

Global Dairy Quarterly Q1 2020





- The upward trajectory in global dairy product prices visible in Q4 2019, stalled in Q1 2020. The onset of the coronavirus in China and the permeation across the globe have buyers and sellers scrambling to assess the market impact.
- Global dairy commodity prices have already priced-in the uncertainty but a less-than-favorable expected finish to the New Zealand production season is providing some price support.
- Rabobank anticipates China's consumer buying patterns to normalize by 2H 2020, with evidence of improvement in some supply chains already visible.
 The risk of a setback or a delayed economic recovery in China presents a major downward price risk to Rabobank's current forecasts.
- Against this backdrop, global milk production from the Big 7 is rising. All regions within the Big 7 will report year-on-year growth in Q2 2020, granted against low comparables.
- The combination of reduced Chinese imports, significant supply chain disruptions, including extreme competition for shipping containers across the globe, and rising dairy surpluses in export regions will keep downward pressure on global markets through much of 2020.
- Nonetheless, the rate of growth in surplus milk will be restrained, and lower commodity prices in the face of weaker economic growth will support buyers in price-sensitive regions that are not dependent on oil revenue. Based on the forecast fundamentals through 2020, this should lead to a down cycle in global dairy markets.

Regional Dairy Markets



US

Milk production growth remains rangebound; there is a slightly gloomier outlook for dairy demand in the coming months.

EU

Milk production growth is gaining momentum with mild winter conditions laying the foundations for a good spring flush.

China

Rabobank forecasts China's total dairy import requirements (in liquid milk equivalents) to fall by 19% in 2020.



Australia

December 2019 marked a return to growth in the southern export milk pool – for the first time since mid-2018.



South America

Milk production across South America is expanding. However, dairy farmer margins are tight, limiting 2020 growth prospects.

New Zealand

Rabobank expects milk collections across the 2019/20 season to decline by1%, as poor weather takes hold.



The outbreak of the coronavirus is a significant event that is weighing on market sentiment and the 2020 outlook. The underlying assumption is that many of the disruptions in China will normalize by the end of Q2 2020.

However, Rabobank believes there has been a shift in the global market fundamentals. A material reduction in China's 1H 2020 import requirements looms over the global market balance. Chinese dairy import volume is forecast to fall 19% in 2020. This is based on anticipated lower dairy demand in retail and foodservice channels and a build-up in milk powder stocks, on top of large carryover stocks and further expansion in local milk production through 2020.

It is essential to assess this within a historical context. The forecast reduction in China's 2020 imports is not expected to be as severe as the 2014-2015 destocking, which resulted in a decline in liquid milk equivalent (LME) imports of more than 35% over 12 months.

Against this backdrop, milk production is growing in the export regions. The combined milk pool of the Big-7 dairy exporters gained momentum in the closing months of 2019. For Q4 2019, year-on-year growth was 0.8%, the strongest quarterly gain since Q3 2018. Still, significant growth constraints remain in many dairy export regions. Looking forward, Rabobank forecasts the export engine to hit its straps in Q2 2020 with a growth rate of 1% — marginally higher than the five-year average of 0.8%. The rate of growth is tipped to remain above the long-term average through to 1H 2021.

The EU and US spring flush will be a key litmus test for global markets. Under normal circumstances, the forecast supply growth across the export engine for 2020 would not be enough to overwhelm global markets. But the net effect is a sizeable increase in the combined exportable surplus, and with an absent China, this creates a short-term risk of oversupply (see Figure 1).

There are some supportive developments for global market balance. The impact of drought in New Zealand's North Island is limiting production availability as the season winds down. This has partly countered the disruption in trade volumes to China. While Oceania's commodity prices have retreated, the declines have been relatively modest (see Figure 2).

Lower global prices and weaker Chinese demand are providing an opportunity for buyers to procure at lower-than-expected commodity prices. Rabobank has made no significant revision to demand expectations for the broader global market – this is not without risk.

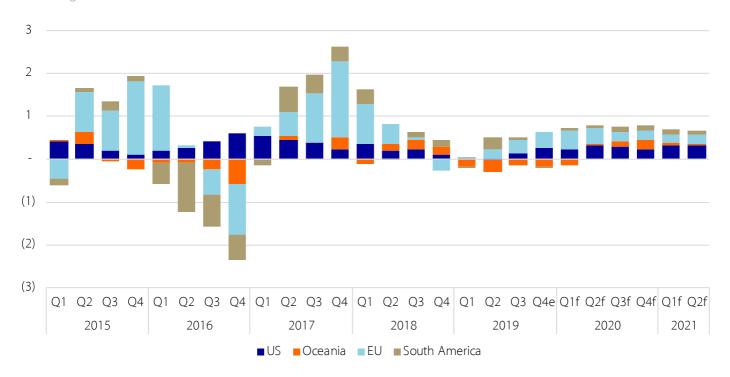
India's appetite for imports is a crucial watch and may provide further support. The Indian government is still in discussion with the industry regarding potential skim milk powder imports, which could provide a tailwind for global markets.

Global dairy markets have already witnessed weaker prices in early 2020. Further weakness is not being ruled out. However, at this stage, a significant down cycle (in excess of a 25% short-term price correction) is not expected, barring an extreme escalation of the epidemic or a prolonged depression in global oil prices.

Figure 1: Milk Production Growth, Big-7 exporters (Actual and Rabobank Forecast), Q1 2015-Q2 2021f*



YOY change (billion liters LME)



^{*} Big-7 includes EU, US, NZ, Australia, Brazil, Argentina, and Uruguay. Source: Big-7 government industry agencies, Rabobank 2020

Figure 2: Dairy Commodity Prices, FOB Oceania, 2014-2020*

USD/metric tons





^{*} Whey is FOB in western Europe. Source: USDA, Rabobank 2020



Global spread of the coronavirus

Measures taken by countries around the world to limit the spread of the coronavirus could have a greater-than-expected impact on dairy demand and supply chains. Falling tourist numbers are already impacting foodservice sectors in several markets. Southeast Asia is a particularly vulnerable region.

Northern hemisphere spring flush

The EU and US spring flush is likely to test the global dairy market balance. A mild winter and current favorable conditions for pasture growth have laid the foundation for a solid spring peak and could result in milk production that exceeds forecasts.

Feed markets

The coronavirus is weighing on the global grains and oilseeds markets. Weak global demand (in particular in China) and trade and supply chain disruptions could drive feed costs lower in many dairy exporting regions, fuelling milk production growth above current expectations.

Global economy at risk

A synchronized slowdown in the global economy was already a risk for the dairy markets heading into 2020. The coronavirus

and sharply declining oil prices will lead to a global recession, and this may more negatively impact dairy demand in the upcoming months than previously anticipated.

Currency swings

Central banks around the globe are proactively addressing the economic impact of the coronavirus outbreak with interest rate cuts and stimulus packages. These could impact currencies and trade flows in the coming months.

US-China Phase-One trade deal

The coronavirus outbreak brings uncertainty on the timing of China's imports of US farm products under the Phase-One trade deal. China announced a list of US commodities that will be excluded from the additional tariffs that it imposed in retaliation for measures taken by the US under Section 301. That list includes some dairy products: SMP, whey, lactose, infant formula, and WPC/WPI. On the other hand, WMP, cheese, and butter are not on the list. It remains to be seen if China will invoke the article of force majeure to consult with the US over a possible delay in purchases of US farm products.



EU milk production gained momentum in the closing months of 2019. Milk production increased 1.0% YOY in November and 1.4% in December, resulting in +1.0% YOY for Q4 2019 and +0.6% YOY (+966,000 metric tons, or mt) for the full year (see Figure 3).

The primary EU member countries contributing to the growth were Ireland (416,000 mt), the UK (240,000 mt), and Poland (229,000 mt). Milk volumes in Germany and France – the two largest milk-producing countries in the EU - finished close to the previous year's levels despite the recovery in 2H 2019.

The EU is carrying a smaller herd into 2020. In 2019, the EU-28 dairy herd declined by 280,000 head (-1.2% YOY). In most regions, lower cow numbers were offset by increasing per cow yields. Surprisingly, the Dutch dairy herd rebounded by 38,000 head (+2.4%) after two years of steep cuts in both the mature cow and young stock herds.

Farmgate milk prices continue to improve but there are headwinds ahead for further increases. Since October 2019, the EU-28 average milk price increased by EUR 0.42 to EUR 35.36/100kg in January 2020. The average milk price for 2019 at EUR 34.43/100kg posted a modest year-on-year gain of EUR 0.32/100kg.

Improvement in most dairy commodities continue to underpin farmgate prices. However, the latest developments in the global markets indicate that the upside for dairy product prices in 2020 is more restricted than previously expected.

European whey prices jumped by EUR 76/mt (+10.3%) since December to EUR 821/mt at the end of February. During the same period, Gouda cheese prices (+EUR 117/mt or +3.7% to EUR 3,288/mt) continued to firm. Meanwhile SMP prices (+EUR 72/mt or +2.9% to EUR 2,567/mt) appear to have peaked. WMP prices were marginally lower by EUR 31/mt to EUR 3013/mt, while butter prices declined by EUR 76/mt (-2.1%) to EUR 3,553/mt.

EU-28 exports closed 2019 on a high note, but caution looms. For 2019, the EU posted export growth of nearly 26% YOY in LMEs. SMP exports totaled more than 962,000 mt, up 17.3% YOY (+146,300 mt), which surpassed EU cheese exports. Combined 2019 export growth for SMP and fatfilled milk powder accounted for nearly 2.5m mt in LMEs. Granted, 2019's robust SMP and fat-filled milk powder exports, which already started to gain momentum in Q4 2018, were driven by the removal of EU SMP intervention stocks. This raises the question whether demand for these products still exists under current market prices, which are more than 30% higher than last year. Lower yearon-year SMP exports, down 18.3% (-26,200 mt) during November and December, might also be a first signal of softer demand at higher prices.



EU-28 butter exports were surprisingly strong during November and December (+18,000 mt or +73%) despite the 25% tariff levied on Irish butter by the US in October 2019. For all of 2019, EU butter exports totaled 214,000 mt, up 35% and driven by globally competitive prices and increased demand from the Middle East.

EU cheese exports finished 2019 at 880,000 mt, up 5.7% YOY (47,300 mt) due to strong 2H exports. Significant volume growth came from Japan, the US, and South Korea. The outlook for EU cheese exports is less certain as 2019 trade to the US was driven in part by front-loading product ahead of the imposed 25% tariff mentioned before. The commercial impact of that levy is likely to be fully incorporated in 2020 and to lessen some export demand to the US. In addition, foodservice demand in Asia and elsewhere is expected to be negatively impacted during 1H 2020 by the coronavirus.

WMP exports reached 290,000 mt in 2019, down 11.1% (36,500 mt) on the year, despite a year-on-year rebound of 9.4% (3,700 mt) during the two closing months of 2019.

2019 saw a recovery of butter and milk powder production. EU SMP production in 2019 increased by +0.8% YOY to 1.6m mt. At the same time, cheese production was only slightly higher at +0.3% YOY to 9.5m mt, while growth in butter production slowed to 2.7% or 2.2m mt. WMP production increased by +1.3% YOY.

More cheese capacity is coming online across Europe, resulting in milk flowing to cheese vats.

In addition, some sharp declines in liquid milk demand are leading to more milk being available for manufacturing.

Rabobank has revised its 2020 EU milk production forecast growth from 0.7% to 0.8%

YOY. Following the mild weather conditions during the opening months of 2020, abundant rainfall in many of the main milk-producing regions during recent weeks has impacted the carrying capacity of pasture land. Nonetheless, Rabobank still foresees better conditions during the start of the EU spring flush than the previous two years.

Rabobank expects the coronavirus to be sufficiently material to pull the euro zone into a recession. Therefore, our annual growth forecast for 2020 has been reduced to 0.2%, from 1% previously.

Rabobank expects further cuts and more targeted measures, such as safeguarding liquidity to euro zone companies. More details will emerge from the upcoming European Central Bank meeting.

Brexit: It's business (trade) as usual for now.

After Brexit (January 31, 2020), the EU and UK moved into a transition period until December 31, 2020. During this period, the EU and UK will attempt to agree upon the conditions for their future relationship, including trade. An extension of the transition period by one or two years is possible if the UK submits the request before the end of June this year.

Figure 3: EU Milk Production, Jan 2017-Dec 2019

thousand metric tons





Source: ZMB, Rabobank 2020



US 2019 milk production increased a meager 0.4% compared to 2018, the lowest YOY increase since 2013. Regionally Idaho, Colorado, Kansas, and Texas posted substantial year-on-year production gains. States experiencing the most significant losses ranged from the Corn Belt through the Northeast. Milk production should begin to grow closer to the long-term trend of 1.5% YOY in 2020 (see Figure 4).

The number of licensed dairy operations decreased at a faster rate than usual, down 8.8%, with a loss of 3,281 operations in 2019. In most cases, this was a result of consolidation, with states like Minnesota and Wisconsin experiencing significant declines in the number of farms, but steady to increasing milk supply. The decline in farm numbers is likely to continue, and could accelerate if near-term higher milk prices provide more favorable terms to those looking to sell their herd and exit the business.

Mild weather conditions are contributing to greater output and discounted surplus milk. Particularly in the Upper Midwest, steeply discounted milk is being converted into cheese. The well-supplied milk markets at this time of year raise concerns about what the next couple of months may hold, given that we have yet to enter the spring flush. Class III prices will struggle to find much upside as long as this scenario continues.

US dairy product production modestly higher. US cheese production in 2019 totaled 5.96m mt, up 0.8% YOY, driven by a 3.5% gain in Mozzarella production at 2.04m mt, while Cheddar cheese

output at 1.69m mt was down by 2.1% YOY. This trend continued in January 2020 with total cheese production posting just a 0.4% YOY increase. In January, Cheddar output fell by 1.8% and Mozzarella production increased by 0.1% vs. the prior year. Only Cheddar cheese less than 30 days old is traded in the US spot market at the Chicago Mercantile Exchange. Lower Cheddar output explains the strength in the US cheese market, especially for 40lb. block cheese.

Rising SMP/NDM prices through 2H 2019 propelled milk powder and butter production higher. Combined SMP/NDM output tallied nearly 1.07m mt in 2019, up 1.1%, and US butter output neared 864,200 mt, an increase of 0.7%. Likewise, in January 2020, US butter production rose 0.6% YOY setting a new record high at 86,520 mt for the month. Combined SMP/NDM production at nearly 102,000 mt in January was 5.8% above last year's level.

The looming threat of the coronavirus raises additional market uncertainty. The coronavirus will not impact milk production but could impact the ability to process the milk. This could be another factor magnifying an already seasonal milk surplus. More milk could be diverted into butter and powder for longer shelf life if there is reduced export and domestic demand for cheese, used particularly in foodservice applications. As a result, butter and milk powder prices, as well as the corresponding Class IV prices, could retreat further from the current forecast.



US total dairy demand increased 0.6% YOY in 2019 as robust domestic demand offset a lower trade-embattled export demand.

Measured in total milk solids, US consumption up 2% YOY was positive through the first ten months but then turned negative as consumer dairy product price indices rose, foreshadowing softness in Q1 2020. Export demand was extremely weak through most of 2019, down 7% YOY due to ongoing trade disputes. On a positive note, December total solids exports soared 20% YOY vs. a low 2018 comparable, but were on par with December 2017 export demand. Improved export demand offset some of the domestic market weakness.

January 2020 dairy exports indicate further year-on-gains especially for whey permeate to China, up 33% YOY. NDM/SMP trade totaled 69,500 mt, up 41% YOY on strength of sales to Southeast Asia. Cheese exports reached 27,994 mt, on par with January 2019. Export gains to Mexico (+21%) were offset by lower trade to South Korea and Japan both down 16% vs. prior year 2019. Further gains are in jeopardy due to the breadth and duration of the coronavirus

Retail sales data from IRI reflect soft demand for Q4 2019. The natural cheese category was the only dairy category to post positive year-on-year growth, up 1.1% vs. 2018, on top of last year's strong comparable of 4.4%. During the same period, butter, ice cream, and yogurt sales were flat, but processed cheese and fluid milk sales continued their downward trends, of 2% and 4%, respectively, for the year.

Foodservice demand has been a positive growth engine for the US dairy sector. During Q4 2019, US consumers spent 5.4% more eating away from home than in the prior year. This sector consumes large volumes of cheese, milk, and cream products, primarily in pizzas, cheeseburgers, sandwiches, bakeries, and beverages. Without strong domestic foodservice demand, the US exportable surplus may become burdensome, putting downward pressure on prices.

Uncertainty looms in the US domestic

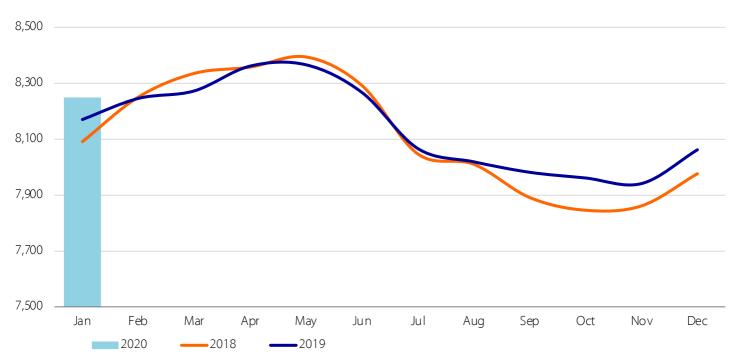
economy. As February came to a close, the US stock market posted one of its worst weeks in history which continued into March. The US Federal Reserve bank responded with a 0.5% cut in its short-term interest rates. A significant slowdown in the global economy and the current fragile domestic markets is expected to trigger a 2020 recession, foreshadowed in previous Global Dairy Quarterlies. In such a scenario, domestic dairy commodity prices could follow other major commodities, such as crude oil, lower, which dairy has done in the past.

Rabobank has revised its 2020 US demand forecast. Given these critical risk factors on the heels of weaker-than-expected Q4 domestic demand, Rabobank lowered its 2020 US demand growth from 0.8% to 0.5%. It anticipates weaker demand particularly for the first half of 2020, before experiencing a recovery in the back half, as the market fundamentals otherwise appear strong.

Figure 4: US Milk Production, Jan 2018-Jan 2020

thousand metric tons





Source: USDA, Rabobank 2020



Weather has been volatile at both ends of the islands, impacting milk production differently.

Seasonal, dry conditions have hit many North Island regions and parts of the South Island, hampering milk flows. Drought conditions have now been declared in many North Island regions, including Northland, Waikato, and the Manawatu. Conversely, adverse events in Southland and Otago were declared in early February, as a result of widespread flooding.

On a milk solids basis, January 2020 milk production increased by 1.1% YOY. The 2019/20 season-to-date collections are now just 0.4% higher than last season. February 2020 data will illustrate further pressure on milk collections (see Figure 5).

Despite a smattering of rain over late February/early March, crispy temperatures look set to remain for much of the North Island in the short term. However, NIWA are offering a small sliver of relief for farmers by noting that there is a possibility of an increase in humidity, moisture and rainfall in March.

There is a risk that the milk production season finishes abruptly in the North Island if significant rain is not received through the final weeks of March. While marginal economics support supplementary feeding, some farmers may choose to conserve feed and preserve cow condition prior to winter and call the season to a close early if seasonal conditions remain unfavorable.

Accordingly, Rabobank has revised lower its expectations for milk collections across the 2019/20 season, and now anticipate milk production to decline by 1% for the full season.

New Zealand dairy export volumes will be negatively impacted through 1H 2020. This is due to weaker trade to China as a result of the coronavirus and strong 2019 comparables.

Despite recent weakness in commodity prices, producer confidence has been lifted by Fonterra's recent milk price announcement.

The cooperative has held its 2019/20 forecast farmgate milk price range. The range remains NZD 7.00/kgMS to NZD 7.60/kgMS.

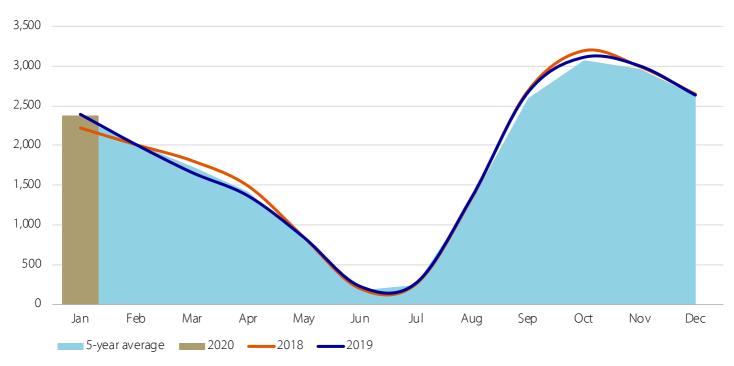
Rabobank expects that macro settings will exert downward pressure on land prices over the coming year. Regions will perform differently, however, with regions where there is high competition for different land uses seeing the highest prices. Read more on land values here.

Based on a weaker forecast for Q2 2020, Rabobank now anticipates a milk price of NZD 7.35/kgMS for the current 2019/20 season.

Figure 5: New Zealand Milk Production, Jan 2018-Jan 2020

thousand metric tons





Source: DCANZ, Rabobank 2020



December 2019 marked an important milestone for the dairy sector. For the month, the combined milk pool of the southern export region expanded. This was the first monthly increase since mid-2018. National production grew by 0.5% in January, confirming minimal impact from the bushfires. Season-to-date milk production stands at 5.6bn liters, down 3.7%. The turnaround so far has been led by Tasmania and Eastern Victoria, which account for 32% of Australia's milk production (see Figure 6).

There have been some solid rain events across dairying regions to start 2020. Improving seasonal conditions, combined with strong milk price signals, and relief on feed costs have supported on-farm investments and higher milk flows.

As always, the autumn rainfall break is critical for establishing new season pastures. The latest seasonal outlook from the Bureau of Meteorology points to a chance of above-average rainfall across the key dairy belts between April and June.

Dairy farm businesses in the Southern Murray Darling Basin will be preparing for another challenging water market. Irrigation farmers in the southern Murray Darling Basin received their first guidance on water availability for the 2020/21 irrigation season. Continued low water availability will lead to elevated allocation prices in the next irrigation season. Unless there are good inflows into the major storages during autumn and early winter, the water market will remain heated.

Milk production across the southern export region should continue to gather momentum heading into 2020/21. Rabobank is forecasting Australian milk production to finish 4.9% lower by the end of the 2019/20 season at 8.4bn liters. Australia's milk pool is in a good position to rebound in the new season. But constraints to recovery exist – namely the need to rebuild herds.

Some dairy farmers received positive news ahead of Christmas with further increases in their annual average milk prices. Most prices across southern Australia are now above AUD 7.00/kgMS – a new record. This compares to Rabobank's commodity milk price for 2019/20 which currently stands at AUD 6.65/kgMS – unchanged from last report.

At the halfway mark of the season, Australian dairy export had fallen by 6.9% YOY to 383,000 mt. Volume declines were experienced across all the categories excluding liquid milk and non-Cheddar cheese. Of note, there has been a significant fall in skim milk powder exports, down 38% (or 30,000 mt) during the period.

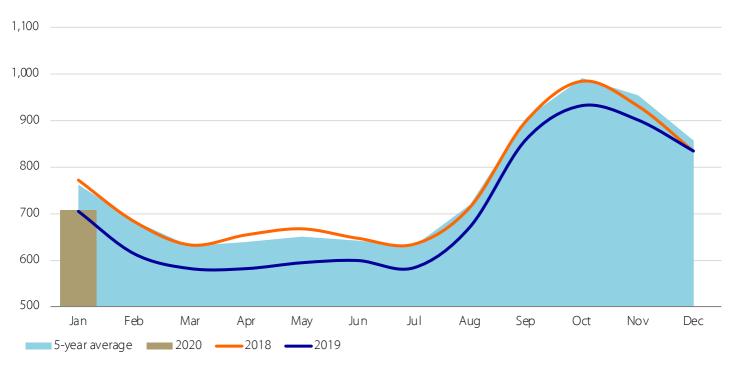
A return to growth in milk production will bring some welcome relief for dairy exporters.

More milk in the system will boost plant utilization and a return to growth on the exportable surplus in Q2 2020. However, dairy companies will continue to take action to adjust supply chains to the resizing of the milk pool.

Figure 6: Australia Milk Production, Jan 2018-Jan 2020

million liters





Source: Dairy Australia, Rabobank 2020



Lower margins for dairy farmers in Q1 2020.

Brazilian dairy producers face less favorable margins in early 2020, compared to the prior year. Farmgate milk prices are slightly higher, compared to twelve months prior. According to CEPEA, net farmgate milk prices stood at BRL 1.37/liter (USD 0.31/liter) in January 2020, compared to BRL 1.29/liter (USD 0.27/liter) in January 2019. However, costs have increased significantly, with soymeal and corn prices both higher in the domestic market, which is impacting margins negatively.

Production to advance gradually. After an estimated decline of 1% in Q4 2019, production is unlikely to recover until 2H 2020, once farmgate prices improve. Feed costs will remain elevated for now and until farmers see an improvement in margins, production will struggle to grow.

The consumer should see a moderate response in 2020. Rabobank expects the Brazilian economy to expand near 2% of GDP in 2020, with record low inflation, and low interest rates. However, recent global events (the coronavirus and its impacts) could cause the Brazilian economy to advance less-than-expected in 2020. For now, the base case is for a continuation of the gradual recovery of the Brazilian economy, which will bring some improvements to incomes and employment levels.

Cheese and yogurt to benefit more from improving economy. Demand growth will continue to be geared towards cheese, yogurt and powdered milk, while fluid milk remains a more mature market, with limited upside in consumption.

The UHT market remains under pressure from low margins and slowing consumption. Limited brand differentiation and strong competition for shelf space at retailers is yet another factor to imply limited upside growth.

Imports to remain under pressure in 2020.

The sharp depreciation of the real in 2020 (around 10%) has pushed imports to even less attractive levels. Imports will likely remain subdued in 1H 2020, with low competitiveness for imported milk products in Brazil.

Rabobank expects the exchange rate to end 2020 at 4.15 BRL/USD, which is significantly stronger than the current levels of 4.48 BRL/USD seen in recent days. However, even with an improvement of the exchange rate in the second half, we expect imports to contract in 2020, which favors an improvement in domestic prices.

Margins under pressure for both milk processors and farmers in 2020. With a moderate improvement in 2020 dairy product demand, farmgate milk prices are forecast to increase, given that production has slowed and imports remain very expensive. However, even with some improvement in farmgate prices, profitability for farmers will remain under pressure.



Milk production began to recover in 2H 2019 and is gaining momentum in 2020. Higher farmgate prices boosted farmer margins in the second half of 2019. Improved profitability helped to push production higher in Q4 2019 and into 2020, translating in a year-on-year gain of near 5% for January 2020.

However, margins are now decreasing with inflation in Q1 2020. Inflation remains a serious problem in Argentina and there are no concrete signs of fiscal measures aimed at balancing the government's budget or raising interest rates sufficiently to control rising prices. Higher costs are already impacting farm-level margins and profitability for farmers is likely to be lower in the coming months.

Additional export taxes on grains could moderate margin erosion for dairy farmers.

It is likely that new export taxes will be announced on soymeal and corn, which could lower domestic prices for grains. This would be beneficial and help sustain margin costs. However, a significant proportion of dairy farmers also produce soy and corn and so their overall profitability would suffer as grains become less profitable.

Artificially strong peso hurting dairy exports.

Argentina's official exchange rate is largely fixed and does not reflect its real value. The black market exchange rate is currently about 25% higher than the official rate, showing that the current official exchange rate (at which exports and transactions are quoted) is too strong. As a result, Argentina's

dairy exports are less competitive in world markets and are forcing the local industry to sell more products in the domestic market.

Domestic demand to see some improvement in 2020. Domestic demand is likely to see some improvement in 2020, after falling nearly 5% in 2019. As more dairy products are forced into local markets, and exports are less profitable, domestic prices could become more affordable, spurring demand. Other measures that aim to improve local demand, such as more subsidies, could have a short-term positive impact on consumption. However, a sustained recovery of the Argentine

economy still seems distant.

Dairy industry remains under pressure. The combination of an artificially strong currency and still weak domestic demand, are likely to impact profitability further across the sector. Limited labor flexibility also reduces the ability of companies to control their production costs and be more efficient. The dairy industry is on course to have yet another challenging year with low profitability.

Production expected to see moderate growth in 2020. After declining by around 2% in 2019, milk production is likely to rebound by the same amount in 2020. In particular, growth should be more concentrated at the beginning of the year and then decelerate in the second half of the year as margins for farmers and the industry decline.



India experienced a delayed monsoon season in 2019, that hindered and postponed the country's typical seasonal flush. Overall, the monsoon rains were above normal last year, which has led to increased soil moisture. This will contribute to quality feed and fodder production in the current winter harvest season. Rabobank expects milk production in Q1 2020 to increase in comparison to previous years, with farmers also getting better prices for the raw milk.

Farmgate milk prices have remained steady in India. Prices paid remained at levels of INR 30/liter and above (USD 0.43/liter) in Maharashtra over the past months. Farmgate milk prices are expected to remain mostly steady in the next quarter coming into the lean season.

Demand for milk from dairy companies is firm and supported by elevated prices. Recent strong demand for raw milk from SMP manufacturers has prompted increased SMP production. Milk powder manufacturers are responding to higher prices and have started selling stock in the market.

Local milk powder pries have eased slightly. SMP prices have fallen from a peak of INR 350/kg (USD 5,000/mt) a month ago to INR 300/kg to INR 320/kg (USD 4,300/mt to USD 4,500/mt). Rabobank is expecting SMP prices to remain range-bound at current levels over the next quarter.

India exports have been negligible. SMP exports have been negligible this year due to high domestic demand (see Figure 7). As per the official estimates, India exported 785 mt of SMP during April-

December 2019, compared to 37,418 mt during April-December 2018. Milkfat exports were 21,500 mt compared to 24,000 mt the previous year (April-December).

Rabobank expects SMP exports to remain negligible for the current financial year (April-March 2020). Milkfat export opportunities will remain limited in the January-March quarter, with a depletion in milkfat stocks and an increase in domestic prices.

Companies have shown good revenue growth in the past three quarters due to price increases.

Most of the listed dairy companies have posted double-digit revenue growth in the first three quarters of the fiscal year. However, increasing prices were a main contributing factor.

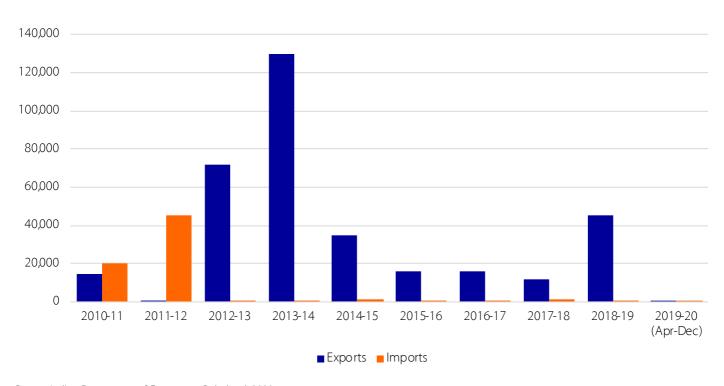
Dairy company margins have been impacted. High farmgate prices have led to a margin hit for some dairy companies, particularly those with low direct farmer engagement for milk sourcing and low consumer brand strength. With increasing raw milk supplies in this quarter, capacity utilization is expected to improve for most of the dairy companies.

Dairy companies are seeking imports to ease domestic price pressures. The Indian government is currently discussing with the industry about assessing dairy market conditions, and will decide if they should import SMP, and if so, how much should be allowed. The government's key concern is that imports should not lead to a significant reduction in domestic SMP prices, which would potentially reduce farmgate milk prices for farmers.

Figure 7: Indian SMP Trade Trends, 2010-2020

metric tons





Source: Indian Department of Commerce, Rabobank 2020



The coronavirus outbreak has disrupted the entire dairy supply chain in China (<u>read more</u>).

Retail outlet closures, and falling foot traffic at grocery retailers (partially offset by online retailers) have a material negative effect on retail sales of dairy products during the Chinese New Year holiday.

Foodservice is among the hardest-hit sectors.

Consumption of dairy products through this channel is likely to suffer the greatest year-on-year decline, particularly impacting categories like cheese, butter and whipped cream.

The restart of activities following an extended Chinese New Year holiday has been slow. Most local governments continue to maintain measures which reduce the mobility of the population in order to prevent the spread of the virus.

Slower retail sales have delayed restocking.

Restocking is hampered by road traffic control and a shortage of labor post-Chinese New Year, as a result of reduced mobility. If it takes an extended period of time for restocking to resume, retail inventory will start to erode through Q1.

In the wake of slowdowns in the retail channels, processors have been drying a larger volume of milk into powder. This is further adding to the ingredients stock, on top of the arrival of January-February 2020 imports.

Milk supply contracts have mostly been honored between large processors and large farms. Tight road traffic controls briefly affected raw milk shipments in various regions, leading to some milk dumping, but on a limited scale. The February milk price averaged CNY 3.82/kg, down 1% MOM, influenced heavily during the last week of the month which was down 2% vs. January, signaling mounting pressure on milk prices, above the normal seasonal forces. With the recent retreat in global prices, the Oceania WMP price stands at a 20% discount to China's domestic milk price, based

Increasing feed costs are being felt at the farmgate. Farm-level feed prices are rising due to higher freight costs. Normal culling has been disrupted due to lower slaughterhouse utilization, which in turn, is driving larger cash outlays.

on import parity, expanding from 2019's average

discount of 14% (see Figure 8).

The situation remains fluid, with the negative impact arising from measures to contain the virus depending on how long it takes until the epidemic is fully brought under control, which, as of now, remains largely unknown. The other uncertainties include the longer-term impact on dairy consumption, to the extent that consumer income situations and confidence may be negatively affected, and on whether government stimulus policies will be effective in re-boosting the economy. Government stimulus packages may include further expansionary monetary policies, more proactive fiscal policies, and massive infrastructure investments.



Rabobank estimates that China's 1H 2020 dairy demand (in LME) will fall by 8% YOY vs. the previous forecast of an increase of 2.4% YOY. The revised outlook is based on -10% YOY for Q1 and -6% YOY for Q2, which may be relatively optimistic.

For 2H 2020, Rabobank expects demand to normalize gradually and to grow by 1.5% YOY (2% previously). This assumes that the outbreak is brought under control before mid-year, and equates to a full-year decline in dairy consumption

of 3.2% YOY.

Looking ahead to 2021, Rabobank is forecasting 1H 2021 demand growth of 9% YOY on a weak comparable in 1H 2020, while leaving the 2H 2021 growth forecast unchanged at 2% YOY, with a full-year growth of 5.3% YOY.

Rabobank lifts milk production growth to 3% YOY in 1H 2020 (previously at 2%), mainly reflecting a continuous year-on-year growth momentum during January, based on industry discussions. Improved sentiment, driven by higher milk prices led to farm expansions in 2019. Milk production growth is maintained at 2% YOY for 2H 2020, putting forecasted 2020 production growth at 2.5% YOY. The ongoing epidemic situation could hamper the current growth momentum. If milk prices fall significantly from current levels, while feed prices rise (via freight increases), farmers' profitability and the incentive to increase production would diminish.

Significant demand and supply chain disruptions will reduce China's appetite for imported dairy products and ingredients.

Increased domestic surplus milk being processed into milk powder is the key driver reducing import demand. Rabobank's revised forecast pegs China's overall dairy import requirement (LME) to fall by 23% YOY in 1H 2020, and 16% YOY in 2H 2020, with full year imports in LME down by 19% YOY.

Inventory levels are expected to increase sharply by mid-year 2020 to a level just below that at year-end 2014 (the highest level of inventory in recent history was in mid-year 2014, when China started to destock). Despite an estimated significant import decline, year-end 2020 inventory is forecast higher than last year.

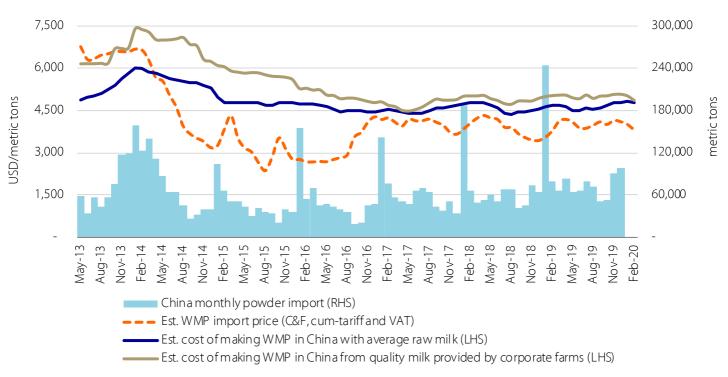
The recovery in consumption in 1H 2021 will see Chinese buyers returning to the international market with a bigger appetite.

Assuming China's supply chains experience a normal inventory recovery, full-year dairy imports are likely to grow by just below 7% YOY.

Categories like cheese, butter, and whipped cream are most exposed to the foodservice sector and may see more damage in import demand. Cheese, for example, is largely consumed through foodservice channels in China. Based on Rabobank modeling, quick service restaurant store closures and plummeting foot traffic will reduce cheese import demand by 16,000 mt during Q1 2020 (using 2019 import volumes as a consumption estimate) – this is 58% of the Q1 2019 cheese import volume.

Figure 8: China WMP Import Parity, May 2013-Feb 2020





Source: China Customs, Eucolait, Chinese Ministry of Agriculture, Rabobank 2020

Table 1: Quarterly Dairy Commodity Prices (Historic and Forecast), Q1 2019-Q2 2021f



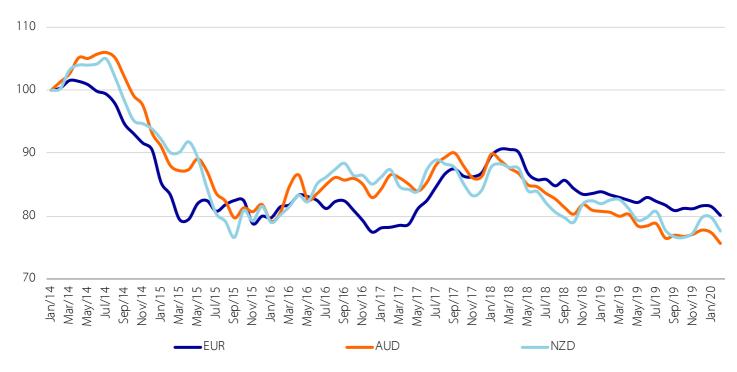
		2019				2020				2021	
		Q1	Q2	Q3	Q4	Q1e	Q2f	Q3f	Q4f	Q1f	Q2f
Butter											
Europe	EUR/mt	4,300	4,077	3,669	3,635	3,575	3,450	3,450	3,525	3,550	3,525
US	USD/mt	4,977	5,091	5,136	4,576	4,095	4,245	4,555	4,725	4,465	4,595
Oceania	USD/mt	4,482	5,354	4,227	4,075	4,150	4,000	3,900	4,000	4,100	4,100
Cheese											
Europe (Gouda)	EUR/mt	3,126	3,112	3,112	3,178	3,290	3,175	3,150	3,175	3,200	3,200
US (Cheddar)	USD/mt	3,174	3,700	4,083	4,551	3,880	3,765	3,910	3,860	3,845	3,860
Oceania (Cheddar)	USD/mt	3,688	4,154	3,896	3,796	4,250	4,000	3,900	4,000	4,000	3,900
Dry whey powder											
Europe	EUR/mt	822	781	683	735	810	800	850	870	870	870
US	USD/mt	990	834	808	717	775	780	800	825	840	875
Skim milk powder											
Europe	EUR/mt	1,867	1,994	2,101	2,430	2,560	2,400	2,450	2,475	2,500	2,525
US	USD/mt	2,124	2,221	2,296	2,547	2,670	2,400	2,480	2,550	2,645	2,750
Oceania	USD/mt	2,518	2,502	2,527	2,902	2,900	2,750	2,750	2,900	3,000	3,000
Whole milk powder											
Europe	EUR/mt	2,825	2,926	2,879	3,016	3,010	2,925	2,900	2,850	2,850	2,850
Oceania	USD/mt	2,982	3,206	3,157	3,240	3,050	2,800	2,800	3,000	3,100	3,150
South America	USD/mt	2,882	3,000	3,180	3,100	3,050	2,800	2,800	2,900	3,000	3,050

Source: USDA, forecasts by Rabobank 2020

Figure 9: Exchange Rates, USD vs. Exporters, 2014-2020

Index currencies vs. USD (Jan 2014 = 100)





Source: UDM Board of Governors of the Federal Reserve System, Rabobank 2020

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