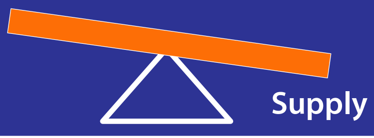

Teetering on the Edge

Global Dairy Quarterly Q4 2021

RaboResearch Food & Agribusiness

December 2021

Rabobank

Summary

- ***Dairy markets are teetering at levels not seen since 2014.*** Weather-related issues decimated Oceania's peak production and margin erosion in the US and Europe stymied growth, resulting in a YOY deficit that was too deep for favorable milk production gains in South America to offset. As a result, Q4 2021 milk production in the Big 7 exporting regions is expected to decline by 0.3% vs. last year's high comparable. This is the first quarterly YOY decrease since 2019.
- ***Farmgate milk prices have followed commodity prices higher worldwide, with more potential upside in some regions.*** Still, rising costs of inputs, lack of labor, unfavorable weather, and questionable feed quality will limit the production response by producers.
- ***Dairy exports slowed in response to logistic disruptions, rising transportation costs, and elevated commodity prices.*** Global dairy exports based on product volume ran 6% ahead of the prior year during 1H 2021, but slowed to 2% in Q3.
- ***A slowdown in import demand from China is expected and is needed to cool prices in the face of limited supply-side increases.*** Chinese buyers are torn between the bullish sentiment outside China and the current weak fundamentals within China to decide whether, when, and at what price levels they should return to the market.
- ***Despite rising inflationary pressures, consumers have yet to face sticker shock for dairy products in most countries, supporting demand.*** That will not be the case in 2022, as higher commodity prices from 2H 2021 are passed through to consumers.
- ***New variants of Covid-19, inflation, labor and logistic challenges, along with others weigh on the global economic recovery with the potential for global dairy markets to teeter or totter.***

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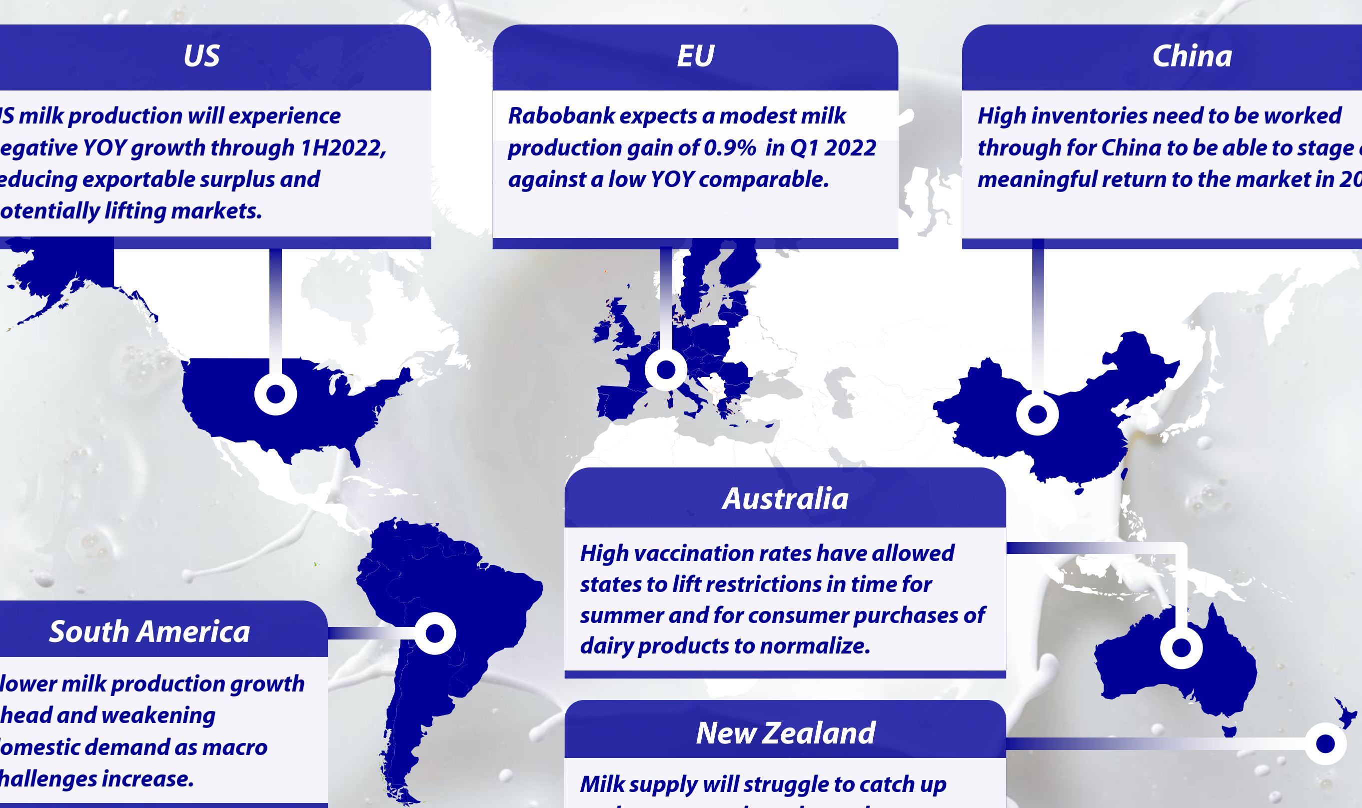
Regional Dairy Markets



US

US milk production will experience negative YOY growth through 1H2022, reducing exportable surplus and potentially lifting markets.

EU

Rabobank expects a modest milk production gain of 0.9% in Q1 2022 against a low YOY comparable.

China

High inventories need to be worked through for China to be able to stage a meaningful return to the market in 2022.

Australia

High vaccination rates have allowed states to lift restrictions in time for summer and for consumer purchases of dairy products to normalize.

South America

Slower milk production growth ahead and weakening domestic demand as macro challenges increase.

New Zealand

Milk supply will struggle to catch up and to recover the volumes loss over peak collection.

Global Summary

After nine consecutive quarters of uninterrupted YOY increases, global milk supply growth in the Big 7 exporting regions halted in Q3 2021. It will dip into negative territory in Q4 2021. Forecasted YOY gains in 1H 2022 are muted at less than 0.4% against 2021's 1H high comparable of 1.8%. A modest recovery in 2H 2022, at 1%, is anticipated but will require favorable weather and tempering of feed costs.

Farmgate milk prices are approaching new highs in Oceania, with European and US prices in close pursuit. However, farm margins around the world remain tight. High feed prices and general input cost inflation are common themes across the major milk-producing regions. The ability to withstand the rising cost pressures is highly dependent on the milk price. Much of the world is experiencing adequate milk prices to offset higher costs, but not high enough to facilitate expansion.

Feed costs are higher, without much hope on the horizon for a turnaround. The US corn crop was better than feared, but rising crude oil prices support ethanol production, which is driving demand for corn and supporting current price levels. Uncertainty around the availability and cost of fertilizer has raised concerns over crop yields for the next season.

Dairy exports are slowing in response to logistic disruptions, rising transportation costs, higher commodity prices, and lower supply. Based on Rabobank's supply and demand forecasts, exports in liquid milk equivalents are expected to decline YOY from Q4 2021 through 2022, a duration not previously experienced.

Exceptional Chinese milk powder demand set the stage for prices to ascend to levels not seen since 2014. Since then, there has been limited upside in global milk powder prices due to removing the EU milk quotas and related large stock levels. But those days and stock levels are behind us. We do not foresee any regulatory or market conditions that would result in the elevated stock levels that persisted from 2016 to 2019, capping milk powder prices.

Currently, in the absence of rapid supply growth and government-held stocks, we see the potential for market upside. ***As a result, milk powder prices are likely to revert to the price levels and volatility experienced from 2010-2014, when SMP and WMP prices averaged 40% and 25%, respectively, above 2015-2019 averages.***

As 2021comes to an end, concerns are mounting that the new Omicron variant of Covid-19 will result in travel restrictions and other constraints, hampering the global economic recovery.

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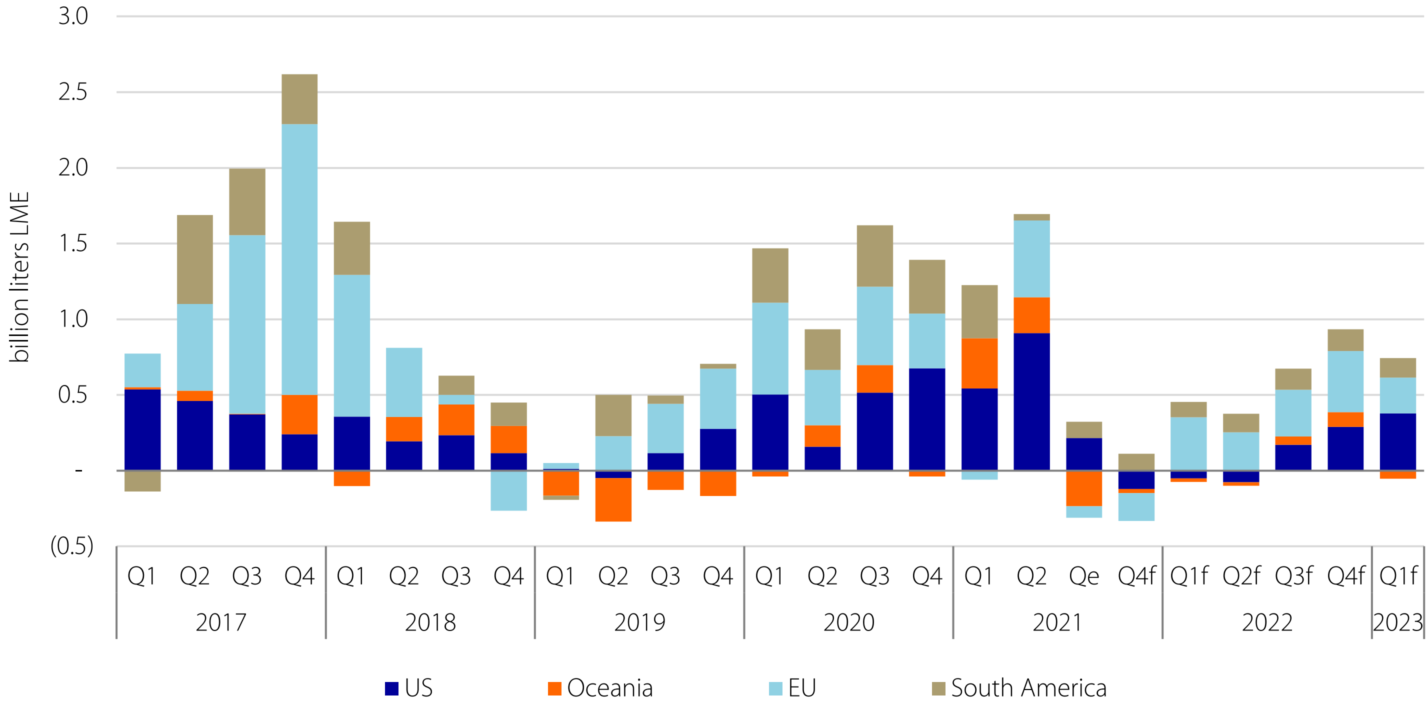
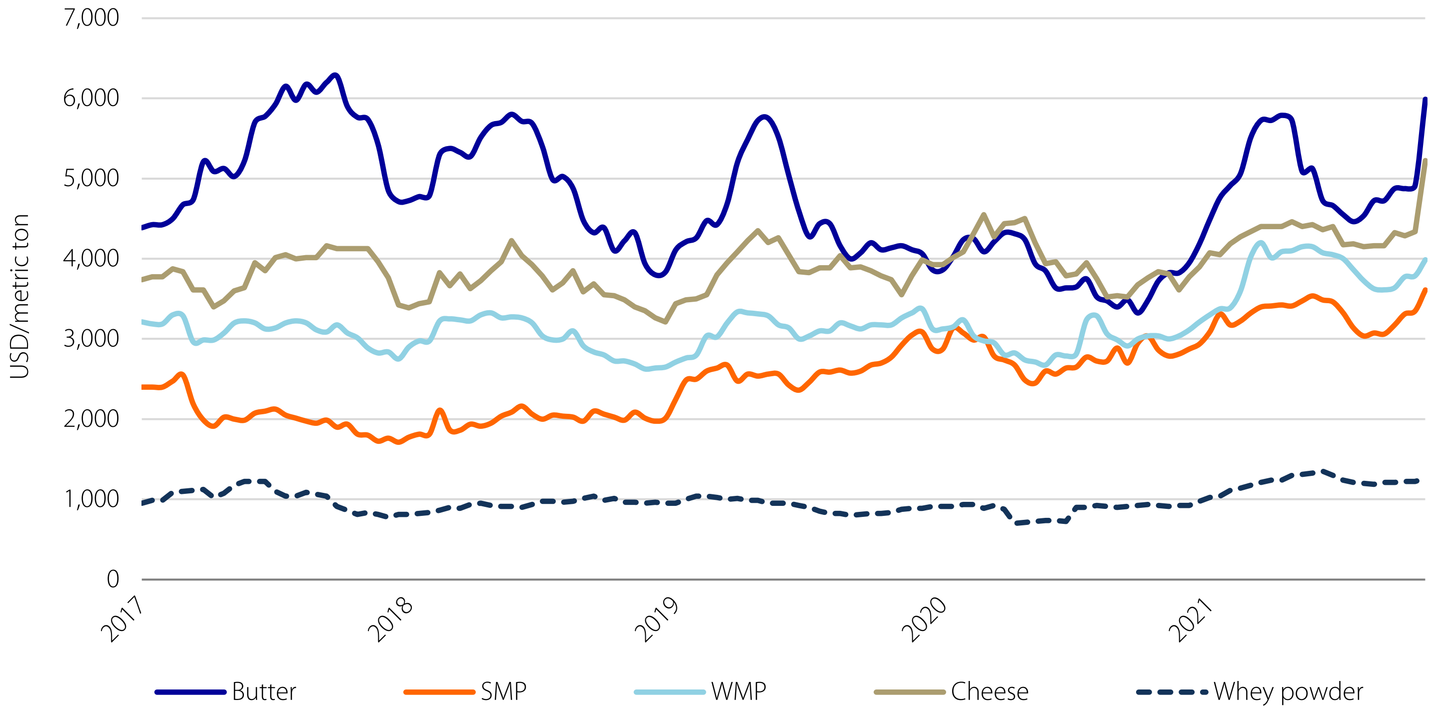
Figure 1: Milk production growth, Big-7 exporters (actual and Rabobank forecast), Q1 2017-Q1 2023f*



** Big-7 includes the EU, US, NZ, Australia, Brazil, Argentina, and Uruguay.*
Source: Big-7 government industry agencies, Rabobank 2021

Figure 2: Dairy commodity prices, FOB Oceania, 2017-2021*



** Whey is FOB in Western Europe.*

Source: USDA, Rabobank 2021

What to watch in 1H 2022

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Inflation is rampant across the food system

Dairy and food companies are experiencing inflationary prices beyond dairy inputs. Costs and disruptions are being felt in everything from energy to packaging to labor. Eventually, as consumers face price hikes, demand will be negatively impacted, particularly in emerging economies. Consumers will be bracing for cost-of-living pressures through much of 2022.

Regional differences in pandemic response

The timing of Covid-variant outbreaks and vaccine availability differs significantly by region, and future flare-ups remain a risk. While consumers and supply chains have adapted well to varying degrees of lockdown in the US and EU, port disruptions and school and workplace closures continue to hamper a full global economic recovery. In some emerging economies, low vaccination rates pose ongoing risks to food markets.

Chinese import appetite

Rabobank expects China's import demand, due to ample domestic stocks, to trend sharply lower in Q4, ahead of the typical large arrivals in January. However, China's Ministry of Commerce issued a notice in November directing local governments to encourage its citizens to stockpile daily necessities to meet the needs of daily life and emergencies, which could support purchases of shelf-stable milk and yogurts.

Supply risks will linger into 2022

Milk production growth has stalled, and the perils to the production risks will linger into 2022 for many dairy farmers. However, the cure for high prices is high prices. Look for the US to be the first to turn on the tap. Margin pressure prompted a 107,000-head US culling spree from May to October 2021. Class III and IV milk futures for 2022 are above USD 18/cwt and USD 19/cwt, respectively, boosting producer confidence in the new year and stabilizing the herd before further expansion.

Procurement strategies

More broadly, dairy ingredient buyers worldwide are grappling with the right procurement strategies in the face of rising raw material costs, shipping delays and some uncertainties in end-user demand. The rapid reversal in milk supply growth in 2H 2020 reminds us that risk management tools can provide producers, processors, and end users more predictable prices.

EU

EU-27 and UK milk deliveries in Q3 2021 were even weaker than previously anticipated, with a decline of 0.2% YOY. Especially in Germany (-1.8% or 141,000 metric tons), France (-1.0% or 59,000 metric tons) and The Netherlands (-2.9%, or 99,000 metric tons) there was a sharp drop in milk volumes, with September deliveries even down 2.8%, 2.4% and 4.1% YOY respectively. The UK recorded a decline of 0.6% in September. Early figures for October also indicate a significant drop in milk volumes for these countries, which combined account for more than 50% of the EU's annual milk volume. On a positive note, Ireland (5.3% or 140,000 metric tons) and Italy (3.4% or 103,000 metric tons) continued to record a strong milk supply growth in Q3. Still, except for somewhat lower comparables, there are no signals that milk delivery growth will return to positive territories in the two closing months of 2021. Overall, we expect EU milk deliveries to decline by 0.5% YOY in Q4.

EU-27 average farmgate milk prices jumped by 5.6% from July to an estimated average of EUR 38/100kg in October. Rabobank expects farm gate milk prices to further increase above EUR 40/100 kg by the start of 2022, exceeding the three-year average of EUR 34,50/100kg – but rising costs for feed, fertilizer, labor, and energy will continue to keep a lid on margin improvements.

Looking ahead to next year's milk deliveries, Rabobank expects a modest gain of 0.9% YOY in Q1 2022, against a low YOY comparable. Assuming normal weather conditions, Rabobank anticipates an increase of 0.6% YOY in Q2, followed by a 0.9% YOY gain during 2H 2022 – against the current contraction in milk volumes.

After a quiet summer holiday period, dairy commodities staged a strong price rally, driven by limited global supply growth. Between September and mid-November SMP prices rose by 17.3%, or EUR 446/metric ton, to EUR 3,020/metric ton, while EU WMP prices lifted by 14.6%, or EUR 465/metric ton, to EUR 3,650/metric ton. Butter prices jumped by an impressive 30.6%, or EUR 1,227/metric ton, to EUR 5,230/metric ton. Gouda prices increased by 7.5%, or EUR 251/metric ton, to EUR 3,590/metric ton. Meanwhile, month-ending November spot prices for Gouda (foil) and Cheddar cheese are just above EUR 4,000/metric ton.

Looking ahead towards year-end and Q1 2022, market fundamentals support elevated prices. An easing of dairy commodity prices may arrive during the northern hemisphere flush. That is, if the peak production period coincides with lower import demand or weaker domestic demand from lingering uncertainty in food service, rising inflationary pressures on consumer purchasing power, and a more competitive domestic (retail) landscape.

EU

EU exports of the primary dairy commodities fell slightly by 1.2% in LMEs in Q3 2021. Cheese exports posted an increase of 7.8% YOY, or 18,350 metric tons, in Q3 2021, while liquid milk exports fell by 2.0%. SMP exports declined by 4.9% or 10,500 metric tons, while WMP volumes fell by 12.4% or 11,800 metric tons. Butter exports increased by 1.0% or 560 metric tons. Looking forward to the remainder of 2021 and Q1 2022, we expect lower YOY exports due to a combination of the tight domestic market, regional price differences, and higher shipping costs.

Industry contacts indicate that the recent Algerian ONIL tender included only 10,000 to 15,000 metric tons for both WMP and SMP. Most of the accepted WMP offers were from Uruguay. Prices, including freight and insurance costs, ranged around USD 4,350 metric tons (about EUR 3,615 metric tons FOB) for WMP and USD 3,850 (about EUR 3.150 metric tons FOB) for SMP. There was little interest from EU sellers with current (spot) and ZuivelNL prices for WMP already in the range of EUR 3,800 metric tons. The market participants anticipate another tender in Q1 2022 due to the low volumes at this tender, lower YTD Algerian milk powder imports, and the start of Ramadan on April 1, 2022.

Although the situation differs across member states, most countries face a severe relapse in terms of (semi-) lockdown measurements. As we enter December, the number of Covid infections and hospital submissions has jumped, forcing authorities to (re) introduce (semi-) lockdown measurements, leading to further food market channel disruptions. In general, we anticipate limited impact on the dairy markets and consumption volumes. Still, the prolonged the uncertainty causes some buyers and traders to hesitate from taking large future positions.

Overall domestic demand remained firm in Q3 2021, with continued solid retail demand and the foodservice channel benefiting from pent-up demand. As the winter months approach, we expect retail sales and e-commerce to benefit from the new round of Covid measurements. For dine-in restaurants, the timing of the new restrictions is very inconvenient with the Christmas holidays less than a month away. For FY2022, Rabobank expects a modest increase in consumption of 0.3% YOY. The onset of (food) price inflation increases the risk of consumers trading down from branded to private label products in the retail channel.

Meanwhile, GDP growth in the eurozone remained positive with a gain of 2.2% QOQ in Q3 2021. For 2022 Rabobank anticipates an increase of 3.9% YOY. Nonetheless, inflation and the macro impact of the new rounds of Covid measurements remain a ‘what to watch’.

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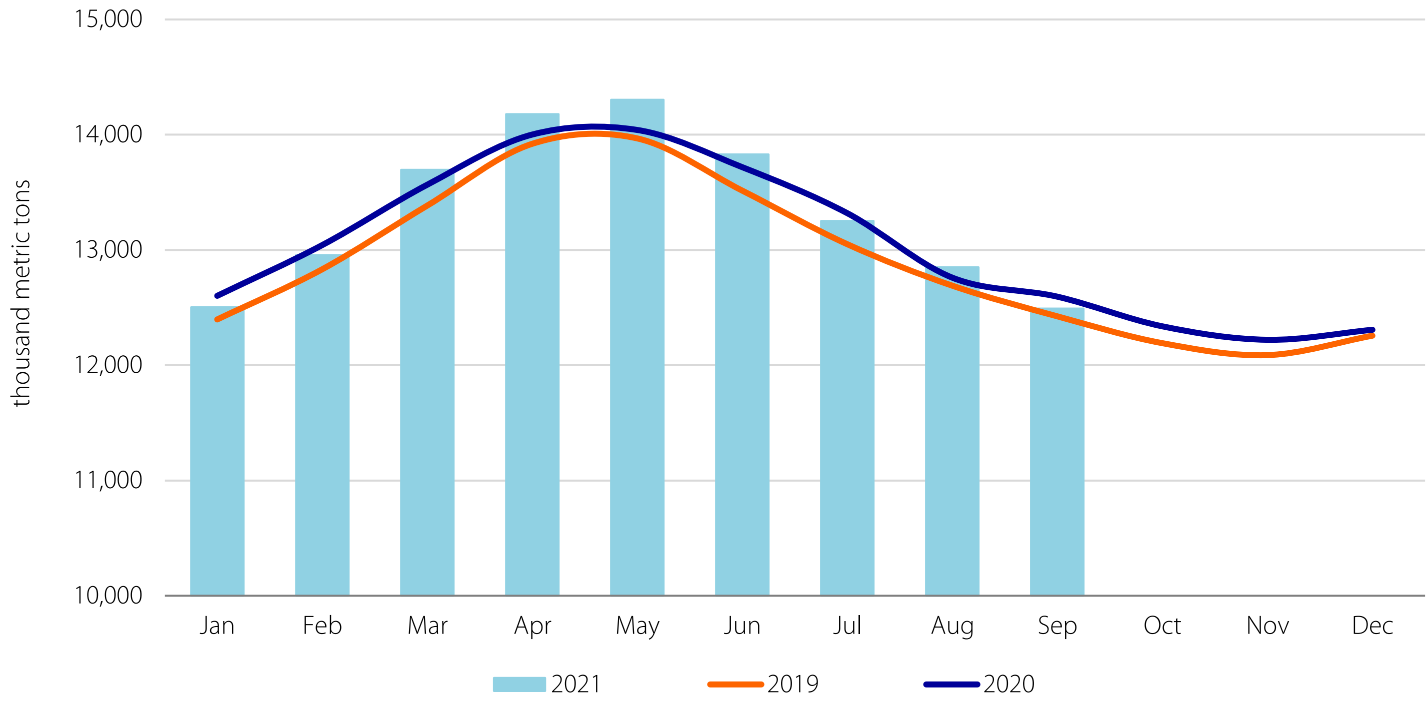
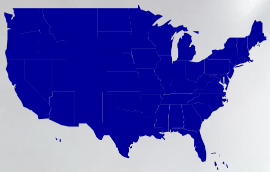
Figure 3: EU milk production, Jan 2019-Sep 2021



Source: ZMB, Rabobank 2021

US



The US milk cow herd has declined dramatically from its peak just above 9.5 million head in June. Since then, 107,000 cows have left the milking herd in response to ongoing margin pressure and an uncertain feed situation ahead. After the demand shocks of 2020, the milk supply is again driving dairy markets in 2021 and should continue to do so in 2022.

US milk production fell into negative YOY territory in October amidst lackluster gains in milk-per-cow and declining cow numbers. We expect further negative YOY growth in the months ahead. Rabobank forecasts milk production to finish Q4 2021, down 0.5% and remain negative by 0.2% for the first half of 2022, before growing again.

Higher milk prices are good news for dairy farmers but are insufficient to drive a significant expansion in the US dairy herd, past the 150,000-head rise and fall experienced during 2020 and 2021. Higher construction costs and labor challenges will limit the incentive for any expansion requiring new barns and milking parlors.

The rapid contraction in milk production has tightened markets and strengthened milk prices. Less milk heading into butter and milk powder (down 4.9% and 10.7%, respectively YOY in September) has lifted class IV prices. Lower butter production brought stocks below the prior year's level and pushed the butter market above the USD 2/lb mark for the first time since 2019.

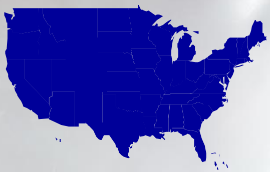
American cheese production remains elevated, and stocks have grown counter-seasonally from June through October, reaching 12% above year-ago levels. Still, the market for fresh cheddar cheese has buoyed both block and barrel cheese prices, but rarely at the same time, resulting in widening block-barrel price spreads.

Multiple plans for new and expanded cheese manufacturing plants have been announced recently. While most of these will not be operational during our forecast period, they will eventually increase US cheese and whey production and contribute to a shift in the geography of the milk production sector.

In the near term, while not enough to move the dial on dairy product production yet, many manufacturers have reported challenges finding workers and have resorted to reducing shifts. While not unique to the dairy sector, these labor disruptions intertwined with logistics challenges will continue to cause headaches along the supply chain in 2022.

With strengthening class IV milk prices driven by improving butter markets and strong demand for SMP and NDM, we expect class IV milk prices to move above class III during Q4 2021 and remain there for most of 2022. While this could trigger some re-pooling and de-pooling within federal orders, the price spread between class III and IV should be within a comfortable range and minimally disruptive to markets.

US



Domestic demand continues to improve, alongside a return to in-person conferences, events, and sit-down dining, which benefit butter and fat demand. OpenTable data indicates seated-dining activity in the US is near 2019 levels among restaurants that remain open. US foodservice demand is unlikely to backslide dramatically in response to further pandemic outbreaks, though response to the Omicron variant over the winter will be an important test.

Exports remain strong, up 13% in product volume YTD through September. Nonfat Dry Milk and whey are both higher by12% YTD thanks to ongoing firm purchases from Mexico and China, respectively. While there is uncertainty about China's import needs for milk powder, whey should be relatively insulated from this and demand ought to remain robust.

CME spot NDM prices, above USD 1.50/lb, may have some end users considering ingredient reformulations. WPC 34 can replace NDM in some ingredient applications when prices are favorable for extended periods. This provides an additional layer of support to whey prices.

US dairy exports have continued to move abroad despite ongoing logistics challenges. Still, behind the positive YOY gains are elevated freight costs, widespread delays, and other headaches with little relief in sight. The strong export levels have been critical to the strength of US demand in 2021, but there are no guarantees that these levels will continue uninterrupted.

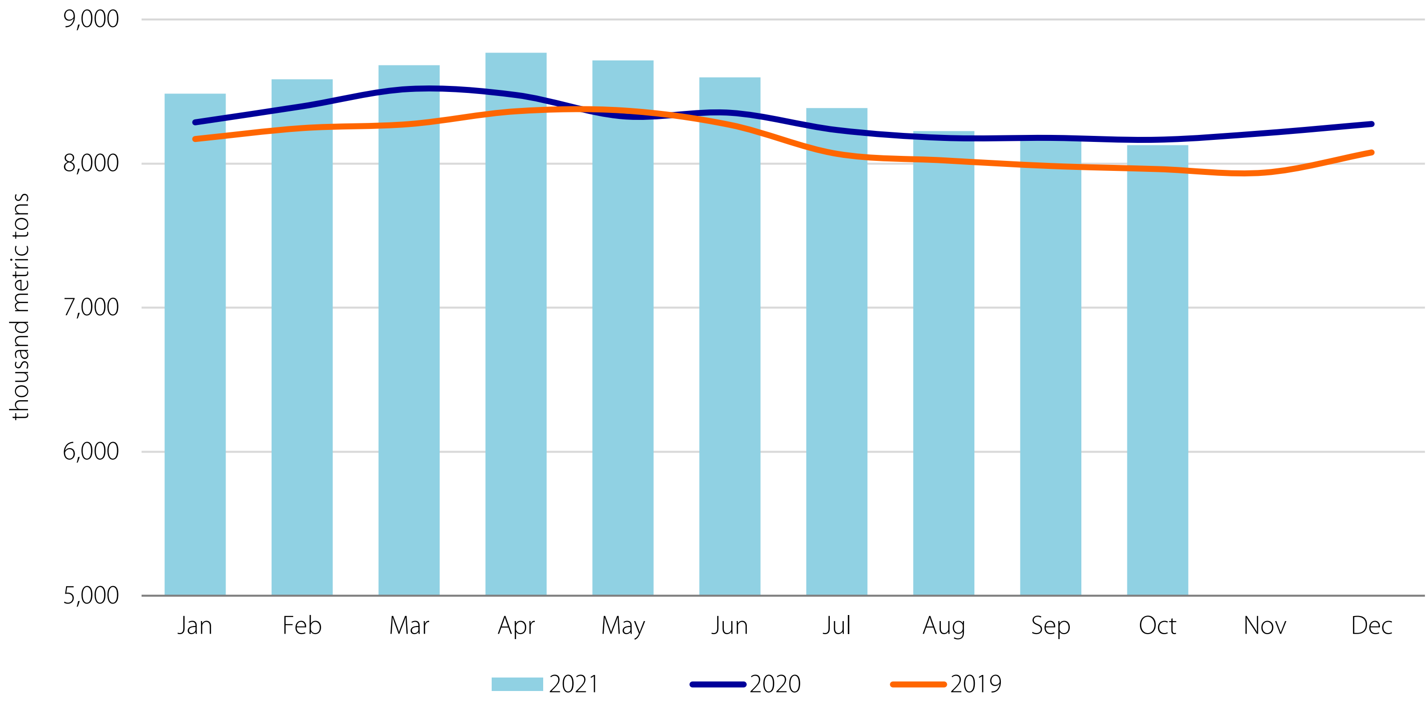
Retail sales of fluid milk have returned to negative growth, down 7% YOY in volume during the four weeks ending November 14, but rising prices have supported the dollar value of those sales flat against last year. Cheese sales have also experienced negative growth, down 2.5% YOY in the four weeks ending November 14.

Slower retail volumes at this point are a function of the ongoing return to foodservice channels, as well as difficult-to-match comparables in 2020. These patterns should continue in the months ahead as retail sales normalize. Still, pressure on budgets due to higher inflation or further restrictions in response to the Omicron variant could shift some demand back toward retail in 2022.

Commercial disappearance in Q3 2021 increased 0.5% YOY in terms of total milk solids. Export disappearance was up 11.4% YOY, while domestic disappearance increased a more modest 0.5%. Domestic demand is forecast to remain relatively flat YOY in Q4 2021 and Q1 2022, before returning to more normal growth rates of near 1% YOY for the remainder of 2022 into 2023.

Forecasted milk production below a year ago levels through 1H 2022 puts dairy commodity prices at elevated levels until the spring flush, unless there is an unforeseen significant drop in domestic or export demand.

Figure 4: US milk production, Jan 2019-Oct 2021



Source: USDA, Rabobank 2021

New Zealand

Export volumes for the three months to October 2021 dropped by 2% on the same period last year. While exports to China were exceptionally strong (+18,000 metric tons) over this period, it wasn't enough to offset a significant decline in volumes by Sri Lanka and, to a lesser extent, Algeria, the Philippines, Korea, and Saudi Arabia.

Milk production has only recently started to benefit from more sunshine and warmth for much of the country. Unfortunately, the change to more favorable weather was too late for the peak milk month of October, when collections dropped by 3.3% YOY. There have now been three consecutive months of milk supply slipping backward against 2020 since August 2021.

Farmers are making the most of better grass growing conditions and, where possible, are harvesting supplementary pasture to help plug any gaps that might appear over the summer. However, feed quality could be an issue due to wet and grey growing conditions in some areas.

Cash flows remain sound, with the Fonterra mid-point lifting at NZD 8.70/kgMS. Cost structures are also rising, led by a leap in fertilizer and fuel prices compared to a year ago. Despite this, margins range from generally profitable to very profitable. Available cash flow is being directed at paying down debt or set aside for tax and more automation, R&M, and preparing for tighter environmental regulations. Diversification is also a discussion point at kitchen tables.

A particular pain point on farms is labor availability. Farms with scale and more staff are faring better in the competitive labor market, compared to mid-to-small-sized operators with less staffing flexibility when it comes to rosters. A particular watching point is how resourcing scarcity might further compound over the coming six months as the Delta variant of Covid-19 spreads throughout New Zealand.

Despite higher cost structures and resourcing issues, farm sales have kicked back into life. Dairy farm sales prices are firming up, reflecting higher confidence in the industry and intense competition for alternative land uses.

Rabobank's milk production forecast for the entire 2021/22 season is -1% YOY. In a high milk price environment and depending on cow condition, it is possible that there will be a late run to recover some of the lost production so far. But our base case assumes the weaker peak will be hard to recoup across the season – especially given lingering challenges to milk production in parts of Canterbury and in addition to high comparables to match from February onwards.

Rabobank forecasts a milk price for the 2021/22 season of NZD 8.80/kgMS. Lower milk production supports a higher milk price forecast. Weaker demand from China over the coming weeks will continue to be a watching brief. Still, supply uncertainty and scarcity buying will have a more significant impact on commodity prices and ultimately the farmgate milk price.

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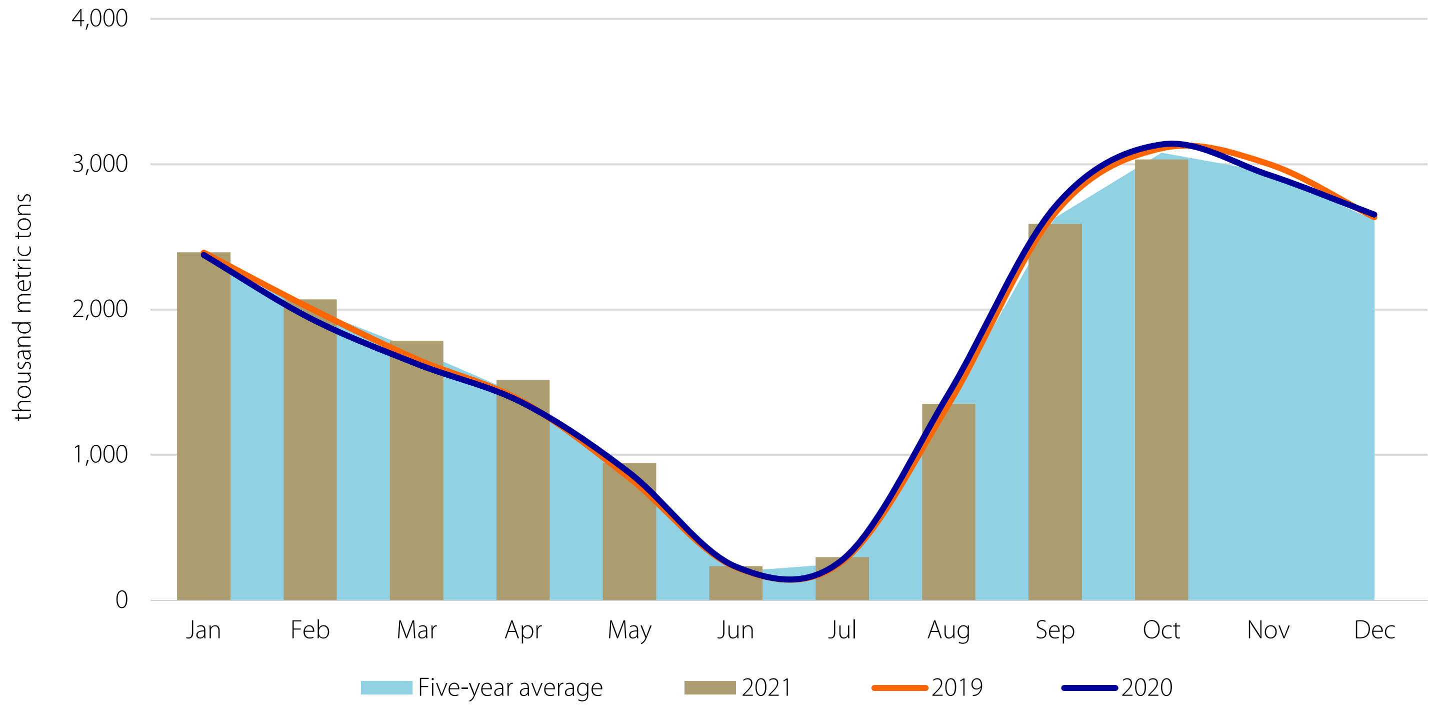
Figure 5: New Zealand milk production, Jan 2019-Oct 2021



Source: DCANZ, Rabobank 2021

Australia

Many Australian dairy farms have been dealing with a wet spring – particularly in Victoria and Tasmania. October's milk production was 2.1% lower YOY, bringing season-to-date (June-October) milk output to 3.7bn liters, down 2.5% YOY. There is an increasing likelihood of a La Niña and a forecast for a wet summer ahead. ***Rabobank has lowered its milk production forecast, to -1.8% for the 2021/22 season back to 8.68bn liters***.

Companies in the southern export region are upwardly adjusting their initial (June) announced farmgate milk prices. Fonterra Australia and Saputo Dairy Australia both lifted prices to AUD 7.05/kgMS or more. There is potential for further increases as dairy exporters benefit from higher commodity prices, particularly skim milk powder. But there are lingering headwinds for local dairy exporters given the weaker-than-expected spring flush and ongoing supply chain bottlenecks and disruptions. Rabobank's revised farmgate milk price forecast for 2021/22 stands at AUD 7.75/kgMS underpinned by rising commodity prices and a weaker currency.

Australian dairy farmers continue to enjoy good margins. There are production and margin risks beyond the weather, which will remain into the new year. Input costs have spiked for fertilizer and herbicide, with supply risks lurking in the next few months. High water allocations and healthy soil moisture profiles for irrigation farmers in the southern Murray-Darling Basin will provide good prospects for summer feed crops.

Rabobank forecasts another large Australian winter grain crop for 2021/22. The total harvest is expected to be down 5% vs. last year but still a hefty 25% above the five-year average. This will be welcome news for feed purchases – but noting global prices are supporting local prices.

Australia's food market is once again on the road to recovery. For the past quarter, a large portion of the population was in lockdown, leading to channel distortion. The lockdowns have likely led to an economic contraction during the quarter. High vaccination rates have allowed states to lift restrictions in time for summer and for consumer purchases of dairy products to normalize. The Australian economy will grow in 2022, but consumers will face rising costs of living and food inflation including in the dairy aisle.

Australian dairy exports have remained buoyant through the nine months of the year. Export volumes are higher across all the major commodities. Liquid milk exports have been strong, underpinned by Chinese demand with volumes 25% higher. Exports of skim milk powder and butter have also performed well.

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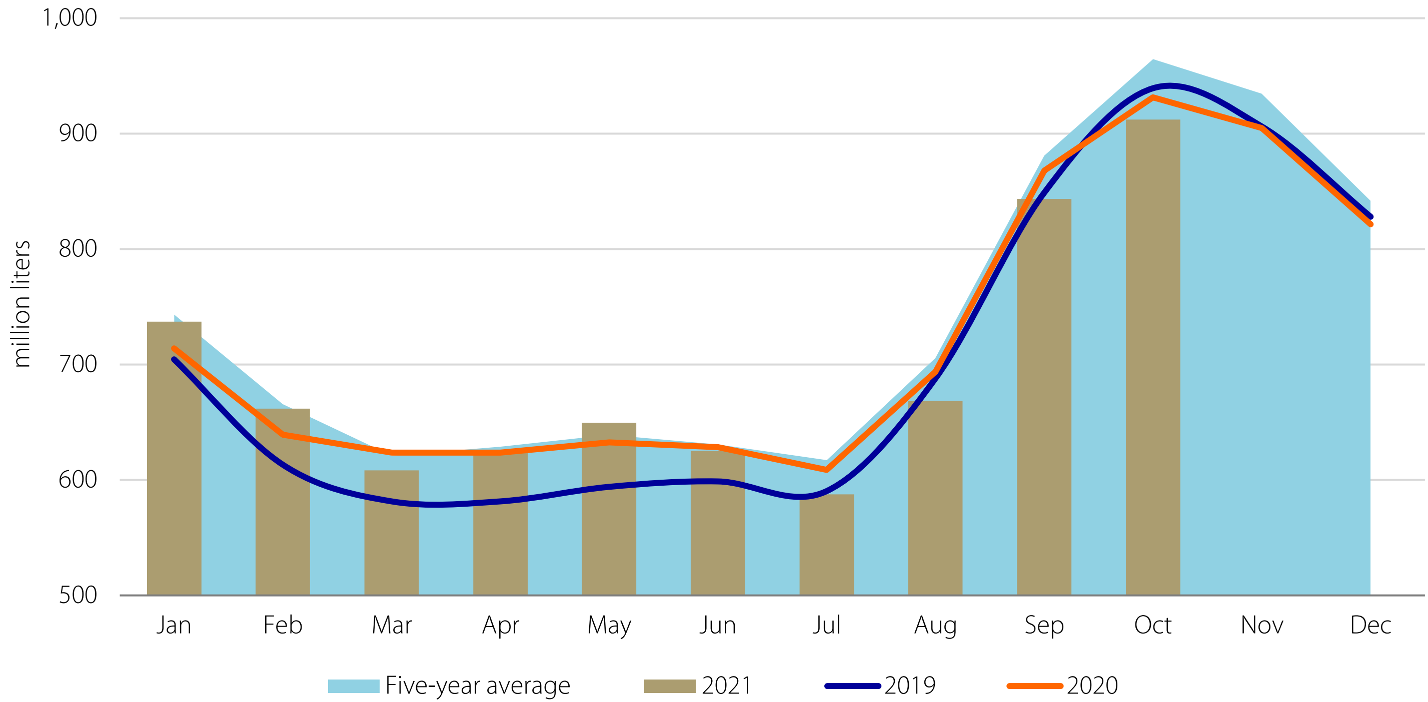
Figure 6: Australian Milk Production, Jan 2019-Sept 2021



Source: Dairy Australia, Rabobank 2021

Brazil

Margins compressed across the value chain in 2H 2021. Grain prices remain elevated in Brazil as FX depreciation, and export parity prices keep feed costs high for dairy farmers. Fortunately, farmgate milk prices are sustained at high levels, but rising costs have reduced profitability for average producers in the second half of 2021. Meanwhile, processors have also felt the impacts of high farmgate prices and weakening demand in the face of rising inflation and high unemployment. Industry margins have deteriorated in 2021 as companies have been unable to pass on all cost increases.

The macroeconomic picture is worsening. Brazil's economy declined less than other emerging economies in 2020 (-4.1% of GDP), mainly due to significant public spending. The economy bounced back in 2021 with an estimated GDP growth of 4.5%. Vaccination rates have advanced rapidly and are now approaching 63% of the adult population. However, the central bank has had to raise interest rates sharply from a base rate of just 2% at the start of the year to a projected 11% by early 2022 to combat inflation. The CPI is estimated to reach 10% for the year. Electricity prices remain at record highs due to the severe drought through most of 2021, despite above-average rains in October. Fuel prices and a weak FX rate have also been contributors to high CPI inflation.

The slowing economy is a concern for dairy sector sales. As the economy ends 2021 on a weaker note, unemployment is expected to remain elevated through most of 2022. The economy will probably grow by less than 1% for the year, which will be insufficient to help consumers regain lost incomes. In addition to this, the uncertainty surrounding presidential elections in October 2022 is already adding volatility to the Brazilian market and reflected in weaker dairy sales.

A new cash transfer program could aid consumption. The government is currently trying to pass a constitutional reform to increase public spending in 2022, which would fund a larger cash transfer program to lower-income families. Payments of BRL 400 (USD 75) per month would support demand for food items such as dairy. If approved, this program could strengthen demand in 2022 and help offset some of the lost income from this year's high inflation.

Dairy exports could increase marginally with weak FX and a firmer international market. Brazilian exporters will try to find some opportunities to export at current FX and international price levels, especially if farmgate milk prices weaken somewhat as supply increases with the arrival of summer in the southern hemisphere. Meanwhile, imports are set to underperform with limited competitiveness in the domestic market. However, the decade-long condition of Brazil being a net dairy importer is not expected to change in 2022.

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Argentina

Milk production growth is sustained with lower costs. According to official statistics, milk production increased by 4% YOY through September 2021 and is expected to end the year up nearly 3% compared to 2020. More favorable feed costs, mild weather, and lower land rent prices helped farmers sustain milk production during the second half of 2021.

However, milk production will probably see lower growth in 2022 . Rabobank anticipates overall milk production growth of around 2% in 2022 compared to 2021 in Argentina. Higher comparable numbers and margins under pressure from sustained inflation will likely curb milk production growth.

Inflation of over 50% is impacting dairy demand. The ongoing effects of rapid price gains are taking a toll on dairy consumption. While low-income citizens maintain intake levels due to cash transfer programs, middle-income consumers are adjusting their consumption by shifting into lower dairy content alternatives. Companies are responding to reduced consumer purchasing power by creating new products with lower dairy content that are more affordable in areas such as drinkable yoghurts and grated cheese.

Exports are growing in 2021 with high international prices. Shipments to global destinations have advanced in 2021 as prices have remained elevated, and the Argentine peso has weakened. During the first eight months of the year, exports increased by 11% in volume and 19% in value and are expected to end 2021 with double-digit growth.

Lower domestic consumption in 2022 should allow for a moderate increase in exports. The ongoing inflationary pressures are set to continue into the new year and will further erode purchasing power of most Argentines. As a result of weaker consumption and an estimated 2% growth in production, there should be additional milk powder for exports. However, there are concerns regarding drying capacity in case of additional volumes.

Further government interventions could disrupt the sector. In the recent past, the government has intervened in the export market to prop up supply to the domestic market. This has been done through tariffs in some sectors and by delayed export permits in others, such as dairy. Weak domestic market sales have raised further the importance of exports to guarantee positive results for the dairy sector. Therefore, market intervention measures to increase domestic supply at the cost of lower exports would be very negative for the dairy sector. This risk should be monitored, as very high inflation raises the likelihood of new short-term measures.

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India

Dairy demand is ending the year on solid footing, supported by positive B2B growth. Mobility and travelling increased in second half of 2021 and restrictions have mainly been low-impact for the dairy industry. This has contributed to good growth in dairy sales, which are forecast to grow between 10% to 15% FY 2021.

Market sentiments continue to be buoyant. Most of the leading dairy companies grew from 10% to 20% in H1 2021 (April-September) over last year. Growth is higher for companies with consumer retail focus. Value-added dairy products, like cheese, long-life milk etc., have observed strong gains during this period. Even the ice cream segment recorded strong growth over last year, which was one of most impacted dairy categories in 2020.

In recent months, farmgate milk prices have increased and are expected to remain at these levels in coming months.

Festival demand and increased B2B demand helped in improving raw milk prices. The cow milk price in Maharashtra increased by ~10% to range between INR 26/liter and INR 27/liter (USD 0.35/liter to USD 0.36/liter). Prices are forecast to stay at these levels in the coming months due to an anticipated muted flush like last year.

SMP inventories to build further during the incoming flush season. SMP prices have risen by 10% to15% over the past few months. Current local SMP prices range between INR 220/kg (USD 3,000/metric ton) and INR 240/kg (USD 3,250/metric ton). This increase has been sustained even after the festival demand was over. The current global SMP price rally is attributed as one of the reasons; but with the incoming flush this increase may be temporary. However, going into 2022, prices are expected to move to higher levels compared to 2021 with strong stable demand and limited Covid-related impacts.

SMP exports prospects are improving with increasing global prices. India exported 19,050 metric tons of SMP in FY 2021 (January-September), compared to 1,630 metric tons in FY 2020. The domestic industry is expecting increasing exports in the coming months with increase in global SMP prices. FY 2021 exports are forecast to be between 25,000 to 30,000 metric tons.

China

Chinese average farmgate milk prices have eased from September-November to CNY 4.29/kg (USD 0.67/kg), 2% off the peak in August and still up 9% YOY. Meanwhile, Oceania WMP prices have escalated. ***Rabobank's latest import parity analysis shows that the discount of landed Oceania WMP prices is 15% off the average domestic milk price, which is on par with the historical average since 2013.***

China's production of dairy products, a proxy for demand strength, decelerated sharply in Q3 to 1% YOY, following a nearly 17% YOY gain in 1H 2021, according to the National Bureau of Statistics (NBS). Dairy product production rebounded in October, with a sizeable 8.3% YOY gain.

Demand normalized and even slowed into Q3 as broad economic and consumption growth was stalled by many macro factors. Extreme weather conditions, regional Covid-19 lockdowns, government policy shifts in some sectors, power shortages, and property developers' debt crisis contributed to economic uncertainties. As a result, it's unclear whether October's reacceleration in dairy demand marks a sustained momentum in end consumption growth.

An indicator of discretionary spending, the foodservice sector continues to disappoint, with Q3 2021 sales trailing below 2019's levels. October 2021 sales improved marginally, posting a 1.4% CAGR above 2019's level.

China's dairy supply continues to grow via domestic production and imports. NBS reports that Q1-Q3 2021 milk production increased by 8% YOY, driven by ongoing herd expansion, yield improvements, a mild summer, and farmgate profitability.

Chinese import volumes of dairy products (LME) soared by 26% YOY during January-October 2021. That said, September import volumes, as expected, started to slow, and these declined by 3% YOY in October 2021, from 32% YOY during January-August. Key, visibly weaker categories were infant formula (-22% YOY), WMP (-11%), whey (-10%), liquid milk (-9%), and cheese (-5%), while SMP maintained strong growth of 28% YOY.

Rabobank estimates that Q3 destocking was extremely limited and maintains the view that further destocking is required (in the form of slower/falling imports into Q4 2021 and onward) to rebalance the market.

Channel checks suggest that local market prices reflect recent gains in GDT auction prices. However, the cost of imported WMP, based on current GDT price levels, leaves little profit for local traders with limited non-committed stocks. ***As a result, traders are torn between the bullish sentiment outside China and the current weak fundamentals within China to decide whether, when, and at what price levels they should return to the market.***

Rabobank

China

Rabobank maintains a conservative domestic production forecast growth of 6.5% YOY for 2H 2021. ***Rising feed costs are increasingly challenging farm profitability but have yet to drive aggressive culling.***

Rabobank holds its consumption growth forecast (LME) at 4% for 2H 2021. Current estimates suggest annualized consumption growth between 1H 2019 and 1H 2021 was less than 5%. The annualized estimate for supply (production and imports) growth, excluding whey, during the same period was 9%, suggesting that inventories increased. Rabobank contends that Chinese stock levels continued to build during Q3 2021.

Imports are anticipated to fall by 18% (LME) in 2H 2021, largely concentrated in Q4 2021, leading to some destocking.

Looking ahead to 1H 2022, Rabobank retains its milk production forecast of 4% YOY growth, with 2H 2022 output tapering off to 3% YOY. Our forecasted production growth could be on the conservative side.

It may take longer than forecast for supply to respond to weakening milk prices, higher feed costs, and lower feed quality due to poor harvest weather. And, expansions that occurred in 2020-21 could partially offset the anticipated pull back, too.

Consumption growth in LMEs is expected to increase 3% YOY for all of 2022, with a decelerated longer-term trend line. Assuming no inventory change at year-end 2022, Rabobank expects imports in LMEs to fall by 26% (previously 18%) YOY in 1H 2022 (due to a higher base experienced in 1H 2021) and decline by 15% YOY in 2H 2022, representing a 22% YOY decrease in imports (previously 17%). ***This results in an estimated reduction of 160,000 and 82,000 metric tons, respectively, in WMP and SMP imports for 2022 vs. 2021.***

Dairy companies continue to bear the brunt of nearly historically-high domestic milk prices as attempts to raise retail dairy prices have met resistance from the consumer market.

The Chinese Dairy CPI remains muted so far versus the magnitude of the change in the average farmgate milk price. As pricey dairy commodities purchased during late Q1 and into Q2 2021 enter the cost calculation, processors are expected to pass on the increased milk and ingredients costs to consumers, potentially reducing demand more than expected and pressuring milk prices lower.

While milk prices in Q3 have remained firm (following the traditional seasonal pattern), Rabobank expects a visible reversal in milk prices to occur as early as Q1 2022.

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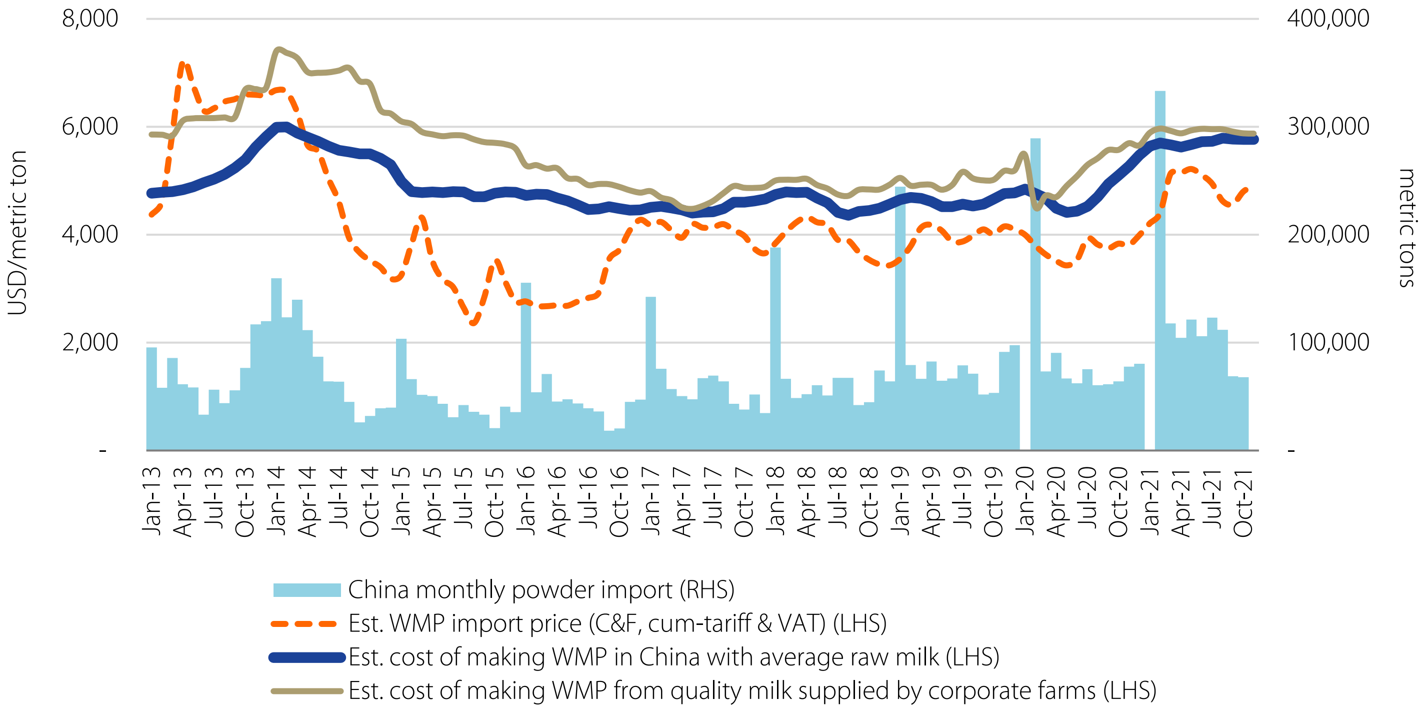
Figure 7: China WMP import parity, Jan 2013-Nov 2021



Source: China Customs, Eucolait, Chinese Ministry of Agriculture, Rabobank 2021

Table 1: Quarterly dairy commodity prices (historic and forecast), Q4 2020-Q1 2023f

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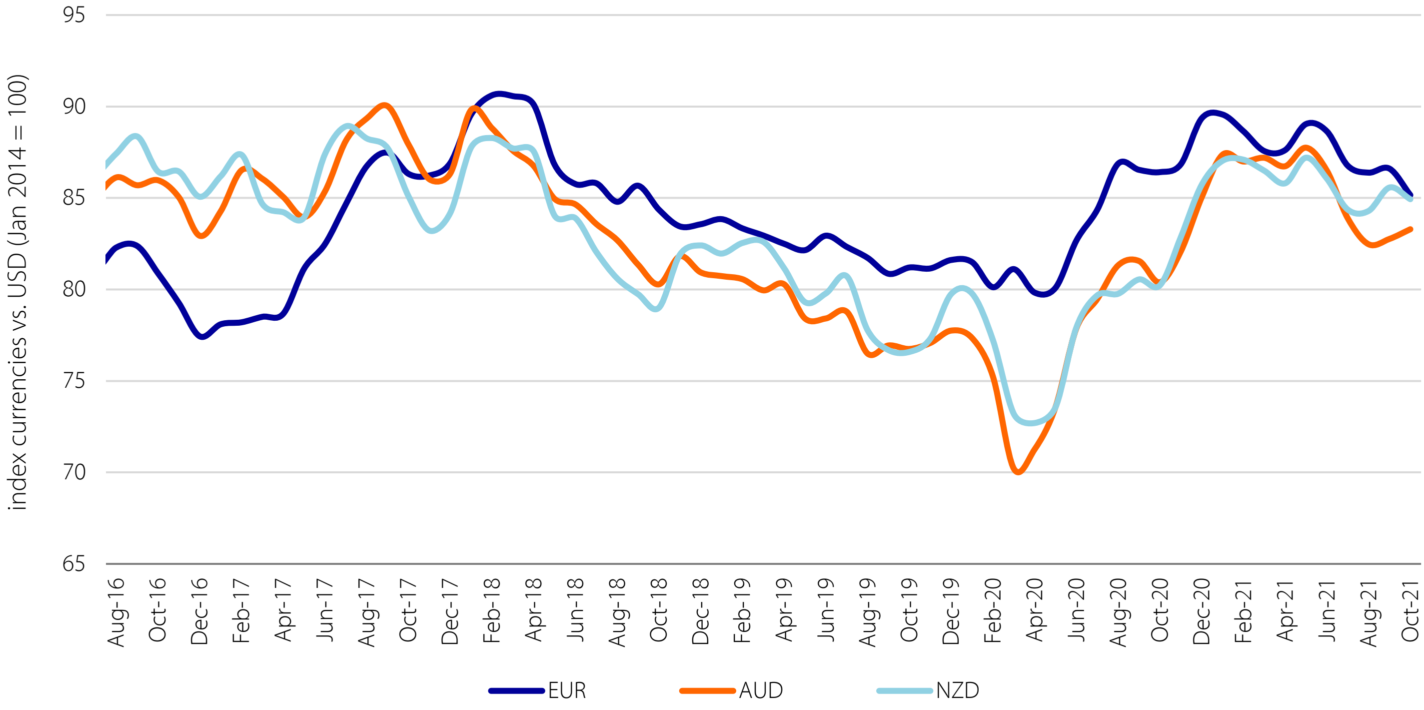
		2020	2021				2022				2023
		Q4	Q1	Q2	Q3	Q4e	Q1f	Q2f	Q3f	Q4f	Q1f
Butter											
Europe	EUR/metric ton	3,443	3,607	4,056	3,997	4,975	5,075	4,700	4,400	4,300	4,300
US	USD/metric ton	3,251	3,236	3,958	3,830	4,100	4,225	4,400	4,600	4,325	4,200
Oceania	USD/metric ton	3,833	5,092	5,182	4,650	5,350	5,450	5,200	5,100	5,000	5,000
Cheese											
Europe (Gouda)	EUR/metric ton	3,185	3,162	3,228	3,318	3,625	3,775	3,550	3,400	3,400	3,350
US (Cheddar)	USD/metric ton	4,695	3,559	3,803	3,531	3,900	3,850	3,975	4,200	4,050	3,750
Oceania (Cheddar)	USD/metric ton	3,783	4,219	4,405	4,195	4,750	5,000	4,500	4,400	4,400	4,550
Dry whey powder											
Europe	EUR/metric ton	738	862	992	964	1020	1020	975	950	950	925
US	USD/metric ton	844	1,116	1,402	1,249	1,250	1,275	1,350	1,325	1,225	1,200
Skim milk powder											
Europe	EUR/metric ton	2,173	2,338	2,541	2,540	2,975	3,125	2,975	2,900	2,850	2,800
US	USD/metric ton	2,384	2,475	2,702	2,795	3,175	3,350	3,250	3,250	3,300	3,250
Oceania	USD/metric ton	2,885	3,466	3,473	3,150	3,550	3,750	3,500	3,500	3,500	3,300
Whole milk powder											
Europe	EUR/metric ton	2,731	2,918	3,189	3,188	3,625	3,800	3,500	3,400	3,300	3,300
Oceania	USD/metric ton	3,073	3,652	4,093	3,700	4,000	4,500	4,000	3,900	3,800	3,500
South America	USD/metric ton	3,050	3,250	3,500	3,500	3,650	3,700	3,650	3,600	3,500	3,200

Source: USDA, forecasts by Rabobank 2021

Figure 8: Exchange rates, USD vs. exporters, 2016-2021



Source: UDM Board of Governors of the Federal Reserve System, Rabobank 2021

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