



**GLOBALTM
DAIRY
TRADE.**

ANNUAL REPORT 2018

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A decade of Global Dairy Trade

In July 2008, Global Dairy Trade broke new ground by providing the first means of discovering the true market prices of internationally-traded dairy commodities. A decade on, GDT Events is recognised by dairy producers, buyers, sellers and commentators as the primary

source of insights into demand and pricing of internationally-traded products. As we move into our second decade, it's timely to share some data from the first. We value and acknowledge 10 years of support from buyers, sellers, producers, farmers and the financial sector.



Director's Report



Eric Hansen
Director
Global Dairy Trade

Ten years ago, Global Dairy Trade broke new ground in dairy commodity trading, holding our first online auction with 107 customers signed on as registered bidders for the 10,000 Metric Tonne (MT) of Whole Milk Powder (WMP) on offer.

In its first year, GDT Events traded 200,000 MT. By the end of our first decade, we have held 226 Trading Events, traded 7 million MT, amounting to US \$24 billion in dairy products supplied to buyers from 88 countries.

The platform was established to meet the need for a transparent pricing barometer – one which would enable dairy processors and their ingredients customers to gain valuable insights into pricing trends, and assist in the payment of fair and realistic prices to farmers for the value of their raw milk at the farm gate.

While GDT Events was launched on the cusp of the Global Financial Crisis with the subsequent shockwaves in the global economy severely impacting dairy demand and pricing, the concept of a dairy trading platform was proven. Within two years of launch, Anhydrous Milk Fat (AMF) and Skim Milk Powder (SMP) had been added to the platform, and total cumulative trading value had surpassed US \$1 billion.

Global Dairy Trade pioneered innovation in dairy commodity trading, and we have continued

to respond to demand from both buyers and sellers for additional services. After two rounds of market research to ensure design concepts aligned with customers' needs, we launched GDT Marketplace in 2016. This highly flexible platform connects buyers and sellers and allows transactions of any dairy product at any time, with no minimum quantity constraints. The successful launch of a Cream Group on GDT Events and our first Buyers' Conference have added further depth to our operations.

Through our first decade, we have progressively won the support of buyers, sellers and market commentators, earning our place as a trusted source of market-based reference prices and market-informing data. Over the next decade, we will continue to evolve in line with our purpose to help buyers and sellers to trade with confidence in global and local dairy markets.

This includes understanding what limitations remain in our trading platforms that may be inhibiting further growth in buyer and seller participation. We will also

consider how Global Dairy Trade can evolve to support our customers through global changes such as international trade barriers, and emerging technologies, including blockchain and artificial intelligence.

Strategy guiding our development

Our strategy underpins Global Dairy Trade's role in the market for globally-traded dairy products. Through GDT Events, GDT Marketplace and GDT Insight our aims are:

- To be the most credible and comprehensive provider of market-based reference prices across the core commodity products and all major supply regions;
- To provide the most opportunities for buyers and sellers to connect and access trading opportunities relevant to them; and,
- To be the best source of global and regional trading information that helps people to understand market movements.

Our strategy is guiding Global Dairy Trade's development as we evolve from our initial focus on credible price discovery to providing a wider suite of initiatives that make it easier for people to trade and conduct business. For example, in late 2017 through to May 2018, we trialled a new pooling concept for US lactose products on GDT Events to achieve price discovery for this commodity ingredient across multiple sellers, rather than publishing prices for individual sellers. While unsuccessful in its initial format, the trial provided us with a deeper understanding of what buyers need and we are working to develop new approaches for 2019.

GDT Marketplace, launched in 2016, offers on average 450 listings per month, covering a broad range of generic ingredients and specialty products. We are undertaking further targeted buyer research as part of the platform's development.

In September 2017, Global Dairy Trade announced a Letter of Intent with the European Energy Exchange (EEX) to explore the feasibility of an auction

mechanism for European dairy commodities. Market sounding activities conducted jointly with the EEX have provided us with a clear view of the offering the industry would require from the new venture. Further updates can be expected throughout 2019.

Another exciting development for 2019 will be the launch of a refreshed GDT Events auction platform. The refresh will take advantage of considerable advances in digital technology since the platform was established in 2008 and will significantly enhance the bidding experience during Trading Events.

With our first decade behind us, we look forward to the coming 10 years, supporting the dairy industry with market-based price discovery, connecting buyers and sellers through secure trading opportunities, and informing markets and our customers' decisions with an ever-deepening pool of data.

Eric Hansen
Director, Global Dairy Trade

Oversight Board Chairman's Report



Bill Shields
Chairman GDT Events
Oversight Board

The GDT Events Oversight Board has the responsibility of providing assurance that the trading platform operates within established rules. Our role is to monitor GDT Events and review the rules as necessary to ensure that they safeguard the effective price discovery for major dairy ingredients.

New members, smaller Board

The size of the Board was reduced this year to nine in line with modern practice for board membership of 10 people or less. At the same time, we increased the previous two-year appointment term to three years in line with the vote taken and reported on in November 2017. This is designed to increase membership continuity and enable the Board to build up relevant experience and knowledge over the longer term. The current membership includes three members in each of the buyer, seller and financial groups.

Three new buyer members took up their positions in January 2018. The new members are Vince Curtin of Burt Lewis Ingredients, Hafid Brahma of Falait SPA, and Yong Zhang of Inner Mongolia Mengniu Dairy. My own appointment as independent Chairman was reconfirmed for a further three-year term.

The Board thanks the retiring members: Blair Cole of Dairy America, Didier Messein of Fromageres Bel SA, Roberto Bustamante of Gloria SA and Naval Sabri of Olam International Inc. for their valuable contributions.

Regular calendar of reviews

The Oversight Board's Governance Principles call for a regular calendar of reviews covering anti-trust requirements, confidentiality, conflicts of interest, market surveillance, price credibility, risk assessments and compliance with the Governance Principles. Some reviews are conducted annually while other reviews are on a three-year cycle.

This year saw the completion of the inaugural external audit by KPMG of GDT Event's adherence to its Governance Principles. These external audits are conducted triennially and are complemented in intervening years by an annual self-assessment. KPMG concluded that they did not become aware of any matter that would lead them to believe that GDT Events had not adhered to its Governance Principles.

Furthermore, the Oversight Board considered an inaugural annual risk report covering a wide range of enterprise risks. The Oversight Board was satisfied that Global Dairy Trade's risk management plans are appropriate to the identified risks.

Board meetings

The Oversight Board met in May and October 2018. The May meeting agreed to review the Oversight Board's Charter. The purpose of this review is to enhance the Board's effectiveness in decision making around our key responsibility of oversight of GDT Events, while also clarifying how we, as a non-commercial Oversight Board, can draw on the knowledge and experience of its members to provide input to Global Dairy Trade on the development of its business strategies, including GDT Events, GDT Marketplace and GDT Insight.

The October meeting considered several proposals aimed at ensuring these goals can be met by a Board whose size, composition and tenure consistently reflects relevant skills and a breadth of knowledge and experience across the global dairy ingredients industry.

The proposals will be translated into formal changes to the Charter and one change to the GDT Trading Event Rules, for consideration at the Board meeting during ADPI Chicago in May 2019. The proposed changes will then go through the usual public consultation process prior to a final vote by the Oversight Board in mid-2019.

Rule changes approved

The Oversight Board adopted two rule changes in 2018 to further enhance the credibility of the GDT Events platform. The first rule change was to enable GDT Events to publish an average winning price either as a substitute or in addition to publishing each seller's individual winning prices. This change reflects that a reference price may be more appropriately based on an average price over multiple sellers of comparable products, and that publishing individual seller's prices may discourage participation.

The second rule change was implemented to better protect a seller's sensitive supply information being revealed to bidders who have been restricted from bidding on their products. This change did not reduce information to bidders eligible to bid on the product and had no impact on the public information published by GDT Events.

Appreciation

My sincere thanks go to the members of the Board, both outgoing and newly elected, for their contribution this year. I value their advice and their commitment to the Board and our purpose, which ultimately seeks to maintain confidence in the trading platform.

Bill Shields
Chairman, GDT Events
Oversight Board

GDT Events Oversight Board Member Representatives



Bill Shields
CHAIRMAN

Bill Shields was appointed inaugural chair in March 2016. He has extensive financial markets and governance experience and brings a deep understanding of commodity markets from his involvement in the electricity trading platforms in Australia, New Zealand and Singapore. Mr Shields also has extensive experience

internationally in banking and finance, government policy advice and regulatory oversight. His career responsibilities have included economic and financial research in Australia and overseas, the provision of analytical and strategic advice on Australian and international financial market developments, the conduct of monetary policy, as well as the oversight of regulated energy markets. Mr Shields is a former director on the Capital Markets Board of the Queensland Treasury Corporation, where he served on their Funding & Markets Committee and as chair of the Accounts & Audit Committee. Previously Mr Shields was Chief Economist

and an Executive Director of Macquarie Bank Limited until 2001, and before that he held positions with the Reserve Bank of Australia, the International Monetary Fund and the Australian Treasury. He was a Visiting Professor at the Macquarie Graduate School of Management of Macquarie University until 2009 and has also taught at the Australian Catholic University in Australia. He is a former director of M-co International and the Energy Market Company, which operated regulated electricity and gas markets in New Zealand, Singapore and Australia.



Hafid Brahma
SPA FALAIT

Hafid is the CEO of SPA FALAIT. He was previously the Algeria Area General Manager. Founded in 2001, SPA FALAIT is a manufacturer of cheese and dairy product in Algeria.



Nigel Brunel
OM FINANCIAL

Nigel is the Director of Institutional Commodities for OM Financial Ltd. He has over 30 years' experience in financial markets – mainly in derivatives. His responsibilities include managing the Auckland & Sydney Institutional Commodity teams, and he sits on the management team. His main dealing focus day to day is on the Agriculture, Renewable and Energy markets.



Thomas Carstensen
ARLA

Thomas is the Senior Vice President of Milk and Trading at Arla Foods a.m.b.a, where he has had overall responsibility for their global B2B activities, milk planning and sourcing of dairy raw materials since 2010. Thomas joined Arla Foods a.m.b.a in 1983 and has held several management positions, including the Business Unit Director for Arla Foods Ingredients and a four-year position in the Middle East.



Robert Chesler
INTL FCSTONE

Robert is the Vice President of the Foods Group and Head of Dairy Products within the FCM Division of INTL FCStone Financial Inc. Robert has focused on dairy price risk management since 2004. Today his global team operates throughout 40 offices worldwide servicing clients with market analysis, advisory and execution.



Vince Curtin
BURT LEWIS
INGREDIENTS LLC

Vince is the CEO and President of Burt Lewis Ingredients. He has over 20 years of experience in international dairy markets working and living in New Zealand and the US. During this time he has held a variety of roles within manufacturing, technical, business development, strategy, sales and operations planning and ingredient sales.



Kishoresinh Jhala
AMUL

Kishoresinh is the Chief Operating Officer of Gujarat Co-operative Milk Marketing Federation Ltd (GCMMF) which is known for its brand AMUL. Amul is the world's ninth largest milk procuring company with a membership of 3.6 million farmers and an annual turnover of US\$6 billion. Mr Jhala joined GCMMF in 1986 and has assumed various responsibilities in sales and marketing over the last 30 years.



Nick Morris
NZX

Nick leads the development of NZX's derivatives market, which includes global dairy commodity contracts such as WMP and SMP, and the recently launched NZ Milk Price futures and options. Nick's background is in foreign exchange markets, having worked at the Bank of New Zealand (BNZ) for four years in a variety of FX related roles. Before BNZ, Nick was at Medley Global Advisors as a Research Analyst.



Josh Sigmund
FONTERRA

Josh is the Director, Ingredients Sales and Operations Planning. For the past 17 years, Josh has worked in the New Zealand dairy industry and with Fonterra since its establishment in 2001. During this time, he has held roles across the value chain including manufacturing, product development, category management, and sales and operations planning.



Yong Zhang
INNER MONGOLIA
MENGNIU DAIRY
(GROUP) CO. LTD

Yong joined the Mengniu Group in 2017 as the Vice President of Strategy and is responsible for strategic management and the Presidents' office. He has over 10 years' experience in corporate management within FMCG and another eight in management consultant across FMCG and retail.



GDT Events

GDT Events' key focus is to provide the liquidity and robust governance required to support credible price discovery. This year has been another strong one for the platform with 684,445 MT of product sold across nine products groups to over 315 buyers.

Refresh of auction platform

A major refresh of the GDT Events auction platform to enhance the bidding experience is underway and will be completed by mid-2019. Buyers using GDT Events can expect a simpler, more intuitive interface that will use the latest technology to improve flexibility and ease of use.

The platform will enable bidders to use multiple devices including mobile phones and to move between devices as the auction progresses. Bidders will be able to choose between manual and auto-bid for each product and will be able to copy bids from the previous round.

The refreshed platform will provide better support to inexperienced bidders with simulated real-time training, in-app help, intuitive colour coding and clearer messaging. Those companies who wish to involve multiple employees in the bidding decision can have multiple users, but still control who has bidding versus viewing rights.

In advance of the launch, we will engage with bidders to ensure all are familiar with the refreshed platform before it goes live.

US Lactose Pool

From late 2017 through to May 2018, GDT Events trialled a US Lactose Pool involving the pooling of standardised lactose products from several reputable US sellers. The initiative followed market research conducted by Global Dairy Trade in 2016 that found a common desire from US dairy participants to improve the reliability and timeliness of price references for US origin lactose.

The trial validated the interest of sellers to participate but found that even for a standardised dairy commodity, such as lactose, most buyers are unwilling to bid on a pooled offering as they need discretion to bid on specific sources of product.

Protecting sensitive information

Two rule changes adopted by the GDT Events Oversight Board during 2018 have enabled us to enhance the protection of sellers' sensitive information. The first rule change means that a seller can now choose whether their product prices are published separately or only used as inputs to calculate a regional average price.

GDT Price Index over 10 years



The second rule change protects a seller's sensitive supply information being revealed to bidders who have been restricted from bidding on their products. Both initiatives are aimed at reducing barriers to new sellers participating in GDT Events.

Providing opportunities to expand trading relationships

The GDT Events pool of bidders spans more than 80 countries, offering sellers many options for expanding their customer base. At a time of heightened trade tensions between the US and China, and between the UK and Europe, many sellers are facing pressure to find alternative outlets for their product that are not subject to higher import tariffs. The ability to access a broad buyer pool via GDT Events provides opportunities for sellers and buyers to expand their trading base.

Although often perceived as dominated by buyers based in China, a large proportion of GDT Events bidders are in fact based in other regions including the Middle East, Africa, South East Asia, Oceania, the Americas and Europe.

Over the last 12 months, more than 70% of WMP and SMP buyers were based outside of North Asia. GDT Events also continues to offer access to a large pool of buyers based in China for sellers who do not face significant import tariffs.

Providing assurance of price credibility

All trading platforms can experience unexpected volatility in prices when there are changes in underlying demand and supply relativities.

In March, we reviewed the unusually large differences in winning prices for Skim Milk Powder Ultra High Temperature Heat product in Trading Event 207. The full report was reviewed by the Oversight Board Chair, and a summary was published on the GDT Events Information Website. The review found that the outcomes reflected genuine demand from multiple bidders and raised no concerns.

In August, two data elements in the published results for TE217 required updating. GDT has implemented further verifications across all parties to prevent further re-occurrence.

Future focused

GDT Events continues to focus on enhancing liquidity through more sellers, greater volume and a wider range of products. Our research indicates a continuing requirement in both Europe and the US for better, real-time price discovery for export and domestic products. We have several initiatives underway that are designed to help move GDT Events in this direction.

GDT Marketplace

GDT Marketplace was launched in 2016 to connect buyers and sellers of smaller volumes of dairy products through a user-friendly, flexible and reliable digital platform.

The platform now has over 400 registered buyers, 15 sellers and has completed over 8,500 listings across a broad range of dairy ingredient products. These include generic ingredients like whole milk powders and butter, to more specialist offerings such as milk protein concentrate and calcium caseinates used in sports nutrition products.

Growing diversity of sellers and products

Just as the number of registered buyers has continued to grow, so too has the number of registered sellers from credible global milk pools. This has created the opportunity for buyers to browse and purchase a broad range of quality dairy products, with 71 different product specifications offered in 2018 across 19 product groups.

A focus on more relevant targeted communications

Given the growth in the number of product specifications on offer, GDT Marketplace has looked for ways to make it easier for buyers to find products most relevant to them. One initiative implemented in 2018 was inviting buyers to provide their product preferences so that GDT Marketplace could notify them when relevant listings became available.

This means the purchasing process is more efficient for buyers, making them aware when their product requirements are offered on the platform, whilst still providing an opportunity to browse and investigate new supply opportunities.

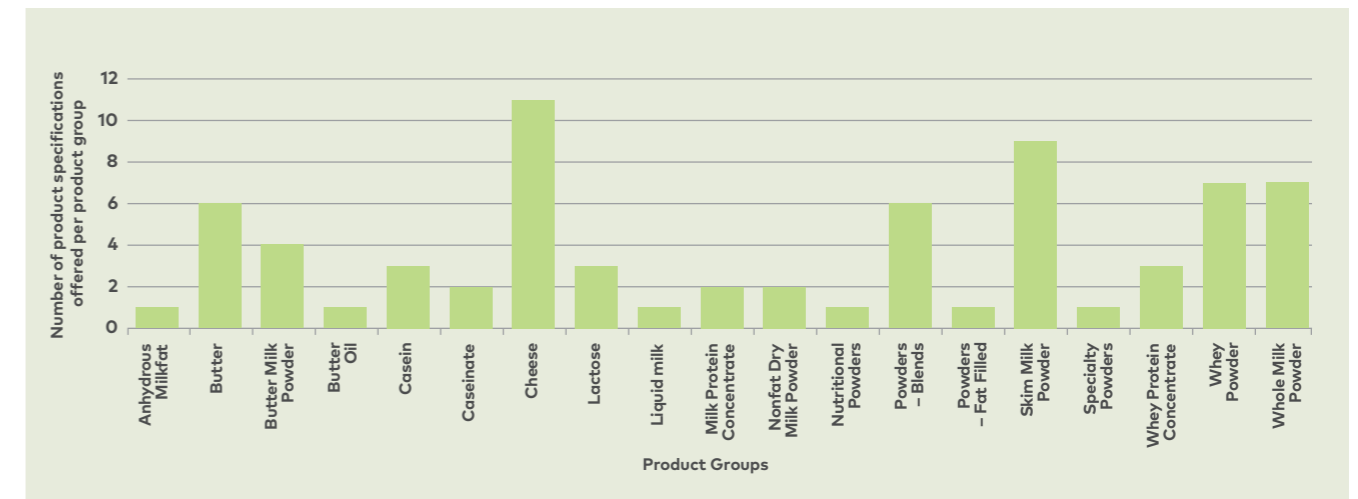
Continuing to innovate

Two years post-launch, the foundational development phase of the platform is complete, and Global Dairy Trade's focus for GDT Marketplace is to further develop new features and explore opportunities for buyers and sellers to trade.

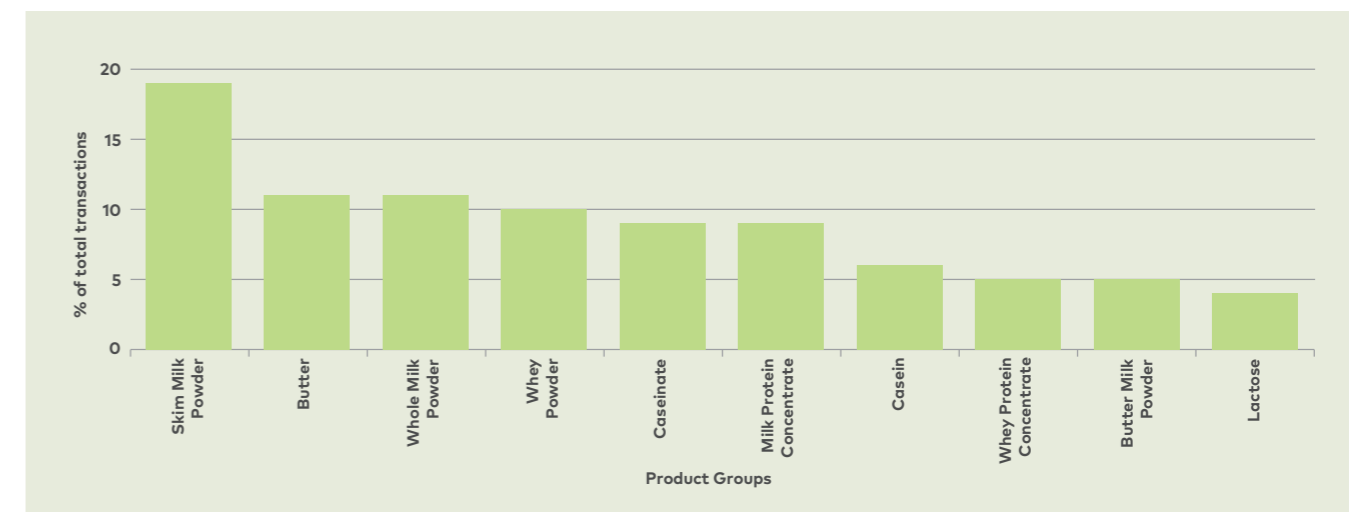
As an example, we have developed an alternate version of the Sealed-Bid Tender model called Feedback Tenders, whereby each bidder is provided feedback on the status of their bid during the live tender. This enables the bidder to amend their bid, and enhance their likelihood of achieving a successful outcome. Results have shown the Feedback Tender enhances bidder confidence and has generated value for both buyers and sellers.

For the year ahead, we will ensure that GDT Marketplace continues to create value for our customers and delivers more opportunities for buyers and sellers to trade dairy online.

71 different product specifications were offered on GDT Marketplace in 2018 across 19 product groups.



Top 10 transacted product groups on GDT Marketplace in 2018



GDT Insight

Global Dairy Trade's establishment 10 years ago set the stage for new levels of information, price risk management and dairy derivatives by providing, for the first time, a transparent means of discovering the true market prices of dairy products.

Knowledge for a volatile world

Establishing a consistent and credible platform enabled us to focus on the quality and quantity of data generated with each Trading Event. As a result, Global Dairy Trade has become a pivotal provider of market-based reference prices for exchanges and dairy industry analysts, as well as market participants, processors and farmers.

With the completion of each year's trading, our data has deepened and matured, enabling us to provide insights that were previously unavailable. In 2016, for example, we launched our subscription service GDT Insight with three tailored offerings. These included the Market Pack, Analyst Pack and Trader Pack, each providing a level of data and analysis suited to subscribers who range from regular buyers and commentators through to currency and derivative traders.

In September 2018, we enhanced the level of data provided in each pack by adding a new regional breakdown of the total quantities traded for each product group, for each Trading Event. Previously this data was available only as an aggregate by product group.

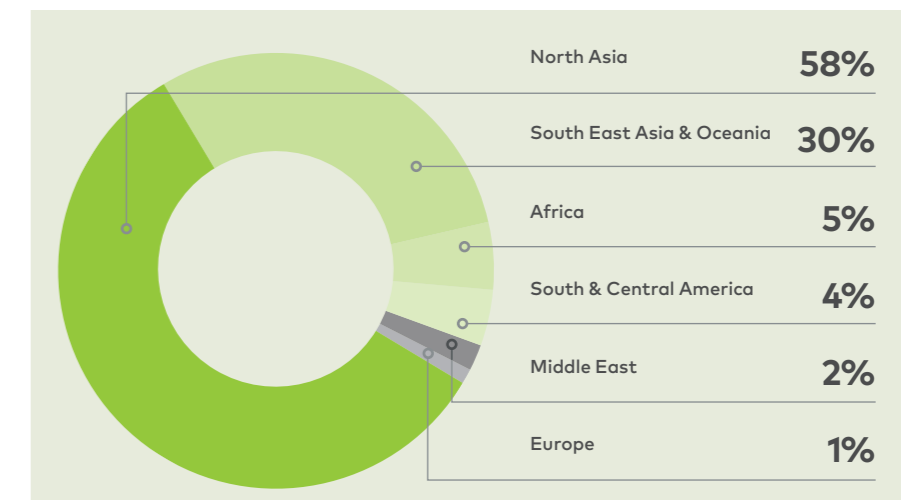
This supplements existing data already available across all GDT Insight packs, including the number of buyers per region, historical data of key pricing metrics and the round-by-round information that is a feature of our Analyst and Trader packs. The latter two packs include the average announced price per product group and contract period in each bidding round, as well as the ratio of demand relative to supply by product group in each bidding round.

Participants in the globally-traded market for dairy commodities know that underlying changes in demand and supply conditions, seasonal volatility and political uncertainties can all shape the market, and make their mark in the data. Increasingly, participants making decisions that rely on access to the most complete dairy data available are finding GDT Insight the most reliable source of real-time physical trading outcomes, providing robust information as well as the flexibility to customise how data is filtered and provided.

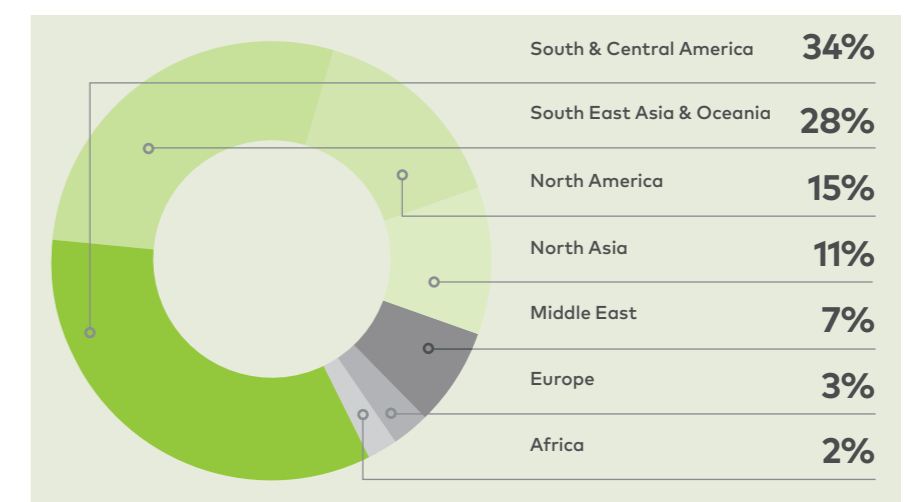
For more information on GDT Insight please visit: <https://www.globaldairytrade.info/en/gdt-insight>

Example of data available in the new GDT Insight report: Regional breakdown of the total quantities traded for each product group

Trading Event 221: October 2018; Whole Milk Powder (WMP)



Trading Event 221: October 2018; Anhydrous Milk Fat (AMF)



NZX Strategy for Growing Financial Markets

Global Dairy Trade provides trusted and credible reference prices for participants accessing the NZX dairy derivative market. This update from NZX outlines the initiatives they have undertaken during 2018 to further strengthen this market, delivering greater price management benefits for our participants.

NZX strategy for continued growth

Accelerating the global presence of the dairy derivatives market forms a key pillar of NZX's strategy to support New Zealand's position as a global leader in the dairy industry, and the market has achieved several milestones over the past 12 months.

In May, the market traded its millionth lot, a significant milestone in its journey to maturity. This record was supported by a rise in positions being held further out the curve, a key sign of improved market liquidity as traders become more confident in extending their positions into the future.

In 2018, 345,651 lots were traded, an 11% uplift on the prior year, with a record 106,199 lots traded in the third quarter. This is a sound result given subdued volatility and market factors in the first half of 2018 compared to normal market conditions.

Trading in options contracts saw a significant increase with volumes increasing 92% on the prior year. This illustrates that traders are accessing the market with increased sophistication and using options to protect against risk.

Volumes traded in NZ Milk Price derivatives also increased, and was up 39% in 2018 at 9,933 lots. Price volatility and ongoing education initiatives are continuing to drive farmer interest in utilising these hedging tools.

To support this growth, NZX has delivered on several key initiatives to help drive this market to a global scale.

In July, the market's trading hours were extended to 20 from 14 hours in response to customer demand in Asia and Europe. Overall trading results have been positive with 40% of total volumes executed during the extended period since inception.

Expanded global access has been supported by additional trading functionality of calendar spread strategies in March, which has helped improve on-screen liquidity by tightening the bid-ask spread in the order book.

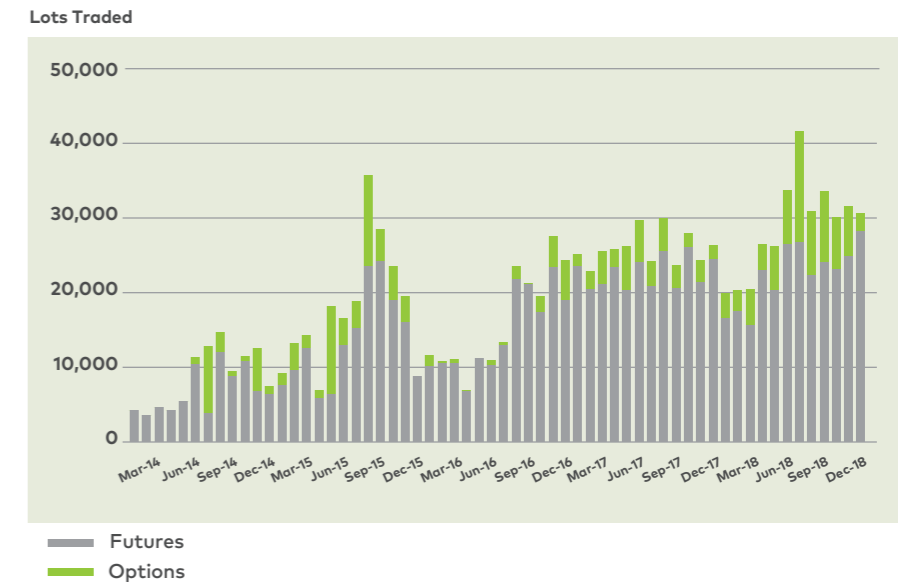
NZX also enhanced its risk management framework with the implementation of a mutualised default fund for dairy derivatives clearing participants to align with global best practice.

The derivatives team have also been on the road stepping up sales efforts – particularly in Asia where customer demand is high. NZX have been hosting education events with stakeholders in Hong Kong, Singapore, China and South East Asia, and are upping their presence at industry events in Europe and the US.

In October, NZX hosted its fifth annual Global Dairy Seminar, for industry participants to come together and discuss the latest trends in the global dairy market. It attracted 165 delegates from across Australasia, South East Asia, China, Europe and the Americas.

Alongside this, NZX's dairy derivatives website has been redesigned and now includes Mandarin translation, historical price charts and bespoke marketing materials to create a reference point for its global customer base.

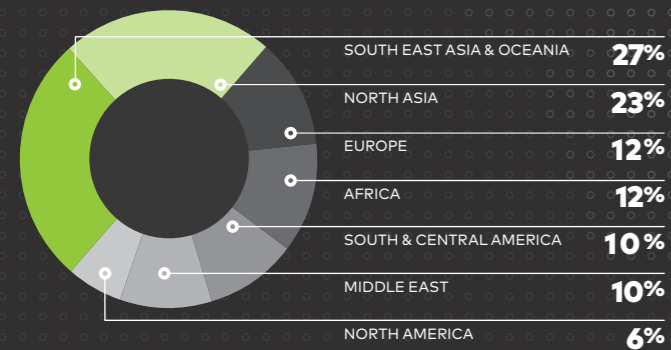
NZX Dairy Derivatives Volume



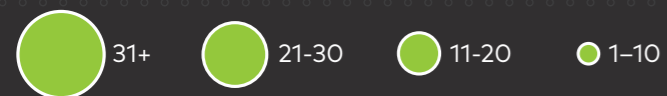
To learn more about NZX Dairy Derivatives please visit: www.nzx.com/markets/nzx-dairy-derivatives/dairy

Distribution of Global Buyer Pool

Global Dairy Trade connects sellers with 700 buyers from 88 countries.



KEY: Larger circle = larger pool of buyers



GDT Events Statistics

**The following pages
present statistics
for GDT Events to
31 December 2018.**

Further information is
available through GDT Insight
www.globaldairytrade.info/en/gdt-insight/

For any queries please contact
help@globaldairytrade.info

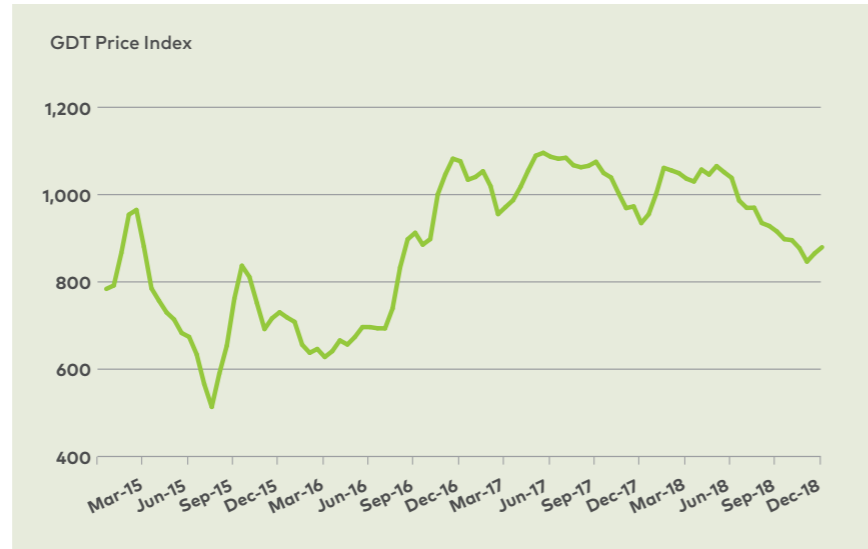
GDT Price Index

The GDT Price Index fell 6% in 2018, reaching a 27-month low in November.

This chart includes GDT Price Index data from January 2015 to December 2018.

The prices of products traded on GDT Events have evolved over time, where price changes are weighted by quantities traded.

Further information on the GDT Price Index is available at www.globaldairytrade.info/en/gdt-events/how-gdt-events-work/reference-material/

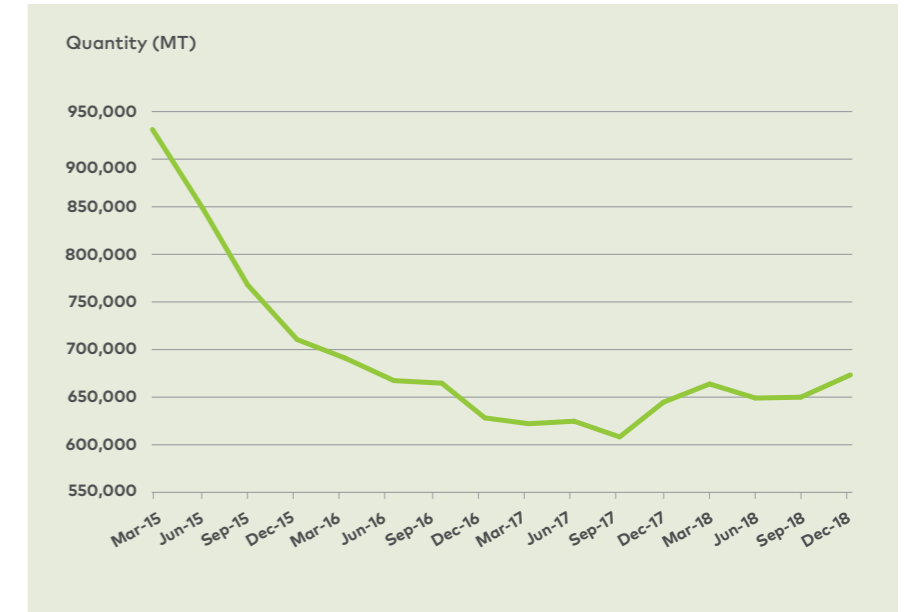


Date	GDT Price Index	Date	GDT Price Index
Jan-17	1,034	Jan-18	955
Jan-17	1,040	Jan-18	1,002
Feb-17	1,054	Feb-18	1,061
Feb-17	1,020	Feb-18	1,055
Mar-17	955	Mar-18	1,049
Mar-17	972	Mar-18	1,036
Apr-17	987	Apr-18	1,030
Apr-17	1,018	Apr-18	1,057
May-17	1,055	May-18	1,046
May-17	1,089	May-18	1,065
Jun-17	1,096	Jun-18	1,051
Jun-17	1,086	Jun-18	1,038
Jul-17	1,082	Jul-18	986
Jul-17	1,084	Jul-18	970
Aug-17	1,067	Aug-18	970
Aug-17	1,063	Aug-18	935
Sep-17	1,066	Sep-18	928
Sep-17	1,075	Sep-18	916
Oct-17	1,050	Oct-18	898
Oct-17	1,039	Oct-18	896
Nov-17	1,003	Nov-18	877
Nov-17	969	Nov-18	846
Dec-17	973	Dec-18	865
Dec-17	935	Dec-18	879

12-month Quantity Traded

12-month quantity traded rose 7.5% to 684,445 MT in 2018.

This chart includes quantity traded (MT) data from March 2015 to December 2018.



Date	12-month Quantity Traded (MT)	Date	12-month Quantity Traded (MT)
Mar-15	921,748	Mar-17	631,023
Jun-15	859,119	Jun-17	633,885
Sep-15	798,609	Sep-17	613,417
Dec-15	719,810	Dec-17	654,404
Mar-16	697,888	Mar-18	652,499
Jun-16	673,219	Jun-18	637,253
Sep-16	661,358	Sep-18	645,389
Dec-16	636,401	Dec-18	684,445

Clearance Rate

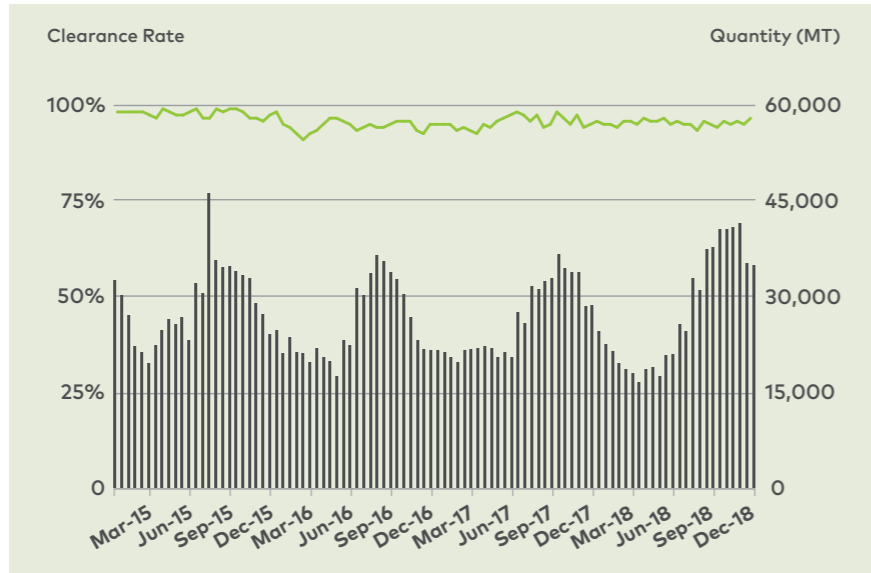
Over 2018, GDT Trading Event average clearance rate was 94%.

This chart includes clearance rate data from January 2015 to December 2018.

The clearance rate is robust during peaks and troughs in trading quantity.

The clearance rate is quantity traded divided by maximum supply offered.

Maximum supply has been adjusted for the Cream Group to avoid double counting the available quantity.



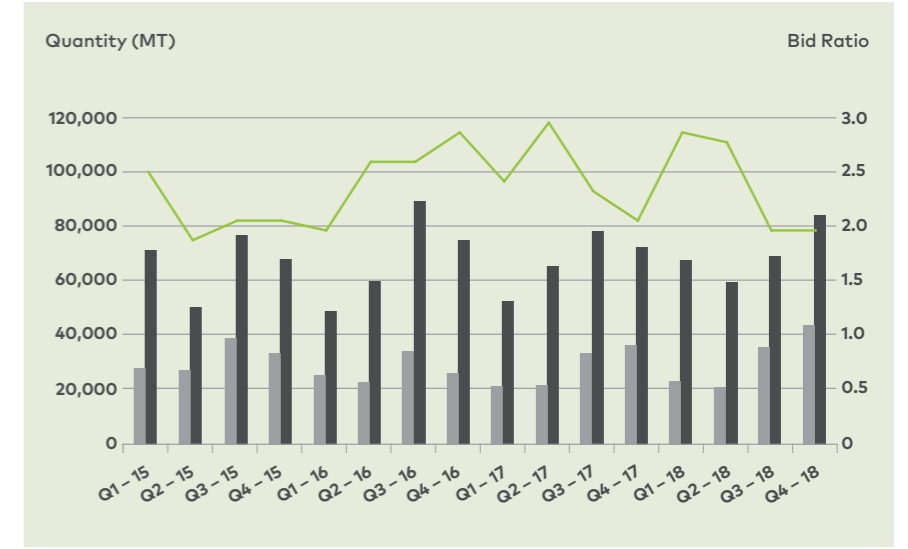
Date	Quantity Traded (MT)	Clearance Rate	Date	Quantity Traded (MT)	Clearance Rate
Jan-17	22,396	94%	Jan-18	25,400	95%
Jan-17	22,030	94%	Jan-18	23,319	94%
Feb-17	21,273	94%	Feb-18	22,197	94%
Feb-17	20,479	92%	Feb-18	20,256	93%
Mar-17	22,328	93%	Mar-18	19,292	95%
Mar-17	22,498	92%	Mar-18	18,635	95%
Apr-17	22,642	91%	Apr-18	17,222	94%
Apr-17	22,927	94%	Apr-18	19,262	96%
May-17	22,633	93%	May-18	19,508	95%
May-17	21,236	95%	May-18	18,161	95%
Jun-17	22,004	96%	Jun-18	21,580	96%
Jun-17	21,171	97%	Jun-18	21,634	94%
Jul-17	28,574	98%	Jul-18	26,519	95%
Jul-17	26,688	97%	Jul-18	25,454	94%
Aug-17	32,768	95%	Aug-18	34,076	94%
Aug-17	32,260	97%	Aug-18	32,041	92%
Sep-17	33,501	93%	Sep-18	38,811	95%
Sep-17	34,117	94%	Sep-18	39,143	94%
Oct-17	37,990	98%	Oct-18	41,981	93%
Oct-17	35,669	96%	Oct-18	41,945	95%
Nov-17	35,072	94%	Nov-18	42,412	94%
Nov-17	35,042	97%	Nov-18	42,966	95%
Dec-17	29,514	93%	Dec-18	36,450	94%
Dec-17	29,592	94%	Dec-18	36,181	96%

Quarterly Average Supply and Demand

2018 bid ratios peaked in Q1 and declined in the second half of the year. The bid ratio averaged 2.3 for the year.

The bid ratio is calculated by dividing first round bidding demand by maximum supply.

Maximum supply has been adjusted for the Cream Group to avoid double counting the available quantity.



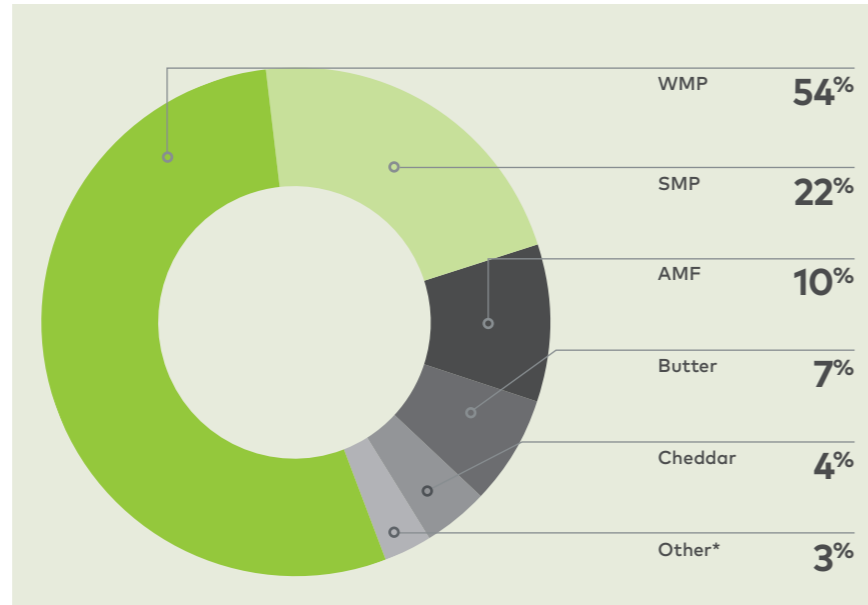
■ Quarterly Average Maximum Supply (MT)
■ Quarterly Average First Round Bidding Demand (MT)
— Bid Ratio

Date	Quarterly Average Maximum Supply (MT)	Quarterly Average First Round Bidding Demand (MT)	Bid Ratio
Q1 - 15	26,977	68,767	2.5
Q2 - 15	26,317	48,575	1.8
Q3 - 15	37,606	74,168	2.0
Q4 - 15	32,180	65,397	2.0
Q1 - 16	24,472	47,309	1.9
Q2 - 16	21,936	57,584	2.6
Q3 - 16	33,145	86,166	2.6
Q4 - 16	25,148	72,171	2.9
Q1 - 17	20,761	50,558	2.4
Q2 - 17	21,047	63,086	3.0
Q3 - 17	32,389	75,516	2.3
Q4 - 17	35,116	69,650	2.0
Q1 - 18	22,531	65,088	2.9
Q2 - 18	20,375	57,540	2.8
Q3 - 18	34,363	66,582	1.9
Q4 - 18	42,255	80,919	1.9

Quantity Traded by Product Group, 2018

The main milk powders, WMP and SMP, accounted for 76% of quantity traded.

AMF, Butter and Cheddar represented a further 21% of sales.

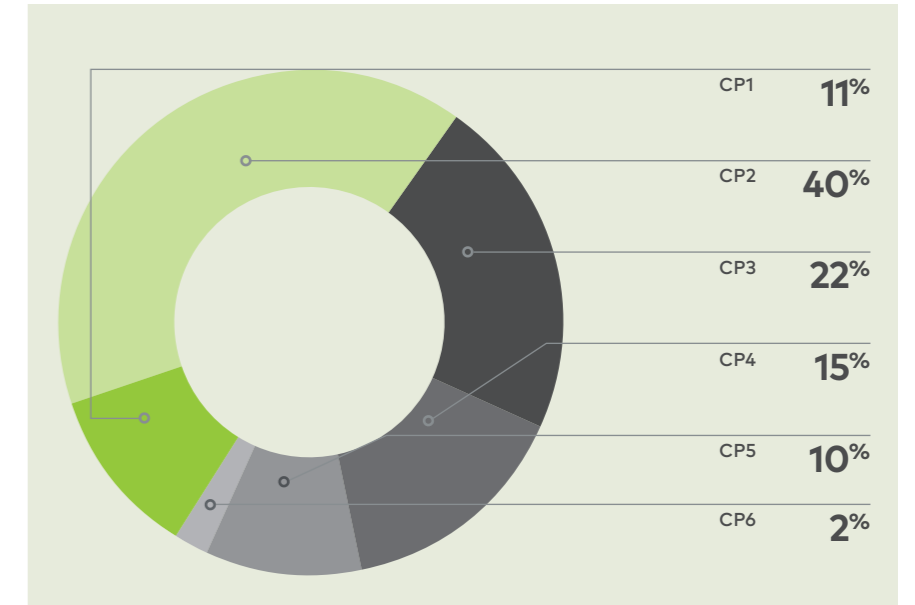


Product Group	Quantity Traded (% of Total)
WMP	54%
SMP	22%
AMF	10%
Butter	7%
Cheddar	4%
Other*	3%

*Other includes BMP, Lactose, RenCas and SWP

Quantity Traded by Contract Period, 2018

In line with previous years, the most active contract period was CP2, which is the contract period used as settlement for NZX Dairy Derivatives.



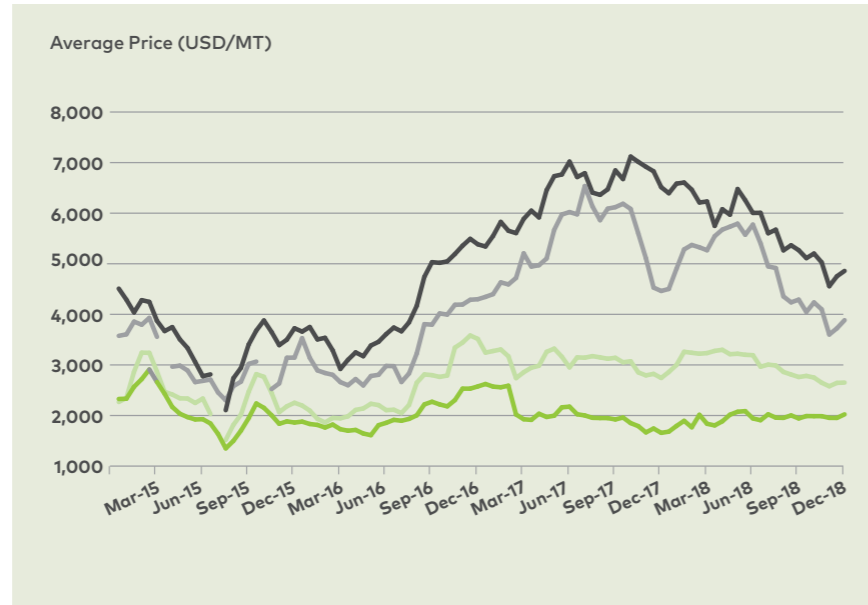
Contract Period*	Quantity Traded (% of Total)
CP1	11%
CP2	40%
CP3	22%
CP4	15%
CP5	10%
CP6	2%

* Contract Period (CP), refers to the month when product is shipped. Product traded in CP1 is shipped in the month after the Trading Event when it was purchased, CP2 is shipped two months after, etc.

Average Price: AMF, Butter, SMP and WMP

Average prices at the end of 2018 were mixed compared to 2017 with AMF down 25%, Butter down 13%, SMP up 22% and WMP down 3%. AMF reached a 27-month low of \$4,556 USD/MT in November.

This chart shows average price data from January 2015 to December 2018 for AMF, Butter, SMP and WMP prices across all product specifications and sellers for short-term contract periods (CP1 and CP2), weighted by quantity traded.

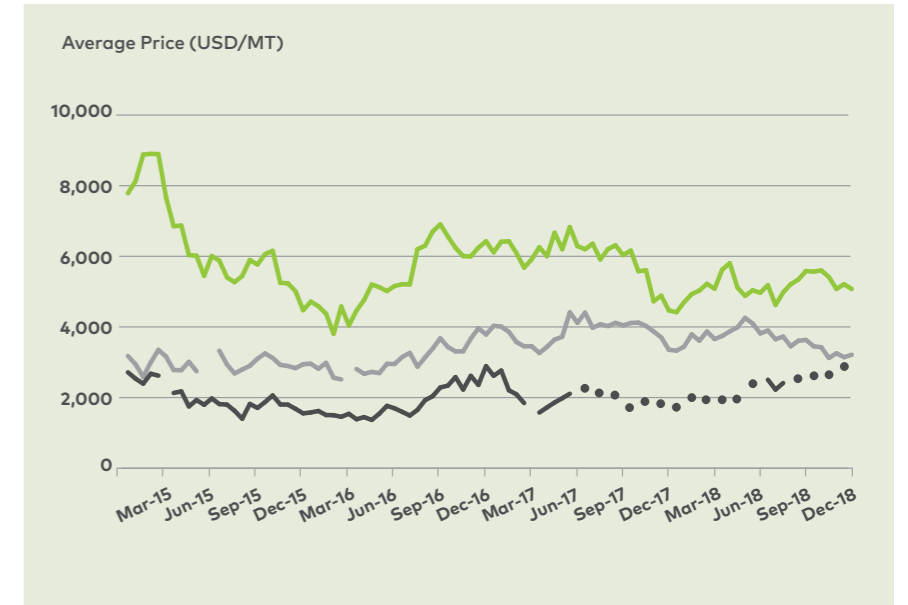


Date	AMF (USD/MT)	Butter (USD/MT)	SMP (USD/MT)	WMP (USD/MT)	Date	AMF (USD/MT)	Butter (USD/MT)	SMP (USD/MT)	WMP (USD/MT)
Jan-18	6,394	4,502	1,681	2,860	Jul-18	6,007	5,405	1,907	2,965
Jan-18	6,584	4,900	1,793	2,999	Jul-18	5,603	4,948	2,024	3,006
Feb-18	6,606	5,284	1,895	3,260	Aug-18	5,674	4,915	1,957	2,989
Feb-18	6,464	5,372	1,767	3,240	Aug-18	5,265	4,354	1,953	2,861
Mar-18	6,211	5,325	2,014	3,221	Sep-18	5,366	4,237	2,002	2,810
Mar-18	6,231	5,267	1,836	3,234	Sep-18	5,268	4,291	1,942	2,761
Apr-18	5,748	5,545	1,804	3,277	Oct-18	5,111	4,046	1,989	2,783
Apr-18	6,079	5,675	1,885	3,299	Oct-18	5,202	4,236	1,987	2,750
May-18	5,969	5,733	2,016	3,212	Nov-18	5,028	4,099	1,987	2,648
May-18	6,478	5,793	2,074	3,221	Nov-18	4,556	3,601	1,953	2,578
Jun-18	6,256	5,573	2,087	3,200	Dec-18	4,753	3,724	1,952	2,645
Jun-18	6,005	5,774	1,942	3,193	Dec-18	4,859	3,885	2,023	2,651

Average Price: BMP, Cheddar and RenCas

Average prices at the end of 2018 were mixed compared to 2017 with BMP up 57%, Cheddar down 4% and RenCas up 14%. BMP reached a 50-month high of \$2,939 USD/MT in December.

This chart shows average price data from January 2015 to December 2018 for BMP, Cheddar and RenCas prices across all product specifications and sellers for short-term contract periods (CP1 and CP2), weighted by quantity traded.

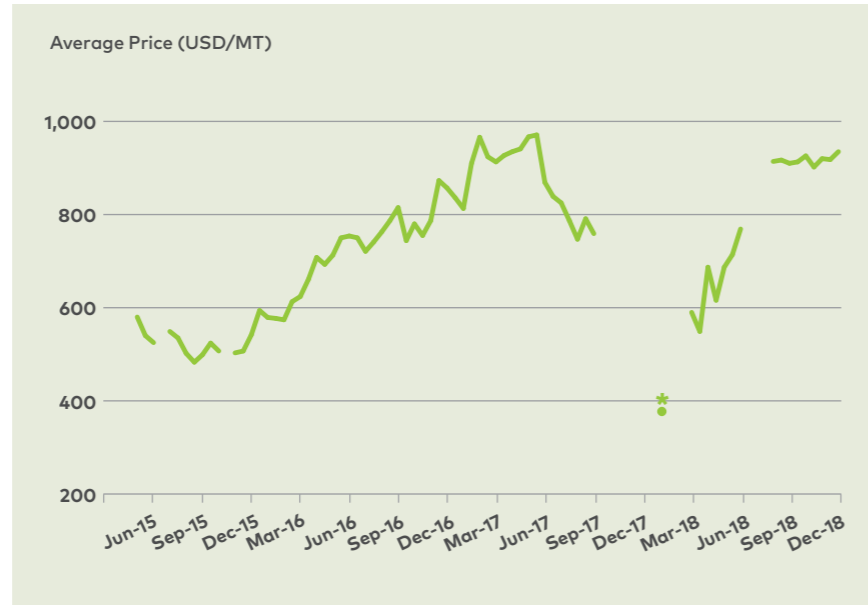


Date	BMP (USD/MT)	Cheddar (USD/MT)	RenCas (USD/MT)	Date	BMP (USD/MT)	Cheddar (USD/MT)	RenCas (USD/MT)
Jan-18	1,813	3,326	4,417	Jul-18	2,505	3,899	5,184
Jan-18	-	3,443	4,699	Jul-18	2,225	3,651	4,621
Feb-18	2,005	3,789	4,930	Aug-18	2,411	3,727	4,978
Feb-18	-	3,608	5,081	Aug-18	-	3,452	5,211
Mar-18	1,943	3,871	5,221	Sep-18	2,518	3,610	5,341
Mar-18	-	3,657	5,081	Sep-18	-	3,632	5,585
Apr-18	1,990	3,743	5,622	Oct-18	2,559	3,453	5,565
Apr-18	-	3,875	5,807	Oct-18	-	3,426	5,602
May-18	1,983	3,989	5,116	Nov-18	2,540	3,122	5,415
May-18	-	4,256	4,879	Nov-18	-	3,254	5,076
Jun-18	2,419	4,098	5,088	Dec-18	2,939	3,143	5,210
Jun-18	-	3,815	4,968	Dec-18	-	3,212	5,075

Average Price: Lactose

The average price of lactose at the end of 2018 was 23% higher than 2017, reaching a 18-month high of \$935 USD/MT in December.

This chart shows average price data from January 2015 to December 2018 for lactose prices across all product specifications and sellers for short-term contract periods (CP1 and CP2), weighted by traded quantity.



Lactose

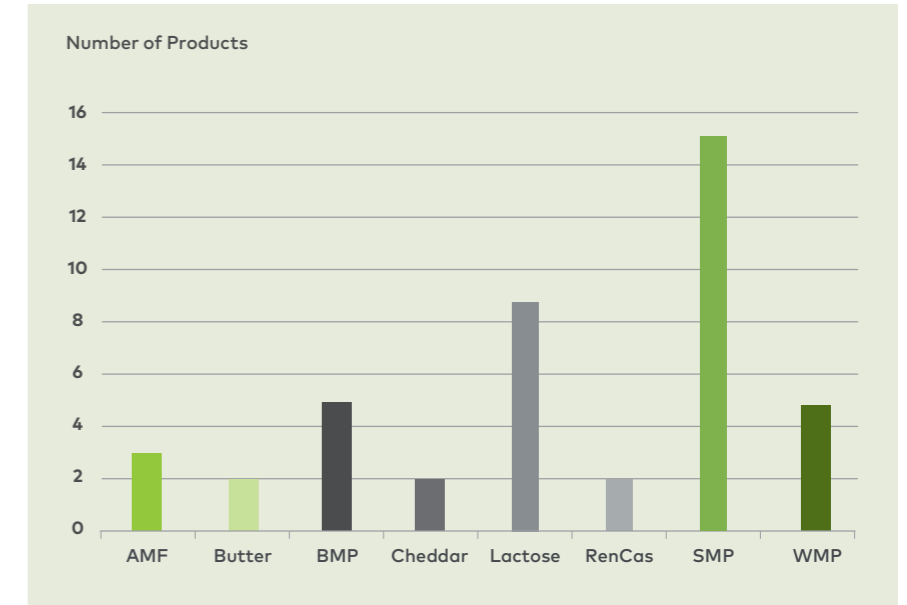
* Note: Average prices for second Trading Event of January 2018 and first Trading Events of April and May 2018 include published prices for the US Lactose Pool. These prices were substantially below other published prices for lactose. "-" means that no price was published.

Date	Lactose (USD/MT)	Date	Lactose (USD/MT)	Date	Lactose (USD/MT)	Date	Lactose (USD/MT)
Jan-17	836	Jul-17	839	Jan-18	-	Jul-18	-
Jan-17	813	Jul-17	825	Jan-18	397*	Jul-18	-
Feb-17	910	Aug-17	787	Feb-18	-	Aug-18	-
Feb-17	966	Aug-17	747	Feb-18	-	Aug-18	914
Mar-17	924	Sep-17	791	Mar-18	-	Sep-18	917
Mar-17	913	Sep-17	759	Mar-18	590	Sep-18	910
Apr-17	927	Oct-17	-	Apr-18	549	Oct-18	913
Apr-17	935	Oct-17	-	Apr-18	687	Oct-18	926
May-17	941	Nov-17	-	May-18	616	Nov-18	902
May-17	967	Nov-17	-	May-18	687	Nov-18	920
Jun-17	971	Dec-17	-	Jun-18	714	Dec-18	918
Jun-17	869	Dec-17	-	Jun-18	769	Dec-18	935

Products Offered, 2018

Products offered increased over 2018. The largest offering is in the SMP product group due to the large number of supply regions.

This chart shows the number of products offered per product group.



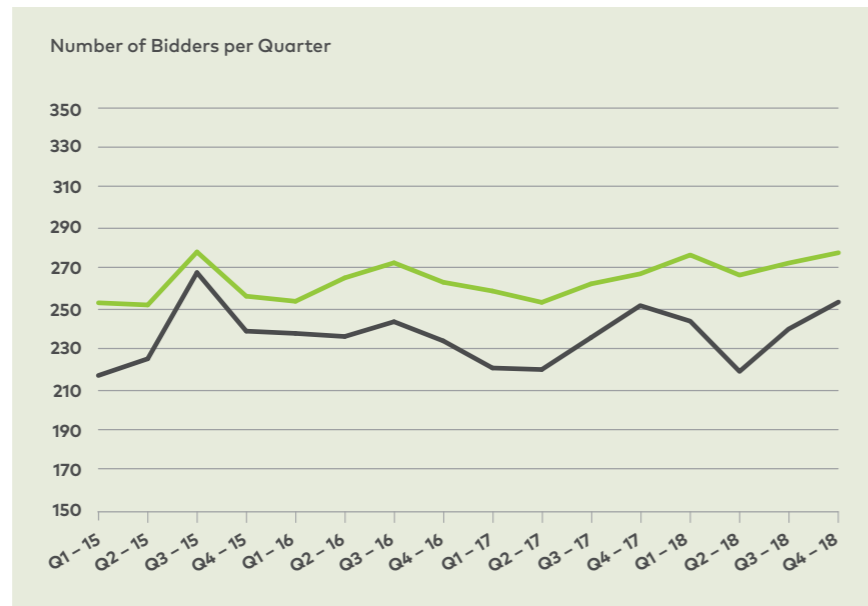
Note: SWP has been excluded as it has been available for less than 12 months.

Product Group	Products
AMF	3
Butter	2
BMP	5
Cheddar	2
Lactose	9
RenCas	2
SMP	15
WMP	5

Participating and Winning Bidders

Participating bidders averaged 273 during 2018, up 5% on the previous year. Winning bidders averaged 239 during 2018.

This chart includes data from January 2015 to December 2018, indicating quarterly participating bidders and winning bidders. Participating bidders are unique bidders who placed a bid in round 1 of a Trading Event. Winning bidders are participating bidders who won product.



— Participating Bidders
— Winning Bidders

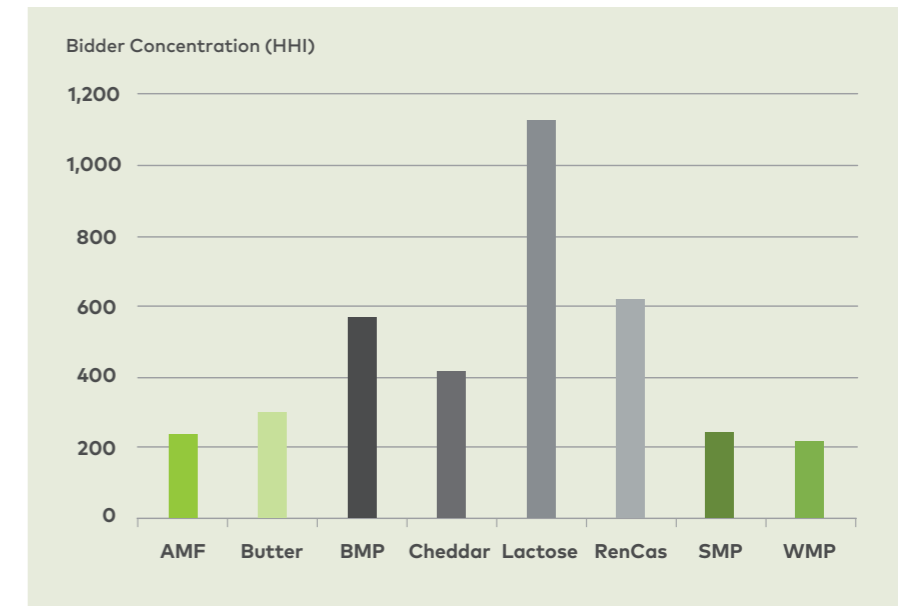
Date	Participating Bidders	Winning Bidders	Date	Participating Bidders	Winning Bidders
Q1-15	254	217	Q1-17	259	221
Q2-15	252	225	Q2-17	253	220
Q3-15	278	267	Q3-17	262	236
Q4-15	256	239	Q4-17	267	251
Q1-16	254	236	Q1-18	276	244
Q2-16	265	234	Q2-18	266	219
Q3-16	272	244	Q3-18	272	240
Q4-16	263	235	Q4-18	277	253

Bidder Concentration

All product groups meet generally accepted thresholds for unconcentrated markets.

GDT calculates bidder concentration using the Herfindahl-Hirschman Index (HHI). The HHI is calculated as the sum of squares of each bidder's proportional annual purchase (x100), within each product group.

The Horizontal Merger Guidelines (2010) published by the US Department of Justice and US Federal Trade Commission indicated that an HHI below 1,500 is regarded as unconcentrated.



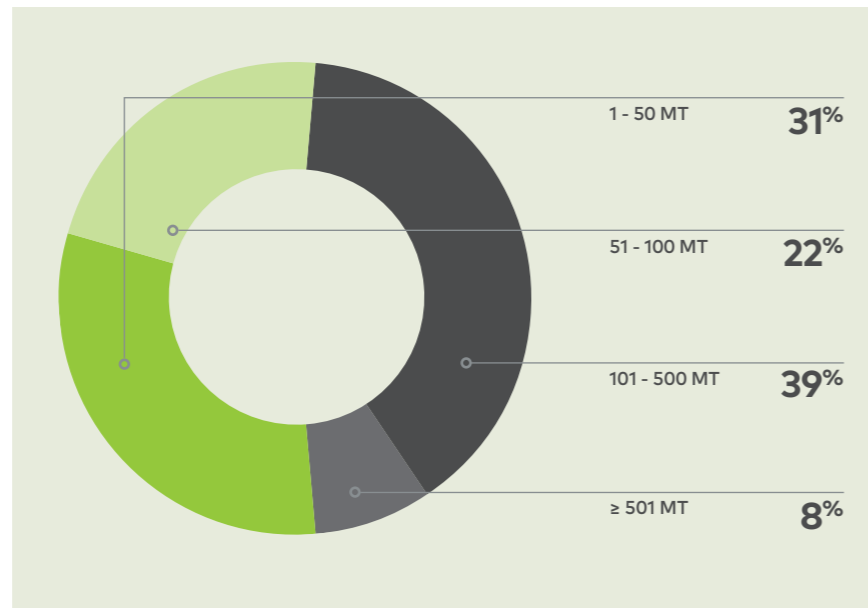
Note: SWP has been excluded due to the current offering being available for less than 12 months.

Product Group	Bidder Concentration (HHI)
AMF	236
Butter	290
BMP	563
Cheddar	427
Lactose	1,116
RenCas	618
SMP	254
WMP	220

Distribution of Quantity Traded by Size, 2018

92% of the total quantity traded occurred in parcel sizes of 500MT or less.

This chart shows the quantity traded by parcel size as a share of total quantity traded during 2018.

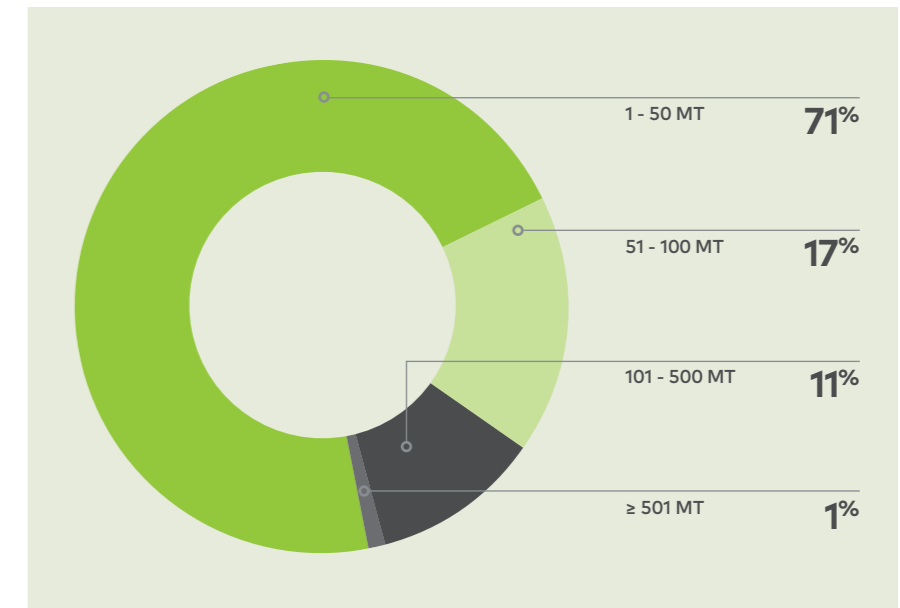


Parcel Size	Distribution of Quantity Traded
1 - 50 MT	31%
51 - 100 MT	22%
101 - 500 MT	39%
≥ 501 MT	8%

Distribution of Purchases by Size, 2018

Over two-thirds of purchases occurred in the 1-50 MT category, indicating a wide variety of purchases across product groups and contract periods.

This chart shows the number of purchases by parcel size as a share of the total number of purchases during 2018.



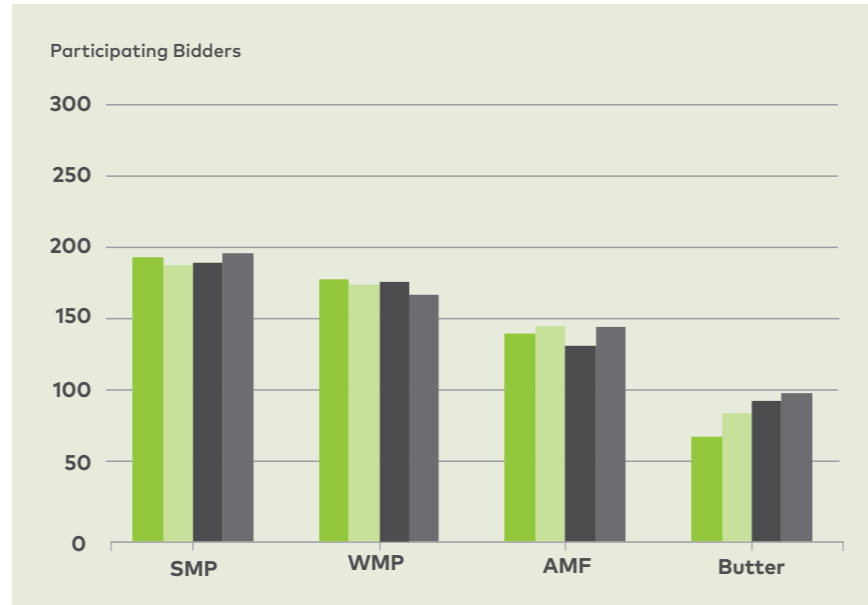
Parcel Size	Distribution of Purchases
1 - 50 MT	71%
51 - 100 MT	17%
101 - 500 MT	11%
≥ 501 MT	1%

Participating Bidders: SMP, WMP, AMF and Butter

SMP remains the most active product group for bidders, followed closely by WMP and AMF.

This chart shows the number of bidders who actively bid on each product group in at least one Trading Event over the calendar years 2015-2018.

SWP has been excluded as it has been available for less than 12 months.



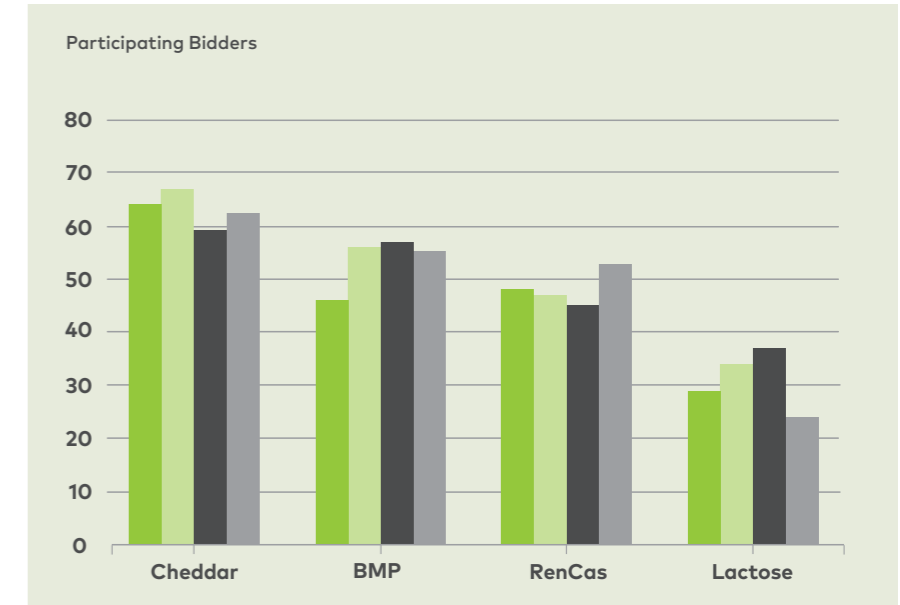
2015 2016 2017 2018

	2015	2016	2017	2018
SMP	193	188	189	195
WMP	178	175	176	168
AMF	142	146	131	146
Butter	71	87	90	98

Participating Bidders: Cheddar, BMP, RenCas and Lactose

Participation in Cheddar and RenCas increased during 2018 while BMP and Lactose experienced declines.

This chart shows the number of bidders who actively bid on each product group in at least one Trading Event over the calendar years 2015-2018.



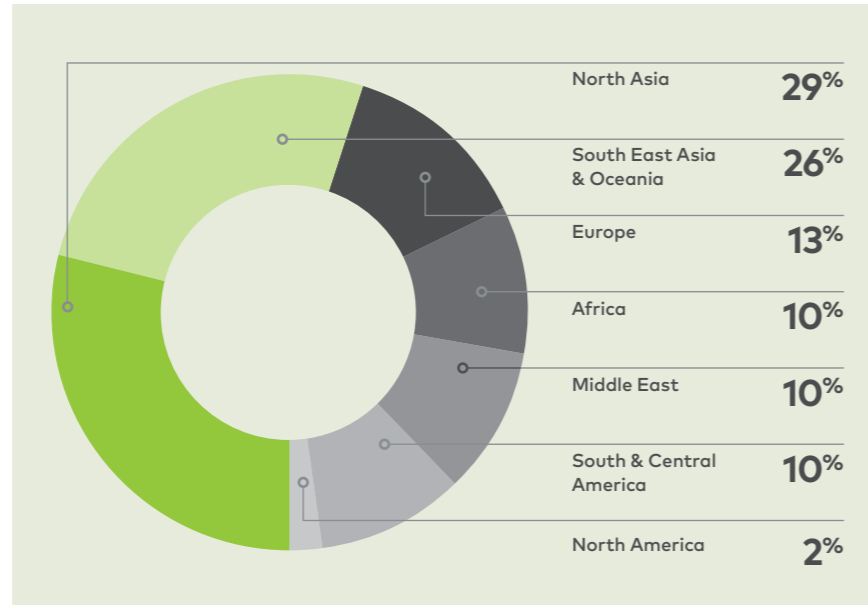
2015 2016 2017 2018

	2015	2016	2017	2018
Cheddar	64	67	59	62
BMP	46	56	57	55
RenCas	48	47	45	52
Lactose	29	34	37	24

Participating Bidders by Region, 2018

Consistent with previous years, North Asia and South East Asia & Oceania were the most active regions, comprising over 50% of total participating bidders.

Except for North America, the remaining regions are of similar size between 10-13% each.

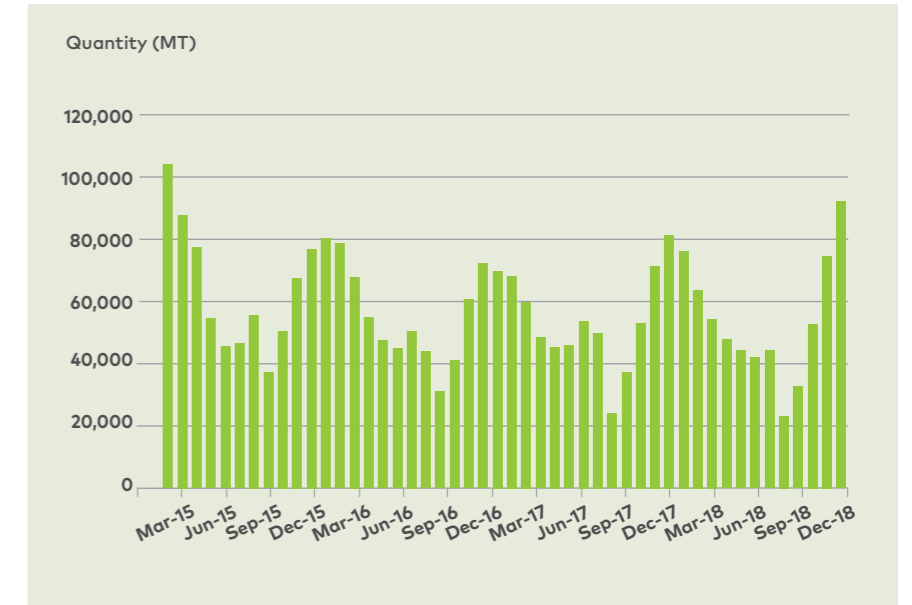


Region	Participating Bidders (% of Total)
North Asia	29%
South East Asia & Oceania	26%
Europe	13%
Africa	10%
Middle East	10%
South & Central America	10%
North America	2%

Shipment Profile

The seasonal pattern shows peak shipment quantities around the end of each calendar year.

This chart shows the seasonal profile of shipments for all products traded on GDT Events from 2015 to 2018.



Month	Quantity Shipped During Month (MT)	Month	Quantity Shipped During Month (MT)
Jan-15	104,014	Jan-17	68,168
Feb-15	87,878	Feb-17	59,825
Mar-15	77,353	Mar-17	48,418
Apr-15	54,512	Apr-17	45,373
May-15	45,609	May-17	45,851
Jun-15	46,444	Jun-17	53,682
Jul-15	55,746	Jul-17	49,857
Aug-15	37,218	Aug-17	24,040
Sep-15	50,531	Sep-17	37,226
Oct-15	67,500	Oct-17	53,121
Nov-15	76,811	Nov-17	71,408
Dec-15	80,242	Dec-17	81,456
Jan-16	78,615	Jan-18	76,249
Feb-16	67,945	Feb-18	63,635
Mar-16	54,867	Mar-18	54,376
Apr-16	47,409	Apr-18	47,836
May-16	44,843	May-18	44,309
Jun-16	50,504	Jun-18	42,073
Jul-16	43,879	Jul-18	44,247
Aug-16	31,041	Aug-18	23,166
Sep-16	41,007	Sep-18	32,647
Oct-16	60,650	Oct-18	52,814
Nov-16	72,288	Nov-18	74,710
Dec-16	69,848	Dec-18	92,167

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Abbreviations

AMF	Anhydrous Milk Fat
BMP	Butter Milk Powder
CP	Contract Period
GDT	Global Dairy Trade
MT	Metric Tonne
RenCas	Rennet Casein
SMP	Skim Milk Powder
SWP	Sweet Whey Powder
WMP	Whole Milk Powder

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