Rabobank

Rabobank Dairy Quarterly

The return of milk scarcity

Rabobank International

Authors

The Food & Agribusiness Research and Advisory Dairy Team

(see back page for contact details)

www.rabotransact.com

- **The nascent recovery of global dairy commodity prices evident in late Q2 continued through Q3.**
- **Price tension was a function of a substantial slowdown in milk production growth in export regions and strong buying from import regions.**
- **Falling milk production in both the US and EU drove local wholesale prices up rapidly in Q3.**
- **The recovery in world market prices was more tepid (4% to 15%), reflecting better supply conditions in Oceania.**
- **Milk production growth in key export regions will slow to a trickle over the next 12 months, as farmers respond to low milk prices, high feed costs and pockets of unfavourable weather.**
- **Even factoring in only fractional consumption growth in the US and EU, this will reduce the volume of surplus product available for international sale from key export regions.**
- **Assuming a steady rise in demand for imported product, prices will thus need to rise substantially to achieve the required demand rationing to balance the international market.**
- **This will likely send prices towards the higher end of our target medium term trading range (referenced on USD 3,300-3,800/tonne for WMP) in fob Oceania trade in 1H 2013.**
- **Having hotted up earlier, wholesale pricing in the US and EU will see less upside in coming months, until international prices move into alignment as 1H 2013 progresses.**

Prices

The third quarter brought an unusually large divergence in pricing in key regional dairy markets.

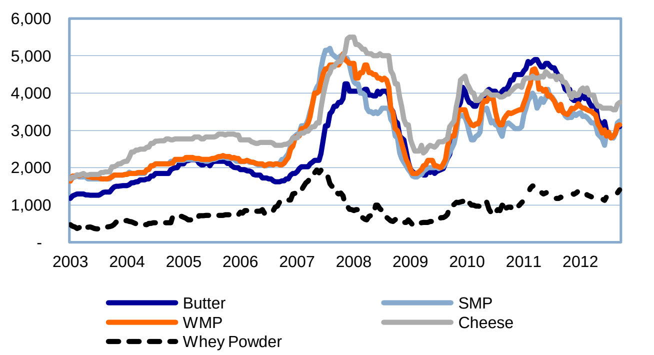
In fob Oceania trade, prices of butter and cheese rose 3% to 4% during Q3 in USD terms, with milk powders and whey up between 11% and 15%. While the market has clearly turned, the tepid nature of the price recovery so far is brought into focus by the fact that the USD itself lost 3.8% of its value on an index basis over the same period.

In contrast, adverse weather saw dairy commodity prices in the US and EU markets rise rapidly in Q3, with SMP prices closing the period up 24% and 30% respectively on opening quarter levels.

In all markets the main impetus for rising prices came from the supply side. All dairy farmers saw a deterioration in their margins through 1H, as milk prices fell and feed costs leapt. By Q3 most farmers sat somewhere on a spectrum between breakeven and significant loss- making, depending on the region and exposure to bought-in feed.

Figure 1: Dairy commodity prices fob Oceania, 2003-2012

USD/tonne



Note: Whey is fob western Europe

Source:, Rabobank, USDA, 2012

Drought and wet weather further impacted yields and returns in parts of the US and western Europe. Growth in milk production slowed significantly as a result. Production in the 'Big 7' export regions combined had been expanding at close to 4% in YOY terms in March and April: by July it was just 1% ahead of year-ago levels. Available evidence suggests August was even worse.

Despite a rapid loss of momentum in production growth, supply remained sufficient to service local requirements in export regions through Q3, since demand remained largely stagnant in the EU and grew only slowly in the US. But exceptionally strong buying from import markets quickly soaked up the surpluses, and allowed exporters to largely clear excess inventories.

As we enter Q4, we are concerned that the world is heading for another period of supply scarcity over the next 12 months, despite the lacklustre economic context.

While international market prices are starting to creep up, pricing remains well short of the levels required to reinvigorate milk production growth in the face of feed costs that will remain at extreme highs for the best part of the coming year. Moreover, lags in milk pricing and farmer responses ensure that even when prices do reach the theoretical 'trigger level' that brings forth more supply, the additional milk volumes will be six to nine months away.

Key surplus regions will consume little additional milk over the next 12 months. But supply growth will likely undershoot even these modest requirements, generating the first reductions in exportable surpluses seen in four years.

With structural trends still supporting ongoing import buying from key deficit regions, it is difficult to see how the international market will balance without a substantial price rally to ration demand.

Supply side

EU

- After strong growth in 1H, EU milk production fell below prior year levels in early Q3.
- Production was adversely impacted through July and early August by wet and cold weather, depressing yields, particularly in the western member states.
- At the same time, eastern and southern member states, including Poland, experienced much hotter and drier weather than normal, depressing forecast cereal yields.
- Domestic consumption of dairy remained depressed, with sales volumes falling even in some of the more prosperous markets, such as Germany, in the face of weak consumer confidence.
- Fortunately for EU farmers, exports have been brisk. Strong demand from abroad and a weak euro combined to elicit a16% increase in Q2 shipments in liquid milk equivalent (LME) terms. Cheese and SMP exports were up close to 30% YOY in July.
- Despite recessionary local economic conditions, slowing supply and brisk export trade tightened the EU dairy market considerably through Q3, encouraging local buyers back into the fray and generating a rapid increase in wholesale commodity prices.
- This has in turn fed through to the farmgate, with milk prices at least stabilising, and in most regions rising, by the end of Q3.
- Rabobank expects milk production to return to growth in Q4 as poor weather clears, and many farmers continue their herd expansion leading up to the removal of quotas in 2015. But the rate of growth will be considerably below H1 levels.
- Farmer margins are considerably below year-ago levels. While milk prices are starting to rise, in most cases they remain around 10% below prior year levels, with the exception of the UK where a falling currency and militant pressure from farmers have lead to stronger increases.
- After a long period of decline, the euro has appreciated 6% against the US dollar since the end of July, and in Rabobank's view is likely to rise further in the next 12 months. This will reduce the export returns at any given USD price and dampen the recovery in local milk prices.
- The cost of feed and energy prices continued to increase across the EU, with the price of soymeal now up 70% YOY. And while supply of forage is generally good, the quality of some conserved stocks remains a concern going into the winter.
- High cull cow prices, up around 15% on the prior year, may persuade some farmers to reduce cow numbers.
- Rabobank expects EU milk production in 2H 2012 to rise just 0.8% YOY, with a modest improvement in growth in 1H 2013 as further rises in milk prices bring better farmer margins in the new year.
- Despite the1H market downturn, the EU enters Q4 with surprisingly little excess stock – except for around 130,000 tonnes of butter in PSA inventories – much of which is already believed to have a home lined up.
- Against the backdrop of only a slight improvement in local economic conditions, little additional product will be required in the EU market itself over the next 12 months.
- After a stabilisation in the closing months of 2012, we see the prospect of a small increase in export shipments through the 2013 spring peak as any milk supply growth achieved is largely moved to markets outside the EU.

Figure 2: Milk production growth in key export regions, Feb 2012-Apr 2012

Year-on-Year percentage change

	July 2012	May through July 2012
EU	-0.7	1.2
US**	-0.3	0.4
NZ**	14.0	13.0
Australia	3.5	3.9
Argentina	2.5	3.9
Brazil	7.9	3.7
Total*	0.9	2.0

*: Rabobank estimates, **: Aug and three months to Aug

Source: Rabobank, AMI, USDA, DA, CEPEA, Alimentos Argentinos, 2012

US

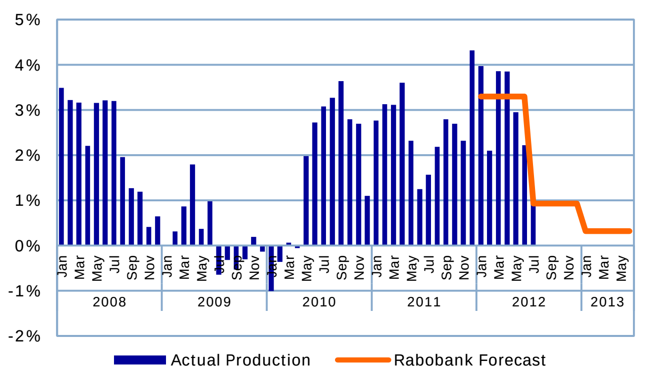
- The loss of momentum in US milk production already in train in 1H was thrown into overdrive by severe drought. August milk production came in 0.3% below prior year levels, with the contraction driven almost entirely by California (-6%) and the south western States.
- The reduction in milk supply in these regions came from a decrease in yield per head, stemming from heat stress, reduced feed rates due to low milk prices, and lower feed quality.
- Firm cull cow prices, ensured by weak rates of beef cattle slaughter, have seen increases in weekly dairy slaughter numbers of between 15% and 45% YOY for the last month in the south-west and western regions. By August the national herd was down 0.5% on April, with high cull rates partly offset by rising numbers of replacement heifers brought into the herd.
- As is all too often the case in dairy markets, just as milk production started to fall we saw the first flickers of life in domestic demand for dairy products. Cheese sales now appear to be expanding again in retail and foodservice markets, though sales of other product lines are still falling.
- Export sales remained brisk through to at least July, with outgoing shipments up 8% YOY in the June/July period.
- This helped to draw down US NFDM manufacturers' stocks by 43% from their high in April 2012, and bring butter stocks down 11%. This places stocks in line with Q1-2011 levels.
- By September the combination of deteriorating supply and some improvement in demand helped to raise US all-milk prices 20% off their May/June low.
- But drought conditions also drove a surge in the price of grains and oilseeds, keeping margins well in the red for those farmers procuring feed on the spot market. This has been especially true for California and resulted in numerous herd liquidations already, with many more rumoured to be on the way.
- With market shortages generating a sharp increase in the price of milk on the futures market, average Income-Over-Feed Cost margins are expected to improve in coming months, but will

remain around breakeven until early 2013 due to elevated crop prices.

- Rabobank expects supply growth to lag the eventual return to profitability, with no further supply growth in 2012 and slight decreases (-.4%) in production for 1H 2013.
- Domestic demand is likely to show marginal improvement, with the positive effect of modest employment growth partly offset by the likely reversal of retail price cuts over the next 12 months.
- Nonetheless, the combination of even marginal demand growth and falling supply will inevitably reduce the US dairy export surplus throughout the balance of 2012 and into H12013.

Figure 3: Milk production growth 'Big 7' exporters (historic and Rabobank forecast)

YOY % change



Note: includes EU 27, USA, NZ, Australia, Brazil, Argentina, and Uruguay

Source: Rabobank

New Zealand

- Export volumes for the three months to July were very strong, rising 32% (170,000 tonnes) above previous year levels as product from the record 2011/12 season was shipped prior to the start of the 2012/13 season.
- Anecdotal evidence and the balance of production and trade data for the past six months suggests that the excess stock that had accumulated in Q1 had been cleared by mid-Q3.
- The new 2012/13 season has started well. Dairy farms and cows are positioned well for a good start to the season and the weather has been relatively kind so far. Milk flows were around 13% higher than the previous year for the three months to August. However, these months represent the seasonal low point for milk supply (New Zealand produces only as much milk as Minnesota over this period), and it would be unwise to expect such growth to continue.
- The strength of the New Zealand season will largely be determined by the spring flush over coming months and the capacity of the industry to match the phenomenal shoulder period that followed the flush last season.
- Fonterra's forecast milk price for the season was moved 5% lower in August to NZD 5.25/kgMS, and now sits 13% below last season's closing level.
- With most investments in herd and pasture for the new season already made, this will not impact immediate production prospects. But at this price there is little incentive to purchase additional feed to extend lactation later in the season or should bad weather reduce pasture growth.
- It will also be harder to replicate last year's phenomenal production levels as the year progresses, given the exceptional combination of fabulous weather and high pricing in place at that time.
- Despite the strong start to the season, Rabobank therefore expects New Zealand milk production to start lagging behind the very strong prior year by the closing months of Q4 12, with the gap widening as we progress into 1H 2013.
- Exports typically peak seasonally in Q4, but the fourth quarter this year will likely see volumes around the same level as the extraordinary recent three months to July, reflecting the late clearance sale volumes of the prior season and the lack of strong YOY production growth.
- As we progress through 1H 2013, New Zealand will likely have less product available for export than it did 12 months prior.

Australia

- Australian dairy exports finished the 2011/12 season strongly, with shipments up 10% YOY in Q3, ensuring low inventory levels for the start of the new season.
- The 2012/13 season got underway in July. While July represents the winter trough for milk production, milk production was 3.5% up YOY. As per the prior season, strong gains were registered in Victoria and Tasmania.
- Despite strong starting momentum, Australian dairy farmers are bracing for several challenges in the current season.
- Southern export region producers are expected to receive a full-year price of between AUD 4.70 and AUD 5.00/kgMS (or34c to-36c/litre) for the current season. This represents a fall of around 10% on the previous year. Northern producers are also facing milk price cuts.
- The cost of grain-based feed has also increased by at least 20% for all in the last few months, pushing most farmers back down towards breakeven.
- Finally, farmers in many regions face the possibility of poor seasonal conditions, with forecasts suggesting a probable dry spring across the southern dairy regions.
- With 40% of Australia's output coming between September and December the upcoming spring peak will be critical to the prospects for Australian milk supply growth.
- Rabobank forecasts national milk production in 2012/13 to grow around 2%, with the rate of growth more or less sustained through the first and second halves of the season, pushing the milk pool to reach 9.65 billion litres.
- With a slowing economy expected to weigh on the expansion of the local dairy market, this should free up enough product to generate a 2% to 3% increase in exportable surplus over the same period.

Brazil

- Milk supply in Brazil continued increasing on weak prior-year comparables during Q3. The rise in production from southern states more than offset the decline in output from other regions, notably in the northeast where the off season was exacerbated by the severe drought.
- Although lower than last year's levels, imports also remained relatively strong in Q3—still stimulated by the favourable international prices. In the three months to August milk powder imports amounted to 17,000 tonnes, down 17% YOY but 50% up from 2010.
- As a result of this scenario prices have eased since the end of Q2, and in August were 1% lower YOY. This decrease in prices, coupled with rising feed costs, is squeezing producer margins.
- For Q4 12, Rabobank expects to see a slight increase in milk production, although there is some downside risk if the dry season lasts longer than normal in the centre-west and southeast region, due to the poor returns to supplementary feeding.

- A small increase in production, combined with an anticipated weaker Brazilian currency over Q4, should work to stabilise import requirements in coming months.

Argentina

- Having expanded by 8% or more for almost two years, growth in Argentina's milk production appears to have now lost steam. Growth slowed to just 2.5% YOY in July, with evidence pointing to a decrease YOY for the month of August.
- Weather has played a hand in this, with excessive rain, and in some regions even flooding, impacting supply in August in particular.
- The returns from milk production have also deteriorated in recent months.
- The deterioration in the milk-to-corn price ratio has actually been less than in many regions of the world. Milk prices are down only marginally this year, and while corn prices have risen, the cost increase has been much lower than that seen in Brazil or the US. As a result, the milk-to-corn ratio stood at 2 by mid-Q3—below the 2.6 seen at the start of the year, but still in line with the long-term average.
- However, the profitability of Argentina producers is being seriously impacted by a sharp increase in non-feed costs, including labour and energy, amidst 25% domestic inflation and the termination of various government subsidies. Generally farmers are therefore slightly below breakeven levels at present.
- Exports from Argentina increased 14% during 1H. May to July numbers show a decrease in exports which may be a result of stock accumulation by companies expecting increases in international prices. We expect exports to pick up their pace in the coming months, especially as spring production becomes available.
- Rabobank expects that the limited appeal of milk production will continue to curtail supply growth in coming months.
- However, assuming that the rain pattern reverts to normal, we can expect an early arrival of spring in terms of milk production, and a good spring production in general as a result of good pasture growth, which will be a welcome relief to farmers in times of high corn prices.
- We forecast a 3% increase in milk supply for 2H 2012 and fractionally less in 1H 2013. Export surpluses will likely rise at the same rate.
- With most plant expansion plans announced in the last 12 months now put on hold as a result of macroeconomic uncertainties, the industry will again face capacity constraints at it progresses through the spring peak. For the second year in a row, more milk will therefore have to be diverted to cheese production regardless of relative powder/cheese returns.

Demand side

The economic malaise that tightened its grip on the global economy through Q2 appears to have continued to exert its ugly influence well into Q3. Advanced economies grew very slowly (if at all) and the BRIC economies grew at the slowest rate in many years. The combined impacts of reduced government spending, weak global trade and lack of confidence continue to undermine job markets in the West, with unemployment rising further in key eurozone economies in August and disappointing job growth in the US. Purchasing Managers' Indices indicate that the manufacturing sector contracted in most regions in August (incl. the EU, US and China). The main rallying point for optimism was that by September things got so bad that governments around the world were forced to pull additional monetary policy levers that should improve economic activity in coming months (see below).

Against this depressing backdrop, consumers at least gained some relief from retail price inflation in the dairy cabinet as the reduction in dairy commodity prices evident in 1H continued to be passed on. Retail prices generally fell in the US and EU, and at least stabilised in many developing markets.

After a difficult Q2, there were signs of some life in US dairy sales as Q3 progressed. US commercial disappearance of cheese and liquid milk fell by 1.1% and 1.8% respectively in Q2 in YOY terms. But retail cheese sales volumes rose by over 2% in Q3 - the best growth in several years, assisted in part by falling prices at the supermarket. Foodservice sales also appeared to have improved. However, the improvement was not felt everywhere, with other dairy products showing further YOY volume declines in August.

Sales volume growth for the main dairy product lines remained elusive in key EU markets. German consumers bought less dairy products at retail level in July than 12 months prior, with the rate of contraction worse than seen in June.

Sales in emerging markets continued to hold up well. Vinamilk estimated demand growth in the Vietnamese market at between 20% and30% per annum in its 1H earnings release.

The bright light for dairy producers, and a fulcrum for recent price recovery on world markets, has been the ongoing strength of import demand. Total dairy trade emanating from the 'Big 7' export regions rose by 18% in the three months to July. Trade was fuelled by strong purchasing from China, South East Asia (SEA) and Middle East and North Africa (MENA). While there was an element of opportunistic buying at bargain prices during the period, all these regions face ongoing local production constraints, and high local milk costs continue to favour supplying additional demand with imported product.

Looking forward, from its weak starting point in Q3, the global economy will benefit from a concerted programme of accommodative monetary policy in most key regions. In recent months interest rates have been cut in all BRIC countries bar Russia in a bid to stimulate activity, with economic growth expected to improve from Q4. The situation in the EU may have finally turned the corner: the European Central Bank's willingness to buy eurozone government bonds under certain conditions is expected to edge the EU economy back to growth in Q4. In September the US Federal Reserve also announced 'QE 3' in a bid to kickstart the economy, though there remains considerable uncertainty about possible tax hikes and government spending cuts in 2013, which may undermine business sentiment and consumer confidence even if the fiscal cliff is avoided. The global economy should therefore show signs of improvement from Q4 onwards, though the rate of growth will likely be modest and downside risks remain.

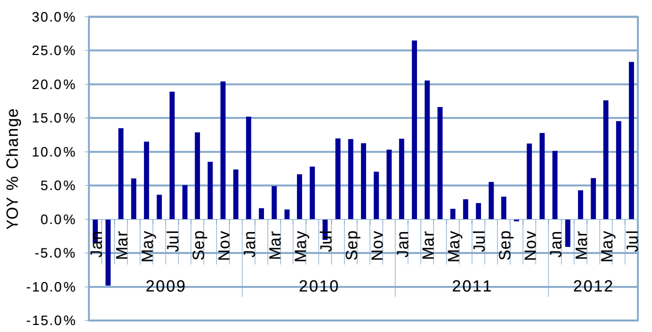
Some improvement in the economic position of consumers should provide an impetus to improved demand for dairy. However, the story will be far more compelling in developing regions (even in the relatively poor Q1 environment in China, urban Chinese workers enjoyed average earnings 15% above prior year levels) than the west, where employment and income growth will be modest. The gentle tailwind of falling retail prices will also switch to a gentle headwind in the form of price inflation in many regions late this year.

The biggest question for the demand side of the global dairy market is whether importers will continue to seek out increased volumes from the international traded market through the coming six months. Anecdotal evidence suggests that buying interest from these regions stayed strong through September, and another Algerian tender is now in the works. The risk is that the flurry of recent purchases reflected substantial forward buying, which may lessen their requirements in coming months.

Rabobank expects import demand will continue to expand in the coming 6 months. While the economies of China, SEA and MENA will be moving at a slower pace than their five-year average, incomes will still show good real growth, employment will rise, consumers will buy more dairy and the relative cost (and safety) of importing it versus procuring it locally will remain stacked in favour of the former.

The Indian monsoon arrived late but arrived nonetheless. Substantial damage to local milk supply in the coming season has likely been avoided. An Indian buying spree on world markets therefore looks unlikely in coming months.

Figure 4: Change in export volumes for 'Big 7' exporters Jan 2009- July 2012



Note: Includes NZ, EU, US, Australia, Argentina, Uruguay and Brazil

Source: Rabobank, Government Trade Agencies of "Big 7"

Outlook

Rabobank expectations

- The global dairy market appears headed for a period of renewed supply scarcity in the coming 12 months.
- The impetus for tightening emanates largely from the supply side, where low milk prices, extreme feed costs and pockets of unfavourable weather are expected to slow growth in milk production in export regions to a trickle.
- We fear that much of the market has been lulled into a false sense of security by the phenomenal growth seasons we saw in late 2011/early 2012 – with the next 12 months most likely providing a rude awakening.
- The slowdown in milk production growth in export regions will be sufficient to undershoot even the modest growth in consumption we expect locally (given the sobering economic outlook in the EU and US in particular).
- This will reduce the exportable surplus available from the 'Big 7' export regions in the closing months of 2012 and 1H 2013, the first such reductions in more than four years.
- With little excess inventory in the market, the equation then becomes simple: any increase in import demand from deficit regions will create supply shortages, and the extent of the shortages will rise with the appetite for imports.
- Factoring in a modest planned increase in imports over the next 12 months by key buying regions, Rabobank expects prices to rise substantially in the international market in order to bring about the demand rationing needed to balance the market.
- If buyers wait for hard evidence of a tight market before looking to cover, the rally may not gather steam till early 2013. But we anticipate that during 1H 2013 fob Oceania prices will have reached the upper levels of our medium term target range (referenced on USD 3,300-3,800 /tonne WMP).
- An overshoot in entirely plausible, with risks weighted on the upside of our forecast.
- Having seen far more substantial price rallies in Q3, US and EU wholesale pricing will see less upside support in coming months, until international prices move into alignment as 1H 2013 progresses.

Upside influences

- A late and weak El Niño weather pattern appears to be developing in the Southern Hemisphere. Should it come earlier or stronger than expected, associated drought and flood in key dairying regions would add fuel to the fire of rising prices.
- We are bearish on consumption prospects in the EU and US: any outperformance of the market on that measure will further reduce product availability for the world market.
- The launch of QE3 brings the real prospect of a US dollar depreciation over coming months. Should this materialise, it would exert further upward pressure on USD pricing of dairy commodities.

Downside influences

- We are sceptical of the chances of New Zealand this season matching the phenomenal production level achieved in the closing months of 2011 and H1 2012. Another stunning season would take some of the heat out of the market compared to our expectations.
- The EU appears to have taken important steps to the slow process of turning around its economy, and we expect it to at least stabilise. A further deterioration here, and associated depreciation of the euro, would free up more product for export at more competitive pricing.
- The Chinese market remains enigmatic: if demand for dairy slows faster than we anticipate, then import requirements could reduce, acting as a relief valve for market pricing.

Rabobank International

Rabobank Food & Agribusiness Research and Advisory Dairy Global Sector Team Analysts

Australia – Michael Harvey
michael.harvey@rabobank.com

Argentina – Paula Savanti
paula.savanti@rabobank.com

Brazil – Guilherme Melo
guilherme.melo@rabobank.com

China – Martin Wu
martin.wu@rabobank.com

EU – Kevin Bellamy
kevin.bellamy@rabobank.com

India – Shiva Mudgil
shiva.mudgil@rabobank.com

Mexico – Pablo Sherwell
pablo.sherwell@rabobank.com

New Zealand – Hayley Moynihan
hayley.moynihan@rabobank.com

USA – Tim Hunt
tim.hunt@rabobank.com

USA – Mak Kern
mak.kern@rabobank.com

USA - Vernon Crowder
vernon.crowder@rabobank.com

www.rabotransact.com

Rabobank