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Dairy Quarterly Q2 2019

Optimism in the Midst of Chaos

Contents

Global Summary	2	Australia	6
What to Watch in Q3 and Q4	3	Brazil	8
EU	4	Argentina	8
US	5	India	9
New Zealand	6	China	10

Summary

- Global market fundamentals have remained well-balanced through 1H 2019. Combined milk production across the Big 7 exporters was below the prior year, allowing markets to find support. A sharp finish to the milk production seasons in both New Zealand and Australia, coupled with robust (and somewhat hastened) China imports, will support Oceania-origin dairy product premiums until new pasture seasons are underway.
- The outlook through 2H 2019 points to an ongoing challenge to turn the milk production tap on across the Big 7 dairy exporting regions. Milk price signals for the upcoming Oceania seasons are strong on the back of improved export returns.
- However, a global milk supply recovery will be led by the Northern Hemisphere producers, but is not expected to hit its stride until 1H 2020.
- Chinese import appetite was stronger than expected through the first four months of 2019. Some buyers are likely to have adequate coverage. Rabobank expects lower comparable imports in 2H 2019, which may place a ceiling on price increases.
- Despite global risks and trade turbulence, there has been limited commodity price volatility. But reported stocks are low and a major shift in fundamentals could provide a fuse to future price direction.

Regional Dairy Markets

<p>EU</p>  <p>Milk production posted year-on-year growth in March, which is expected to continue through into 2020, albeit modestly. The eurozone economy continues to underperform and EU dairy product demand remains modest.</p>	<p>China</p>  <p>Consumer dairy demand remained resilient in 1H 2019 and should continue on trend into 2020. Milk production growth has been revised higher. Some signs of herd replenishment from mid-size dairy farms exist, but demand for animal protein may attract greater culling.</p>
<p>US</p>  <p>US milk production will remain in a holding pattern in the coming months until a herd rebuild is underway. Exports to China are weak and improved trade to Mexico is uncertain due to ongoing tariff battles.</p>	<p>South America</p>  <p>Farmer margins have improved in Argentina, but milk production will still stutter along in 2H 2019. The Brazilian economy continues to see the weakest economic recovery, following one of the deepest recessions.</p>
<p>New Zealand</p>  <p>The 2018/19 season has limped to a close. New season output is forecast at -1% with tough year-on-year comparables to match.</p>	<p>Australia</p>  <p>Australia's milk production season is winding down quickly. Another fall in milk production is still on the cards in the 2019/20 season, despite buoyant milk price signals and recent rainfall.</p>

Global Summary

Tightening milk supply, reduced stocks and price stability continue to be the key themes permeating across global dairy markets. Not surprisingly, milk powder prices performed well in Q1 2019, posting year-on-year increases of over 30% on the back of lower milk supply and falling stocks. In contrast, the fat complex was more broadly stable.

Looking forward, global supply and demand fundamentals will continue to support commodity prices at current levels in Q3 2019.

However, further upside in commodity prices is limited. Inventory levels on the buy-side have improved following a period of more aggressive purchasing. Also, the milk supply curve will turn positive against low comparables in the coming quarter, albeit very slowly.

The milk production seasons in New Zealand and Australia are winding down abruptly. The rapid fall in milk production in Australia is not completely surprising, but the pace of the fall in New Zealand's output due to unfavorable seasonal conditions has caught some off guard.

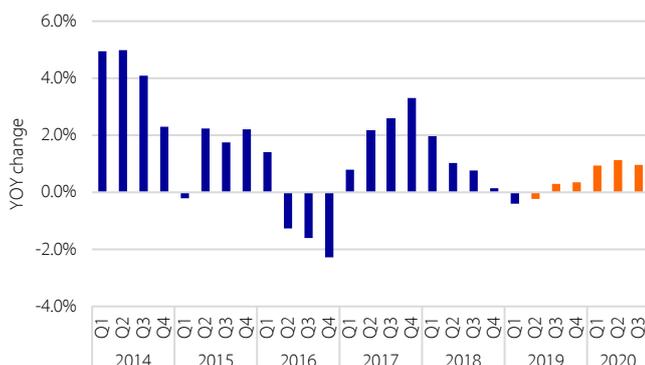
Rabobank expects a further contraction in milk production for upcoming seasons in New Zealand and Australia, despite tantalizing milk price signals. A lack of new supply will be supportive of premiums for Oceania-origin product in the near-term.

The markets are keenly focused on the current Northern Hemisphere seasonal peaks, which have been mostly positive against low year-on-year comparables.

US milk production took an unexpected year-on-year dip in March, before recovering in April. US milk production is forecast to remain in a holding pattern with a lower national herd – despite more recent higher milk prices and current favorable feed costs.

In Europe, combined milk production for the EU-28 was up 1.1% in March year-on-year against a low comparable. Nevertheless, it is a small milestone, as it marked the first

Figure 1: Milk production growth, Big 7 exporters (actual and Rabobank forecast), Q1 2014-Q3 2020f*



* Big 7 includes EU, US, NZ, Australia, Brazil, Argentina, and Uruguay.
Source: Big 7 government trade agencies, Rabobank 2019

year-on-year increase since late 2018. Weather has been mostly positive for key dairying regions and a vast improvement on conditions experienced at the same time last year when the 'Beast from the East' struck.

When combined, milk production across the export engine (Big 7) has stuttered along in 1H 2019 with negative growth of 0.3%, and created tension in the global market.

However, the milk supply tap is slowly being turned on. Q3 2019 will likely mark the return to growth of milk supply for the Big 7 (see Figure 1). The rate of growth will then accelerate through into 2020. However, given the outlook for farmer margins, the rate of growth is forecast to remain below 1% until Q2 2020 and will support commodity prices at elevated levels through 2H 2019.

The dairy demand landscape in key consumptive markets remains a mixed bag. The US economy is heading for a sizeable slowdown in 2020. The eurozone economy has been underperforming since 2018, and that has tempered consumer spending and limited growth in dairy demand.

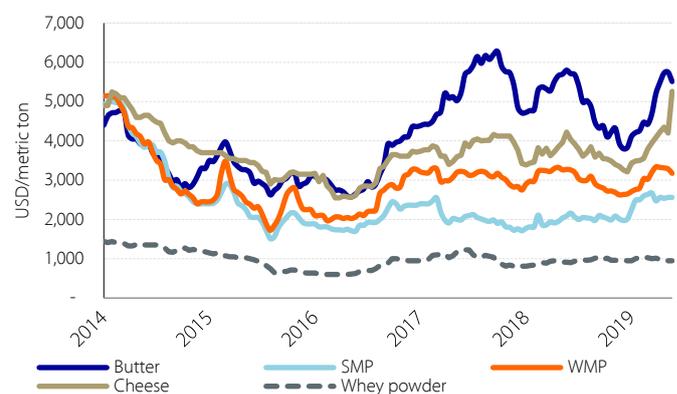
A rally in oil prices, largely supply-driven, since the start of the year has been welcome news for oil-export economies. Rabobank is expecting further upside in oil prices in the coming months. However, instability in some key oil-producing economies lingers in the background.

Prolonged trade tensions will have negative effects on the Chinese economy moving into 2020. However, for the time being, Chinese dairy ingredient buyers' appetite has continued to surprise. This is a key event which will prevent commodity prices from cycling higher in 2H 2019.

Given the modest milk supply profile from the Big 7 forecast for 2H 2019, the net exportable surplus will remain squeezed for the time being. Q1 2020 is still the timeframe for a return to growth of the combined net exportable surplus.

Based on Rabobank forecasts, the global commodity market has peaked for now. However, fundamentals over the forecast period will prevent a severe down-cycle as we move into 1H 2020.

Figure 2: Dairy commodity prices, FOB Oceania, 2014-2019*



* Whey is FOB in western Europe.
Source: USDA, Rabobank 2019

What to Watch in Q3 and Q4

Trade War Contagion

Trade tensions continue to contribute to global jitters. The US and China trade war still simmers, but with a possible waiver of some punitive tariffs. The makings of a trade war between the US and the EU are brewing and would hurt EU dairy exporters. Progress has been made on the US, Mexico, and Canada trade agreement, but the uncertainty over new duties on Mexican goods could result in further reduced trade to the US's largest dairy export market.

African Swine Fever (ASF)

The ASF outbreak in China is worsening, with the disease spreading to neighboring countries. The immediate impacts on the dairy complex are lower Chinese imports of dry whey, permeate, and lactose, and downward price pressure on those products. The epidemic is expected to see a drop in pork production of between 25% to 35%. A close watch is on Chinese milk production, which in the event of a spike in beef demand and a lift in price, underpins an acceleration in dairy cow culling and leads to lower-than-expected milk production.

Global Economy

The International Monetary Fund (IMF) highlighted a confluence of factors weighing on major economies. This led the IMF to trim the global growth forecast for 2019 and 2020, providing a more bearish backdrop to consumer spending.

Feed Bills

The outlook for feed is mixed for milk producers. In the US, delayed plantings and bad weather (and trade wars) are impacting feed markets. South American feed bills are increasing. Palm kernel is cheap in New Zealand, but usage restrictions are in force. Australia is hoping for a better east coast harvest. Prospects of good crops in Europe and the Black Sea regions are keeping feed prices in check. However, lingering on-farm feed shortages have producers in a precarious situation ahead of the 2019's growing season.

Inventory Bubbles

Stock levels are currently lower than at the same time last year. The EU has cleared intervention SMP stocks and exports have soared. There are no Private Storage Aid stocks. In the US, year-on-year butter stocks are lower, nonfat dry milk and American cheese stocks are slightly higher but not burdensome. As a result, a close watch remains on buy-side inventory levels.

Table 1: Quarterly dairy commodity prices (historic and forecast), Q2 2018-Q3 2020f

		2018			2019				2020		
		Q2	Q3	Q4	Q1	Q2e	Q3f	Q4f	Q1f	Q2f	Q3f
Butter											
Europe	EUR/mt	5,447	5,536	4,672	4,332	4,140	4,025	4,150	4,250	4,300	4,350
US	USD/mt	5,114	5,035	4,991	4,977	5,100	5,415	5,110	4,830	5,010	5,220
Oceania	USD/mt	5,679	4,782	4,038	4,434	4,500	4,500	4,600	4,550	4,500	4,500
Cheese											
Europe (Gouda)	EUR/mt	2,965	3,108	3,190	3,101	3,080	3,150	3,200	3,150	3,150	3,150
US (Cheddar)	USD/mt	3,545	3,450	3,225	3,174	3,700	3,860	3,830	3,500	3,525	3,625
Oceania (Cheddar)	USD/mt	3,954	3,682	3,375	3,644	3,850	3,900	3,900	3,850	3,850	3,800
Dry whey powder											
Europe	EUR/mt	723	804	829	867	815	775	800	800	800	800
US	USD/mt	616	814	1,013	990	830	730	640	640	695	750
Skim milk powder											
Europe	EUR/mt	1,428	1,547	1,612	1,868	2,000	2,150	2,175	2,150	2,150	2,175
US	USD/mt	1,706	1,799	1,956	2,124	2,220	2,350	2,445	2,425	2,425	2,425
Oceania	USD/mt	2,035	2,036	2,017	2,505	2,450	2,400	2,500	2,400	2,400	2,350
Whole milk											
Europe	EUR/mt	2,728	2,808	2,726	2,827	2,950	2,925	2,900	2,875	2,850	2,850
Oceania	USD/mt	3,271	2,954	2,675	2,948	3,050	2,900	3,200	3,000	2,900	2,900
South America	USD/mt	3,057	3,090	3,020	2,882	3,000	2,850	2,950	2,900	2,850	2,850

Source: US NDPSR, Rabobank 2019

EU

In March, EU milk production increased by 1.1% YOY, the first growth since August 2018. As a result, Q1 2019 milk production finished -0.1% lower than the same period last year (see Figure 3).

Weather conditions were relatively mild during the early start of the spring flush, supporting grass growth across most of the main milk producing regions in Europe. Hence, Rabobank increased the Q2 milk production forecast by 0.75% to +0.5% YOY.

Preliminary figures for April show a continuous milk production growth in Ireland (+15.1% YOY) and the UK (+4.4% YOY), while growth in Poland eased to +2.8% YOY. Dutch milk production declined by 1.7% YOY. German and French milk production is also estimated to be down.

EU farmgate milk prices declined by EUR 1.43/100kg in the first five months of 2019, to an average of EUR 34.11/100kg in May. Based on current milk prices, dairy farm cash margins remain tight. Rabobank does expect some upside momentum for EU farmgate milk prices in the coming months. This will be supported by improving export returns.

While butter prices in offshore markets gained momentum, pressure on EU milkfat remained during Q2 2019. Since the end of March, EU wholesale butter prices declined by EUR 124/mt (-3.0%) to EUR 4,073/mt. This led to a further widening of the spread between EU and Oceania butter from EUR 424/mt to EUR 865/mt. Nonetheless, the current wholesale butter price still sits EUR 64/mt above the rolling five-year average.

During the first two months of Q2 2019, cheese (Gouda) prices declined slightly by EUR 28/mt (-0.9%) to EUR 3,066/mt, while whey powder prices fell by EUR 35/mt (-4.1%) to EUR 810/mt. Cautious buying kept cheese markets in check.

In the same period, wholesale SMP prices increased by EUR 166/mt (+8.8%) – passing the EUR 2,000/mt mark for the first time since June 2017 and closing the regional price gap with Oceania to EUR 253/mt – to EUR 2,043/mt. WMP prices increased by EUR 98/mt (+3.4%) to EUR 2,968/mt.

During the first three months of 2019, cheese and butter production increased by +0.1% YOY and +1.2% YOY respectively. In the same period, production of milk powders declined, with SMP down by 2.8% YOY and WMP dropping by 10.3% YOY.

Not surprisingly, EU protein dairy exports have been running hot. SMP exports jumped 35.1% YOY in Q1 2019, indicating that the majority of the released intervention stocks has

returned to the market by now. During Q1, Indonesia and China were the main destinations for EU SMP exports.

In the same period, EU cheese exports were up by 2.4% YOY, while butter and WMP exports fell by 20.8% YOY and 25.2% YOY respectively.

Looking towards 2H 2019, the risk of drought still looms. Soil moisture levels have not fully recovered across Europe, which could have a negative impact during the remainder of 2019.

Growing milk volumes in the UK, Poland and Ireland will push EU milk production in Q3 and Q4 to an expected growth of 0.8% YOY and 1.0% YOY respectively. For the full year 2019, Rabobank foresees a modest growth of 0.6% YOY if weather conditions remain favorable during 2H 2019.

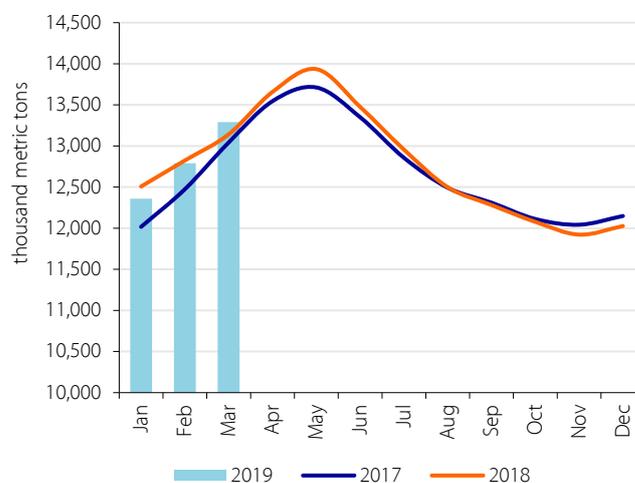
Looking at some of the largest milk producing countries, Rabobank expects German milk production growth to be flat for 2019, while French milk production will most likely be down for 2019. Due to low comparables and yield improvements, Rabobank expects Dutch milk production to recover during 2H 2019, finishing just below 2018 volumes for the full year 2019.

Looking ahead, Rabobank forecasts EU milk production growth to continue at between 0.5% and 1% into 2020.

A slowdown in external demand and domestic challenges are key reasons the eurozone economy continues to underperform. This is playing out in weaker consumer spending and reports confirm dairy demand is sluggish in some markets. Rabobank is expecting dairy demand across the EU-28 to grow at a modest rate in 2H 2019.

The EU's exportable surplus will expand at a slightly faster pace through 2H 2019 and help act as a handbrake on a further price rally in global markets.

Figure 3: EU milk production, Jan 2017-Mar 2019



Source: ZMB, Rabobank 2019

US

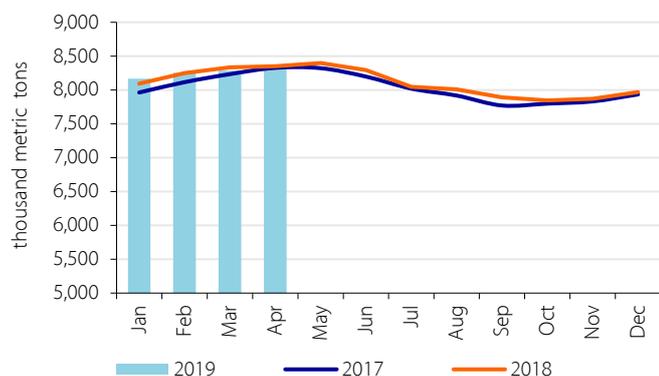
Milk production in Q1 2019 increased a meager 0.1% from Q1 2018. April has maintained that pace, matching the 0.1% gain from a year earlier (see Figure 4). Hidden behind these flat production numbers is a continued decrease in the national herd, offset by steady improvement in the yield of milk per cow. Milk cow numbers in April stand at 9.328m, down 1,000 head from March, but 90,000 head less than a year ago.

A holding pattern of relatively flat to modestly rising year-on-year production should continue in the months ahead. Milk production per cow will continue its steady upward trajectory. Cow numbers will need to reverse course in order to see any meaningful return to growth in production. As a result, milk supply growth for the rest of the year is expected to remain below average (less than 1.5%), which should be supportive of prices moving higher into 2H 2019.

Planting delays due to severe and unrelentingly wet weather across the Midwest has all eyes on feed prices. The weather is delaying fieldwork for many dairies, driving feed prices higher and forage quality lower, limiting expansion in cow numbers and production in the near term.

Butter production was down 4.8% in April compared to a year earlier. With milk production growth below normal, the spring flush has been modest, resulting in less milk moving into butter and powder plants. Inventories in April were down 5.4% or about 16.5m pounds fewer than last year. Cheese production was up a meager 0.2% from April 2018. Decreases were seen in American styles, which were offset by greater Italian cheese output, +4% YOY. Month-ending April total cheese stocks at 1.4bn pounds exceeded the prior year's level by 4%. However, American cheese stocks at 783m pounds were up just 0.3% from a year ago. Lower year-on-year production of butter and American cheese and modest stock levels set the stage for higher dairy product and milk prices during 2H 2019.

Figure 4: US milk production, Jan 2017-Apr 2019



Source: USDA, Rabobank 2019

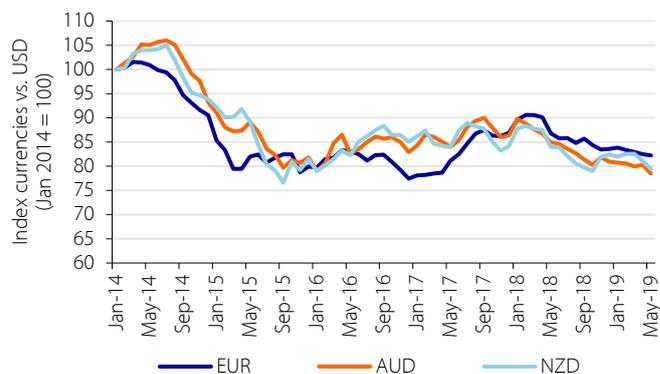
US dairy product demand on a total solids basis (milkfat and skim solids) increased by a scant 0.02% during Q1 2019 vs. the prior year. Domestic demand grew by 1.7%, which barely offset an 11.7% YOY decrease in export demand. US exports were hindered by trade disputes and African Swine Fever that has resulted in a significant reduction in dry whey and lactose sales to China. China's year-on-year imports of dry whey and permeate contracted by 16% in Q1 2019 to 115,323mt, and its imports of lactose reduced by 5% to 21,379mt during the same period. However, US dry whey and lactose exports to China were down 53% and 24%, respectively, in Q1 2019. US NFDM/SMP exports were down 10% for the quarter, driven by lower sales to Indonesia, Malaysia and China. Meanwhile, US cheese exports, at 99,000mt during Q1 2019, grew by 10% compared to the prior year despite a 10% drop in sales to Mexico (the largest export market for US cheese which has been subject to a 25% tariff since July 2018). The US filled more cheese demand in the Asia Pacific region, with year-on-year Q1 exports to South Korea and Japan up 46% and 28%, respectively.

Looking forward, the US will struggle to be a competitive exporter to China, as most US dairy exports are subject to tariffs that range from 25% to 45%.

US domestic commercial disappearance on a total solids basis showed promise in Q1, growing by 1.7% YOY, compared to 2018's total growth of 0.7%. Retail sales (volume) of processed cheese, fluid milk, yogurt, and ice cream were down on average 4.0%, 4.6%, 2.1%, and 3.4%, respectively, year-to-date through May. According to IRI, natural cheese and butter were the only two categories posting volume growth. Year-to-date May natural cheese sales were up an average 3%, aided by lower per unit prices.

Butter sales showed a 4% YOY gain, with relatively flat prices. Fortunately, robust food service demand growth has kept the US dairy market in balance, up 4.6% through Q1 2019, according to the Bureau of Labor Statistics.

Figure 5: Exchange rates, USD vs. exporters, 2014-2019



Source: UDM Board of Governors of the Federal Reserve System, Rabobank 2019

US economic data is supportive of food service spending as year-on-year Q1 GDP growth surged 3.2%, exceeding expectations. American consumers are confident about current economic conditions according to the Conference Board's present situation index, which rose to its highest level in 18 years in May, supported by the lowest unemployment rates since 1969. Longer term, American optimism is likely to fade as the cost of higher tariffs on Chinese imports ripple through the US economy. Rabobank forecasts a slowing of the US economy in 2020, just as year-on-year milk production rebounds, resulting in larger volumes of US dairy products hitting the global markets.

New Zealand

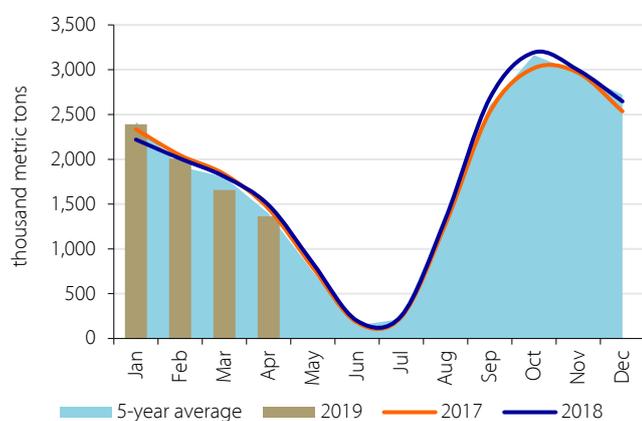
The last of the summer heat combined with minimal rain for many North Island areas has negatively impacted milk production volumes over the closing months of the 2018/19 season. Milk flows have trailed lower for the last few months since February, with production dropping 8% for the penultimate month of the 2018/19 season, compared to the prior year period. This pulls collections for the 11-month period to April 2019 lower, to just 2.3% growth (see *Figure 6*).

With herds drying off much earlier in parts of the North Island, a sharp decline for the final production month of May 2019 is anticipated.

Rabobank now expects full-season production to end with volumes higher by just 1.5%-2% YOY, depending on the magnitude of the decline in May volumes produced.

Despite an underwhelming finish to the season, the 2018/19 season will most likely be the second-best season on a total volumes basis due to exceptional supply in the first half of the season.

Figure 6: New Zealand milk production, Jan 2017-Apr 2019



Source: DCANZ, Rabobank 2019

Fonterra has chopped 20 cents of the previous top-end range of the forecast farmgate milk price, with the range now from NZD 6.30/kgMS to NZD 6.40/kgMS. This new range takes into account a favorable exchange rate but slightly weaker WMP and SMP prices received than the cooperative had expected. This will still be profitable for most New Zealand dairy farmers.

Milk flows across the first half of the upcoming 2019/20 season are unlikely to keep pace with the current season. The current season's volumes leapt 4% over the first six months – setting a new record for milk produced through the spring peak. This burst of milk has been an anomaly in an era of slower production growth. Over the last five completed seasons, milk production has barely moved, at 0.1% CAGR. The impressive growth was supported by benign winter and spring weather, ultimately setting a platform for strong milk flows.

Rabobank is forecasting that the 2019/20 season's milk production will be down at least 1% YOY. Critical to the outlook is that the exceptional conditions encountered in 2018 are unlikely to be repeated (although not impossible).

2019/20 is set to be another season of profitability for farmers. Fonterra's opening price forecast range is a wide NZD 6.25/kgMS to NZD 7.25/kgMS. Other dairy company forecasts are within the higher half of Fonterra's price range.

Based on Rabobank's expectations for commodity prices across the next 12 months, and assuming a NZD/USD exchange rate of 0.65, Rabobank holds its forecast farmgate milk price of NZD 7.15/kgMS.

Export volumes for the three months to April 2019 were higher by 26% (198,000 metric tons) on the prior year. China has dominated export volumes, with a 50% rise in demand over this period. The US, Indonesia, Malaysia, Philippines and Thailand also all saw strong increases in export shipments over the same period. Shipments will continue to trend higher through Q3 before slowing in Q4 2019 and into 2020, in line with milk volumes trending below the prior year.

Australia

Australian milk production is tumbling to a close in the 2018/19 season. Milk production was down 13.7% in April, versus the corresponding month last year. Interestingly, there were falls in milk production across all dairy regions – but the larger falls were still confined to Murray and Northern Australia. This brings season-to-date milk production down 7.3% to 7.4bn liters. This represents a drop of 580m liters on the previous season (see *Figure 7*).

The fact that there were falls in production across all dairy regions points to the immediate challenges on farm, as dairy farm operators grapple with a dry autumn and feed shortages. As at April 30, dairy cow culling activity was running 13% higher versus the same period last season.

With the milk season winding down slightly quicker than previously expected, Rabobank is forecasting Australian milk production to close the current season down 8.5% at 8.5bn liters.

April was particularly dry for key dairying regions. There has been some much needed rainfall in May and in some regions above-average falls. However, more timely rainfall events will be welcomed by dairy farm businesses given the poor soil moisture profiles.

The current seasonal outlook from the Bureau of Meteorology is for drier than average conditions to continue through the winter months for much of Australia. This will lead to ongoing feed challenges for many dairy operators. Irrigation farmers across the Murray dairy region are preparing for low opening allocations and higher prices in the new season.

A late-season rally in commodity prices, combined with a weaker currency, has seen a slight revision upwards in Rabobank's modelled farmgate milk price for southern Australia for 2018/19. The weighted average milk price is now AUD 6.05/kgMS.

There has been a round of official milk price announcements from dairy companies in the lead up to the new 2019/20 season starting on July 1. There is good news for dairy farm operators with record-high opening prices, which will provide cash-flow support at the start of the season. Current forecast prices for the full season also point to improvements as the season progresses, with prices on offer as high as AUD 7.00/kgMS – record milk prices paid across the Southern export region. The stronger price signals have supported a lift in Rabobank's rural confidence level in Australian dairy businesses but, notably, investment intentions remain muted.

Based on Rabobank's weighted average commodity forecast and a spot currency of 0.69, full-year milk prices in southern regions will average AUD 6.60/kgMS in 2019/20.

Despite the improving outlook for milk pricing, the challenge to begin the rebuild of milk supply lingers into the new season. Autumn has been dry for many dairying regions, leading to ongoing feed shortages. Also, many dairy farm operators will need time to rebuild herds. With a return to profitability as milk prices improve, an immediate focus will be on repairs and maintenance ahead of major expansion projects.

As a result, the forecast for Australian milk production in the 2019/20 season has been revised down. Rabobank is now expecting milk supply to fall by 2%, taking annual production back to 8.4bn liters.

The Australian consumer market remains broadly favorable. The economy is growing, consumer confidence has improved and interest rates are tipped to be cut. But there are growing headwinds for consumer willingness to spend.

Milk has been prioritized for SMP plants and cheese vats so far this season (to end of March). SMP production is up 4% and cheese is up 2.5% season-to-date to end of March.

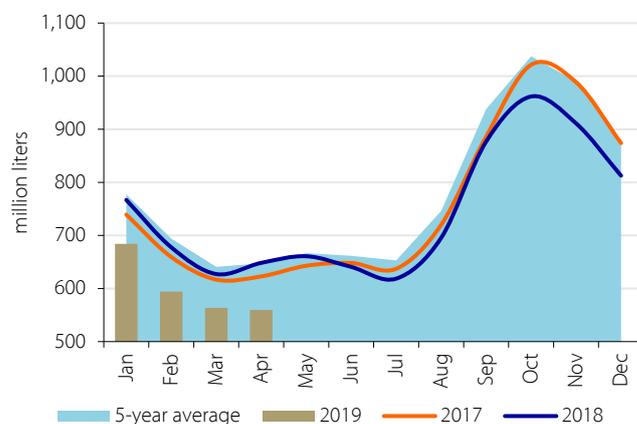
Australian dairy exports are down 2% on a volume basis. There were falls in export volume across most key commodity groups. Australian dairy import volumes remain elevated due to shortages of milksolids. Season-to-date butter imports are running 30% higher versus the previous corresponding period.

The drop in milk production and steady flow of exports means warehouses will be low on stocks as this season comes to a close.

The Australian dairy supply chain continues to see significant change. In the face of dwindling milk supply, processing footprints continue to be rationalized. Bega Cheese and Fonterra Australia have announced plans to close plants. The first stage in the sale of the Lion Dairy and Drinks business is underway, with Saputo acquiring the specialty cheese platform.

Australia's exportable surplus has contracted significantly over the past 18 months. The pressure on the exportable surplus will peak through Q2 2019. However, it will remain under pressure well into the new season and is not likely to return to growth until mid-2020.

Figure 7: Australian monthly milk production, Jan 2017-Apr 2019



Source: Dairy Australia, Rabobank 2019

Brazil

The pace of increase in farmgate milk prices in Brazil slowed in Q2 2019 and prices are likely to face downward pressure in Q3 2019, as milk production expands at a decent rate and consumer demand remains weak.

According to CEPEA, dairy farmers received, on average, BRL 1.52/liter (net of taxes) in May 2019, equivalent to USD 0.38/liter. This compares to just BRL 1.25/liter in May 2018, and a rise of 16% in real terms accounting for inflation.

Farm-level margins have deteriorated in April and May, as feed prices increased. The trade war between the US and China, and unstable weather in the US, have pressured domestic soymeal and corn prices.

Consumer demand for liquid milk and most dairy products has been largely stagnant. Brazilian consumer purchasing power remains pressured. Unemployment rates are high and rising to above 12%. Meanwhile, the economy has failed to strengthen so far in 2019. Rabobank has trimmed the GDP growth forecast for 2019 from 2% to just 0.7%. At this rate, this is insufficient to create momentum to lower unemployment and raise incomes.

Weak economic settings have limited farmgate prices from rising further in Q2 2019 – a period of the year when production is seasonally low and when prices tend to move higher.

Brazilian dairy imports continue to increase, up 23% in the first four months of the year. Comparative prices in Argentina and Uruguay have been lower which has incentivized dairy companies to lift import volumes. However, a depreciation of the local currency may slow import levels in Q3 2019.

Inventories have started to rise given the weak demand. Retail prices have started levelling out and signaling that a decline is likely in the coming months when milk supply seasonally increases.

Farmgate prices are likely to decline in Q3 as production gains pace, first in the South of Brazil and then in the South-west and Centre-West regions. This is likely to further pressure farmers' margins as costs are likely to remain volatile.

With an immediate resolution to the US and China trade dispute unlikely, tensions will continue to impact grain costs for Brazilian farmers.

Lower farmgate prices and higher and more volatile feed costs will negatively affect farmers' margins. With a more challenging environment for Brazilian dairy farmers, milk production is likely to lose some of the momentum seen in 1H 2019, with lower farmgate prices and volatile input costs.

Rabobank expects milk production to grow moderately in 2H 2019, by about 0.5%.

The recovery in the Brazilian economy continues to hinge on a reformist agenda being negotiated at congress. The pension reform is seen as the first big step in returning to sustainable fiscal accounts and improving confidence in the economy.

However, the negotiation process in congress remains challenging and it is difficult to say with any certainty when the pension reform will be approved. Brazil's demand will likely remain weak in the coming months and a boost in consumption will only be felt in early 2020 if the government reforms (on pension and tax) are approved.

Argentina

The decline in milk production in Argentina has been accelerating in 1H 2019, with volatile weather and above-normal rainfall, weak domestic demand, and limited on-farm investment also playing against milk production growth.

However, the current decline in production is even more accentuated due to the high comparable levels in 1H 2018.

On a more positive note, milk prices have improved, resulting in positive farm-level margins.

Inflation remains a major problem in the Argentine economy. The recent price adjustments that farmers received, compensated in part for the rapid rise in costs seen in the last six months.

In May 2019, farmers received on average ARS 12/liter, which equates to USD 0.29/liter, significantly lower than the USD 0.38/liter received by Brazilian farmers. This price differential helps to explain in part why Brazilian importers accelerated purchases from Argentina in recent months.

According to OCLA (Observatorio de la Cadena Lactea – a research center), the cost of producing milk in Argentina neared ARS 10/liter in May, resulting in profitable farm-level margins.

Dairy demand has decelerated in recent months as consumers feel the impact of the latest recession coupled with monthly inflation of around 4%. GDP is expected to contract in 2019 and this will continue to impact investments, salaries and incomes negatively.

The decline in milk production is likely to continue into 2H 2019 as output continues trending lower against higher 2018 comparable volumes.

The depreciation of the peso seems to have stabilized around the current levels of 45 to the dollar, however the

increasing political tension, as presidential elections approach, could well have an impact on the exchange rate.

Greater depreciation of the peso could increase local soymeal and corn prices for dairy farmers and decrease margins in coming months, potentially reducing milk output more than expected.

Interest rates remain at very high levels, which impacts farmers' costs on debt and also limits new investments for increasing production.

Rabobank expects that milk production will decline by 6% in 2H 2019 in Argentina, compared to the same period of 2018, in part due to higher comparables in the second half of 2018 and also due to cost pressures, decreasing local demand and general economic instability.

Production is tipped to recover some of the lost ground in 1H 2020, but that is very dependent on the presidential elections that will take place in October 2019, as a new government might alter some of the export tariffs and its economic stance, which would have a big impact on exchange rates and alter the outlook for farmer margins.

The scenario for Argentina remains volatile and highly dependent on the economy and domestic politics. Exports are unlikely to accelerate for now, as production is declining and Argentine companies have less available product to sell to the global market.

India

Domestic milk production is expected to surpass 180m metric tons in FY2019 (ending March 2019). This would mean milk production posted an annual growth rate of more than 3.5% - but coming in below earlier expectations largely due to depressed milk prices at the farm level which limited milk production growth

Milk production is forecast to grow at a rate of 4%-4.5% in FY2020 reaching 190m metric tons. However, the timeliness and strength of monsoon rains (June to August) will be of critical influence on milk production trends.

Farmgate milk prices have increased by more than 15% (2H over 1H) in the last year (April to March). Prices reached INR 25/liter (USD 0.36/liter) in Maharashtra (without any subsidy from the government – this was the case a few months back). Farmgate prices are expected to increase by ~5% due to reduced milk supplies in the ongoing lean season (April to June) and due to increasing demand for milk in the lead up to the festival season (September to October).

Dependence on raw milk will be high this year, unlike last year when surplus SMP inventory kept milk prices subdued.

SMP stocks have been reduced significantly since late 2018 due to an increase in domestic sales and a lift in exports – with the support of central government and state governments. The run-down in stocks has led to an increase of more than 40% in domestic SMP prices.

Currently, domestic prices are trading in the range of INR 210/kg to INR 220/kg (USD 3,000/mt to USD 3,150/mt). Looking forward, SMP prices are expected to be largely range-bound at current elevated levels due to tighter milk supplies through the ongoing lean season and improving demand ahead of the festive season.

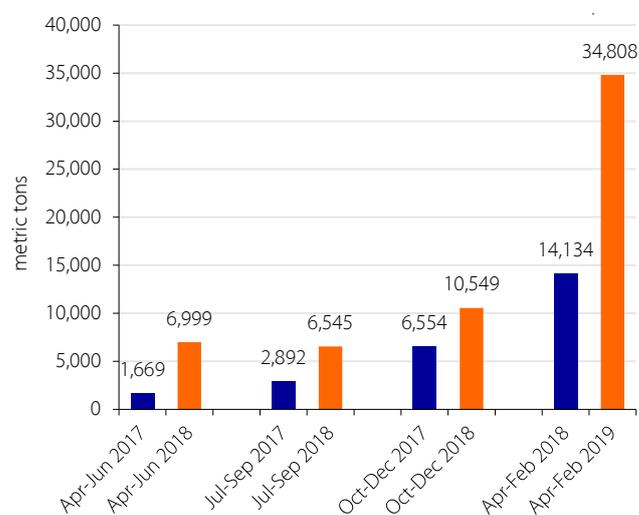
Milkfat and SMP exports have been strong this year (ending March 2019). As per the official estimates, for the 11 months between April 2018 and February 2019, India exported 34,808mt of milk fat. This compared to 14,134mt exported last year for the same time period (see Figure 8). In the same period, SMP exports reached 40,400mt versus 9,200mt the previous year.

Rabobank expects exports of between 45,000mt and 50,000mt of SMP and 40,000mt and 50,000mt of milkfat for the full year (ending March 2019).

Looking forward, SMP exports will be limited due to reduced stocks and more appealing prices in local wholesale markets. However, milkfat exports are expected to continue to be firm due to better prices in export markets and a need to clear some excess product.

Looking at the consumer market, the organized dairy industry is expected to show growth of between 10% and 15% on value basis for FY2020. This is largely due to the ongoing formalization (from loose to packed products) and growth in key value-added dairy segments.

Figure 8: Indian milkfat exports, Apr 2017-Feb 2019



Source: Indian Department of Commerce, Rabobank 2019

GCMMF (Amul), a leading dairy player in India, is targeting 20% to 25% annual growth for the next two years. This is also reflected in the performance of privately-listed dairy companies.

FY2019 (April to March) company results have been announced for the listed private dairy companies in India. Most of them have shown both revenue growth (10% to 20%) and margin expansion over previous period. This is due to higher margins earned on increasing share of value-added products in their portfolio and also because of additional margins earned on SMP (due to an increase in prices this year due to exports benefits).

The industry is expecting increases in consumer retail prices of between 5% and 10% this year for milk and dairy products. Some of the leading dairy companies have already announced increases in retail prices for packed milk by INR 2/liter (USD 0.03/liter), an increase of ~5%.

China

Average milk prices in China reversed a rising trend in February 2019, turning into a post-Chinese New Year seasonal decline. However, unlike the more steep Q2 seasonal milk price declines seen in the past few years, farmgate milk prices only fell by 2% so far from Q1, and were well-supported at CNY 3.53/kg (USD 0.52/kg) during May, about 3% higher YOY.

The attraction of WMP prices from Oceania is falling, as the discount of landed product has further narrowed to 10% to the domestic parity, from 18% during Q1 2019 as Oceanian prices have strengthened vs Q1 and CNY depreciated by 2% during the month of May vs. March (see *Figure 9*).

Contrary to our expectation of a slower growth into March and Q2, after a strong wave of SMP and WMP imports hit the shore in January-February 2019 (+27% YOY), imports continued to roar ahead in March and April, bringing a 33% increase in import during the first four months.

The National Bureau of Statistics (NBS) has indicated that milk production in Q1 2019 grew by 2% YOY. This, though, is at odds with 5.1% production growth implied by the Ministry of Agriculture (MOA)'s milk production index. The NBS' lower number may be attributed to a larger sample, which includes more small farms, where production has slowed more quickly.

Key dairy companies that have reported Q1 2019 results show a headline line sales growth of 15% YOY. Rabobank estimates the inflation-adjusted sales growth to be 12% YOY, a slight acceleration compared to 10% YOY for 2018. We believe that overall volume growth remained below

these levels as premiumization and new products remain important growth drivers, whereas leading players continued to capture market shares.

In view of stronger than expected milk production growth suggested by both NBS and MOA, Rabobank is revising 2019 production growth to 2% in 1H 2019, while maintaining production growth of 1% YOY in 2H 2019, as production recovery was stronger in 2H 2018 which gave a higher comparison base.

The domestic milk price needs to be at least sustained at the current level in order to give incentives to producers to grow production.

Despite proactive efforts to adjust feed mixes and alfalfa sources to domestic and other countries (e.g. Spain) away from US (given a 25% retaliatory tariff), overall feed costs have risen.

Thanks to higher milk prices, the margin for milk production has improved (although not necessarily in percentage terms) compared with a year ago.

Large farms are generally cautiously optimistic, but this is not yet generating any strong signs of renewed investment in farm expansion.

Discussions with industry sources continue to indicate that there have been sporadic herd replenishments since 2H 2018, but largely by smaller farms (around 1,000 to 2,000 heads total size), with some financial support from large-scale processing companies.

Dairy heifer imports during Q1 2019 registered the first increase of 76% YOY since Q2 2017, and this doubled YOY in April, bringing a total of 25,470 head to China during the first four months of 2019. Any addition to production, though, is unlikely to be significant during 2019.

There have also been reports that leading dairy processing companies have been in a race to seize control over domestic farms, suggesting an improved balance between domestic supply and demand following previous years of adjustments.

In addition, rising concentration of good quality raw milk in the hands of leading processing companies may mean that processors on a smaller scale (largely regional processing companies) are finding it increasingly difficult or more expensive to source raw milk, which could drive their decisions to invest in dairy farming. As such, Rabobank raises forecast milk production growth in 2020 to 2%, from 1.5% previously.

That said, African Swine Fever (ASF) has had a significant, negative, impact on China's pork production, resulting in rising meat prices. Current beef prices are 8% higher YOY,

trailing price increases seen in pork (27% YOY) and poultry (13% YOY). Further escalations in beef prices could trigger accelerated culling of dairy cows, which would then stall milk production growth in China, resulting in greater imports.

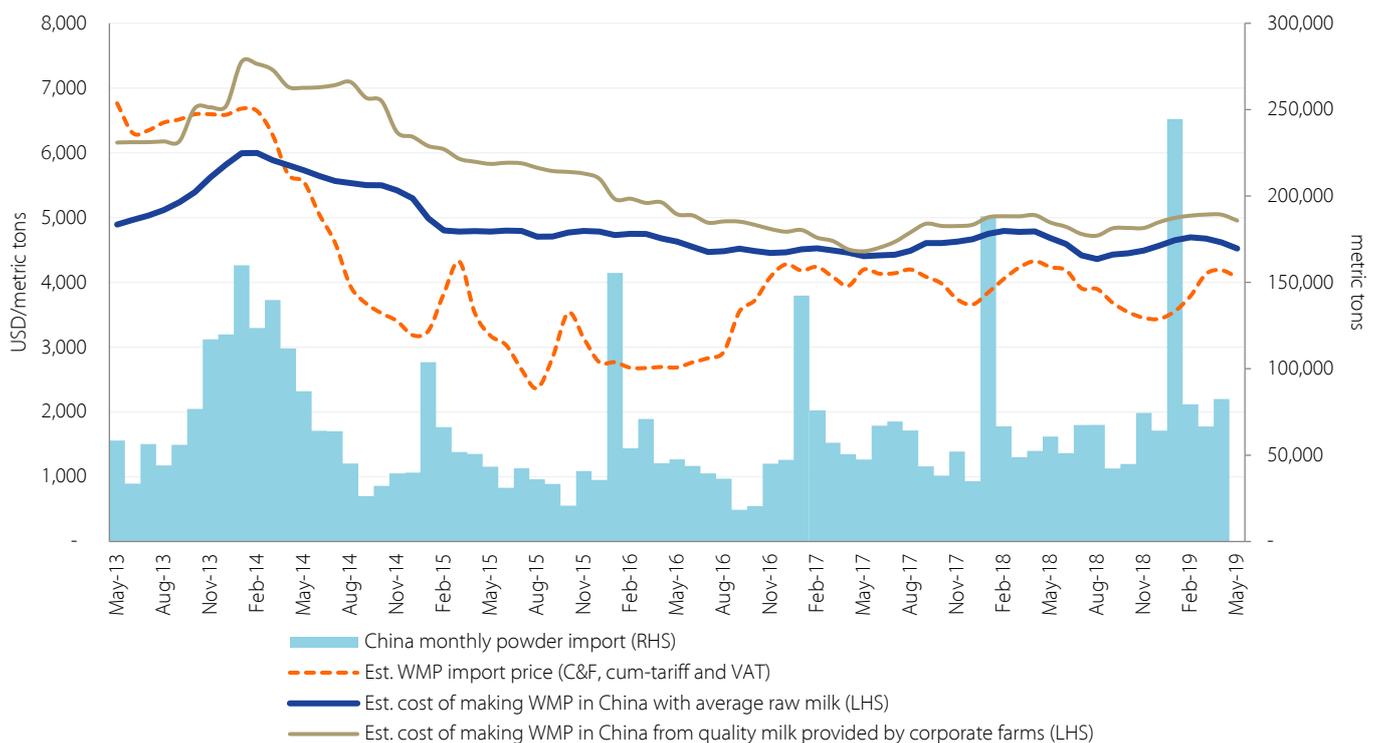
While expecting consumer dairy consumption to stay resilient, Rabobank is trimming total demand growth to 1% (from 1.5% previously) for 2019, given lower whey requirements as a result of ASF and retaliatory tariffs on US dairy products. Rabobank maintains a 2% demand growth forecast in 2020.

With a much stronger than expected 24% YOY dairy import arrival (Liquid Milk Equivalent) during the first four months of 2019, coupled with milk production recovery and stable consumption, Rabobank expects that inventory is building in China and putting pressure on ingredients pricing domestically.

SMP and WMP led import growth, with a 33% YOY gain during January-April, driven in part by a combination of worries over New Zealand production and efforts to buy now (rather than experience a shortage during Q3 as in the past two years). As a result, Rabobank revises 1H 2019 import growth to 22% YOY (LME), from 13% YOY previously. In the meantime, Rabobank is revising the LME import forecast for 2H 2019 to a decline of 7% YOY (vs. an increase of 8% previously). This makes for total import growth of 8% YOY in 2019 (vs 10% previously). Excluding whey, total import growth would be near 13% YOY in 2019.

Looking into 2020, Rabobank expects LME import to decline by 3% YOY on a high comparison base in 1H, but this should turn into an 11% YOY growth in 2H, making for a full year import growth of 2%, (previously 4%) on the back of slightly higher production growth.

Figure 9: China WMP import parity, May 2013-May 2019



Source: China Customs, Euclait, Chinese Ministry of Agriculture, Rabobank 2019

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