Summary

- There is hesitation in the market as the outlook for currency changes, production levels, and stocks fuels short-term volatility.
- Butterfat and protein price divergence reach record levels. While demand for butterfat will continue at high levels, demand for protein—especially skimmed milk powder—will remain weak.
- A steep decline in production in 2H 2016 has led to a significant price rally, but the better-than-expected end to the season in New Zealand has ‘applied the brakes’.
- Global levels of milk production continue to fall. The rate of decline is decreasing, but levels of export surpluses from the big 7 dairy exporters are unlikely to increase until 2H 2017.
- Rabobank forecasts that prices for dairy commodities will remain broadly stable, to at least 2H 2017.
- Already high levels of SMP stocks in Europe are likely to be supplemented by further European intervention buying in 2017.
- Despite fluctuating levels of import growth for the year to date, along with poorer consumption growth, Chinese imports are likely to increase 20% YOY, which will keep WMP markets well balanced.

Regional dairy markets

EU
Production growing fast, but 1H 2017 levels will decline 1% on 2016.
EU intervention buying likely to be necessary to support protein prices.

China
Destocking in 2H 2016 left inventory levels low.
Import growth is now necessary, despite demand growth moving lower.

US
Production growth to slow, but remains positive.
Strong demand growth beginning to falter in early 2017.
Exports to Mexico move lower on the back of the weak peso. Fortunately, demand is expected to remain strong enough to soak up the additional supply.

South America
Healthier farm margins in Brazil will reignite production growth in 1H 2017.
Argentina struggling as production continues to fall, with exports down 30% in five years.

New Zealand
Milk production is improving from the poor start to the season last year, thanks to more favourable weather.
Supply growth will modestly increase across late 2017 as the new season commences.

Australia
Australia’s milk supply losses have started to slow despite a hit in February.
Supply growth will resume growth in late 2017, as farmer margins improve.
Global summary

With butter prices continuing to trade at near-record levels, it’s tempting to talk of ‘market spreads’. The spread between the elevated butter prices and skimmed milk powder prices—which continue to fall—has never been bigger and continues to widen, although it’s nearing its climax. As farmers slowly respond to higher farmgate prices, production will continue to rise, bringing more protein. The market will again look to the European Commission to support European SMP prices—and therefore global dairy prices—as it now seems all but certain that intervention buying will be needed again in 2017. At some point in the year, the European Commission may find a destination for the aged stocks, which will ease the market overhang; however, any solution to reducing high public stocks will be difficult, as it will need to be non-market-distorting.

As forecast in our last Dairy Quarterly, milk production in the largest seven export regions fell sharply in 2H 2016, reaching a low point in October (-2.2%). At the time, we thought that the strengthening US dollar and strong domestic demand would create headwinds which would prevent the US—the only region with increasing milk supply—from filling the export gap. In the event, US exports were able to fill some of the supply gap. In fact, US exports were able to increase by a massive 25% in 2H 2016 vs. 2H 2015. EU exports also grew slightly YOY in 2H 2016, which meant that export surpluses from the largest seven exporters fell by 2.4% (ca. 2m tonnes) YOY: far less than originally expected. But this was more than sufficient to lead to a price rally, which raised prices of whole milk powder by 50% between June 2016 and the end of February 2017.

But as we anticipated as we move into 2017, the upward movement of prices has run its course, as milk production levels start to recover against still weak demand (see Figure 1).

The fall in production around the world is steadily reducing. It will, however, be 2H 2017 before we finally see growth in global milk production and any increase in export surpluses. US production, which has steadily gained through the downturn, improved 2.3% YOY in February. Weather conditions in New Zealand have improved, and production—already only 3% behind last season—will catch up further by end of the season, to just 2% behind. Europe is also catching up on last year, although it is unlikely to entirely catch up on 1H 2016 levels. The period of production decline in Brazil has come to an end.

In China, production has been struggling to keep pace with even our lower consumption growth forecast of 1%, and stock levels are now very low. We are therefore forecasting an import growth of 20% YOY for 2017, which would barely restore inventory levels. We note that, while January 2017 imports fell by 10% in LME terms, February net imports rebounded by 42% YOY, bringing the cumulative growth to 5%. We anticipate year-on-year import growth will necessarily be maintained. However, an increase in freight rates from Europe and a shortage of shipping containers will exacerbate difficulties.

In the US, consumption growth, which has driven the market since the second half of 2014, may finally begin to falter. With Mexican exports also faltering due to the value of the peso, this may lead to more product being shipped to other destinations.

As the year progresses, we see global butter prices remaining firm. They will be needed to maintain margins due to the persistent low value of skimmed milk, which is likely to remain weak, but stable, supported by limited stocks in Oceania and intervention buying in Europe. Cheese prices are also likely to remain stable, given the continued growth in export markets. WMP prices are also likely to remain stable for the rest of 2017, supported by limited suppliers and limited available stocks (see Figure 2).
What to watch in Q2 and Q3

**EU elections**

Any upset in either the French presidential elections (beginning on 23 May) or the German federal elections (on 24 September) has the potential to impact exchange rates—any weakening of the euro will increase the competitiveness of European exports.

**EU supply**

Between December 2015 and December 2016, European cow numbers only fell by 0.2%. In the two largest producers, France and Germany, cow numbers fell by 1.6% and 0.8%, respectively—much less than the production drop. Even with the current cow reductions in the Netherlands, with good weather conditions and further price stimulus, there is certainly capacity for more milk to flow.

**Brexit**

The triggering of Article 50, removing the UK from the EU, continues to add to the uncertainty of what will be rushed and potentially fractious negotiations, giving rise to currency risk throughout.

**NZ supply**

With margins back in positive territory after a series of tough seasons, going into the new 2017/18 season, New Zealand production growth could bounce higher than anticipated.

**US economy**

The effect of the new administration’s policies on the US economy are still emerging. Together with planned interest rate increases, they could create exchange rate movement in either direction and add to the uncertainty in the market. Potential for a further fall in the value of the peso and disruption of trade with Mexico create risks for US exporters.

**South America**

South American dairy continues to cause concern. While we forecast a steady improvement in Brazilian production and longer-term improvement in Argentine production, both industries have been hit by crises in the last couple of years, and there are also reports of difficulties in Uruguay—further production problems in the region cannot be discounted.

### Table 1: Quarterly dairy commodity prices (historic and forecast), Q4 2015-Q1 2018f

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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<tr>
<td></td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
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<td><strong>World (FOB Oceania)</strong></td>
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<td>Butter</td>
<td>USD/tonne</td>
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<td>Skim milk powder</td>
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<td>USD/tonne</td>
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<td>Cheddar cheese</td>
<td>USD/tonne</td>
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<td>Sweet whey powder</td>
<td>USD/tonne</td>
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<td>633</td>
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<td><strong>US (AMS announced)</strong></td>
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<tr>
<td>NFDM</td>
<td>USD/lb</td>
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<td>AA butter</td>
<td>USD/lb</td>
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<td>Block cheddar</td>
<td>USD/lb</td>
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<td>Class III milk</td>
<td>USD/cwt</td>
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<td>13.20</td>
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</table>

Source: USDA, Rabobank 2017
**EU**

Farmgate prices in Europe have steadily risen through Q1 2017, currently at a provisional EUR 33.7/100kg, levels not seen since November 2014. With input prices rising only modestly, most European farmers have moved back into a cash-positive position, and we now expect European production to rise as the new season gathers pace towards peak production.

Indeed, despite the voluntary European Commission scheme removing 800,000 tonnes of milk production (originally 1m tonnes had been budgeted), latest figures show that 2017 production is catching up to the high production levels recorded in 2016. But the gap is still sizable: In January, milk production was still running 2.1% behind January 2016 (see Figure 3).

In February, Germany, the largest European milk producer, sat 4.1% below 2016, having been 5% behind in Q4 2016. In France, the second-largest producer, the catch-up has been more dramatic, reducing to 3.2% in February, having been trailing 7% in Q4 2016. The UK is also catching up, but still sat 5.1% below the prior year in February. Ireland has fallen further behind, due to a mixture of poor forage quality and availability, together with concerns that Brexit is already biting heavy Irish–UK trade via the devalued pound. In the Netherlands, production growth has tapered to almost nothing, leaving only Italy and Poland among the largest six European producers who are ahead of last year’s curve.

While milk production has been running behind last year’s curve, cow numbers across Europe reduced only slightly, by 47,000 cows (0.2%) YOY, showing that supply reduction was more related to cows’ diets than any structural change. However, the reduction of the Dutch herd by 160,000 cows (or equivalent youngstock), to meet new phosphate-related environmental rules, will result in a further loss in numbers. Through 2017, this will lead to an estimated 6% reduction in Dutch production for 2017.

Looking forward, production will continue to catch up on 2016—but exceeding last year’s peak production level would still be a challenge. With the price rally likely to have run its course, concerns about Brexit starting to impact Britain and Ireland, and continued efforts to reduce cow numbers in the Netherlands, we forecast that cumulative production for 1H 2017 will remain 1.0% behind 2016. As the year progresses, the comparable each month will drop off. We estimate that this will result in 2H 2017 production exceeding that of 2016 by 1.5%.

Consumption of cheese (+1.3%), butter (+2%), and yoghurt (+2.5%) continued to grow in 2016, compensating for reductions in liquid milk sales. With the continuing improvement of the economic conditions, we forecast continued consumption growth of 1.5% throughout the whole of 2017.

EU cheese exports continue to rise (+11% 2016 vs. 2015) and now stand above the level when the Russian embargo impacted the market in 2013. The largest gains have been seen in trade with Japan, South Korea, Mexico, and Saudi Arabia. Butter exports also made significant gains on the year (+23% 2016 vs. 2015), but the tightening of milk supply and lower stock levels leaves exports running a third behind prior-year levels, trading at well over USD 4,500/tonne. Strong domestic and export demand, coupled with tightening supply and low stocks, will continue to see butter prices trading at high prices, at least until 2H 2017.

But since the removal of the milk quota, most of the extra milk has been made into SMP and butter/cream, as the lack of export demand and large stocks mean that SMP is again trading below USD 2,000/tonne. SMP exports shrank by a massive 56% in 2016, as product flowed into intervention and the currency swings, which were a benefit in 2015, disappeared. Despite repeated tenders, sales of intervention stocks do not attract buyers at prices the European Commission will accept. We anticipate that a further round of intervention buying by the European Commission through the EU peak production period will be necessary in order to once again support prices, while further SMP stocks will accumulate. Unless the European Commission can come up with a plan to dispose of the stocks in a non-market-distorting way, these newer stocks, in addition to the 354,000 tonnes of existing public stocks, will continue to overhang protein markets.

**US**

The US dairy industry has remained resolute over the last 12 months, as most of the dairy world faced major challenges. US demand trucked ahead in 2016, with commercial disappearance up around 1.5% in LME terms. Volume sales of retail butter and natural cheese were up an average of 5% and 3%, respectively, over the last 12 months. This drove premiums for both products through most of the year, with average premiums to the world market +USD 0.62/lb for butter and +USD 0.20/lb for cheese. New, innovative...
products in the fluid milk space have done well in their own right, but as of yet have been unable to counteract the continually declining trend in fluid milk consumption, thus leaving commercial disappearance at just 1.5%. In early 2017, the strong domestic demand growth for cheese, seen since 2014, has seemingly faltered. With supply outstripping demand, more product has been pushed into warehouses (+6% in LME terms), pulling prices lower, more in line with the international market. These prices, combined with cheap feed and favourable weather, saw US production push ahead (+1.5%) while most of the world’s milk supply contracted in 2016. This trend has continued into 2017, with February production up 2.3% YOY (see Figure 4).

As US premiums have eased relative to the world market, the US has managed to export 18% more milk in the three months to January, despite less demand from Mexico.

Trade may be a challenge in the future. The US withdrawal from TPP, which was generally viewed as beneficial to the US dairy sector, and talks of NAFTA renegotiations have generated significant unease in the dairy community. Approximately 15% of US dairy production is exported, out of which 55% goes to partner states included in TPP. In terms of NAFTA, 26% of US total exports go to Mexico and 13% to Canada. Driven by political and economic factors, Mexico has sought to differentiate imports away from the US, and this has resulted in an increase in EU exports to Mexico of 10% in the three months to January. Risk for the US to lose further share of Mexico and TPP buyers could potentially cause problems for US dairy producers, creating downward pressure on US product prices.

Moving forward, Rabobank expects falls in US dairy commodity prices to push many US producers into negative margin territory. The result is expected to be a slowing in supply growth, where Rabobank is forecasting average growth for the US over the course of 2017 to move to just over 1% growth, compared to last year’s 1.6%. Moreover, many US dairy farmers rely heavily on immigrant labour. Immigration policy changes suggested by the current administration, if executed, will create a large gap in the labour supply available to dairy farmers across the country.

On the demand side, despite recent months’ growth faltering, Rabobank anticipates favourable economic conditions to drive continued growth of around 2% through 2017. The key categories of growth will be natural and specialty cheese, butter, and yoghurt consumption.

Our expectation of continuous, yet modest US milk supply expansion, together with relatively strong domestic demand, should render the US with little to no incremental exports through most of 2017.

New Zealand

Producer confidence for this season is markedly higher than this time last season, with Fonterra’s current 2016/17 forecast farmgate milk price continuing to hold at NZD 6/kgMS: 54% higher than a year ago. Other milk processors continue to sit in the range of NZD 5.30/kgMS to NZD 6.25/kgMS (excluding Tatua).

Despite the poor start to this season’s production volume, milk flows have surprised with a strong comeback: milk flows are just 3% behind last season (for the nine months to February 2017) (see Figure 5). Better-than-anticipated production is attributable to improved climatic conditions in the tail months of 2016 and beginning of 2017—except for the Northland region.

Lactation for the final three months to May 2017 will be extended over this time. Feed is in plentiful supply and affordable, and there is a general expectation that farmers will be looking to make up for lost production earlier in the season, off the back of a favourable forecast milk price.

NIWA expect pasture growth conditions out to end of the season to range between average and above-average for most key milk-producing regions. Higher comparables for milk production from last season, as a result of the near-perfect autumn conditions in 2016, could therefore be tested this season.

Accordingly, we expect New Zealand’s full-season production levels to finish just down 2% on last season.

With budgets looking healthier, 2H 2017 milk flows—the start of the new NZ season—will increase compared to the prior-year period. The biggest year-on-year increases will come over the peak months of October and November 2017, on the assumption that the weather plays ball. Our full-year production forecast for the 2017/18 season (June 2017 to May 2018) is for a production lift of 2%.
Export volumes for the three months to February 2017 were lower by 9% (87,000 tonnes) on the prior year. Export volumes usually taper off through Q2 annually, as the production season comes to a halt. Along with the expectation that a small number of inventories are held by NZ exporters in order to smooth the seasonal hiatus, we expect exports through the remaining months of the season to track the milk production curve and trend modestly below the prior year.

**Australia**

Australia’s milk supply so far this season (July 2016 to February 2017) has fallen 8.4%, a reduction of more than 580m litres. However, the loss of milk supply has started to slow in the past three months, with production down 6.3% through the period. The majority of milk losses are confined to the export-orientated regions across Southern Australia (see Figure 6).

As the 2016/17 season draws to a close, farmer margins remain pressured. Some slight improvements in export-orientated farmgate prices, coupled with reasonably attractive supplementary feed and irrigation water prices, are providing some relief. More importantly, many dairy producers have a good inventory of home-grown feed.

Trading conditions for dairy producers in Australia will remain relatively favourable through the remainder of 2017. These factors will continue to stem the loss of milk supply in the coming months. An improvement in dairy farmer confidence was evident in the latest survey released locally.

Rabobank is forecasting Australia’s milk supply will finish the 2016/17 season down 7%—bringing annual production back below 8.9bn litres, the lowest level in more than two decades.

**Brazil**

Milk production in Brazil completed two years of contractions in 2016, as volumes shrank by 3.9% for the year and followed a 2.8% decline in 2015. However, the pace of declines showed a significant moderation in Q3 and Q4 2016, as farmers’ margins increased due to higher farmgate prices and lower feed costs. In early 2017, rains were above-average in some milk-producing regions and impacted output negatively in Q1 2017, particularly in the South and...
Centre-West. Farmgate milk prices are already starting to move higher and should continue rising until the middle of the year, during the low production months of February to June. However, production for 1H 2017 should already show some growth compared to Q1 2016, given that farmers’ margins are at more healthy levels than 12 months ago. Overall, Rabobank expects milk production to advance at an annual level of 2% in 1H 2017.

Meanwhile, imports started the year at the same high levels seen in Q4 2016, with total shipments of milk products into Brazil for January and February at twice the level seen in the same two months of 2016. The dairy trade deficit over the first two months of the year equates to 6% of industrially processed milk in LME terms—a sizeable level that continues to show continued appetite by the industry for foreign product, as the real continues at a relatively strong level against the US dollar (BRL 3.1/USD) and the recovery of world prices has taken a pause at the start of the year.

Imports will remain at current levels for the balance of 1H 2017, given our projections for a gradual recovery in international prices and a continuation of the real’s relative strength to the US dollar. Consumption in Brazil will remain stable in 1H 2017, before starting to rebound gradually in 2H, as the economy stabilises and unemployment levels stabilise. Real incomes have also stopped deteriorating, given that inflation is now increasing at a more moderate level (4.4% annualised).

**Argentina**

Milk production in Argentina declined by 14.5% during 2H 2016, which constitutes the worst performance on record. Added to a contraction of 10% in 1H 2016, the year’s balance amounted to a drop of 12.5% in volume. The dairy sector’s crisis continues in Q1 2017, and there is limited hope of a rebound of volumes in the short term, as producers continue to struggle to make ends meet and the processing sector also remains in serious difficulties. Some large players are announcing restructurings of their operations and even selling some units. Milk production will contract a further 2% in volume terms during 1H 2017, before starting a moderate recovery in 2H 2017.

Exports have been declining in line with overall production, reaching 300,000 tonnes for 2016 as a whole, compared with 332,000 tonnes in 2015. Meanwhile, imports increased in 2016, but remained marginal, at just 9,000 tonnes for the year. The trade balance for Argentina remained positive, at 300,000 tonnes, but it’s 30% lower than the peak levels registered in 2011, of 430,000 tonnes. Domestic consumption is expected to grow modestly in 1H 2017 as the economy gradually grows and incomes stabilise, with inflation at lower levels. However, it will be difficult for the domestic market to regain its dynamism in the short term. Argentina will have a reduced exportable surplus in 2017, given the projections for production and consumption.

**China**

Following a 4% rebound, to CNY 3.55/kg (USD 0.52/kg) in February 2017, the average milk price started to weaken again right after the Chinese New Year holiday, as the seasonal festival demand strength has come to pass, temporarily easing the supply tightness. The renminbi has weakened by over 3% since Q3 2016, thereby wiping out the gain in milk price in US dollar terms. Our survey of a few large dairy farms has suggested that, amid the supply tightness in China, the ratio of raw milk going directly into the market has gone up, leaving little need for spray-drying milk. Price increases, though, remain muted. As we have estimated, the supply-side issue in China (milk production in 2016 falling 4% YOY, below expectations) was the main cause for significant destocking during 2H 2016, with China opening 2017 with below-average inventory levels. In the meantime, the overall consumption sentiment has been lukewarm at best, thereby unable to provide a major push to domestic milk prices as yet.

Renewed interest in new large farm investments has not emerged across the board. There have been very few individual cases of new investments so far, based on our observations. The spike in heifer export to China from Oceania in Q3 and Q4 2016 may have been driven by the few cases of new farm expansion, but also may have been driven by a few cases of cattle replacement. Overall, the large-scale farms are still cautious about milk prices in China, or, at the best, cautiously optimistic, as not much downside is likely at this level.

With worse-than-expected official production data for 2016, we lower our production forecast for 2017 by 1.2%. Production growth for 2017 is now forecast at 1.7% YOY.

High-end products (premium milk, [UHT] yoghurt) have continued to outperform, but performance in sales volume of basic products and ice cream has remained unexciting. Domestic infant milk formula products (partially due to a disruption resulting from the pending new regulation of formula registration) also struggled to see much growth. This situation is likely to persist, at least into June 2017, with distributors keeping inventory low in order to avoid risks of overstocking products which may not get registered when the registration requirement becomes a must at year-end 2017.

Last year, our observation was that promotions and discounting at retail channels largely continued with an intensity at levels similar to 2015. With a significant rally in...
dairy commodity prices during Q4 2016, the flexibility to engage in more promotional activities while keeping operating margins intact in 2017 will be reduced. As such, we cut our full-year consumption growth forecast to 1% YOY in 2017, from 2% previously, assuming flattened promotion intensity vs. 2016, if not more controlled.

With our revised forecasts for production and consumption, we retain our LME net import forecast growth in 2017 at 20% YOY. Imports in January 2017, however, suspiciously fell by 10% YOY in LME terms, with powder down 8% YOY. With Chinese buying activities only rising mid-Q3 2016, February net imports have rebounded by a strong 42% YOY, with powder imports growing by 41% YOY, bringing January-February net import growth at around 5% YOY. March imports are likely to continue with a strong momentum. That said, a 20% growth in imports in 2017 would barely restore the Chinese inventory level to the recent years’ average at year-end 2017. In case of any miss in domestic production, failure in timing the delivery of imports into China, or higher-than-expected consumption growth, China’s hunger for imports will only rise more strongly.

Based on WMP parity analysis—following the recent corrections in global dairy commodity prices over the past few weeks and despite the weakness in the CNY/USD rate—the discount of the Oceania product prices (assuming the latest GDT results) to domestic milk prices is widening again (see Figure 7).

**Figure 7: China WMP import parity, 2008-2017**

Source: China Customs, Chinese Ministry of Agriculture, Rabobank 2017