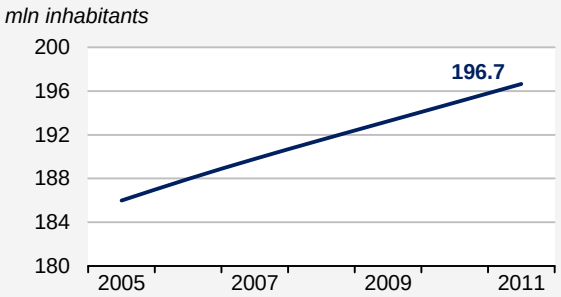
Consumption (x 1 000 tonnes)

• Milk	11 316
• Butter	78
• Cheese	701

Consumption (kg per capita)

• Milk	57.5
• Butter	0.4
• Cheese	3.6

Population



KEY DEVELOPMENTS

Milk is produced in the whole country, but production is concentrated in southeast and southern regions (35% and 32% of total milk production, respectively). Climatic conditions allow production to adapt to all regions. Milk is produced in a range of farms, from small ones that use little technology and have a daily production of less than 10 litres, to large farms with production over 60 000 litres. There are approximately 1.3 million milk producers in Brazil. They are classified as small (less than 50 litres a day; 80% of the total) and are responsible for only 26% of milk production. A second group (51-200 litres a day; 17% of farms) is responsible for 39% of total production. The remaining farms (3%; above 200 litres a day) account for 35% of the milk produced.

The Brazilian dairy industry has approximately 1 680 plants that are inspected by the Ministry of Agriculture. A similar number is submitted to State or Municipality inspections. The 12 biggest dairies (2011) processed 8.0 billion litres. The five biggest processed 6.3 billion litres (approximately 78%). A few dairy companies increased their share (2011 compared to 2010) including Bela Vista Dairy, which increased its share by 17%.

Until 2004 Brazil was an important importer of dairy products. In recent years changes have been observed with exports surpassing imports, but this situation is unstable. In the last three years imports surpassed exports. This trend is expected to continue.

In 2002 the Ministry of Agriculture established new regulations for raw and pasteurized milk. Somatic cell counts and total bacterial counts parameters were proposed, as well as stricter control for antibiotic residues and the need to refrigerate milk on the farm, among other measures. In 2011 the parameters for SCC and TBC were postponed because many milk farms were not able to comply with the new regulations. There will be a delay of approximately four years until these new regulations are in place. This may be an additional constraint for the Brazilian dairy industry to enter the international market in the near future.

Source: National Committee of the IDF, Embrapa Gado de Leite (www.cnpgl.embrapa.br), Comtrade, USDA, UN.

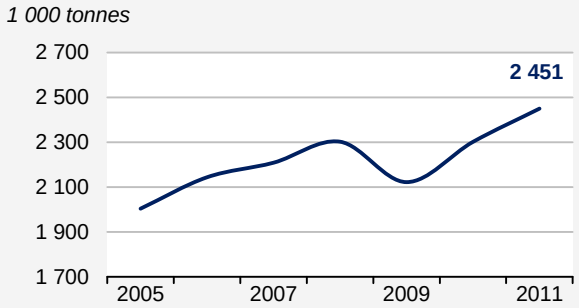
CHILE

DAIRY FARMING

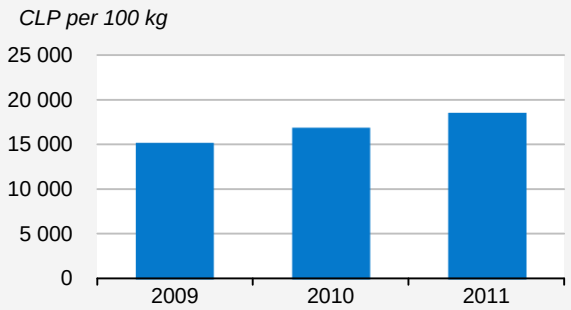
Key figures

• Cow milk production (x 1 000 tonnes)	2 699	• Number of dairy cows (x 1 000 head)	1 020
% of worldwide milk production	0.4%	• Number of dairy farms	6 500
• % cow milk deliveries	91%		

Cow milk deliveries



Cow milk prices (A)



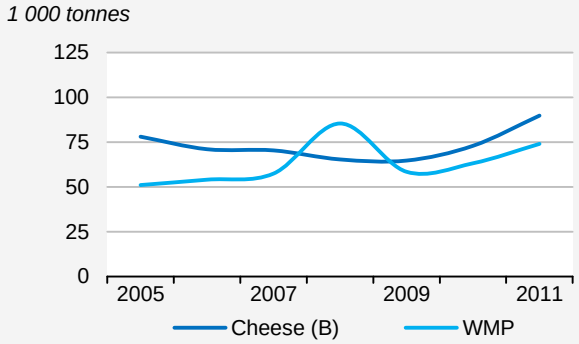
(A) Real fat and protein contents.

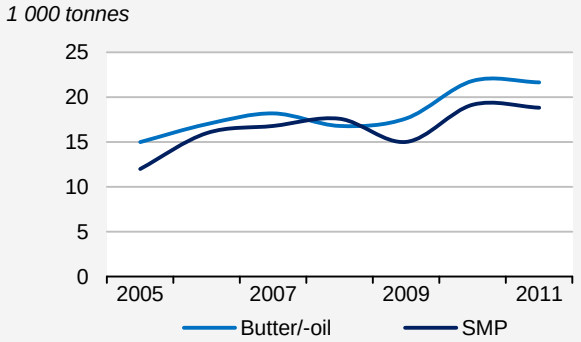
PROCESSING INDUSTRY

Main processors

• Colun	www.colun.cl
• Soprole	www.soprole.cl
• Nestlé	www.nestle.cl
• Watt's	www.watts.cl
• Surlat	www.surlat.cl

Production

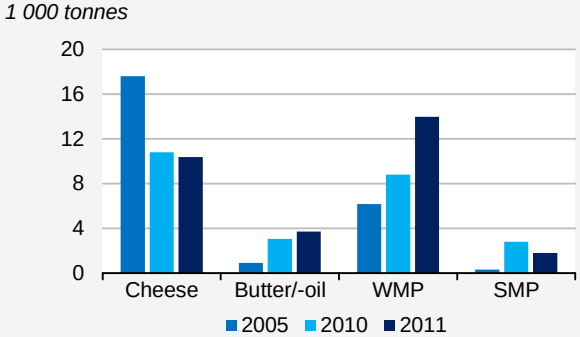




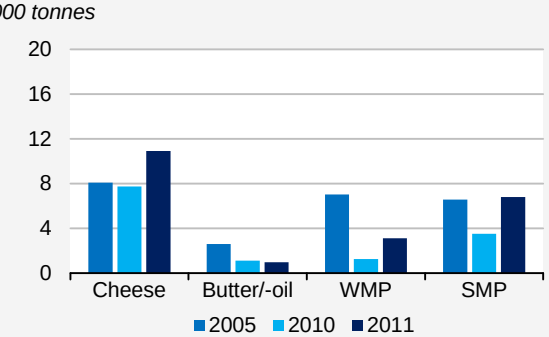
(B) Based on big dairies' production; total production of cheese (including small dairies): ~ 123 200 tonnes.

TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	381	101	0	0	1	147
• Fermented products	236	112	4	113	0	259
• Cream	31	106	0	-	1	491
• Butter and butteroil	22	99	1	86	4	121
• Cheese	90	123	11	141	10	96
• Whole milk powder	74	117	3	247	14	159
• Skim milk powder	19	98	7	193	2	64

CONSUMPTION

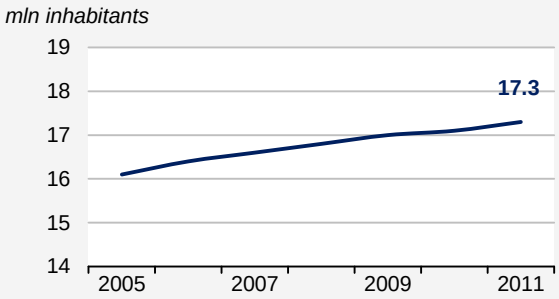
Consumption (x 1 000 tonnes)

• Milk	381
• Butter	18
• Cheese	124

Consumption (kg per capita)

• Milk	22.0
• Butter	1.0
• Cheese	7.2

Population



Source: National Committee of the IDF, Oficina de Estudios y Políticas Agrarias, Comtrade, national statistics, Comtrade, PRB.

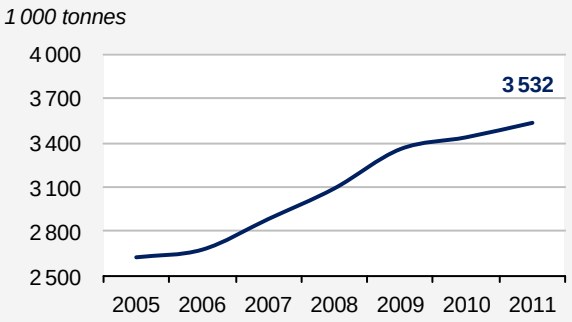
COLOMBIA

DAIRY FARMING

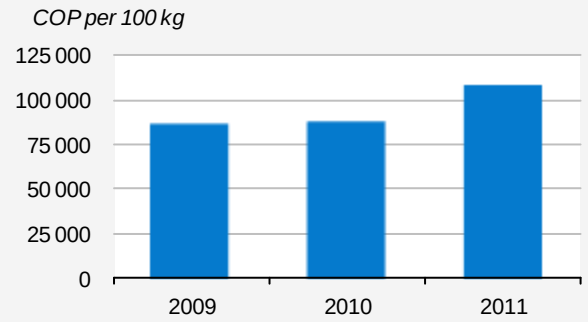
Key figures

• Cow milk production (x 1 000 tonnes)	6 540	• Number of dairy cows (x 1 000 head)	2 859
% of worldwide milk production	1.1%	• Number of dairy farms	19 939
• % cow milk deliveries	54%		

Cow milk deliveries



Cow milk prices (A)



(A) Fat: 3.45% - 3.80%, protein: 3.00% - 3.80%.

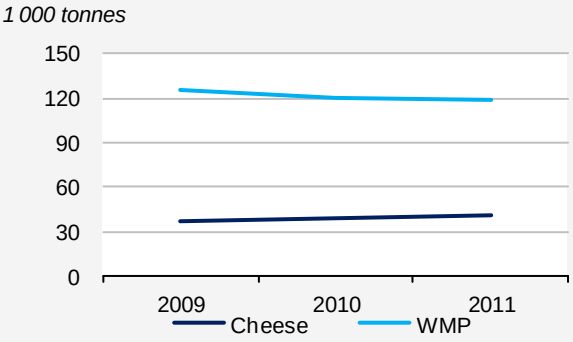
PROCESSING INDUSTRY

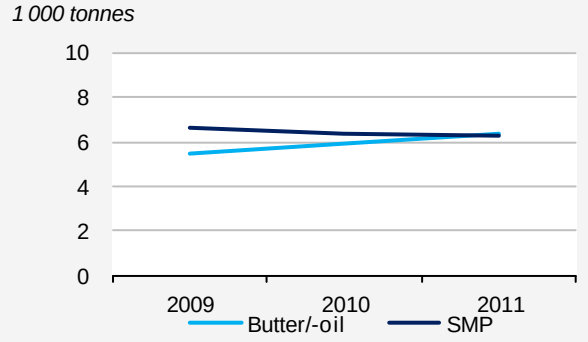
Main processors (B)

• Colanta	www.colanta.com.co
• Productos naturales de la sabana	www.alqueria.com.co
• Alpina	www.alpina.com.co
• Nestlé	www.nestle.com.co
• Parmalat	www.parmalat.com.co

(B) Ranking based on turnover.

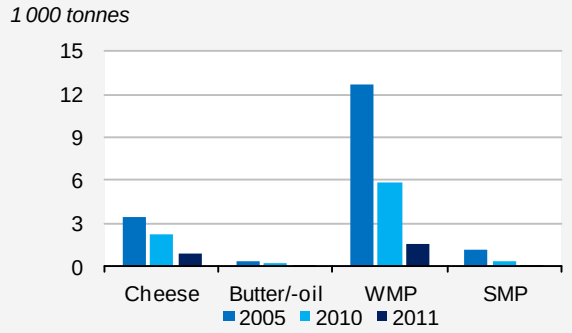
Production



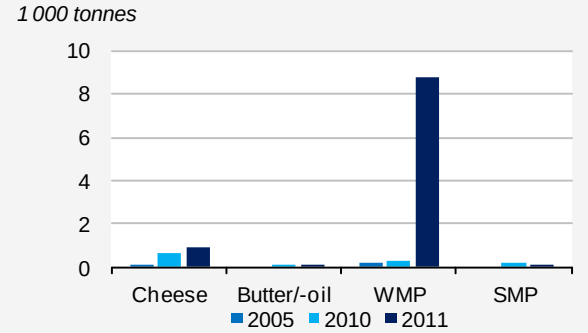


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	2 322	103	0	112	0	148
• Fermented products	149	103	0	175	0	83
• Cream	20	101	0	23	0	478
• Butter and butteroil	6	108	0	62	0	60
• Cheese	41	104	1	146	1	41
• Whole milk powder	119	99	9	>1 000	2	25
• Skim milk powder	6	99	0	50	0	33

CONSUMPTION

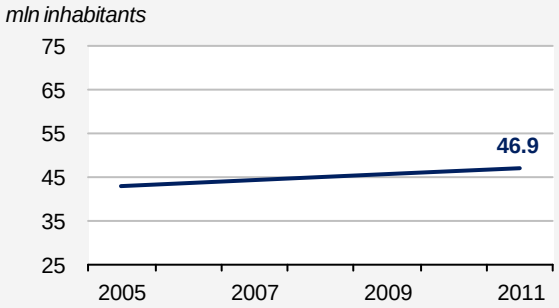
Consumption (x 1 000 tonnes)

• Milk	2 946
• Butter	6
• Cheese	43

Consumption (kg per capita)

• Milk	62.8
• Butter	0.1
• Cheese	0.9

Population



KEY DEVELOPMENTS

Although heavy rains and unexpected flooding took place during late 2010 and the early and late parts of 2011, milk collection was not impacted as strongly as many had feared, and total white milk consumption still managed to grow slightly over 2010 volumes. However, the impact of Colombia's heavy rains and flooding still continue to evolve, and the full measure of the effects has yet to be determined for 2012.

Colombia has the highest per capita milk consumption in the Andina region and the economy continues to be highly reliant on dairy production – this major factor continues to fuel the slow, steady growth for the white milk market overall in the country, despite inclement weather affecting production.

Changes in weather affected not only farmers (farms destroyed leaving soil not suitable for livestock, more than 500 thousand cows dead) it also increased price per litre of milk on farms and subsequently retail prices for all dairy products.

Flooding also left manufacturers unable to recover depleted stocks of powdered milk for their production needs in 2011. Because of this, the price of powdered milk rose faster than the price of liquid milk, causing consumers to move away from powdered milk consumption as a lower cost alternative.

Because of lower raw milk collection and depleted powdered milk stocks, manufacturers prioritized the use of raw milk for the production of cheese and yogurts.

Source: Tetra Pak Ltda.(www.tetrapak.com/co), FEDEGAN, Comtrade, UN.

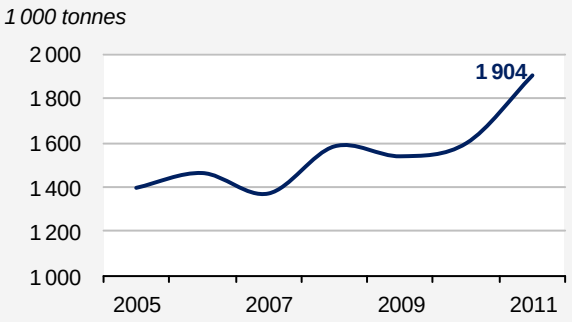
URUGUAY

DAIRY FARMING

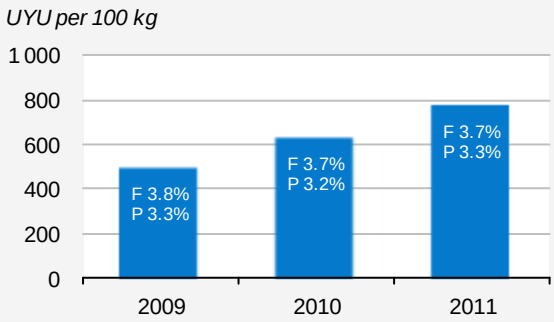
Key figures

• Cow milk production (x 1 000 tonnes)	2 215	• Number of dairy cows (x 1 000 head)	446
% of worldwide milk production	0.4%	• Number of dairy farms	4 400
• % cow milk deliveries	86%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

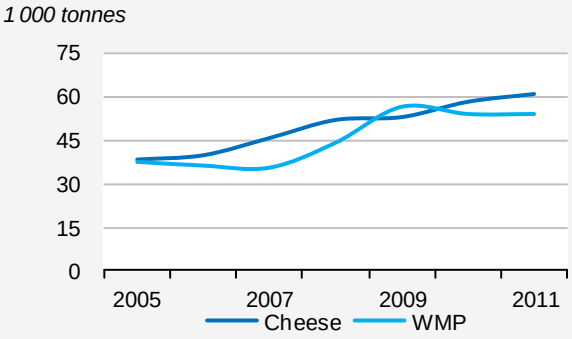


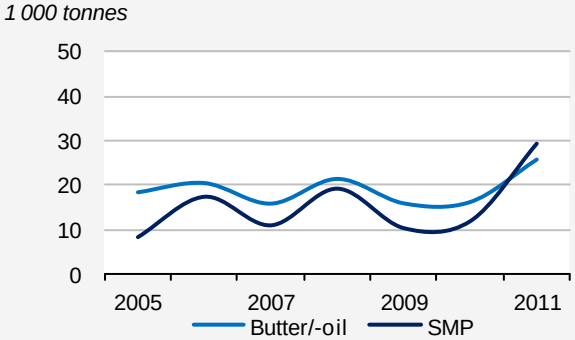
PROCESSING INDUSTRY

Main processors

• Conaprole	www.conaprole.com.uy
• Indulacsa	www.indulacsa.com.uy
• Ecolat	www.ecolat.com
• Calcar	www.calcar.com.uy
• Pili	www.pili.com.uy

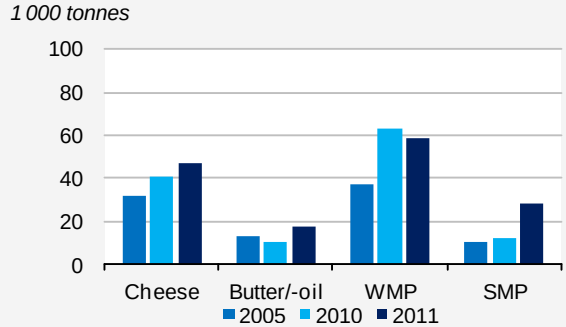
Production



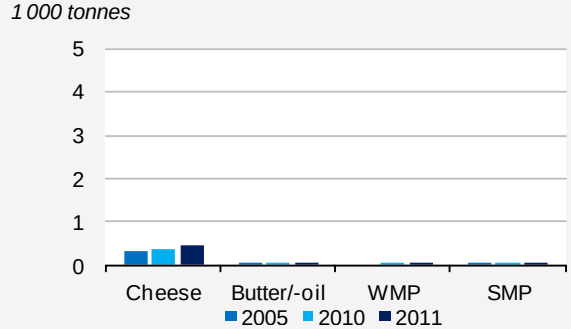


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	273	113	0	-	36	301
• Fermented products (A)	34	105	6	96	7	87
• Cream (B)	7	100	0	-	0	194
• Butter and butteroil	26	157	0	93	18	171
• Cheese	61	105	0	119	47	116
• Whole milk powder (C)	54	100	0	441	58	93
• Skim milk powder (C)	30	244	0	486	28	240

(A) Production of yoghurt only. (B) Production: year 2010. (C) Production: year 2011 estimated.

CONSUMPTION

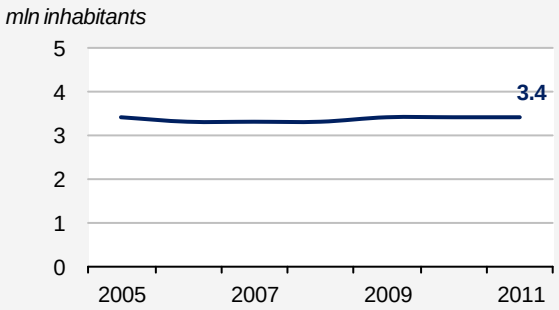
Consumption (x 1 000 tonnes)

• Milk	234
• Butter	5
• Cheese	21

Consumption (kg per capita)

• Milk	68.8
• Butter	1.4
• Cheese	6.3

Population



KEY DEVELOPMENTS

Following the entry of an investment fund from New Zealand in 2008, which invested in the development of primary production, the installation of a free stall dairy farm by the family Bulgueroni from Argentina is expected in 2012 - 2013. There will be over 6 000 milking cows on this dairy farm.

The prices received by the farmer in 2011 were better than 2010, and were similar to those in 2007 – 2008. But the costs were at high levels, the highest in history. In any case the situation of the sector in 2011 was favorable, because in addition to good prices, weather conditions were very good.

Consumption in Uruguay is one of the highest in Latin America, 241 kg milk equivalents per capita. The internal market is not good for growth in volume but is a good place for growth in value-added products.

In regard to state policies in 2011, the National Institute of Milk (INALE), worked with sector institutions in developing projects to support dairy development. These will be launched in 2012 and 2013.

The economic situation is good but dairy producers still have the 2009 situation in mind.

Source: National Committee of the IDF, Instituto Nacional de la Leche (www.inale.org), DIEA/MGAP, national statistics, PRB.

BELARUS

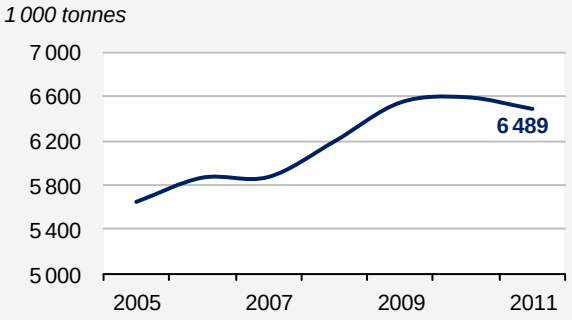
DAIRY FARMING

Key figures

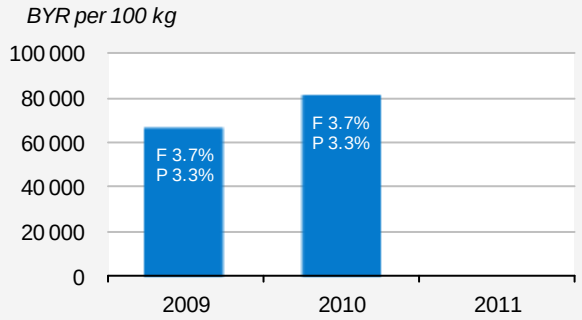
• Cow milk production (x 1 000 tonnes)	6 489	• Number of dairy cows (x 1 000 head)	1 477
% of worldwide milk production	1.0%	• Number of dairy farms (A)	66 000
• % cow milk deliveries	79%		

(A) Year : 2010

Cow milk production



Cow milk prices (F = fat%, P = protein%)

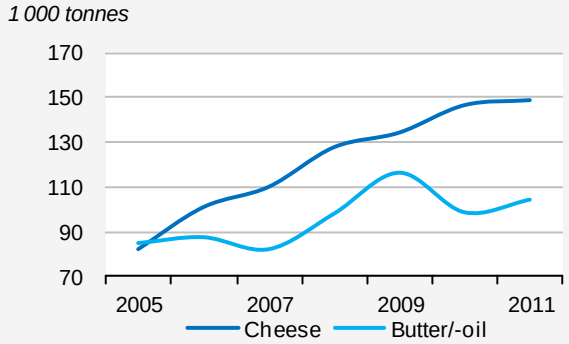


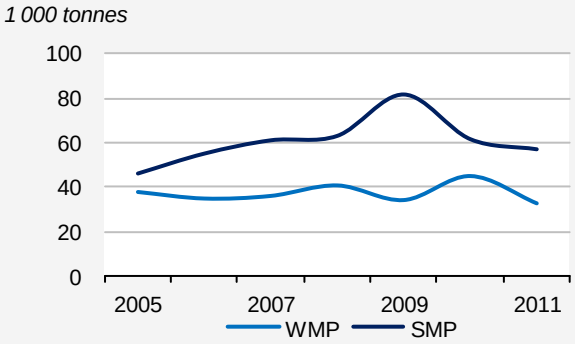
PROCESSING INDUSTRY

Main processors

• Savushkin product	-
• Babushkina Krynka	www.babushkina.by
• Slutski SK	-
• Gormolzavod Nr 1	-
• Beresovski SK	-

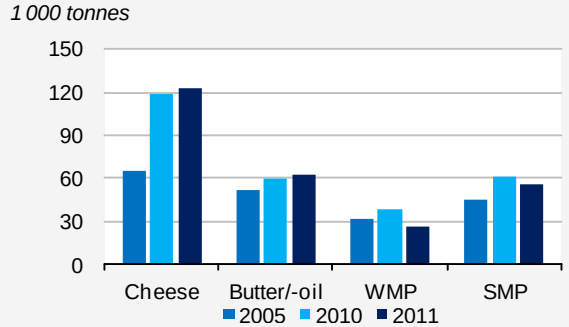
Production



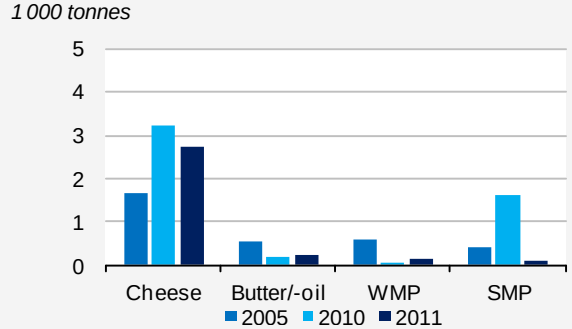


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk (B)	1 644	110	9	77	215	113
• Butter and butteroil (C)	104	106	0	113	62	103
• Cheese	149	102	3	84	122	103
• Whole milk powder	33	72	0	226	27	69
• Skim milk powder (D)	57	93	0	5	55	90

(B) Including fermented products, milk drinks and cream. (C) Production of butter only. (D) Production: estimation.

CONSUMPTION

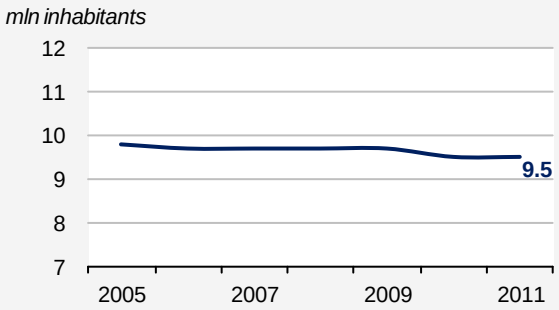
Consumption (x 1 000 tonnes)

• Milk	-
• Butter	43
• Cheese	29

Consumption (kg per capita)

• Milk	-
• Butter	4.5
• Cheese	3.1

Population



Source: Comtrade, FAO, national statistics, PRB.

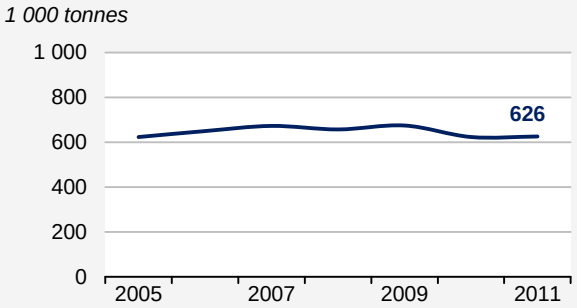
CROATIA

DAIRY FARMING

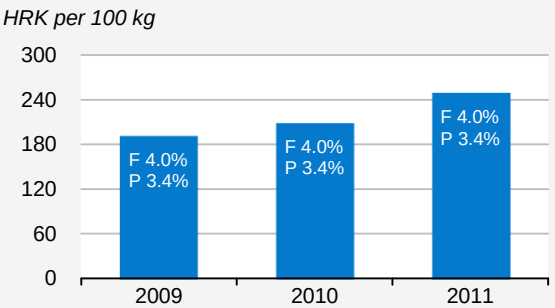
Key figures

• Cow milk production (x 1 000 tonnes)	804	• Number of dairy cows (x 1 000 head)	184
% of worldwide milk production	0.1%	• Number of dairy farms	17 366
• % cow milk deliveries	78%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

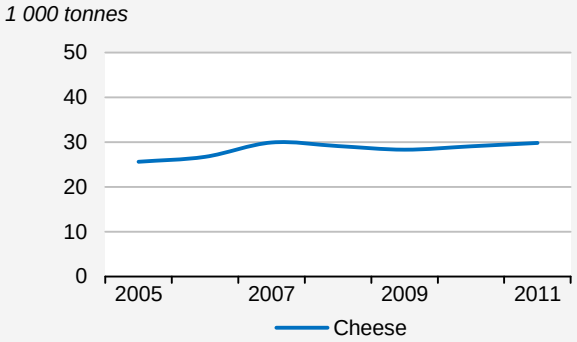


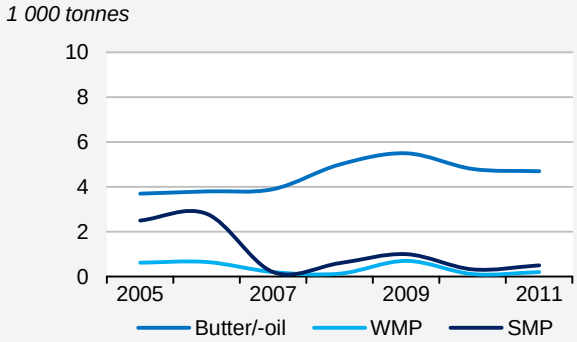
PROCESSING INDUSTRY

Main processors

• Dukat	www.dukat.hr
• Vindija	www.vindija.hr
• Belje	www.belje.hr
• Meggle	www.meggle-hrvatska.hr
• Zdenka	www.zdenka.hr

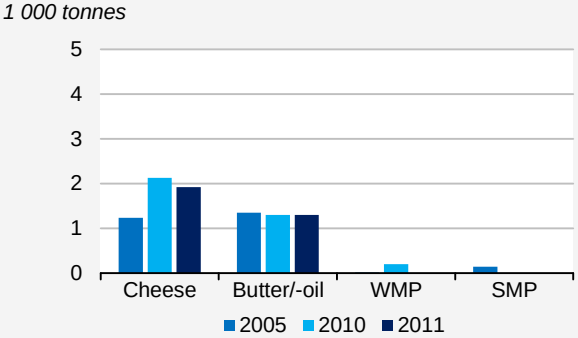
Production



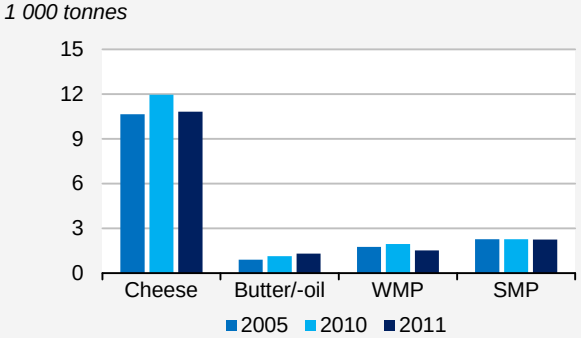


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	341	102	71	157	30	115
• Fermented products	80	102	6	95	18	104
• Cream	26	98	3	200	1	100
• Butter and butteroil	5	98	1	115	1	100
• Cheese	30	103	11	90	2	90
• Whole milk powder	0	182	2	78	0	0
• Skim milk powder	1	156	2	100	0	-

CONSUMPTION

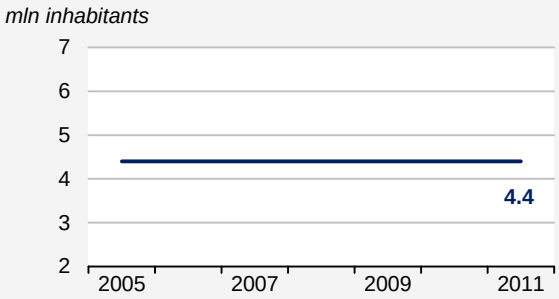
Consumption (x 1 000 tonnes)

• Milk	345
• Butter	3
• Cheese	34

Consumption (kg per capita)

• Milk	78.4
• Butter	0.6
• Cheese	7.7

Population



KEY DEVELOPMENTS

The milk production sector in the Republic of Croatia in the previous period is characterized by a very intense process of restructuring which is most evident in a significant decrease in the number of dairy producers especially those who delivered milk to dairy processing. However, the number of dairy cows is not characterized by so strong a downward trend.

Due to the impact of adverse weather conditions on the results of the harvest and the increase in prices of high-quality feed, the decreasing trend in milk production continued in the year 2011. Production of sheep and goat milk has remained at the same level.

Structural changes in the Croatian dairy sector primarily depend on financial ability of farmers (excessive debt). Milk price decreases in relation to the preparation of Croatian accession to the European Union. Consumption will not increase significantly, which is in line with the economic situation. Moreover, investments in the entire sector are not significant due to the reduction of subsidies and the Croatian economic situation.

Source: National Committee of the IDF, Agronomski fakultet Sveučilišta u Zagrebu (www.agr.hr), Comtrade, Eurostat, PRB.

ICELAND

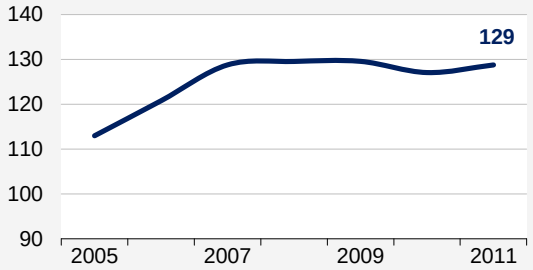
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	136	• Number of dairy cows (x 1 000 head)	26
% of worldwide milk production	0.0%	• Number of dairy farms	681
• % cow milk deliveries	95%		

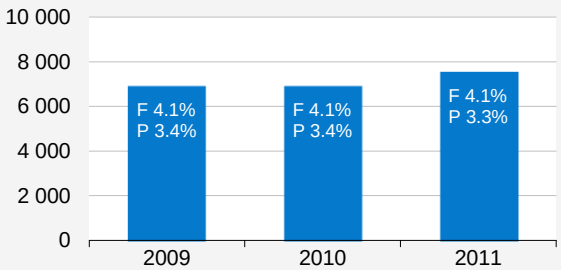
Cow milk deliveries

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

ISK per 100 kg



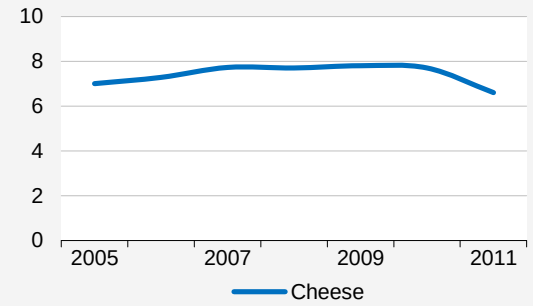
PROCESSING INDUSTRY

Main processors

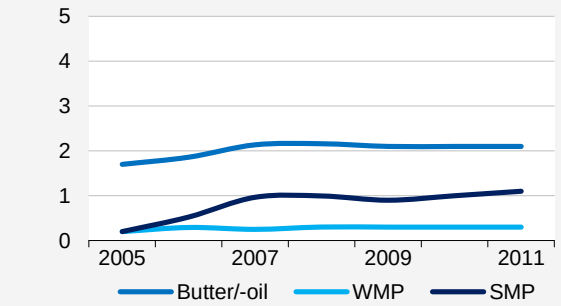
• Mjólkursamsalan	www.ms.is
• Mjólkursamlag	www.ks.is
• Vesturmjólk	-
• Mjólka	www.mjolka.is

Production

1 000 tonnes



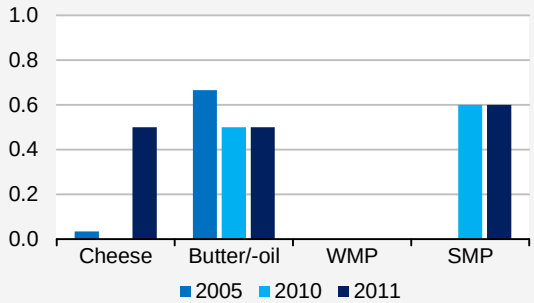
1 000 tonnes



TRADE

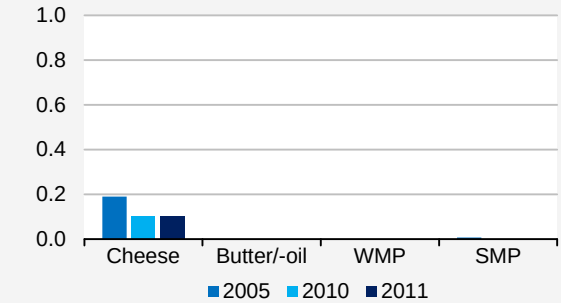
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	33	98	0	-	0	-
• Fermented products	12	102	0	-	0	-
• Cream	2	100	0	-	0	-
• Butter and butteroil	2	100	0	-	1	100
• Cheese	7	86	0	100	1	-
• Whole milk powder	0	100	0	-	0	-
• Skim milk powder	1	110	0	-	1	100

CONSUMPTION

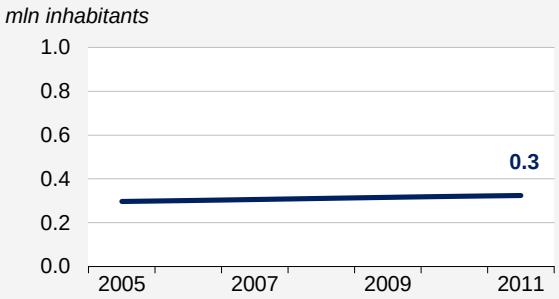
Consumption (x 1 000 tonnes)

• Milk	33
• Butter	2
• Cheese	8

Consumption (kg per capita)

• Milk	102.5
• Butter	4.6
• Cheese	24.1

Population



Source: National Committee of the IDF, Icelandic Dairies Association (www.sam.is), Comtrade, UN.

NORWAY

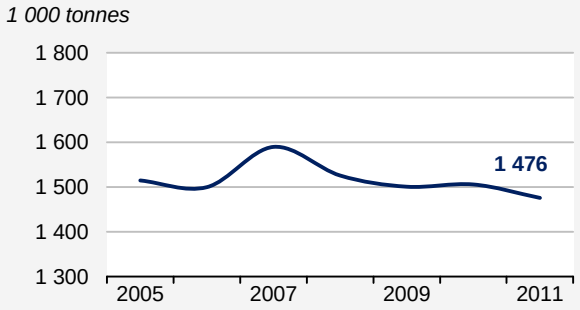
DAIRY FARMING

Key figures

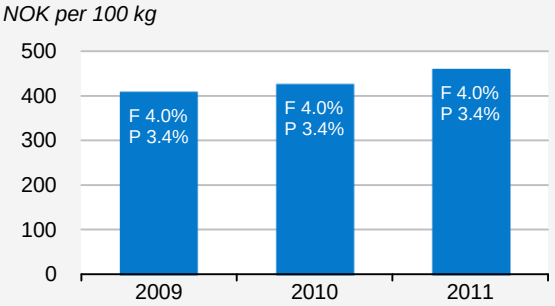
• Cow milk production (x 1 000 tonnes)	1 524	• Number of dairy cows (x 1 000 head)	241
% of worldwide milk production	0.2%	• Number of dairy farms (A)	10 900
• % cow milk deliveries	97%		

(A) Points of deliveries (joint farmers operations).

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

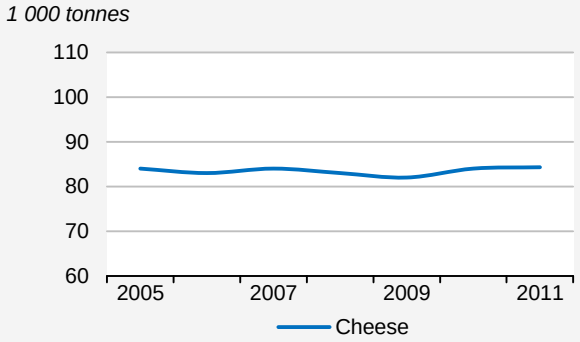


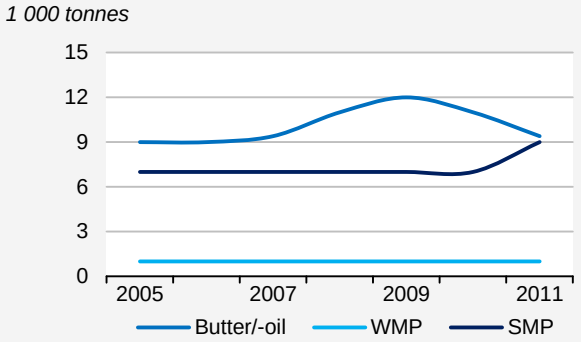
PROCESSING INDUSTRY

Main processors

• Tine	www.tine.no
• SynnøveFinden	www.synnove.no
• Q-meieriene	www.q-meieriene.no
• Normilk	www.normilk.no
• Rørosmeieriet	www.rorosmeieriet.no

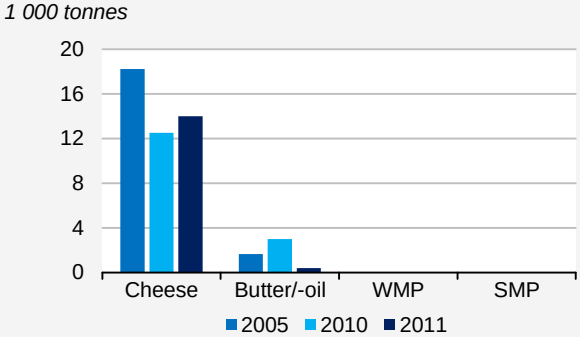
Production



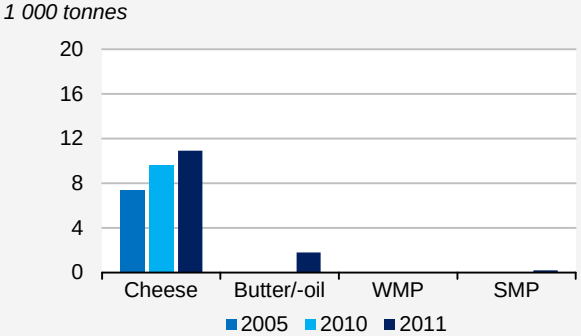


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	409	99	0	-	0	-
• Fermented products	131	98	10	337	0	-
• Cream	32	112	0	-	0	-
• Butter and butteroil	9	85	2	-	0	13
• Cheese	84	100	11	114	14	112
• Whole milk powder	1	100	0	-	0	-
• Skim milk powder	9	129	0	-	0	-

CONSUMPTION

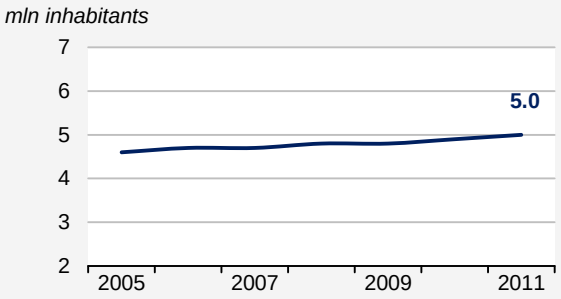
Consumption (x 1 000 tonnes)

• Milk	409
• Butter	12
• Cheese	87

Consumption (kg per capita)

• Milk	81.8
• Butter	2.4
• Cheese	17.4

Population



KEY DEVELOPMENTS

Economy
Economic development in Norway continues in a positive way, in contrast to the situation in the EU.
An excellent economy creates a high cost level and that gives the milk producer a challenge. High costs require a high milk price. The last negotiation between the Farmers Union and the Government broke down, because the Government did not fulfill the requirement from the farmers. The agreement was determined by the Parliament.

Structural changes
The number of farmers decreases by 5% every year. A number of joint operations have also been established. 15 000 milk producers run 10 900 production facilities. Shut down of dairy factories is continuous. A new factory, the biggest in Norway, was opened in June 2012.

Price trends
The milk price has increased by 32% since 2004. The price in 2011 was NOK 4.74/litre, or 0.62 EUR/litre. The highest ever. Consumer prices for dairy products increased by 1.1% on average in 2011. Since 1998 the price of consumption milk and yoghurt increased by 57% and cheese by 13%.

Consumption trends
The per capita consumption of milk fell by 2.3%. Cream increased by 10.8%, yoghurt by 1.4%, butter by 0.3% and cheese by 1.0%. For cheese and yoghurt the increased consumption was related to import.

Dairy policy
The lack of butter around Christmas in 2011 also had an element of dairy policy. The market regulation system especially has been attacked. Import increases every year. A new cheese agreement with the EU has been established. Cheese and yoghurt dominate import.

Source: National Committee of the IDF, Tine SA (www.tine.no), Comtrade, PRB.

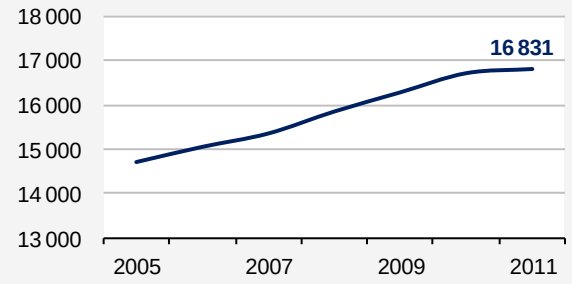
RUSSIA

DAIRY FARMING

Key figures

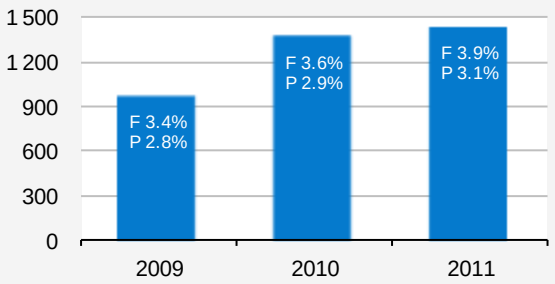
• Cow milk production (x 1 000 tonnes)	31 646	• Number of dairy cows (x 1 000 head)	8 948
% of worldwide milk production	5.1%	• Number of dairy farms	3 130 000
• % cow milk deliveries	53%		

1 000 tonnes



Cow milk prices (F = fat%, P = protein%)

RUB per 100 kg



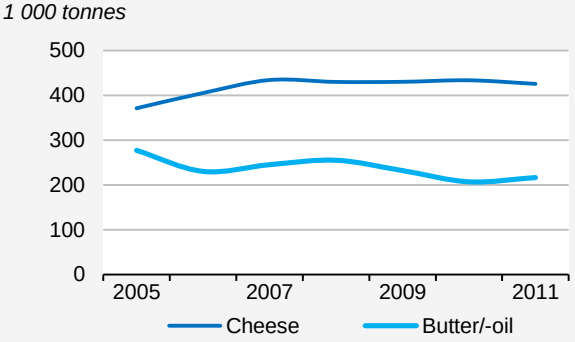
PROCESSING INDUSTRY

Main processors

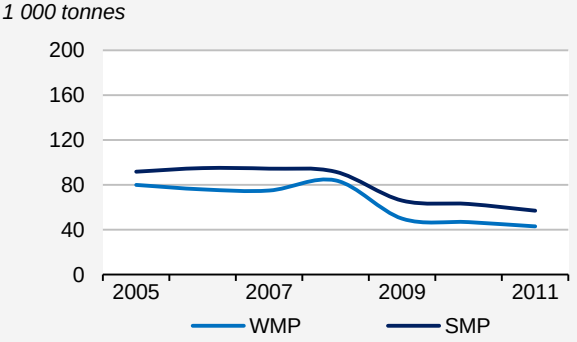
• Danone - Unimilk	www.danone.ru
• PepsiCo – Wimm-Bill-Dann	www.wbd.ru
• Voronezhskiy Dairy Plant	www.molvest.ru

Production

1 000 tonnes



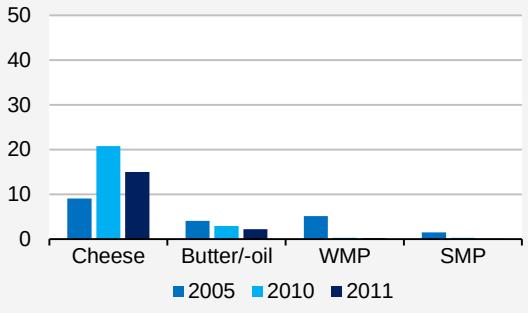
1 000 tonnes



TRADE

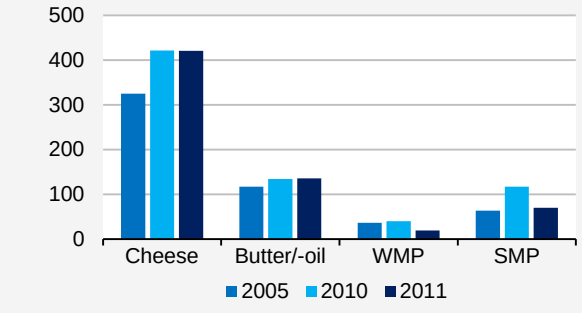
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	4 860	100	189	111	5	49
• Fermented products	2 481	110	52	125	36	66
• Cream	80	102	16	75	1	163
• Butter and butteroil	216	105	136	101	2	76
• Cheese	425	98	421	100	15	72
• Whole milk powder	43	92	20	49	0	60
• Skim milk powder	57	90	70	60	0	34

CONSUMPTION

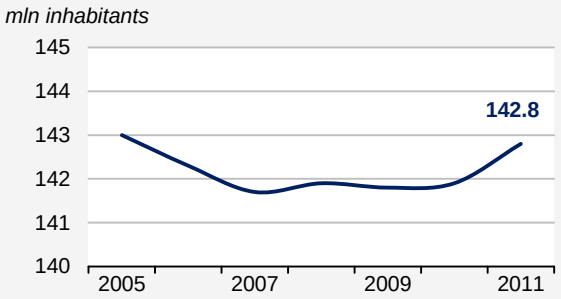
Consumption (x 1 000 tonnes)

• Milk	5 059
• Butter	349
• Cheese	831

Consumption (kg per capita)

• Milk	35.4
• Butter	2.4
• Cheese	5.8

Population



KEY DEVELOPMENTS

The Russian market in 2011 is characterized by a decrease in consumption of dairy products from domestic production, increased production of milk containing product mix (milk components), and lower levels of self-sufficiency in the Russian Federation.

Exports from Russia are small, and are mainly milk powder.

The main exporter of dairy products to Russia in 2011 is the Republic of Belarus. The share of the country's supply of butter was 39%, that of cheese and curd 30.1%, that of powder and concentrated dairy products 82.9%.

Source: National Committee of the IDF, Russian Dairy Union (www.dairyunion.ru), Comtrade, PRB.

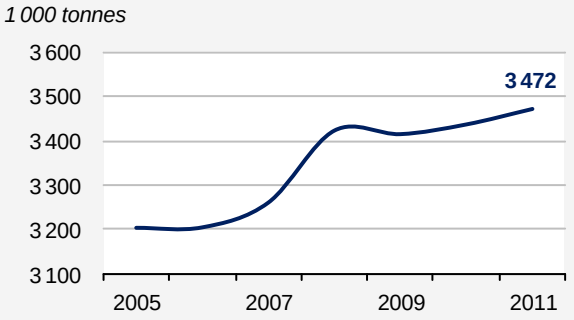
SWITZERLAND

DAIRY FARMING

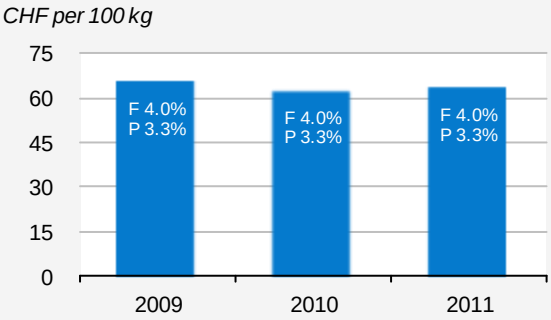
Key figures

• Cow milk production (x 1 000 tonnes)	4 119	• Number of dairy cows (x 1 000 head)	595
% of worldwide milk production	0.7%	• Number of dairy farms	25 233
• % cow milk deliveries	84%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

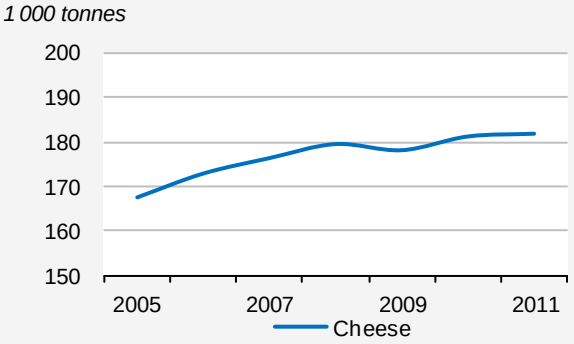


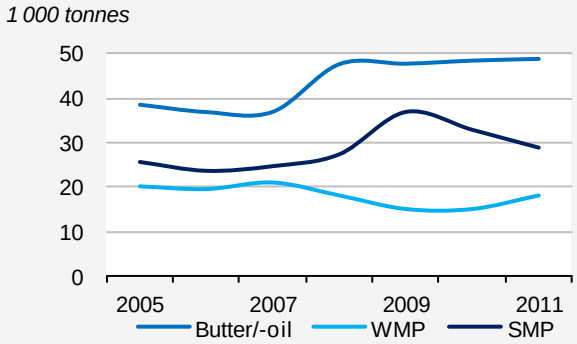
PROCESSING INDUSTRY

Main processors

• Emmi	www.emmi.ch
• Cremo	www.cremo.ch
• Hochdorf	www.hochdorf.com
• Elsa – Mifroma	www.elsa.ch
• Nestlé	www.nestle.ch

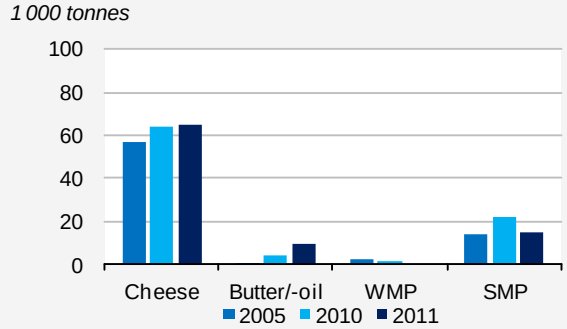
Production



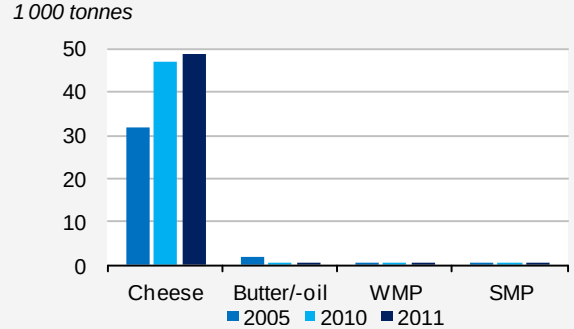


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	487	99	26	114	1	226
• Fermented products	258	98	12	110	6	90
• Cream	70	103	2	90	4	136
• Butter and butteroil	49	101	0	150	10	226
• Cheese	182	100	49	104	65	101
• Whole milk powder	18	120	1	100	0	0
• Skim milk powder	29	88	0	14	14	65

CONSUMPTION

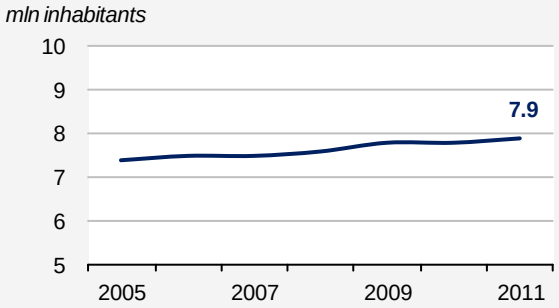
Consumption (x 1 000 tonnes)

• Milk	632
• Butter	42
• Cheese	172

Consumption (kg per capita)

• Milk	80.0
• Butter	5.4
• Cheese	21.8

Population



KEY DEVELOPMENTS

In 2011 the Swiss-GDP increased about +1.9% (population: +0.6%). Domestic consumption increased only by +1.0%. This was the lowest rate since 2003. As a consequence of the worldwide financial crisis the Swiss Franc became very strong and in September 2011 the Swiss National Bank stabilised the exchange rate at 1.2 CHF/Euro.

Total milk consumption in Switzerland was stable in 2011. The retail prices for all dairy products on the domestic market decreased -2.6% (average), but on the export markets the prices for branded Swiss dairy products had to be increased because of the exchange rate. The farm-gate price for milk increased very modestly (~ +1.4%) in 2011.

After the end of the milk quota system (2006/09) the continued overproduction of milk (2006/11: +8.3%) was still a problem for a majority of the farmers. For this reason the Swiss Dairy Economy introduced a segmentation system on a private level (no public support) for all dairy farmers in Switzerland. The system still needs to stand the test.

The EU and Switzerland had no substantial negotiations for an agricultural free trade agreement in 2011.

Source: National Committee of the IDF, Swiss Milk Commission (www.swissmilk.ch), national statistics, PRB.

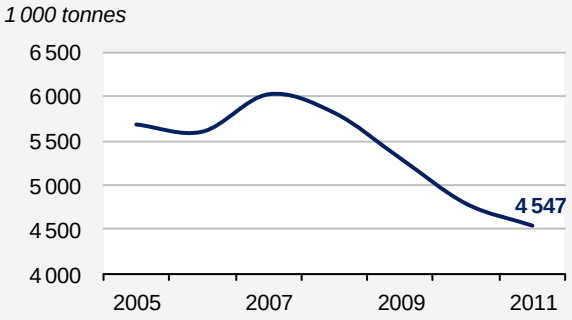
UKRAINE

DAIRY FARMING

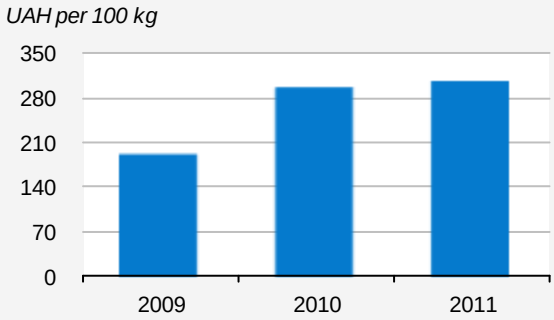
Key figures

• Cow milk production (x 1 000 tonnes)	10 815	• Number of dairy cows (x 1 000 head)	2 582
% of worldwide milk production	1.7%	• Number of dairy farms	11 161
• % cow milk deliveries	42%		

Cow milk deliveries



Cow milk prices (A)



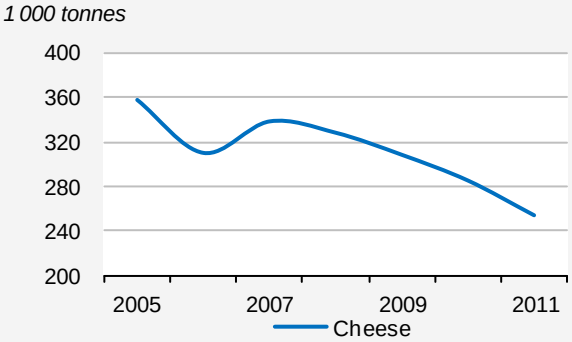
(A) Real fat and protein contents.

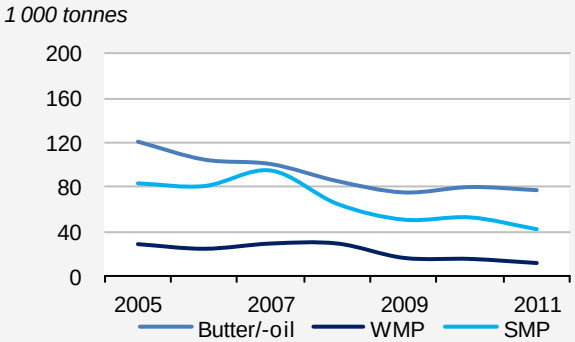
PROCESSING INDUSTRY

Main processors

• Wimm-Bill-Dann	www.wbd.com
• Danone	www.danone.ua
• Lactalis	www.lactalis.com.ua
• Milk Alliance	www.unimilk.ru
• Milkiland	www.milkiland.com

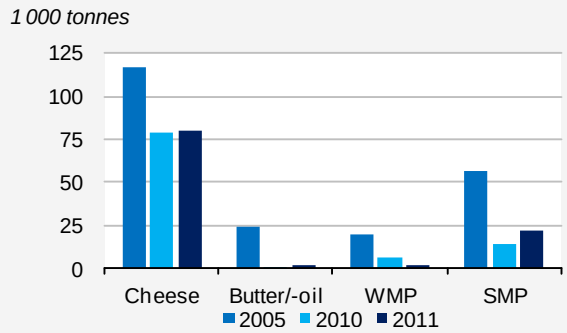
Production



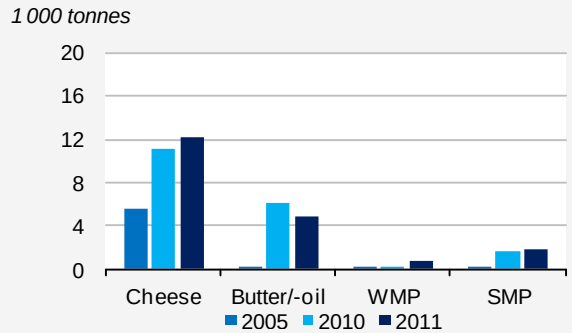


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	891	111	2	607	11	69
• Fermented products	474	99	8	111	6	125
• Cream	33	166	1	90	0	155
• Butter and butteroil	77	96	5	81	2	183
• Cheese	255	89	12	109	80	101
• Whole milk powder (B)	11	73	1	244	2	35
• Skim milk powder (B)	43	80	2	115	22	160

(B) Production: estimate.

CONSUMPTION

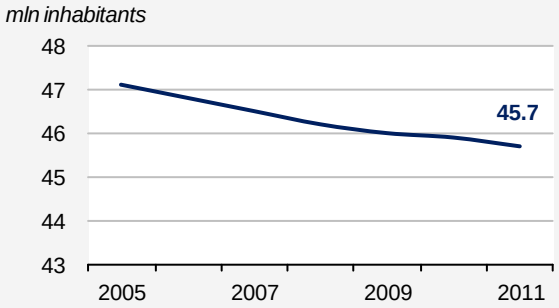
Consumption (x 1 000 tonnes)

• Milk	-
• Butter	80
• Cheese	186

Consumption (kg per capita)

• Milk	-
• Butter	1.7
• Cheese	4.1

Population



KEY DEVELOPMENTS

In 2011 small private farms produced 8 839 tonnes of milk. That was 2.1% less than 2011. Collective farms produced 2 246 thousand tonnes of milk, which was 1.3% more than 2011. Prices for milk depend on season (summer: 2.0 – 3.5 UAH, winter: 3.5 – 5.0 UAH). Only 4 547 thousand tonnes of milk were processed (41% of total production).

Consumption trends: increasing for drinking milk, cheap fermented products (traditional): kefir, acidified milk, butteroil. Consumption of fruit yoghurt, probiotic fermented products, expensive dairy products, dairy products in expensive packaging is decreasing. Range of fermented products and products in glass have arrived on the market. Production and consumption of cheese products containing non-dairy oil (more than 50-75% replacing of dairy fat) are increasing.

Economic outlook is not optimistic, because practically, production of all dairy products has decreased. Quality of milk in most private dairy farms is low.

Consolidation of dairy plants owned by international dairy companies: Danone, Lactalis, Pepsico, Bel, Bongrain.

Source: National Committee of the IDF, USDA, national statistics, PRB.

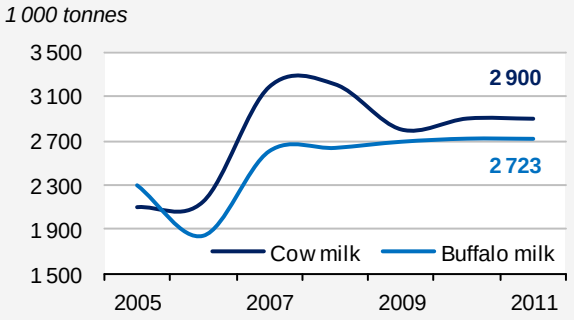
EGYPT

DAIRY FARMING

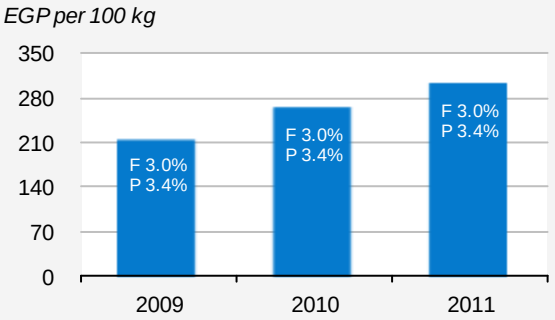
Key figures

• Cow milk production (x 1 000 tonnes)	2 900	• % cow milk deliveries	55%
% of worldwide milk production	0.5%	• Number of dairy cows (x 1 000 head)	1 748
• Buffalo milk production (x 1 000 tonnes)	2 723	• Number of buffaloes (x 1 000 head)	1 894
% of worldwide milk production	2.8%	• Number of dairy farms	596 530

Milk production



Milk prices (F = fat%, P = protein%)

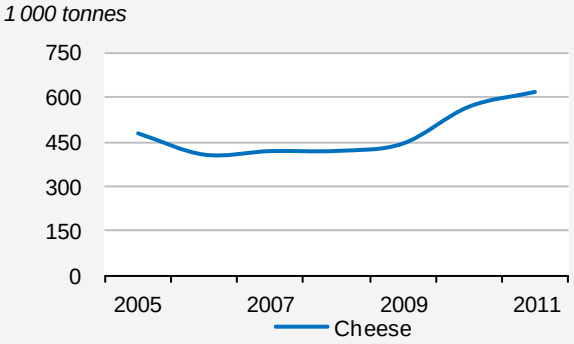


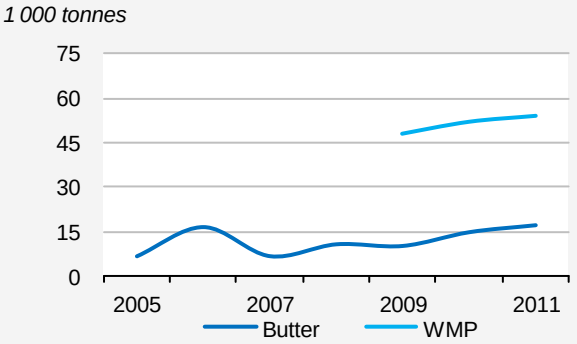
PROCESSING INDUSTRY

Main processors

• Juhayna	www.juhayna.com
• Groupe Lactalis	www.lactelegypt.com
• Green Land Group	www.greenland-eg.net
• Domty	www.domty.org
• Danone	www.danone.com

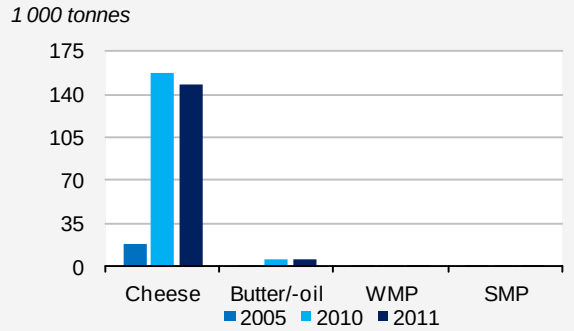
Production



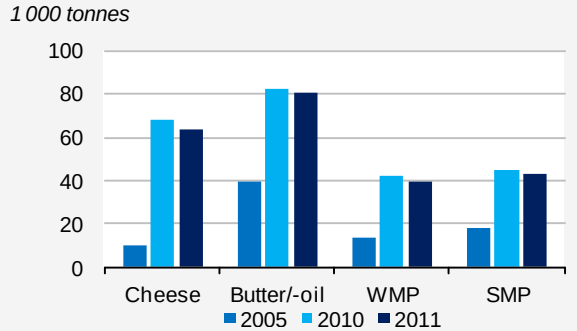


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	1 303	87	0	75	13	41
• Fermented products	212	88	0	50	0	100
• Cream	5	83	0	33	1	88
• Butter and butteroil (A)	17	116	81	99	6	87
• Cheese	620	109	64	95	148	94
• Whole milk powder	54	104	39	94	1	85
• Skim milk powder	-	-	43	95	1	82

(A) Production of butter only.

CONSUMPTION

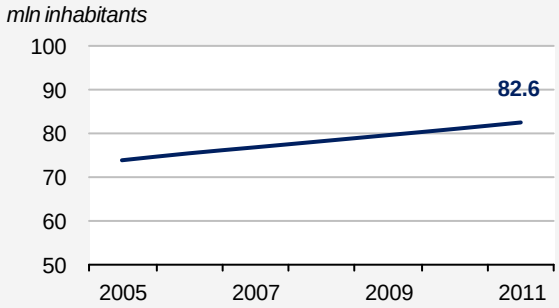
Consumption (x 1 000 tonnes)

• Milk	1 869
• Butter	62
• Cheese	835

Consumption (kg per capita)

• Milk	22.6
• Butter	0.8
• Cheese	10.1

Population



KEY DEVELOPMENTS

More than 99% of the milk, yoghurts, and other dairy products come from cows and buffalo. Sheep and goats' milk is used for specialized cheeses. Egypt has two main segments in milk production, the Small & Medium Farms and the Commercial Dairy Farms. The milk produced by the first segment represents 75% of Egypt milk production, about 45% of that milk is consumed at village level (calf rearing (25%), family use (75%)). The other 55% is marketable milk, sold through a multi-layered distribution system of intermediaries and direct sales.

By comparing prices of cow and buffalo milk it must be noted that buffalo milk (7% fat) is usually diluted with cow milk in a way that the legal lower limit of 5.5% fat is maintained. Therefore at farm level the difference in price between cow's milk and buffalo milk could be more than EGP 1.50. In practice, this is usually not the case because retailing of loose milk covers almost 40% of the market. The price of raw milk varies little in Upper Egypt. Smallholder dairy producers receive on average EGP 1.80 per litre.

Milk production and consumption have increased significantly. The share of available milk increased from 1.4 million tonnes to about 3.5 million tonnes per year.

Food and hygiene laws have been drafted by several ministries. Each ministry has its own inspection services: the Ministry of Agriculture is responsible for the control of zoonotic diseases. The Ministry of Health is responsible for supervising the handling of milk, not for the processing which falls under the Ministry of Industry. The Ministry of Housing is responsible for laws concerning the buildings where milk is handled. The Chamber of Food Industries presented a draft for establishment of a "Food Safety Authority" bringing all inspection bodies under the same roof.

Source: National Committee of the IDF, Chamber of Food Industries (www.egycfi.org.eg), Comtrade, FAO, FAPRI, UN, PRB.

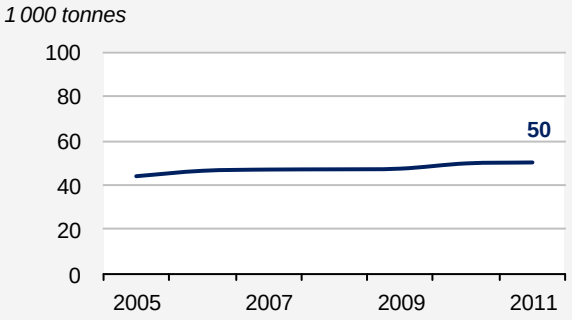
NIGERIA

DAIRY FARMING

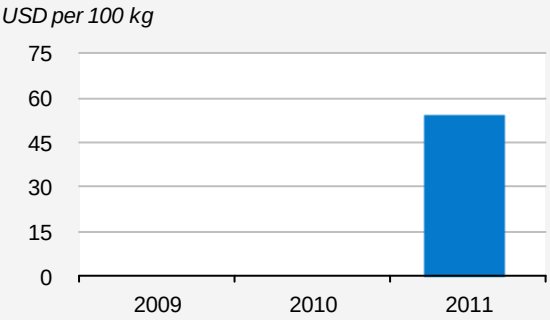
Key figures

• Cow milk production (x 1 000 tonnes)	500	• Number of dairy cows (x 1 000 head)	2 050
% of worldwide milk production	0.1%	• Number of dairy farms	325 000
• % cow milk deliveries	10%		

Cow milk deliveries



Cow milk prices (A)



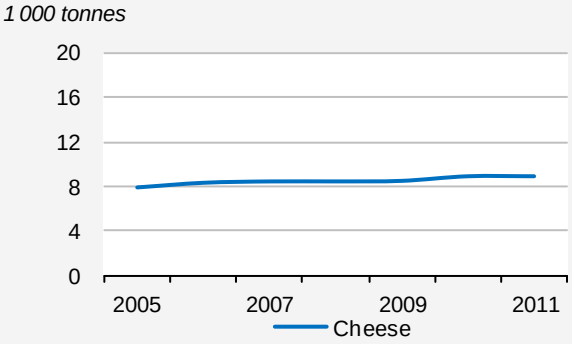
(A) Real fat and protein contents.

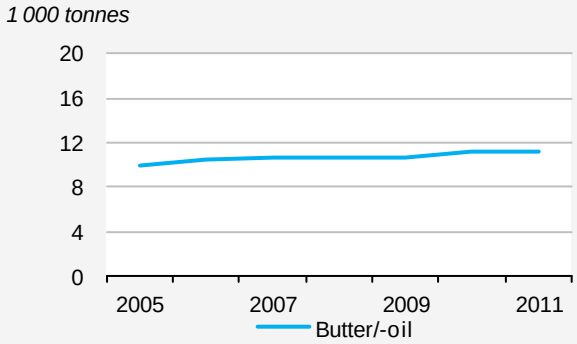
PROCESSING INDUSTRY

Main processors

• FrieslandCampina Wamco	www.frieslandcampina.com
• Promasidor	www.promasidor.com
• Chellarams	www.chellaramsplc.com
• Nutricima	www.pzcussonsng.com

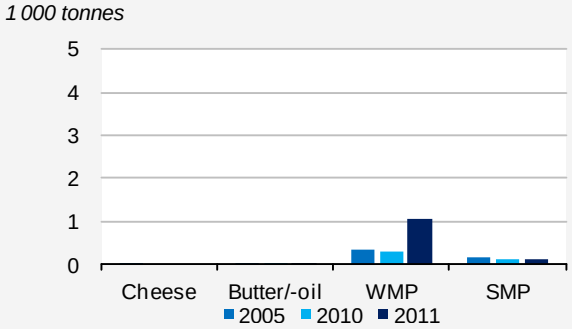
Production



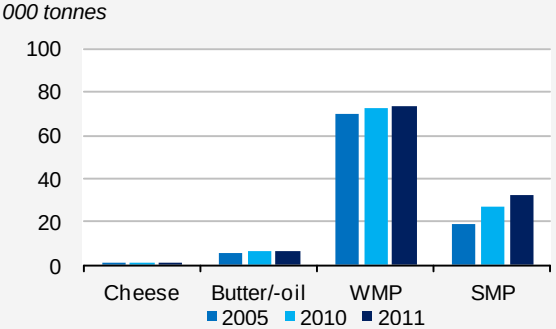


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production (B) 2011	Production (B) (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	-	-	3	109	0	739
• Fermented products	-	-	6	104	0	>1 000
• Cream	-	-	0	103	0	>1 000
• Butter and butteroil	11	100	6	103	0	17
• Cheese	9	100	0	64	0	-
• Whole milk powder	-	-	73	101	1	369
• Skim milk powder	-	-	32	119	0	115

(B) Production: year 2010.

CONSUMPTION

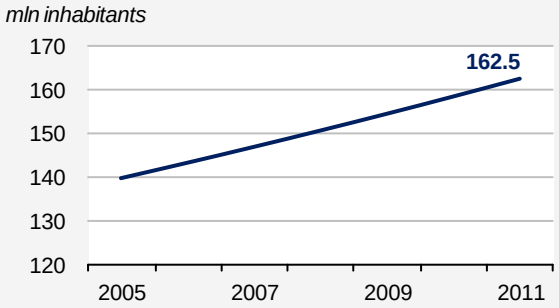
Consumption (x 1 000 tonnes)

• Milk	-
• Butter	-
• Cheese	-

Consumption (kg per capita)

• Milk	-
• Butter	-
• Cheese	-

Population



KEY DEVELOPMENTS

The dairy industry is dominated by the traditional system, where about 90% of the milking cows are owned and managed by agro-pastoral, semi-settled and transhumance Fulani. In recent years efforts by the government to render the agricultural sector more commercial have encouraged an elite to embrace dairy production and the use of crossbred cows, but lack of proper record keeping makes it difficult to apportion any figures to the current structure. Also agro-pastoralists in some parts of the country have accepted breed improvement through the use of artificial insemination to upgrade the genetic potential for milk production. Semi-settled Fulani in south western Nigeria have embraced the milk collection network and bulking at MCC to supply fresh milk to FrieslandCampina WAMCO.

The milk price trends are fairly stable as farm gate prices range between USD 0.5 and USD 0.6 per litre of raw milk from the northern to southern parts of Nigeria. But retail prices vary depending on the products, with higher prices paid for products from companies that produce milk powder or liquid evaporated milk or yoghurt with prices of USD 6, USD 5 and USD 3 for one kilogramme of powdered milk, one litre of evaporated milk and one litre of yoghurt respectively.

At 2 kg per capita annually, consumption of dairy products is low but is increasing slightly. As demand increases, annual imports are put at over USD 600 million. In some parts of the country, especially the north, other ethnic groups, like the Igbo, are starting to consume dairy products acquired from Fulani women especially the fermented products called “kindirmo“.

Government policies should address the following: establishment of a National Artificial Insemination Service and milk processing system; establishment of a Dairy Development Council; selection and improvement of Nigerian Dairy Breeds. An import tariff on milk should be applied to the development of the marketing infrastructure for milk in major producing/consuming areas; Promotion of goats and dairy animal species for family milk supply stimulating demand for consumption of fresh milk; Provision of training and extension services to stakeholders in the dairy industry value chain.

Source: IFDC (www.ifdc.org), FAO, IFCN, Comtrade, UN.

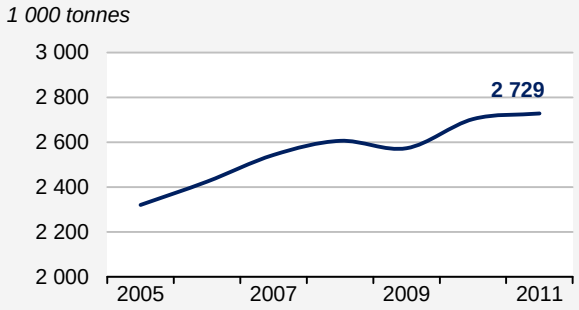
SOUTH AFRICA

DAIRY FARMING

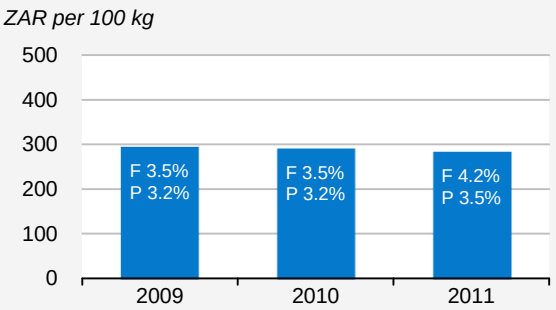
Key figures

• Cow milk production (x 1 000 tonnes)	2 866	• Number of dairy cows (x 1 000 head)	540
% of worldwide milk production	0.5%	• Number of dairy farms	2 580
• % cow milk deliveries	95%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

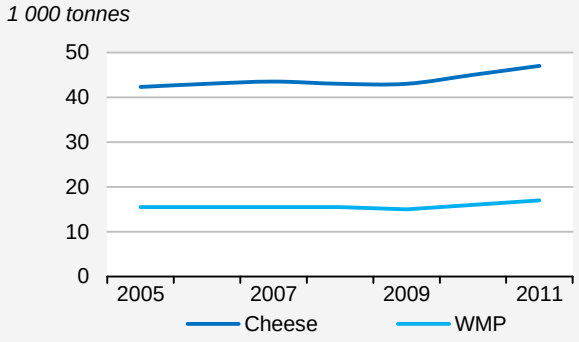


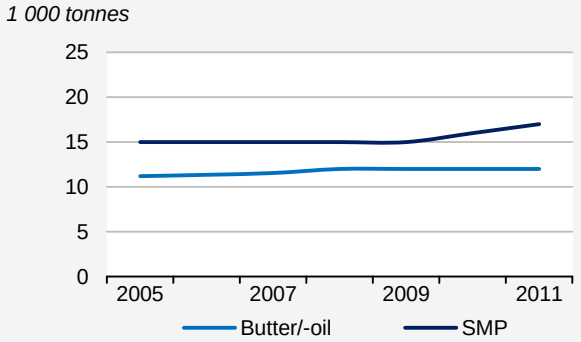
PROCESSING INDUSTRY

Main processors

• Clover	www.clover.co.za
• Parmalat	www.parmalat.co.za
• Woodlands	www.woodlands.co.za
• Dairybelle	www.dairybelle.co.za
• Nestle	www.nestle.co.za

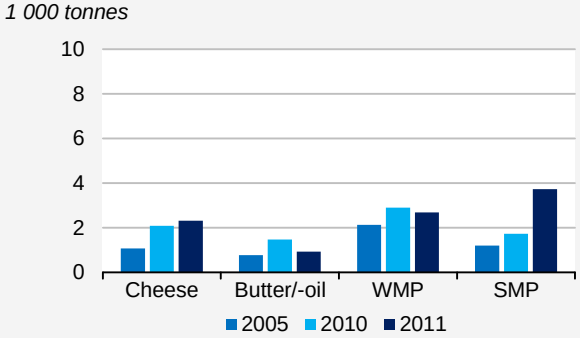
Production



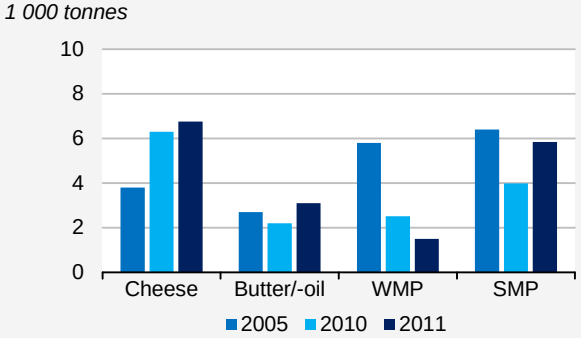


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	1 564	123	7	61	19	154
• Fermented products	324	105	2	150	9	204
• Cream	-	-	1	45	2	53
• Butter and butteroil	12	100	3	141	1	63
• Cheese	47	104	7	107	2	111
• Whole milk powder	17	106	1	59	3	93
• Skim milk powder	17	106	6	147	4	216

CONSUMPTION

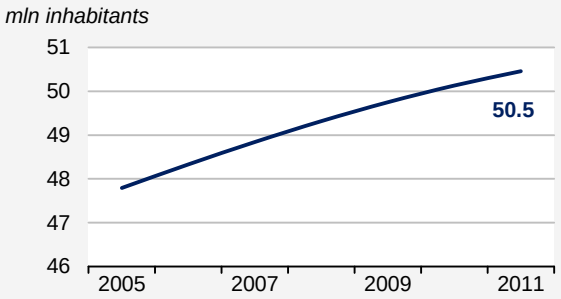
Consumption (x 1 000 tonnes)

• Milk	1 564
• Butter	14
• Cheese	52

Consumption (kg per capita)

• Milk	31.0
• Butter	0.3
• Cheese	1.0

Population



KEY DEVELOPMENTS

The number of role players in the primary sector and the industry continues to decrease. The number of milk producers decreased from 2 686 at the beginning of 2012 to 2 474 by year-end. The number of processors and producer-distributors remained constant. On farm level milk prices were on average 2.3% lower in 2011 than in 2010. The price of manufactured dairy products at factory gate increased by 0.7%. The price of milk, cheese and eggs on retail level also increased by 0.7% on average.

Consumption of all categories of dairy products was higher in 2011 than in 2010. Mainline store sales of liquid milk increased by 2.6%, UHT (longlife) milk by 10.6%, flavoured milk by 5.8%. Sales of prepacked cheese increased by 17.8%.

There were no changes in tariff and trade policies. During 2011 new consumer protection legislation came into effect and new labelling legislation was published for comment.
Economic growth has recovered from the 2008 recession. Stable growth at lower rates than before the recession is recorded. Retail sales have recovered from the recession. Year-on-year growth in retail sales remains positive. Consumer's disposable income has increased and consumer debt has decreased. This positively affects consumer spending.

Source: National Committee of the IDF, Milk Producers' Organisation (www.mpo.co.za), FAO, Comtrade, UN.

ZIMBABWE

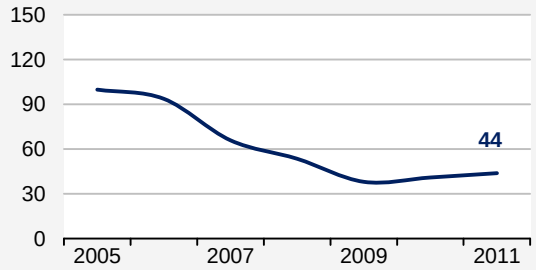
DAIRY FARMING

Key figures

• Cow milk production (x 1 000 tonnes)	51	• Number of dairy cows (x 1 000 head)	15
% of worldwide milk production	0.0%	• Number of dairy farms	186
• % cow milk deliveries	86%		

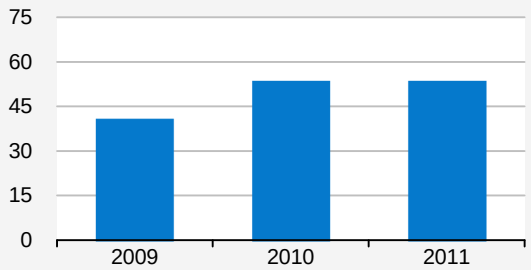
Cow milk deliveries

1 000 tonnes



Cow milk prices (A)

USD per 100 kg



(A) Real fat and protein contents.

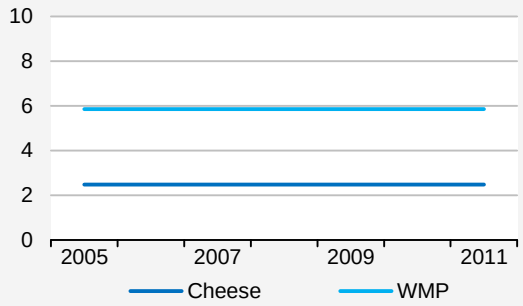
PROCESSING INDUSTRY

Main processors

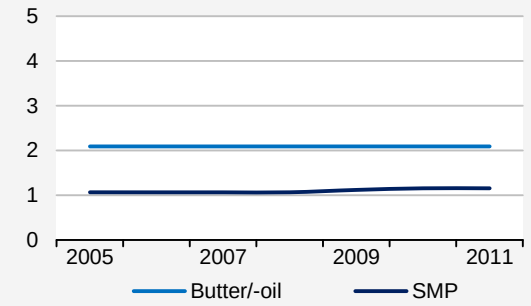
• Dairibord	www.dairibord.com
• Kefalos Cheese	www.cheeseman1.com
• Dendairy Dairies	-
• Nestle	www.nestle.com
• Kershelmar	-

Production

1 000 tonnes



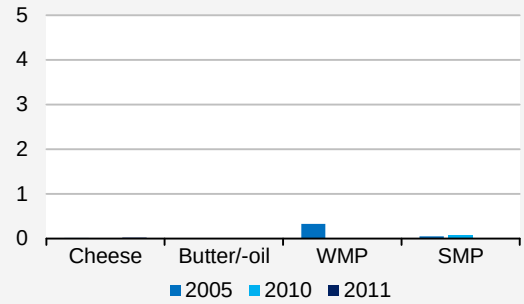
1 000 tonnes



TRADE

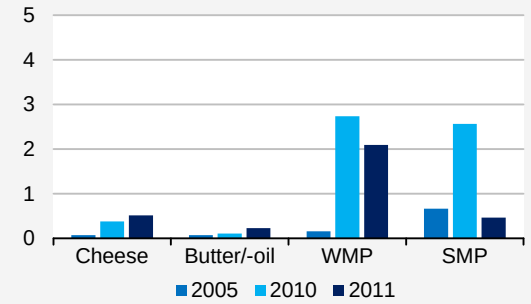
Export

1 000 tonnes



Import

1 000 tonnes



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production (B) 2011	Production (B) (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk	-	-	12	158	0	0
• Fermented products	-	-	1	120	0	-
• Cream	-	-	1	104	0	-
• Butter and butteroil	2	100	0	216	0	-
• Cheese	2	100	1	135	0	-
• Whole milk powder	6	100	2	76	0	-
• Skim milk powder	1	100	0	18	0	0

(B) Production: year 2010.

CONSUMPTION

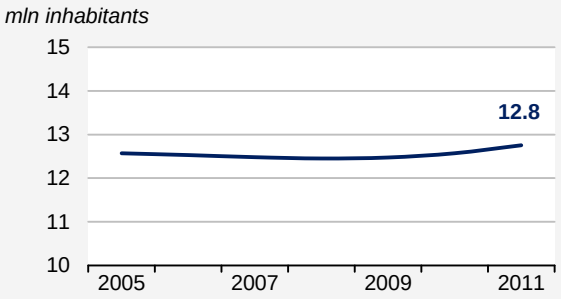
Consumption (x 1 000 tonnes)

• Milk	-
• Butter	-
• Cheese	-

Consumption (kg per capita)

• Milk	-
• Butter	-
• Cheese	-

Population



KEY DEVELOPMENTS

Relatively few large scale producers have ceased operating as a result of the land re-distribution programme, and herds were generally taken over by other farmers. The National Association of Dairy Farmers in partnership with Land O'Lakes, and sponsored by USAID, continues assisting development of the small scale sector. Other key stakeholders, e.g. processors and input suppliers are playing a significant role with this. Re-building the national dairy herd is a priority supported by industry stakeholders. It has involved relatively few animals being imported from South Africa and the recent introduction of an artificial insemination synchronization programme in the small scale sector. There are now five large processors operating and a fluctuating number of producers processing on-farm, adding to the challenges of a robust informal sector. Local production supplies approximately 50% of domestic needs of milk and milk products.

The producer price has remained static and processors continue to face challenges from highly competitive imported products. Total input costs for dairy farmers remain high, possibly the highest within the Southern and Eastern African regions…

Consumption remains static and there is an urgent need for a national survey to assess consumption patterns with regards to competitive products, such as beef, pork and poultry.

Dairy Services, a Government Department, is currently revising and updating the Zimbabwe Dairy Act that regulates the industry. The use of GMO raw materials in feeds remains a contentious issue and is currently being debated. The local Environmental Management Agency, a Government appointed agency, is very actively trying to regulate control of the environment. The Department of Veterinary Services, with Dairy Services are resuscitating the Contagious Abortion Scheme.

The economic situation remains harsh with a current shortage of liquidity in the market. The nationalization of land means that title deeds can no longer be tendered as security against loans for development and expansion.

Source: National Committee of the IDF, The Commercial Farmers' Union of Zimbabwe (www.cfuzim.org), FAO, Comtrade, UN.

AUSTRALIA (A)

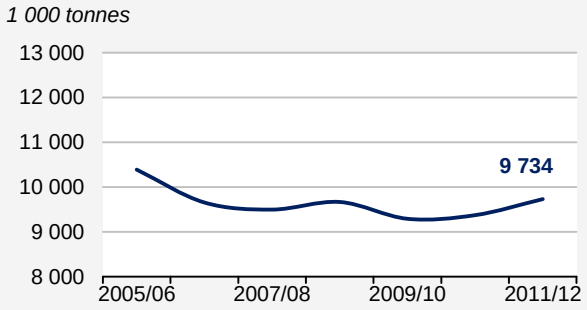
(A) Dairy years ending June of the following year.

DAIRY FARMING

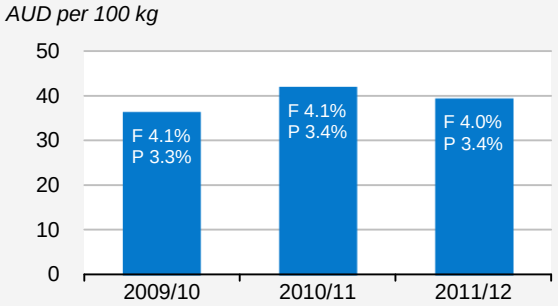
Key figures

• Cow milk production (x 1 000 tonnes)	9 734	• Number of dairy cows (x 1 000 head)	1 620
% of worldwide milk production	1.6%	• Number of dairy farms	6 900
• % cow milk deliveries	100%		

Cow milk deliveries



Cow milk prices (F = fat%, P = protein%)

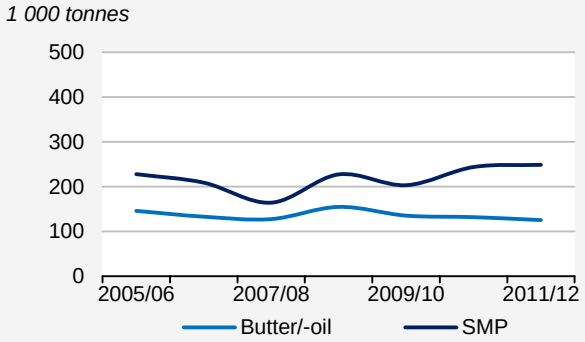


PROCESSING INDUSTRY

Main processors

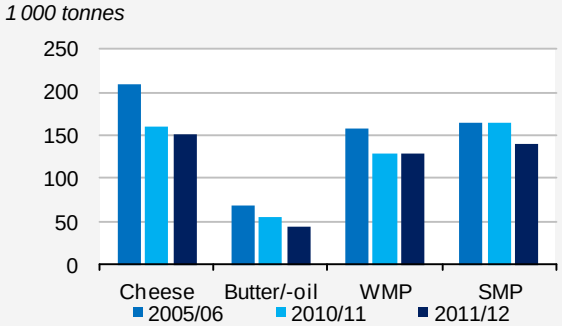
• Murray Goulburn	www.mgc.com.au
• Fonterra	www.fonterra.com.au
• National Foods	www.natfoods.com.au
• Warrnambool Cheese & Butter	www.wcbf.com.au
• Bega Cheese	www.begacheese.com.au

Production

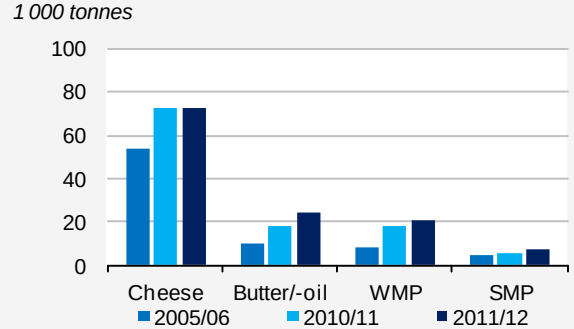


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011/12	Production (10/11=100)	Import 2011/12	Import (10/11=100)	Export 2011/12	Export (10/11=100)
• Liquid milk	2 467	104	7	80	78	110
• Fermented products	-	-	1	240	5	120
• Cream	-	-	2	115	0	0
• Butter and butteroil	125	95	24	133	45	80
• Cheese	349	105	73	100	152	95
• Whole milk powder	150	95	21	115	128	100
• Skim milk powder	249	102	8	150	140	85

CONSUMPTION

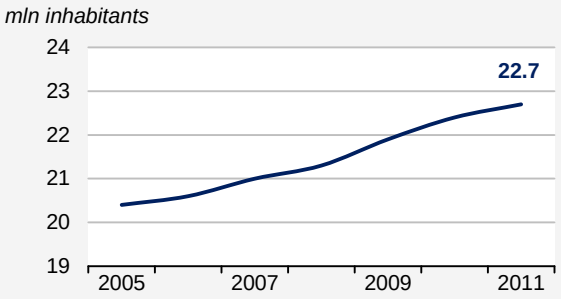
Consumption (x 1 000 tonnes)

• Milk	2 467
• Butter	90
• Cheese	266

Consumption (kg per capita)

• Milk	108.7
• Butter	4.0
• Cheese	11.7

Population



KEY DEVELOPMENTS

Significant regional variation remains a feature of the Australian dairy industry in 2012. For most farmers in south-eastern Australia, the 2011/12 season has been one of consolidation. Slightly lower farmgate prices have been offset by lower feed costs. Farmers have been addressing short-term debt and stabilising balance sheets.

Farmgate milk prices in exporting regions will finish 2011/12 down around 5% from the previous year. In drinking milk regions, average prices have declined, as access to “tier one” supply for many suppliers has been altered and lower contract prices have been negotiated, leaving farmers with limited alternative supply opportunities.

Major retailers continue to push the “value” button, and focus on low-priced everyday staples such as milk and bread. One dollar per litre pricing for private label milk has been in place for over 12 months. Consumers have migrated across to the cheaper supermarket product, and while there has been overall volume growth in the category, value and profit margins have been eroded. Nevertheless the domestic market continues to offer the industry a solid base for its product, with consumption growing around 1% per year - in line with population, despite the foodservice sector remaining under pressure, as consumers look to home-prepared meals to cut spending.

Policy settings will continue to play an important role in Australian dairy farmers continuing to be competitive and profitable into the future. At home the implementation of and adaptation to the carbon pricing scheme and access to water are key issues.

Growth in the Australian economy slowed in 2011, but is expected to strengthen in the short to medium term as monetary policy moderates. However, a multi-speed economy is apparent in business conditions, with the mining sector continuing to boom while domestically-focussed and other exporting industries struggle. Unemployment remains low, but consumers remain vigilant about spending.

Source: National Committee of the IDF, Dairy Australia (www.dairyaustralia.com.au), national statistics, PRB.

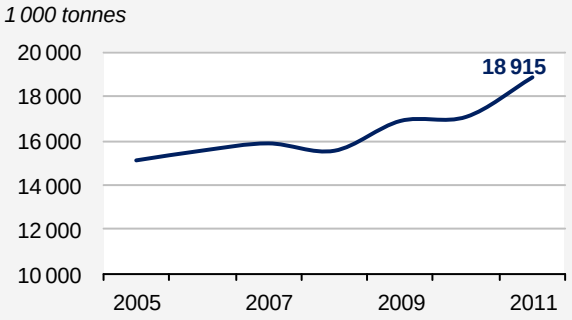
NEW ZEALAND

DAIRY FARMING

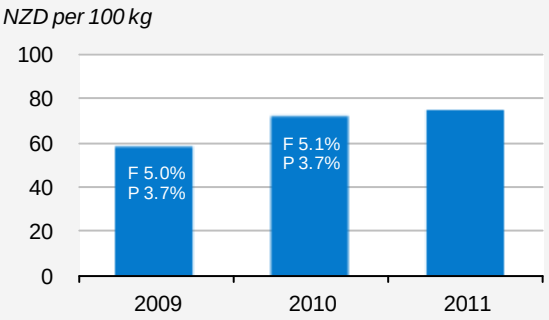
Key figures

• Cow milk production (x 1 000 tonnes)	18 966	• Number of dairy cows (x 1 000 head)	4 550
% of worldwide milk production	3.1%	• Number of dairy farms	11 750
• % cow milk deliveries	100%		

Cow milk deliveries (A)



Cow milk prices (F = fat%, P = protein%)



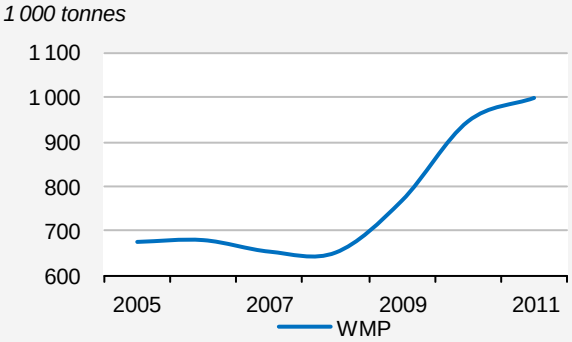
(A) Years 2005 and 2006 refer to the dairy seasons 2005/06 till 2006/07.

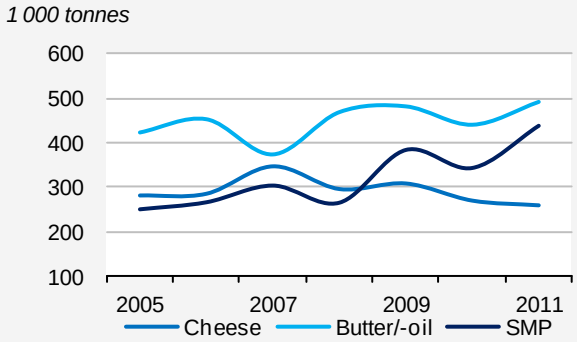
PROCESSING INDUSTRY

Main processors

• Fonterra	www.fonterra.com
• Open Country Dairy	www.opencountry.co.nz
• Westland Milk Products	www.westland.co.nz
• Tatua	www.tatua.com
• Synlait Milk	www.synlait.co.nz

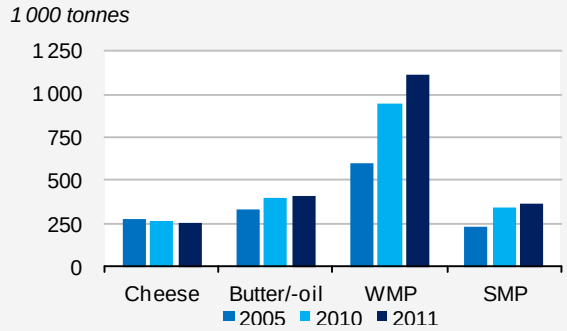
Production



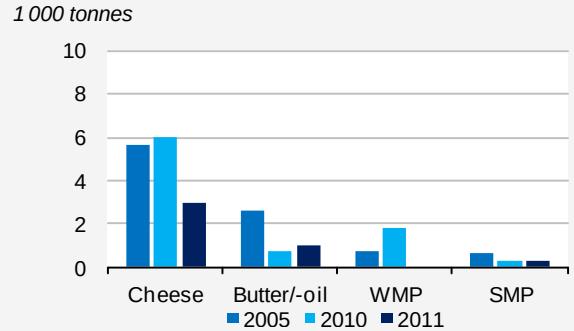


TRADE

Export



Import



PROCESSING AND TRADE

Summary (see general remarks)

Volume (x 1 000 tonnes)	Production 2011	Production (2010=100)	Import 2011	Import (2010=100)	Export 2011	Export (2010=100)
• Liquid milk (A)	342	90	7	112	168	105
• Butter and butteroil	492	112	1	143	414	105
• Cheese (B)	257	96	3	50	253	95
• Whole milk powder	1 000	106	0	0	1 110	117
• Skim milk powder	440	128	0	100	362	105

(A) Including fermented milk products, cream and concentrated milk (fluid). (B) Including processed cheese.

CONSUMPTION

Consumption (x 1 000 tonnes)

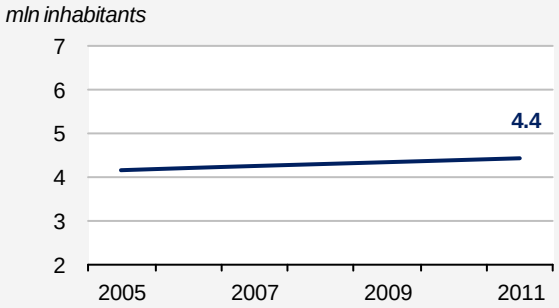
• Milk (C)	350
• Butter	20
• Cheese	20

Consumption (kg per capita)

• Milk (C)	79.3
• Butter	4.5
• Cheese	4.5

(C) Including milk drinks and fermented products.

Population



KEY DEVELOPMENTS

2011 proved to be an excellent year for New Zealand dairy farmers with favourable forage-growing conditions and good prices for milk. NZ farmers have faced several challenging years marked by difficult weather conditions and variable milk prices, in 2011 high milk prices combined with record milk production meant that farmers enjoyed stronger cashflows.

Many farmers were in a position to reduce debt, thereby strengthening the equity and resilience of their businesses. Optimism within the farming community is high but farmers remain cautious given that milk prices will be lower in the coming season.

Milk production on farm grew during 2011 (+10%) in part because of an increase in cow numbers but primarily due to favourable pasture-growth conditions and increased cow productivity. New Zealand's milking dairy cow population increased by over 3% from 2010. Production is not forecast to grow as rapidly in 2012, the likelihood of such excellent weather conditions being repeated is low.

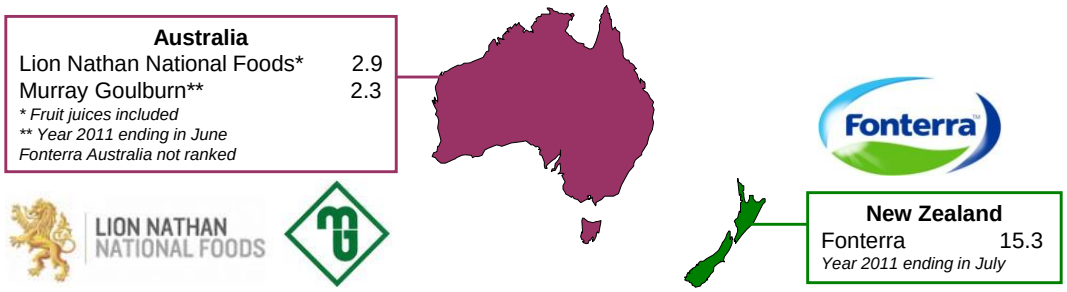
New Zealand exporters benefited from demand growth in 2011 and record milk production, resulting in export volumes increasing significantly from the previous year. For example, December 2011 export volumes were 27% higher on the same month in 2010. China accounted for 19% of NZ dairy exports in 2011. High commodity prices offset the strong NZ dollar resulting in above average export revenue.

Dairy plays a major role in New Zealand's economy and revenue from dairy products has been a boost for the country as it regains strength following the Global Financial Crisis and a series of damaging earthquakes in one of its major cities (Christchurch).

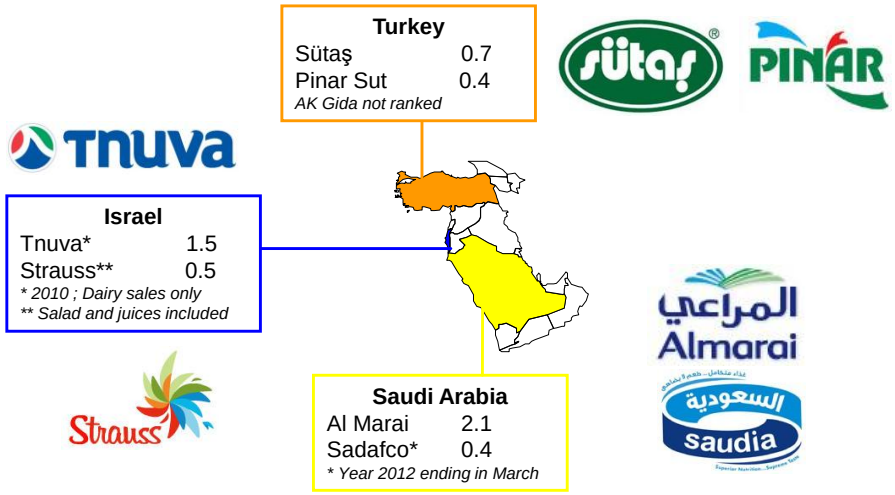
Source: National Committee of the IDF, DairyNZ (www.dairynz.co.nz), DCANZ, LIC, national statistics, UN.

Annex 2: Local dairy leaders [(A)] in different world areas (2011 turnover in billion USD)

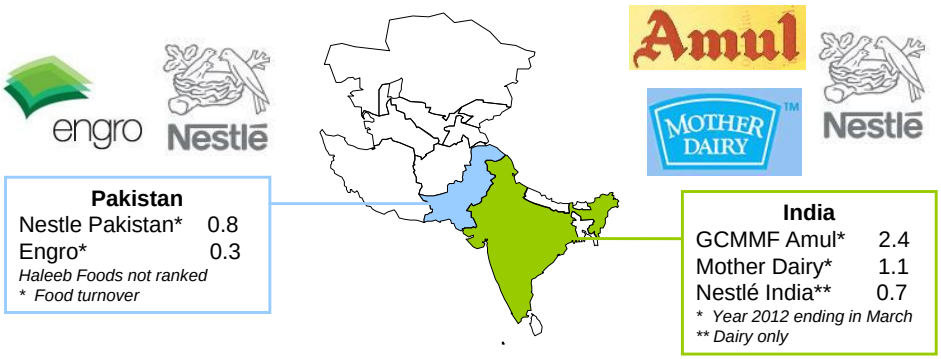
Oceania



Western Asia

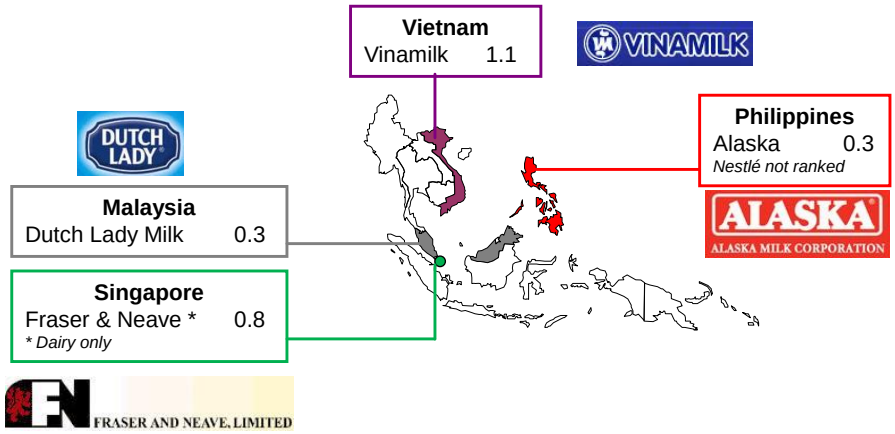


Central and Southern Asia

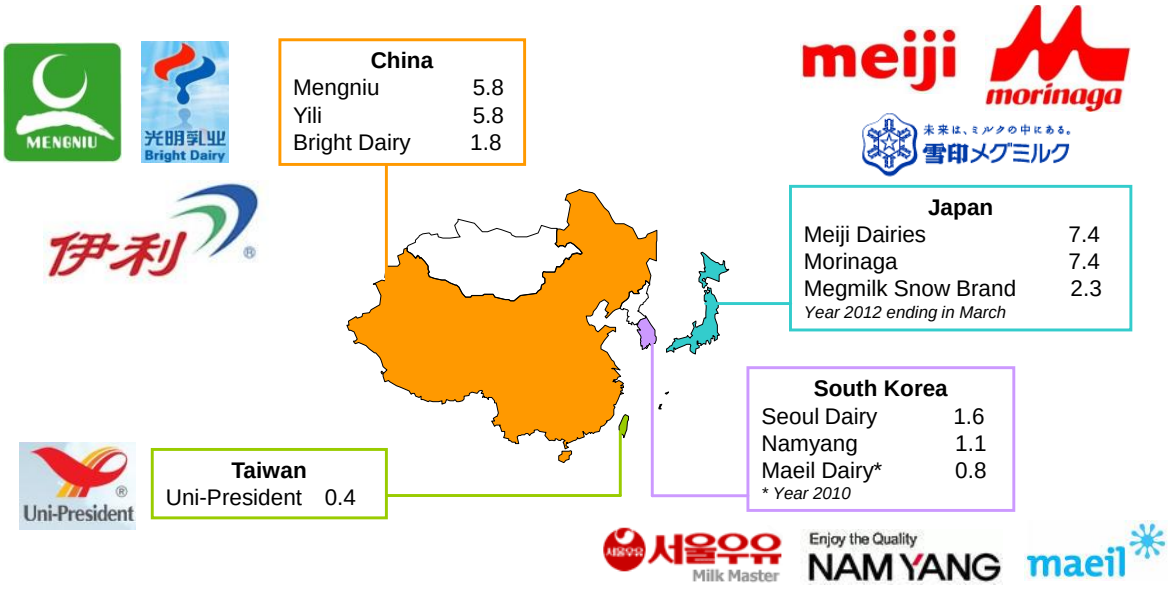


(A) Ranking expressed in terms of turnover.

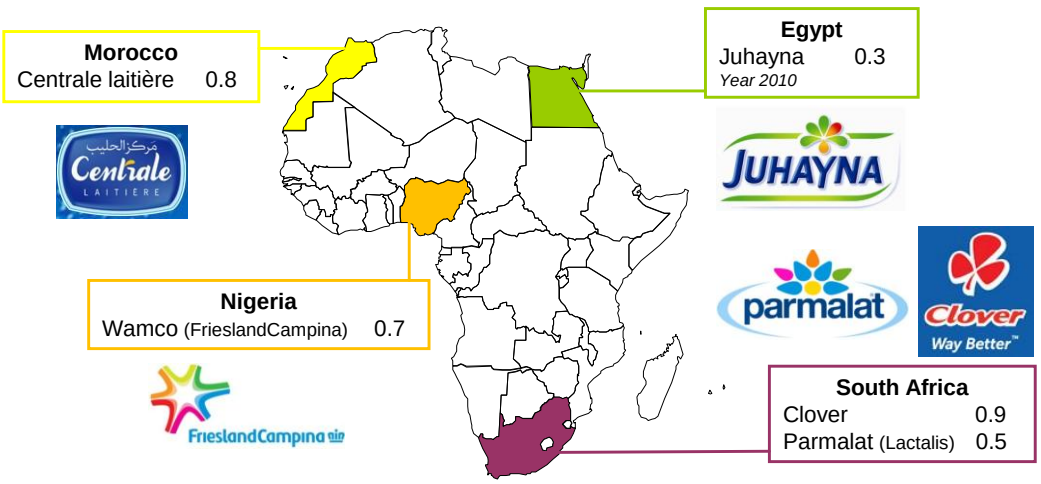
South Eastern Asia



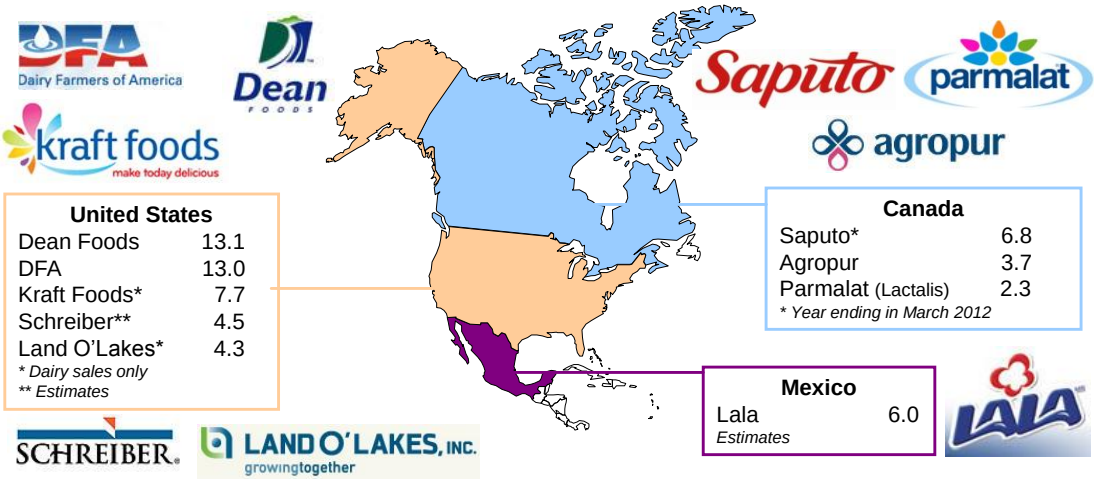
Eastern Asia



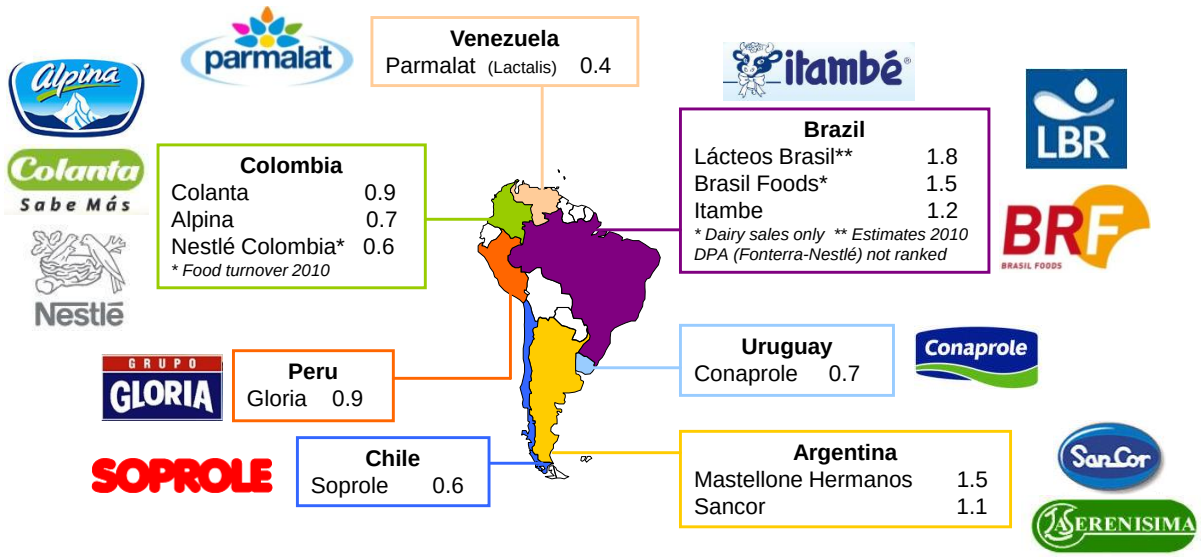
Africa



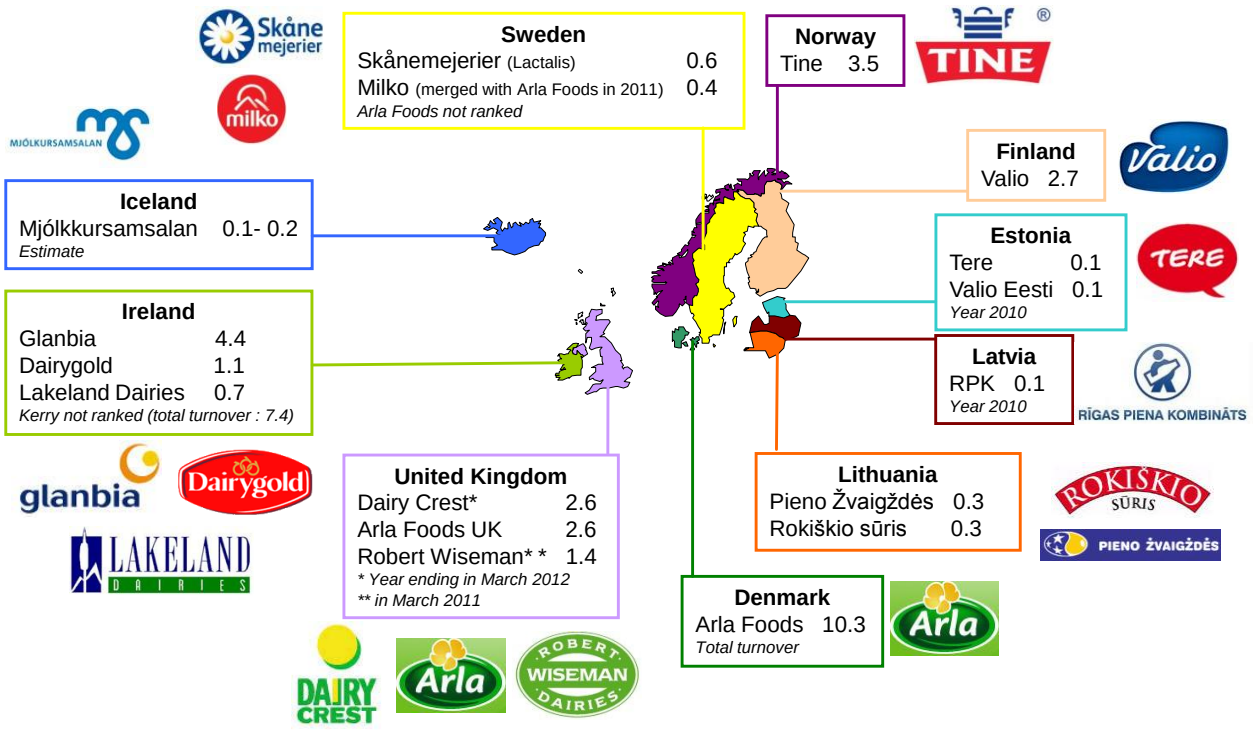
North & Central America



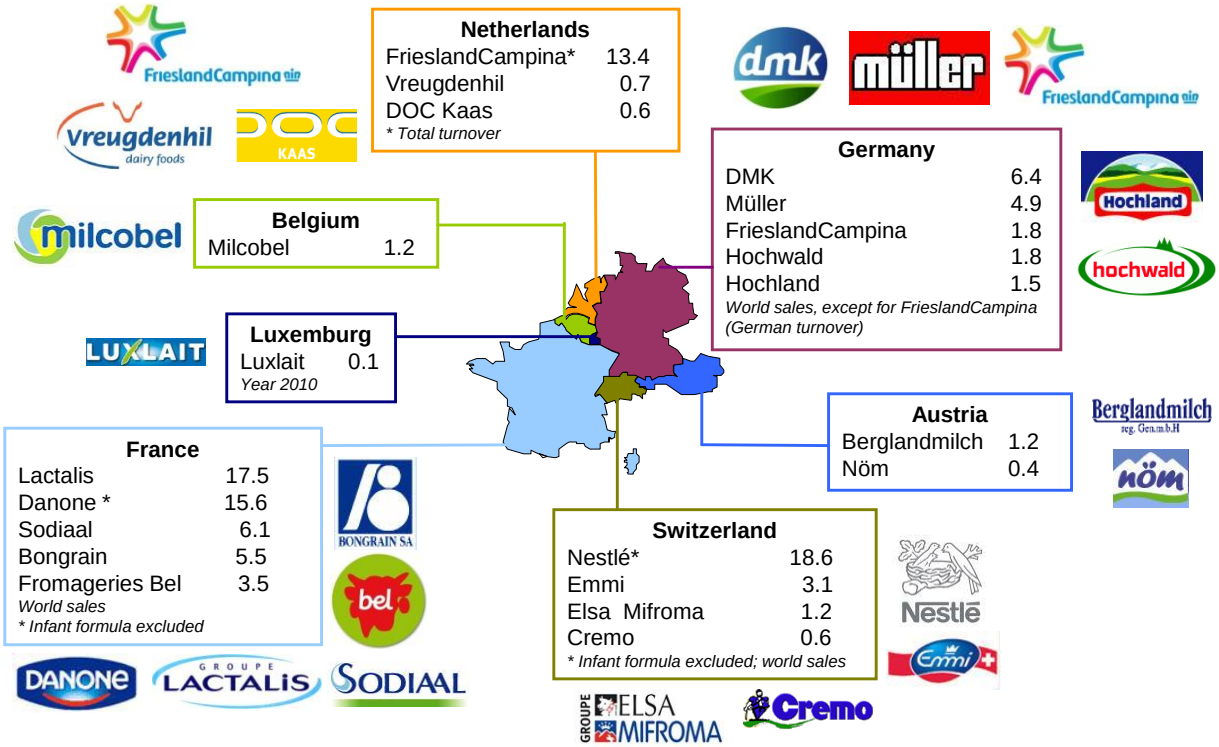
South America



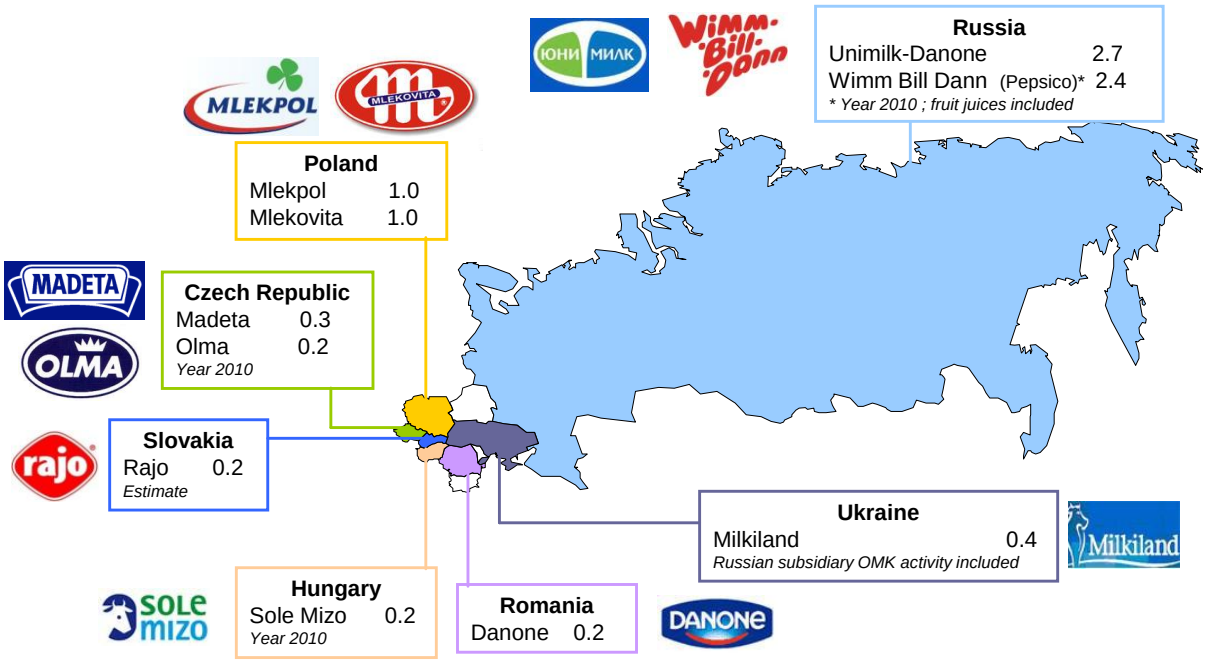
Northern Europe



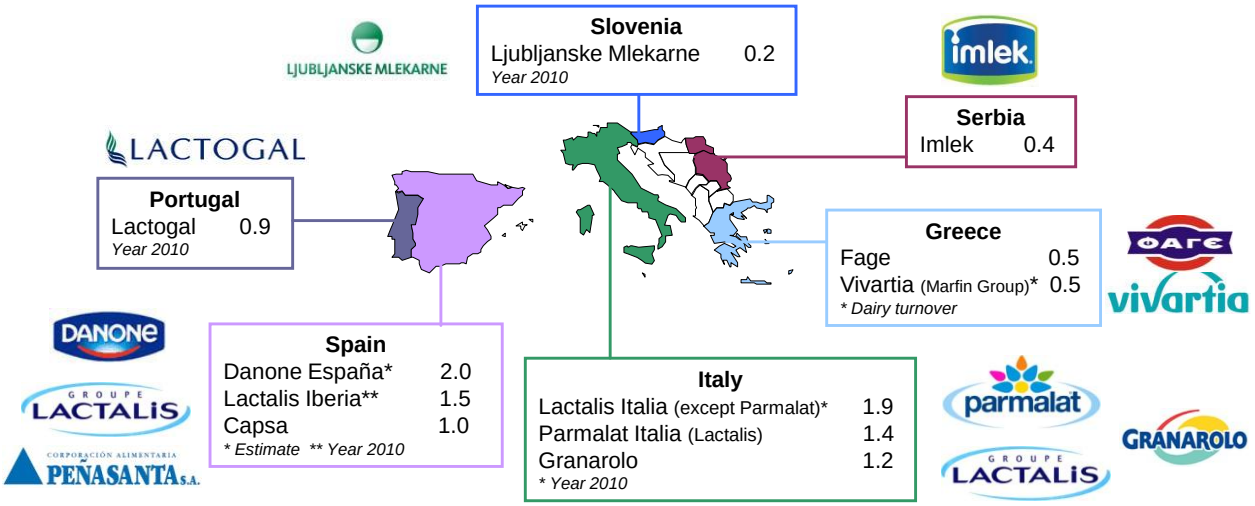
Western Europe



Eastern Europe



Southern Europe



Source: CNIEL, company reports, international press.

Annex 3: Tables

General remarks

- The following tables are based on information sent by IDF National Committees and by other national organisations.
- Other sources used: CNIEL, Comtrade, European Dairy Association, European Commission, Eurostat, FAO, FAPRI, PZ, PRB, USDA, ZMB, IFCN, FED, ECB, DNB, National Statistics.
- 2011 data are preliminary.
- The figures in this annex can differ from the figures in chapter 5 because different sources and moments of data collection have been used.
- The '-' sign is used when figures are not available, confidential or senseless (as a numeric result from calculations).
- The value '0' (zero) is used when volume is < 500 tonnes or null.
- Milk prices table: for fat and protein contents, see country reports.

Contents

Table 1. World milk production by species of milk animal

1 000 tonnes Type of milk	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Cow milk	489 051	547 273	593 953	606 121	620 655	+ 2.4%	+ 2.2%
Buffalo milk	67 106	79 451	89 789	93 235	96 655	+ 3.7%	+ 3.4%
Goat milk	13 195	15 317	16 951	17 769	18 114	+ 1.9%	+ 2.9%
Sheep milk	8 097	8 775	9 429	9 943	10 096	+ 1.5%	+ 2.0%
Other	2 258	2 420	2 803	3 142	3 171	+ 0.9%	+ 3.1%
Total world milk production	**579 706**	**653 235**	**712 926**	**730 210**	**748 691**	**+ 2.5%**	**+ 2.4%**

Table 2. World cow's milk production

1 000 tonnes Region	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Asia	94 672	131 043	159 383	164 965	169 153	+ 2.5%	+ 5.4%
EU 27	149 500	148 966	147 296	149 207	151 840	+ 1.8%	+ 0.1%
North and Central America (A)	97 955	102 891	110 409	112 223	114 025	+ 1.6%	+ 1.4%
South America	44 282	53 333	61 115	63 750	67 585	+ 6.0%	+ 3.9%
Other Europe	59 012	61 168	61 310	60 185	59 783	- 0.7%	+ 0.1%
Africa	19 369	24 250	28 099	29 177	29 498	+ 1.1%	+ 3.9%
Oceania	24 260	25 621	26 341	26 614	28 771	+ 8.1%	+ 1.6%
World	**489 051**	**547 273**	**593 953**	**606 121**	**620 655**	**+ 2.4%**	**+ 2.2%**

(A) Including Caribbean

Table 3. World buffalo milk production

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
India (A)	43 428	52 070	59 758	62 350	65 000	+ 4.3%	+ 3.7%
Pakistan (B)	17 454	20 488	22 279	22 955	23 652	+ 3.0%	+ 2.8%
China	2 650	2 800	3 000	3 100	3 120	+ 0.6%	+ 1.5%
Egypt	2 030	2 300	2 697	2 725	2 723	- 0.1%	+ 2.7%
Nepal	760	895	1 032	1 067	1 109	+ 4.0%	+ 3.5%
Italy	107	206	275	271	273	+ 0.8%	+ 8.9%
Iran	216	232	240	240	240	0.0%	+ 1.0%
Brazil	46	46	46	46	46	0.0%	0.0%
Turkey	67	38	33	34	40	+ 19.2%	- 4.6%
Romania	32	32	28	27	21	- 21.3%	- 3.7%
Other	315	344	402	421	430	+ 2.1%	+ 2.9%
World	**67 106**	**79 451**	**89 789**	**93 235**	**96 655**	**+ 3.7%**	**+ 3.4%**

(A) Dairy years ending March of the following year; year 2011/12 estimated.

(B) Dairy years ending June of the following year; milk production for human consumption.

Table 4. Number of dairy farms

´000 Country	2009	2010	2011	Annual growth '10-'11	CAGR '09-'11
Asia					
India	76 500.0	77 889.0	77 889.0	0.0%	+ 1.3%
Pakistan	7 650.0	7 399.0	7 399.0	0.0%	- 2.3%
Turkey	1 772.0	2 225.0	1 739.4	- 21.8%	- 0.9%
China (A)	211.6	213.6	213.6	0.0%	+ 0.5%
Japan	23.1	21.9	21.0	- 4.1%	- 4.7%
Iran	12.6	14.5	14.5	0.0%	+ 7.3%
Korea, Republic of	6.8	6.3	6.1	- 4.4%	- 5.3%
Israel	1.0	1.0	1.0	+ 0.2%	- 0.8%
Mongolia (B)	0.5	0.6	0.9	+ 38.8%	+ 31.3%
Other Europe					
Russia	3 133.0	3 130.0	3 130.0	0.0%	- 0.0%
Belarus	77.0	66.0	66.0	0.0%	- 7.4%
Switzerland	27.0	26.1	25.2	- 3.3%	- 3.4%
Croatia	20.5	19.9	17.4	- 12.9%	- 8.0%
Ukraine	-	-	11.2		
Norway (C)	12.3	11.5	10.9	- 5.1%	- 5.5%
Iceland	0.7	0.7	0.7	- 0.3%	- 0.9%
South America					
Brazil	1 209.0	1 200.0	1 126.0	- 6.2%	- 3.5%
Colombia	20.0	19.8	19.9	+ 0.7%	- 0.2%
Argentina	11.8	11.9	11.6	- 2.4%	- 0.8%
Chile	6.5	6.5	6.5	0.0%	0.0%
Uruguay	4.5	4.5	4.4	- 2.6%	- 1.2%
Africa					
Egypt	588.6	600.9	596.5	- 0.7%	+ 0.7%
Nigeria	325.0	325.0	325.0	0.0%	0.0%
South Africa	3.4	2.7	2.6	- 3.4%	- 12.3%
Zimbabwe	0.2	0.2	0.2	+ 12.7%	- 5.9%
EU 27 (D)	**934.9**	**838.7**	**712.3**	**- 15.1%**	**- 12.7%**
Poland	188.7	170.1	159.4	- 6.3%	- 8.1%
Romania	179.1	139.1	112.2	- 19.4%	- 20.9%
Germany	94.1	90.4	87.5	- 3.2%	- 3.6%
France	87.2	82.0	78.2	- 4.7%	- 5.3%
Lithuania	54.9	45.0	41.3	- 8.1%	- 13.2%
Austria	41.9	39.8	37.9	- 4.8%	- 4.8%
Italy	39.2	37.3	35.6	- 4.7%	- 4.7%
Spain	23.6	22.6	21.4	- 5.2%	- 4.6%
Netherlands	20.0	19.6	19.0	- 2.7%	- 2.4%
Ireland	20.5	19.0	18.9	- 0.6%	- 4.0%
Bulgaria	85.9	83.4	15.9	- 80.9%	- 56.9%
United Kingdom	16.5	15.8	15.2	- 4.0%	- 4.1%
Finland	12.8	12.1	11.4	- 5.7%	- 5.7%
Latvia	16.1	11.7	10.8	- 7.2%	- 18.0%
Belgium	11.0	10.5	9.9	- 6.1%	- 5.5%
Portugal	10.0	9.1	8.0	- 12.3%	- 10.5%

Table 4. Number of dairy farms (continued)

´000 Country	2009	2010	2011	Annual growth '10-'11	CAGR '09-'11
EU 27 (continued)					
Sweden	6.8	6.4	6.1	- 5.0%	- 5.8%
Greece	5.1	4.6	4.3	- 6.8%	- 8.9%
Denmark	4.5	4.3	4.1	- 4.0%	- 4.4%
Hungary	3.6	3.2	3.1	- 2.9%	- 7.4%
Czech Republic	2.5	2.3	2.2	- 6.9%	- 6.1%
Estonia	1.0	0.9	0.8	- 6.8%	- 9.7%
Luxembourg	0.9	0.8	0.8	- 3.2%	- 3.3%
Slovakia	0.7	0.6	0.6	- 6.2%	- 6.2%
Cyprus	0.2	0.2	0.2	0.0%	+ 0.2%
Other	8.1	7.7	7.3	- 5.2%	- 4.9%
North and Central America					
Mexico	133.0	133.7	133.7	0.0%	+ 0.3%
United States of America (E)	54.9	53.1	51.5	- 3.1%	- 3.2%
Canada	13.2	13.0	12.7	- 1.7%	- 1.8%
Oceania					
New Zealand	11.6	11.7	11.8	+ 0.4%	+ 0.6%
Australia	7.9	7.5	6.9	- 8.4%	- 6.8%

(A) Farms with more than 10 cows.

(B) Dairy farms established in centrally located areas and areas close to big cities and provincial centres.

(C) Points of deliveries (joint farmers operations).

(D) Number of delivery quota holders (situation on 31 March of each year).

(E) Farm operations with a license to market milk.

Table 5. Number of dairy cows

´000 head Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Asia	**74 320**	**87 073**	**98 523**	**102 456**	**104 423**	**+ 1.9%**	**+ 3.1%**
India (A)	32 883	36 586	41 461	42 755	43 000	+ 0.6%	+ 2.5%
China	5 238	12 161	12 607	14 201	14 402	+ 1.4%	+ 9.6%
Pakistan (B)	6 815	7 504	9 744	10 100	10 456	+ 3.5%	+ 4.0%
Turkey	5 280	3 998	4 133	4 384	4 761	+ 8.6%	- 0.9%
Iran	3 640	3 600	3 526	3 946	3 950	+ 0.1%	+ 0.7%
Uzbekistan	2 305	2 821	3 327	3 536	3 625	+ 2.5%	+ 4.2%
Afghanistan	2 000	2 600	3 300	3 000	3 200	+ 6.7%	+ 4.4%
Kazakhstan	1 735	2 206	2 359	2 371	2 747	+ 15.9%	+ 4.3%
Myanmar	1 272	1 406	2 300	2 418	2 500	+ 3.4%	+ 6.3%
Turkmenistan	620	1 010	1 700	1 754	1 755	+ 0.0%	+ 9.9%
Azerbaijan	787	969	1 263	1 277	1 288	+ 0.8%	+ 4.6%
Japan	1 150	1 055	985	964	933	- 3.2%	- 1.9%
Kyrgyzstan	505	538	636	664	665	+ 0.1%	+ 2.5%
Syria	459	561	605	518	518	0.0%	+ 1.1%
Mongolia	927	737	676	509	503	- 1.1%	- 5.4%
Korea, Republic of	255	271	248	241	229	- 5.0%	- 1.0%
Saudi Arabia	84	106	157	160	162	+ 1.3%	+ 6.1%
Israel	115	115	116	119	123	+ 3.0%	+ 0.6%
Other	8 251	8 829	9 379	9 539	9 606	+ 0.7%	+ 1.4%
Africa	**41 393**	**54 955**	**58 937**	**58 757**	**59 019**	**+ 0.4%**	**+ 3.3%**
Sudan	9 300	14 972	14 662	14 969	15 000	+ 0.2%	+ 4.4%
Tanzania	3 400	5 500	6 800	6 900	6 900	0.0%	+ 6.6%
Ethiopia	4 340	5 300	6 500	6 604	6 650	+ 0.7%	+ 4.0%
Kenya	4 690	5 857	6 114	5 002	5 000	- 0.0%	+ 0.6%
Uganda	1 460	2 950	3 300	3 400	3 400	0.0%	+ 8.0%
Nigeria	1 588	1 826	1 968	2 022	2 050	+ 1.4%	+ 2.4%
Egypt	1 372	1 700	1 700	1 737	1 748	+ 0.7%	+ 2.2%
Morocco	1 308	1 400	1 455	1 485	1 500	+ 1.0%	+ 1.3%
Algeria	900	950	850	868	875	+ 0.8%	- 0.3%
Tunisia	550	560	578	620	625	+ 0.8%	+ 1.2%
South Africa	545	540	535	540	540	0.0%	- 0.1%
Zimbabwe	70	48	32	27	15	- 45.6%	- 13.2%
Other	11 871	13 353	14 443	14 584	14 716	+ 0.9%	+ 2.0%
South America	**28 753**	**33 662**	**32 771**	**32 946**	**33 663**	**+ 2.2%**	**+ 1.4%**
Brazil	17 885	20 820	22 435	22 999	23 513	+ 2.2%	+ 2.5%
Colombia	3 700	5 646	3 284	2 853	2 859	+ 0.2%	- 2.3%
Argentina	2 004	1 885	1 809	1 749	1 884	+ 7.7%	- 0.6%
Venezuela	1 372	1 307	1 629	1 659	1 650	- 0.6%	+ 1.7%
Ecuador	1 117	934	1 021	1 065	1 100	+ 3.3%	- 0.1%
Chile	1 450	1 585	1 000	1 016	1 020	+ 0.4%	- 3.1%
Peru	513	690	787	788	800	+ 1.6%	+ 4.1%
Uruguay	400	398	391	431	446	+ 3.5%	+ 1.0%
Other	312	397	415	387	390	+ 0.9%	+ 2.1%
EU 27	**27 585**	**25 062**	**23 621**	**23 185**	**22 995**	**- 0.8%**	**- 1.6%**
Germany	4 564	4 164	4 169	4 182	4 190	+ 0.2%	- 0.8%
France	4 153	3 958	3 744	3 729	3 686	- 1.1%	- 1.1%

Table 5. Number of dairy cows (continued)

´000 head Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
EU 27 (continued)							
Poland	3 047	2 795	2 678	2 529	2 446	- 3.3%	- 2.0%
United Kingdom	2 339	2 007	1 857	1 847	1 814	- 1.8%	- 2.3%
Italy	2 172	1 842	1 878	1 746	1 755	+ 0.5%	- 1.9%
Netherlands	1 504	1 433	1 489	1 479	1 470	- 0.6%	- 0.2%
Romania	1 692	1 625	1 419	1 299	1 266	- 2.6%	- 2.6%
Ireland	1 153	1 122	1 022	1 027	1 055	+ 2.7%	- 0.8%
Spain	1 141	1 113	828	845	837	- 1.0%	- 2.8%
Denmark	644	558	574	573	579	+ 1.0%	- 1.0%
Austria	621	538	533	534	531	- 0.6%	- 1.4%
Belgium	594	523	504	500	488	- 2.4%	- 1.8%
Czech Republic	547	439	384	378	374	- 1.2%	- 3.4%
Lithuania	494	438	357	345	350	+ 1.2%	- 3.1%
Sweden	426	391	357	348	347	- 0.5%	- 1.9%
Bulgaria	421	348	297	308	307	- 0.5%	- 2.8%
Finland	361	316	288	287	284	- 1.0%	- 2.2%
Hungary	380	285	248	240	251	+ 4.6%	- 3.7%
Portugal	355	324	255	243	242	- 0.5%	- 3.4%
Latvia	205	185	166	164	164	+ 0.0%	- 2.0%
Slovakia	246	199	166	161	156	- 3.2%	- 4.1%
Greece	180	152	128	144	130	- 9.7%	- 2.9%
Estonia	131	113	96	96	96	- 0.2%	- 2.8%
Luxembourg	44	41	41	41	40	- 2.0%	- 0.7%
Cyprus	24	25	23	23	24	+ 3.0%	+ 0.2%
Other	148	128	120	116	115	- 0.4%	- 2.3%
North and Central America (C)	**16 008**	**16 253**	**17 151**	**17 083**	**17 172**	**+ 0.5%**	**+ 0.6%**
United States of America	9 206	9 043	9 203	9 119	9 194	+ 0.8%	- 0.0%
Mexico	2 075	2 197	2 334	2 395	2 374	- 0.9%	+ 1.2%
Canada	1 142	1 041	979	981	983	+ 0.2%	- 1.4%
Other	3 585	3 972	4 635	4 588	4 620	+ 0.7%	+ 2.3%
Other Europe	**23 389**	**17 826**	**15 961**	**15 676**	**15 551**	**- 0.8%**	**- 3.6%**
Russia	13 100	9 647	9 026	8 844	8 948	+ 1.2%	- 3.4%
Ukraine	5 195	3 781	2 891	2 772	2 582	- 6.9%	- 6.2%
Belarus	1 845	1 565	1 445	1 478	1 477	- 0.1%	- 2.0%
Switzerland	669	619	599	595	595	0.0%	- 1.1%
Serbia	775	551	518	523	501	- 4.3%	- 3.9%
Norway	316	275	249	240	241	+ 0.4%	- 2.4%
Croatia	287	239	212	198	184	- 7.1%	- 4.0%
Iceland	27	24	27	26	26	- 0.4%	- 0.5%
Other	1 175	1 125	994	1 000	998	- 0.2%	- 1.5%
Oceania	**5 706**	**6 160**	**5 979**	**6 052**	**6 223**	**+ 2.8%**	**+ 0.8%**
New Zealand	3 485	4 100	4 250	4 400	4 550	+ 3.4%	+ 2.5%
Australia	2 171	2 010	1 676	1 600	1 620	+ 1.3%	- 2.6%
Other	50	50	53	52	53	+ 0.6%	+ 0.4%
World	**217 154**	**240 991**	**252 942**	**256 156**	**259 046**	**+ 1.1%**	**+ 1.6%**

(A) Dairy years ending March of the following year. (B) Dairy years ending June of the following year. (C) Including Caribbean.

Table 6. Production of cow's milk

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Asia	**94 672**	**131 043**	**159 383**	**164 965**	**169 153**	**+ 2.5%**	**+ 5.4%**
India (A)	32 967	39 759	52 201	54 903	57 700	+ 5.1%	+ 5.2%
China	8 420	27 534	35 188	35 756	36 560	+ 2.2%	+ 14.3%
Turkey	8 732	10 026	11 583	12 419	13 802	+ 11.1%	+ 4.2%
Pakistan (B)	8 192	10 726	12 437	12 906	13 393	+ 3.8%	+ 4.6%
Japan	8 497	8 285	7 910	7 721	7 474	- 3.2%	- 1.2%
Iran	5 200	6 841	8 405	8 900	7 240	- 18.7%	+ 3.1%
Uzbekistan	3 560	4 447	5 732	6 120	6 250	+ 2.1%	+ 5.2%
Kazakhstan	3 686	4 693	5 269	5 348	5 200	- 2.8%	+ 3.2%
Turkmenistan	989	1 869	2 146	2 150	2 165	+ 0.7%	+ 7.4%
Afghanistan	1 320	1 458	1 413	1 401	2 032	+ 45.1%	+ 4.0%
Korea, Republic of	2 253	2 230	2 110	2 073	1 889	- 8.9%	- 1.6%
Saudi Arabia	710	1 008	1 508	1 670	1 685	+ 0.9%	+ 8.2%
Azerbaijan	1 014	1 226	1 406	1 507	1 567	+ 3.9%	+ 4.0%
Syria	1 156	1 506	1 600	1 453	1 465	+ 0.8%	+ 2.2%
Kyrgyzstan	1 079	1 151	1 274	1 317	1 400	+ 6.3%	+ 2.4%
Israel	1 173	1 196	1 253	1 290	1 378	+ 6.8%	+ 1.5%
Myanmar	498	808	1 100	1 140	1 150	+ 0.9%	+ 7.9%
Mongolia	376	260	326	243	299	+ 23.1%	- 2.1%
Other	4 850	6 020	6 522	6 649	6 504	- 2.2%	+ 2.7%
EU 27	**149 500**	**148 966**	**147 296**	**149 207**	**151 840**	**+ 1.8%**	**+ 0.1%**
Germany	28 331	28 453	29 199	29 630	30 340	+ 2.4%	+ 0.6%
France	24 975	24 885	23 332	24 032	25 116	+ 4.5%	+ 0.1%
United Kingdom	14 489	14 470	13 518	13 852	14 081	+ 1.7%	- 0.3%
Poland	11 900	11 901	12 447	12 279	12 405	+ 1.0%	+ 0.4%
Netherlands	11 125	10 836	11 624	11 829	11 851	+ 0.2%	+ 0.6%
Italy	10 877	10 897	10 906	11 005	11 093	+ 0.8%	+ 0.2%
Spain	5 900	6 553	6 251	6 357	6 400	+ 0.7%	+ 0.7%
Ireland	5 260	5 163	5 030	5 435	5 650	+ 3.9%	+ 0.7%
Denmark	4 717	4 586	4 869	4 965	4 935	- 0.6%	+ 0.4%
Romania	5 002	4 977	4 654	4 500	4 500	0.0%	- 1.0%
Belgium	3 425	3 082	3 245	3 358	3 507	+ 4.5%	+ 0.2%
Austria	3 233	3 114	3 230	3 258	3 307	+ 1.5%	+ 0.2%
Sweden	3 348	3 206	2 971	2 899	2 887	- 0.4%	- 1.3%
Czech Republic	2 708	2 813	2 780	2 683	2 736	+ 2.0%	+ 0.1%
Finland	2 524	2 433	2 333	2 340	2 306	- 1.5%	- 0.8%
Portugal	1 970	2 061	1 997	1 955	1 963	+ 0.4%	- 0.0%
Lithuania	1 725	1 862	1 762	1 750	1 754	+ 0.2%	+ 0.2%
Hungary	2 137	1 928	1 763	1 690	1 576	- 6.7%	- 2.7%
Bulgaria	1 409	1 287	1 073	1 124	1 126	+ 0.1%	- 2.0%
Slovakia	1 099	1 100	957	918	928	+ 1.1%	- 1.5%
Latvia	823	811	828	831	842	+ 1.3%	+ 0.2%
Greece	789	761	753	744	744	0.0%	- 0.5%
Estonia	629	670	671	675	695	+ 2.9%	+ 0.9%
Luxembourg	264	270	284	295	292	- 1.0%	+ 0.9%
Cyprus	147	147	155	158	161	+ 2.3%	+ 0.9%
Other	694	701	665	646	646	0.0%	- 0.7%

Table 6. Production of cow's milk (continued)

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
North and Central America (C)	**97 955**	**102 891**	**110 409**	**112 223**	**114 025**	**+ 1.6%**	**+ 1.4%**
United States of America	76 004	80 254	85 880	87 474	89 015	+ 1.8%	+ 1.4%
Mexico	9 591	10 164	10 866	10 997	11 065	+ 0.6%	+ 1.3%
Canada	8 163	8 241	8 421	8 434	8 546	+ 1.3%	+ 0.4%
Other	4 198	4 232	5 242	5 318	5 399	+ 1.5%	+ 2.3%
South America	**44 282**	**53 333**	**61 115**	**63 750**	**67 585**	**+ 6.0%**	**+ 3.9%**
Brazil	20 360	25 359	29 979	31 637	32 900	+ 4.0%	+ 4.5%
Argentina	10 111	9 778	10 356	10 616	11 948	+ 12.5%	+ 1.5%
Colombia	5 454	6 216	6 578	6 480	6 540	+ 0.9%	+ 1.7%
Ecuador	2 007	4 570	5 229	5 709	6 375	+ 11.7%	+ 11.1%
Chile	2 050	2 369	2 421	2 606	2 699	+ 3.6%	+ 2.5%
Venezuela	1 415	1 348	2 200	2 294	2 350	+ 2.4%	+ 4.7%
Uruguay	1 381	1 724	1 823	1 910	2 215	+ 16.0%	+ 4.4%
Peru	903	1 236	1 652	1 678	1 724	+ 2.7%	+ 6.1%
Other	602	733	878	819	833	+ 1.8%	+ 3.0%
Other Europe	**59 012**	**61 168**	**61 310**	**60 185**	**59 783**	**- 0.7%**	**+ 0.1%**
Russia	31 938	31 440	32 570	31 847	31 646	- 0.6%	- 0.1%
Ukraine	12 436	13 424	11 364	10 977	10 815	- 1.5%	- 1.3%
Belarus	4 490	5 650	6 547	6 595	6 489	- 1.6%	+ 3.4%
Switzerland	3 872	3 933	4 069	4 080	4 119	+ 1.0%	+ 0.6%
Norway	1 613	1 561	1 551	1 555	1 524	- 2.0%	- 0.5%
Serbia	1 629	1 659	1 505	1 485	1 462	- 1.5%	- 1.0%
Croatia	607	791	823	792	804	+ 1.5%	+ 2.6%
Iceland	115	119	136	134	136	+ 1.3%	+ 1.5%
Other	2 313	2 591	2 746	2 721	2 789	+ 2.5%	+ 1.7%
Africa	**19 369**	**24 250**	**28 099**	**29 177**	**29 498**	**+ 1.1%**	**+ 3.9%**
Sudan	4 000	5 480	5 366	5 555	5 600	+ 0.8%	+ 3.1%
Kenya	2 224	2 650	3 893	3 968	4 000	+ 0.8%	+ 5.5%
Egypt	1 638	2 100	2 803	2 902	2 900	- 0.1%	+ 5.3%
South Africa	2 197	2 368	2 667	2 846	2 866	+ 0.7%	+ 2.4%
Morocco	1 185	1 400	1 800	1 900	2 000	+ 5.3%	+ 4.9%
Algeria	1 170	1 400	1 750	1 811	1 820	+ 0.5%	+ 4.1%
Tanzania	710	1 386	1 604	1 650	1 680	+ 1.8%	+ 8.1%
Ethiopia	900	1 150	1 400	1 400	1 450	+ 3.6%	+ 4.4%
Uganda	511	1 033	1 155	1 190	1 190	0.0%	+ 8.0%
Tunisia	887	900	1 048	1 059	1 066	+ 0.7%	+ 1.7%
Nigeria	389	439	472	496	500	+ 0.8%	+ 2.3%
Zimbabwe	182	105	46	47	51	+ 7.7%	- 11.0%
Other	3 376	3 840	4 093	4 353	4 375	+ 0.5%	+ 2.4%

Table 6. Production of cow's milk (continued)

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Oceania	**24 260**	**25 621**	**26 341**	**26 614**	**28 771**	**+ 8.1%**	**+ 1.6%**
New Zealand (D)	13 333	15 163	16 980	17 169	18 966	+ 10.5%	+ 3.3%
Australia (E)	10 862	10 392	9 294	9 375	9 734	+ 3.8%	- 1.0%
Other	65	66	67	70	71	+ 2.0%	+ 0.8%
World	**489 051**	**547 273**	**593 953**	**606 121**	**620 655**	**+ 2.4%**	**+ 2.2%**

(A) Dairy years ending March of the following year; year 2011/12 estimated.

(B) Dairy years ending June of the following year milk production for human consumption. (C) Including Caribbean.

(D) The years 2000 and 2005 refer to the seasons 2000/01 and 2005/06 (period June-May). (E) Dairy years ending June of the following year.

Table 7. Deliveries of cow's milk to dairies

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
EU 27	**130 867**	**133 624**	**134 101**	**135 862**	**139 233**	**+ 2.5%**	**+ 0.6%**
Germany	26 984	27 380	28 248	28 655	29 339	+ 2.4%	+ 0.8%
France	23 303	23 383	22 905	23 557	24 627	+ 4.5%	+ 0.5%
United Kingdom	13 932	14 038	13 236	13 582	13 804	+ 1.6%	- 0.1%
Netherlands	10 734	10 486	11 405	11 622	11 642	+ 0.2%	+ 0.7%
Italy	10 084	10 216	10 560	10 408	10 822	+ 4.0%	+ 0.6%
Poland	6 662	8 612	8 846	8 725	9 013	+ 3.3%	+ 2.8%
Spain	5 454	5 940	5 769	5 877	5 950	+ 1.2%	+ 0.8%
Ireland	5 160	5 060	4 929	5 327	5 537	+ 3.9%	+ 0.6%
Denmark	4 517	4 451	4 734	4 830	4 800	- 0.6%	+ 0.6%
Belgium	3 034	3 025	3 191	3 311	3 357	+ 1.4%	+ 0.9%
Austria	2 664	2 619	2 709	2 781	2 904	+ 4.4%	+ 0.8%
Sweden	3 296	3 163	2 933	2 862	2 850	- 0.4%	- 1.3%
Czech Republic	2 493	2 681	2 658	2 576	2 624	+ 1.8%	+ 0.5%
Finland	2 442	2 362	2 286	2 293	2 260	- 1.5%	- 0.7%
Portugal	1 893	1 921	1 868	1 829	1 842	+ 0.7%	- 0.2%
Lithuania	1 103	1 202	1 275	1 278	1 317	+ 3.1%	+ 1.6%
Romania	1 300	1 109	987	947	1 127	+ 19.0%	- 1.3%
Hungary	1 830	1 518	1 267	1 145	1 120	- 2.2%	- 4.4%
Slovakia	903	968	852	800	812	+ 1.4%	- 1.0%
Latvia	398	502	595	625	662	+ 5.9%	+ 4.7%
Greece	670	660	685	674	639	- 5.2%	- 0.4%
Estonia	409	571	591	604	634	+ 5.0%	+ 4.1%
Bulgaria	719	803	600	565	549	- 2.7%	- 2.4%
Luxembourg	256	258	271	282	281	- 0.3%	+ 0.9%
Cyprus	133	147	145	147	155	+ 5.4%	+ 1.4%
Other	496	550	556	562	567	+ 1.0%	+ 1.2%
North and Central America							
United States of America	75 413	79 736	85 421	87 028	88 568	+ 1.8%	+ 1.5%
Mexico	7 960	8 436	9 018	9 157	9 405	+ 2.7%	+ 1.5%
Canada	7 629	7 717	7 870	7 882	7 987	+ 1.3%	+ 0.4%
Asia							
China	5 050	19 270	25 020	26 135	27 420	+ 4.9%	+ 16.6%
Japan	8 391	8 205	7 835	7 648	7 409	- 3.1%	- 1.1%
Turkey	-	-	5 791	6 745	7 073	+ 4.9%	
Iran	2 200	3 250	4 539	5 300	5 600	+ 5.7%	+ 8.9%
Korea, Republic of	2 253	2 229	2 110	2 073	1 889	- 8.9%	- 1.6%
Israel	1 162	1 185	1 253	1 290	1 378	+ 6.8%	+ 1.6%
Mongolia	-	7	25	34	43	+ 26.3%	
South America							
Brazil	12 471	16 773	20 190	21 605	22 447	+ 3.9%	+ 5.5%
Argentina	9 392	9 070	9 585	9 828	11 052	+ 12.5%	+ 1.5%
Colombia	2 163	2 627	3 355	3 434	3 532	+ 2.8%	+ 4.6%
Chile	1 700	2 005	2 123	2 302	2 451	+ 6.4%	+ 3.4%
Uruguay	1 077	1 393	1 537	1 597	1 904	+ 19.3%	+ 5.3%

Table 7. Deliveries of cow's milk to dairies (continued)

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Other Europe							
Russia	12 500	14 700	16 296	16 735	16 831	+ 0.6%	+ 2.7%
Belarus (A)	2 300	3 800	5 075	5 125	5 125	0.0%	+ 7.6%
Ukraine	3 335	5 689	5 307	4 793	4 547	- 5.1%	+ 2.9%
Switzerland	3 197	3 203	3 415	3 437	3 472	+ 1.0%	+ 0.8%
Norway	1 544	1 515	1 501	1 506	1 476	- 2.0%	- 0.4%
Croatia	380	605	675	624	626	+ 0.4%	+ 4.6%
Iceland	107	113	130	127	129	+ 1.3%	+ 1.7%
Oceania							
New Zealand (B)	13 313	15 143	16 934	17 123	18 915	+ 10.5%	+ 3.2%
Australia (C)	10 862	10 392	9 294	9 375	9 734	+ 3.8%	- 1.0%
Africa							
South Africa	1 977	2 321	2 574	2 704	2 729	+ 0.9%	+ 3.0%
Egypt	901	1 155	1 542	1 596	1 595	- 0.1%	+ 5.3%
Nigeria	39	44	47	50	50	+ 0.8%	+ 2.3%
Zimbabwe	173	100	38	41	44	+ 7.1%	- 11.7%

(A) Calculated. (B) The years 2000 and 2005 refer to the seasons 2000/01 and 2005/06 (period June-May).
(C) Dairy years ending June of the following year

Table 8. Production of liquid milk

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Asia							
China	1 230	9 748	13 240	14 856	16 684	+ 12.3%	+ 26.7%
India (A)	-	-	7 942	8 265	8 609	+ 4.2%	
Japan	4 571	4 290	3 919	3 859	3 763	- 2.5%	- 1.8%
Korea, Republic of	1 672	1 691	1 702	1 641	1 626	- 0.9%	- 0.3%
Iran	-	1 325	1 875	2 400	1 200	- 50.0%	
Turkey	-	-	1 097	1 091	1 165	+ 6.8%	
Israel	348	379	411	422	424	+ 0.5%	+ 1.8%
Mongolia	-	4	10	18	21	+ 18.9%	
EU 27	**32 566**	**32 969**	**32 895**	**33 110**	**33 194**	**+ 0.3%**	**+ 0.2%**
United Kingdom	6 814	6 749	6 723	6 944	7 067	+ 1.8%	+ 0.3%
Germany (B)	4 916	5 165	5 288	5 276	5 238	- 0.7%	+ 0.6%
Spain	3 562	3 677	3 578	3 572	3 689	+ 3.3%	+ 0.3%
France	3 894	3 836	3 645	3 653	3 590	- 1.7%	- 0.7%
Poland	1 803	2 363	2 764	2 810	2 857	+ 1.7%	+ 4.3%
Italy	3 230	2 941	2 868	2 899	2 808	- 3.1%	- 1.3%
Sweden	996	987	908	915	877	- 4.1%	- 1.2%
Austria	513	575	715	727	751	+ 3.3%	+ 3.5%
Finland	740	734	733	730	726	- 0.6%	- 0.2%
Czech Republic	475	557	681	638	644	+ 1.1%	+ 2.8%
Belgium	642	588	640	653	639	- 2.2%	- 0.0%
Netherlands	858	841	615	544	527	- 3.1%	- 4.3%
Ireland	546	536	510	507	509	+ 0.3%	- 0.6%
Denmark	518	457	482	472	471	- 0.3%	- 0.9%
Greece	408	436	467	461	467	+ 1.5%	+ 1.2%
Hungary	607	567	387	372	367	- 1.5%	- 4.5%
Slovakia	332	245	263	277	297	+ 7.5%	- 1.0%
Romania	166	159	222	223	221	- 1.0%	+ 2.6%
Estonia	59	80	89	94	89	- 4.9%	+ 3.8%
Lithuania	75	74	88	87	89	+ 2.6%	+ 1.6%
Cyprus	69	80	81	80	80	- 0.9%	+ 1.3%
Latvia	106	100	72	74	65	- 12.2%	- 4.4%
Other	1 238	1 223	1 079	1 104	1 125	+ 1.9%	- 0.9%
North and Central America							
United States of America	24 979	24 740	25 150	24 798	24 376	- 1.7%	- 0.2%
Mexico	3 765	4 313	4 546	4 380	4 352	- 0.6%	+ 1.3%
Canada (C)	2 785	2 775	2 820	2 737	2 791	+ 2.0%	+ 0.0%
South America							
Brazil	12 690	13 400	10 895	11 278	11 316	+ 0.3%	- 1.0%
Colombia	1 302	1 300	2 287	2 263	2 322	+ 2.6%	+ 5.4%
Argentina	1 598	1 623	1 770	1 796	1 815	+ 1.1%	+ 1.2%
Chile	284	307	352	378	381	+ 0.6%	+ 2.7%
Uruguay	234	219	239	242	273	+ 13.0%	+ 1.4%

Table 8. Production of liquid milk (continued)

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Other Europe							
Russia	-	4 188	4 372	4 868	4 860	- 0.2%	
Belarus (D)	954	1 122	1 306	1 494	1 644	+ 10.0%	+ 5.1%
Ukraine	-	863	770	801	891	+ 11.2%	
Switzerland	509	488	492	494	487	- 1.4%	- 0.4%
Norway	490	430	418	414	409	- 1.1%	- 1.6%
Croatia	296	325	328	334	341	+ 2.0%	+ 1.3%
Iceland	39	37	35	34	33	- 2.1%	- 1.4%
Africa							
South Africa	-	-	1 197	1 271	1 564	+ 23.1%	
Egypt	-	-	1 405	1 503	1 303	- 13.3%	
Oceania							
Australia (E)	1 978	2 127	2 348	2 384	2 467	+ 3.5%	+ 2.0%
New Zealand (F)	346	385	362	380	342	- 10.0%	- 0.1%

(A) Refers to cooperative dairies only. This may not reflect the development for the total Indian dairy industry; dairy years ending March of the following year.

(B) Only containers <2 litres. (C) Including chocolate milk and eggnogg. (D) Including fermented products, milk drinks and cream.

(E) Dairy years ending June of the following year. (F) Including fermented milk products, cream and concentrated milk (fluid).

Table 9. Production of fermented products

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Asia							
China	270	1 702	3 176	3 600	3 924	+ 9.0%	+ 27.5%
Iran	-	623	905	950	2 000	+ 110.5%	
Turkey (A)	-	-	1 060	1 306	1 466	+ 12.2%	
Japan	716	824	845	862	923	+ 7.1%	+ 2.3%
Korea, Republic of	530	482	446	503	523	+ 4.0%	- 0.1%
Israel (B)	151	152	172	180	181	+ 0.6%	+ 1.7%
Mongolia	-	1	4	6	8	+ 33.3%	
EU 27	**7 042**	**7 711**	**8 145**	**8 286**	**8 255**	**- 0.4%**	**+ 1.5%**
Germany	1 688	1 847	1 856	1 895	1 912	+ 0.9%	+ 1.1%
France	1 389	1 564	1 616	1 655	1 668	+ 0.8%	+ 1.7%
Spain	744	775	794	761	781	+ 2.6%	+ 0.4%
Poland	375	475	561	623	627	+ 0.7%	+ 4.8%
Netherlands (C)	444	341	417	406	396	- 2.4%	- 1.0%
United Kingdom	336	368	370	410	377	- 8.0%	+ 1.1%
Belgium	251	326	321	310	295	- 4.8%	+ 1.5%
Austria	140	252	286	277	273	- 1.5%	+ 6.2%
Sweden	265	270	267	263	263	- 0.2%	- 0.1%
Italy	190	170	190	230	230	0.0%	+ 1.8%
Finland	207	203	203	203	207	+ 1.8%	- 0.0%
Czech Republic	128	129	196	180	173	- 3.9%	+ 2.8%
Hungary	123	152	169	161	148	- 8.1%	+ 1.7%
Romania	92	92	146	148	147	- 1.0%	+ 4.3%
Denmark	87	104	109	105	108	+ 2.8%	+ 2.0%
Greece	101	107	104	102	101	- 1.0%	- 0.0%
Lithuania	31	68	69	69	69	+ 0.4%	+ 7.6%
Slovakia	46	52	51	49	54	+ 11.8%	+ 1.5%
Estonia	25	33	39	42	42	- 0.7%	+ 4.8%
Latvia	42	41	40	41	39	- 7.0%	- 0.7%
Cyprus	7	7	7	9	9	- 1.1%	+ 2.4%
Other	331	336	333	348	338	- 2.8%	+ 0.2%
Other Europe							
Russia	-	1 856	2 023	2 258	2 481	+ 9.9%	
Ukraine	158	499	492	479	474	- 1.0%	+ 10.5%
Switzerland	99	229	269	262	258	- 1.5%	+ 9.1%
Norway	75	98	130	133	131	- 1.5%	+ 5.2%
Croatia	55	83	82	79	80	+ 2.0%	+ 3.5%
Iceland	10	13	11	12	12	+ 1.7%	+ 1.6%
North and Central America							
United States of America (D)	833	1 387	1 741	1 896	1 938	+ 2.2%	+ 8.0%
Mexico	370	536	489	532	603	+ 13.3%	+ 4.5%
Canada	162	247	294	312	328	+ 5.1%	+ 6.6%

Table 9. Production of fermented products (continued)

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
South America							
Argentina	243	405	515	490	517	+ 5.5%	+ 7.1%
Chile	-	-	205	210	236	+ 12.0%	
Colombia	102	140	143	144	149	+ 3.3%	+ 3.5%
Uruguay (D)	18	25	31	33	34	+ 4.6%	+ 6.1%
Africa							
South Africa	-	-	290	308	324	+ 5.0%	
Egypt	-	-	-	242	212	- 12.4%	

(A) Kefir excluded. (B) Including dairy desserts. (C) Production volume excluding added ingredients. (D) Production of yoghurt only.

Table 10. Production of cream for consumption

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
EU 27	**2 306**	**2 470**	**2 469**	**2 457**	**2 456**	**- 0.0%**	**+ 0.6%**
Germany	671	678	568	556	547	- 1.5%	- 1.8%
France	301	337	336	342	364	+ 6.3%	+ 1.7%
Poland	300	313	364	344	338	- 1.7%	+ 1.1%
United Kingdom	270	305	254	260	248	- 4.4%	- 0.8%
Belgium	95	123	133	147	151	+ 2.2%	+ 4.3%
Spain	68	75	133	118	137	+ 15.9%	+ 6.5%
Italy	119	117	130	124	126	+ 1.4%	+ 0.5%
Sweden	96	89	104	110	110	+ 0.2%	+ 1.2%
Austria	55	59	61	62	63	+ 2.6%	+ 1.3%
Denmark	58	63	55	58	56	- 2.6%	- 0.3%
Romania	34	34	47	47	47	+ 1.1%	+ 3.1%
Czech Republic	37	40	50	51	47	- 7.5%	+ 2.3%
Finland	39	39	34	35	38	+ 8.5%	- 0.1%
Slovakia	20	35	27	29	35	+ 18.9%	+ 5.4%
Estonia	19	24	27	33	28	- 16.7%	+ 3.7%
Latvia	2	26	27	31	26	- 18.5%	+ 26.7%
Ireland	22	22	21	21	21	0.0%	- 0.2%
Greece	10	9	17	17	12	- 31.4%	+ 2.1%
Cyprus	7	7	11	11	11	- 0.7%	+ 4.4%
Netherlands	47	29	27	16	7	- 57.6%	- 16.2%
Hungary	10	9	6	6	5	- 21.9%	- 5.7%
Lithuania	1	1	1	1	2	+ 15.4%	+ 3.8%
Other	29	36	36	38	39	+ 3.0%	+ 2.7%
North and Central America							
United States of America	1 209	1 661	1 690	1 694	1 687	- 0.4%	+ 3.1%
Canada	216	278	292	289	312	+ 7.8%	+ 3.4%
Mexico	88	73	100	105	107	+ 2.2%	+ 1.8%
Other Europe							
Russia	-	-	68	79	80	+ 2.0%	
Switzerland	68	65	68	68	70	+ 2.2%	+ 0.2%
Ukraine	-	-	16	20	33	+ 65.0%	
Norway	25	26	27	28	32	+ 12.4%	+ 2.3%
Croatia	-	-	27	26	26	- 2.3%	
Iceland	2	2	2	2	2	0.0%	+ 1.4%
Asia							
Japan	73	92	105	107	112	+ 4.0%	+ 3.9%
Iran	-	-	140	85	110	+ 29.4%	
Korea, Republic of	-	-	20	21	19	- 9.9%	
South America							
Argentina	32	38	43	40	41	+ 2.8%	+ 2.3%
Chile	-	20	27	30	31	+ 6.4%	
Colombia	8	12	20	20	20	+ 0.5%	+ 8.1%
Uruguay	-	4	6	7	7	0.0%	
Africa							
Egypt	-	-	-	6	5	- 16.7%	

Table 11. Production of butter and butteroil

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Asia							
India (A)	1 900	2 712	3 910	4 162	4 320	+ 3.8%	+ 7.8%
Pakistan (B)	493	580	630	649	649	0.0%	+ 2.5%
Japan (C)	88	84	81	74	63	- 14.7%	- 3.0%
China	15	30	35	50	59	+ 18.8%	+ 13.3%
Iran (C)	-	-	68	68	45	- 33.8%	
Turkey	22	24	31	33	35	+ 5.8%	+ 4.4%
Israel	5	6	5	5	6	+ 18.0%	+ 1.5%
Korea, Republic of	4	4	4	3	1	- 53.8%	- 11.0%
Mongolia	-	1	1	1	1	+ 47.9%	
EU 27	**2 076**	**2 116**	**1 975**	**1 935**	**1 993**	**+ 3.0%**	**- 0.4%**
Germany	425	455	453	449	474	+ 5.5%	+ 1.0%
France	442	402	394	394	409	+ 3.7%	- 0.7%
Netherlands	147	177	187	190	200	+ 5.1%	+ 2.8%
Ireland	146	148	126	138	149	+ 8.0%	+ 0.2%
Poland	139	170	151	139	140	+ 1.1%	+ 0.1%
United Kingdom	132	130	118	120	128	+ 6.9%	- 0.3%
Belgium (D)	141	155	128	122	113	- 6.7%	- 1.9%
Italy	133	130	107	95	89	- 5.6%	- 3.6%
Spain	39	58	37	38	42	+ 10.6%	+ 0.7%
Finland	55	50	49	47	42	- 10.3%	- 2.5%
Denmark	46	44	37	33	37	+ 10.2%	- 2.0%
Austria	36	31	32	33	34	+ 3.6%	- 0.4%
Czech Republic (C)	64	42	40	33	31	- 7.9%	- 6.4%
Sweden	30	27	27	20	19	- 7.4%	- 4.1%
Slovakia	16	8	10	10	12	+ 22.0%	- 2.4%
Romania	6	12	10	10	9	- 3.0%	+ 4.4%
Lithuania	19	14	12	9	9	+ 8.0%	- 6.4%
Hungary	11	11	8	10	9	- 10.9%	- 1.4%
Estonia	9	8	9	6	7	+ 12.1%	- 2.7%
Latvia	7	7	6	7	5	- 18.2%	- 2.8%
Greece	2	2	1	1	1	- 17.3%	- 4.5%
Cyprus	1	1	0	0	0	0.0%	- 4.5%
Other	33	37	34	33	33	+ 2.5%	+ 0.2%
North and Central America							
United States of America	570	611	713	709	821	+ 15.7%	+ 3.4%
Canada (E)	77	86	89	83	89	+ 7.4%	+ 1.3%
Mexico	16	18	13	14	15	+ 3.6%	- 0.6%
Oceania							
New Zealand	374	424	482	441	492	+ 11.6%	+ 2.5%
Australia (F)	176	146	135	132	125	- 5.0%	- 3.0%

Table 11. Production of butter and butteroil (continued)

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Other Europe							
Russia	270	277	232	207	216	+ 4.6%	- 2.0%
Belarus (C)	65	85	116	99	104	+ 5.7%	+ 4.4%
Ukraine	135	120	75	80	77	- 3.1%	- 5.0%
Switzerland	37	39	48	49	49	+ 0.8%	+ 2.7%
Norway	23	9	12	11	9	- 14.5%	- 7.8%
Croatia	2	4	6	5	5	- 2.1%	+ 8.1%
Iceland	2	2	2	2	2	0.0%	+ 3.1%
South America							
Brazil	72	77	76	78	79	+ 1.3%	+ 0.8%
Argentina	47	40	49	49	54	+ 10.5%	+ 1.2%
Uruguay	14	18	16	16	26	+ 57.1%	+ 5.6%
Chile	11	15	18	22	22	- 0.8%	+ 6.4%
Colombia	5	5	5	6	6	+ 8.1%	+ 2.0%
Africa							
Egypt	10	6	10	15	17	+ 16.2%	+ 4.9%
South Africa	9	11	12	12	12	0.0%	+ 2.2%
Nigeria	9	10	11	11	11	0.0%	+ 2.2%
Zimbabwe	-	-	2	2	2	0.0%	

(A) Dairy years ending March of the following year. (B) Dairy years ending June of the following year.
(C) Production of butter only. (D) Production of butter and butteroil, including reprocessed butter (years 2009, 2010 and 2011: calculated).
(E) Production of butter and whey butter only. (F) Dairy years ending June of the following year.

Table 12. Production of cheese

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
EU 27	**7 223**	**7 989**	**8 302**	**8 534**	**8 634**	**+ 1.2%**	**+ 1.6%**
Germany	1 686	1 924	2 088	2 168	2 196	+ 1.3%	+ 2.4%
France (A)	1 612	1 685	1 691	1 756	1 772	+ 0.9%	+ 0.9%
Italy (B)	927	1 054	1 043	1 058	1 094	+ 3.4%	+ 1.5%
Netherlands	684	672	721	753	750	- 0.4%	+ 0.8%
Poland	404	515	623	638	659	+ 3.2%	+ 4.5%
United Kingdom	302	346	322	337	350	+ 4.1%	+ 1.4%
Denmark	306	356	321	292	276	- 5.6%	- 0.9%
Greece (C)	143	156	195	208	190	- 8.7%	+ 2.7%
Ireland	99	119	163	172	180	+ 4.7%	+ 5.6%
Austria	119	145	146	155	160	+ 3.3%	+ 2.7%
Spain (B)	111	136	124	124	130	+ 5.0%	+ 1.5%
Czech Republic	92	118	109	111	110	- 0.6%	+ 1.6%
Lithuania	40	79	92	100	104	+ 4.5%	+ 9.1%
Sweden	127	118	108	103	103	+ 0.2%	- 1.8%
Finland	98	97	97	101	101	- 0.4%	+ 0.2%
Belgium	58	61	68	71	76	+ 7.7%	+ 2.4%
Hungary	101	77	75	77	69	- 10.0%	- 3.4%
Romania	51	57	70	64	62	- 2.7%	+ 1.8%
Estonia	22	28	37	38	41	+ 7.7%	+ 5.7%
Slovakia	51	43	35	30	32	+ 6.4%	- 4.2%
Latvia	22	33	27	31	28	- 11.8%	+ 2.2%
Cyprus (C)	12	13	12	13	14	+ 9.9%	+ 1.6%
Other	158	159	136	137	138	+ 1.2%	- 1.2%
North and Central America							
United States of America	3 746	4 150	4 570	4 737	4 807	+ 1.5%	+ 2.3%
Canada	292	310	336	344	330	- 4.1%	+ 1.1%
Mexico	134	134	193	211	275	+ 30.5%	+ 6.8%
South America							
Brazil	445	495	614	648	675	+ 4.2%	+ 3.9%
Argentina	443	408	496	506	521	+ 3.0%	+ 1.5%
Chile (D)	52	78	65	73	90	+ 23.2%	+ 5.1%
Uruguay	28	38	53	58	61	+ 4.6%	+ 7.4%
Colombia	24	33	38	39	41	+ 4.3%	+ 5.1%
Other Europe							
Russia	221	371	430	433	425	- 1.8%	+ 6.1%
Ukraine	-	391	312	286	255	- 10.8%	
Switzerland	167	168	178	181	182	+ 0.3%	+ 0.7%
Belarus	41	82	134	146	149	+ 1.5%	+ 12.4%
Norway	81	84	82	84	84	+ 0.4%	+ 0.4%
Croatia	19	26	28	29	30	+ 2.6%	+ 4.1%
Iceland	6	7	8	8	7	- 14.3%	+ 1.3%

Table 12. Production of cheese (continued)

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Asia							
Turkey	219	230	272	474	519	+ 9.6%	+ 8.2%
Iran	221	220	245	275	260	- 5.5%	+ 1.5%
Israel	99	106	120	122	125	+ 2.5%	+ 2.1%
Japan (E)	34	39	45	46	45	- 1.8%	+ 2.8%
China (F)	-	15	15	17	20	+ 22.4%	
India (F) (G)	-	-	9	10	8	- 14.3%	
Korea, Republic of	4	12	8	8	4	- 54.4%	- 1.2%
Mongolia	-	0	0	0	0	- 36.4%	
Africa							
Egypt	380	480	445	570	620	+ 8.8%	+ 4.6%
South Africa	35	42	43	45	47	+ 4.4%	+ 2.6%
Nigeria	7	8	9	9	9	0.0%	+ 2.2%
Zimbabwe	-	-	2	2	2	0.0%	
Oceania							
Australia (H)	376	373	350	333	349	+ 5.0%	- 0.7%
New Zealand (F)	289	280	308	268	257	- 4.1%	- 1.1%

(A) Production: not including goat's milk cheese (99 970 tonnes) and sheep's milk cheese (57 564 tonnes).

(B) Production of cow's milk cheese only. (C) Of all kinds of milk.

(D) Based on big dairies' production; total production of cheese (including small dairies): ~ 123 200 tonnes.

(E) Production of natural cheese in the fiscal years (ending March of the following year). (F) Including processed cheese.

(G) Refers to cooperative dairies only. This may not reflect the development for the total Indian dairy industry; dairy years ending March of the following year.

(H) Dairy years ending June of the following year.

Table 13. Production of whole and semi-skimmed milk powder

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Asia							
China (A)	522	918	977	1 000	1 045	+ 4.5%	+ 6.5%
India (B)	-	74	90	98	98	0.0%	
Turkey	-	-	-	-	24		
Japan	18	14	13	13	14	+ 8.3%	- 2.2%
Korea, Republic of	5	5	3	3	2	- 30.8%	- 9.6%
Iran	0	1	-	-	-		
Oceania							
New Zealand	515	675	768	947	1 000	+ 5.6%	+ 6.2%
Australia (C)	205	158	126	158	150	- 5.0%	- 2.8%
South America							
Brazil	256	440	473	500	510	+ 2.0%	+ 6.5%
Argentina	202	254	235	205	279	+ 35.8%	+ 3.0%
Colombia	-	-	126	121	119	- 1.1%	
Chile	52	51	58	63	74	+ 17.1%	+ 3.3%
Uruguay	19	37	57	54	54	0.0%	+ 10.2%
EU 27	**941**	**850**	**729**	**743**	**725**	**- 2.4%**	**- 2.3%**
Germany	185	161	150	155	174	+ 12.5%	- 0.6%
Netherlands	97	107	140	135	131	- 3.0%	+ 2.8%
France	258	193	123	122	110	- 10.2%	- 7.5%
Denmark	81	79	93	106	97	- 8.6%	+ 1.7%
Belgium	65	79	63	65	50	- 22.1%	- 2.3%
United Kingdom (D)	105	52	40	40	40	0.0%	- 8.4%
Ireland	37	39	25	34	38	+ 11.8%	+ 0.3%
Poland	30	50	28	28	29	+ 5.4%	- 0.3%
Sweden	5	32	31	23	23	- 1.3%	+ 14.2%
Czech Republic	23	17	9	12	12	+ 7.0%	- 5.4%
Finland	2	2	3	4	4	- 14.3%	+ 5.5%
Latvia	1	2	4	3	3	+ 14.8%	+ 15.1%
Slovakia	4	7	3	2	2	- 7.3%	- 7.7%
Lithuania	12	0	2	3	1	- 51.7%	- 17.9%
Spain	12	6	2	2	1	- 42.1%	- 19.5%
Romania	4	5	2	2	1	- 50.0%	- 12.4%
Austria	3	1	1	0	0	- 25.0%	- 18.9%
Estonia	4	8	4	0	0	0.0%	- 28.7%
Hungary	3	1	0	0	0		- 100.0%
Other	10	10	8	7	7	0.0%	- 2.5%
North and Central America							
Mexico	110	124	131	134	128	- 4.8%	+ 1.4%
United States of America	51	15	27	32	30	- 7.5%	- 4.8%
Canada	4	-	-	-	-		

Table 13. Production of whole and semi-skimmed milk powder (continued)

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Other Europe							
Russia	75	80	50	47	43	- 8.1%	- 4.9%
Belarus	14	38	34	45	33	- 27.7%	+ 8.3%
Switzerland	13	20	15	15	18	+ 20.0%	+ 2.7%
Ukraine	7	29	16	15	11	- 26.7%	+ 4.1%
Norway	1	1	1	1	1	0.0%	0.0%
Iceland	0	0	0	0	0	0.0%	+ 3.8%
Croatia	-	1	1	0	0	+ 81.8%	
Africa							
Egypt	-	-	48	52	54	+ 3.8%	
South Africa	10	16	15	16	17	+ 6.3%	+ 4.6%
Zimbabwe	-	-	6	6	6	0.0%	

(A) Including infant formulas.

(B) Refers to cooperative dairies only. This may not reflect the development for the total Indian dairy industry; dairy years ending March of the following year.

(C) Dairy years ending June of the following year. (D) Years 2009, 2010 and 2011: estimated.

Table 14. Production of skim milk powder

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
EU 27	**1 259**	**1 069**	**1 159**	**1 083**	**1 220**	**+ 12.7%**	**- 0.3%**
France	279	276	329	320	358	+ 12.1%	+ 2.3%
Germany	335	257	286	259	301	+ 16.6%	- 1.0%
Poland	119	142	117	93	115	+ 23.8%	- 0.3%
Belgium	70	77	81	83	104	+ 25.4%	+ 3.7%
United Kingdom (A)	83	69	62	70	71	+ 0.7%	- 1.4%
Ireland	79	55	75	60	67	+ 10.3%	- 1.5%
Netherlands	69	53	62	64	62	- 3.0%	- 1.0%
Denmark	38	15	21	27	36	+ 31.4%	- 0.6%
Sweden	41	17	27	26	28	+ 7.7%	- 3.5%
Lithuania	29	11	20	12	16	+ 31.1%	- 5.3%
Finland	24	21	17	17	16	- 8.8%	- 3.9%
Czech Republic	35	32	18	14	14	+ 3.0%	- 7.9%
Spain	4	5	9	9	8	- 18.5%	+ 5.9%
Austria	13	8	6	7	6	- 14.7%	- 7.1%
Estonia	11	9	7	4	4	+ 9.5%	- 7.5%
Latvia	4	2	4	4	3	- 25.6%	- 1.7%
Romania	4	4	2	2	2	0.0%	- 6.1%
Slovakia	7	6	4	2	2	- 17.6%	- 10.8%
Hungary	5	1	0	0	0	- 33.3%	- 24.9%
Other	13	9	14	11	9	- 14.1%	- 2.9%
North and Central America							
United States of America	661	698	791	828	893	+ 7.9%	+ 2.8%
Canada	75	73	83	72	76	+ 4.5%	+ 0.0%
Mexico	-	9	21	23	26	+ 12.0%	
Asia							
India (B)	145	251	360	380	410	+ 7.9%	+ 9.9%
Japan	194	187	167	156	137	- 11.9%	- 3.1%
Turkey	-	-	-	-	56		
Iran	-	10	16	16	50	+ 212.5%	
China	58	60	54	55	34	- 37.6%	- 4.7%
Israel	-	-	6	5	9	+ 89.6%	
Korea, Republic of	24	24	15	10	4	- 57.9%	- 15.1%
Pakistan (C)	0	0	1	1	1	0.0%	
Oceania							
New Zealand	251	250	385	344	440	+ 27.9%	+ 5.2%
Australia (C)	265	228	203	244	249	+ 2.0%	- 0.6%
South America							
Brazil	62	113	125	130	135	+ 3.8%	+ 7.3%
Argentina	45	16	33	34	39	+ 14.9%	- 1.4%
Uruguay	12	9	11	12	30	+ 143.9%	+ 8.2%
Chile	8	12	15	19	19	- 1.7%	+ 8.1%
Colombia	-	-	7	6	6	- 1.1%	

Table 14. Production of skim milk powder (continued)

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Other Europe							
Russia	91	92	66	63	57	- 9.5%	- 4.2%
Belarus	28	46	82	62	57	- 7.4%	+ 6.7%
Ukraine	61	83	51	53	43	- 19.8%	- 3.3%
Switzerland	23	26	37	33	29	- 12.1%	+ 2.0%
Norway	5	7	7	7	9	+ 28.6%	+ 5.5%
Iceland	0	0	1	1	1	+ 10.0%	+ 9.6%
Croatia	3	3	1	0	1	+ 56.3%	- 15.0%
Africa							
South Africa	8	15	15	16	17	+ 6.3%	+ 7.0%
Zimbabwe	-	-	1	1	1	0.0%	

(A) Years 2009, 2010 and 2011: estimated. (B) Dairy years ending March of the following year.
(C) Dairy years ending June of the following year.

Table 15. Production of condensed milk

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
North and Central America							
United States of America	729	861	1 024	1 037	1 032	- 0.5%	+ 3.2%
Mexico	153	162	165	165	165	0.0%	+ 0.7%
Canada	103	46	35	33	38	+ 13.6%	- 8.8%
EU 27	**1 286**	**1 160**	**1 128**	**1 153**	**1 106**	**- 4.1%**	**- 1.4%**
Germany	567	458	421	420	412	- 1.9%	- 2.9%
Netherlands	274	292	315	347	354	+ 2.1%	+ 2.4%
United Kingdom (A)	162	143	104	101	106	+ 5.8%	- 3.7%
Belgium	68	80	87	87	54	- 37.8%	- 2.1%
Poland	24	33	56	55	52	- 5.3%	+ 7.2%
Spain	58	60	46	46	32	- 29.0%	- 5.2%
Lithuania	4	5	21	25	22	- 14.0%	+ 16.5%
Greece	35	33	23	21	20	- 3.8%	- 4.8%
Czech Republic	24	16	18	15	14	- 6.2%	- 5.1%
France	32	14	11	14	12	- 11.4%	- 8.2%
Sweden	10	1	2	1	3	+ 315.5%	- 10.3%
Hungary	2	1	0	0	0	0.0%	- 19.6%
Estonia	1	0	0	-	-		
Italy	1	1	-	-	-		
Other	24	23	23	22	24	+ 6.6%	- 0.1%
South America							
Peru	222	328	360	409	418	+ 2.3%	+ 5.9%
Brazil (B)	250	250	300	300	300	0.0%	+ 1.7%
Chile	24	40	33	37	35	- 6.0%	+ 3.4%
Argentina	12	6	6	7	6	- 1.5%	- 5.6%
Colombia	4	4	4	4	4	+ 2.6%	- 0.9%
Other Europe							
Russia	249	227	333	332	341	+ 3.0%	+ 2.9%
Belarus	41	57	84	84	84	+ 0.2%	+ 6.8%
Ukraine	47	104	96	96	61	- 36.5%	+ 2.4%
Switzerland	3	3	2	3	3	- 3.6%	- 0.4%
Norway	14	11	1	1	1	0.0%	- 21.5%
Croatia	7	0	0	0	0	- 100.0%	- 100.0%
Asia							
China	80	150	160	165	165	0.0%	+ 6.8%
Japan	41	42	46	42	42	+ 1.0%	+ 0.2%
Korea, Republic of	4	4	4	4	3	- 29.7%	- 4.1%
Africa							
South Africa	57	54	54	54	54	0.0%	- 0.4%
Egypt	-	-	1	0	0	+ 10.0%	
Oceania							
Australia (C)	25	19	19	19	19	0.0%	- 2.3%

(A) Chocolate crumb included. (B) Estimate, based on consumption and trade figures. (C) Dairy years ending June of the following year.

Table 16. Production of whey powder

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
EU 27	**1 877**	**1 639**	**1 808**	**1 894**	**1 924**	**+ 1.6%**	**+ 0.2%**
France	622	614	618	638	669	+ 4.9%	+ 0.7%
Germany	228	356	341	369	372	+ 0.8%	+ 4.5%
Netherlands	340	233	328	319	300	- 5.9%	- 1.1%
Poland	50	75	111	130	135	+ 4.3%	+ 9.5%
Italy	348	164	115	121	107	- 11.4%	- 10.2%
Ireland	35	35	100	100	100	0.0%	+ 10.0%
Czech Republic	20	29	28	33	44	+ 31.8%	+ 7.4%
Finland	89	36	38	40	40	- 1.0%	- 7.0%
Spain	10	12	17	27	35	+ 30.5%	+ 12.1%
Austria	2	11	26	26	32	+ 25.5%	+ 29.9%
Denmark	27	23	20	27	29	+ 5.5%	+ 0.6%
Lithuania	6	18	20	22	22	+ 0.9%	+ 12.6%
Latvia	-	0	2	1	6	+ 850.0%	
Estonia	0	1	7	6	6	0.0%	+ 35.5%
Hungary	10	2	5	5	5	+ 8.3%	- 5.8%
Sweden	6	4	3	3	3	+ 0.3%	- 5.4%
Slovakia	20	13	13	13	3	- 79.5%	- 16.7%
United Kingdom	56	-	-	-	-		
Other	9	12	15	16	18	+ 11.8%	+ 6.8%
North and Central America							
United States of America (A)	591	517	492	498	498	0.0%	- 1.5%
Canada	59	24	24	22	20	- 10.9%	- 9.5%
South America							
Argentina	-	13	55	36	43	+ 18.0%	
Uruguay	-	8	14	14	27	+ 100.7%	
Chile	15	24	24	29	27	- 8.3%	+ 5.3%
Oceania							
Australia (B)	105	98	79	59	65	+ 10.0%	- 4.3%
New Zealand	-	-	15	9	16	+ 83.1%	
Other Europe							
Russia	-	-	42	41	41	- 0.7%	
Croatia	-	-	5	5	4	- 20.3%	
Switzerland	3	2	1	1	2	+ 109.1%	- 1.0%
Norway	1	1	2	3	3	0.0%	+ 10.5%
Africa							
South Africa	-	-	13	13	14	+ 7.7%	
Asia							
Israël	-	-	12	12	12	0.0%	

(A) Condensed whey included. (B) Dairy years ending June of the following year.

Table 17. World and selected countries exports in butter and butteroil

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
New Zealand	352	333	451	395	414	+ 4.7%	+ 1.5%
EU 27 (A)	**186**	**317**	**148**	**155**	**124**	**- 19.8%**	**- 3.6%**
France	27	31	22	26	28	+ 5.8%	+ 0.2%
Netherlands	46	78	43	41	27	- 34.9%	- 4.9%
Finland	22	24	23	18	16	- 11.3%	- 2.9%
Germany	12	22	15	22	12	- 44.0%	+ 0.7%
Denmark	18	18	10	10	12	+ 25.9%	- 3.3%
Belgium	15	45	16	17	11	- 33.6%	- 2.6%
Ireland	13	25	7	8	6	- 22.9%	- 6.4%
Other EU	34	73	12	13	12	- 9.7%	- 9.1%
United States of America	9	12	28	56	63	+ 11.6%	+ 19.4%
Belarus	17	51	86	60	62	+ 2.9%	+ 12.5%
Australia	115	68	84	57	50	- 11.9%	- 7.3%
Argentina	9	7	17	15	27	+ 79.5%	+ 10.8%
Uruguay	5	13	18	10	18	+ 71.4%	+ 11.8%
India	2	6	5	12	12	0.0%	+ 18.9%
Switzerland	0	0	4	4	10	+ 126.2%	+ 71.0%
Rest of world	58	104	38	44	34	- 22.4%	- 4.6%
World	**753**	**911**	**879**	**809**	**813**	**+ 0.5%**	**+ 0.7%**

Table 18. World and selected countries exports trade in cheese

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
EU 27 (A)	**526**	**554**	**578**	**676**	**682**	**+ 0.8%**	**+ 2.4%**
Germany	81	97	104	148	129	- 12.4%	+ 4.4%
Netherlands	78	78	83	98	103	+ 4.9%	+ 2.6%
France	92	81	77	91	97	+ 6.9%	+ 0.5%
Italy	56	66	68	73	75	+ 2.7%	+ 2.6%
Denmark	70	59	43	42	47	+ 12.4%	- 3.5%
Finland	21	26	36	39	38	- 1.5%	+ 5.5%
Lithuania	26	24	31	30	37	+ 22.5%	+ 3.2%
Other EU	102	123	135	156	155	- 0.4%	+ 3.9%
New Zealand	257	273	290	265	253	- 4.6%	- 0.2%
United States of America	50	58	108	174	224	+ 29.3%	+ 14.6%
Australia	233	208	162	160	207	+ 29.3%	- 1.1%
Egypt	2	18	130	158	148	- 6.3%	+ 49.6%
Belarus	17	65	121	119	122	+ 3.0%	+ 19.7%
Ukraine	12	116	77	79	80	+ 1.2%	+ 18.4%
Switzerland	58	57	62	64	65	+ 1.4%	+ 0.9%
Argentina	25	52	48	46	61	+ 33.1%	+ 8.3%
Uruguay	17	32	35	40	47	+ 15.5%	+ 9.7%
Rest of world	110	197	240	310	341	+ 9.9%	+ 10.8%
World	**1 308**	**1 630**	**1 852**	**2 090**	**2 229**	**+ 6.6%**	**+ 5.0%**

(A) Intra-trade excluded for all member states.

Table 19. World and selected countries exports in whole and semi-skimmed milk powder

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
New Zealand	426	599	818	948	1 110	+ 17.2%	+ 9.1%
EU 27 (A)	**584**	**498**	**463**	**448**	**390**	**- 13.0%**	**- 3.6%**
Netherlands	158	143	153	142	127	- 11.1%	- 2.0%
Denmark	71	74	89	93	88	- 5.2%	+ 2.0%
Belgium	42	73	75	73	53	- 27.7%	+ 2.1%
France	168	71	41	34	31	- 7.6%	- 14.2%
United Kingdom	73	48	30	35	26	- 25.6%	- 9.1%
Ireland	27	27	20	23	24	+ 3.7%	- 0.9%
Other EU	44	63	56	48	41	- 14.0%	- 0.6%
Argentina	98	162	154	129	202	+ 56.4%	+ 6.8%
Australia	203	157	133	115	108	- 5.4%	- 5.6%
Uruguay	14	37	54	63	58	- 7.1%	+ 14.0%
Singapore	5	26	58	64	51	- 19.8%	+ 23.9%
Philippines	7	36	29	38	44	+ 17.6%	+ 17.7%
Belarus	13	31	33	39	27	- 30.8%	+ 6.7%
United States of America	29	19	23	53	22	- 58.9%	- 2.8%
Costa Rica	4	2	3	11	16	+ 37.8%	+ 14.4%
Rest of world	103	327	171	157	188	+ 19.7%	+ 5.6%
World	**1 486**	**1 893**	**1 939**	**2 063**	**2 217**	**+ 7.4%**	**+ 3.7%**

Table 20. World and selected countries exports in skim milk powder

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
EU 27 (A)	**449**	**190**	**231**	**379**	**518**	**+ 36.5%**	**+ 1.3%**
Belgium	66	19	58	99	119	+ 19.8%	+ 5.5%
Germany	72	29	29	50	104	+ 106.2%	+ 3.4%
France	35	14	33	65	96	+ 47.5%	+ 9.7%
Netherlands	67	28	44	55	71	+ 28.5%	+ 0.5%
Poland	71	38	21	31	44	+ 45.3%	- 4.2%
Ireland	50	12	11	22	29	+ 27.9%	- 4.9%
Other EU	88	51	35	56	55	- 2.5%	- 4.2%
United States of America	101	280	248	384	436	+ 13.5%	+ 14.2%
New Zealand	166	225	408	343	362	+ 5.3%	+ 7.3%
Australia	219	166	167	132	166	+ 25.6%	- 2.5%
Belarus	28	44	80	61	55	- 9.9%	+ 6.3%
Uruguay	13	11	19	12	28	+ 140.2%	+ 7.7%
Ukraine	49	57	27	14	22	+ 60.3%	- 7.0%
Argentina	22	16	13	20	19	- 6.7%	- 1.5%
Singapore	9	19	9	10	17	+ 78.4%	+ 6.2%
Switzerland	11	14	25	22	14	- 35.4%	+ 2.5%
Rest of world	139	110	76	86	100	+ 17.1%	- 2.9%
World	**1 207**	**1 132**	**1 305**	**1 463**	**1 737**	**+ 18.7%**	**+ 3.4%**

(A) Intra-trade excluded for all member states.

Table 21. World and selected countries imports in butter and butteroil

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Russia	71	116	125	134	136	+ 0.9%	+ 6.1%
Egypt	50	50	37	82	81	- 1.3%	+ 4.5%
Iran	20	43	55	56	52	- 5.9%	+ 9.3%
Saudi Arabia	23	43	16	50	50	0.0%	+ 7.4%
EU 27 (A)	**78**	**80**	**62**	**38**	**45**	**+ 18.8%**	**- 4.8%**
Denmark	4	36	17	32	30	- 5.1%	+ 19.0%
Other EU	74	44	45	6	15	+ 137.0%	- 13.4%
China	3	13	28	23	36	+ 52.1%	+ 24.9%
Mexico	34	71	47	40	29	- 27.0%	- 1.4%
Morocco	27	36	27	25	25	0.0%	- 0.7%
Singapore	18	29	21	23	24	+ 4.2%	+ 2.6%
Australia	11	10	18	19	24	+ 27.7%	+ 7.6%
Philippines	12	12	20	23	22	- 3.4%	+ 5.3%
Algeria	6	11	9	8	19	+ 127.3%	+ 10.8%
Japan	0	6	0	4	17	+ 380.0%	+ 40.8%
India	8	1	5	22	16	- 28.3%	+ 6.2%
Indonesia	12	13	13	15	15	+ 1.4%	+ 2.2%
Rest of world	379	378	396	248	223	- 9.9%	- 4.7%
World	**753**	**911**	**879**	**809**	**813**	**+ 0.5%**	**+ 0.7%**

Table 22. World and selected countries imports in cheese

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Russia	52	325	353	421	421	- 0.1%	+ 20.9%
Japan	205	212	184	199	215	+ 8.2%	+ 0.4%
United States of America	192	211	163	139	142	+ 2.6%	- 2.7%
Saudi Arabia	73	103	92	114	114	0.0%	+ 4.2%
Mexico	54	79	73	81	79	- 2.4%	+ 3.4%
Australia	38	54	65	76	78	+ 2.5%	+ 6.6%
Republic of Korea	31	44	49	61	76	+ 25.0%	+ 8.7%
EU 27 (A)	**143**	**95**	**83**	**79**	**75**	**- 5.1%**	**- 5.7%**
Germany	22	16	20	22	26	+ 15.8%	+ 1.5%
Netherlands	31	24	15	17	13	- 24.3%	- 7.5%
Other EU	90	55	49	40	36	- 8.5%	- 8.0%
Egypt	16	10	30	68	64	- 5.5%	+ 13.2%
Switzerland	31	32	44	47	49	+ 4.2%	+ 4.3%
Brazil	16	3	16	22	37	+ 70.8%	+ 8.2%
China	2	7	17	23	29	+ 24.9%	+ 27.4%
Canada	29	25	24	25	25	+ 2.3%	- 1.4%
Jordan	9	13	13	21	21	- 1.9%	+ 7.8%
Rest of world	416	418	645	716	804	+ 12.4%	+ 6.2%
World	**1 308**	**1 630**	**1 852**	**2 090**	**2 229**	**+ 6.6%**	**+ 5.0%**

(A) Intra-trade excluded.

Table 23. World and selected countries imports in whole and semi-skimmed milk powder

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
China	51	64	176	326	320	- 1.8%	+ 18.2%
Algeria	117	170	169	167	203	+ 21.7%	+ 5.1%
Venezuela	65	46	108	50	104	+ 109.2%	+ 4.4%
Saudi Arabia	73	95	82	93	93	0.0%	+ 2.3%
Brazil	108	29	57	52	86	+ 65.1%	- 2.1%
Singapore	22	61	74	83	81	- 1.8%	+ 12.5%
Sri Lanka	46	46	57	67	76	+ 13.0%	+ 4.7%
Nigeria	19	69	61	72	73	+ 1.4%	+ 12.9%
Indonesia	26	67	50	43	68	+ 57.8%	+ 9.2%
Oman	9	49	73	56	56	- 0.0%	+ 17.6%
China Hong Kong SAR	46	23	33	39	51	+ 31.6%	+ 1.0%
Egypt	10	14	13	42	39	- 6.3%	+ 13.5%
Thailand	48	33	24	32	33	+ 3.7%	- 3.5%
Mexico	34	44	27	15	31	+ 110.8%	- 0.6%
Malaysia	58	67	29	24	28	+ 16.7%	- 6.2%
Philippines	56	36	34	33	28	- 12.7%	- 6.0%
Dominican Republic	30	28	16	31	25	- 20.0%	- 1.8%
Russia	22	37	20	40	20	- 51.1%	- 1.1%
Senegal	14	26	41	29	19	- 36.1%	+ 2.9%
Rest of world	632	886	794	772	783	+ 1.5%	+ 2.0%
World	**1 486**	**1 893**	**1 939**	**2 063**	**2 217**	**+ 7.4%**	**+ 3.7%**

Table 24. World and selected countries imports in skim milk powder

1 000 tonnes Country	2000	2005	2009	2010	2011	Annual growth '10-'11	CAGR '00-'11
Mexico	129	155	187	166	191	+ 14.7%	+ 3.6%
China	22	43	70	89	130	+ 46.8%	+ 17.6%
Indonesia	83	87	104	132	128	- 3.4%	+ 4.0%
Algeria	91	84	93	98	125	+ 27.5%	+ 2.9%
Philippines	111	87	112	110	111	+ 1.2%	- 0.0%
Malaysia	75	57	84	88	96	+ 9.1%	+ 2.3%
Viet Nam	30	50	25	85	85	0.0%	+ 9.9%
Russia	39	64	52	117	70	- 40.3%	+ 5.4%
Thailand	53	70	50	59	64	+ 7.3%	+ 1.7%
Singapore	39	61	61	62	61	- 1.6%	+ 4.1%
Egypt	21	20	26	45	43	- 5.1%	+ 6.8%
Saudi Arabia	38	53	54	39	39	0.0%	+ 0.3%
Republic of Korea	3	6	10	8	34	+ 325.4%	+ 24.5%
Nigeria	14	19	22	27	32	+ 18.7%	+ 7.8%
Brazil	30	5	11	14	31	+ 119.0%	+ 0.2%
Pakistan	0	6	8	18	28	+ 56.3%	
Japan	52	34	34	30	27	- 9.7%	- 5.8%
India	1	0	4	20	20	0.0%	+ 34.8%
Jordan	7	2	19	12	14	+ 11.2%	+ 5.8%
Rest of world	368	228	279	242	408	+ 68.7%	+ 1.0%
World	**1 207**	**1 132**	**1 305**	**1 463**	**1 737**	**+ 18.7%**	**+ 3.4%**

Table 25. Liquid milk consumption

Country	1 000 tonnes 2009	2010	2011	Annual growth '10-'11		CAGR '09-'11	kg per capita 2009	2010	2011
Asia									
India (A)	48 160	49 140	50 600	+	3.0%	+	2.5%	41.1	41.3	40.8
China	11 791	12 060	12 600	+	4.5%	+	3.4%	8.8	9.0	9.4
Japan (A)	4 174	4 066	4 066		0.0%	-	1.3%	32.6	31.8	31.8
Korea, Republic of	1 702	1 641	1 626	-	0.9%	-	2.3%	34.9	33.6	33.2
Iran	2 868	2 850	1 550	-	45.6%	-	26.5%	39.2	37.9	19.9
Turkey	1 095	1 079	1 149	+	6.5%	+	2.4%	15.2	14.8	15.6
Israel	411	422	424	+	0.5%	+	1.6%	54.1	55.5	53.7
Mongolia	11	18	21	+	18.1%	+	36.6%	4.1	6.4	7.5
EU 27	**32 560**	**32 856**	**32 589**	**-**	**0.8%**	**+**	**0.0%**	**65.1**	**65.5**	**64.8**
United Kingdom	6 454	6 701	6 852	+	2.3%	+	3.0%	104.4	107.7	109.3
Germany	4 425	4 377	4 379	+	0.0%	-	0.5%	54.1	53.5	53.5
Spain	4 130	4 160	4 035	-	3.0%	-	1.2%	90.5	90.3	86.9
France	3 590	3 668	3 626	-	1.2%	+	0.5%	57.4	58.2	57.3
Italy	3 399	3 439	3 398	-	1.2%	-	0.0%	56.4	56.8	55.9
Poland	1 670	1 670	1 621	-	2.9%	-	1.5%	43.8	43.7	42.4
Sweden	928	910	878	-	3.6%	-	2.7%	99.6	97.1	93.0
Netherlands	843	831	818	-	1.6%	-	1.5%	51.0	50.0	49.0
Finland	719	715	708	-	1.0%	-	0.8%	135.7	132.5	131.1
Austria (B)	667	660	679	+	2.9%	+	0.9%	79.7	78.7	80.7
Ireland (C)	633	637	644	+	1.1%	+	0.8%	140.8	141.5	139.9
Greece	582	592	573	-	3.2%	-	0.7%	51.5	52.4	50.7
Belgium	574	581	568	-	2.2%	-	0.5%	53.2	53.8	51.6
Czech Republic	627	607	558	-	8.0%	-	5.7%	60.0	57.8	53.0
Denmark	496	506	496	-	2.0%	+	0.0%	90.1	92.0	88.6
Hungary	589	511	486	-	5.0%	-	9.2%	58.9	51.1	48.6
Slovakia	268	296	282	-	4.8%	+	2.6%	49.7	54.9	52.2
Romania	245	263	259	-	1.6%	+	2.7%	11.4	12.2	12.1
Latvia	191	185	185		0.0%	-	1.5%	84.8	83.0	83.0
Estonia (B)	183	173	173	+	0.2%	-	2.8%	140.8	132.8	132.8
Lithuania	89	91	89	-	1.6%	+	0.1%	26.9	27.5	27.9
Cyprus	81	80	82	+	2.5%	+	1.2%	100.6	96.9	96.8
Luxembourg (C)	15	18	15	-	18.0%	+	0.2%	29.6	35.6	28.5
Other	1 164	1 185	1 186	+	0.1%	+	1.0%	56.3	57.4	58.2
North and Central America										
United States of America	25 150	24 798	24 376	-	1.7%	-	1.6%	82.0	80.1	78.2
Mexico	4 569	4 405	4 357	-	1.1%	-	2.3%	41.7	39.8	38.0
Canada (D)	2 820	2 737	2 791	+	2.0%	-	0.5%	83.7	80.2	80.9
South America										
Brazil	10 895	11 278	11 316	+	0.3%	+	1.9%	56.4	57.9	57.5
Colombia	2 993	2 938	2 946	+	0.3%	-	0.8%	65.6	63.5	62.8
Argentina	1 748	1 779	1 800	+	1.2%	+	1.5%	43.4	43.9	44.5
Chile	352	378	381	+	0.6%	+	4.0%	20.7	22.1	22.0
Uruguay	229	231	234	+	1.2%	+	1.0%	67.5	68.0	68.8

Table 25. Liquid milk consumption (continued)

Country	1 000 tonnes 2009	2010	2011	Annual growth '10-'11		CAGR '09-'11	kg per capita 2009	2010	2011
Other Europe									
Russia	4 385	5 049	5 059	+	0.2%	+	7.4%	30.9	35.6	35.4
Switzerland	651	629	632	+	0.5%	-	1.4%	83.4	80.7	80.0
Norway	418	414	409	-	1.2%	-	1.1%	87.1	84.5	81.8
Croatia	324	307	345	+	12.3%	+	3.3%	73.5	69.8	78.4
Iceland	35	34	33	-	2.6%	-	2.9%	111.6	106.5	102.5
Africa									
Egypt	1 749	1 763	1 869	+	6.0%	+	3.4%	21.9	21.7	22.6
South Africa	1 217	1 297	1 564	+	20.6%	+	13.4%	24.5	25.9	31.0
Oceania									
Australia (E)	2 348	2 384	2 467	+	3.5%	+	2.5%	107.2	106.4	108.7
New Zealand (B)	335	350	350		0.0%	+	2.2%	77.5	80.1	79.3

(A) Dairy years ending March of the following year. (B) Including milk drinks and fermented products. (C) Including buttermilk.
(D) Including chocolate milk and eggnog. (E) Dairy years ending June of the following year.

Table 26. Butter consumption

Country	1 000 tonnes 2009	2010	2011	Annual growth '10-'11	CAGR '09-'11	kg per capita 2009	2010	2011
Asia								
India (A) (B)	3 910	4 170	4 325	+ 3.7%	+ 5.2%	3.3	3.5	3.5
Pakistan	630	649	649	0.0%	+ 1.5%	3.7	3.7	3.7
Iran (C)	224	224	226	+ 0.8%	+ 0.4%	3.1	3.0	2.9
China	135	135	140	+ 3.6%	+ 1.8%	0.1	0.1	0.1
Japan (A)	78	84	84	0.0%	+ 3.8%	0.6	0.7	0.7
Turkey	45	45	45	- 0.5%	- 0.3%	0.6	0.6	0.6
Korea, Republic of	8	9	10	+ 7.7%	+ 8.0%	0.2	0.2	0.2
Israel	6	7	8	+ 8.7%	+ 12.7%	0.8	0.9	0.9
Mongolia	1	1	1	+ 50.0%	+ 15.5%	0.3	0.3	0.4
EU 27	**1 818**	**1 797**	**1 803**	**+ 0.3%**	**- 0.4%**	**3.6**	**3.6**	**3.6**
Germany	477	476	482	+ 1.3%	+ 0.5%	5.8	5.8	5.9
France	483	477	477	+ 0.0%	- 0.6%	7.7	7.6	7.5
United Kingdom	183	199	191	- 3.9%	+ 2.3%	3.0	3.2	3.0
Poland	168	161	162	+ 0.7%	- 1.9%	4.4	4.2	4.2
Italy	150	142	138	- 2.5%	- 4.0%	2.5	2.3	2.3
Netherlands	61	50	55	+ 10.5%	- 5.1%	3.7	3.0	3.3
Czech Republic	53	52	52	0.0%	- 0.9%	5.0	4.9	4.9
Austria	41	43	42	- 1.8%	+ 1.3%	4.9	5.1	5.0
Belgium	26	26	26	0.0%	+ 0.4%	2.4	2.4	2.4
Spain	22	23	25	+ 8.7%	+ 6.1%	0.5	0.5	0.5
Finland	16	18	22	+ 20.8%	+ 16.4%	3.1	3.4	4.1
Sweden	17	15	16	+ 1.3%	- 3.9%	1.8	1.6	1.7
Slovakia	15	14	14	- 0.6%	- 3.8%	2.8	2.6	2.6
Romania	17	14	13	- 8.1%	- 14.6%	0.8	0.6	0.6
Ireland (D)	11	11	11	0.0%	0.0%	2.4	2.4	2.4
Denmark	10	10	10	0.0%	0.0%	1.8	1.8	1.8
Hungary (D)	10	10	9	- 11.8%	- 4.7%	1.0	1.0	0.9
Greece	7	7	8	+ 16.9%	+ 8.5%	0.6	0.6	0.7
Lithuania	7	7	7	+ 7.6%	- 0.7%	2.2	2.0	2.2
Estonia	7	6	6	0.0%	- 13.0%	5.7	4.3	4.3
Latvia	6	5	5	0.0%	- 4.4%	2.6	2.4	2.4
Luxembourg	3	3	3	+ 4.9%	+ 2.0%	6.0	5.8	5.9
Cyprus	1	1	1	- 2.8%	+ 12.8%	1.4	1.7	1.6
Other	28	28	28	- 0.5%	+ 1.1%	1.3	1.4	1.4
North and Central America								
United States of America	684	691	764	+ 10.4%	+ 5.6%	2.2	2.2	2.5
Canada	94	92	96	+ 4.5%	+ 1.0%	2.8	2.7	2.8
Mexico	59	38	31	- 18.0%	- 27.3%	0.5	0.3	0.3
Other Europe								
Russia	356	338	349	+ 3.3%	- 0.9%	2.5	2.4	2.4
Ukraine	90	85	80	- 5.9%	- 6.1%	2.0	1.8	1.7
Switzerland	43	43	42	- 2.0%	- 0.5%	5.5	5.6	5.4
Norway	11	12	12	+ 1.7%	+ 5.4%	2.3	2.4	2.4
Croatia	5	4	3	- 39.3%	- 27.6%	1.2	1.0	0.6
Iceland	2	2	2	0.0%	0.0%	4.8	4.7	4.6

Table 26. Butter consumption (continued)

Country	1 000 tonnes 2009	2010	2011	Annual growth '10-'11		CAGR '09-'11	kg per capita 2009	2010	2011
South America									
Brazil	81	75	78	+	4.0%	-	1.9%	0.4	0.4	0.4
Argentina	32	35	27	-	22.4%	-	7.4%	0.8	0.9	0.7
Chile	19	20	18	-	9.6%	-	2.4%	1.1	1.2	1.0
Colombia	5	6	6	+	8.1%	+	8.4%	0.1	0.1	0.1
Uruguay	5	5	5	-	10.5%	-	5.2%	1.6	1.6	1.4
Oceania									
Australia (E)	86	87	90	+	3.0%	+	2.0%	3.9	3.9	4.0
New Zealand	18	20	20		0.0%	+	5.4%	4.2	4.6	4.5
Africa									
Egypt	58	60	62	+	3.6%	+	3.3%	0.7	0.7	0.8
South Africa	14	13	14	+	7.7%	-	0.7%	0.3	0.3	0.3

(A) Dairy years ending March of the following year. (B) Including ghee. (C) Including cream. (D) Excluding industrial use.
(E) Dairy years ending June of the following year.

Table 27. Cheese consumption

Country	1 000 tonnes 2009	2010	2011	Annual growth '10-'11	CAGR '09-'11	kg per capita 2009	2010	2011
EU 27	**8 347**	**8 557**	**8 581**	**+ 0.3%**	**+ 1.4%**	**16.7**	**17.1**	**17.1**
Germany	1 827	1 869	1 878	+ 0.5%	+ 1.4%	22.3	22.9	22.9
France	1 660	1 673	1 665	- 0.5%	+ 0.1%	26.5	26.6	26.3
Italy	1 266	1 279	1 327	+ 3.7%	+ 2.4%	21.0	21.1	21.8
United Kingdom	673	699	681	- 2.6%	+ 0.5%	10.9	11.2	10.9
Spain	385	436	445	+ 2.1%	+ 7.5%	8.4	9.5	9.6
Poland	412	430	434	+ 0.9%	+ 2.6%	10.8	11.3	11.4
Netherlands	314	324	324	0.0%	+ 1.7%	19.0	19.5	19.4
Greece	279	284	265	- 6.6%	- 2.6%	24.7	25.1	23.4
Sweden	174	177	180	+ 1.8%	+ 1.8%	18.7	18.9	19.1
Czech Republic	175	174	172	- 1.3%	- 1.1%	16.8	16.6	16.3
Belgium	167	172	168	- 2.4%	+ 0.3%	15.5	16.0	15.3
Austria	160	163	167	+ 2.9%	+ 2.4%	19.1	19.4	19.9
Finland	111	115	121	+ 5.2%	+ 4.7%	20.9	21.4	22.5
Hungary	110	115	110	- 4.0%	- 0.1%	11.0	11.5	11.0
Denmark	90	90	92	+ 2.2%	+ 1.1%	16.4	16.4	16.4
Romania	97	89	92	+ 2.9%	- 2.6%	4.5	4.2	4.3
Slovakia	51	54	56	+ 3.4%	+ 4.0%	9.5	10.0	10.3
Lithuania	49	46	46	- 1.1%	- 3.1%	14.7	13.9	14.2
Ireland	28	33	31	- 6.1%	+ 5.2%	6.2	7.3	6.7
Latvia	30	30	30	0.0%	+ 0.2%	13.3	13.5	13.5
Estonia	25	26	26	0.0%	+ 1.8%	18.9	19.6	19.6
Cyprus	14	18	15	- 14.2%	+ 3.8%	17.6	21.4	17.9
Luxembourg	11	13	12	- 6.8%	+ 6.4%	22.2	26.4	24.1
Other	239	248	245	- 1.5%	+ 1.1%	11.6	12.0	12.0
North and Central America								
United States of America	4 537	4 635	4 718	+ 1.8%	+ 2.0%	14.8	15.0	15.1
Canada	422	428	424	- 1.1%	+ 0.2%	12.5	12.6	12.3
Mexico	309	311	354	+ 13.8%	+ 7.0%	2.8	2.8	3.1
Other Europe								
Russia	789	834	831	- 0.4%	+ 2.6%	5.6	5.9	5.8
Ukraine	241	217	186	- 14.3%	- 12.1%	5.2	4.7	4.1
Switzerland	169	172	172	+ 0.2%	+ 0.9%	21.6	22.0	21.8
Norway	82	85	87	+ 2.4%	+ 3.0%	17.1	17.3	17.4
Croatia	31	38	34	- 11.8%	+ 4.3%	7.1	8.7	7.7
Iceland	8	8	8	+ 1.3%	+ 2.0%	23.8	24.1	24.1
Asia								
Turkey	255	452	494	+ 9.2%	+ 39.3%	3.5	6.2	6.7
Iran	350	360	360	0.0%	+ 1.4%	4.8	4.8	4.6
China	309	309	316	+ 2.2%	+ 1.1%	0.2	0.2	0.2
Japan (A)	237	245	245	0.0%	+ 1.7%	1.9	1.9	1.9
Israel	121	124	127	+ 2.4%	+ 2.4%	15.9	16.3	16.1
Korea, Republic of	72	89	100	+ 12.4%	+ 17.9%	1.5	1.8	2.0
Mongolia	0	0	0	0.0%	+ 41.4%	0.1	0.1	0.1

Table 27. Cheese consumption (continued)

Country	1 000 tonnes 2009	2010	2011	Annual growth '10-'11		CAGR '09-'11	kg per capita 2009	2010	2011
South America									
Brazil	624	666	701	+	5.3%	+	6.0%	3.2	3.4	3.6
Argentina	503	464	464	+	0.0%	-	4.0%	12.5	11.4	11.5
Chile	99	110	124	+	12.9%	+	12.0%	5.8	6.4	7.2
Colombia	39	41	43	+	4.4%	+	4.6%	0.9	0.9	0.9
Uruguay	21	22	21	-	1.9%	+	1.1%	6.1	6.4	6.3
Africa									
Egypt	465	684	835	+	22.0%	+	34.0%	5.8	8.4	10.1
South Africa	47	50	52	+	4.6%	+	4.7%	1.0	1.0	1.0
Oceania									
Australia (B)	266	269	266	-	1.0%	-	0.0%	12.2	12.0	11.7
New Zealand	24	24	20	-	16.7%	-	8.7%	5.6	5.5	4.5

(A) Dairy years ending March of the following year. (B) Dairy years ending June of the following year.

Table 28. Average producer milk prices

1 000 tonnes Country	Currency	2009 Milk price/100 kg	2010	2011	2011 USD/100 kg	2011 EUR/100 kg
Africa						
Egypt	EGP	213.59	260.92	298.54	50.34	36.17
Nigeria	USD	-	-	53.40	53.40	38.36
South Africa	ZAR	293.20	289.32	282.25	38.93	27.95
Zimbabwe	USD	40.78	53.40	53.40	53.40	38.36
Asia						
China	CNY	292.00	335.00	349.00	54.00	38.80
India (A)	INR	1 480.54	1 692.61	1 968.93	42.27	30.34
Iran	USD	41.00	42.00	65.60	65.60	47.13
Israel	ILS	192.00	183.02	204.48	57.15	41.08
Japan	JPY	8 960.00	8 910.00	9 030.00	113.30	81.38
Korea	KRW	80 961.17	80 495.15	86 668.93	78.30	56.23
Mongolia	MNT	60 679.61	77 669.90	72 815.53	57.54	41.33
Turkey	TRY	65.83	73.59	68.80	40.97	29.43
EU 27 (B)	**EUR**	**26.43**	**30.51**	**33.97**	**47.29**	**33.97**
Austria	EUR	29.00	31.70	35.40	49.28	35.40
Belgium	EUR	24.02	30.50	33.54	46.69	33.54
Cyprus	EUR	51.05	51.45	52.48	73.05	52.48
Czech Republic	CZK	596.12	720.39	801.94	45.40	32.61
Denmark	DKK	212.00	249.00	269.00	50.25	36.10
Estonia	EUR	21.00	27.71	32.30	44.96	32.30
Finland	EUR	37.69	35.78	39.32	54.73	39.32
France	EUR	26.61	29.17	31.71	44.14	31.71
Germany	EUR	24.08	30.83	34.83	48.48	34.83
Greece	EUR	37.00	36.39	41.92	58.36	41.92
Hungary	HUF	6 021.00	7 115.00	8 596.00	42.83	30.77
Ireland	EUR	23.98	30.00	34.95	48.65	34.95
Italy	EUR	31.36	34.17	38.45	53.52	38.45
Latvia	LVL	12.97	17.78	20.71	40.82	29.32
Lithuania	LTL	61.75	86.41	98.54	39.73	28.54
Luxembourg	EUR	25.26	29.08	32.00	44.54	32.00
Netherlands	EUR	27.06	33.72	38.78	53.98	38.78
Poland	PLN	87.01	103.40	117.67	39.75	28.56
Romania	EUR	26.21	25.24	28.16	39.20	28.16
Slovakia	EUR	20.82	27.24	31.62	44.02	31.62
Spain	EUR	29.90	29.42	29.37	40.88	29.37
Sweden	SEK	290.00	335.00	348.00	53.64	38.54
United Kingdom	GBP	23.02	23.93	26.55	42.59	30.59
North and Central America						
Canada	CAD	71.13	72.11	73.55	74.39	53.45
Mexico	MXN	460.19	446.60	467.96	37.66	27.07
United States of America	USD	28.51	36.05	44.64	44.64	32.07
Oceania						
Australia (C)	AUD	36.41	41.95	39.42	40.73	29.23
New Zealand	NZD	57.31	70.74	73.00	57.82	41.48

Table 28. Average producer milk prices (continued)

1 000 tonnes Country	Currency	2009	2010	2011	2011	2011
		Milk price/100 kg			USD/100 kg	EUR/100 kg
Other Europe						
Belarus	BYR	65 800.00	79 900.00	-	-	-
Croatia	HRK	191.16	208.51	248.71	46.57	33.43
Iceland	ISK	6 905.83	6 905.83	7 536.89	65.00	46.69
Norway	NOK	409.13	426.21	460.19	82.15	59.05
Russia	RUB	963.90	1 359.72	1 425.83	48.53	34.87
Switzerland	CHF	64.68	61.79	62.67	70.72	50.84
Ukraine	UAH	188.90	293.90	304.50	38.21	27.45
South America						
Argentina	ARS	79.80	125.80	146.21	35.58	25.56
Brazil	BRL	64.95	68.36	80.58	48.19	34.64
Chile	CLP	15 173.79	16 851.46	18 527.18	38.33	27.56
Colombia	COP	85 436.89	87 378.64	106 796.12	46.23	33.21
Uruguay	UYU	488.85	622.65	768.28	39.79	28.58

(A) Mixed (cow and buffalo) milk, refers to cooperative dairies only. Dairy years ending March of the following year.

(B) Weighted average (source: European Commission). (C) Dairy years ending June of the following year.

Table 29. Butter prices in selected countries

1 000 tonnes						
	2009	2010	2011	2009	2010	2011
Country	USD/tonne			EUR/tonne		
Asia						
China	3 953	-	-	2 834	-	-
India (A)	4 990	5 215	5 812	3 530	3 945	4 219
Iran (B)	3 300	5 500	9 600	2 515	4 078	6 897
Israel	4 269	4 417	6 121	3 061	3 332	4 397
Japan (A)	12 051	12 317	14 125	8 525	9 317	10 253
Korea, Republic of	5 291	5 780	7 040	3 793	4 360	5 058
Mongolia	6 955	8 548	9 166	4 986	6 448	6 585
Pakistan	4 913	-	-	3 523	-	-
Turkey	-	-	10 765	-	-	7 734
EU 27						
Belgium (C)	4 450	4 846	4 652	3 089	3 626	3 595
Czech Republic (D)	4 621	4 389	5 321	3 162	3 320	4 037
Estonia	3 049	3 642	5 304	2 186	2 747	3 810
France	3 356	4 242	5 369	2 406	3 200	3 857
Germany	3 557	4 587	5 526	2 550	3 460	3 970
Hungary	5 125	5 573	6 492	3 674	4 204	4 664
Italy	3 361	4 229	5 039	2 410	3 190	3 620
Latvia	3 258	4 076	6 090	2 336	3 075	4 375
Lithuania	3 527	4 323	5 520	2 528	3 261	3 966
Netherlands	3 471	4 594	5 490	2 488	3 465	3 944
Poland	3 590	4 261	5 050	2 574	3 214	3 628
Slovakia	3 279	4 648	5 596	2 351	3 506	4 020
Spain	3 034	3 748	4 776	2 175	2 827	3 431
United Kingdom	3 642	4 713	5 473	2 611	3 555	3 932
North and Central America						
United States of America	2 669	3 756	4 296	1 913	2 833	3 086
Oceania						
New Zealand	2 245	4 050	4 620	1 609	3 055	3 319
Other Europe						
Croatia	5 131	4 753	5 116	3 678	3 586	3 675
Iceland	4 020	4 217	5 019	2 882	3 181	3 606
Norway	5 274	5 631	6 073	3 781	4 248	4 363
Russia	3 406	4 901	5 805	2 442	3 697	4 170
Ukraine	-	4 618	4 093	-	3 483	2 940
South America						
Argentina	3 000	3 447	3 625	2 151	2 600	2 604
Brazil	5 043	5 650	-	3 616	4 262	-
Colombia	3 012	3 381	3 788	2 159	2 551	2 721
Uruguay	2 273	3 581	4 534	1 630	2 701	3 257
World market price (E)	**2 352**	**4 061**	**4 491**	**1 686**	**3 063**	**3 226**

(A) Fiscal year, ending March of the following year. (B) March/April of each year. (C) December of each year.
(D) 31st December of each year. (E) Oceania export prices (f.o.b. port).

Table 30. Cheese prices in selected countries

1 000 tonnes							
	2009	2010	2011		2009	2010	2011
Country	USD/tonne			Cheese type (A)	EUR/tonne		
Africa							
Egypt	-	-	3 710	Domiaty	-	-	2 665
Zimbabwe	8 000	14 000	-	Not specified	5 736	10 560	-
Asia							
Iran (B)	3 044	3 044	6 400	Feta type	2 320	2 257	4 598
Israel	8 062	8 189	8 826	Edam type	5 780	6 177	6 340
Korea, Republic of	8 999	9 842	11 716	Cheddar	6 452	7 424	8 417
Mongolia	6 260	8 106	8 692	Not specified	4 488	6 114	6 244
Turkey	-	-	6 806	Not specified	-	-	4 889
EU 27							
Belgium (C)	4 214	4 476	4 406	Cheddar	2 925	3 350	3 405
Cyprus	8 508	8 100	8 644	Halloumi	6 100	6 110	6 210
Czech Republic (D)	4 223	4 392	4 523	Edam	2 890	3 322	3 432
Estonia	4 604	4 739	4 691	Edam	3 301	3 575	3 370
Germany	3 278	3 898	4 538	Gouda	2 350	2 940	3 260
Hungary	4 080	4 731	5 421	Trappist	2 925	3 568	3 894
Italy	8 829	9 598	12 319	Grana Padano	6 330	7 240	8 850
Latvia	4 017	3 794	4 158	Tilsit	2 880	2 862	2 987
Lithuania	4 177	4 248	4 825	Not specified	2 995	3 204	3 466
Poland	3 607	4 016	4 578	Edam	2 586	3 029	3 289
Slovakia	4 720	5 189	5 791	Edam	3 384	3 914	4 160
United Kingdom	3 940	4 205	4 685	Cheddar	2 825	3 172	3 365
North and Central America							
United States of America	2 860	3 357	4 024	Cheddar	2 051	2 532	2 891
Oceania							
New Zealand	2 826	4 010	4 374	Cheddar	2 026	3 025	3 142
Other Europe							
Croatia	7 601	7 042	7 578	Not specified	5 450	5 312	5 444
Iceland	7 777	8 158	9 219	Gouda	5 576	6 154	6 622
Norway	9 109	9 441	10 181	Gouda	6 531	7 121	7 314
Russia	4 375	5 781	6 313	Not specified	3 136	4 360	4 535
Ukraine	-	4 978	5 597	Not specified	-	3 755	4 021
South America							
Argentina	3 544	4 394	4 727	Not specified	2 541	3 315	3 396
Brazil	4 596	5 513	-	Muçarela	3 295	4 159	-
Chile	-	-	11 290	Not specified	-	-	8 110
Colombia	3 722	4 473	4 916	Not specified	2 669	3 374	3 532
Uruguay	3 718	4 781	5 439	Not specified	2 666	3 606	3 907
World market price (E)	**2 951**	**4 012**	**4 408**	**Cheddar**	**2 116**	**3 026**	**3 167**

(A) When not specified: the cheese price can not be linked to a specific cheese type or no information is available.

(B) March/April of each year. (C) 31st December of each year. (D) December of each year. (E) Oceania export prices (f.o.b. port).

Table 31. Whole milk powder prices in selected countries

1 000 tonnes						
	2009	2010	2011	2009	2010	2011
Country	USD/tonne			EUR/tonne		
Africa						
Egypt	-	-	4 047	-	-	2 907
Asia						
China	4 245	4 285	4 642	3 044	3 233	3 335
Iran	-	-	6 240	-	-	4 483
Japan (A)	9 262	9 977	10 847	6 552	7 547	7 873
Korea, Republic of	5 972	6 526	7 877	4 282	4 923	5 659
Mongolia	5 216	5 895	6 717	3 740	4 447	4 825
Pakistan (B)	2 035	2 176	2 550	1 459	1 642	1 832
Turkey	-	-	4 228	-	-	3 037
EU 27						
Belgium (C)	3 648	3 872	3 792	2 532	2 898	2 931
Estonia	3 010	3 728	-	2 158	2 812	-
France	2 954	3 601	4 375	2 118	2 716	3 143
Germany	2 837	3 560	4 285	2 034	2 685	3 078
Latvia	2 439	3 334	3 922	1 748	2 515	2 817
Lithuania	2 771	3 053	4 467	1 987	2 303	3 209
Netherlands	2 845	3 560	4 179	2 040	2 685	3 003
Poland	2 618	3 525	4 094	1 877	2 659	2 941
Slovakia	3 630	4 051	4 566	2 603	3 055	3 280
North and Central America						
United States of America	2 714	3 496	4 208	1 946	2 637	3 023
Oceania						
New Zealand	2 375	3 455	4 054	1 703	2 607	2 913
Other Europe						
Croatia	4 561	4 225	4 547	3 270	3 187	3 267
Iceland	9 450	9 580	10 935	6 775	7 226	7 855
Norway	5 593	5 962	6 787	4 010	4 498	4 876
Russia	2 590	4 133	4 415	1 857	3 117	3 172
Ukraine	-	3 605	3 624	-	2 719	2 603
South America						
Argentina	3 062	3 899	4 112	2 195	2 941	2 954
Brazil	5 053	6 127	-	3 623	4 622	-
Chile	-	-	7 932	-	-	5 698
Colombia	7 558	8 625	9 036	5 419	6 506	6 491
Uruguay	2 192	3 332	4 146	1 571	2 514	2 978
World market price (D)	**2 458**	**3 501**	**3 884**	**1 762**	**2 641**	**2 790**

(A) Fiscal year, ending March of the following year. (B) Fiscal year, ending June of the following year. (C) 31st December of each year.
(D) Oceania export prices (f.o.b. port).

Table 32. Skim milk powder prices in selected countries

1 000 tonnes						
	2009	2010	2011	2009	2010	2011
Country	USD/tonne			EUR/tonne		
Africa						
Egypt	-	-	3 541	-	-	2 544
Asia						
China	4 099	4 138	4 487	2 939	3 121	3 224
India (A)	2 891	3 504	4 057	2 045	2 651	2 945
Iran (B)	3 850	3 800	6 400	2 934	2 817	4 598
Israel	5 118	5 296	5 593	3 669	3 995	4 018
Japan (A)	6 491	6 845	7 575	4 592	5 178	5 498
Korea, Republic of	6 150	6 721	8 114	4 409	5 070	5 829
Turkey	-	-	3 692	-	-	2 652
EU 27						
Belgium (C)	2 992	3 028	3 076	2 077	2 266	2 377
Czech Republic (D)	2 855	2 832	3 027	1 953	2 142	2 297
Estonia	2 320	2 934	-	1 664	2 213	-
France	2 495	2 893	3 390	1 789	2 182	2 435
Germany	2 483	2 918	3 363	1 780	2 201	2 416
Latvia	2 554	2 896	3 488	1 831	2 184	2 506
Lithuania	2 375	2 717	3 178	1 703	2 050	2 283
Netherlands	2 461	2 883	3 323	1 764	2 175	2 387
Poland	2 430	2 801	3 149	1 742	2 113	2 263
Slovakia	2 612	2 961	3 424	1 873	2 234	2 460
United Kingdom	2 446	2 932	3 442	1 754	2 212	2 472
Northern America						
United States of America	2 035	2 578	3 321	1 459	1 945	2 386
Oceania						
New Zealand	2 250	3 104	3 784	1 613	2 342	2 718
Other Europe						
Croatia	4 371	4 049	4 360	3 134	3 054	3 132
Iceland	5 064	5 134	6 097	3 631	3 873	4 380
Norway	5 753	5 797	6 609	4 125	4 373	4 748
Russia	2 546	3 546	3 808	1 825	2 675	2 736
Ukraine	-	2 955	3 005	-	2 229	2 159
South America						
Argentina	4 046	4 792	5 214	2 901	3 615	3 746
Chile	-	-	7 727	-	-	5 551
Uruguay	1 982	2 888	3 709	1 421	2 178	2 664
World market price (E)	**2 292**	**3 147**	**3 664**	**1 643**	**2 374**	**2 632**

(A) Fiscal year, ending March of the following year. (B) March/April of each year. (C) 31st December of each year.
(D) December of each year. (E) Oceania export prices (f.o.b. port).

Abbreviations and conventional signs

AMF	Anhydrous Milk Fat
Avg	Average
Bln	Billion
BRIC	Brazil, Russia, India, China
CAGR	Compound Annual Growth Rate
CNIEL	Centre National Interprofessionnel de l'Economie Laitière
COMESA	Common Market for Eastern and Southern Africa
Cwt	Centum weight or hundredweight: in the US defined as 100 lb, equal to about 45.36 kg
DNB	De Nederlandsche Bank
EAC	East African Community
ECM	Energy Corrected milk
EU	European Union
EUROSTAT	Statistical Office of the European Union
F	Fat
FAO	Food and Agriculture Organization
FAPRI	Food and Department of Agriculture
FED	Federal reserve: the central bank of the United States of America
FMD	Foot-and-Mouth disease
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GMO	Genetically Modified Organisms
GNI	Gross National Income
IDF	International Dairy Federation
IFCN	International Farm Comparison Network
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
ISO	International Organization for Standardization
kcal	Kilocalory
kg	Kilogramme
LTO	Land- en Tuinbouworganisatie (Dutch Federation of Agriculture and Horticulture)
meq	Milk equivalent
Mln	Million
NAFTA	North American Free Trade Agreement
NDM	Nonfat Dry Milk
OECD	Organisation for Economic Co-operation and Development
OIE	World Organisation for Animal Health
P	Protein
PRB	Population Reference Bureau
PZ	Productschap Zuivel (Dutch Dairy Board)
RTA	Regional Trade Agreement
SCC	Somatic Cell Count
SMP	Skim milk powder
TBC	Total Bacterial Count
UAE	United Arab Emirates
UNCTAD	United Nations Conference on Trade and Development
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USDEC	U.S. Dairy Export Council
UN	United Nations
WFP	World Food Programme
WMP	Whole milk powder (in this report basically includes all milk powder with fat content > 1.5%)
WTO	World Trade Organization
ZMB	Zentrale Milchmark Berichterstattung GmBH
-	No figure available or no sense to give numeric figure

WORLD DAIRY SITUATION 2012

ABSTRACT

Annual survey presented at IDF World Dairy Summit, Cape Town (South Africa), in November 2012. Production, consumption, trade and price figures from dairy sector and other sources. Largest dairy companies by turnover and/or milk intake. Comments and prognoses on the situation in different countries and analysis of the whole, covering all major producing and consuming countries. Review of various forecasts of dairy trade.

Keywords: dairy economics, milk production, consumption trends, dairy situation, dairy markets, world trade, dairy prices, dairy trade projections

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" ..... Usually double quotes and not single quotes
? ! ..... Half-space before and after question marks, and exclamation marks
± ..... Half-space before and after
microorganisms ..... Without a hyphen
Infra-red ..... With a hyphen
et al. ..... Not underlined nor italic
e.g., i.e.,... ..... Spelled out in English - for example, that is
litre ..... Not liter unless the author is American
ml, mg,... ..... Space between number and ml, mg,...
skimmilk ..... One word if adjective, two words if substantive
sulfuric, sulfite, sulfate ..... Not sulphuric, sulphite, sulphate (as agreed by IUPAC)
AOAC International ..... Not AOACI
programme ..... Not program unless a) author is American or b) computer program
milk and milk product ..... rather than "milk and dairy product" - Normally some latitude can be allowed in non scientific texts
-ize, -ization ..... Not -ise, -isation with a few exceptions
Decimal comma ..... in Standards (only) in both languages (as agreed by ISO)
No space between figure and % - i.e. 6%, etc.
Milkfat ..... One word
USA, UK, GB ..... No stops
Figure ..... To be written out in full
1000-9000 ..... No comma
10 000, etc. ..... No comma, but space
hours ..... ø h
second ..... ø s
litre ..... ø l
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