

EU Dairy Markets, Situation and Outlook, December 2016

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Highlights:

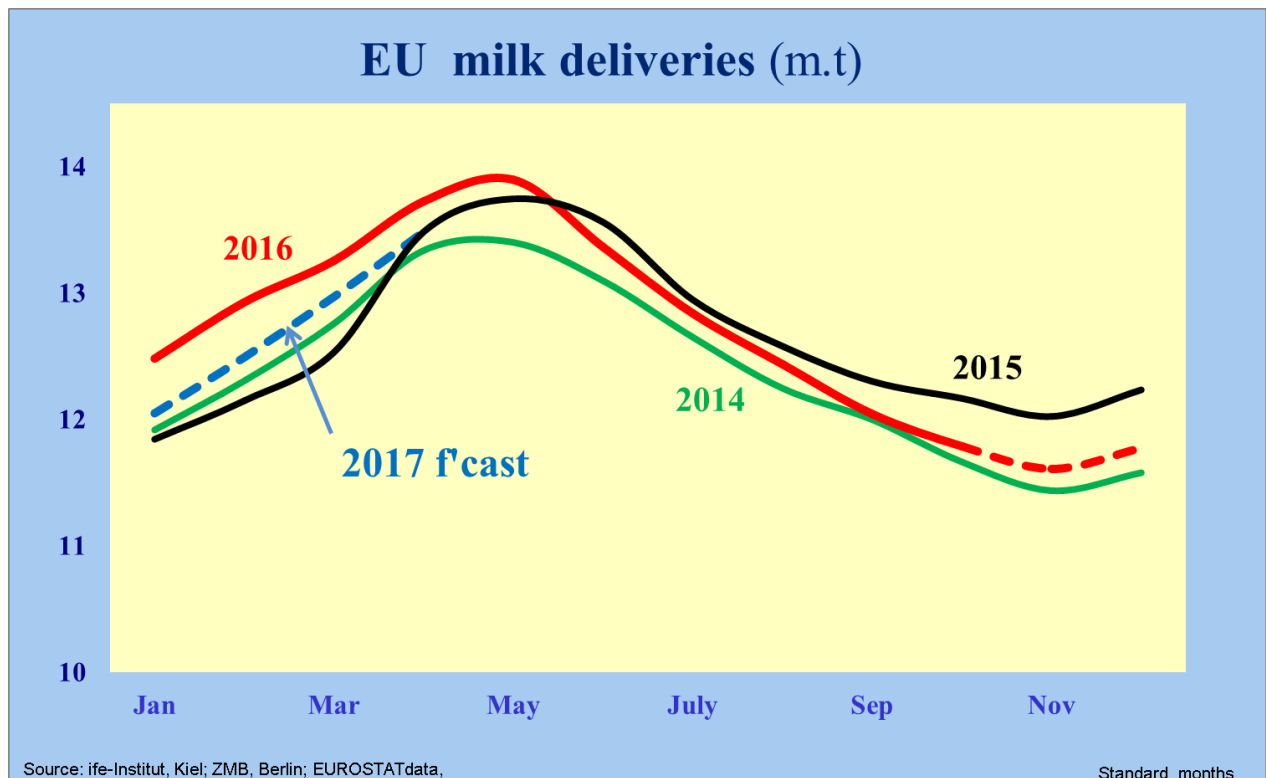
- The seasonal growth of EU milk production will be accompanied by trailing behind 2016 volumes until the mid of 2017. Also milk supplies of the Southern hemisphere's major exporting countries are supposed to be less than in the first half of the year before, whereas the expansion of the U.S. is forecast to continue.
- In the domestic market of the EU only a modest increases of dairy consumption can be expected, mainly in the cheese sector.
- The demand of importing countries for dairy produced in the EU will continue to grow.
- Prices of butter are moving at historical high and significantly above the intervention level, further increases cannot be ruled out.
- The space for rising prices of skim milk powder prices will be limited by the tenders offering intervention stocks.
- Contract cheese prices have still to catch up to returns of the cash market prices.
- Producer milk prices will stay at levels reached at the end of 2016 in the next months and not follow the usual seasonal decline.

EU-milk supplies to go down by 2,4 m. metric tons in first half of 2017.

Assessing the short and medium term prospects of the dairy market it is assumed that EU milk supplies are expected to develop below previous year volumes until the mid of the year 2017. Extrapolating the recently reported reduction of EU milk deliveries of around 3% on a year to year basis into the complete period of seasonally rising milk production from December, 2016 to May, 2017, the availability of milk will be around 2 million metric tons less than in the corresponding period one year ago. For the remainder of 2017 mainly similar volumes are supposed, which will end up in 150,5 million tons over the whole year, 2 million tons less than in 2016, which might result from a modest recovery of supplies in the second half.. It often could be observed that EU dairy farmers responded with delay to the different cycle phases of milk producer prices, which also follow with a time lag changing supply and demand fundamentals in the market of dairy products.

The first signals of the recovery appeared already in late spring of 2016, but they seemed initially not clear enough to re-establish the confidence of many farmers in dairy or to create incentives for expansion. Significantly higher prices are mainly reported since October, 2016.

Moreover, it is not only the milk price in relation to input costs, also other events can happen and have happened with strong impacts on milk prices in recent years in a way that it is difficult to isolate and assess the specific effect of each determining factor properly. Over the last years they were the expiry of the quota system, the Russian ban on EU origin dairy imports and the heavy fluctuations of Chinese milk powder imports. But extrapolating the recently observed evolution of milk supplies seems to be reasonable and gives some ideas how markets will develop in the near future.



Farm and environmental policies

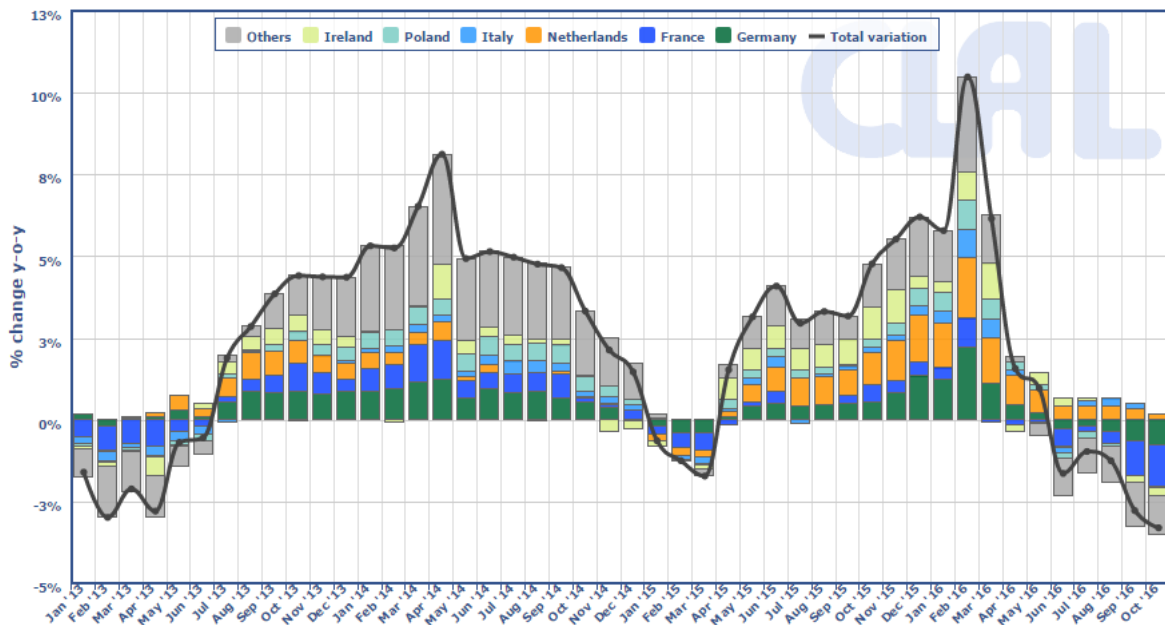
Policy continues to play a role. On the medium and long term beside the genuine farm policy there environmental issues have increasing influence. Major parts of the emergency programs of the EU and of individual member states to support dairy farmers are linked to temporary refraining from expanding of milk sales from farms. The difference to the quota system is mainly that they are not obligatory and that they reward production discipline and do not sanction expansion. In view of the improved market situation and the reduced milk output it seems to be doubtful that these measures are taken at the right time. Reduced production also means reduced sales opportunities in growing markets.

Besides the expected milk prices and profitability of milk production prospective considerations to invest into new capacities to produce milk have to take the emission policies into account. In the Netherlands stricter control of phosphate emissions from manure and slurry is expected to curb Dutch milk production in the size between 1 to 2 million metric tons. Also in other areas of the EU with a dense livestock production similar restrictions of nitrogen emissions are likely to be implemented. Therefore it seems that the expansion of EU

milk supplies by 6 million tons just in the 12 months following the end of the quota system will remain a single phenomenon. It is unlikely to repeat itself in the foreseeable future.

EU-28 - Milk Deliveries in the key producer countries

% change y-o-y subdivided by the contribution of each Player
Sources: Eurostat, AGEA and CLAL estimations - Processed by CLAL

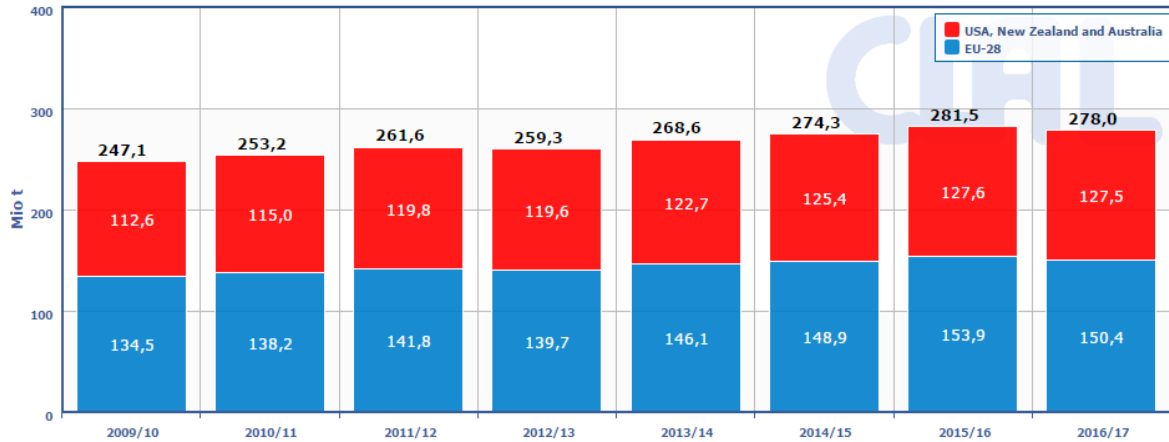


Extra EU: Reduced growth in major exporting countries except the United States

Also in the other major exporting countries milk production is falling. In Oceania and Latin America the adverse seasonal evolution is going along with reduced volumes which probably will continue in the first half of 2017. The situation was difficult in 2016; it has eased in Oceania by higher prices and recent rainfalls. Milk production is over the Southern spring peak since November; the seasonal decline is going on until May in New Zealand and June in Australia. Differently from the evolution in the EU and Oceania more milk is expected in the United States in the next half year.

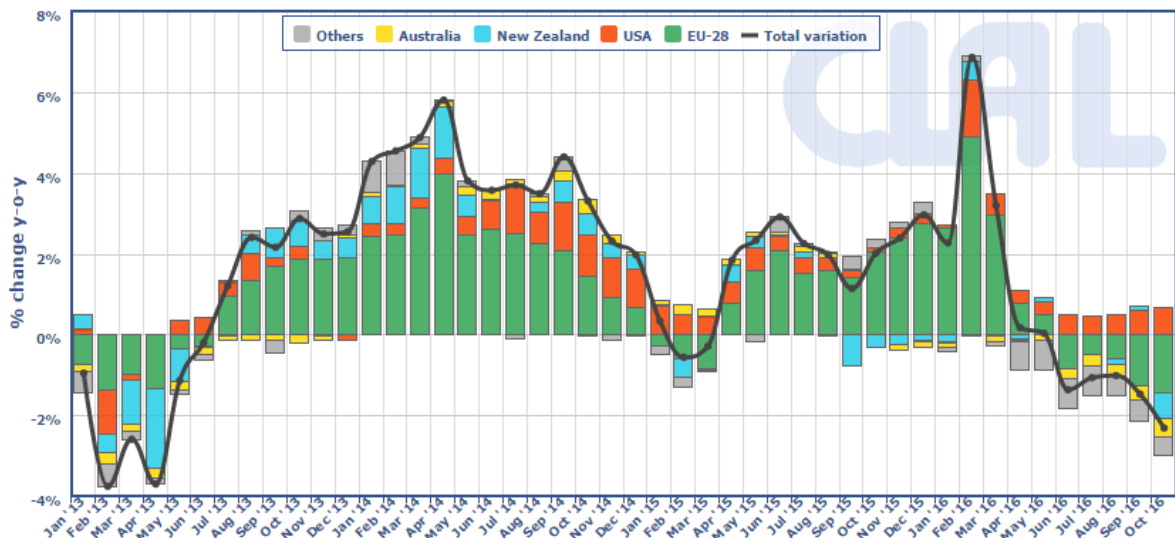
The change in overall milk supplies of the major exporters can the best be illustrated by considering twelve-months-periods starting in the mid of calendar years, which is after the seasonal peak in the Northern hemisphere's production and the lowest season in the Southern hemisphere. Also the fluctuations in the periods before 2015 are stronger by this consideration than it would be visible by considering calendar year figures. In the period ending June 2017 the total of all together is expected to go down 3,5million metric tons. The increase if the production in the United States will compensate the reductions in Oceania. But as the U.S. domestic demand continues to grow, not all of the extra supplies will be available for exports to the international markets.

Combined milk supplies of EU-28, USA, New Zealand and Australia
@ife 2016



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, Chile, Uruguay, Turkey
Processed by CLAL



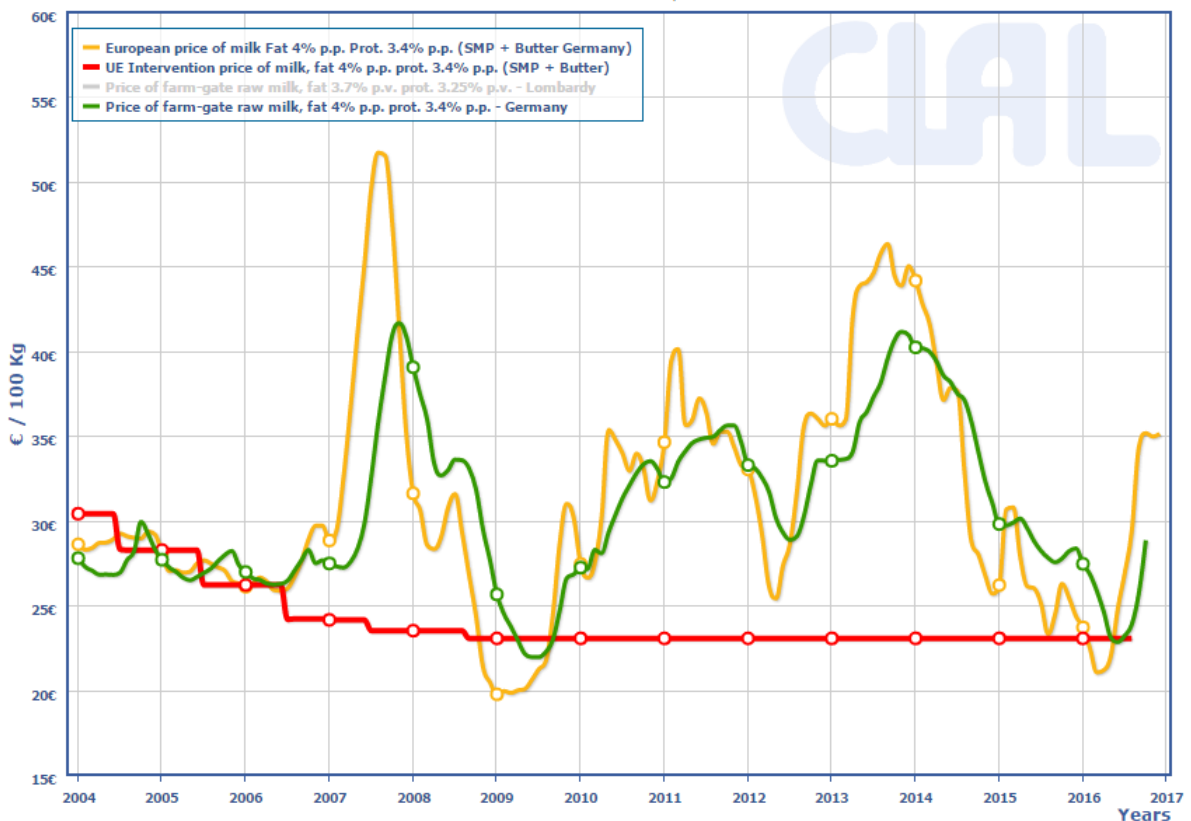
Stable to firm evolution of milk and dairy product prices over the next months on elevated level

The first signals of the end of the depression on the dairy market could be observed in the mid of 2016 when milk supplies went down. Prices of milk traded in bulk tanks, as cream or skim concentrate on the spot market, which, however are just a small segment, were the first to respond, followed by the markets of butter and skim milk powder. The equivalent of butter and skim milk powder prices, if transformed into raw milk with 4,0% fat and 3,4% protein as expressed in the Kiel raw milk value reached 34Ct/kg in the last trimester. Similar values can be calculated from the future prices quoted at the Leipzig exchange EEX for both commodities up to the mid of 2017. If the real market should be different, it is more likely that the values are higher than lower. The returns from skim milk and protein products will be more stable, but the values of butter and milk fat have the potential to be even higher in the cash market.

Much will depend on the currency rate of the Euro vs. the US-Dollar. The recent weakness of the Euro was helpful and led to new export contracts for milk powders which mainly have to be settled in the first half year 2017. The opinion prevails that the demand from the international market might be strong enough to clear the potential surplus of the European market in the first half of 2016.

EU-28: Farm-gate milk price competitiveness

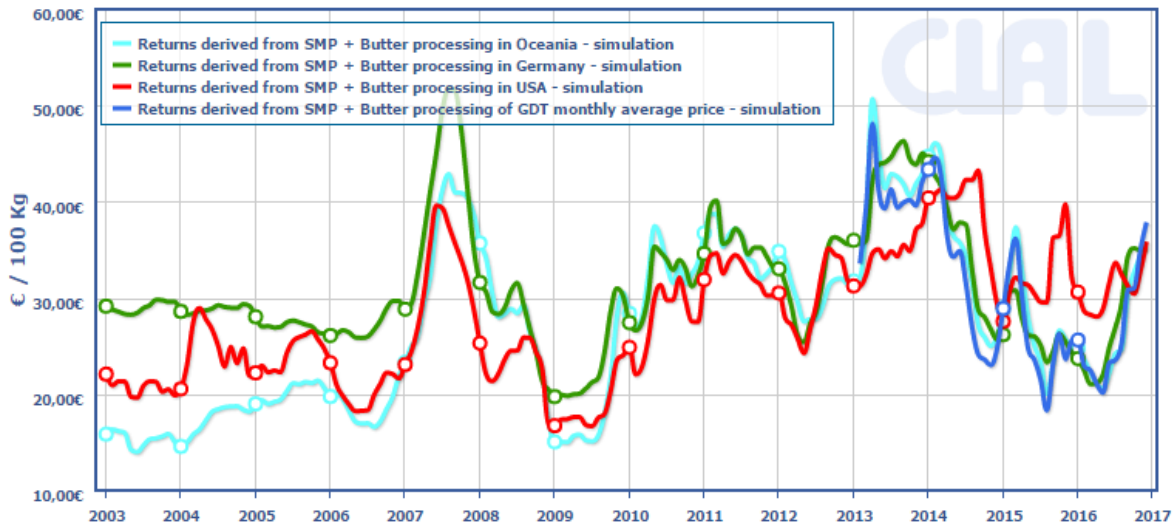
Source: Processed by CLAL



The November forecast of New Zealand based Fonterra's payout price for the season 2016/17 comes to similar levels: 6,00 NZD/kg of milk solids correspond to 32,5€Ct/kg milk with 4,0% fat and 3,4% protein; including the bonus for capital assets it is above 34€Ct.

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

Source: Processed by CLAL



These optimistic views regarding the prospective short and medium term market situation is also nourished by favourable expectations regarding the international demand, since economic prospects are good, in particular if mineral oil prices recover.

EU: Small increase of cheese manufacturing, stagnation in liquid milk and lower production of butter and milk powders

As result of reduced milk supplies competition of the different utilizations for the raw milk will become stronger, once the usual year-end weakness of spot market commodities is over in the mid of January. The demand of liquid markets is expected to be relatively constant: Domestic needs are stagnating or slightly declining whereas exports will continue to grow. Cheese manufacturing might require more milk than in 2016. Significantly less milk will be available for being transformed into butter and milk powders. 2 million metric tons less milk from deliveries means 100.000 tons less butter and 200.000 tons less skim milk powder if anything else would be unchanged; if more milk is transformed into cheese and whole milk powder the reductions would be even sharper.

Butter prices at historical high

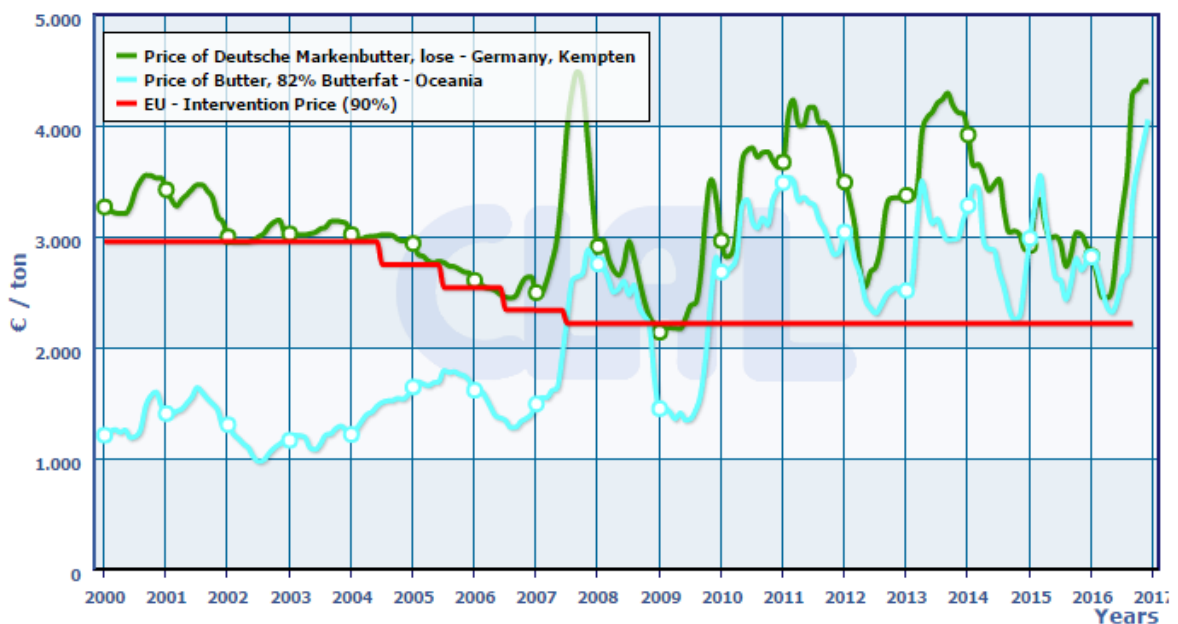
The prices of butter have reached historical high in the EU market: In Germany, since October the prices of packaged butter are above the peaks observed in 2007 and 2011. Bulk cream as raw material and butter as final milk product display the strongest volatility among the dairy commodities. The supposed reduction of milk deliveries in the EU by 2,4 million tons in the first semester 2017 would transform itself into 120.000 tons less butter under the *ceteris paribus* condition. However, probably more milk will be used for cheese; on the other hand it cannot be ruled out that the high prices of bulk cream reduce demand of the food industry. But in general health concerns against butterfat consumption do no more play a significant role in overall demand. The image of vegetable fats as alternative is no more the one that it used to be decades earlier, which might explain that the demand for butter and milk fat in general has only a small price-elasticity.

The question remains how export markets react. But it seems to be unlikely that the EU will be in the position to export as much butter as in 2016, and stocks are expected to be cleared to a large extent. Nevertheless the slightly reduced price expectations for the first months of 2017 are helpful to build up new stocks in private hands, which are needed later in the year to balance the market when production is seasonally down.

Deutsche Markenbutter - €/Kg			
Mean 3,28			Last Price
High Price	100	4,49	4,35
	90	4,20	
	80	4,00	
	70	3,68	
	60	3,42	
	50	3,25	
	40	3,00	
	30	2,90	
Low Price	20	2,71	
	10	2,45	
2007 - 2017			
The analysis refers to the last 10 years. The current price (4.40 €/Kg) is between 90th and 100th percentile. The 100th percentile corresponds to 4.49 € / kg, the maximum price of the last 10 years.			

Historical comparative overview between Butter prices in Germany and Oceania with EU intervention price

Processed by CLAL

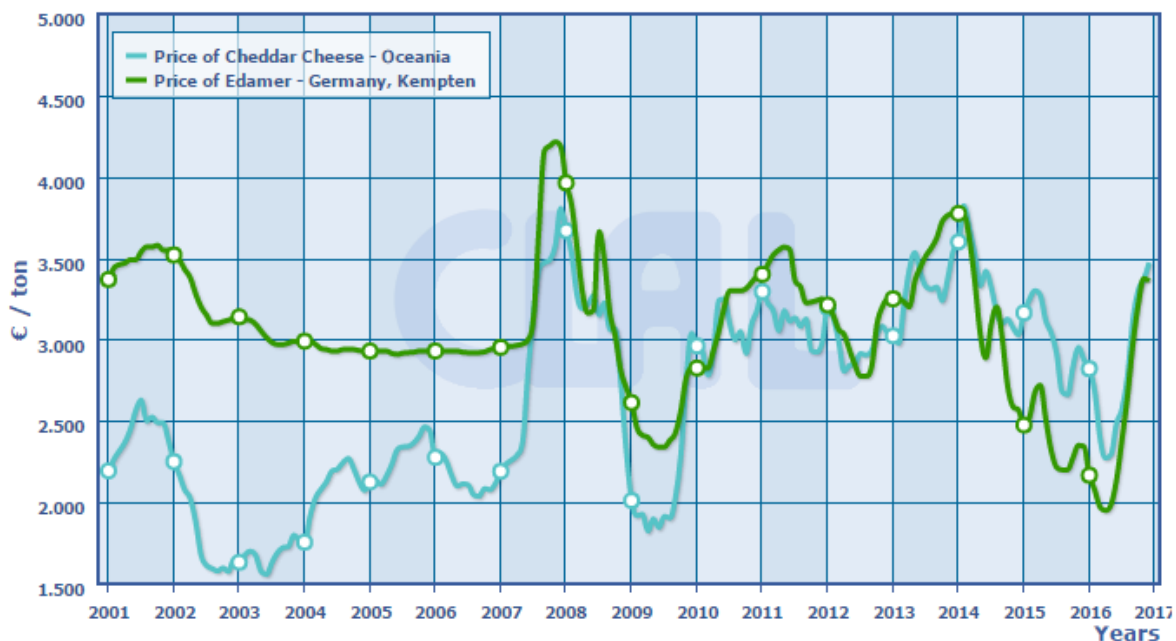


Cheese market: Slower growth

Cheese production, consumption and exports are expected to grow, but at a slower speed than in 2016. This is just a question of availability under the conditions of reduced milk supplies in the first half of 2017 in the EU and strong competition for milk as raw material. Returns for milk from cheese have to keep pace with the other utilizations. So far prices agreed for in contracts on longer terms are still below the short term cash market level, to bring them in line needs further upward adjustments.

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

Source: USDA

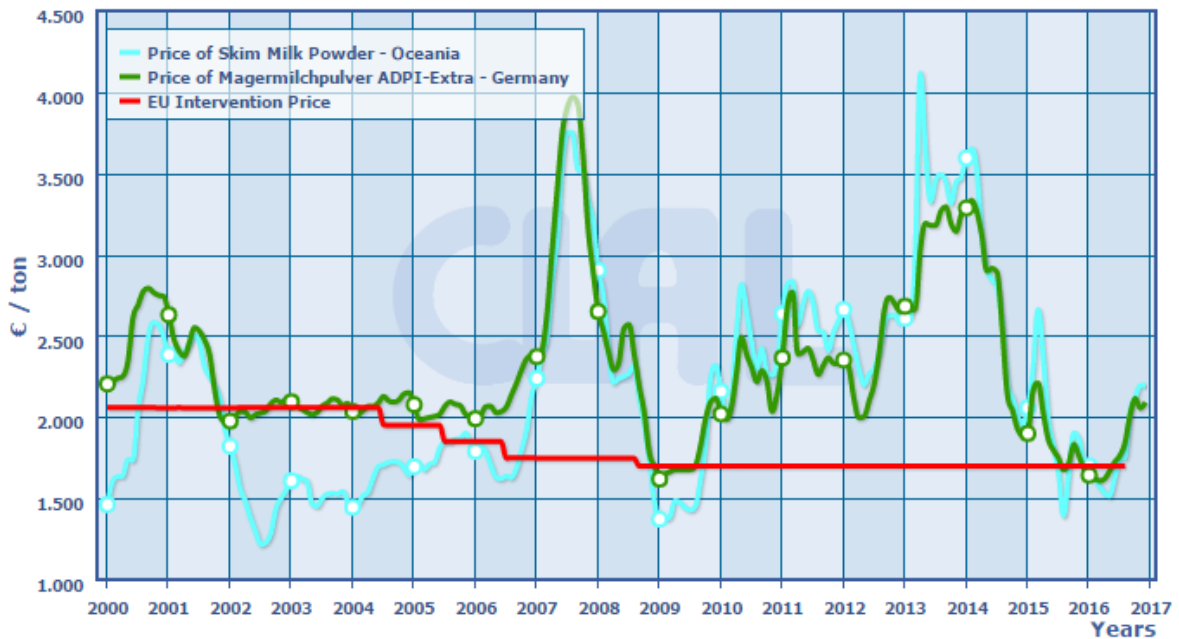


Milk powder prices more stable at low levels

Skim milk powder prices are expected to stay at present levels over the next months. The European Commission has started sales from intervention stocks recently at prices close to observed market prices, but in the first tender only for small quantities. If skim milk powder production follows the supposed reduction of milk supplies, around 240.000 tons less will be available in the EU from current production, also under the ceteris paribus condition. If more milk should be used for cheese and, what cannot be ruled out, for whole milk powder the reduction might even be stronger. The experience with the intervention stocks which had been taken in in the year 2009 is also that there is no hurry to sell. Careful management of sales from intervention stocks will not allow strong price fluctuations in 2017 and possibly also later. Export prospects are favourable since international demand continues to grow and supplies from competing world areas are reduced, with the exception of the United States.

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

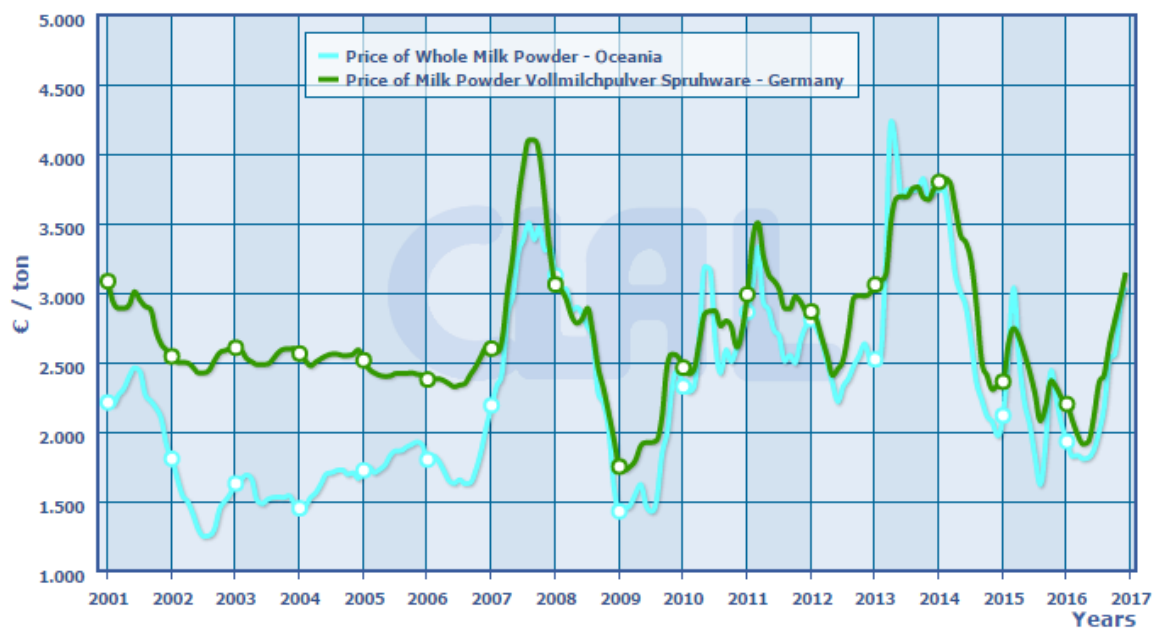
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The relative stability expected for skim milk powder which is based on the possibility to clear intervention stocks will not be the same in the market of whole milk powders. The fat content will be subject to the fluctuations which happen in the butter market.

Comparative historical overview between WMP prices in Germany and Oceania

Processed by CLAL



Annex

Table 1

EU 28: Dairy Markets 2016 - 2016 and Forecast 2017						
1.000 t	2012	2013	2014	2015*	2016**	2017**
Milk deliveries	140.386	141.246	148.396	151.587	152.540	150.500
Liquid products						
Production	46.706	46.773	46.480	46.941	47.100	47.200
Consumption	46.195	46.174	45.728	46.047	45.933	45.863
Butter						
Production	2.167	2.127	2.237	2.358	2.380	2.180
Consumption	1.938	2.042	2.106	2.185	2.190	2.120
Cheese						
Production	9.378	9.416	9.592	9.710	9.807	9.880
Consumption	8.928	8.949	9.107	9.195	9.300	9.335
Skim Milk Powder						
Production	1.225	1.220	1.550	1.660	1.600	1.350
Consumption	805	805	805	805	805	805
Whole Milk Powder						
Production	659	732	766	735	730	730
Consumption	298	351	359	349	355	345
Resident Population,						
Jan 1 st , m. head	504	505	506	508	510	511
*)Provisional. **) Forecast				ife, December 2016		

Table 2

EU 28: Balance Sheet of Liquid Dairy Products						
1.000 t	2012	2013	2014	2015*	2016**	2017**
Production	46.706	46.773	46.480	46.941	47.100	47.200
Imports	63	33	19	12	13	13
Exports	574	632	771	906	1.180	1.350
Consumption	46.195	46.174	45.728	46.047	45.933	45.863
- per capita (kg)	91,6	91,4	90,4	90,6	90,1	89,7
*)Provisional. **) Forecast				ife, December 2016		

Table 3

EU28: Butter Balance Sheet						
1.000 t	2012	2013	2014	2015*	2016**	2017**
Production	2.167	2.127	2.237	2.358	2.380	2.180
Imports	29	45	53	27	20	50
Exports	128	130	154	180	220	200
Final stocks	100	100	130	150	140	50
Consumption	1.938	2.042	2.106	2.185	2.190	2.120
- per capita (kg)	3,8	4,0	4,2	4,3	4,3	4,1
*)Provisional. **) Forecast				ife, December 2016		

Table 4

EU 28: Cheese Balance Sheet						
1.000 t	2012	2013	2014	2015*	2016**	2017**
Production	9.378	9.416	9.592	9.710	9.807	9.880
Processed cheese impact	235	240	210	210	210	210
Imports	78	75	76	61	73	75
Exports	768	787	721	719	810	830
Stock change	-5	-5	50	67	-20	0
Consumption	8.928	8.949	9.107	9.195	9.300	9.335
- per capita (kg)	17,7	17,7	18,0	18,1	18,2	18,3
*)Provisional. **) Forecast				ife, December 2016		

Table 5

EU SMP Balance Sheet						
1.000 t	2012	2013	2014	2015*	2016**	2017**
Production	1.225	1.220	1.550	1.660	1.600	1.350
Imports	2	5	2	5	5	5
Exports	520	407	648	691	600	700
Final stocks	65	77	153	282	490	380
- in intervention	0	0	0	29	355	280
Consumption	794	806	828	845	797	765
- as Feed	160	120	130	140	150	150
*)Provisional. **) Forecast				ife, December 2016		

Table 6

EU WMP Balance Sheet						
1.000 t	2012	2013	2014	2015*	2016**	2017**
Production	659	732	766	735	730	730
Imports	2	3	1	4	5	5
Exports	388	374	389	400	390	390
Stock change	-25	10	20	-10	-10	0
Consumption	298	351	359	349	355	345
*)Provisional. **) Forecast				ife, December 2016		

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