

PERSPECTIVE

May 2019

The latest insights into global dairy markets

Your regular global overview of the dairy industry along with trends in milk production, commodity prices and dairy trade.



Welcome back to Perspective!

May 2019

Nearly two months after the UK was first due to leave the EU, the world continues to wait with baited breath and growing demand for the outcome of Brexit. It has triggered a wave of debate, both in and out of Europe, regarding how the myriad of potential Brexit outcomes could impact global business, trade and travel. The UK has the world's second largest dairy trade deficit, and 98% of the UK's dairy imports are sourced from the wider EU region¹. It is clear that whatever the outcome of Brexit, there will be consequences to the agricultural trading sector for both sides.

This month's feature writer is Mark Voorbergen, co-founder of Dairyntel. Mark is a specialist in the realm of international dairy markets, strategy and finance. With speculation around the agricultural trading sector in Europe, Mark looks at what the future of EU milk production looks like in a world with growing environmental pressures and potential shifts in supply and demand.

Four key movements for the month:

1. Production – There were substantial production declines in New Zealand and Australia. Production growth in the US is easing, with EU holding at current levels.
2. Exports – New Zealand, Australian and EU export growth endures, whilst US exports continue to ease.
3. Imports – The strong growth of imports into Asia and China continue. The Latin America and Middle East & Africa regions are declining.
4. Prices – GDT auction event 235 saw mixed movement in price across all products, resulting in the GDT price index up +0.4% to USD \$3,490/MT. The largest change coming from Butter Milk Powder which dropped -10.3% to USD \$3,242/MT, ending its growth trend.

If you have suggestions for topics you would like to read about in Perspective, or any other general feedback, we would love to hear from you. You can contact us at nzmpbrand@fonterra.com or through your account manager.

Kind regards,

Alex Turnbull
Director, NZMP Marketing

1. <https://www.mintecglobal.com/blog/negotiation-in-food-commodity-procurement-brexit-dairy>

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So, what's the next phase for EU milk production?



Mark Voorbergen

Co-owner, Dairyntel

Mark Voorbergen advises dairy companies in the areas of international markets, strategy and finance. Mark built a large part of his expertise during his 12 years at Rabobank International where he specialised in providing financial and strategic services to many of the world's leading milk processors.

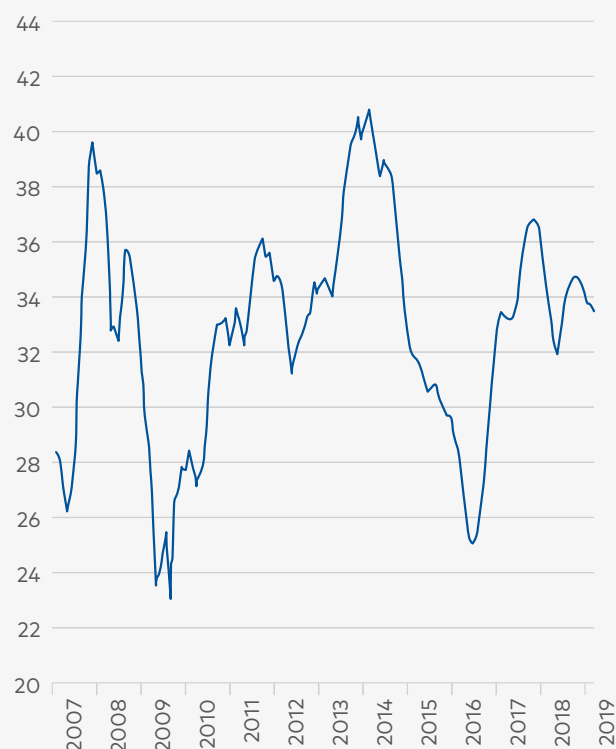
Mark's experience in the global dairy industry and across the complete value chain allows him to understand the fundamental drivers in the international dairy market and translate them into strategic and financial opportunities for individual processors. In 2011 Mark established his own advisory company, Voorbergen Consultancy, where he supports companies in their quest for financial solutions and achieving these strategic objectives.

Mark is also co-owner of Dairyntel, a company that provides trade and market intelligence services.

When brainstorming a topic for NZMP Perspective's global readers, I was triggered by a news clipping on a recent McKinsey report commissioned by the IDFA that stated, "developed regions, including Australia, NZ, the EU and the US, will be producing significant surpluses of dairy by 2027, comfortably outstripping domestic demand and seeking new markets".

It is a fact that the EU has grown its market share of global dairy trade in the last couple of years, from 27.4% in 2015 to 30.1% in 2018. Most of that export performance was driven by the combination of strong profitability on-farm in 2013 and 2014, and the end of the quota system in 2015. The resulting wave of expansion and intensification brought the average annual growth of EU milk production in the 2014-2017 timeframe to 2.3%. However, I have my doubts regarding the strength of EU milk supply growth in the coming years and I'm not sure if I concur with the McKinsey conclusions that the EU will continue to forcefully grow its export surplus in years to come.

Figure 1.
Average milk price paid by processors in the EU
(2007 – March 2019, €cts/kg)



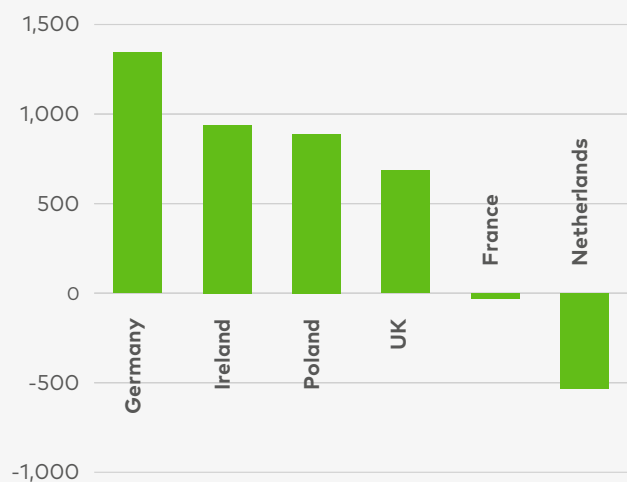
Current EU milk price levels are on the dividing line

The 2018 -2019 period is an interesting time because milk prices have been relatively stable and hover at a level that is around breakeven for the average farming system in the EU. EU Farmers came out of a decade of strong milk price volatility in the 2007 – 2017 timeframe with milk prices either working towards a new high or a new low. Farmers were either in survival mode, with the help of their banks, or pushing the pedal to the metal to make up for previous losses. Now that prices have been around breakeven for quite a while, farmers have the time to make up their mind regarding their business and their ambitions.

What makes the current milk price range interesting is that it clearly shows which regions in the EU are still comfortable at these price levels and which are not.

The concept of "breakeven" is debatable as the differences in production costs are huge from one single farmer to another, but still, the €0.32 - €0.35 milk price range is generally considered the milk price level where the majority of EU farmers are neither making money nor losing many. Figure 2 compares the most recent 12 months of milk production – April 2018 to March 2019 – with milk output in the April 2016 to March 2017 period. Farming systems in Ireland, Poland and the UK are quite cost efficient, and farms in these countries are apparently profitable enough at these price levels to invest and grow their output. The situation is quite different for

Figure 2.
April 2018 – March 2019 milk production change
versus 24 months prior (mln kgs of milk)





farmers in France and the Netherlands. I would also put certain regions in Germany in the latter group despite overall being the country with the strongest growth compared to 2 years ago.

The causes for the disappointing supply growth in heavyweight countries like the Netherlands, France and certain regions in Germany are quite diverse.

- **In the Netherlands**, the phosphate limitations put quite a strong cap on milk production, making the chances of meaningful growth in the Netherlands quite unlikely in years to come.
- **In France and certain parts of Germany** a growing number of exits could be observed in 2018 amongst smaller farms. After the terrible financial years of 2015 and 2016, the margin improvement in 2017 was too weak and too short lived and 2018 offered very little improvement. Many smaller farms decided to sell their cows and exit the business.
- **Eastern Germany** has its own dynamics which are mainly about lack of succession and lack of capital. Many of the old, large-scale farms were

picked up by employees or management at very low prices in 1989 after the fall of the wall. Now almost 30 years later these owners are retiring, but potential successors (of which there are few) have trouble raising the required capital since these farms have accumulated substantial value in land and other assets over the years.

So most of these growth limitations appear to be structural and it remains a question whether the new supply growth hubs in Ireland, Poland and possibly also the Baltics will be able to compensate for the absence of growth in the traditional dairy regions.

I have my doubts if an average growth rate above 1% can be sustained by the EU.

With an annual demand growth rate of around 0.5%, the growth of the EU's exportable surplus will be very modest and most likely significantly below the growth rate of global import demand.



How might processors react to the regional shifts in EU supply growth?

The supply trends as described above are quite recent so it may be too early to address all the processor options in depth, but some strategic options are already being pursued.

Some processors in the "standstill regions" consider themselves fortunate for the lack of supply push from their suppliers. They see an opportunity in pursuing more value-added options that reflect the higher cost of milk production in their regions. The Netherlands is clearly a region where milk production has come to a standstill due to sustainability limits.

The scarcity of Dutch milk will eventually translate into a stronger focus on products in the top of the valorization pyramid

e.g. performance nutrition, specialty cheeses and specialty milks like organic, Jersey, A2 etc. It doesn't make sense to build a commodity value chain in a country with substantially higher production costs due to the cost of coping with sustainability standards. Processors that may still aspire to participate in the global opportunities in dairy commodities will increasingly tap into the growing milk pools in Ireland, Poland and the Baltics. Many leading processors have in the past built up interesting market positions in emerging markets in Asia and Africa.

Keeping up with the growth of these markets requires access to efficient milk pools with growth potential, even if these are to be found outside their traditional collection areas.

The growing milk pools in Ireland and Poland will allow the EU to continue to expand its role in the global dairy market for another couple of years. The pace of expansion may be more modest than in the past though, as several of the traditional export regions are no longer capable of fueling the export ambitions of the EU due to sustainability limitations, lack of profitability and succession or other structural challenges.





Significant monthly production declines in New Zealand and Australia. Monthly production eased in the US and holding at current levels in EU

NEW ZEALAND

+3%

Production change
for the 12 months
to March 2019

New Zealand milk production for the 12 months to March was 3% higher than last year, which was a weak production year.

New Zealand milk production was down 8% in March compared to the same period last year.

New Zealand recorded its second warmest March on record. Dry conditions continued across most of the North Island and parts of the South Island. Soil moisture was below normal for most of the North Island and a large part of the South Island.

AUSTRALIAN COLLECTION

-4%

Production change
for the 12 months
to February 2019

Production for the 12 months to February is down 4% on the previous 12 months.

Continued drought conditions and high input costs continue to put pressure on Australian milk production as a result of reduced supplemental feeding, increased cow cull rates and farm exits. Dairy Australia continue to forecast a milk production decline of between 7% and 9% for the season.

Australia milk production decreased 13% in February compared to the same period last year.

EUROPEAN UNION

0%

Production change
for the 12 months
to February 2019

Production for the 12 months to February was up less than 1% compared to the same period last year.

EU milk production in February remained unchanged from the same period last year.

Eighteen of the 28 member countries saw positive year-on-year growth including Romania, Estonia and Poland, at 7%, 5% and 4% respectively. The UK, Bulgaria, and Ireland increased 3% compared to the same period last year.

Key exporting countries where production declined were Austria, France and The Netherlands, at 6%, 3% and 2% respectively.

UNITED STATES

+1%

Production change
for the 12 months
to March 2019

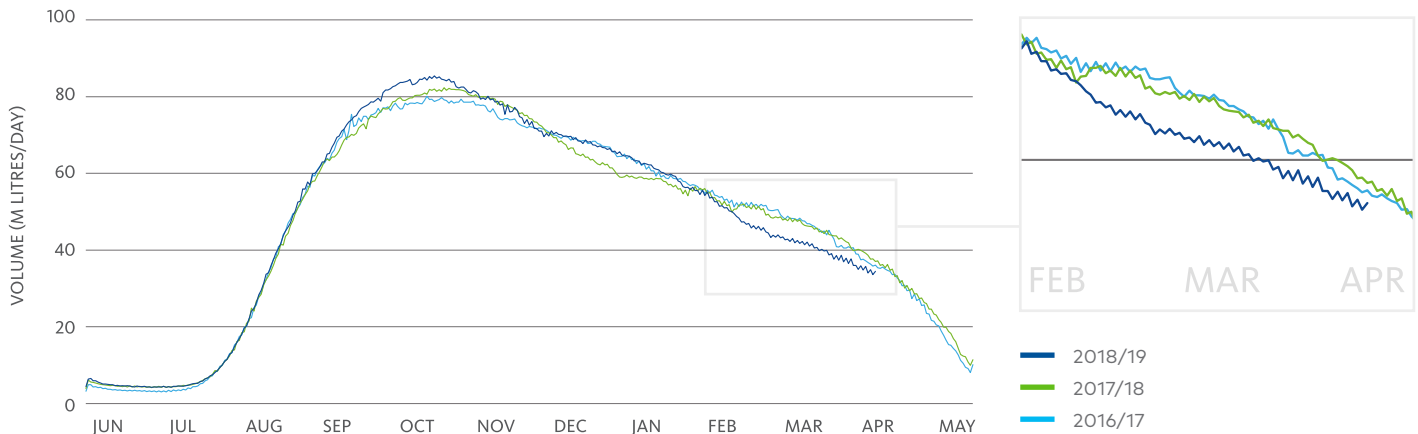
Milk production for the 12 months to March was just under 1% higher compared to the same period last year.

US milk production decreased 0.4% in March, compared to the same period last year. This is the first year-on-year decline since March 2013.

Tight margins, high cow cull rates, record farm closures and weather issues combined to push US production into negative territory for the month.



FONTERRA MILK COLLECTION 2018/19 SEASON

NEW ZEALAND
COLLECTION**-9%**Decrease for March 2019
compared to March 2018**+2%**Season to date
1 June to 31 March

Fonterra's New Zealand milk collection in March was 130 million kgMS, down 9% on March last season.

Above-average temperatures and insufficient rainfall across many regions continued to adversely affect milk production in March.

Collection for the season to date reached 1,345 million kgMS, up 2%, due largely to favourable spring conditions which are now being offset with significant decreases in February and March.

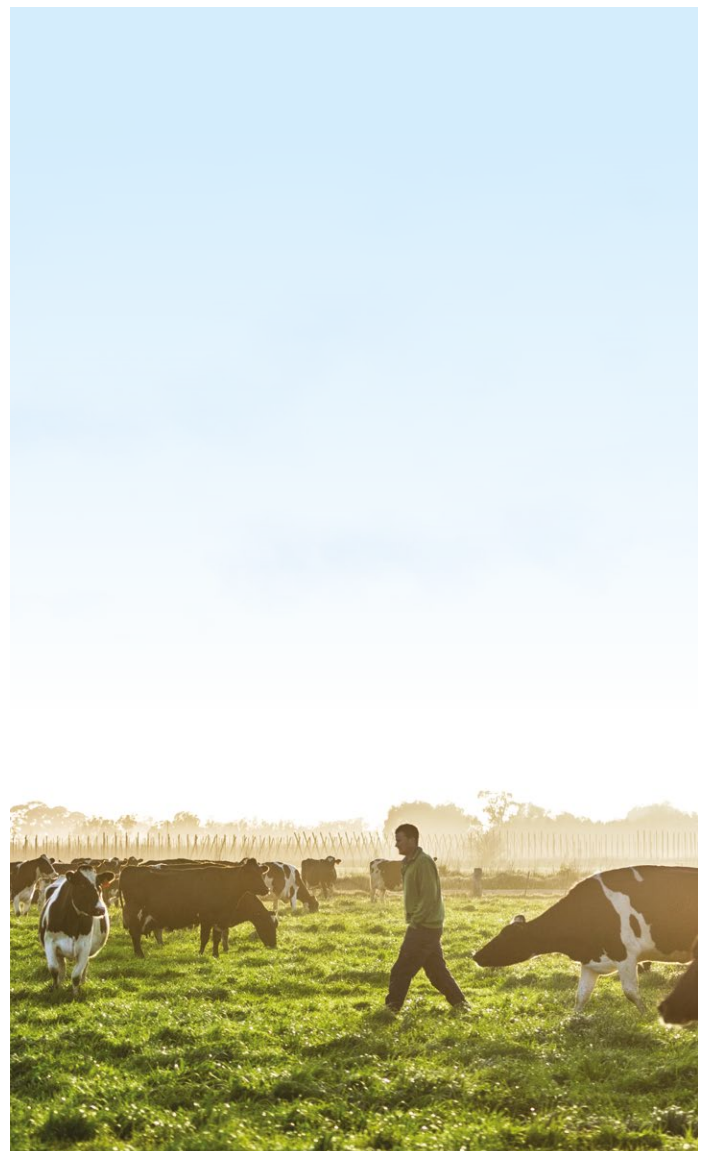
Full season forecast remains at 1,510 million kgMS.

AUSTRALIAN
COLLECTION**-27%**Decrease for March 2019
compared to March 2018**-18%**Season to date
1 July to 31 March

Fonterra's collection across Australia for the nine months to 31 March reached 99 million kgMS, down 27% on the same period last season.

Fonterra collections in March were 8 million kgMS, down 27% on March last season.

Fonterra's share of monthly collections continues to reduce due to adverse on-farm and weather conditions, increased cow cull rates, farm exits in key regions, cost of inputs and milk collection losses in a highly competitive market.





Exports from Australia, New Zealand and the EU continue to grow. USA exports continue to ease

NEW ZEALAND

+4%

Export change
for the 12 months to
February 2019

Exports for the 12 months to February were up 4%, or 131,000 MT, on the previous comparable period. This was primarily driven by AMF, fluid milk products, and WMP, up a combined 135,000 MT.

Total New Zealand dairy exports increased by 27%, or 71,000 MT, in February compared to the same period last year. This was primarily driven by WMP and butter, up 39,000 MT. Other than a slight decline in WPC and caseinate, all other products were up for the month.

AUSTRALIA

+7%

Export change
for the 12 months to
February 2019

Exports for the 12 months to February were up 7%, or 53,000 MT, on the previous comparable period.

Infant formula, fluid milk products, and whey powder make up most of the growth in Australian exports, up a combined 46,000 MT.

Australia dairy exports increased 7%, or 4,000 MT, in February compared to the same period last year. This growth was due to fluid milk products and infant formula up a combined 7,000 MT. This was offset by a decline in WMP and SMP of 4,000 MT.

EUROPEAN UNION

+1%

Export change
for the 12 months to
January 2019

Exports for the 12 months to January were up 1%, or 65,000 MT, on the previous comparable period. SMP, lactose and infant formula were up a combined 149,000 MT. This was offset by a 110,000 MT decline in fluid milk products and WMP.

EU dairy exports increased by 12%, or 53,000 MT, in January compared to the same period last year. This was primarily driven by SMP, and fluid milk products up a combined 47,000 MT. This was offset by declines in whey powder and WMP, of a combined 7,000 MT.

UNITED STATES

+6%

Export change
for the 12 months to
February 2019

Exports for the 12 months to February 2019 were up 6%, or 127,000 MT, on the previous comparable period.

Most products remain ahead of the previous comparable period. SMP and WMP were up a combined 103,000 MT. This was offset by a decline in whey powder of 38,000 MT. Most of the decline is due to lower exports to China.

US dairy exports declined 12%, or 23,000 MT, in February compared to the same period last year. This was primarily driven by SMP, whey powder, lactose and WPC, down a combined 31,000 MT. This was offset by increases in cheese and fluid milk products of 7,000 MT.

Imports into Asia and China show strong growth. Latin America and Middle East & Africa down

LATIN AMERICA

+2%

Import change for the 12 months to January 2019

Imports for the 12 months to January 2019 were up 2%, or 40,000 MT, compared to the same period the previous year. SMP, fluid milk products, WMP, infant formula and MPC were up a combined 64,000 MT offset by declines in cheese, AMF, whey powder and other powders of 21,000 MT.

Latin America dairy import volumes¹ decreased 27%, or 44,000 MT, in January compared to the same period last year. WMP was up 9,000 MT. Almost all other products were down, principally SMP, cheese, whey powder and lactose with an aggregate decline of 43,000 MT.

ASIA

+6%

Import change for the 12 months to January 2019

Imports for the 12 months to January were up 6%, or 270,000 MT, compared to the same period the previous year. This growth continues to be driven by fluid products, WMP, SMP, lactose, cultured products and infant formula up a combined 253,000 MT. The import market remains in a solid growth phase.

Asia (excluding China) dairy import volumes¹ increased 5%, or 21,000 MT, in January compared to the same period last year. SMP, WMP and fluid milk products were up but offset by declines in whey powder, ice cream and cheese.

MIDDLE EAST & AFRICA

-6%

Import change for the 12 months to January 2019

Imports for the 12 months to January 2019 were down 6%, or 260,000 MT, compared to the same period the previous year. The reduction was driven by fluid and fresh dairy and cheese, down a combined 225,000 MT.

Middle East and Africa dairy import volumes¹ decreased 7% or 24,000 MT in January 2019 compared to the same period last year. Small growth in infant formula, fluid milk products, cultured products and AMF was offset by declines in most other product, principally cheese, SMP butter, and other powders down a combined 27,000 MT.

CHINA

+7%

Import change for the 12 months to February 2019

Imports for the 12 months to February were up 7%, or 204,000 MT, compared to the same period last year. Strong demand out of China continued with imports across all key categories, in particular, WMP, SMP and infant formula and lactose, which are up a combined 176,000 MT.

China dairy import volumes increased 11%, or 20,000 MT, in February compared to the same period last year. This was driven by increases across a broad range of products, particularly fluid milk products, SMP, WMP and lactose up a combined 26,000 MT but offset by whey powder which was down 7,000 MT.

RUSSIA

-13%

Import change for the 12 months to February 2019

Imports for the 12 months to February 2019 were down -13% or -153,000 MT compared to the same period the previous year. This was mainly driven by Fluid and Fresh dairy, Whey Powder, SMP, Cultured Products and WMP being down a combined -230,000 MT. Offset by Cheese being up 69,000 MT.

Russia import volumes were down -11% or -10000 MT for February 2019 compared to the same month the previous year. This was primarily led by Fluid and Fresh Dairy, Whey Powder, Cultured Products being down a combined -17,000 MT. Offset by WMP, Butter and Cheese up a combined 8,000 MT.

1. Estimates are included for those countries that have not reported data.

Sources: Data from Global Trade Information Services; EU Milk Market Observatory; FAO; Highground Trading Group



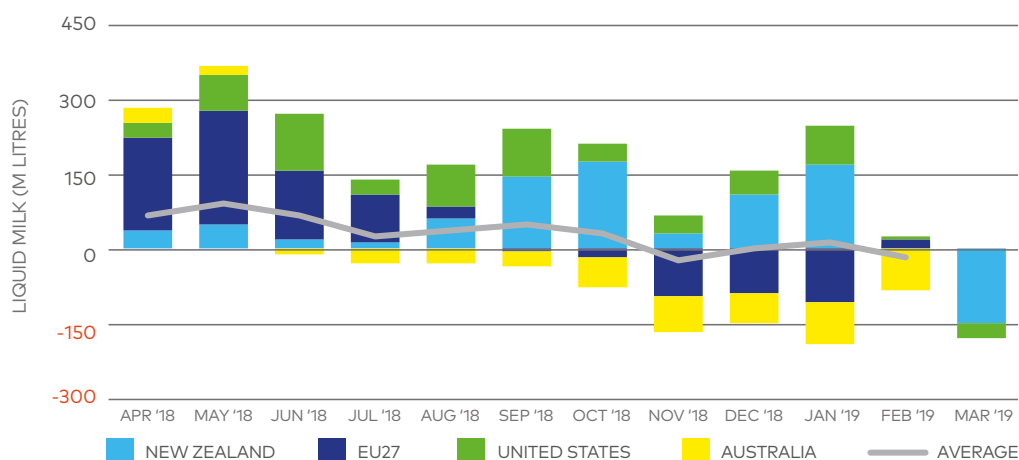
Global Dairy Market

The charts on the right illustrate the year-on-year changes in imports, exports and production for a range of countries that are important players in global dairy trade.

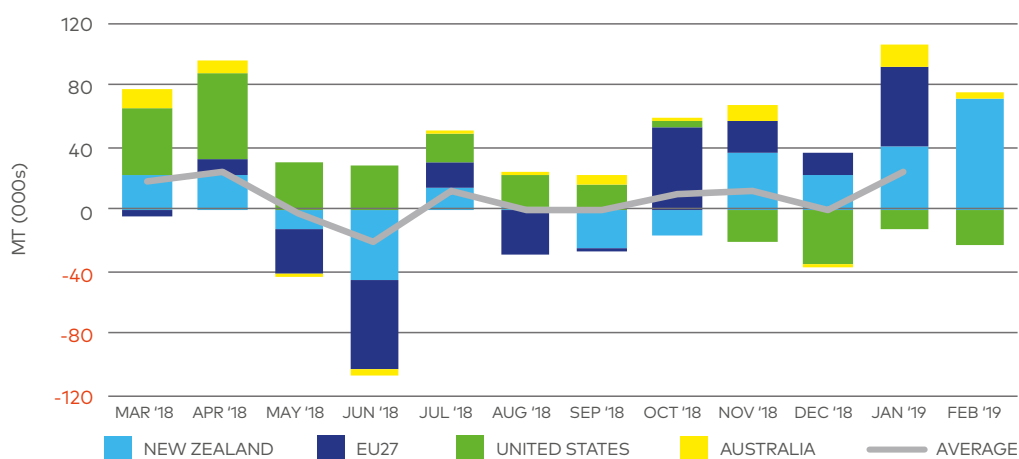
The absolute size of the bars represents the change in imports, exports or production, relative to the same period the previous year.

Averages are shown where data is complete for the regions presented.

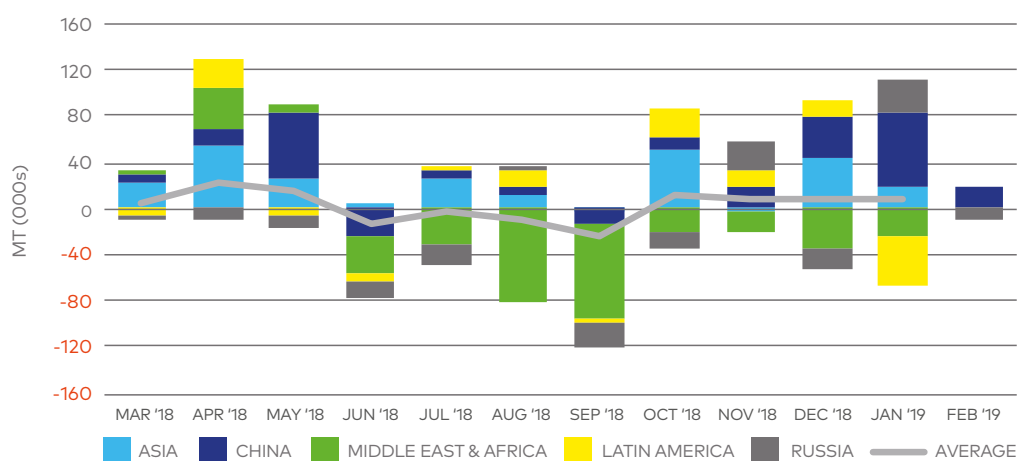
PRODUCTION



EXPORTS



IMPORTS





Food Price

The FAO Food Price Index (FFPI) rose in April 2019 to around 170 points, the highest it has been since June 2018. This is still 1.5% below the level it was in April 2018. The growth has come from a firming in the sub-indices, led by dairy and meat.

The Dairy Price Index in April averaged 215 points, up 10.7 points from March, for a fourth month of consecutive increases. This continued rebound in price is attributed to the anticipation of further tightening in export availabilities from Oceania with dry weather conditions reinforcing the seasonal milk production drop.

Source: FAO



Economic

Composite leading indicators (CLIs) continue to point towards easing growth momentum in the most major economies. Easing growth momentum remains the assessment for the United States, Japan, Canada, the United Kingdom and the euro area as a whole including Germany and Italy. The CLI for France anticipates stable growth momentum.

The industrial sectors of China and India present a stable growth momentum with similar signs in Russia. Growth appears to be gaining momentum in Brazil.

Source: OECD



Consumer

The EIU has lowered its outlook for global growth for 2019 to 2.6%, due to a more uncertain short-term outlook for emerging markets, including Argentina, Turkey and South Africa. Indicators in the US, EU and China have been stronger than previously expected, although these economies are still expected to slow in 2019-20, in part due to trade policy, where a limited deal between China and the US is at increased risk of breaking down in negotiation. In addition, a recent surge in tension between the US and Iran has increased geopolitical risk in the ME, but global oil forecasts remain unchanged.

Source: Economist Intelligence Unit

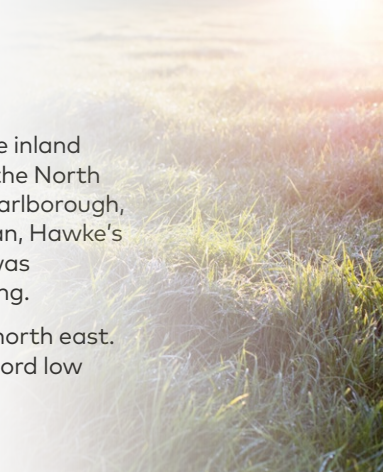


Weather

Weather in New Zealand was often at either end of the spectrum. Temperatures were below average inland in Southland, Otago and Canterbury, with the west coast above average along with the majority of the North Island. Rainfall was above average or well above for inland Otago, southern Westland Canterbury, Marlborough, Wellington, Wairarapa and Taranaki. Conversely, eastern Southland, north Otago, Nelson and Tasman, Hawke's Bay, eastern Waikato, western Bay of Plenty and Northland were below or well below normal. April was dominated by mostly dry weather in Australia, with farmers reportedly waiting for rain before planting.

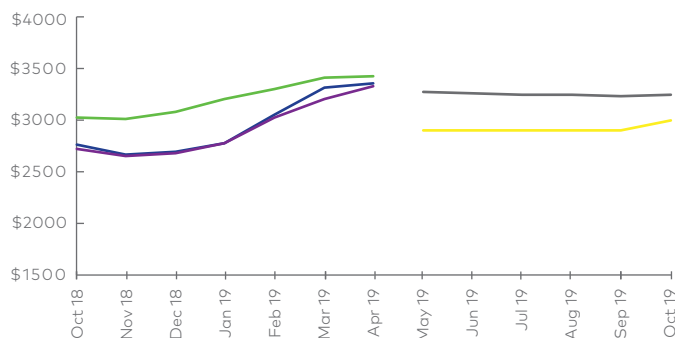
Europe continued a trend of above normal temperatures, with acute dryness raising concerns in the north east. Most of the United States experienced a wet April, with drought coverage reaching a modern-era record low across the lower 48 States of 2 percent.

Source: World Agricultural Weather Highlights USDA oCOE, Fonterra Ingredients Australia





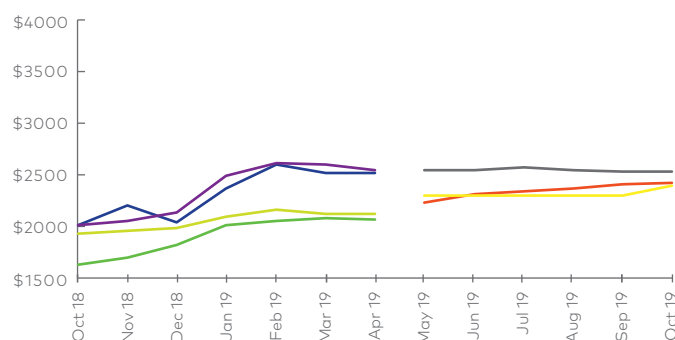
WMP



April WMP price changes were positive with Dutch Dairy Board (DDB) up by +0.2% to USD 3,423/MT, USDA Oceania up by +3.9% to USD 3,325/MT, and GDT price rising by +1.4 % to USD 3,355/MT.

Average futures and forecasts for the next six-month period are mixed with NZX Futures reducing their forecast average by -3.1% to a 6-month average of USD 3,353/MT and Rabobank Oceania average prices holding steady at USD 2900/MT.

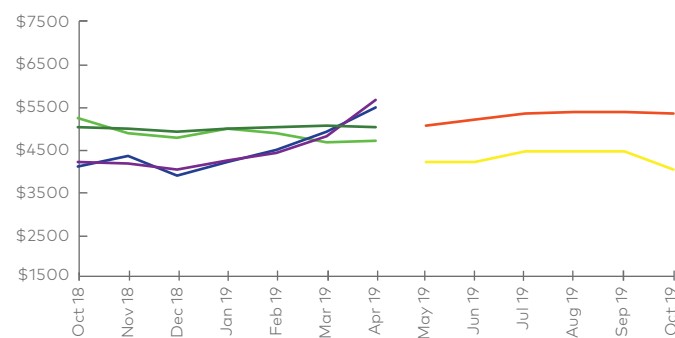
SMP



SMP price changes for April were minor. Dutch Dairy Board (DDB) down by -1.1% to USD 2,062/MT. USDA Oceania dropped -1.8% to USD 2,550/MT. GDT and USDA NASS remain steady at USD 2,516/MT and USD 2,126/MT respectively.

Forecast and futures are pricing similar to the current market with the average 6-month price forecast between USD 2,317/MT and USD 546/MT.

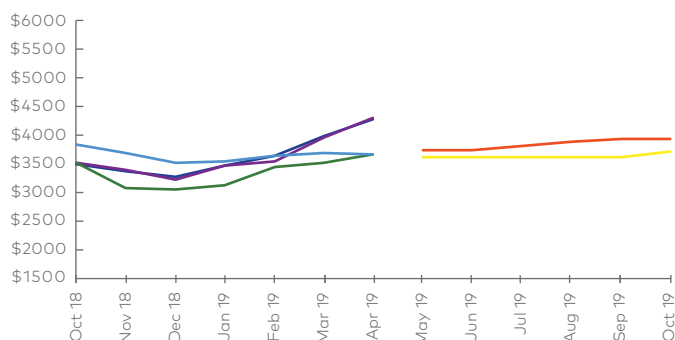
BUTTER



April butter prices were mixed. DDB and CME Spot stayed relatively flat at USD 4,648/MT and USD 4,990/MT respectively. Whilst we saw a +10.9% upswing on GDT to USD 5,427/MT, and USDA Oceania saw a +17.5% leap to USD 5,606/MT.

Average futures and forecasts for the next six-month period are mixed with CME Futures Increasing their forecast average by +1.9% to a 6-month average of USD 5,147/MT and Rabobank Oceania average prices holding steady at USD 4,275/MT.

CHEESE



The majority of Cheddar cheese prices increased during April, with the exception of the EU commission which dropped -1% to USD 3,652/MT. GDT increased +7.5% to USD 4,276/MT, USDA Oceania increased +8.7% to USD 4,288/MT and CME spot price is up +4.4% to USD 3,661/MT.

CME Futures prices increased for the six months from May to October 2019, up +5.5% to an average price of USD 3,630/MT and Rabobank averages hold steady at USD 3,600/MT.

Actuals

GDT Fonterra Dutch Dairy Board USDA Oceania
USDA NASS CME Spot EU Commission

Forecasts

NZX Futures CME Futures
Rabobank Oceania

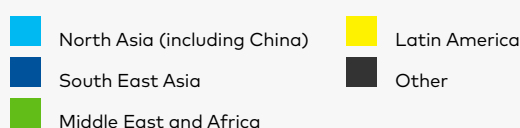
GDT Results

TRADING EVENT 235

+0.4% Change in GDT Price Index from previous event		USD 3,490 Average price (USD/MT, FAS)	
WMP -0.5% \$3,249	AMF +1.4% \$6,217	SMP +2.8% \$2,521	BUTTER 0.0% \$5,486
RENNET CASEIN +3.1% \$6,610	CHEDDAR -2.4% \$4,217	LACTOSE -2.7% \$887	BMP -10.3% \$3,242

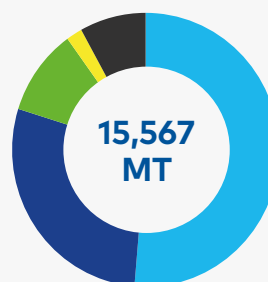
GDT SALES BY DESTINATION

TRADING EVENT 234

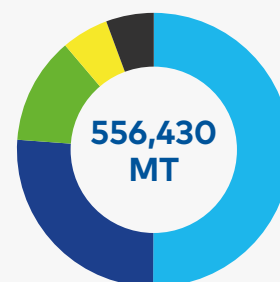


The next trading event will be held on 21 May 2019.
Visit www.globaldairytrade.info for more information.

Auction 234



Financial Year to Date



Dairy commodity prices and New Zealand dollar trend

The New Zealand dollar adjusted lower in March following the Reserve Bank's shift closer to easing monetary policy settings.





USDA, Dairy Outlook

Published April 2019

Recent developments

From week ending March 2 to week ending March 30, movement of dairy product prices as reported in the USDA National Dairy Products Sales Report (NDPSR) were mixed. The most significant increases were 6.8 cents for 40-lb blocks of cheddar and 14.2 cents for 500-lb barrels. Nonfat dry milk (NDM) and dry whey prices fell by 2.5 cents and 3.7 cents respectively.

For the 2 weeks ending March 29, USDA Dairy Market News reported SMP prices for Oceania and Western Europe were \$1.12 and \$.99 per lb, and the midpoints. Oceanic cheddar was \$1.85 per lb, with prices for butter comparable to U.S. domestic prices at \$2.36 and \$2.17 for Oceania and Western Europe respectively.

NASS estimated that U.S. milk production was 17.014 billion lbs in February, up 0.2 percent from the same month last year. Milk production per cow was at 1,818 lbs per cow, 19 lbs above the same month in 2018. Milk cow numbers rebounded in January to 9.359 million head, and remained at that level in February. Domestic dairy use has grown significantly in recent months, in the 3 months from November 2018 through January 2019, year-on-year domestic use increased 2.6 percent on a milk-fat basis, and 2.9 percent on skim-solids basis. Notable stocking levels were butter 8.7 percent below the previous year, and total aggregate cheese stocks 4.0 percent above the previous year.

Dairy forecasts for 2019

Upward revisions to 2018 milk cow numbers and a larger milking herd in February 2019 have raised the annual estimate for size to 9.36 million head. Milk production for 2019 is forecast at 219.5 billion lbs, a reduction of 0.2 billion lbs on the previous forecast.

2019 export forecasts have been lowered to 9.8 billion lbs milk-fat and 42.2 billion lbs skim-solids basis, largely due to lower whey export expectations. The forecasts assume China's retaliatory tariffs will remain in place.

The import forecast for 2019 is unchanged at 6.5 billion lbs, with domestic use forecast at 215.6 billion lbs for the year, up 0.3 billion lbs.

The largest product price forecast changes are for cheese and whey. Cheddar is forecast at \$1.555-\$1.605 per lb, 4 cents higher at the midpoint. The dry whey forecast has been lowered 4.5 cents at the midpoint to \$0.380-\$0.41 per lb, as weaknesses in exports are expected to persist through 2019. The all-milk price for 2019 is now forecast at \$17.25-\$17.75 per cwt, an increase of 20 cents at the midpoint from the previous forecast.



Blimling, Forecast Update

Published April 3, 2019

Blimling believes that cheese prices will find support above \$1.60 early in the second quarter, bolstered by reduced fresh supply, and stable demand. Butter prices are likely to remain rangebound – between \$2.20 and \$2.30 through mid-year due to ample buy-side interest capped by adequate supply. NDM/SMP prices will continue to track around the dollar mark, capped on the upside by uncertainty out of Mexico. Dry whey prices will remain depressed by trade concerns with China and further spread of African swine fever in Asia, with good demand for protein products limiting the downside.





Fonterra draws the information in this update from a variety of principally external sources listed below. Also included are defined acronyms for better understanding.

AMF Anhydrous Milk Fat

BMP Butter Milk Powder

CME Chicago Mercantile Exchange

DDB Dutch Dairy Board

EIU Economist Intelligence Unit

FAO United Nations Food and Agriculture Organisation

Farmgate Milk Price The price for milk supplied in New Zealand to Fonterra by farmer shareholders

Fluid and Fresh Dairy The Fonterra grouping of fluid milk products (skim milk, whole milk and cream pasteurised or UHT processed), concentrated milk products (evaporated milk and sweetened condensed milk) and yoghurt

FTA Free Trade Agreement

GDI Global Dairy Intelligence group, Fonterra Cooperative Group Limited. GDI provides insights to Fonterra management based on a model of the global dairy market developed by GDI and populated with publicly available data. The model outputs referenced in this report do not reflect Fonterra's non-public production or sales data

GDP Gross Domestic Product

GDT Global Dairy Trade auction platform

GDT Price Index is an index that provides a measure of the weighted average percentage change in the movement in price of all products sold on GDT. This provides a simple measure of changes in dairy price between trading events

IMF International Monetary Fund

Informa Informa Economics Inc., Dairy Group, Global Dairy Market Report

LME Liquid Milk Equivalent

MAT Moving Annual Total (this is data averaged across the 12 month period)

MEA Middle East and Africa

NDM Non-fat Dry Milk

NZX NZ Stock Exchange

OECD Organisation for Economic Co-operation and Development

Q[1] [First] Quarter

Reference Products The dairy products used in the calculation of the Farmgate Milk Price, which are currently WMP, SMP, BMP, butter and AMF

SEA South East Asia

Season New Zealand: A period of 12 months to 31 May in each year. Australia: A period of 12 months to 30 June in each year

SMP Skim Milk Powder

TE GDT Trading Event

USDA NASS US Department of Agriculture National Agricultural Statistics Service

USDA Oceania US Department of Agriculture Agricultural marketing service price series for specific products in the Oceania region

WMP Whole Milk Powder

YOY Year-on-year

YTD Year to date



Tracking the global dairy market Production, Export and Import charts

The production, export and import charts illustrate year-on-year changes in production, exports and imports for a range of countries that are important players in global dairy trade.

The absolute size of the bars represents the change in production, exports or imports compared to the same month the previous year. The portion of the bar below zero represents a year-on-year decrease and the portion above the line shows the year increase for that country. Where countries are not shown this is likely due to the data not yet being available.

Weather Source (Page reference – 11)

Comments on weather are obtained from various government weather sites as well as independent reports including Martell Crop Projections. Global milk production data is sourced from government and industry websites including US Department of Agriculture (USDA), EuroStat, Dairy Australia, Dairy Companies Association of New Zealand (DCANZ) and others.



Important note: The information and commentary contained in this 'Perspective from NZMP' is based on publicly available official government statistics; industry association reports; other published industry reports together with data and insights developed by Fonterra's Global Dairy Intelligence group ('GDI'). These sources are identified as appropriate in this 'Perspective from NZMP'. GDI insights and data are derived from a global dairy market model populated by publicly available data. The model inputs and outputs do not reflect Fonterra's non-public production, pricing or sales data. Fonterra Co-operative Group Limited and its group members involved in the manufacture or sale of NZMP branded products ('Fonterra') has provided this 'Perspective from NZMP' for informational purposes only. It does not constitute recommendations or advice for the purposes of making financial decisions regarding trading in dairy products or commodities, or dealing in financial instruments relating to dairy commodities. Although every effort is made to ensure the accuracy of reproducing and interpreting such information, no warranty or representation of such is made and Fonterra shall have no liability in respect of any reliance placed on such information in the formulation of any business decision.