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EU Dairy Markets, Situation and Outlook, March 2016

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Special report produced for CLAL

Highlights:

- Prices of dairy products and milk both in the EU and on the international market are likely to be at the bottom after more than two years of decline.
- In general the recovery of dairy commodity prices will go on slowly, it might be faster in the butterfat sector than in the sector of low fat or skim milk products.
- With a certain time lag the farm milk prices will follow the expected recovery later, but in 2016 the average payment will stay below the results of 2015.
- The growth of EU milk supplies will slow down to almost zero very soon, after it had been driven by high milk prices and the abolition of milk quotas in the past. Also in other major exporting countries only small increases of milk supplies can be expected, if any.
- The demand from the EU domestic market will continue its slight growth, and the EU is expected to gain higher market shares in the international dairy trade in 2016.
- The international dairy trade will gain momentum after two years of stagnation following the Russian embargo and reduced Chinese imports of whole milk powder.

Milk supplies: Growth will turn to stagnation

The poor price situation in milk and dairy markets has soared in recent months, because milk supplies in the EU are characterized by an accelerated expansion since autumn 2015, after having outpaced demand already for a longer time since mid2014. Nevertheless a response to low milk price is likely to happen in 2016. Several reasons explain the strong growth compared to year ago volumes.

- The new freedom after the abolition of quotas has led to many new investments in milk production facilities. By far these investments have more than set off the effects of the usual structural change, when farmers leave the industry for personal reasons or as reaction to low prices.
- Partly the stronger growth of milk production since autumn 2015, compared to the volumes of one year ago, can be explained by the efforts of many dairy farmers to reduce milk deliveries in the last months of the last quota year 2014/15. In this period of the quota years milk deliveries used to be limited by efforts to reduce pending super levy payments by curbing down milk sales. These efforts had been very strong just in the last months of quotas being in force, which are the reference period of the y2y comparison.
- In particular in farms where milk cow feeding is based in spring and summer on pasturing or fresh green forages it is easier to increase milk yields just in the seasons with lower yields, which are autumn and winter.

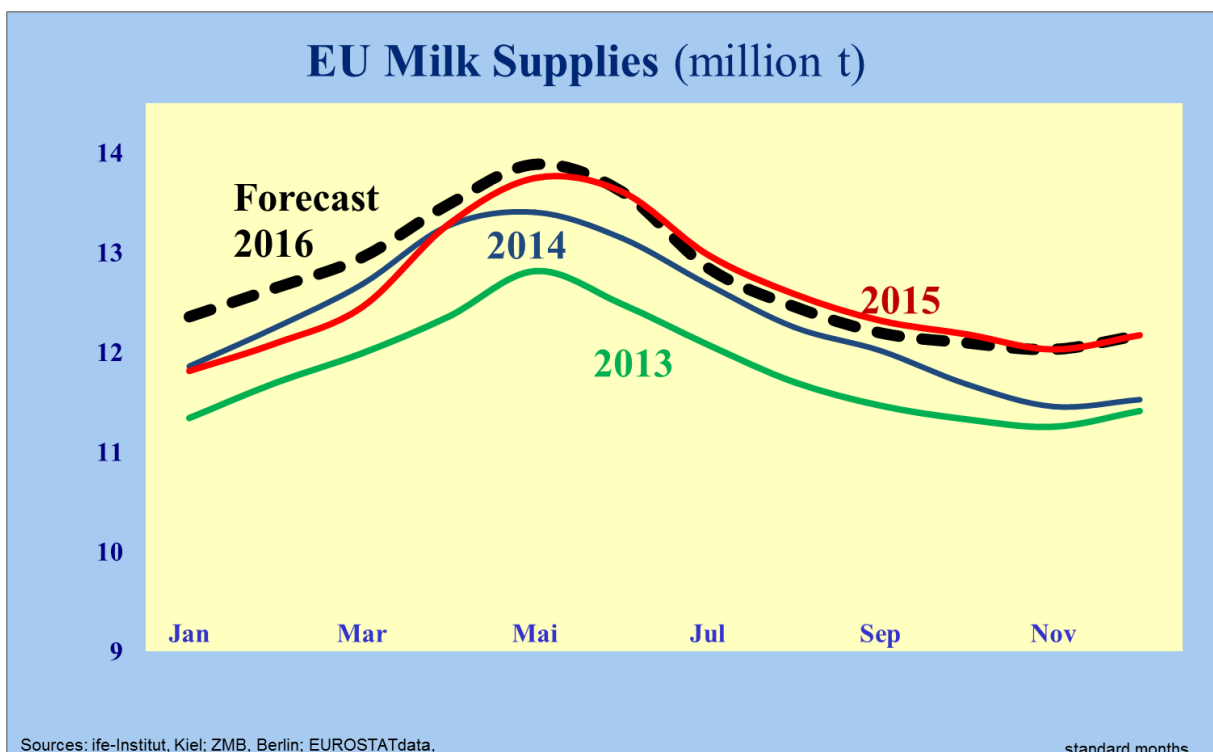
This behavior described in the latter could be well observed in the time before quotas were introduced in 1984 and nowadays in Poland and Ireland. With the introduction of the EU quota system there was no sense to boost milk yields just in the late season by more concentrate feeding or longer keeping of older cows if additional milk volumes had to be charged with the super levy fines. But after the abolition of quota restrictions the elimination of older cows which had been expensive as investment, be it by raising or purchasing, is more away from consideration as long as the animal is healthy and supplies of forage are still available. In farm economics, feed costs are attributed to the variable costs of milk production, but in particular the costs of the forages which are stored for the fall and winter seasons have been generated a certain time ahead, they cannot be reduced by producing less. Therefore earlier culling of the dairy animals is not useful if no alternative disposal for the feed is on hand, even if the costs are no more covered to the full extent. Concentrate feeding is attractive as

long as the return is above the variable costs and, what is different now is that no extra costs by super levies have to be taken into account.

No inverse reaction

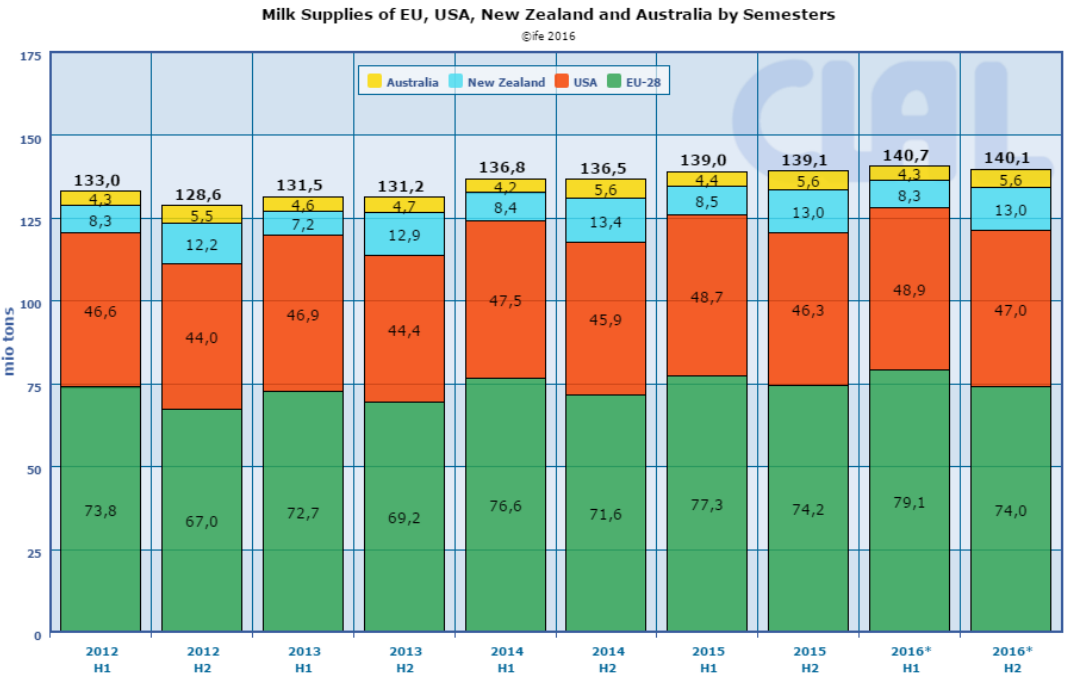
Therefore the assessment seems to be premature to state that EU farmers do not respond to low milk prices or, if they do, by increasing production. First signs of a reaction are visible in reduced increase rates on year to year basis which are recorded since the end of February in the weekly surveys of milk supplies in France and Germany.

Hence clearly visible and measurable reactions on low milk prices can be expected from April onwards, when periods without quota are the reference to compare with. Assuming this evolution as shown in the graph below, the total of cow milk supplies in the EU will end up with 153,4 m. t, which is 1,8 m. t. more than 2015. Included in this increase are around 360.000 t which are due to the leap day. The average increase in the first trimester is estimated at 4,4%, which will lead to an annual rate of 1,0% despite the expected slight declines in the summer.



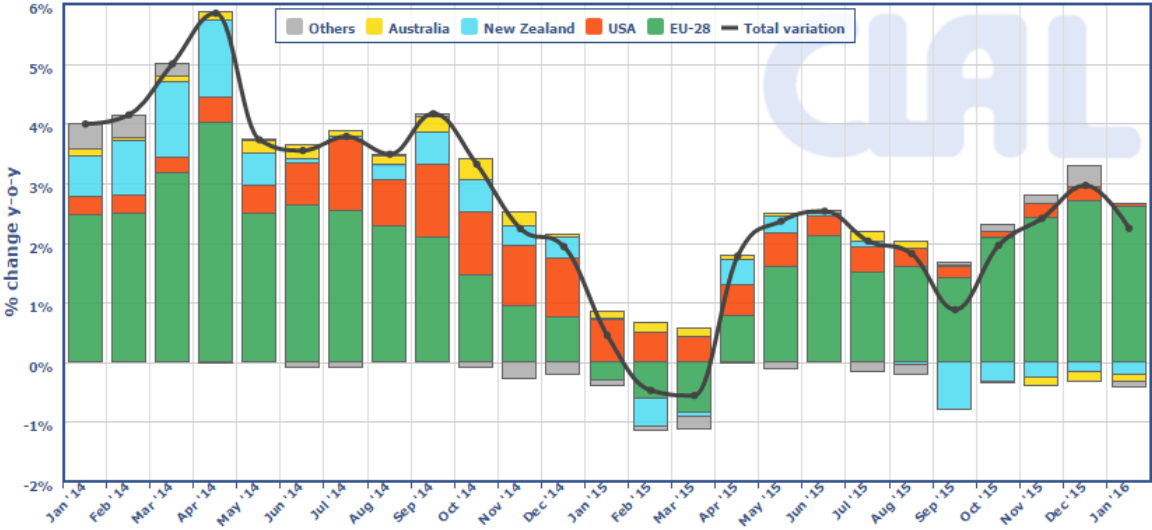
This cyclical decline will be accompanied by the seasonal decline in the second half of the year on the Northern hemisphere. Since the seasonal variations in Oceania are much more significant than in the North, the total variation of milk supplies in the major exporting countries will be smoothed.

In the United States, a slight increase of milk production is expected in 2016. The end of the 2015/16 seasons in Oceania is characterized by slight declines of milk production when compared to the year before. The earlier concerns about severe impacts of this year's extraordinary strong El Niño phenomenon, however, did not come true. Assuming normal conditions in the second half of 2016 no significant change of the Oceania milk production is likely. The incentives to expand production are poor under present and prospective market conditions in the near future.



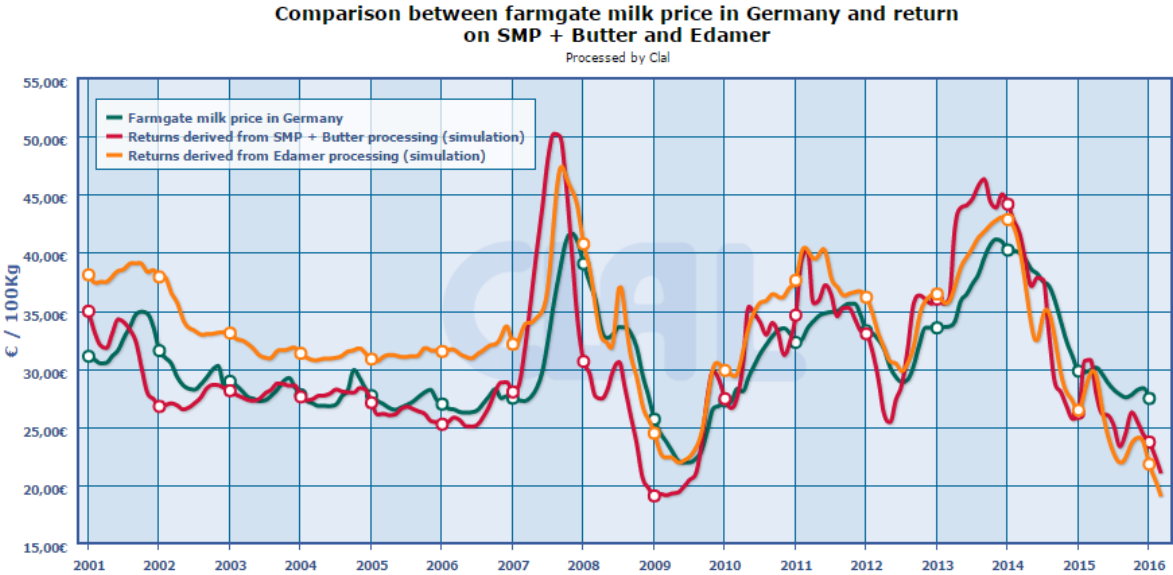
*) Forecast, H1 of leap years adjusted

World - Global Supply Variation in the Key Exporters of Dairy Products
% change y-o-y subdivided by the contribution of each Player
Players considered: EU-28, USA, New Zealand, Australia, Others: Argentina, Ukraine, Belarus, Turkey
Processed by CLAL



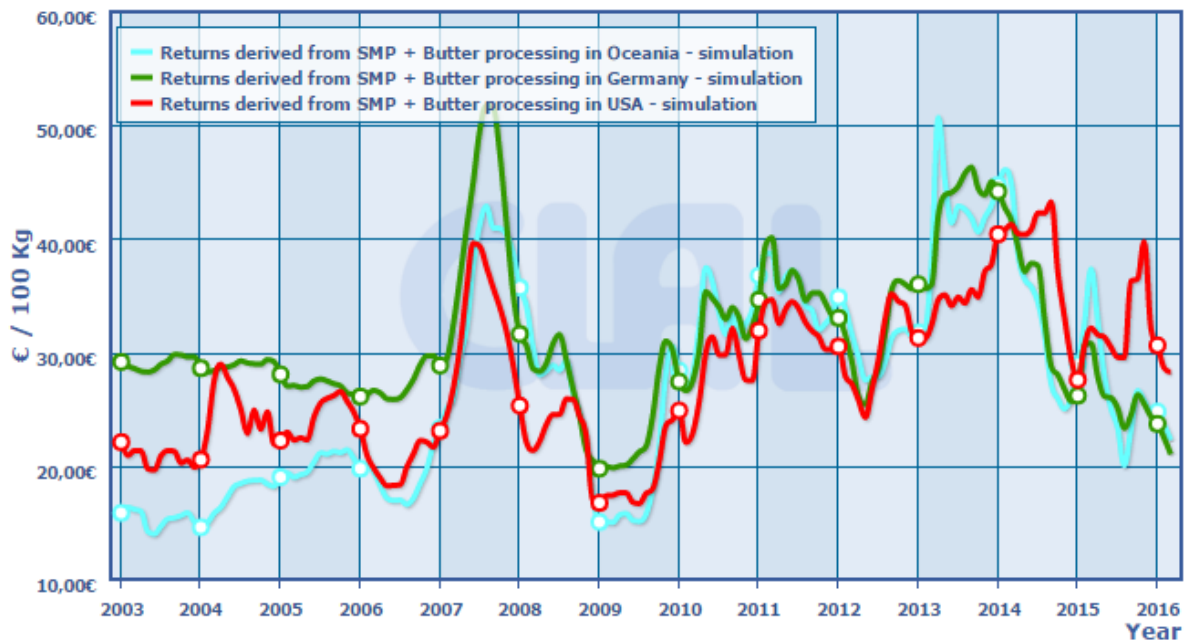
Ongoing pressure on dairy commodity and milk prices.

As far as the further evolution over the time later than September 2016, can be assessed already now, there is also no sustainable recovery of prices in sight yet, but it cannot be ruled out. Prices of dairy commodities continued to fall in February and March, both in the EU and in Oceania. So far the payout prices do not yet reflect these low prices, since dairy companies have released reserves to underpin milk prices, but the question is how long they can do it. Also returns from earlier contracts, which are above actual market prices may play a role that the product price reductions so far have not been transferred to farm milk prices to the full extent. In Germany February, payout prices are still moving around 25 and 27 Ct/kg, whereas the raw milk value from butter and skim milk powder is below 22, which is close to the intervention equivalent. The average value calculated from the returns of all major milk utilizations is about 23, with the prospect of further reductions in the near future since commodity cheese prices have fallen. In April many contracts for liquid milk and fresh products have to be negotiated, and the best what could happen but seems hard to be realized is that prices will be unchanged.



Historical comparative overview among returns on SMP + Butter into Whole milk with 4% fat content and 3.4% protein in Germany, Oceania and USA (simulation)

Source: Processed by CLAL



The recent information of the Fonterra forecast on prospective milk prices of 3,90 NZD/kg of milk solids equals less than 20€ct/kg of milk with 4,0% fat. Excluding the bonus for capital assets of the coop members, the price is close to 18Ct.

Policy: Only easing, but no immediate effects to change the situation

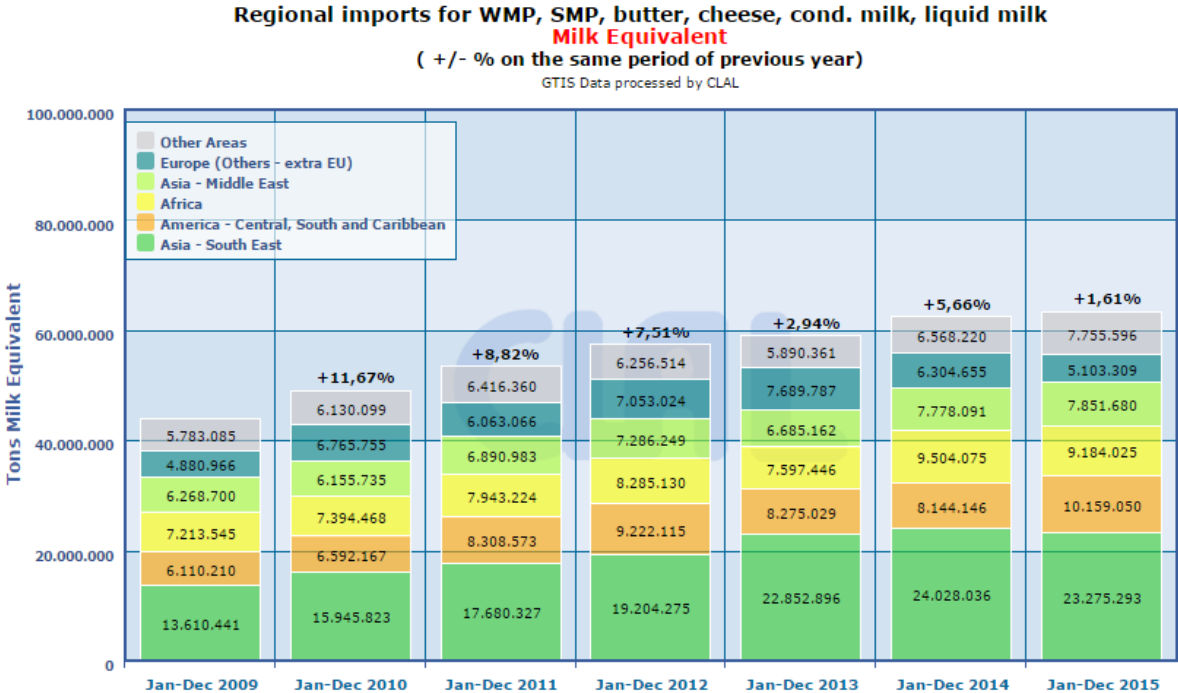
The bottom in Europe will be reached soon because intervention will absorb temporary surpluses. As emergency measure, the EU Commission’s proposal to double the limits of purchasing butter and SMP to 100.000 and 218.000t, respectively, at the full reference prices has been accepted by the Council of farm ministers. Helpful is also the private storage aid scheme, but more efficient to release the market in a longer lasting period of low prices is intervention. For the EU the financial risks are only small, because these stocks have been purchased at low prices and it is a question of time that their value will go up. The experience of 2009 in this respect is good. The public stocks of SMP which were built up in that phase were released later as food aid and there was no evidence that they had negative impacts on the market.

Other measures of the European policy are not likely to interfere immediately and significantly in the market evolution. The European Council has decided to allow supply controlling measures by branch organizations in exemption from

Article 222 of the EU Regulation 1308/2013 on a voluntary basis, but without any financial support from public budgets. The implementation will be difficult.

Demand has to catch up with supplies

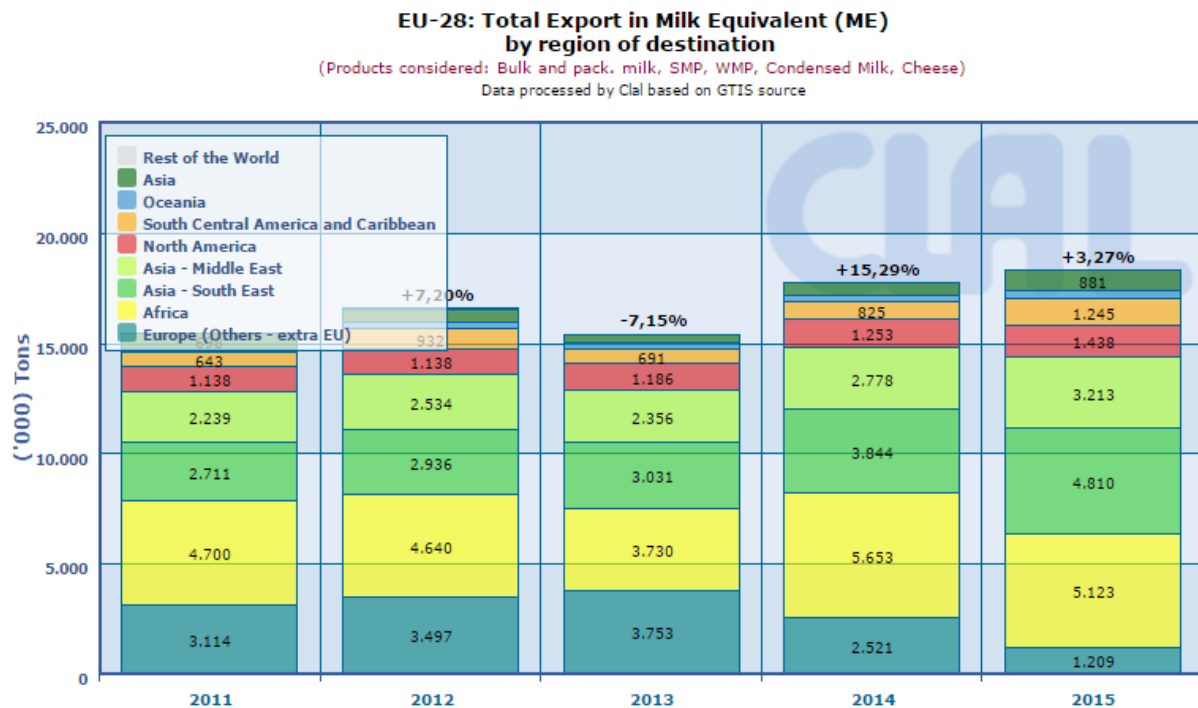
The question is when the market will be changed by a relation between supply and demand which is fundamentally different from the present one. That will not immediately be the case when the growth of milk production is shrinking close to zero as response to low milk prices. Demand has to grow further and become equal to supplies from production and the stocks of dairy commodities which have been built up.



The total of demand for EU dairy has not declined. Its components are domestic consumption and exports. Both did not show a negative evolution in recent years:

- Domestic demand is driven by a slow increase of per capita consumption and a slow increase in the number of consumers, which might accelerate now by immigration. Panel research on demand of private households, however, is characterized by stagnation or partly slight declines in the last years. But the general data calculated from market balancing display increases; they include sectors which are less transparent like the constantly growth of consumption out of home, processing of dairy into other food items etc. Moreover, milk fats and butter are no more blamed for health risks, whereas fats from other sources have lost reputation.

- Apart from Russia and China the total demand for exports has not declined. Other destinations for milk powders, cheese and butter absorbed more but could only compensate the losses in China and Russia. Expressed in milk equivalents, regardless which calculation method is applied, the total dairy exports of the EU were roughly at unchanged volumes in 2014 and 2015 compared to 2013.



The prospective evolution of domestic demand in the EU is promising if it follows the trends of the last years. Expressed in milk equivalents it grew roughly by one million tons per annum since 2010, and it is mainly driven by the cheese and cream sector. Together this was only a bit less than the annual growth of EU exports in the years from 2009 through 2013.

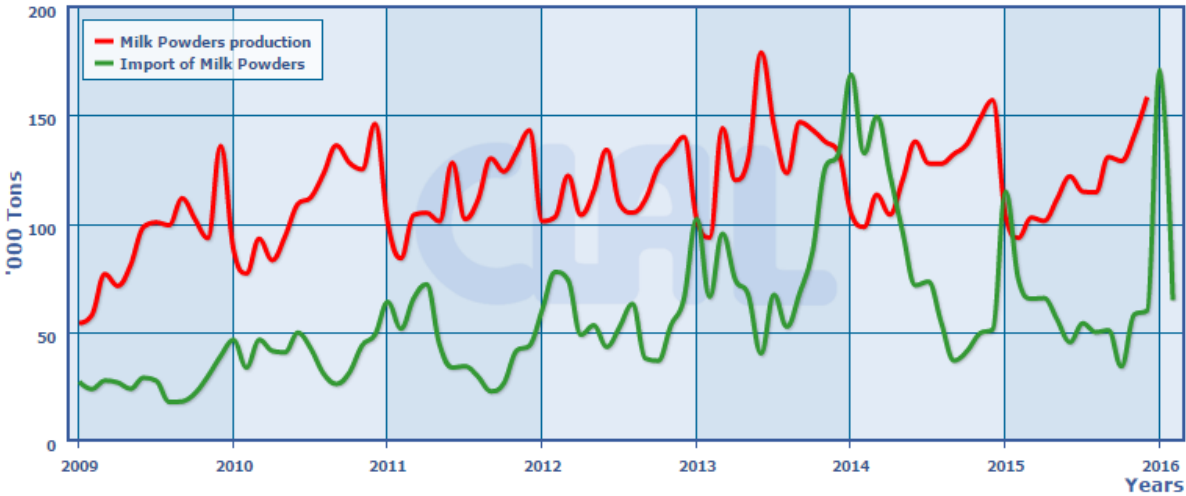
Diverging views on exports

The views on export opportunities in the short and medium term are diverging. Low prices of crude mineral oil and other raw materials have reduced the purchasing power of the producing countries in the Middle East, North Africa and Latin America. Other food importing countries, however, have the benefits in saving foreign currencies which leaves more money available for the financing of other imports including food. China's economic growth has slowed down but is still substantial. And it has to be questioned whether the economic growth is the only major driving force. In China and many other emerging markets the development of a modern distribution structure is still going on

which will bring so called “Western food” closer to more consumers. Recently published figures on China’s dairy imports in January look encouraging; it remains to be seen whether that might go on. In the present phase of low prices many sellers are reluctant to accept long term contracts, a behavior which makes it difficult to assess the market situation.

China - Historical comparative overview between production and import of Milk Powders (WMP + SMP + Infant formula)

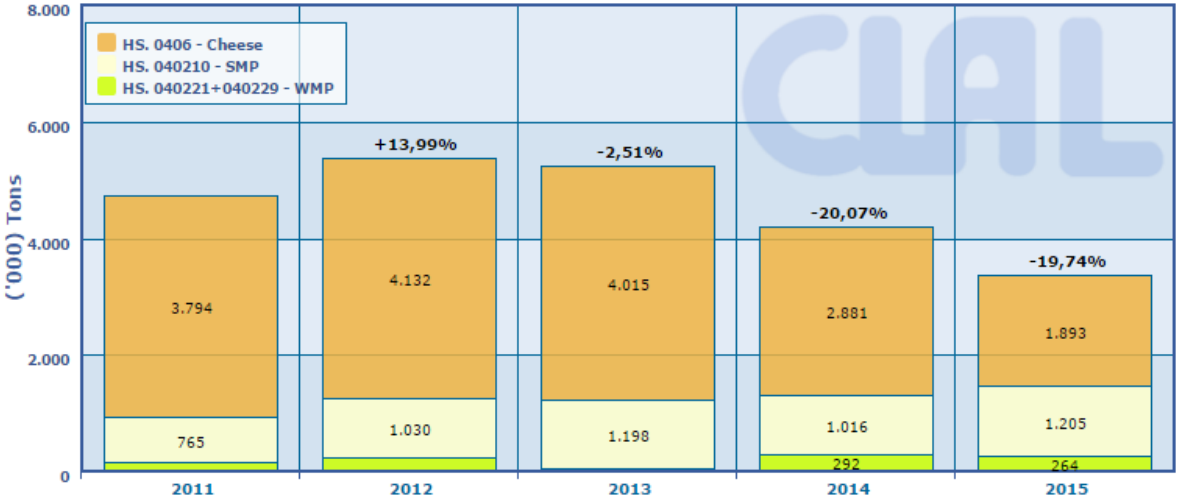
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Different is the Russian situation. The prospects for a recovery of the country’s import demand are poor even if the import ban against Western countries should be stopped.

RUSSIA - TOTAL DAIRY IMPORT in MILK EQUIVALENT (incl. Belarus)

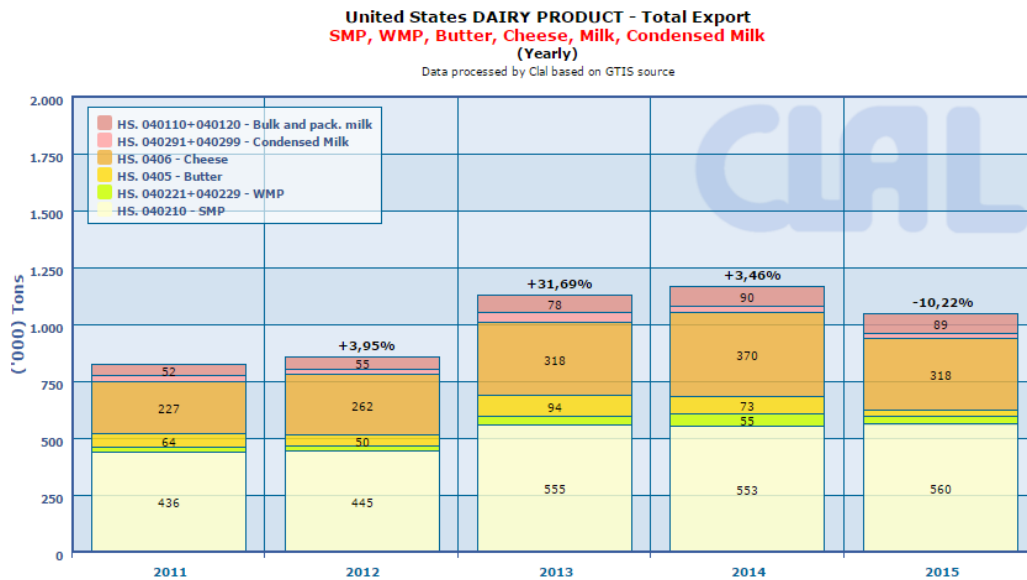
Data processed by Clal based on GTIS source



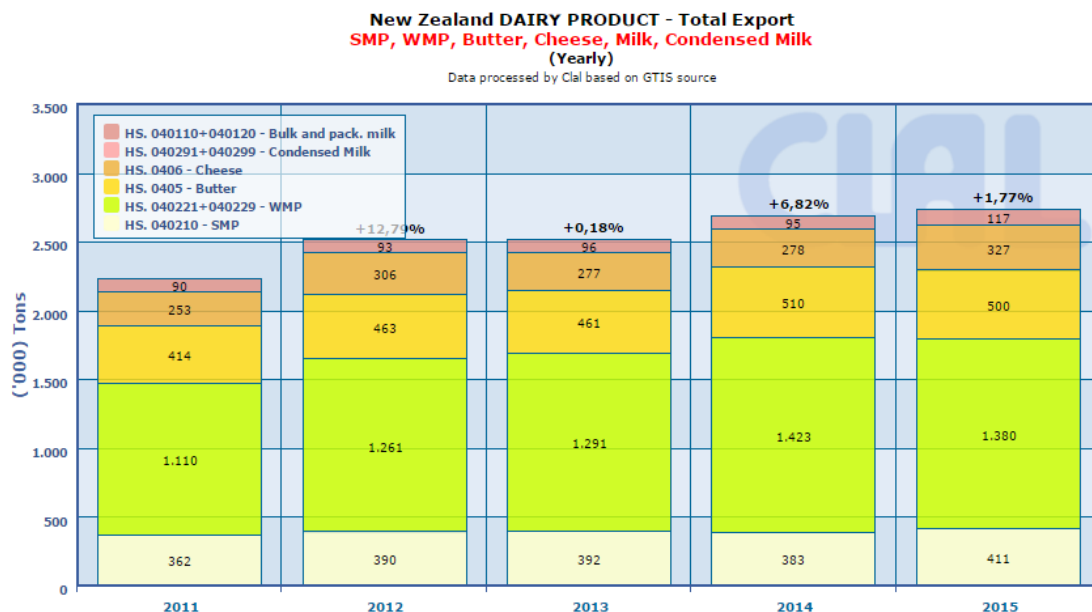
Slowing down of production growth

The other question is the position of the major competitors.

The United States with modest growth of milk production probably cannot increase exports as they did over last years, and in particular they are short of milk fat which has become evident by their demand for butter imports.

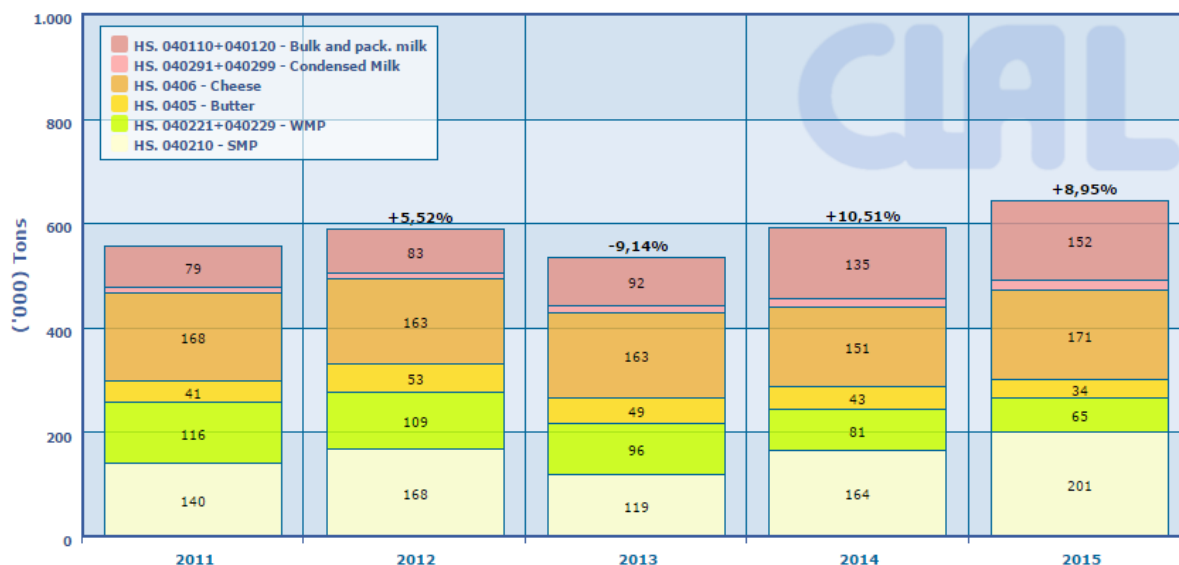


New Zealand and Australia cannot export more than so far unless they clear their stock position which, however, is not known. They might be in the position to offer more with the usual delay of two or three months after the start of the new season in August and September, provided that milk production is resuming cyclical growth, which, however, is hard to assume.



Australia DAIRY PRODUCT - Total Export
SMP, WMP, Butter, Cheese, Milk, Condensed Milk
(Yearly)

Data processed by Clal based on GTIS source



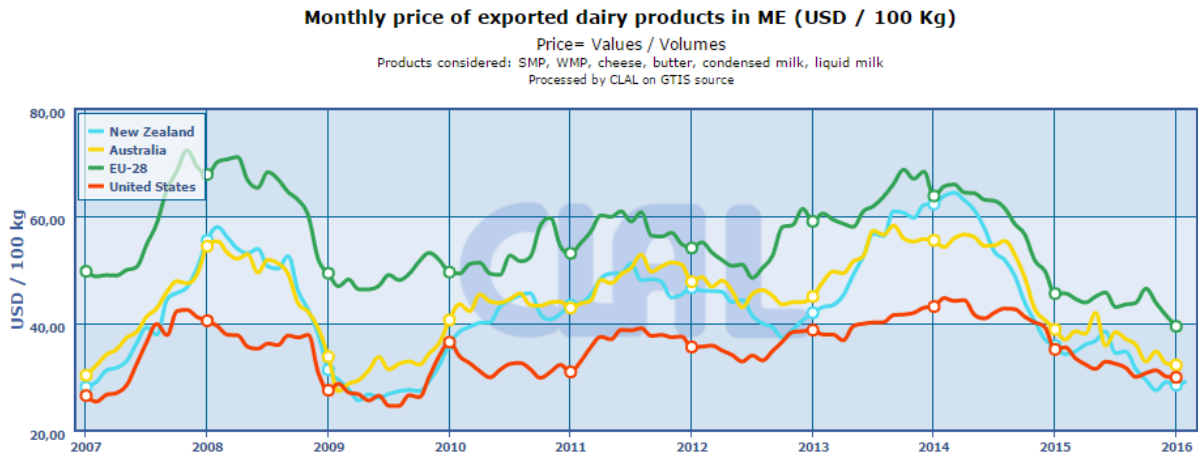
Ongoing growth of export demand

The long lasting depression of the market is no argument to believe that the growth of worldwide consumption of milk and milk products, which has been observed over decades is over. Urbanization and growth of medium class consumer incomes continues and the wish of governments and consumers to improve nutrition in volume and quality terms will increase the demand for dairy, which has to be supplied in most areas both by the domestic production and the international trade. Low prices are in favor of consumption and can attract new customers.

Difficult prediction of the price recovery

Therefore it seems to be just a question of time that in the EU and other exporting countries demand for milk and dairy products from internal and export markets will catch up with the supplies and curb the difficult price situation for suppliers. But it is hard to predict exactly the time when market prices and finally the farm milk prices react. It seems to be unlikely that in the in the period April through September a fundamental change of the market situation can happen. In the first months of 2016 dairy commodity prices continued to decline. With EU milk supplies going seasonally down as from mid-May, the levels which are reached now might be the bottom. But with contract

negotiations in April for a range of retail dairy products the changes will need a longer time until firmer prices of dairy commodities to arrive at the farm level.



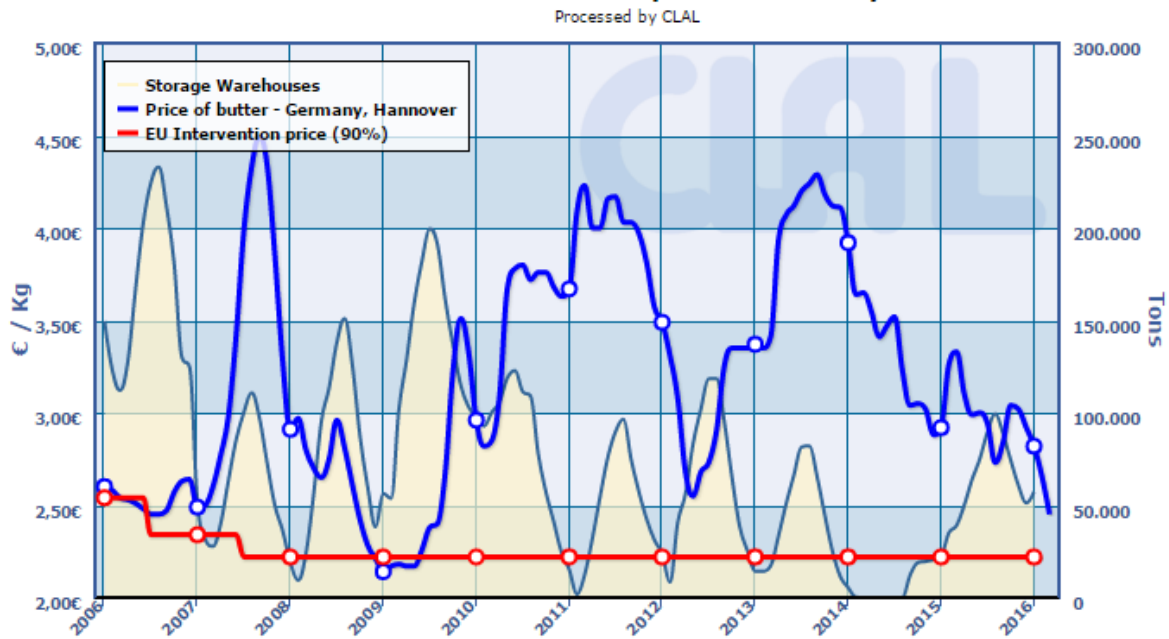
More butter and skim milk powder in the first half of 2016

In the annex tables the estimates on production of all major dairy products display increases over 2015 volumes for the total of the year. But for butter and skim milk powder this increase will only happen in the first half. Cheese production is likely to be ahead of 2015 over the whole year, whereas it mainly will depend on export opportunities in the case of whole milk powder. All this assumes that expansion of milk deliveries will be over in the second half.

Reduced increase of butter production and stocks

EU butter prices have fallen constantly since December but are still above the level of intervention. So far the private storage scheme of the EU was helpful to keep market prices higher so far, but a further decline of the market prices is the condition that intervention can be opened. For later market situations intervention is more effective to stabilize the market, since intervention stocks will not soon returned to the market. But immediately intervention can just stabilize the prices at lower levels than recently quoted. However, it seems to be unlikely that the limit of 100.000t will be reached, which would change the intervention procedure from purchases at fixed prices to tenders.

EU-28 comparative overview for BUTTER stocks, SMP intervention price and BUTTER market price in Germany



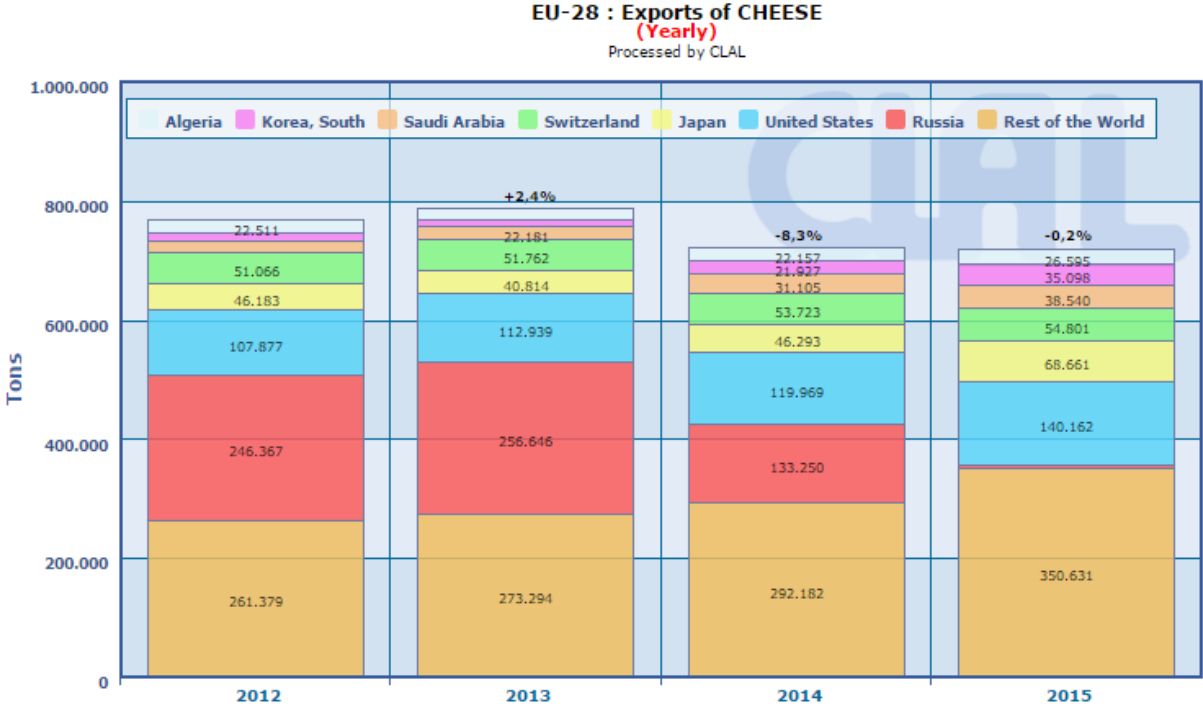
In the balance sheet shown in table 3 of the annex a further but compared to years ago reduced growth of butter production is assumed, and if milk supplies develop as expected in this report earlier the production growth will only be possible in the period up to May, later it will be less than 2015. In general, butter markets are growing since the health and environmental perception of butter and milk fat compared to vegetable fats has improved. Butter consumption is gaining shares in fat consumption in particular where it used to be low, i.e. in the United States, and in emerging markets with China as best example.

In the EU national figures on butter consumption seem to be misleading. The EU internal trade flows are not completely reflected in the statistical data which are collected on the trade between member states, resulting in consumption figures which do not comply with the total for the EU when they are added up. The consumption calculated on the balance sheet for the EU as a whole has modestly increased in recent years, which is expected to continue in 2016.

In the United States the better image of butter has even stronger effects and the growing market demand has to be covered in 2016 by increasing imports. Oceania probably will not be able to increase butter exports, which will give the EU more opportunities to participate in the international butter trade with higher shares. Nevertheless the end of the year stock position is projected to be higher than at the end of 2015, but lower against the end of May.

Cheese market under pressure

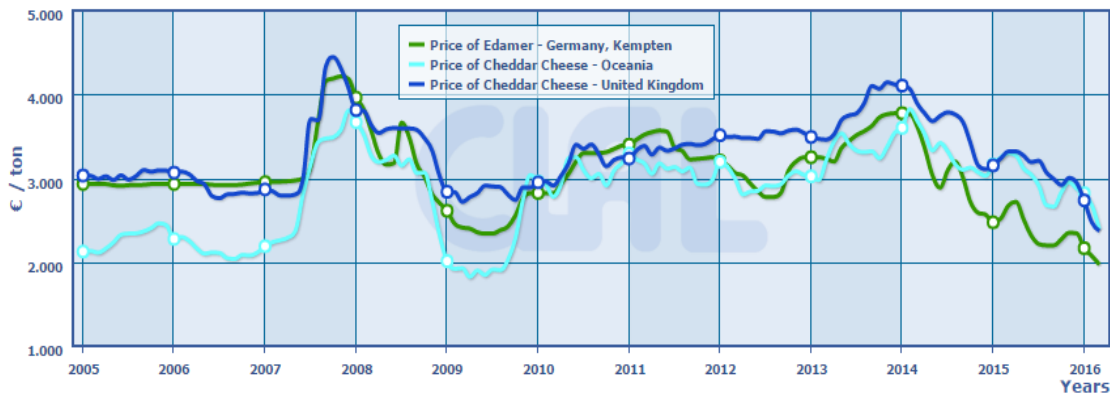
Cheese prices are under strong pressure since the end of 2015. In particular semi-hard blocks of Gouda, Edam and similar types are now at levels which hardly can provide returns corresponding to the intervention equivalent. EU production has been expanded beyond current market needs because other milk processing facilities are operating close to their capacity limits before the seasonal peak of milk production is reached. Under these circumstances, it seems to be premature to see a change in the market situation after a time span of a few months. But under the assumptions of the decline of milk supplies after May, increasing EU consumption and exports it might happen in the second half. The domestic market has grown constantly over the last years and there is no reason why this evolution should come to an end right now when prices are low and the resident population is growing faster. Export demand from other destinations has partly filled the gap that was created by the Russian embargo, which was effective in 2015 for the full year.



Stocks have to be reduced to levels which can be regarded as normal to reach adequate ripening times. (Annex table 4)

Historical comparative overview of prices of Edamer(Germany) and Cheddar Cheese (Oceania and United Kingdom)

Source: ZMP; since 6 May 2009: Süddeutsche Butter- und Käseborse eV, Kempten

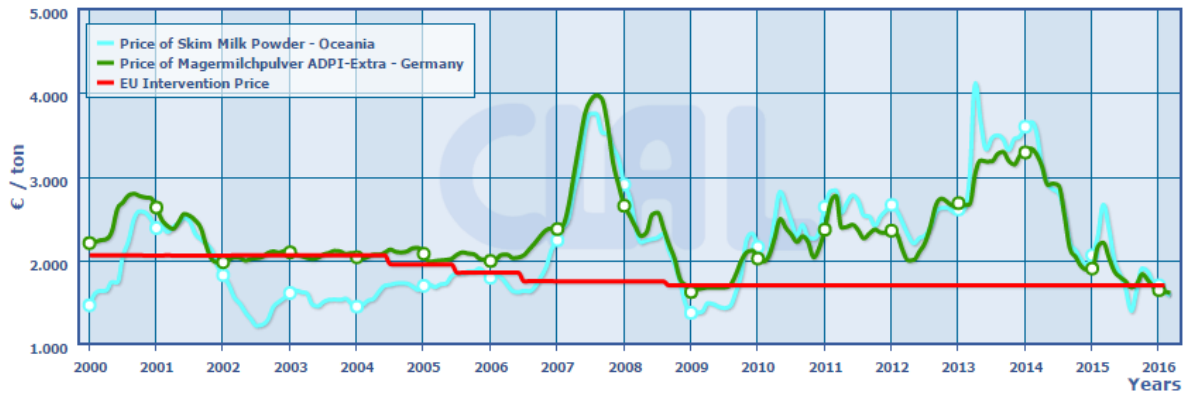


Difficult market situation for milk powders

Different from butter and cheese markets the difficult market situation for milk powders is expected to persist for longer time. Skim milk powder production has been boosted by the strong growth of milk supplies in the winter 2015/16, and this expansion is likely to go on for some time even when milk deliveries decline after May. Less milk will temporarily be used for cheese because stocks have to be reduced to normal levels by then, as mentioned above. Uncertainty is coming from the limit of 218.000 t of buying in for intervention at the fixed reference price. That can happen although in the table 5 of the Annex a net increase of stocks in the size of 110.000 t is projected for the whole calendar year. In spring and early summer substantially more stocks will be built up, and over the year it can also be expected that private storages will be reduced whereas of intervention stocks will stay at high levels. The situation might become even more difficult if the projected volumes of exports and domestic consumption should not be reached or more skim milk powder is produced than projected in the balance sheet. But the expectation of growing domestic consumption and exports does not seem to be too optimistic, since prices are now the lowest since 2009, both within and outside Europe. Moreover it is doubtful whether the United States and Oceania can increase their exports as they did in 2015 or even maintain these volumes.

**Comparative historical overview between SMP market prices
in Germany and Oceania and EU intervention price**

Processed by CLAL



What happens in the skim milk powder sector partly not only depends on the overall milk supplies and the cheese market, but also on the milk quantities which are used for whole milk powder, which is the market with the strongest dependency on export demand. First signs show that China is asking again more after strong cuts of imports in 2015, but it remains to be seen whether the strong increase rates observed in January hold on. The prospects for other traditional destinations are mixed since most of them have strong losses in purchasing power following the reduced oil prices. For the EU gains both in domestic consumption and exports of whole milk powder is projected. (Annex table 6)

**World - Comparative historical overview
of Whole Milk Powder (WMP) prices**

Processed by CLAL

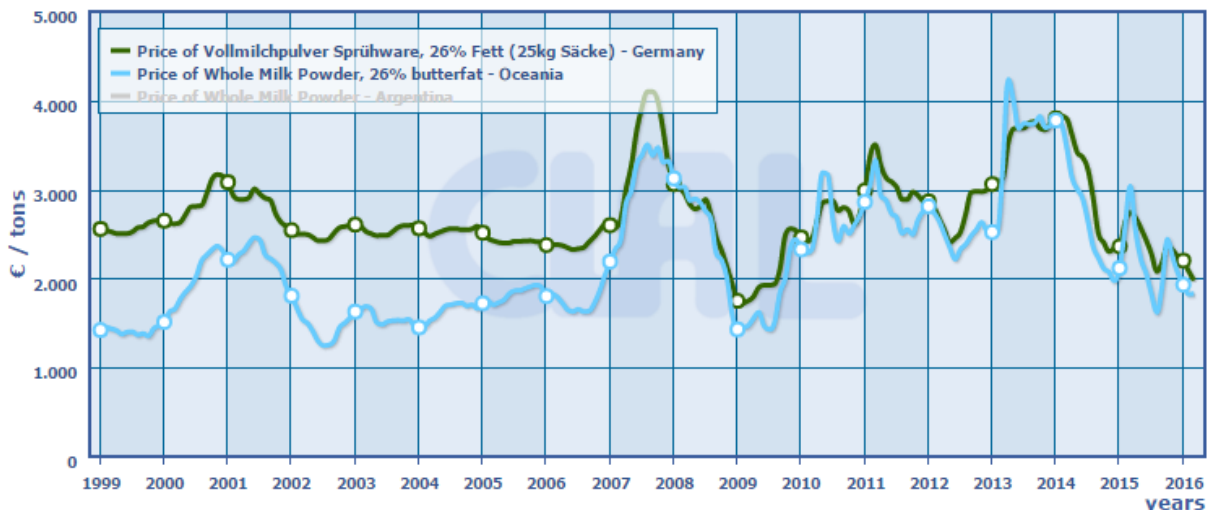


Table 1

EU 28: Dairy Markets 2010 - 2015 and Forecast 2016

1.000 t	2010	2011	2012	2013	2014*	2015*	2016**
Milk deliveries	137.270	140.181	141.091	141.875	148.396	151.570	153.400
Liquid products							
Production	46.776	46.713	46.707	47.001	46.855	46.484	46.400
Consumption	46.430	46.287	46.140	46.437	46.156	45.634	45.510
Butter							
Production	2.073	2.102	2.167	2.126	2.263	2.350	2.400
Consumption	1.975	1.966	1.938	2.041	2.132	2.175	2.200
Cheese							
Production	9.150	9.190	9.378	9.416	9.596	9.745	9.800
Consumption	8.831	8.827	8.928	8.949	9.112	9.230	9.360
Skim Milk Powder							
Production	1.080	1.220	1.225	1.220	1.550	1.660	1.760
Consumption	805	812	794	806	828	851	924
Whole Milk Powder							
Production	760	750	715	770	820	790	810
Consumption	335	350	354	389	413	403	405
Population m. head	505	506	507	508	509	511	513
*) Provisional. **) Estimated.						ife, March 2016	

Sources: ife, Kiel, according to ZMB, Berlin, Milk Market Observatoy, Brussels, own calculations.

Tab 2

EU 28: Balance Sheet of Liquid Dairy Products

1.000 t	2010	2011	2012	2013	2014*	2015*	2016**
Production	46.776	46.713	46.707	47.001	46.855	46.484	46.400
Imports	14	12	12	11	10	10	10
Exports	360	438	579	575	709	860	900
Consumption	46.430	46.287	46.140	46.437	46.156	45.634	45.510
- per capita (kg)	92,0	91,4	90,9	91,4	90,6	89,4	88,7
*) Provisional. **) Estimated.						ife, March 2016	

Sources: ife, Kiel, according to ZMB, Berlin, Milk Market Observatoy, Brussels, own calculations.

Tab 3

EU28: Butter Balance Sheet

1.000 t	2010	2011	2012	2013	2014*	2015*	2016**
Production	2.073	2.102	2.167	2.126	2.263	2.350	2.400
Imports	34	34	29	45	53	25	30
Exports	227	250	128	130	154	180	200
Final stocks	50	80	100	100	130	150	180
Consumption	1.975	1.966	1.938	2.041	2.132	2.175	2.200
- per capita (kg)	3,9	3,9	3,8	4,0	4,2	4,3	4,3
*) Provisional. **) Estimated.						ife, March 2016	

Sources: ife, Kiel, according to ZMB, Berlin, Milk Market Observatoy, Brussels, own calculations.

Tab 4

EU 28: Cheese Balance Sheet

1.000 t	2010	2011	2012	2013	2014*	2015*	2016**
Production	9.150	9.190	9.378	9.416	9.596	9.745	9.800
Processed cheese							
impact	260	245	235	240	210	210	210
Imports	84	75	78	75	76	61	60
Exports	667	673	768	787	721	719	730
Stock change	-5	10	-5	-5	50	67	-20
Consumption	8.831	8.827	8.928	8.949	9.112	9.230	9.360
- per capita (kg)	17,5	17,4	17,6	17,6	17,9	18,1	18,2
*) Provisional. **) Estimated.						ife, March 2016	

Sources: ife, Kiel, according to ZMB, Berlin, Milk Market Observatoy, Brussels, own calculations.

Tab 5

EU SMP Balance Sheet

1.000 t	2010	2011	2012	2013	2014*	2015*	2016**
Production	1.080	1.220	1.225	1.220	1.550	1.660	1.760
Imports	4	0	2	5	2	5	5
Exports	376	516	520	407	648	684	750
Final stocks	260	152	65	77	153	282	400
- in intervention	195	54	0	0	0	29	218
Consumption	805	812	794	806	828	851	897
- as Feed	165	175	160	120	130	140	160
*) Provisional. **) Estimated.						ife, March 2016	

Tab 6

EU WMP Balance Sheet

1.000 t	2010	2011	2012	2013	2014*	2015*	2016**
Production	760	750	715	770	820	790	810
Imports	2	0	2	3	1	3	0
Exports	447	390	388	374	389	390	405
Stock change	-20	10	-25	10	20	0	0
Consumption	335	350	354	389	413	403	405
<i>*) Provisional. **) Estimated.</i>						<i>ife, March 2016</i>	

Sources: ife, Kiel, according to ZMB, Berlin, Milk Market Observatoy, Brussels, own calculations.