



ANNUAL REPORT 2016

globaldairytrade.info

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Global Dairy Trade 2016 Highlights

Our purpose is to discover market based reference prices for dairy and create new trading opportunities.

We aim to provide highly credible reference prices through GDT Events, offer flexible trading opportunities through our complementary platform GDT Marketplace, and provide unique insights through GDT Insight data subscription packages.

This is Global Dairy Trade's first Annual Report, and focuses on the highlights for GDT Events over 2016.

Global Dairy Trade
Highlights for 2016

\$1.7 billion
USD sold

GDT Events
Highlights for 2016

636,000
MT sold

April 2016
GDT Insight
launched

35
Products
offered

June 2016
GDT Marketplace
launched

326
Participating
bidders

Oversight Board Chairman's Report



Bill Shields
Chairman GDT Events
Oversight Board

GDT Events is the leading provider of reference prices for core dairy ingredients, discovered through the balancing of demand and supply. These prices provide businesses throughout the supply chain with an enhanced level of visibility of the dairy sector and can be used to improve future planning.

A key development over the past 15 months has been the establishment of the GDT Events Oversight Board in December 2015 to align with international best practice for exchanges and trading platforms. It provides assurance to the global dairy industry, related financial markets and government regulators around the transparent and independent operation of GDT Events.

The GDT Events Oversight Board ensures that GDT Events operate to a clear set of rules, and through the experience represented on the Board, will have a positive influence on any changes to those rules.

The GDT Events Oversight Board includes representatives of leading global dairy industry participants and financial markets, making it well placed to support the auction platform's integrity as well as its continued development.

In October 2016, the GDT Events Oversight Board approved new governance principles to monitor the operation of GDT Events.

The governance principles incorporate many aspects of the IOSCO Principles for Financial Benchmarks (International Organization of Securities Commissions, July 2013), but have been modified to reflect key features of GDT Events as a global auction platform.

The principles will ensure that the conduct of GDT Events is consistent with best practice governance for providers of market-based reference prices and will enhance the Board's monitoring to:

- Ensure conflicts of interest are identified and disclosed
- Provide transparency on the methods used in the price discovery process
- Ensure appropriate control and reporting processes are in place
- Maintain anti-trust compliance and market surveillance practices
- Provide regular audit and review against the governance principles

The published minutes of GDT Events Oversight Board meetings are available at www.globaldairytrade.info. A "summary of price discovery process" paper is also available on the website to provide a deeper understanding of how winning prices are discovered during GDT Events.

The GDT Events Oversight Board has been working with the GDT management team to identify changes to support the continued development of the GDT Events auction platform.

Our focus is to increase bidder and seller participation by providing greater liquidity from increased volumes and additional product categories.

The GDT Events Oversight Board also identified an opportunity for GDT to use its experience and skills to tailor solutions for more credible price discovery in dairy markets such as the EU and the USA.

The opportunity for further development of the GDT Events auction platform reflects the experience of both record high and record low dairy prices over recent years, as well as the heightened volatility of commodity trading. GDT Events has demonstrated that better price discovery can be beneficial to market participants whether prices are weak or strong, and can contribute to better price risk management within the dairy industry. A more widely accessible data subscription service through GDT Insight is one step in this direction.

I would like to thank all members of the GDT Events Oversight Board for their support during the past year and willingness to contribute to the further development of GDT Events in 2017 as it continues to grow in its role as the leading provider of reference pricing for core dairy ingredients.

Bill Shields
Chairman, GDT Events
Oversight Board

Director's Report



Eric Hansen
Director
Global Dairy Trade

Throughout 2016, GDT Events performed successfully against the background of a prolonged two-year downturn in the global dairy market. Despite the weak market conditions, more than 95% of offered quantity was sold, amounting to over 636,000 MT.

At GDT we help dairy companies create value and manage price risk. We aim to provide highly credible reference prices, offer more trading opportunities than any other dairy platform, and generate additional value through unique, real time insights on the state of the globally traded dairy market.

Eight supply regions across Europe, India and Oceania were active throughout the year, offering more than 120 bidding options across a wide range of product specification, contract period, seller and regional supply combinations.

GDT Events achieved an average of 163 active bidders per Trading Event, with a total of 326 bidders participating at least once over 2016. WMP, the largest-volume offering, attracted more than 175 bidders while the highly successful Lactose offering attracted around 30 bidders. Further information on the Lactose offering is available in the Arla Foods Ingredients case study later in this report.

Since the launch of GDT in 2008, we have sought to progressively enhance independence, transparency and liquidity.

This drive continued during 2016 with the establishment of the new GDT Events Oversight Board, the new GDT Insight subscription service, the new Cream Group and launch of the new GDT Marketplace trading platform.

The GDT Events Oversight Board strengthens independence and transparency by ensuring our governance and operations are consistent with best practice for providers of market-based reference prices.

The launch of GDT Insight in April 2016 also enhanced transparency through a new subscription service enabling any interested person to observe round-by-round and post-event data from each Trading Event. This includes the ability to view bidding demand and price levels as the Trading Event unfolds without participating in the Trading Event.

This enhances the credibility of the price discovery process, and provides valuable insight on the resilience or sensitivity of demand as prices increase throughout the Trading Event.

The increased range of post-event data made available through GDT Insight was also important.

Visibility of the quantity sold for each product group, contract period and seller helps users assess the credibility of published prices, while the regional breakdown of sold quantities and number of bidders provides further understanding of market conditions.

In addition to the improvements of independence and transparency, progress has been made to increase liquidity with the introduction of the new Cream Group on GDT Events in June 2016. The Cream Group is operating successfully to allow the available milkfat to be allocated where demand is strongest (subject to flexibility constraints), and provides individual bidders with access to a larger supply pool with better liquidity.

GDT expanded its role in online trading and digital services with the launch in June 2016 of GDT Marketplace, a complementary trading platform to GDT Events.

GDT Marketplace is a 24/7 global shop front that connects buyers and sellers in business-to-business transactions of any dairy product, at any time, with no minimum quantity constraints. The flexibility

and privacy of GDT Marketplace complements the generic, high-volume products and highly public price discovery of GDT Events.

In 2017, we will consolidate and grow our two new services, GDT Insight and GDT Marketplace, while also seeking to innovate and grow GDT Events.

We are planning a significant platform upgrade for GDT Events to provide a more compelling customer experience through modern e-commerce features, greater flexibility for users, and improved customer training and support facilities.

GDT is currently investigating the viability of creating multi-seller pools for homogenous products, such as generic lactose or other commodity products available from certain regions. This would extend the benefits of credible public price discovery to a wider range of markets and products.

Multi-seller pooling would enable greater confidentiality of commercially sensitive information while retaining the core transparency features of GDT Events. It also lowers the

minimum quantity requirement which has prevented some interested sellers from joining GDT Events in the past.

Both the platform upgrade and the new multi-seller pools represent significant investment and commitment to GDT Events. These developments, combined with the new GDT Insight and GDT Marketplace services, enable GDT to provide a strong suite of complementary services that are well positioned to transform the business-to-business trading of dairy products into a globally connected, thriving online marketplace.

We would like to thank all our bidders and sellers for their participation and look forward to continuing to support their needs in the years to come.

Eric Hansen
Director, Global Dairy Trade

Case Study: Arla Foods Ingredients

Global Dairy Trade is delighted with the success AFI has achieved offering Lactose on GDT Events. They have developed a strong pool of bidders and achieved a 98% average clearance rate.



More information about Arla Foods Ingredients can be found at www.arlafoodsingredients.com

In 2015, Arla Foods Ingredients (AFI), a global leader in natural whey ingredients based in Denmark, increased their lactose production.

They needed to look for alternative distribution channels. After seeing their parent company Arla's success selling skim milk powder on GDT Events, they began using the auction platform to offer three lactose specifications.

Growing Success

Since their first Trading Event, AFI have been pleasantly surprised with the global demand for lactose on the platform, prompting them to steadily increase the volume they offer.

A Relationship Producing Results

Today, AFI consistently offer 500MT of lactose each Trading Event, to bidders from over 80 countries. They currently clear 98% of the lactose offered and the higher prices and access to new customers has helped them meet their internal sales goals – even during difficult times in the marketplace.

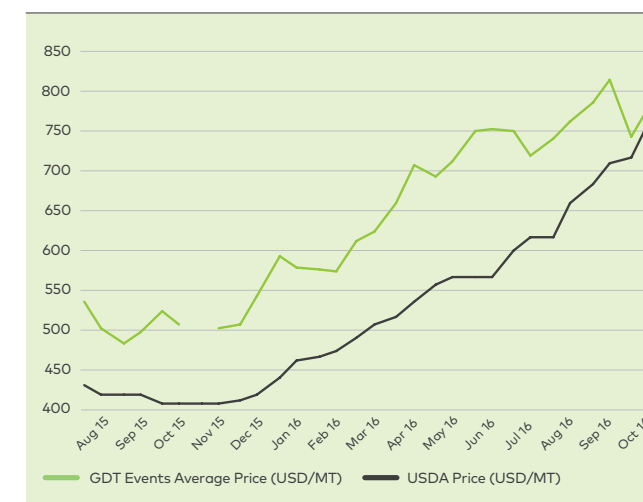
"We would recommend GDT Events to sellers who are looking to expand their customer base and have consistent product to offer"

Luis Cubel
VP Commercial, Arla Foods Ingredients

98% Clearance Rate

- AFI began offering 300MT of lactose each Trading Event from August 2015.
- They increased their offer quantity to 500MT each Trading Event from April 2016.
- AFI have achieved an average of 98% clearance rate for the lactose offered (August 2015 – August 2016).

Lactose Price Comparison (GDT V USDA)



Morten Kaas Hansen.
Director of General Foods, Arla Foods Ingredients

Morten Kaas Hansen explains the key benefits AFI has experienced since joining GDT Events.

New Customers

"GDT Events has enabled us to expand our customer base and access new demand."

Global Reach

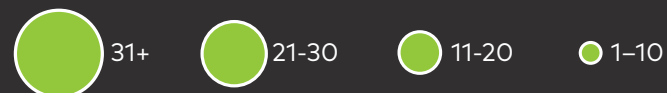
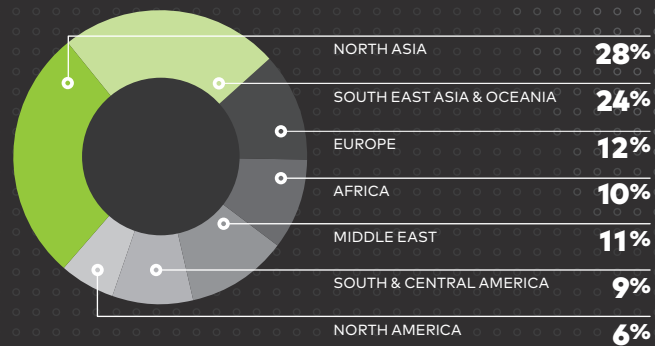
"We can sell to a large, geographically dispersed pool of customers in a few hours."

Price Discovery

"We bought into having a visible price to form a clearer picture of the overall lactose market."

Connecting A Truly Global Marketplace

Global Dairy Trade connects sellers
and over 500 buyers.



GDT Events Oversight Board

The GDT Events Oversight Board provides assurance to the global dairy industry, related financial markets and government regulators around the transparent and independent operation GDT Events.

The GDT Events Oversight Board votes on proposed changes to the GDT Trading Event Rules and ensures GDT Events continues to set the benchmark for price transparency, discoverability and ease of commerce in trading dairy products.

GDT Trading Event Rules support the development and management of a trading platform that is trusted by both buyers, sellers and other stakeholders.

The GDT Events Oversight Board comprises an independent Chairperson and a balanced representation of GDT Events participants and financial market members.

The stakeholder members of the GDT Events Oversight Board comprise four bidder members, and four seller members as well as three financial market members to reflect the role of GDT Events prices in the dairy derivatives market.

Appointments are for two years, and are based on trading size and the need to maintain an appropriate balance of representation across regions, product categories and participant type.











The current members shown in the table were confirmed in March 2016.

The GDT Events Oversight Board members meet two to three times per year to monitor GDT Events' compliance with appropriate governance practices and to vote on any proposed changes to the GDT Trading Event Rules.

The role of the Board includes:

- Identify and propose changes to the rules and the operations of the Trading Events
- Approve changes to the rules proposed by GDT
- Respond to any notifications from, or requests for consultation by, GDT
- Establish working groups to consider specific issues and to develop recommendations regarding the rules or operation of the trading platform for consideration by the GDT Events Oversight Board, and
- Monitor GDT's compliance with governance practices relevant to the operation of the trading platform.

The Members of the GDT Events Oversight Board

CHAIRMAN — BILL SHIELDS Economist and non-Executive Director – Australia		
BUYERS	SELLERS	FINANCIAL MARKETS
<div><p>Fromageries Bel S.A. Didier Messein Global Sourcing Manager FRANCE</p></div>	<div><p>Amul* Kishoresinh Jhala Chief Operating Officer Gujarat INDIA</p></div>	<div><p>INTL FCStone Inc. Robert Chesler Vice President, Foods Group USA</p></div>
<div><p>Gloria S.A. Roberto Bustamante Global Sourcing Manager PERU</p></div>	<div><p>Aria Foods amba Thomas Carstensen Senior Vice president DENMARK</p></div>	<div><p>NZX Limited Kathryn Jaggard Head of Derivatives NEW ZEALAND</p></div>
<div><p>Kuwaiti Danish Dairy Company PT Joseph Executive Manager KUWAIT</p></div>	<div><p>Dairy America Inc. Hoyt Huffman Chief Executive Officer USA</p></div>	<div><p>OM Financial Limited Nigel Brunel Director Financial Markets NEW ZEALAND</p></div>
<div><p>Olam International Ltd. Anthony Pavlovic General Manager Dairy – Oceania AUSTRALIA</p></div>	<div><p>Fonterra Co-operative Group Limited Josh Sigmund Director Ingredients Sales & Operations Planning NEW ZEALAND</p></div>	

*Gujarat Co-operative Milk Marketing Federation Limited.

GDT Events

Oversight Board

– Member Representatives



Bill Shields
CHAIRMAN

Bill is a Director of Queensland Treasury Corporation, and serves on the Audit Committee and Funding and Markets Committee. Previously he held senior economist and director roles at companies such as Macquarie Bank, Reserve Bank of Australia and the International Monetary Fund and the Treasury in Canberra.



Hoyt Huffman
DAIRYAMERICA

Hoyt is the Chief Executive Officer at DairyAmerica, Inc. and previously served as its Director of Sales & Marketing.



Kishoresinh Jhala
AMUL

Kishoresinh is the Chief Operating Officer of Gujarat Cooperative Milk Marketing Federation Ltd (GCMMF). Mr. Jhala joined GCMMF in 1986 and has assumed various responsibilities in sales and marketing over the last 30 years, including the role of Chief General Manager.



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.



Nigel Brunel
OM FINANCIAL

Nigel is the Director, Financial Markets for OM Financial Ltd. He has over 30 years' experience in financial markets – mainly in derivatives. His responsibilities include managing the Auckland, Wellington and Sydney dealing rooms and sits on the management team. His main dealing focus day to day are the Dairy, Carbon and Power markets.



Didier Messein
FROMAGERIES BEL S.A.

Didier is the Global Sourcing Manager Proteins for Fromageries Bel. The range of responsibilities he has held since 1997 cover Area Sales Management and both buying and purchasing roles.



Kathryn Jaggard
NZX

Kathryn is the Executive Consultant – Derivatives at NZX Ltd, having joined in 2008 following 10 years in London where she held several senior business development roles in the global exchange traded derivatives market. Kathryn has also worked in Singapore where she helped drive derivatives growth from this region.



Josh Sigmund
FONTERRA

Josh is the Director, Sales and Transformation. For the past 16 years, Josh has worked in the New Zealand Dairy industry in, 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.



Thomas Carstensen
ARLA

Thomas is the Senior Vice President of Milk and Trading at Arla Foods amba, where he has had overall responsibility for Arla Foods amba's global B2B activities, milk planning and sourcing within dairy raw materials since 2010. Thomas joined Arla Foods amba 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.



Roberto Bustamante
GLORIA S.A.

Roberto is the Logistics Corporate Director of Gloria S.A. (Peru) and General Manager of Lechera Andina SA (Ecuador). He is highly experienced in the fields of logistics and operations management, international financial trade tariffs and bi-national agreements.



Anthony Pavlovic
OLAM INTERNATIONAL

Anthony is the General Manager Dairy for Olam Australia, a division of Olam International Ltd. Anthony has worked in the dairy industry for 16 years including roles with Australian dairy processors and dairy trading companies. Anthony's experience covers marketing dairy commodities and specialised dairy ingredients into the Asian markets, dairy processing and supply chain management, key account management and risk management.



PT Joseph
KUWAIT DANISH DAIRY COMPANY

GDT Events Oversight Board – Governance Principles

The GDT Events Oversight Board has adopted a set of governance principles based on the principles published by the International Organization of Securities Commissions.

The principles outline the responsibilities of GDT and the independent Trading Manager, and provide the GDT Events Oversight Board with a robust set of measures to monitor the platform's operation.

Complaints process and Rulings Panel

GDT operates a formal complaints process to provide participants with an avenue to raise alleged breaches of the GDT Trading Event Rules by another registered participant or its affiliates.

The GDT Events Oversight Board Charter allows for the Chairperson to convene a Rulings Panel to review and determine the details of any complaints not considered frivolous or vexatious. The Rulings Panel ordinarily will comprise of the Chairperson and two independent persons appointed by the Chairperson.

The Rulings Panel may determine that a breach of the GDT Trading Event Rules has occurred, and/or require a participant against whom a complaint has been upheld to reimburse reasonable costs and expenses incurred.

Decisions made by a Rulings Panel will be published on the GDT website, except where determined to be (in whole or in part) commercially confidential.

To date, no complaints have been raised.

Governance Principles

- 1 **OVERALL RESPONSIBILITY OF THE ADMINISTRATOR**
GDT to retain primary responsibility for all aspects of the process by which winning prices are discovered, including development of rules and procedures, dissemination of winning prices, transparency over significant decisions affecting the discovery of winning prices and related oversight.
- 2 **EXTERNAL OVERSIGHT**
GDT to maintain an Oversight Board with a published charter to review and provide oversight over all aspects of how winning prices are discovered.
- 3 **CONFLICTS OF INTEREST OVERSIGHT OF TRADING MANAGER**
GDT to document, implement and enforce policies and procedures to identify, disclose, manage, mitigate or avoid conflicts of interest.
- 4 **OVERSIGHT OF TRADING MANAGER**
GDT to maintain appropriate oversight of the Trading Manager and other third parties in implementing the price discovery process using the agreed rules and procedures, and in publishing the winning prices.
- 5 **PRICE DISCOVERY PROCESS**
GDT and the Trading Manager to maintain jointly agreed documentation of the methodology and procedures by which winning prices are discovered, including the price increment algorithm, the parameter values applied in the software, policies for any interventions during the auction process, and publication of a non-technical summary of the price discovery process.
- 6 **INTERNAL CONTROL FRAMEWORK**
GDT to maintain an appropriate control framework for the process of discovering and distributing winning prices, including controls to ensure the integrity and quality of winning prices, effective whistleblowing mechanisms, and assurance that roles are carried out by personnel with relevant levels of expertise.
- 7 **MARKET SURVEILLANCE**
GDT to maintain an appropriate monitoring regime to provide assurance that relevant GDT Trading Event Rules are complied with, and that reasonable methods to mitigate the risk of seller or bidder collusion are in place.
- 8 **PRICE CREDIBILITY REVIEW**
If required by the Oversight Board, GDT to review that structural changes in the dairy industry do not require changes to the price discovery process, and that relevant dairy trade continues to operate with sufficient volume for the winning prices to function as credible reference prices for the products traded.
- 9 **ANTI-TRUST REVIEWS**
GDT to implement policies and procedures to comply with applicable anti-trust requirements, and to periodically review whether any changes to competition/anti-trust laws in the relevant jurisdictions warrant adjustments.
- 10 **CESSATION**
GDT to publish written policies on the notice periods that will apply if the trading platform is terminated, or a product temporarily or permanently ceases to be offered or its specification is changed. GDT to encourage stakeholders who have financial instruments that reference GDT winning prices to take steps to assure the robustness of their instruments in the event of cessation of price publication.
- 11 **AUDITS AND COMPLAINTS**
GDT to maintain a written procedure and independent rulings body for GDT participants, or GDT itself, to submit a complaint in relation to a participant's alleged breach of the GDT Trading Event Rules. GDT to appoint an independent external auditor with appropriate experience and capability to periodically review and report on GDT's adherence to the governance principles.

Trading Manager Report

The Auctions & Competitive Bidding Practice at CRA International (CRA) includes economists, market design and auction experts, engineers, business experts, and software developers.

For over 20 years the practice has advised clients on the design and implementation of auctions, trading platforms, and other marketplaces, and has provided bidder support services as well.

Appointed by GDT as the independent Trading Manager for GDT Events, CRA has been designing and developing the platform used for GDT Events and has managed GDT Events since its inception. CRA developed the GDT Events platform based on auction and trading platforms it developed for a range of other industries.

CRA's auction design for GDT Events is tailored to meet the needs of the commodity dairy industry, specifically to establish prices through an effective, transparent price discovery process. CRA also administers each Trading Event and handles bidder enquiries through its multi-lingual Help Desk.

CRA applies economics and business principles, along with analytical rigor and foundations in auction theory and game theory, tailored to the needs and objectives of the client and industry, and creating value for both sellers and buyers.

CRA's clients in dozens of industries and countries include small and large companies, cooperatives, trade associations, regulated utilities, and government agencies at all levels.

CRA's platforms have been used for hundreds of successful auctions and trading events for single-seller multi-buyer, multi-seller single-buyer, and multi-seller multi-buyer marketplaces.

CRA manages the operation of each Trading Event. Among other responsibilities, CRA's bidding website implements the GDT Events bidding rules. CRA's key tasks include monitoring the round-to-round activity as well as monitoring internet traffic and conditions that may affect the bidder experience.

Brad Miller
Vice President
Practice Leader



Robert J. Lee
Vice President



Michael J. Loreth
Principal



Should external contingencies arise, CRA may alter the round schedule or pause the event until they are resolved. CRA's multi-lingual Help Desk opens two hours prior to the start of the first round of bidding and remains available throughout the Trading Event; it provides experienced staff to help facilitate bid entry, clarify any bidder questions, and gather information on any technical issues that may arise.

If, after the close of a bidding round, the closing criteria for the Trading Event have not been met, then price increments are computed and end-of-round results are posted to the bidding website for bidders to review.

The system opens the next round of bidding at the scheduled start time for the round.

After the close of a bidding round, if the system does indicate the closing criteria for the Trading Event have been met, the Trading Manager confirms that the event can be concluded, posts the results to the bidding website for bidders, and compiles the data from the Trading Event that are to be transmitted to GDT. GDT's systems confirm the results to the sellers and bidders.

CRA also calculates and confirms key price indices based on a methodology developed in consultation with Statistics New Zealand. These price indices provide market participants with reference information for their own analytics and market analyses. Results of the Trading Event are posted to the GDT website in accordance with the rules.

In addition to managing each Trading Event, CRA continuously upgrades the various components of its Auction Management System as well as develops new capabilities and features for the platform to enhance the bidder experience.

CRA International

More information about CRA can be found at www.auctions.crai.com

Integral to NZX Dairy Derivatives

GDT Events prices are used to determine the settlement prices for the NZX Dairy Derivatives Market. Financial derivatives have become an important part of the dairy industry.

Before 2010, the global dairy industry had virtually no way of managing price risk in dairy commodities, and indeed prices were so stable that managing price risk was largely not necessary. Yet, levels of volatility in the global dairy market changed dramatically in the late 2000s, creating greater price risk, and therefore driving demand for tools and strategies to help manage risk. NZX launched its Dairy Derivatives Market in October 2010 to provide risk management tools to those with exposure to global dairy prices, including processors, buyers, distributors, traders and manufacturers.

The success of NZX's Dairy Derivatives market is demonstrated in its trading growth, which has increased at an average rate of 89% year-on-year since the market launched. Trading volumes are now more than 136 times what was traded in the market's first year. Contracts traded have also grown from 10 tonnes per day in 2010, to more than 700 tonnes per day in 2016, with participants

from Europe, Asia, North and South America, Australia and New Zealand utilising the market.

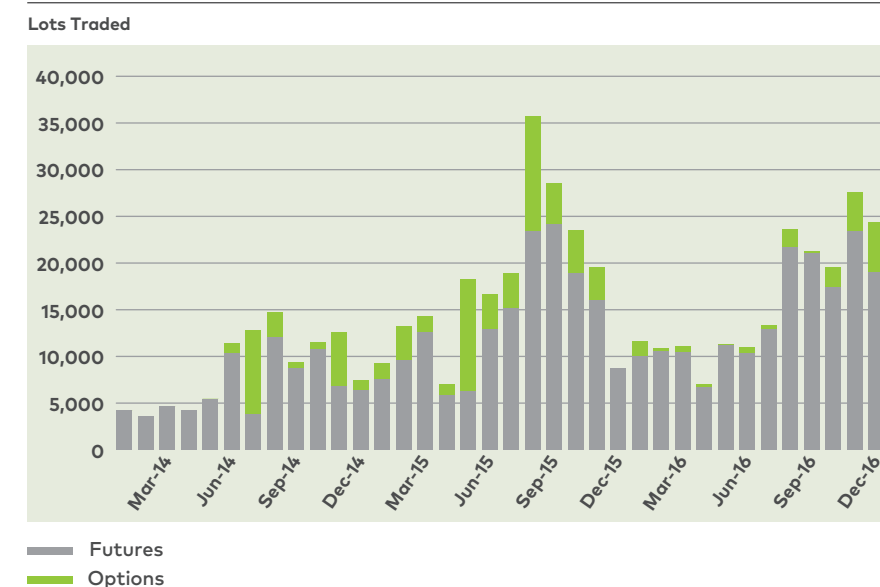
NZX has continued to expand its dairy product offering, which now includes futures contracts based on Whole Milk Powder (WMP), Skim Milk Powder (SMP), Anhydrous Milk Fat (AMF) and Butter (BTR) and Options on WMP Futures.

In 2016 NZX expanded its suite of risk management tools, launching NZX NZ Milk Price Futures and Options in May and June respectively. These products were designed to address the growing demand from producers and purchasers of milk products wishing to manage risk relating to price fluctuations. The contracts offer annual maturities, with three years listed at one time providing the ability to lock in long dated hedges. Early trading in these products exceeded expectations, with the equivalent of more than 23 million kilograms of milk solids (kgs/ms) traded since launch.

While many agricultural derivatives contracts are physically deliverable at expiration, this type of settlement can restrict participation in the market, particularly in the early days of development. All NZX futures contracts are cash settled providing simplicity and efficiency at settlement, without the risk of having to make, or take, delivery of the physical product. In order to reliably cash settle futures contracts, a transparent and robust reference price representing actual sales of products must be available.

When GDT Events launched in 2008 it provided the dairy industry with greater price transparency. GDT Events has established a reputation as a global benchmark for pricing dairy commodities, and thus provides the robust reference price required for these cash settled contracts to operate successfully. NZX's Dairy Derivatives are settled to winning prices of products sold at GDT Events, while NZ Milk Price Derivatives settle to the final Fonterra Farmgate Milk Price.

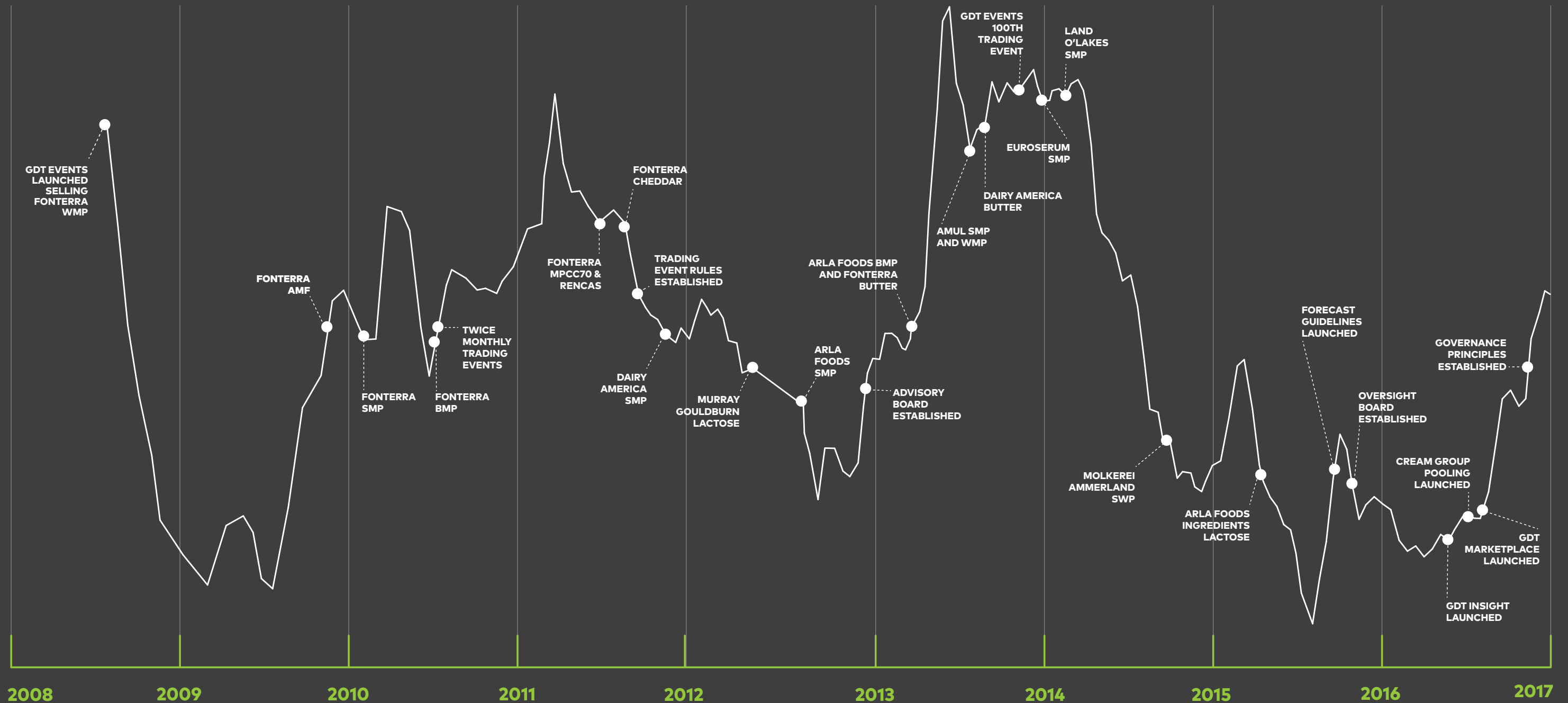
NZX Dairy Derivatives Volume



NZX's Dairy Derivatives market is truly global. It is open for 14 hours each day and provides access to participants in major dairy trading regions such as Europe, the USA and Asia. The market also has clearing participants and brokers based in New Zealand, Europe the USA and Singapore.



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



The History of Global Dairy Trade

KEY MILESTONES

The white line in the diagram above maps the GDT Price Index since launch of GDT Events in 2008 and identifies the key milestones along the way.

GDT Statistics to 31 December 2016

**The following pages
present GDT statistics
to 31 December 2016.**

Please note, GDT Statistics includes
data from GDT Events, but does not
include data from GDT Marketplace.

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 rose 47% in 2016, reaching a 30-month high in December. The year end Index value of 1,076 exceeds its long term average of 994.

This chart shows how the prices of products traded on GDT Events have evolved over time, where price changes are weighted by quantities sold.

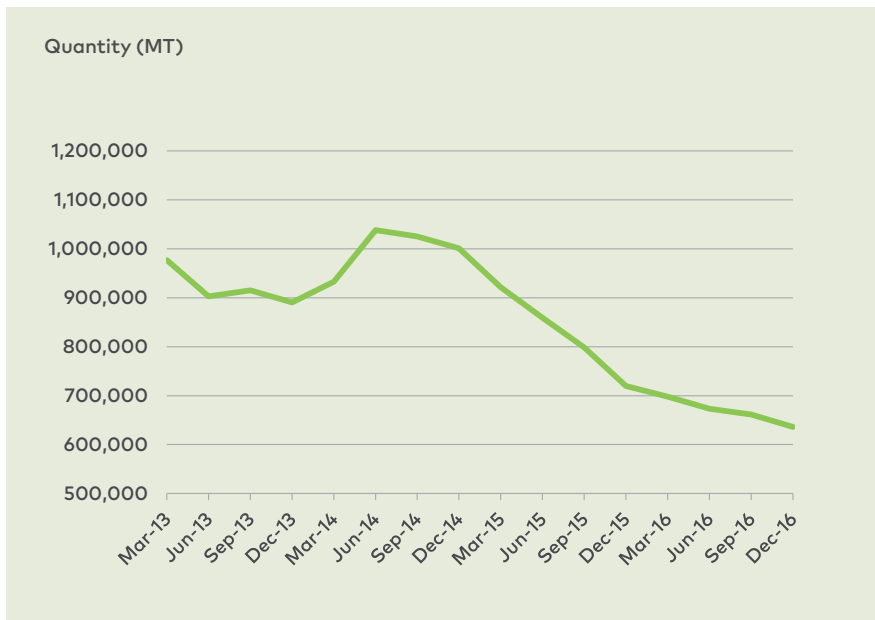
Further information on the GDT Price Index is available at www.globaldairytrade.info/en/gdt-events/how-gdt-events-work/reference-material/



Date	GDT Price Index	Date	GDT Price Index
Jan-15	784	Jan-16	718
Jan-15	792	Jan-16	708
Feb-15	866	Feb-16	656
Feb-15	954	Feb-16	638
Mar-15	965	Mar-16	646
Mar-15	880	Mar-16	628
Apr-15	785	Apr-16	641
Apr-15	757	Apr-16	666
May-15	730	May-16	656
May-15	714	May-16	674
Jun-15	683	Jun-16	697
Jun-15	674	Jun-16	696
Jul-15	634	Jul-16	694
Jul-15	566	Jul-16	693
Aug-15	514	Aug-16	739
Aug-15	590	Aug-16	833
Sep-15	654	Sep-16	898
Sep-15	761	Sep-16	913
Oct-15	837	Oct-16	885
Oct-15	811	Oct-16	898
Nov-15	751	Nov-16	1,001
Nov-15	692	Nov-16	1,046
Dec-15	717	Dec-16	1,082
Dec-15	730	Dec-16	1,076

12-month Sold Quantity

12-month sold quantity fell to 636,000 MT in 2016.



Date	12-month Sold Quantity (MT)	Date	12-month Sold Quantity (MT)
Mar-13	977,131	Mar-15	921,748
Jun-13	902,906	Jun-15	859,119
Sep-13	915,209	Sep-15	798,609
Dec-13	890,759	Dec-15	719,810
Mar-14	932,886	Mar-16	697,888
Jun-14	1,038,204	Jun-16	673,219
Sep-14	1,025,216	Sep-16	661,358
Dec-14	1,000,947	Dec-16	636,401

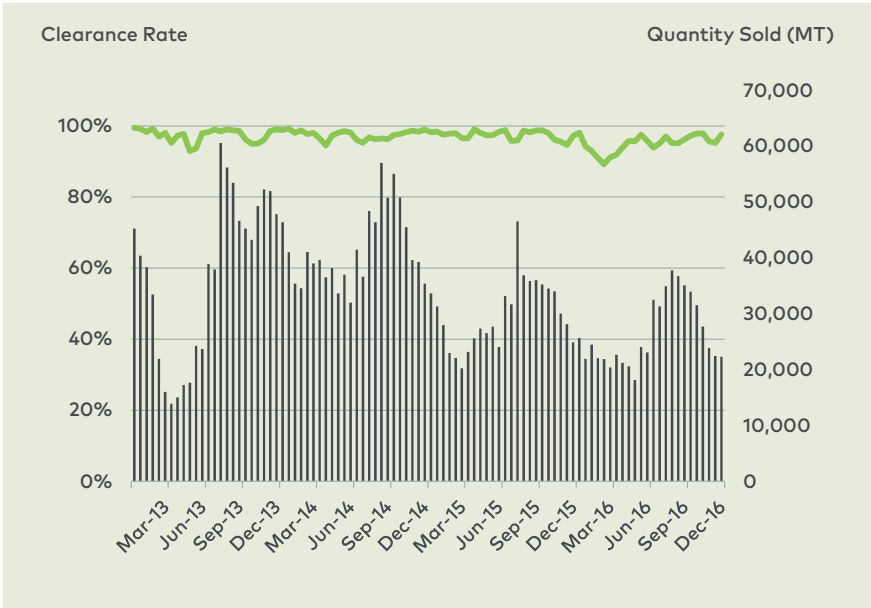
Clearance Rate

Over 2016, GDT Trading Event average clearance rate was 95%.

This chart shows that the clearance rate is robust during large peaks and troughs in trading quantity.

The clearance rate is the quantity sold divided by the maximum supply offered.

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

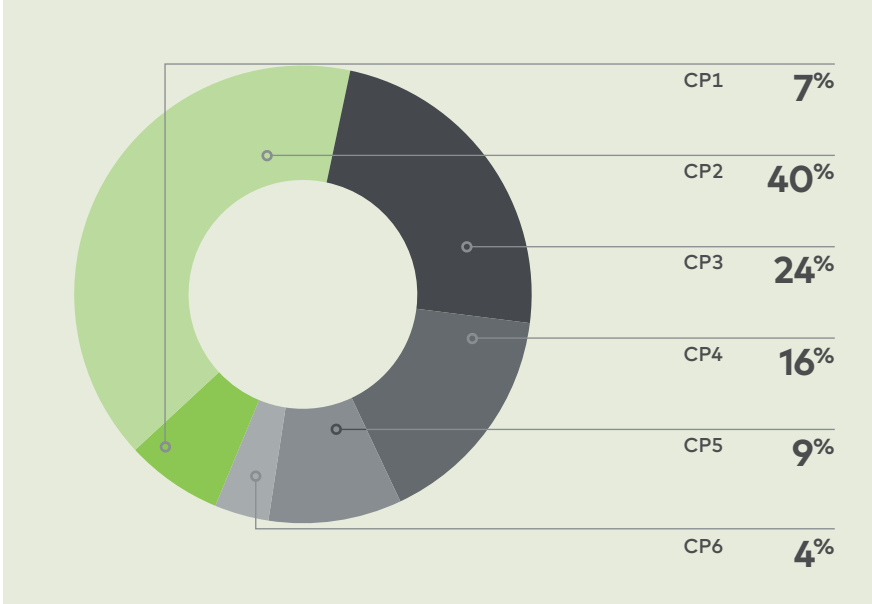


Date	Quantity Sold (MT)	Clearance Rate	Date	Quantity Sold (MT)	Clearance Rate
Jan-15	33,669	98%	Jan-16	25,671	98%
Jan-15	31,326	98%	Jan-16	21,930	94%
Feb-15	28,000	98%	Feb-16	24,474	93%
Feb-15	22,957	98%	Feb-16	22,021	91%
Mar-15	22,094	98%	Mar-16	21,880	89%
Mar-15	20,258	97%	Mar-16	20,406	91%
Apr-15	23,162	96%	Apr-16	22,682	92%
Apr-15	25,596	99%	Apr-16	21,206	94%
May-15	27,369	98%	May-16	20,615	96%
May-15	26,535	97%	May-16	18,113	96%
Jun-15	27,711	97%	Jun-16	23,631	98%
Jun-15	24,047	98%	Jun-16	22,668	96%
Jul-15	33,200	99%	Jul-16	31,955	94%
Jul-15	31,691	96%	Jul-16	30,903	95%
Aug-15	46,527	96%	Aug-16	34,499	97%
Aug-15	36,904	99%	Aug-16	37,286	95%
Sep-15	35,865	98%	Sep-16	36,394	95%
Sep-15	36,050	99%	Sep-16	34,772	96%
Oct-15	35,243	99%	Oct-16	33,628	97%
Oct-15	34,519	98%	Oct-16	31,215	98%
Nov-15	33,997	96%	Nov-16	27,398	98%
Nov-15	30,044	96%	Nov-16	23,669	96%
Dec-15	28,158	95%	Dec-16	22,287	95%
Dec-15	24,888	97%	Dec-16	22,099	98%

Sold Quantity by Contract Period, 2016

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

Contract periods 2-4 accounted for 80% of sold quantity.



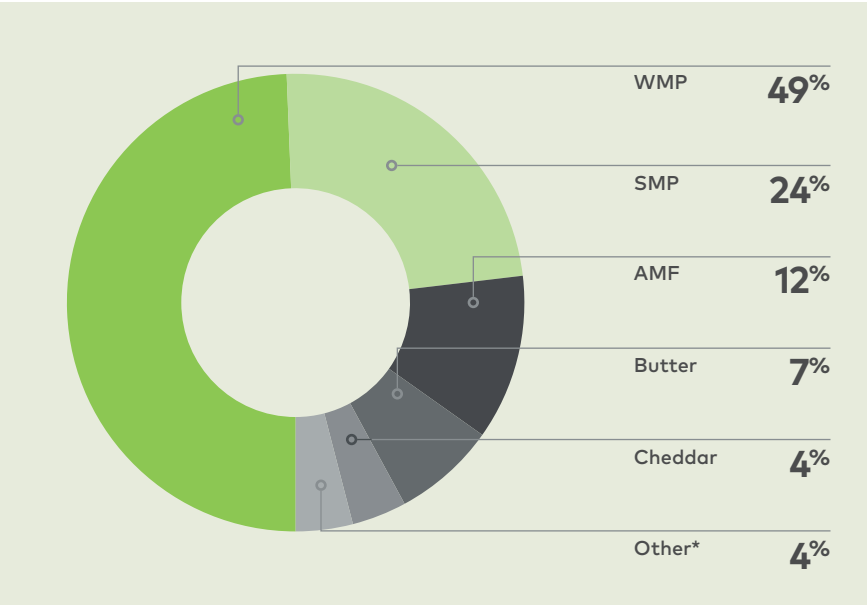
Contract Period*	Sold Quantity (% of Total)
CP1	7%
CP2	40%
CP3	24%
CP4	16%
CP5	9%
CP6	4%

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

Sold Quantity
by Product
Group, 2016

The main milk
powders, WMP and
SMP, accounted for
over 70% of sales.

AMF and Butter represented
a further 19% of sales.



Product	Sold Quantity (% of Total)
WMP	49%
SMP	24%
AMF	12%
Butter	7%
Cheddar	4%
Other*	4%

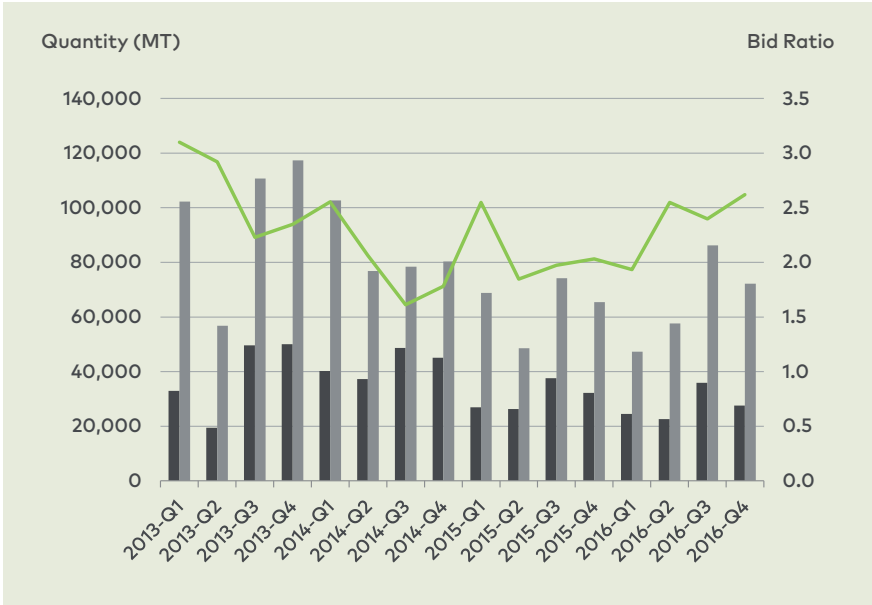
* Other includes BMP, Lactose and RenCas

Quarterly
Average Supply
and Demand

2016 supply and
demand peaked in
Q3 but the bid ratio
continued to climb
in Q4. Trading Event
bid ratios averaged
2.4 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
available quantity.



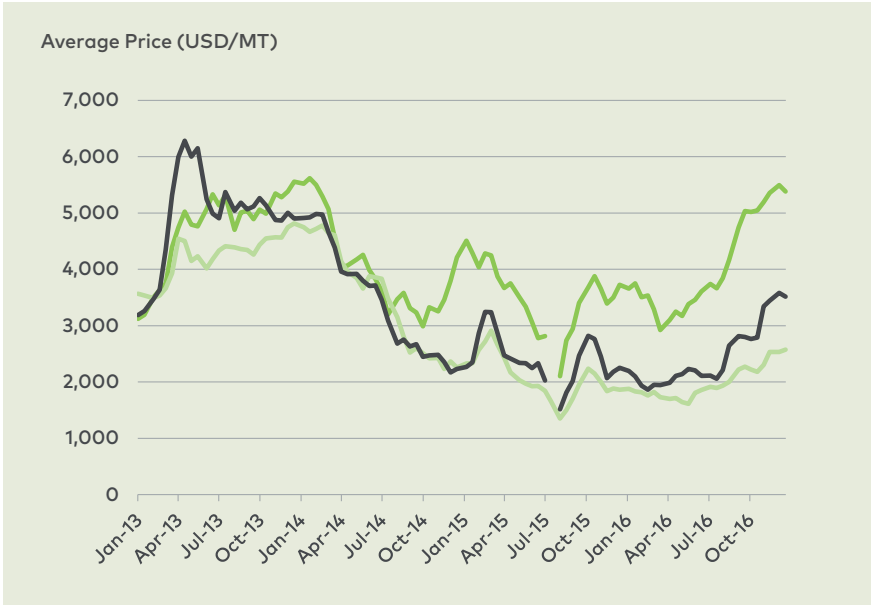
Quarterly Average Maximum Supply (MT)
Quarterly Average First Round Bidding Demand (MT)
Bid Ratio

Date	Quarterly Average Maximum Supply (MT)	Quarterly Average First Round Bidding Demand (MT)	Bid Ratio
2013-Q1	32,981	102,219	3.1
2013-Q2	19,454	56,825	2.9
2013-Q3	49,607	110,641	2.2
2013-Q4	49,991	117,309	2.3
2014-Q1	40,206	102,673	2.6
2014-Q2	37,240	76,793	2.1
2014-Q3	48,622	78,435	1.6
2014-Q4	45,102	80,300	1.8
2015-Q1	26,977	68,767	2.5
2015-Q2	26,317	48,575	1.8
2015-Q3	37,606	74,168	2.0
2015-Q4	32,180	65,397	2.0
2016-Q1	24,472	47,309	1.9
2016-Q2	22,601	57,584	2.5
2016-Q3	35,943	86,166	2.3
2016-Q4	27,544	72,171	2.6

Average Price:
AMF, SMP
and WMP

Prices for all dairy ingredients increased over 2016. AMF, SMP and WMP gained 45%, 38%, and 56% respectively. WMP reached a 30-month high of \$3,582 USD/MT in December.

This chart shows average AMF, SMP and WMP prices across all product specifications and sellers for short term contract periods (CP1 and CP2), weighted by sold quantity.

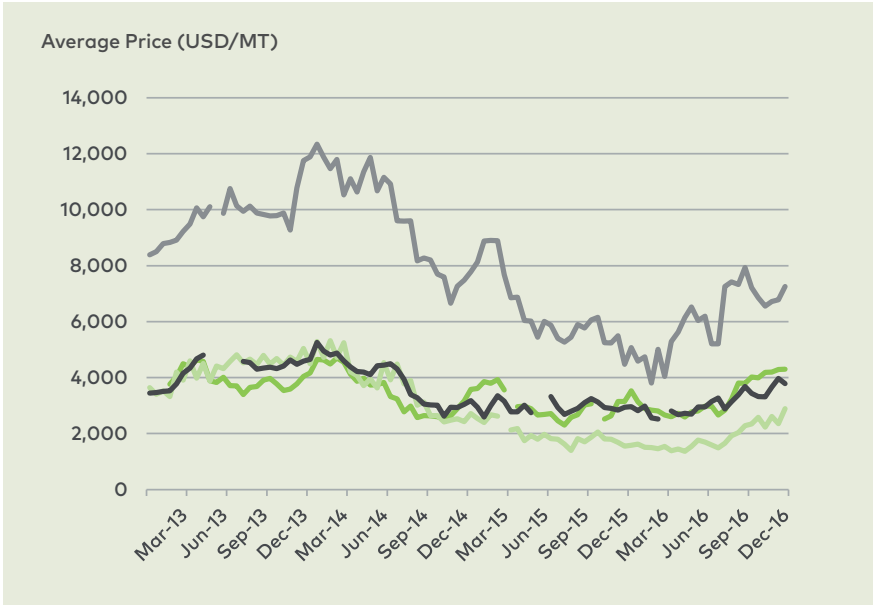


Date	AMF (USD/MT)	SMP (USD/MT)	WMP (USD/MT)	Date	AMF (USD/MT)	SMP (USD/MT)	WMP (USD/MT)
Jan-16	3,659	1,879	2,197	Jul-16	3,739	1,914	2,114
Jan-16	3,750	1,833	2,097	Jul-16	3,664	1,896	2,060
Feb-16	3,504	1,817	1,934	Aug-16	3,843	1,933	2,210
Feb-16	3,536	1,762	1,862	Aug-16	4,167	2,003	2,648
Mar-16	3,288	1,821	1,952	Sep-16	4,742	2,220	2,812
Mar-16	2,920	1,730	1,944	Sep-16	5,032	2,272	2,798
Apr-16	3,101	1,699	1,984	Oct-16	5,018	2,219	2,763
Apr-16	3,248	1,715	2,110	Oct-16	5,047	2,181	2,791
May-16	3,172	1,644	2,139	Nov-16	5,193	2,304	3,342
May-16	3,384	1,611	2,232	Nov-16	5,357	2,531	3,442
Jun-16	3,457	1,809	2,206	Dec-16	5,493	2,531	3,582
Jun-16	3,609	1,856	2,106	Dec-16	5,384	2,574	3,514

Average Price:
Butter, BMP,
Cheddar
and RenCas

Prices for all dairy ingredients increased over 2016. Butter, BMP, Cheddar and RenCas gained 37%, 86%, 28% and 62% respectively. BMP reached a 27-month high of \$2,890 USD/MT in December.

This chart shows average Butter, BMP, Cheddar and RenCas prices across all product specifications and sellers for short term contract periods (CP1 and CP2), weighted by sold quantity.



Date	Butter (USD/MT)	BMP (USD/MT)	Cheddar (USD/MT)	RenCas (USD/MT)	Date	Butter (USD/MT)	BMP (USD/MT)	Cheddar (USD/MT)	RenCas (USD/MT)
Jan-16	3,528	1,578	2,959	5,072	Jul-16	2,976	1,595	3,148	5,210
Jan-16	3,140	1,620	2,815	4,585	Jul-16	2,662	1,490	3,266	5,204
Feb-16	2,892	1,505	2,983	4,738	Aug-16	2,833	1,650	2,874	7,253
Feb-16	2,840	1,500	2,560	3,806	Aug-16	3,224	1,925	3,139	7,423
Mar-16	2,804	1,455	2,514	5,014	Sep-16	3,806	2,039	3,387	7,323
Mar-16	2,660	1,540	—	4,042	Sep-16	3,796	2,285	3,678	7,933
Apr-16	2,598	1,385	2,810	5,284	Oct-16	4,018	2,339	3,430	7,208
Apr-16	2,721	1,446	2,672	5,631	Oct-16	3,995	2,580	3,320	6,854
May-16	2,594	1,366	2,727	6,143	Nov-16	4,189	2,226	3,309	6,549
May-16	2,781	1,545	2,693	6,526	Nov-16	4,194	2,615	3,665	6,721
Jun-16	2,805	1,765	2,955	6,036	Dec-16	4,288	2,358	3,965	6,778
Jun-16	2,980	1,695	2,950	6,196	Dec-16	4,299	2,890	3,784	7,258

Average Price: Lactose

Lactose gained 58% over 2016 and reached a high of \$873 USD/MT in December.

This chart shows average Lactose prices across all product specifications and sellers for short term contract periods (CP1 and CP2), weighted by sold quantity.



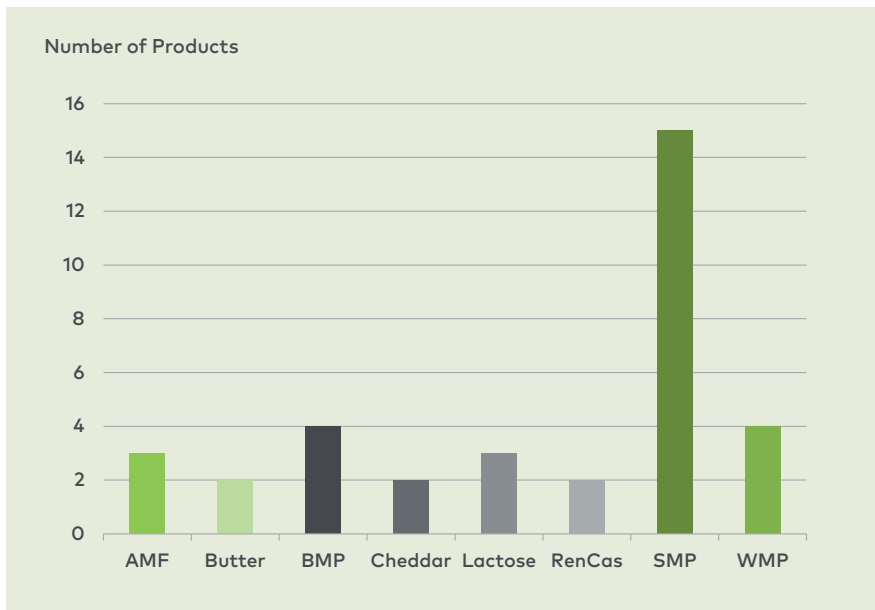
Lactose

Date	Lactose (USD/MT)	Date	Lactose (USD/MT)	Date	Lactose (USD/MT)	Date	Lactose (USD/MT)
		Jul-15	—	Jan-16	594	Jul-16	750
		Jul-15	549	Jan-16	579	Jul-16	721
		Aug-15	535	Feb-16	577	Aug-16	741
		Aug-15	502	Feb-16	574	Aug-16	763
		Sep-15	483	Mar-16	613	Sep-16	787
		Sep-15	499	Mar-16	624	Sep-16	815
		Oct-15	524	Apr-16	661	Oct-16	744
Apr-15	572	Oct-15	507	Apr-16	708	Oct-16	780
May-15	—	Nov-15	—	May-16	693	Nov-16	755
May-15	580	Nov-15	503	May-16	713	Nov-16	787
Jun-15	540	Dec-15	507	Jun-16	750	Dec-16	873
Jun-15	525	Dec-15	542	Jun-16	754	Dec-16	857

Products Offered, 2016

Registered sellers and products were static over 2016. 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.

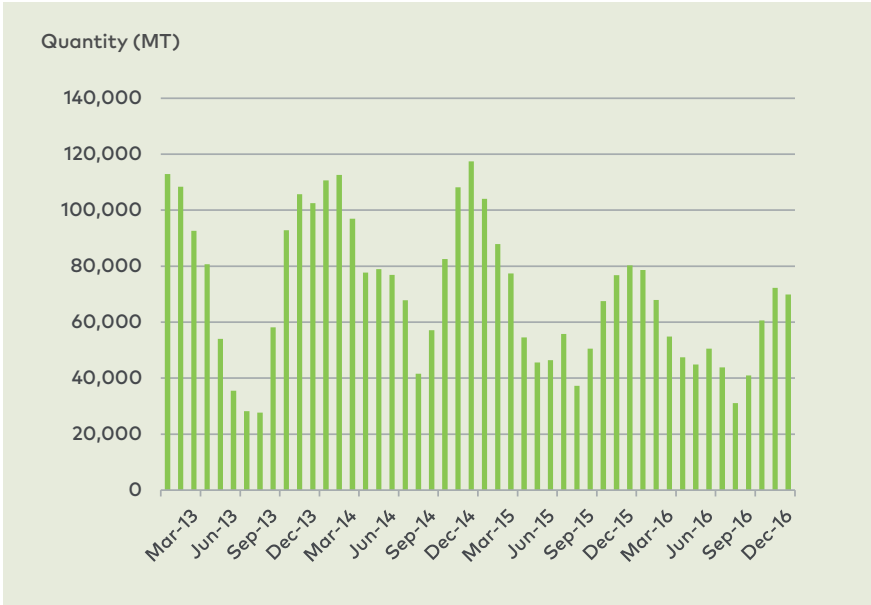


Product Group	Products
AMF	3
Butter	2
BMP	4
Cheddar	2
Lactose	3
RenCas	2
SMP	15
WMP	4

Shipment Profile

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

This chart shows the seasonal profile of shipments for all products sold on GDT Events from 2013 to 2016.



Month	Quantity Shipped During Month (MT)	Month	Quantity Shipped During Month (MT)
Jan-13	112,947	Jan-15	104,014
Feb-13	108,405	Feb-15	87,878
Mar-13	92,589	Mar-15	77,353
Apr-13	80,669	Apr-15	54,512
May-13	53,992	May-15	45,609
Jun-13	35,521	Jun-15	46,444
Jul-13	28,184	Jul-15	55,746
Aug-13	27,647	Aug-15	37,218
Sep-13	58,160	Sep-15	50,531
Oct-13	92,844	Oct-15	67,500
Nov-13	105,668	Nov-15	76,811
Dec-13	102,542	Dec-15	80,242
Jan-14	110,673	Jan-16	78,615
Feb-14	112,629	Feb-16	67,945
Mar-14	96,983	Mar-16	54,867
Apr-14	77,759	Apr-16	47,409
May-14	78,957	May-16	44,843
Jun-14	76,844	Jun-16	50,504
Jul-14	67,819	Jul-16	43,879
Aug-14	41,605	Aug-16	31,041
Sep-14	57,103	Sep-16	41,007
Oct-14	82,546	Oct-16	60,650
Nov-14	108,134	Nov-16	72,288
Dec-14	117,424	Dec-16	69,848

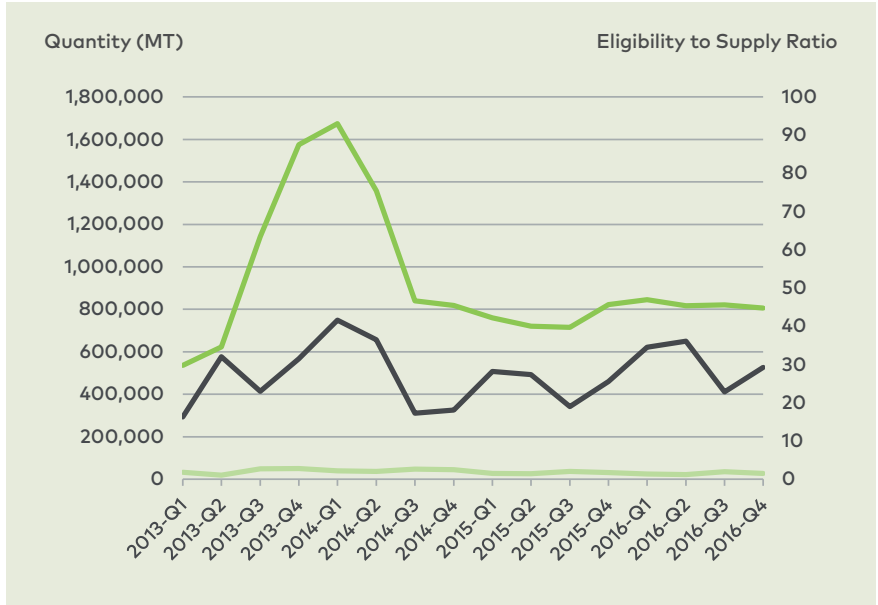
Bidder Eligibility and Maximum Supply

The average eligibility to supply ratio was 30 over 2016, indicating that bidders potentially could bid 30 times supply.

The ratio of eligibility to supply indicates how much eligibility in MT is available per MT of supply.

Each seller determines which bidders can purchase their products by assigning eligibility (the maximum quantity they are willing to sell to each bidder). Total eligibility represents the maximum quantity all bidders could bid across all products.

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



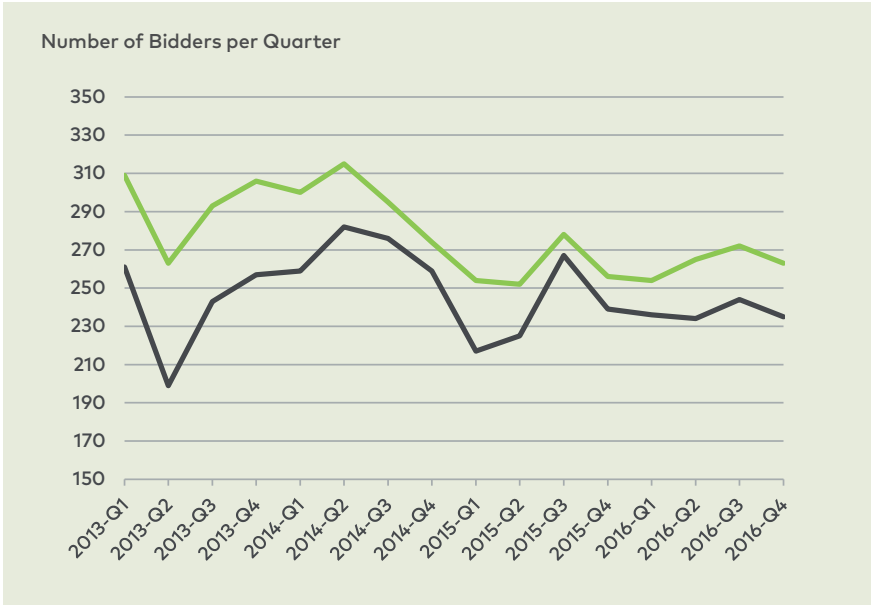
Eligibility Average (MT)
Maximum Average Supply (MT)
Eligibility to Supply Ratio

Date	Eligibility Average (MT)	Maximum Average Supply (MT)	Eligibility to Supply Ratio
2013-Q1	536,815	32,981	16
2013-Q2	622,815	19,454	32
2013-Q3	1,142,397	49,607	23
2013-Q4	1,574,828	49,991	32
2014-Q1	1,674,530	40,206	42
2014-Q2	1,358,262	37,240	36
2014-Q3	840,530	48,622	17
2014-Q4	818,250	45,102	18
2015-Q1	760,238	26,977	28
2015-Q2	720,630	26,317	27
2015-Q3	715,333	37,606	19
2015-Q4	822,722	32,180	26
2016-Q1	845,946	24,472	35
2016-Q2	816,795	22,601	36
2016-Q3	821,004	35,943	23
2016-Q4	805,858	27,544	29

Participating and Winning Bidders

Participating bidders per quarter were stable during 2016, averaging 264 over the year. Winning bidders averaged 237.

This graph shows 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 that won product.



Participating Bidders
Winning Bidders

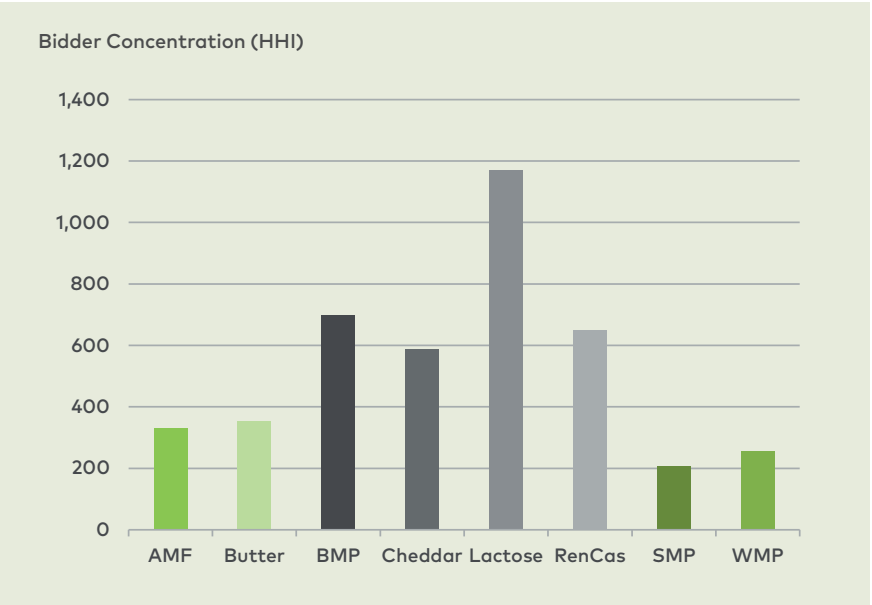
Date	Participating Bidders	Winning Bidders	Date	Participating Bidders	Winning Bidders
2013-Q1	309	261	2015-Q1	254	217
2013-Q2	263	199	2015-Q2	252	225
2013-Q3	293	243	2015-Q3	278	267
2013-Q4	306	257	2015-Q4	256	239
2014-Q1	300	259	2016-Q1	254	236
2014-Q2	315	282	2016-Q2	265	234
2014-Q3	295	276	2016-Q3	272	244
2014-Q4	274	259	2016-Q4	263	235

Bidder Concentration, 2016

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 indicate that an HHI below 1,500 is regarded as unconcentrated.

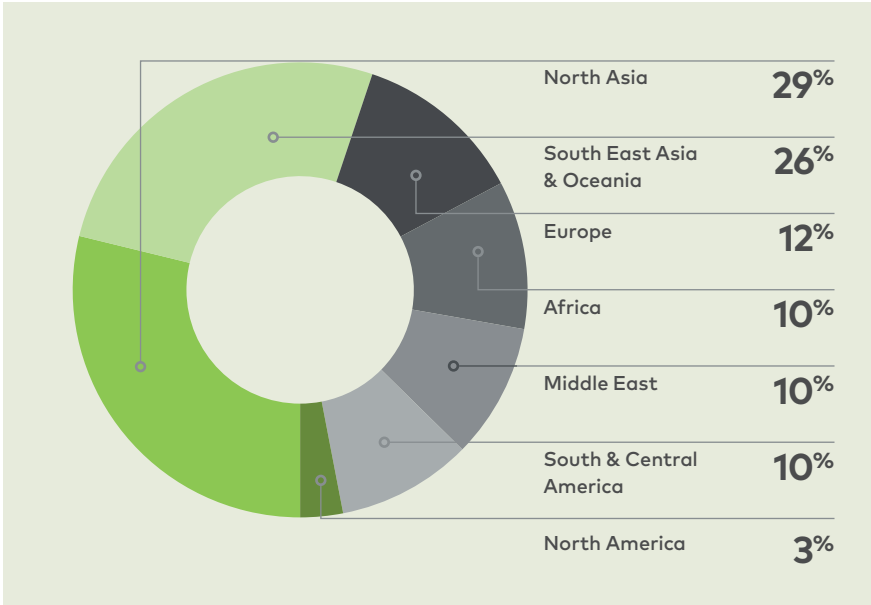


Product Group	Bidder Concentration (HHI)
AMF	331
Butter	352
BMP	698
Cheddar	589
Lactose	1,169
RenCas	648
SMP	205
WMP	254

Participating Bidders by Region, 2016

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

Except for North America, the remaining regions are of similar size between 10-12% each.

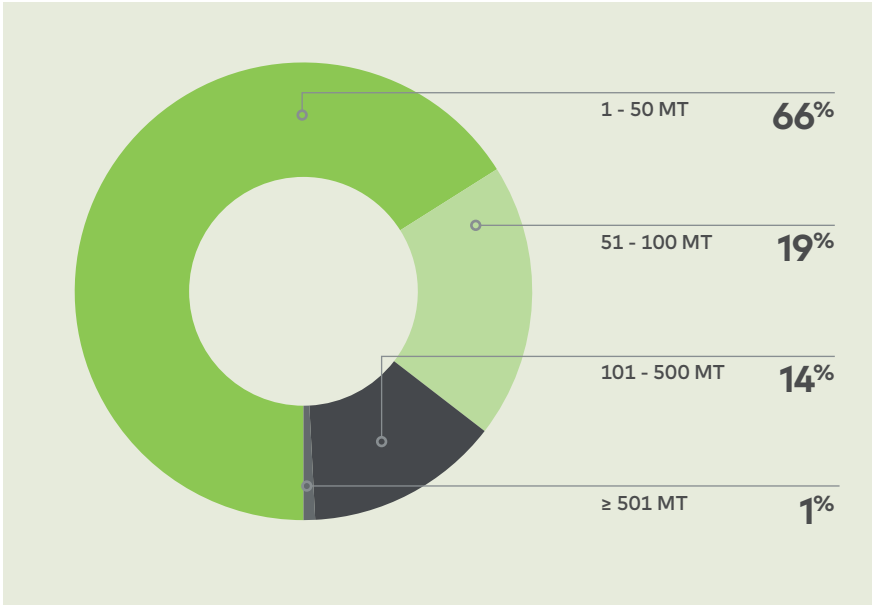


Region	Participating Bidders (% of Total)
North Asia	29%
South East Asia & Oceania	26%
Europe	12%
Africa	10%
Middle East	10%
South & Central America	10%
North America	3%

Distribution of Transactions by Size, 2016

Two-thirds of transactions occurred in the 1-50 MT range, indicating a wide variety of transactions across product groups and contract periods.

This graph shows the number of transactions by size as a share of the total number of transactions during 2016.

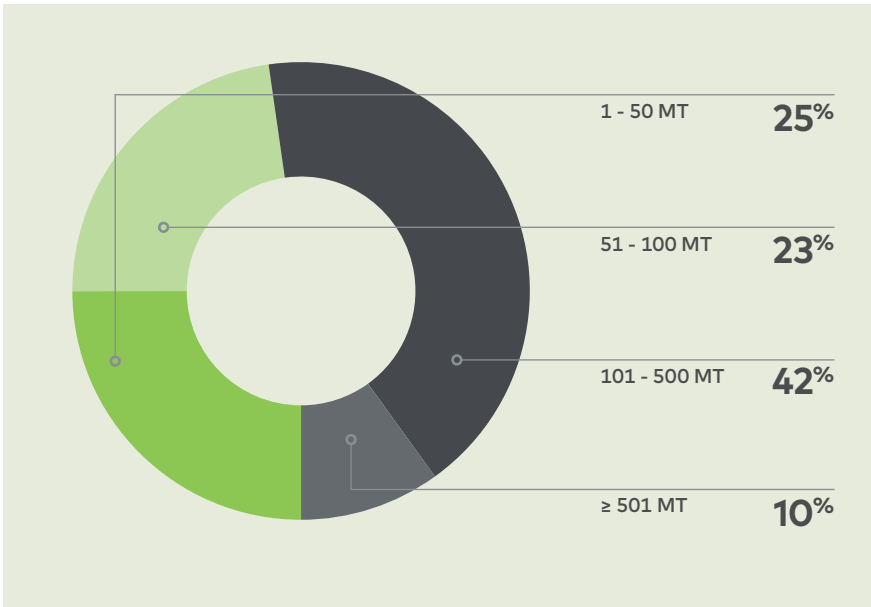


Transaction Size Category	Distribution of Transactions
1 - 50 MT	66%
51 - 100 MT	19%
101 - 500 MT	14%
≥ 501 MT	1%

Distribution of Quantity Purchased by Size, 2016

The largest category of quantity purchased was the 101-500 MT range.

This graph shows the quantity purchased by size as a share of total transactions during 2016.

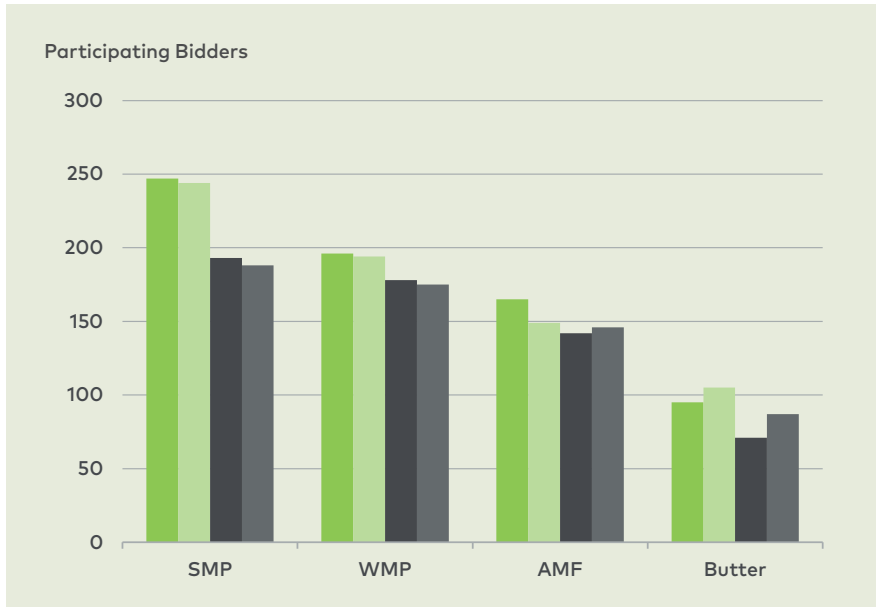


Transaction Size Category	Distribution of Transactions
1 - 50 MT	25%
51 - 100 MT	23%
101 - 500 MT	42%
≥ 501 MT	10%

Participating Bidders: SMP, WMP, AMF and Butter

SMP remains the most popular 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 year.

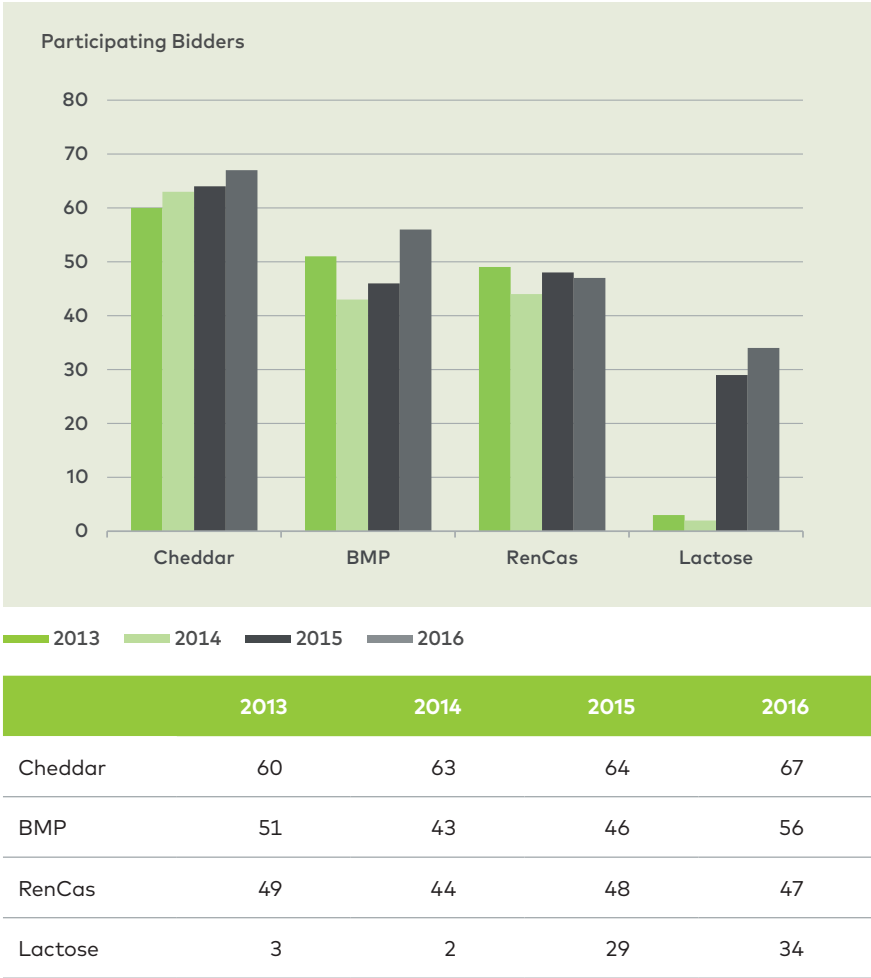


	2013	2014	2015	2016
SMP	247	244	193	188
WMP	196	194	178	175
AMF	165	149	142	146
Butter	95	105	71	87

Participating Bidders: Cheddar, BMP, RenCas and Lactose

The recent resurgence of Lactose can be seen across 2015 and 2016.

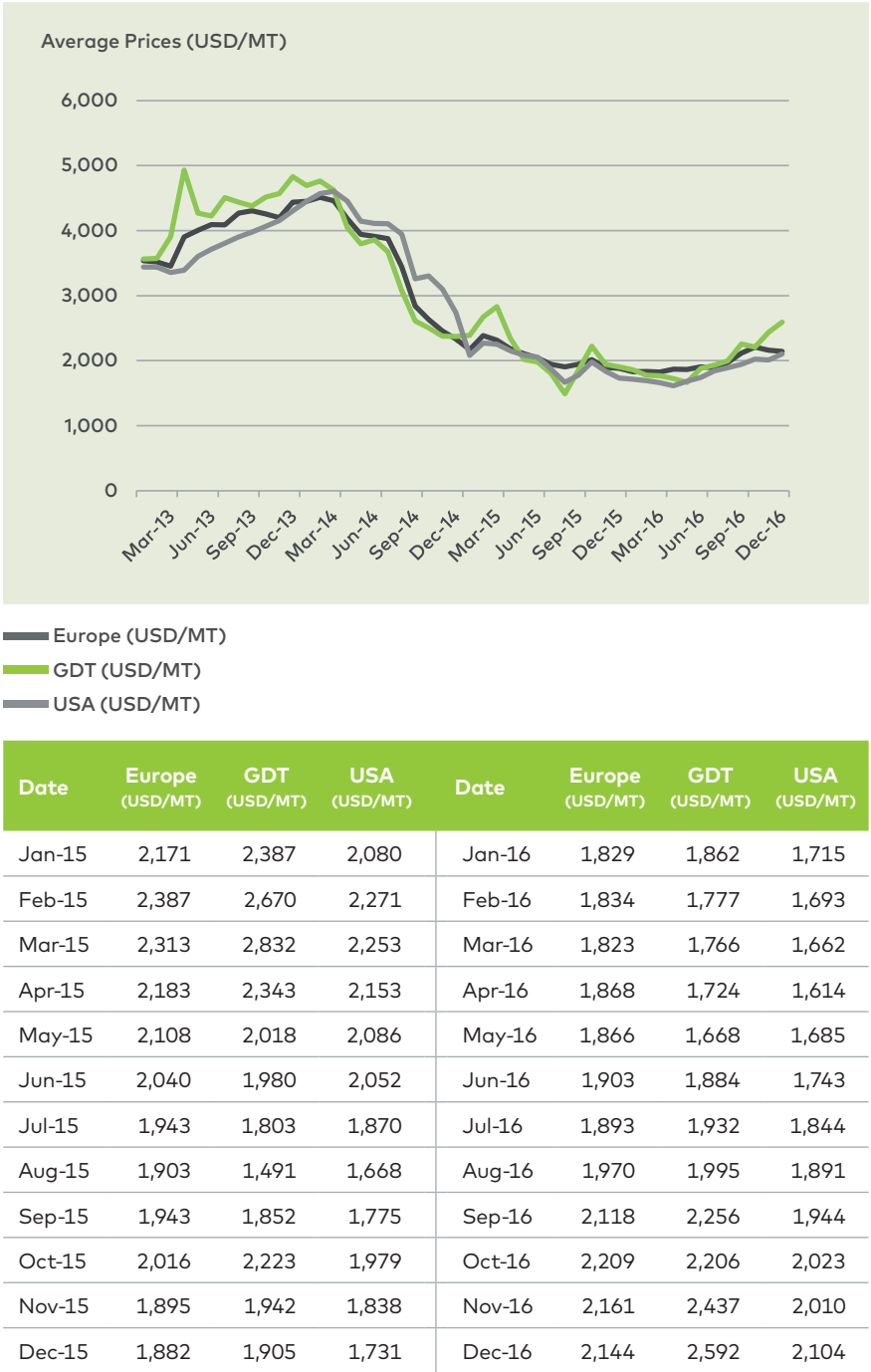
This chart shows the number of bidders who actively bid on each product group in at least one Trading Event over the calendar year.



Prices by Region: SMP

SMP prices across regions follow similar trends and cycles.

This chart shows average monthly SMP prices from GDT, EU Commission and USDA



Source: EU Commission, USDA

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Abbreviations

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

Directory

Contact Us

Global Dairy Trade
Po Box 106561
Auckland 1143
New Zealand

Global Dairy Trade
Level 12, 23 Customs Street East
Auckland 1010
New Zealand

help@globaldairytrade.info

www.globaldairytrade.info

Global Dairy Trade Management Team

Eric Hansen – Director

Shaun McCauley – Chief Technology Officer

Michael Nolan – GM Operations

Jen O'Hara – GM Marketing & Sales

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