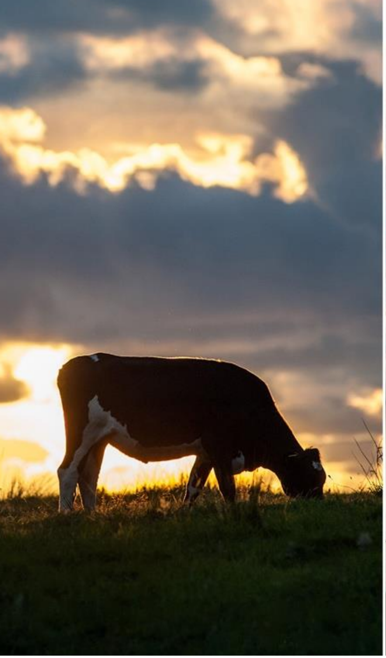
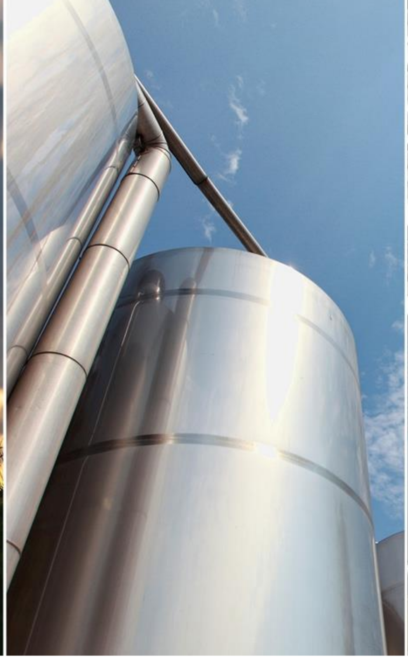

Tepid Supply Growth Awaits a Booster Shot for Demand

Global Dairy Quarterly
Q4 2020

RaboResearch Food & Agribusiness December 2020

Rabobank

Summary

- **Economic recovery and vaccines could inject consumer confidence,** offsetting reduced government support, and boosting demand in 1H 2021. A weaker US dollar may support purchasing by deficit regions in 2021, while placing downward price pressure on euro-denominated product prices.
- **Milk production gains for the Big-7 exporters are set to moderate in 2021,** after a strong 2020. Rabobank projects milk supply growth of nearly 2.7bn liters in the new year, compared to 4.5bn liters in 2020.
- **A second Covid-19 wave is impacting foodservice recovery in key markets,** with many countries increasing mobility restrictions that will delay the recovery in the foodservice channel.
- **Commodity prices remain elevated after rallies in Q2 and Q3,** despite Oceania's seasonal production peak, due to firm Asian import demand in markets that have successfully controlled Covid-19 and are seeing economic growth.
- **Lower inventories in Europe and the US are positive for prices,** as more product has reached commercial channels. The European Private Storage Aid program has realized a decline in cheese (43%) and SMP stocks (56%) month-ending October.
- **Chinese imports are set to decline in 2021,** given that milk production is projected to increase at a robust 6% next year, with limited destocking in the second half of 2020. A double-digit drop in the liquid milk equivalent (LME) of imports is expected in 2021, along with the demand growth projection slowing from a 9% gain in 1H 2021 (against a low comparable 1H 2020) to around 3% YOY in 2H 2021. Granted, price competitiveness of imported dairy products vs. domestic supply may support imports, which has been the case in recent months.

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Regional Dairy Markets

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US

Supply continues to grow while most dairy product stocks have returned to normal levels. Price volatility remains in place and is likely to continue in Q1 2021.

EU

The second Covid-19 wave and Brexit are issues that could impact EU dairy markets in Q1. However, lower stocks show balanced market.

China

Higher milk production and moderate demand growth suggest weaker dairy imports in 2021. Larger domestic inventories could also limit trade.

South America

Grain prices continue to rise and reduce margins. However, diverging milk prices alter profitability in each country.

Australia

Widespread milk production gains across Australia this season will be capped due to limited cow numbers.

New Zealand

Milk production is expected to increase by 1.5% this season YOY, while stronger trade has lifted the milk price forecast to 6.90/kgMS.

Global Summary

As a challenging 2020 ends, more optimistic projections set the tone for 2021. Several factors in 2021 aid positive consumer sentiment in key dairy markets, including advanced states of several Covid-19 vaccines, less political uncertainty after the US election, a weaker US dollar that supports commodity prices, and forecast economic growth in most regions after the 2020 recession.

Supply growth is slowing across primary export regions. Milk production gains across the global Big-7 dairy exporters surprised in 2020, with growth at its highest level since 2017 (4.5bn liters). However, Rabobank is projecting a more moderate growth rate in 2021, albeit positive across all regions, totaling 2.7bn liters.

The duration of the second Covid-19 wave and the arrival of vaccines are key to stabilizing Q1 2021 demand in foodservice channels. While there is optimism regarding vaccines and gradual control of the pandemic, there are increasing restrictions on foodservice outlets, as Covid-19 cases are on rise in Europe, the US, and South America. Retail sales should strengthen further as more meals are consumed at home. Nevertheless, a full recovery in dairy demand is contingent on reaching pre-Covid19 product sales.

The impact of less government interventions could be significant in 1H 21. A key reason for strong demand and healthy trade during the Covid-19 pandemic has been the government actions taken in many countries during 2020. It is likely that fiscal constraints will prompt governments to scale back dairy purchases and cash payments to consumers in 2021. This could limit demand growth and impact global prices in 2021 if economic recovery does not materialize.

Chinese supply/demand balance could deflate market optimism. Rabobank estimates that Chinese 2021 milk production will grow by 6% compared to 2020, slightly outpacing demand growth. Year-ending 2020 stocks are estimated above last year's level. As a result, the need for destocking could reduce imports from 2020's lofty levels, and limit gains in dairy product prices.

As China attempts to be more self-sufficient, other markets will play a larger trade role. Global dairy trade increased in 2020, with import demand rising moderately in the year to October, and year-over-year volume gains for whole milk powder (WMP), dry whey and butter. As 2021 points to declines in Chinese imports and moderate growth in global supply, domestic market dynamics in the Big-7 dairy exporters and import demand in deficit markets such as North Africa, Mexico, and Southeast Asia, could tilt the supply/demand balance into deficit or surplus, aided by changing oil prices and currency valuations.

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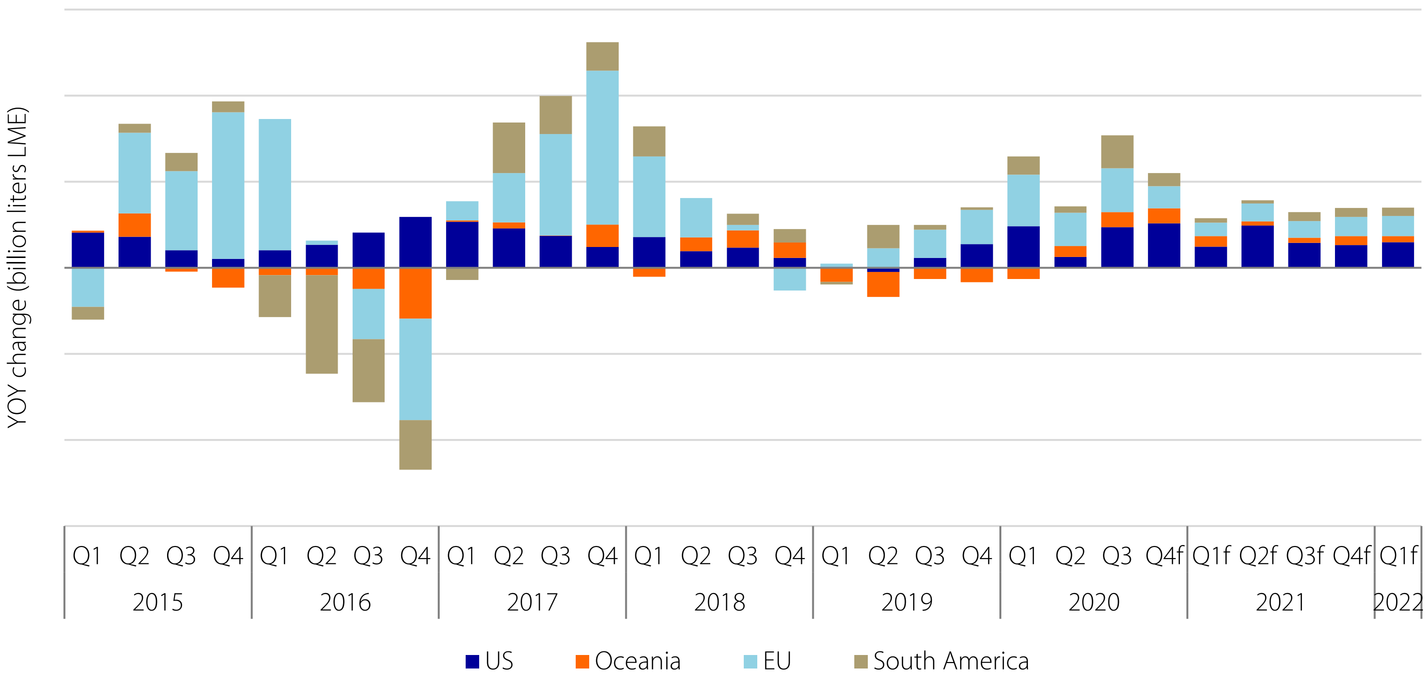
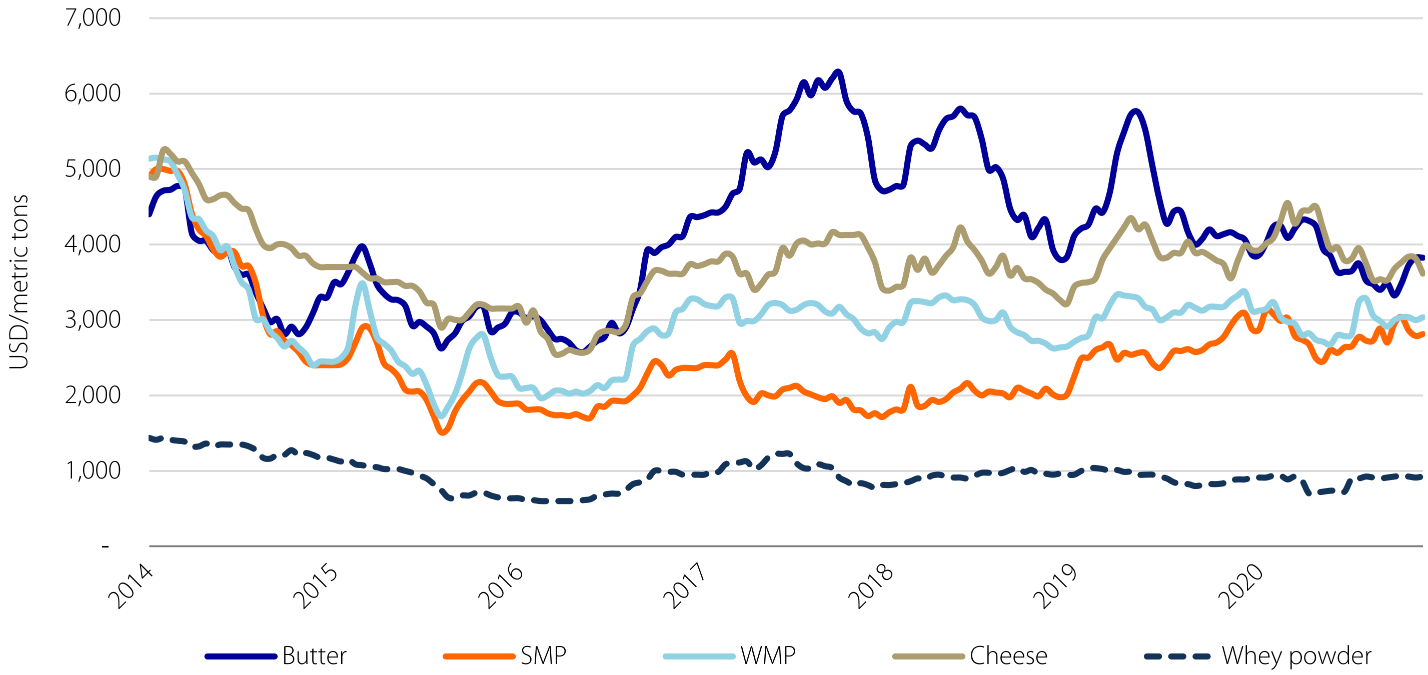
Figure 1: Milk Production Growth, Big-7 Exporters (Actual and Rabobank Forecast), Q1 2015-Q1 2022f*



** 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*



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

What to Watch in Q1 and Q2

FX developments

The US dollar continued to weaken vs. the euro, reaching the 1.20 level (dollars per euro) in early December for the first time since 2018. The dollar index DXY is off almost 12% from its March peak and 6% lower since early 2020.

US fiscal package

The political gridlock seen during and immediately after the elections will tend to clear in the coming weeks as a new administration takes office. Negotiations for a new fiscal package continue and the outcome will be significant for demand growth and the ongoing economic recovery in the US.

Brexit reaches a climax

As the transition period reaches an end on December 31, uncertainty about the future EU-UK relationship is still a primary concern for the dairy sector with possible trade disruptions in Q1 2021. The UK is a significant net importer of yoghurt and cheese. Many companies have maintained elevated stocks in the UK in preparation for Brexit. Unfinished customs systems on both sides of the border and additional paperwork will likely cause delays and impose additional costs. The UK economy is already heading towards a double digit GDP loss in 2020, a hard Brexit could trigger a negative financial markets response, with a possible further devaluation of the British pound against the euro.

Chinese inventories

It is likely that domestic infant formula stocks are more than ample in the distribution channels. Destocking is required over the next few months and will limit the country's import needs for this particular category and related ingredients. That said, the excessive stocks are likely in finished products that cannot be worked back into ingredients.

High global grain prices

Rabobank projects Chicago soy prices of USD 12 to USD 12.40/bushel in 2021, and corn prices above USD 4.20/bushel. These high levels will keep dairy feed costs elevated globally in 2021.

La Niña in southern hemisphere

The consolidation of a La Niña weather pattern in recent weeks is already bringing drought to Southern Brazil and Argentina and also impacting New Zealand. Forecasts suggest a moderation by early 2021, but the impact on rains and temperatures could be more severe – as has been the case in previous events.

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EU

EU milk deliveries in Q3 2020 were above expectations and finished 1.3% or 515,000 mt above last year. Milk deliveries across the EU big-7 milk-producing countries varied in Q3. Italian milk volumes are estimated at nearly 5.0% above last year, while Poland (2.1%), Ireland (2.7%), and France (1.0%) recorded strong to modest growth compared to Q3 2019, while deliveries in Germany, the UK, and the Netherlands were stable.

Initial October and preliminary November data suggest a slowdown in EU milk production growth. Rabobank anticipates that Q4 2020 and 1H 2021 milk deliveries will increase by 0.7% and 0.5% YOY, respectively, with 2H 2021 output forecast at 0.5% YOY%.

Favorable autumn weather supported a successful corn silage harvest and extended into November, resulting in a late cutting of grass in some regions. As the pasture season comes to a close, roughage availability generally remains a 'what to watch' for winter. Prices for feed concentrates have increased and are likely to remain elevated through 2021, increasing farm margin pressure.

EU-average farmgate milk prices improved by EUR 2.15/100kg (+6.6%) from July, to an average of EUR 34.71/100kg in October. Based on current commodity prices, average milk prices are expected to be range-bound (EUR 33.50/100kg to EUR 35.50/100kg) during the opening months of 2021.

The eurozone economy rebounded by 12.7% QOQ in the third quarter, but there is little reason for celebrations now that the eurozone is in the midst of the second wave of Covid-19 restrictions. After a steep rise in the infection rates in the second half of October and in early November, many countries have tightened measures. It is unlikely that dine-in restaurants will re-open for the Christmas holidays. Retail demand is still elevated, partially offsetting volume losses in foodservice channels. Nonetheless, the risk of loss in value demand remains.

Supported by retail demand, milk utilization continues to tip in favor of cheese (and whey), with production in Q3 up by about 1.4% YOY. Packaged milk output, up 2.2% YOY, remains at an elevated level, while butter production is only slightly higher, 0.3% YOY. WMP output lost momentum, down 6.2% YOY in Q3 due to the relative fat and protein values compared to other product combinations. In contrast, SMP production increased by 9.7%.

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EU

EU dairy commodity prices have remained remarkably resilient up to the second semi-lockdown period. From early September until the end of November, SMP prices increased by 1.3% or EUR 28/mt to EUR 2,165/mt, while butter prices strengthened by 1.2% or EUR 42/mt to EUR 3,482/mt. Gouda prices improved by 0.1% or EUR 2/mt to EUR 3,186/mt, while EU WMP prices retreated by 0.4% (EUR 12/mt) to EUR 2,716/mt. Spot prices for Mozzarella showed a stronger response to the current closure of foodservice establishments, retreating by 9.9% (EUR 275) to EUR 2,500/mt during the same period.

Stocks from the EU Private Storage Aid (PSA) program, which ended on June 30, have entered commercial channels. As of the end of October, cheese stocks fell by nearly 19,000 mt (43.3%), and butter and SMP stocks were drawn down by about 24,000 mt (55.5%) and 4,600 mt (31.3%), respectively. The remaining inventory will clear gradually before year-end. Anecdotal evidence suggests that year-end private stocks will not be at such an elevated level as previously anticipated due to the firm retail demand.

EU-28 exports remained relatively strong in Q3 considering the recent strengthening of the euro, low oil prices, and higher EU dairy commodity prices. WMP exports jumped 16.7% YOY or 13,600 mt, with Algeria (9,200 mt) accounting for most growth. EU cheese exports posted an increase of 3.8% or 8,600 mt YOY in Q3 2020, and growing export volumes offset losses to the US (9,300 mt or -21.6% YOY) to countries such as Ukraine (7,000 mt, or 113%) and Japan (4,200 mt or 14%). As a result of the weakened price competitiveness, EU butter exports declined by 5.8% or 3,400 mt, with trade volumes losing momentum in Asia, the Middle East, and Turkey. SMP exports plummeted by 13.1% or 32,500 mt YOY due to the high comparables from last year's large exports originating from EU-intervention stocks.

Uncertainties mar domestic consumption for next year. Rabobank foresees domestic consumption to remain flat to marginally decreased in 1H 2021, contributing to a YOY change in exportable surplus of 432,000 mt in LMEs. By 2H 2021, domestic consumption is expected to rebound, with the magnitude depending on the development of a Covid-19 vaccine and on economic growth, reducing the exportable surplus level.

Overall, the current market uncertainties keep suppliers from holding large stocks, while traders and buyers are hesitant to take (future) positions, which surprisingly results in a fragile equilibrium.

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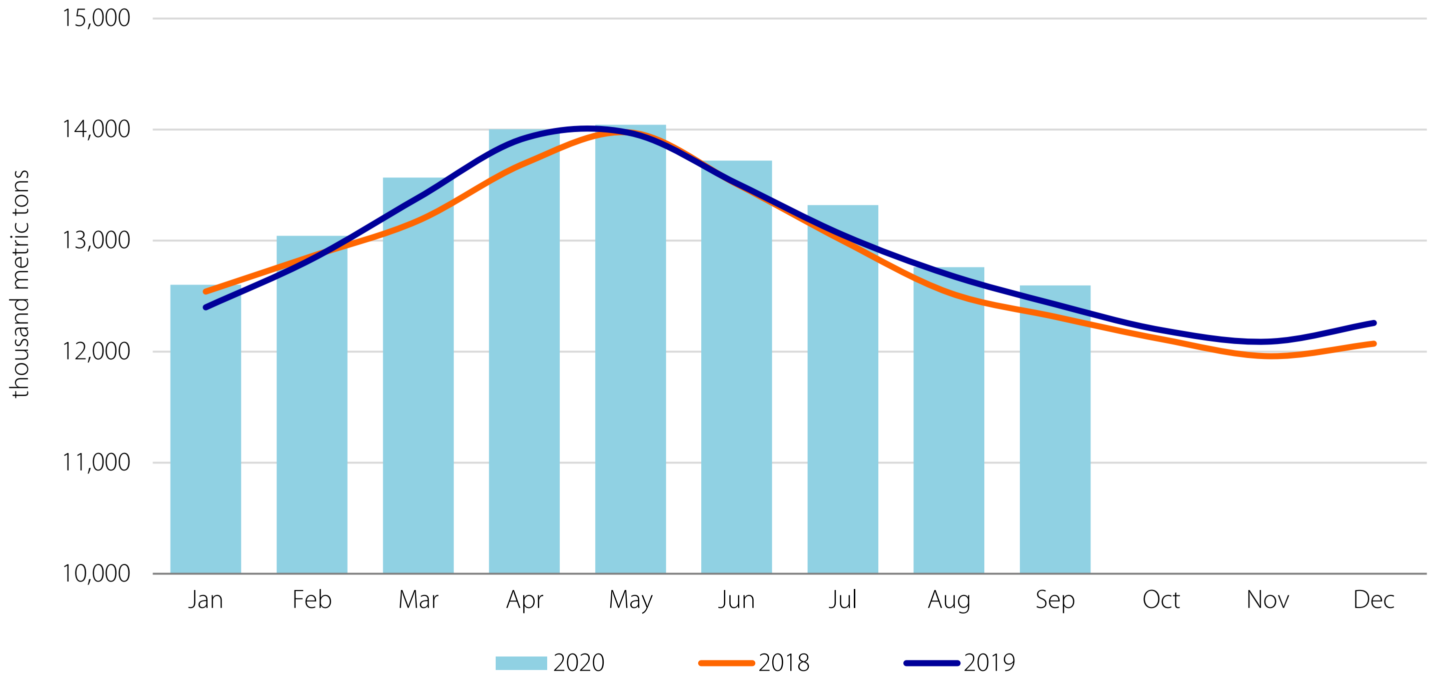
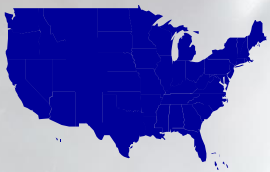
Figure 3: EU Milk Production, Jan 2018-Sep 2020



Source: ZMB, Rabobank 2020

US



Volatility is not going anywhere. Cheese prices have set record highs, followed by record-breaking declines in recent months. Milk prices have followed suit, with additional uncertainty stemming from federal order complications, including negative producer price differentials and opportunistic de-pooling of milk. With Covid-19 cases on the rise, trade converging back near year-ago levels, and no certainty of continuing the USDA food box program beyond December, volatility is likely here to stay. Dairy markets will have heightened sensitivity around news on any of these fronts.

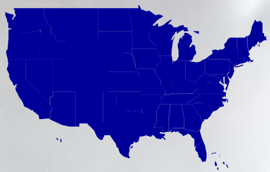
Year-on-year milk production is in growth mode with a growing herd and above-trend production increases. Through October, milk production is up 1.6% YOY. Much of the growth since June came from adding cows. The US milk cow herd stands at 9.39m head, up 40,000 since June and above the recent pre-Covid-19 peak in March. The ability for processors and cooperatives to handle the additional milk will be tested in the winter months and could result in the return of tiered-pricing and base programs to disincentivize further expansion.

Dairy product manufacturers continue to shift product mix. Total cheese production retreated by 0.6% YOY in October, and was down 0.1% on a daily average basis from September. Mozzarella production fell by 4.8% YOY, offsetting a 5.6% YOY increase in Cheddar output. Milk continues to flow into butter and powder to balance supply. Butter production was up 1.2% YOY in October, and 5.7% above September. Combined nonfat and skim milk powder output increased by 8.6% YOY. Export demand for powder has absorbed the extra output but the same is not true for butter.

Inventories have reverted to prior-year levels, except for butter, which remains elevated. Butter stocks were up 28% YOY at the end of October. Since US butter is typically 80% butterfat compared to the global market standard 82% butterfat, this is a problem the US will not be able to export its way out of but will instead rely on domestic consumption. Domestic demand for butter has been showing promise, up 3% through September, but the elevated inventory levels will continue to weigh on butter prices into 2021.

Above-trend increases in production are forecast to continue through Q4 at 2.2% YOY. We expect the brakes to be tapped on expansion in Q1 2021 following what is shaping up to be a perilous balance between supply and demand over the winter. Q2 2021 milk production is forecast to be up 2% against the weak Covid-19-disrupted second quarter of 2020, before settling into slightly below-trend growth near 1.2% for the remainder of 2021.

US



Total domestic dairy demand improved in Q3, up 1% YOY after negative growth through the first half. Butter demand showed an encouraging increase of 12.7% YOY in September. This may indicate optimism heading into the holiday baking season, but Q4 could test that if holiday gatherings are reduced. Total cheese demand is holding steady in-line with three-year average levels. Much more variability in demand is occurring in the 'other-than-American' style cheeses. This includes Mozzarella, which is susceptible both to pizza demand as well as USDA food-box purchases.

Strong US exports have been a critical factor supporting prices. Exports are up 15% year-to-October on a product volume basis. Drivers of this strength have been strong sales of whey to China (up 76% year-to-date) and SMP sales to the Philippines and Indonesia, up a combined 75% through October. A weakening US dollar will strengthen US competitiveness in global markets, but whether the surge in demand from China and Southeast Asia will continue is unclear.

Retail sales of dairy have remained elevated. Retail sales remain elevated for most dairy product categories, a trend that is likely here to stay for the duration of the pandemic, if not beyond. As colder temperatures settle in and rising Covid-19 cases result in closed restaurant dining rooms, a renewed shift away from foodservice and into retail is expected, but to a much lesser degree than during the early days of the pandemic.

Uncertainty remains around the future of the food box program. The USDA Farmers to Families Food Box program has been a significant pull on cheese, tightening fresh supplies and leading to higher prices. There is no indication that the program will continue beyond the current round, which runs through the end of December. However, the program which purchased over US 1bn in dairy products, was generally viewed as a success, and a reduced-scale return of a similar program is a possibility.

Rabobank forecasts continued modest growth in domestic demand of 1.9% in 2021. While the winter will involve greater potential for disruptions with further lockdowns and school closures, there is optimism about vaccine progress. In the meantime, consumers have adjusted to new take-out and curbside delivery routines. Demand growth in the first half of 2021 will be stronger at 2.5%, but that is compared against the weakened demand period during the pandemic's early months in 2020. The second half of 2022 is forecast to increase by 1.2% YOY.

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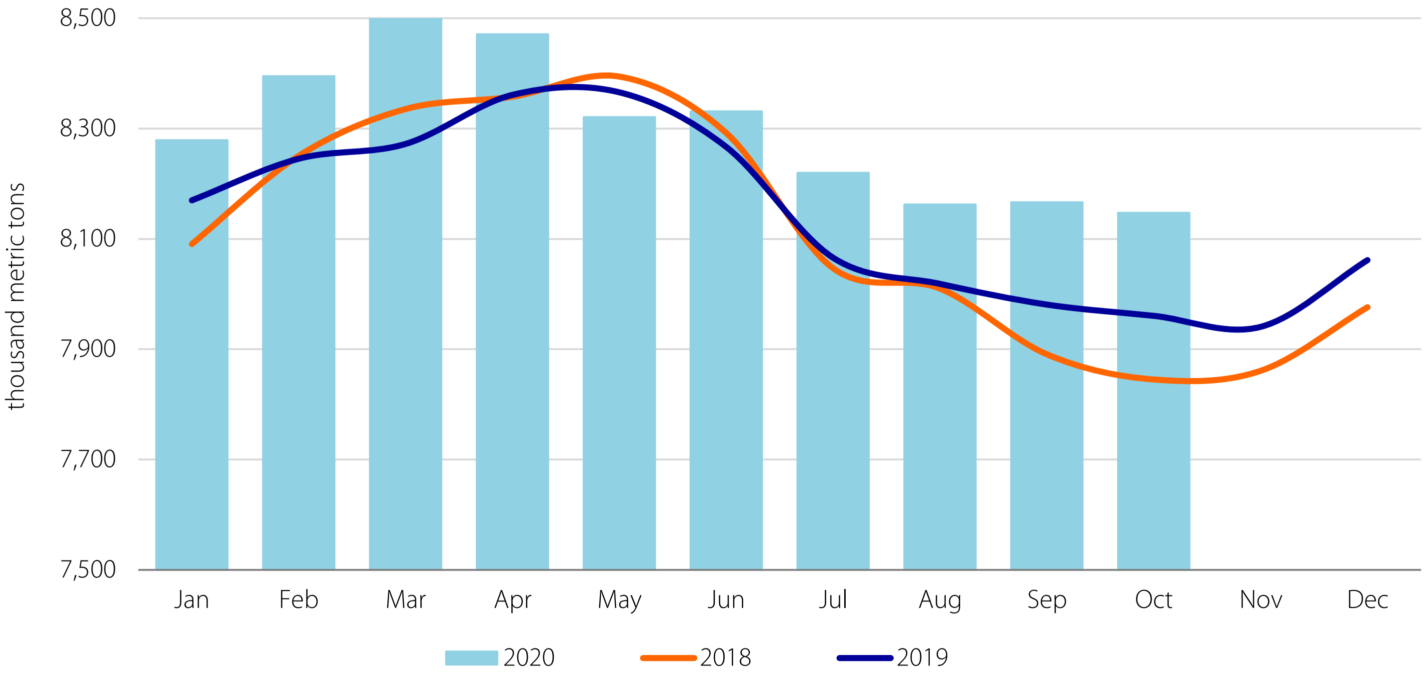
Figure 4: US Milk Production, Jan 2018-Oct 2020



Source: USDA, Rabobank 2020

New Zealand

The halfway mark for the 2020/21 season has seen milk supply growth slow in response to an unusually dry October. Reduced soil moisture levels in the Waikato and eastern coastal regions of the South Island, saw milk collections pull back on what had been an outstanding start to the season. For October, milk production was higher by 0.8% YOY: the slowest rate of growth for the season-to-date. Cumulative collections for the season so far are ahead by 2.1% YOY on a tonnage basis.

Meaningful rain across November eased the pressure on soil moisture levels, especially on the North Island. NIWA have confirmed the arrival of La Niña conditions impacting New Zealand's weather patterns. It will continue to intensify over the summer period and through to Autumn. NIWA note that this weather pattern is likely to bring drier conditions to southern South Island, while the north of the North Island is more susceptible to a wetter-than-usual summer period.

We anticipate New Zealand's milk production for the current season (ending 31 May 2021) to grow by around 1.5% compared to the prior season. This forecast assumes that the wetter-than-usual summer period in the North Island will aid milk production across the tail of the season.

Export volumes were higher by 3% YOY for the three months to October 2020, due primarily to strong Chinese demand, in addition larger shipments to Korea, Saudi Arabia and Sri Lanka

Demand has remained strong for New Zealand product over recent weeks. Nonetheless, it will be hard to match record November 2019 export volumes, despite a modest global milk production setting.

Complete environmental regulatory certainty remains elusive for New Zealand dairy farmers. A number of key issues are still to be decided upon in the short-term, including emissions metrics to meet domestic GHG reduction ambitions and the implementation and enforcement of some newly enacted regulations under recently announced freshwater reforms.

Rabobank forecasts the farmgate milk price to be NZD 7.00/kgMS, based on global commodity price expectations across the remainder of the 2020/21 season. This is in line with Fonterra's latest forecast farmgate milk price mid-point. The cooperative has recently lifted the lower end of their 2020/21 farmgate milk price forecast range by NZc 40, with the range now NZD 6.70/kgMS to 7.30/kgMS. Fonterra's latest milk price range is profitable for farmers, and the higher-end forecast range offers very attractive returns for New Zealand dairy producers.

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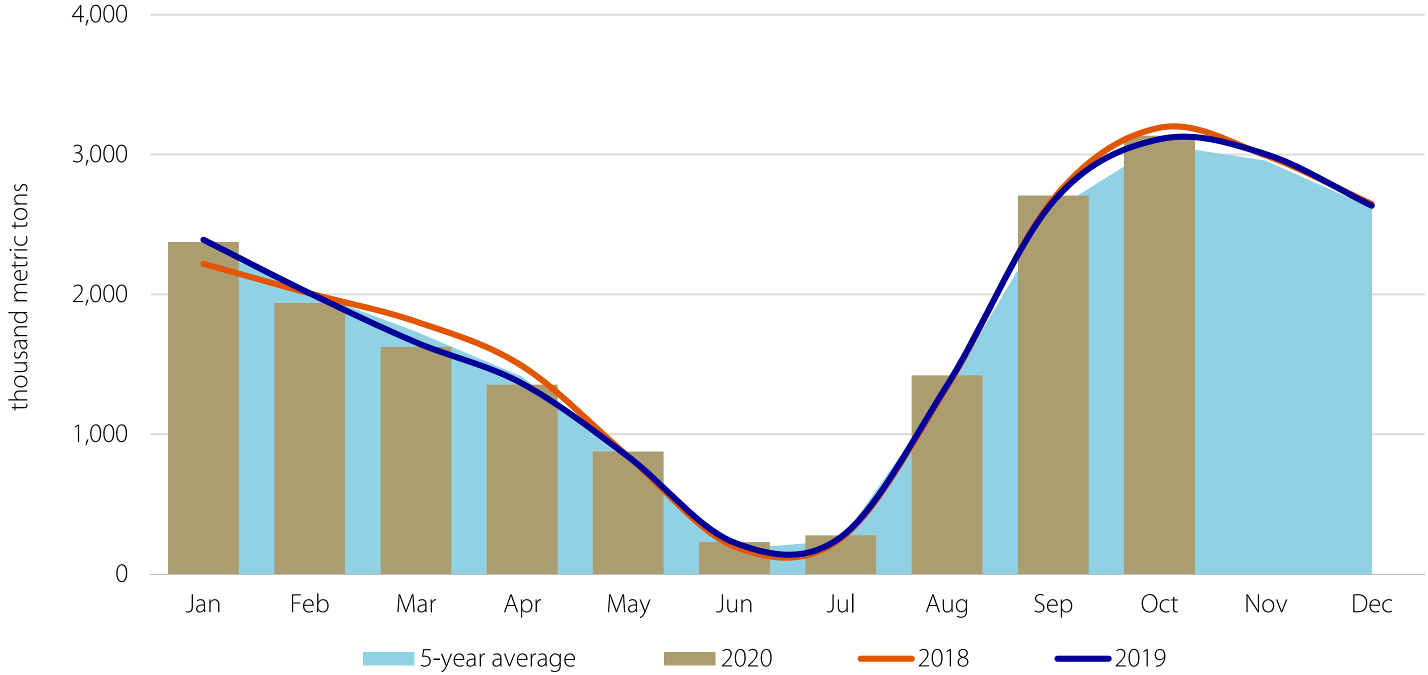
Figure 5: New Zealand Milk Production, Jan 2018-Oct 2020



Source: DCANZ, Rabobank 2020

Australia

In the first four months of the 2020/21 season, Australian milk production has expanded by 1.6%. There has been growth in all key dairy production regions on the east so far this season. The seasonal peak has passed (October). Rabobank has trimmed the full-year growth forecast slightly but is still expecting Australian milk production growth by 2.0% for the full-year reaching 8.95bn litres.

The latest Rabobank Rural Confidence Survey (December 2020) showed a strong lift in confidence levels among Australian dairy farmers. There is also an improvement in investment intentions.

The industry is on track for a second consecutive season of dairy farm profitability. Seasonal conditions in 2020/21 have been broadly favourable for Australian dairy farmers. The Bureau of Meteorology is forecasting December 2020 to February 2021 rainfall to likely be above average across most of Australia. In addition, purchased feed prices are lower than year-ago levels. A sizeable winter crop harvest is underway, which is likely to support cheaper feed bills through the remainder of the season. The one limiting factor on milk production growth is the national herd. Cull cow prices remain elevated. The rate of culling has slowed in recent months, and is coming off an extended period of higher rates through the drought period.

Rabobank's farmgate milk price forecast is at AUD 6.45/kgMS for 2020/21. This is broadly in line with official farmgate milk prices range.

The latest data showed some important shifts in the utilisation of milk solids. In 2019/20 Australian manufacturing favoured cheese production. Cheese production lifted by 2.3% to 371,000 metric tons. In contrast, output of milk powders dropped significantly with skim milk powder (SMP) falling 20% to 141,000 metric tons and whole milk powder (WMP) dropping 8% to 43,800 metric tons.

Close attention remains on the production shifts in the new season given the increase in milk solids, and weakness in end-user demand for cheese and butter due to food market shifts during the global pandemic. The latest export data provides some context. In the first quarter of the new season, total Australian dairy exports are up 12% on a volume basis. In the same period, SMP exports are 50% higher year-on-year and liquid milk exports are also up 12%.

Australia's exportable surplus will continue to expand through the rest of the 2020/21 season. While the domestic dairy market continues to perform well, and the Australian economy is well-placed in controlling the pandemic and re-opening, milk supply growth is outpacing aggregate domestic dairy demand.

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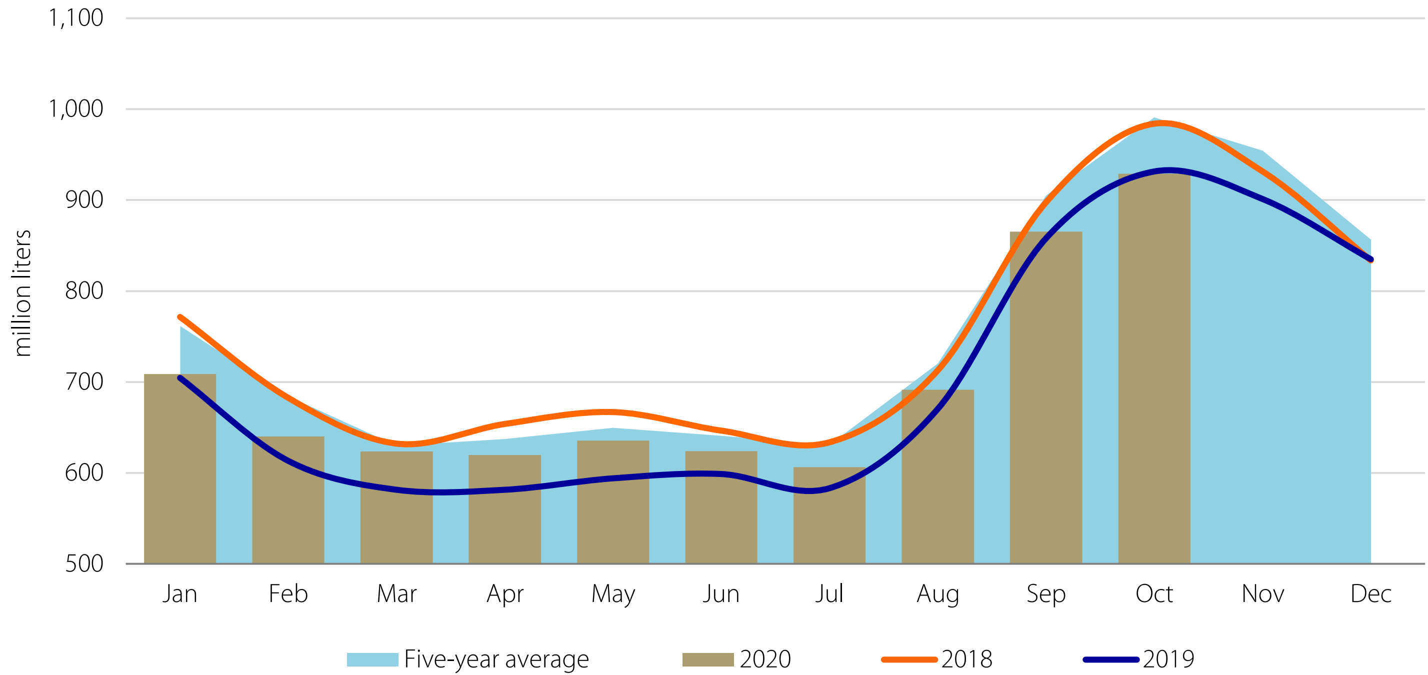
Figure 6: Australian Milk Production, Jan 2018-Oct 2020



Source: Dairy Australia, Rabobank 2020

Brazil

Farmgate prices hit an all-time record. Strong consumer demand remained during Q3 2020 as the government cash transfer program continued, albeit with reduced payments. Around 65m Brazilians received a monthly allowance of around BRL 600 (USD 110) during the first five months, followed by four months of BRL 300 (USD 55). This forced processors to source more raw milk as consumption rose with spending power. As a result, farmgate milk prices reached BRL 2.25/liter in October (USD 0.40/liter).

The outlook for the government support program is uncertain. The cash payment program designed as a response to the economic impact of the pandemic, helped lift economic activity and avoid a longer, more painful recession. Market consensus indicated that the Brazilian economy will probably shrink by around 4.5% of GDP in 2020, compared to projections for a 9% decline in May. The fiscal situation suffered significantly with government debt to GDP surpassing 90% in October. As a result, congress is unlikely to authorize further cash payments in 2021.

Production costs continue increasing but margins to stay positive as year begins. Dairy farmers have had to deal with record-high grain prices in Brazil this year. With the BRL losing over 35% of its value against the dollar, soy and corn prices have also moved sharply higher in the domestic market. This has challenged many dairy and animal protein producers in the country and is likely to continue to be an issue in early 2021. Rabobank forecasts soy prices to range between USD 12 and USD 12.40 per bushel in Chicago during 2021, a high level for dairy farmers locally and globally.

Production rebounded in 2H and should start 2021 positively. With record farmgate milk prices, milk producers had an incentive to accelerate production in Brazil during the second half of the year. After a contraction of 1.7% in Q2, milk output rebounded by an estimated 3% in Q3 and is expected to advance by an additional 1% in Q4. Overall, milk production should grow by 1% in 2020.

The current inertia of production should help keep production in expansion mode during the first half of the year, however elevated grain prices and dry weather are two factors that could limit production.

La Niña causing problems in Brazil. The confirmation of a La Niña weather pattern is causing dry weather in the south of Brazil and uneven rain in the center west and southeast.

Argentina

Production is losing momentum. After a robust Q2, with a growth of 10%, milk production has been losing momentum in Argentina during the second half of 2020. Output increased by 5% in Q3 and is forecast to grow by just 2% in Q4 2020. Farmgate milk prices have stagnated in recent weeks, as the government forces the entire milk sector to slow down price increases that should reflect rising inflation and production costs. Artificial price controls have reduced the industry's capacity to pay more for milk, decreasing farmers' margins. Farmgate prices in November have been at around ARS 20/liter (USD 0,25/liter), a level that leaves most farmers with very low margins.

Consumption steady but product mix changing. The onslaught of the Covid-19 pandemic has been severe for the Argentine economy, with some economists, including the IMF, forecasting a 12% contraction. Despite the severe impact on family income from such an economic contraction, government subsidies have helped dairy consumption to remain at around 180 liters per person in 2020, a similar level to that registered in 2019. However, consumers have traded down from fresh dairy products and hard and semi-hard cheeses to UHT milk and fresh cheese. Strong exports are helping processors but exchange rates remain problematic.

The growth in milk production registered in 2020 (Rabobank forecasts milk output to gain 6% to just under 11bn liters) has been largely destined to export as domestic consumption has been stagnant. Exports increased by 35% for the first nine months of the year, compared to the same period of 2019, to 260,000 metric tons. However, exporters continue to get paid at the official exchange rate, which is artificially set at a stronger level and reduces revenues.

High grain prices erasing farmers margins. As in neighboring Brazil, Argentine farmers have seen grain prices hit record levels in domestic prices during 2020. With the country's currency suffering against the USD and high dollar-denominated prices, the ratio between corn and milk and soy and milk has decreased significantly in recent months, meaning that dairy farmers must pay more for feed in terms of their milk. Six months ago, 1 liter of milk would buy 2.2 kg of corn and that ratio has declined to around 1.3 kg.

Milk production is set to decline in Q1 2021. Stagnant farmgate milk prices and very high feed costs are inevitably taking further steam out of Argentine milk production. The La Niña weather pattern is also bringing dry weather to key milk producing regions in Santa Fe and Cordoba, causing further problems for production in early 2021 and leading to a probable decline in output at the start of 2021.

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India

Milk production has slowed towards the end of the year. The onset of the flush season has not been as robust as in previous years. Reduced raw milk prices during the Covid-19 crisis reduced dairy farmer income. This has led to farmers in some states resorting to feeding a basic feed diet to cattle, which has led to reduced milk yields and lower raw milk supplies in November compared to the prior year. Informal channels show signs of recovery, though not fully. This has put pressure on cooperatives and private companies to compete for milk in some locations. However, favorable monsoon rains are expected to result in a good crop harvest and to support milk output.

Farmgate milk prices to continue to be bearish. The raw cow milk price in Maharashtra has not changed much over the previous months. However, for the reasons mentioned above, milk prices increased slightly in November. Current prices range between INR 24/liter to 25/liter (USD 0.34/liter to 0.36/liter) from INR 21/liter to 23/liter (USD 0.30/liter to 0.33/liter) vs. the prior month. Prices are forecast near current levels for the coming months.

Consumer demand for milk and dairy products is expected to remain strong. Demand has continued to remain strong over the past few months. The availability of products has improved on the retail shelves. The B2B segment shows signs of recovery but is expected to remain impacted in the next quarter. Cheese demand has improved but has yet to return to pre-Covid-19 levels due to the negatively impacted B2B/QSR segment.

Domestic milk powder prices are depressed. Domestic SMP prices remain unchanged over the past few months, ranging between INR 170/kg and INR 195/kg (USD 2,450/mt to USD 2,800/mt). Most companies continue to manufacture SMP. The incoming flush season will also lead to additional SMP production, despite a slight tightness in milk supplies in recent weeks. Rabobank expects domestic SMP prices to remain at these levels over the next quarter due to incoming flush with improvement expected towards end of Q1 2021.

SMP exports have been negligible so far in FY21 (April-Sept 2020). India has exported 1,298 metric tons of SMP in FY21 YTD (Apr-Sept) compared with 706 metric tons in FY20. The Gujarat state government announced support of INR 50 per kg (USD 700 per metric ton) of SMP exported from the state. This translates into total support of USD 21m to exporting 30,000 metric tons by March 2021 through this scheme. Though limited, this should help support the domestic dairy industry.

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China

Year-to-Q3 results from an aggregate of eight publically-listed national and regional dairy processors show mixed results. Topline sales growth in Q3 was positive, +11% YOY, but this represented a deceleration from a more substantial YOY growth of 19% during 1H 2020. This was driven by a strong Q2 sales recovery due to aggressive promotions. The slower quarterly headline sales growth rate likely reflects a relatively cautious consumer sentiment. Both gross profit margin and operating margin were squeezed significantly YOY and QOQ. This reflects the combined impact of China's raw milk price hikes in Q2 that extended into Q3, and the withdrawal of promotion activities as companies tried to balance volume growth with profitability.

Our previous quarterly indicated that milk prices started to recover as processing demand strengthened. Throughout Q3, the average milk price further rose to a six-year high of CNY 4.02/kg in Nov 2020 (USD 0.61/kg), according to the Ministry of Agriculture (MOA). With significant feed price increases (corn and soybean meal), milk prices needed to rise to induce production growth. The discount of Oceania WMP price has widened to 28% to the domestic average milk price, vs. 18% at the end of Q2, based on import parity.

China's National Bureau of Statistics (NBS) data indicates that milk production grew by 8.1% YOY during the first three quarters, implying an acceleration of growth to 8.5% YOY during Q3 (vs 7.9% YOY in 1H 2020), driven by renewed herd expansion which started last year.

Rabobank's dairy farming contacts confirm our earlier view that China's ambitious farm expansions may only materialize over multiple years. New projects are increasingly encountering headwinds from a shortage of imported Oceania dairy heifers and consequently higher investment costs.

Rabobank maintains its growth of 4% in 2H 2020, as consumers shift toward white milk, a combination of trading down and health consciousness, providing much-needed support to raw milk prices.

Looking forward, Rabobank retains a demand growth forecast of 9% YOY in 1H 2021 vs. a low comparison, and a 2H 2021 demand growth to 3% YOY. Rabobank maintains 2021 production growth forecasts at 6% YOY in 1H 2021 and 6.5% YOY in 2H 2021, based on a short-term push from strong year-to-date Oceania heifer exports to China. **Long-term milk production growth will depend upon continuous investments in dairy farming on the back of improved profitability and will be supported by the government's push to expand domestic supply aided by more flexibility in adhering to environmental protection regulations.**

Rabobank

China

Rabobank lifts its forecast for dairy import LME requirement for 2020 to 3% YOY for 2020, rather than a 4% YOY contraction, reflecting higher-than-expected imports in July-Oct 2020. Without the surge in whey imports, driven by the US 'phase-one' trade deal and further restocking of China hog herds, total LME imports would decline by 1% YOY in 2020.

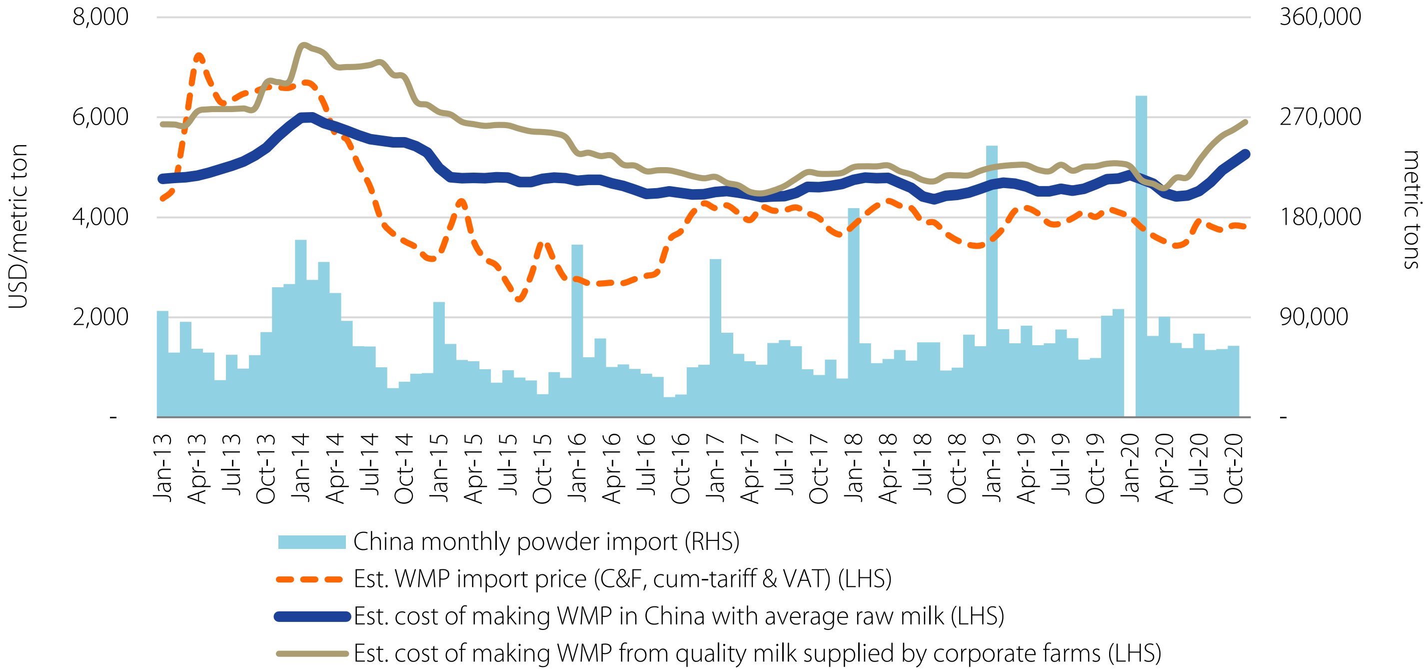
In 2021, Rabobank expects LME imports to fall by 12% YOY in 1H 2021 and to decline by 12% YOY in 2H (previously +2% YOY), for a full-year decline of 12% YOY (previously -6% YOY). This excludes whey, which is estimated to grow but slower than 2020 based on a continuous gradual hog herd rebuilding. Otherwise, the LME imports would decline by a larger 15% YOY.

China's Jan-Oct 2020 LME dairy imports grew by 4% YOY, primarily driven by YOY growth in whey (+37%), without which total LME imports would have been flat YOY. Butter and cheese imports posted strong growth YOY (butter: +41% on low comparables and cheese: +13%, -- this may have been driven by sequential improvements of foodservice restocking and the popularity of cheese snacks). Liquid milk imports increased by 11% YOY, while bulk milk powder and infant formula imports declined by 2% YOY and 3% YOY, respectively.

Strong production and flattish imports have exceeded the pace of consumption growth, leading to only marginal destocking in 2H 2020. Rabobank believes the Covid-19-related supply chain disruptions and rising geopolitical risks have prompted the Chinese dairy industry to carry larger stocks than in the more recent past. The distribution of the inventory can be uneven among the industry players and across categories. Excessive stocks are more likely in the form of infant milk formula than of ingredients. Domestic producers responded to the government's call to ensure supply security during late Q1 2020. The finished products in the distribution channels will need to be destocked over the next few months. Processors of liquid products, are increasingly enticed to import WMP for cost optimization due to rising domestic milk prices, especially in an environment where it has been difficult to pass higher milk prices onto consumers.

China's continuous interest in increasing safety stocks presents an upside risk to the import outlook. It is hard to gauge the level of 'suitable' safety stock required. It is also challenging to predict corporate strategies. Continuous promotions will be needed to move products faster when consumer confidence needs a lift. China's ongoing dairy sector investment spree to boost domestic sufficiency may present downside risks to milk prices and China's import needs as some of these projects materialize.

Figure 8: China WMP Import Parity, Jan 2013-Oct 2020



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

Table 1: Quarterly Dairy Commodity Prices (Historic and Forecast), Q4 2019-Q1 2022f

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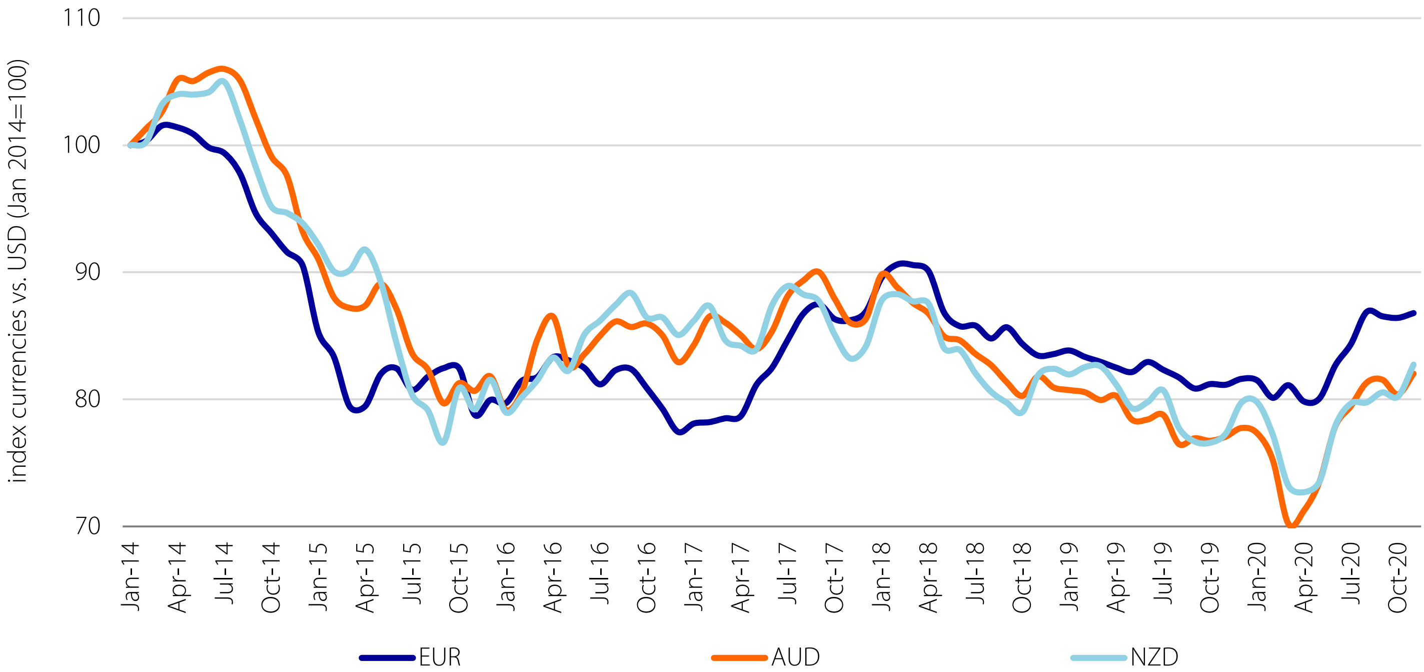
		2019	2020				2021				2022
		Q4	Q1	Q2	Q3	Q4e	Q1f	Q2f	Q3f	Q4f	Q1f
Butter											
Europe	EUR/mt	3,635	3,575	3,023	3,408	3,470	3,350	3,400	3,500	3,550	3,550
US	USD/mt	4,576	4,025	3,145	3,521	3,255	3,415	3,750	4,040	4,040	3,930
Oceania	USD/mt	4,075	4,143	3,935	3,446	3,725	3,800	3,850	3,900	4,000	4,000
Cheese											
Europe (Gouda)	EUR/mt	3,178	3,284	3,122	3,113	3,180	3,125	3,150	3,175	3,175	3,175
US (Cheddar)	USD/mt	4,551	3,900	3,613	4,756	4,665	3,650	3,915	3,970	4,005	3,860
Oceania (Cheddar)	USD/mt	3,796	4,229	4,140	4,300	3,730	3,600	3,800	3,800	3,900	4,000
Dry whey powder											
Europe	EUR/mt	735	793	738	724	735	760	760	750	750	750
US	USD/mt	717	794	822	733	845	925	905	880	880	840
Skim milk powder											
Europe	EUR/mt	2,430	2,511	2,031	2,118	2,170	2,200	2,225	2,250	2,300	2,300
US	USD/mt	2,547	2,650	1,995	2,157	2,395	2,480	2,565	2,595	2,630	2,600
Oceania	USD/mt	2,902	2,946	2,569	2,809	2,650	2,700	2,700	2,700	2,800	2,800
Whole milk powder											
Europe	EUR/mt	3,016	2,998	2,683	2,734	2,725	2,725	2,725	2,700	2,700	2,700
Oceania	USD/mt	3,240	3,039	2,756	3,039	3,025	3,100	3,100	3,000	3,000	3,000
South America	USD/mt	3,100	3,050	3,050	3,050	3,050	3,150	3,150	3,050	3,050	3,050

Source: USDA, forecasts by Rabobank 2020

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



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

RaboResearch Food & Agribusiness

Global Dairy Sector Team

Lead author: **Andrés Padilla**
Senior Analyst, Brazil
andres.padilla@rabobank.com

Mary Ledman
Global Strategist
mary.ledman@rabobank.com

Richard Scheper
Analyst, Europe
richard.scheper@rabobank.com

Sandy Chen
Senior Analyst, China
sandy.chen@rabobank.com

Ben Laine
Analyst, US
ben.laine@raboag.com

Shiva Mudgil
Analyst, India
shiva.mudgil@rabobank.com

Emma Higgins
Senior Analyst, New Zealand
emma.higgins@rabobank.com

Daniëlle Duijndam
Analyst, Europe
danielle.duijndam@rabobank.com

Michael Harvey
Senior Analyst, Australia
michael.harvey@rabobank.com