

Development and Growth of the GlobalDairyTrade Platform

CRA
International

February 21, 2014

Agenda

- The Development of GlobalDairyTrade
- How the GlobalDairyTrade platform works
- Examples of market information generated by GDT
- About CRA

The Development of Global Dairy Trade

International Dairy Markets in 2007: Limited Transparency

- Dairy market business issues in 2007: Lack of transparency
 - No recognized benchmark to clearly and quickly signal market conditions
 - Limited or dated market price information complicated capacity planning, transfer pricing, herd management, and risk management activities
 - Bilateral negotiations increase SG&A costs for commodity products business
- Who is Fonterra?
 - Leading dairy exporter with a 30% share of international dairy trade
 - A cooperative with revenues of NZ\$18.6 billion in 2013 (\$15.5 billion USD)
 - Competes in both branded and intermediate product markets
 - 2007 market conditions were detrimental to member and customer relationships
- Fonterra approached CRA to:
 - Design and implement a new trading mechanism in globally-traded dairy products that...
 - Establishes transparent price discovery and reliable, credible prices



Anlene



Tip Top

Solution: GlobalDairyTrade (GDT)

- CRA designed and developed an online trading platform – GlobalDairyTrade
 - The innovative platform was launched in 2008 and the vision for GDT was to become a transparent, reliable, credible marketplace for globally-traded commodity dairy products
 - GDT continues to surpass the evolving expectations and has grown into a critical benchmark that influences not only commodity dairy transactions but other markets as well

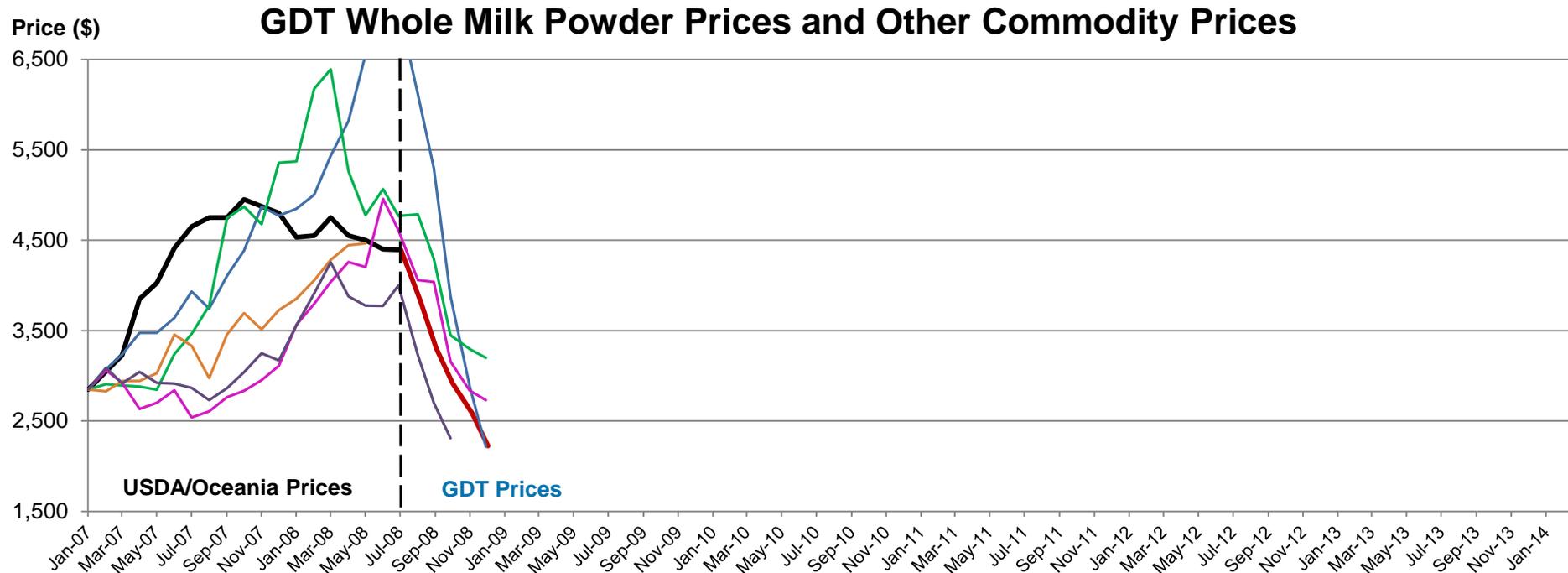
Bidding format is based on a multi-product clock auction that CRA had developed and used for various clients

GDT facilitates trading in a range of substitute and complementary products from multiple sellers to multiple buyers across the globe

Trading events are held on-line twice monthly and are open to all registered participants

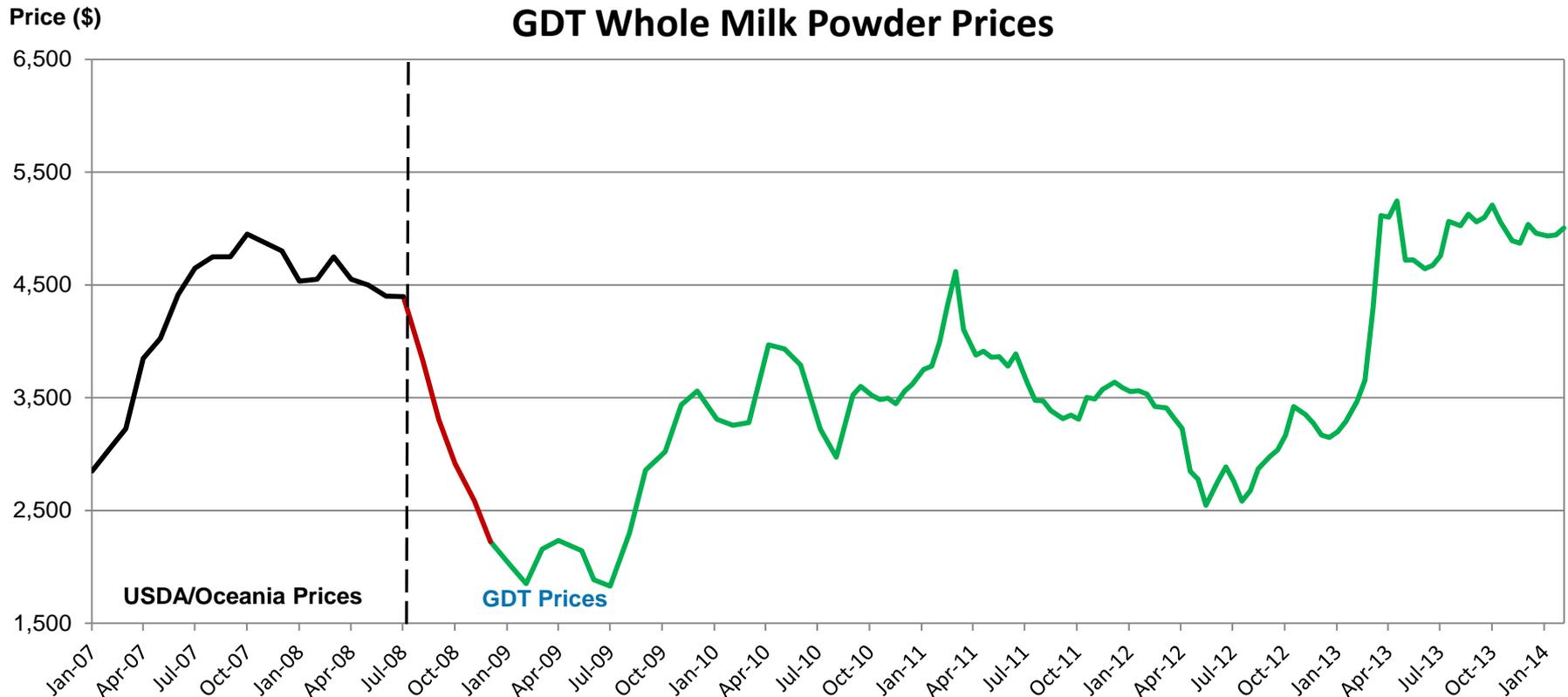
Looking Back: Early Skepticism

- Announced plan for GDT met with skepticism and criticism in the industry
 - Criticism due largely to misunderstanding of how well-designed market processes work
- Initial auction took place in July 2008
 - Leading up to the first auction, Whole Milk Powder prices had reached record high levels
 - Results from initial auctions reflected economic slowdown/credit crisis – consistent with other commodity markets at the time and due to market factors external to GDT
 - GDT quickly was adopted by the industry as the benchmark for global dairy transactions



Looking Back: Market Recovery

- During the slowdown, market participants had relied on and consumed much of the global dairy inventory in the pipeline
- The industry was poised for a rapid recovery – however without GDT it is unlikely the recovery would have occurred as quickly



Acceptance and Growth of GDT

	First 12 Months	Most Recent 12 Months
Trading event frequency	Monthly (starting July 2008)	Twice per month (most recent: TE-110)
# Sellers	1: NZ	7: AU, EU, IN, NZ, US
# Qualified buyers	~150	~800
# Bidders per event	~60	~200
# Product groups	1: WMP	9: AMF, WMP, Butter, BMP, Cheddar, Lactose, MPC70, RenCas, SMP
# Contract delivery periods	3	6
# Products per event	9	>100
MT sold	180,000	900,000
Cumulative \$ sold to date: > US\$ 13 Billion		
NZX stock exchange offers derivative contracts based on GDT results, further creating value		



How the GlobalDairyTrade Platform Works

Overview of GDT

GlobalDairyTrade Holdings Ltd (GDT Ltd)



- Facilitates seller and buyer registration to participate
- Performs administrative functions
- Promotes growth of GDT
- Annual audits monitor GDT's independence
- Subsidiary of Fonterra

Independent Trading Manager



- Lead designer and developer of the trading platform
- Conducts each trading event
- Implements ongoing enhancements to the process and the trading platform

Sellers



To become a seller:

- Commit to offer at least 5,000 MT/year of product through GDT
- Demonstrate to GDT Ltd that offering its product through the trading platform has a reasonable chance of commercial success

Buyers

To become a buyer:

- Provide the standard information requested
- Demonstrate the intent to actively participate in trading events
- To be eligible to bid for a seller's product: need to be qualified by that seller

Independent GDT Advisory Board

- Rotating membership includes sellers and buyers
- GlobalDairyTrade Holdings Ltd and CRA participate as non-members
- Reviews any proposed changes to the GDT market rules and operation of the trading platform

Auction Process Overview

Pre-qualified by the Sellers

PRE-AUCTION



AUCTION



POST-AUCTION

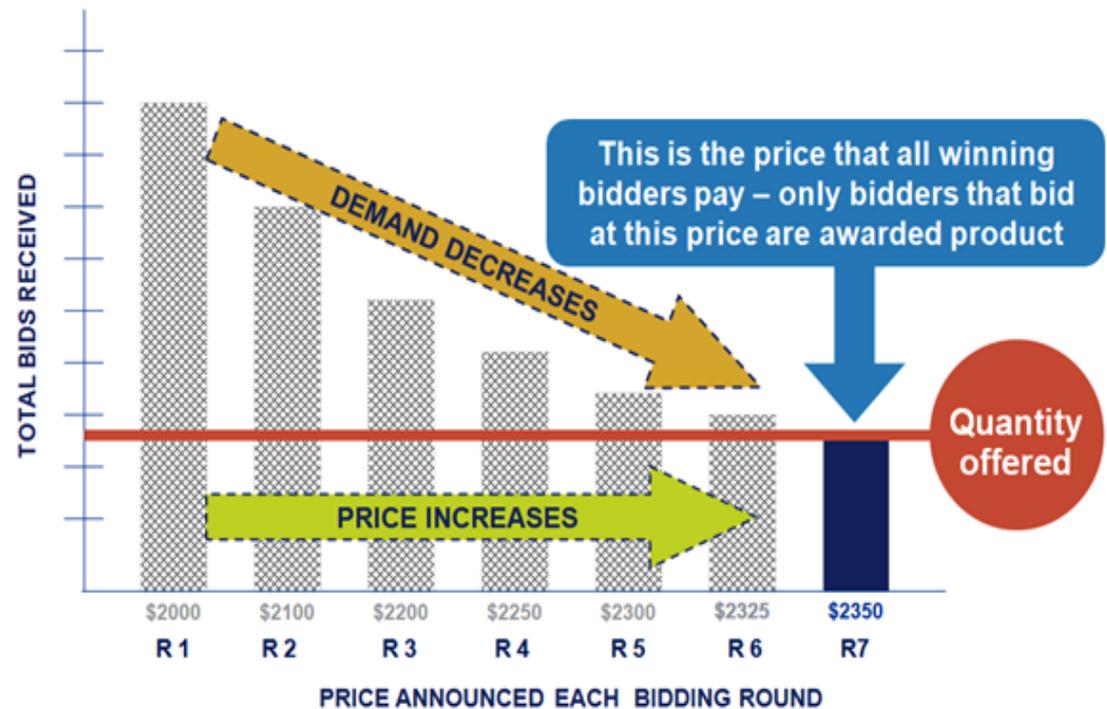


Sellers contact their own winning bidders, contracts are signed

Trading Event Overview

Starting (round 1) prices and offer quantities are set for each product in advance by each seller on their own

1. Bidders submit the quantity of each product they are willing to buy at each product's announced price
2. After the bidding round closes, aggregate demand for each product is measured
3. If aggregate demand for a product exceeds the quantity offered, the price increases for next bidding round



The bidding rounds continue until – for each product – aggregate demand is equal to the quantity offered for sale

There is no pre-determined number of bidding rounds to be run

The Bidding Website

Opens 48 hours prior to the start of round 1 of bidding

Password-protected and secure

Information on the quantities offered for each product

Information on the current prices for each product

Bidders place their quantity bids and receive confirmation

Winning bidders see the quantities they won and the clearing prices

GLOBALDAIRYTRADE User: test1 Logout
Last Login (GMT): 26-Aug-2013 13:29:47

Pre-Event Info Trading Status Messages Submit Bid Trading Schedule Results Auto-Bid Preferences Help

Round Status: Round 1 is open Current Time (GMT): 13:56:06
You have 1 new message(s) from the Trading Manager Time Remaining in Round (hh:mm:ss): 00:08:54

test1 is eligible to submit a bid on up to a total of 185,000 MT.

	Sep13 (Contract 1)		Oct13 (Contract 2)		Nov13 (Contract 3)		Dec13 (Contract 4)		Jan14 (Contract 5)		Feb14 (Contract 6)	
	Bid (MT)	USD/MT FAS										
AMF Regular 210kg drum Fonterra - NZ/AU			500	\$3,970	0	\$3,905	0	\$3,885	0	\$3,755	0	\$3,630
AMF Premium 210kg drum Fonterra - NZ			1,000	\$4,045	0	\$3,980	0	\$3,960	0	\$3,830	0	\$3,705
AMF Premium 1000kg bin Fonterra - NZ			1,000	\$4,070	1,000	\$4,005	850	\$3,985	800	\$3,855	0	\$3,730
Butter Unsalted Sweet Cream DairyAmerica - US	100	\$3,505										
BMP UHT Fonterra - NZ			0	\$4,125	0	\$4,180	0	\$4,005				
Ched Young Fonterra - NZ			0	\$3,940	0	\$3,650	0	\$3,650				
Ched Frozen Fonterra - NZ			0	\$3,990	0	\$3,700	0	\$3,700				
MPC70 Standard 20kg Fonterra - NZ			0	\$6,920	0	\$6,375	0	\$6,545				

Your Quantities Bid and Contract Period Bid Limits Remaining by Seller

	Sep13 (Contract 1)		Oct13 (Contract 2)		Nov13 (Contract 3)		Dec13 (Contract 4)		Jan14 (Contract 5)		Feb14 (Contract 6)	
	Subtotal (MT)	CP Bid Limit Remaining										
Amul	0	1,000	0	1,000	0	1,000	0	0	0	0	0	0
DairyAmerica	100	900	0	1,000	0	0	0	0	0	0	0	0
Fonterra	0	30,000	2,500	27,500	1,000	29,000	850	29,150	800	29,200	0	30,000
Your Current Bid Total (MT)	100		2,500		1,000		850		800		0	
Your Current Eligibility (MT)											185,000	
Your Current Bid Total (MT)											5,250	

Submit Bid and Continue Cancel

A multilingual Help Desk is available during the Trading Events to facilitate back-up bidding, answer questions, and receive any feedback

The Information Website – www.globaldairytrade.info



[Contact us](#) | [English](#) | [中文](#) | [Login to MyGDT](#) |

Home
What is GDT?
Results
Sellers
Resources
Bidder sign up



Results from last trading event

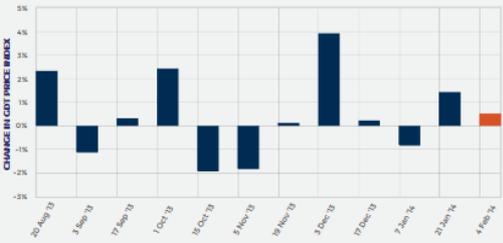
Event 109
4 February 2014

CHANGE IN CDT PRICE INDEX FROM PREVIOUS EVENT

+0.5%

[Click here for more results >](#)

Percentage change in GDT Price Index



Date	Change (%)
20 Aug 13	2.5
3 Sep 13	-1.5
17 Sep 13	0.5
1 Oct 13	2.5
15 Oct 13	-1.5
5 Nov 13	-1.5
19 Nov 13	0.5
3 Dec 13	4.0
17 Dec 13	0.5
7 Jan 14	-1.0
21 Jan 14	1.5
4 Feb 14	0.5

Announcements

Land O'Lakes to offer additional SMP product specifications
13 February 2014

GDT is pleased to announce that Land O'Lakes is offering two additional SMP specs - Low Heat Upgraded and Medium Heat Upgraded.

MyGDT now available to registered bidders
13 February 2014

MyGDT now available to registered bidders

Welcome to our new CDT website
13 February 2014

Welcome to our new GDT website

[Read more announcements >](#)

Calendar

The next trading event is

Event 110

18 February 2014 12:00 UTC

February 2014						
Mon	Tues	Wed	Thur	Fri	Sat	Sun
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

■ Current day
 ■ trading event
 [See more events >](#)

Email alerts

Sign up for the latest GDT email alerts.

Your full name

(Select country)

Your email address

Your company name

Email me the latest results

Email me the latest announcements

[Subscribe >](#)

Current Sellers








What is GDT?

How does it work?
About the Trading Manager
Common questions

Results

Anhydrous Milk Fat
Butter
Butter Milk Powder
Cheeder
Lactose

Milk Protein Concentrate
Rennet Casein
Skim Milk Powder
Whole Milk Powder
Download historical data

Sellers

Become a Seller
Amul
Arla
DairyAmerica

Euroserum
Fonterra
Land O'Lakes
Murray Goulburn

Resources

GDT Market Rules
Chart Focus
GDT Price Index
Legal documents
Advisory Board

Product information
Support and training
Ask for help
Useful links

[Announcements](#) | [Calendar](#) | [Email alerts](#) | [Contact us](#) | [English](#) | [中文](#) | [Login to MyGDT](#) | [Bidder sign up](#)

Copyright © Global Dairy Trade Holdings Limited. [Privacy Statement](#) | [Terms of Use](#)



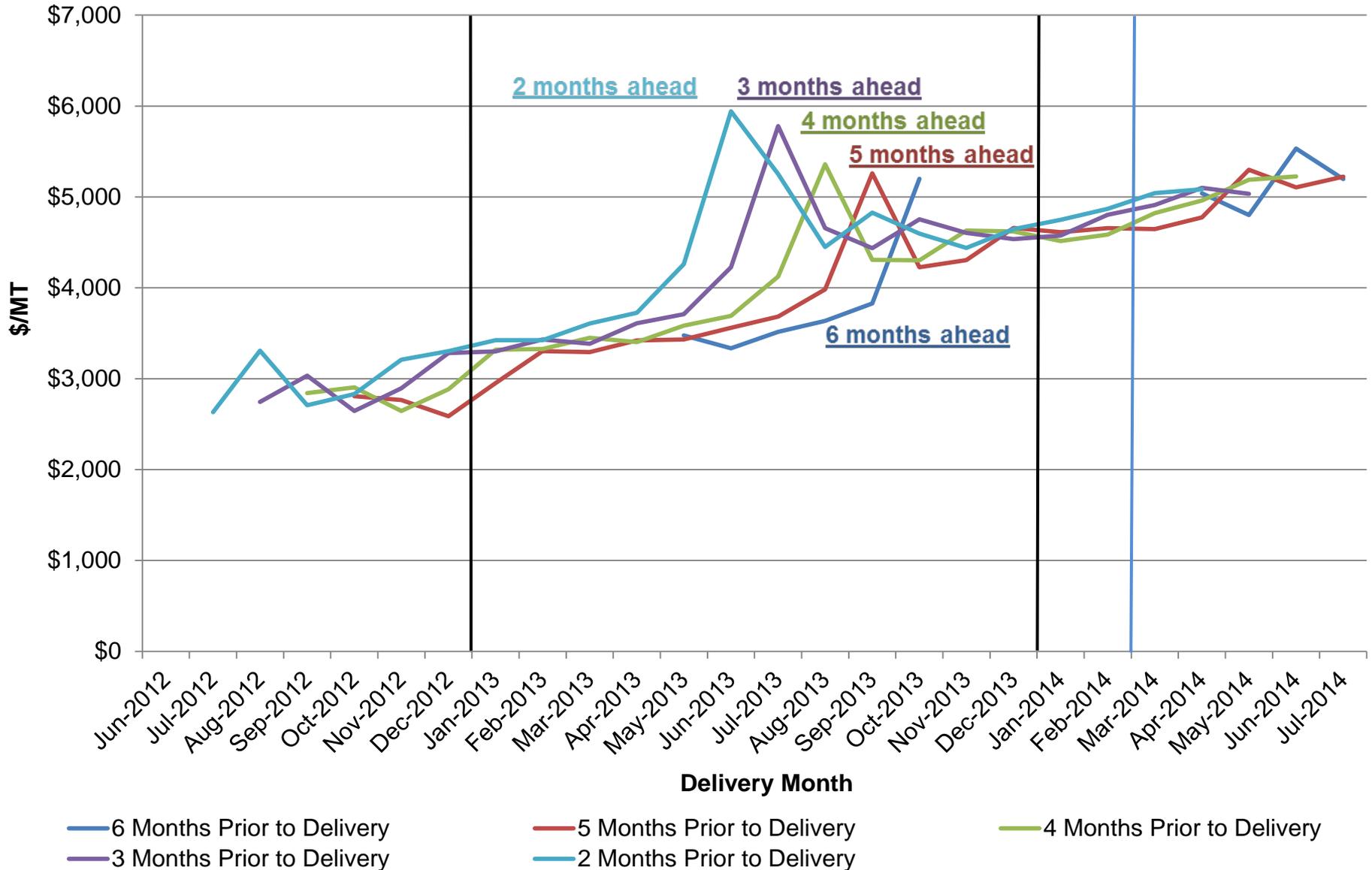

Forward Curves

Products and Contracts Offered

- Products currently offered on GDT include:
 - Anhydrous Milk Fat (AMF)
 - Butter
 - Butter Milk Powder (BMP)
 - Cheddar
 - Lactose
 - Milk Protein Concentrate (MPC70)
 - Rennet Casein (RenCas)
 - Skim Milk Powder (SMP)
 - Whole Milk Powder (WMP)
- Products are offered for a range of delivery months
 - “Contract 1” is for delivery in the next calendar month after the trading event
 - “Contract 2” is for delivery in the 2nd calendar month after the trading event...
 - Currently: 6 contracts and 2 trading events/month – so a seller can offer a given product and delivery month in up to as many as 12 trading events

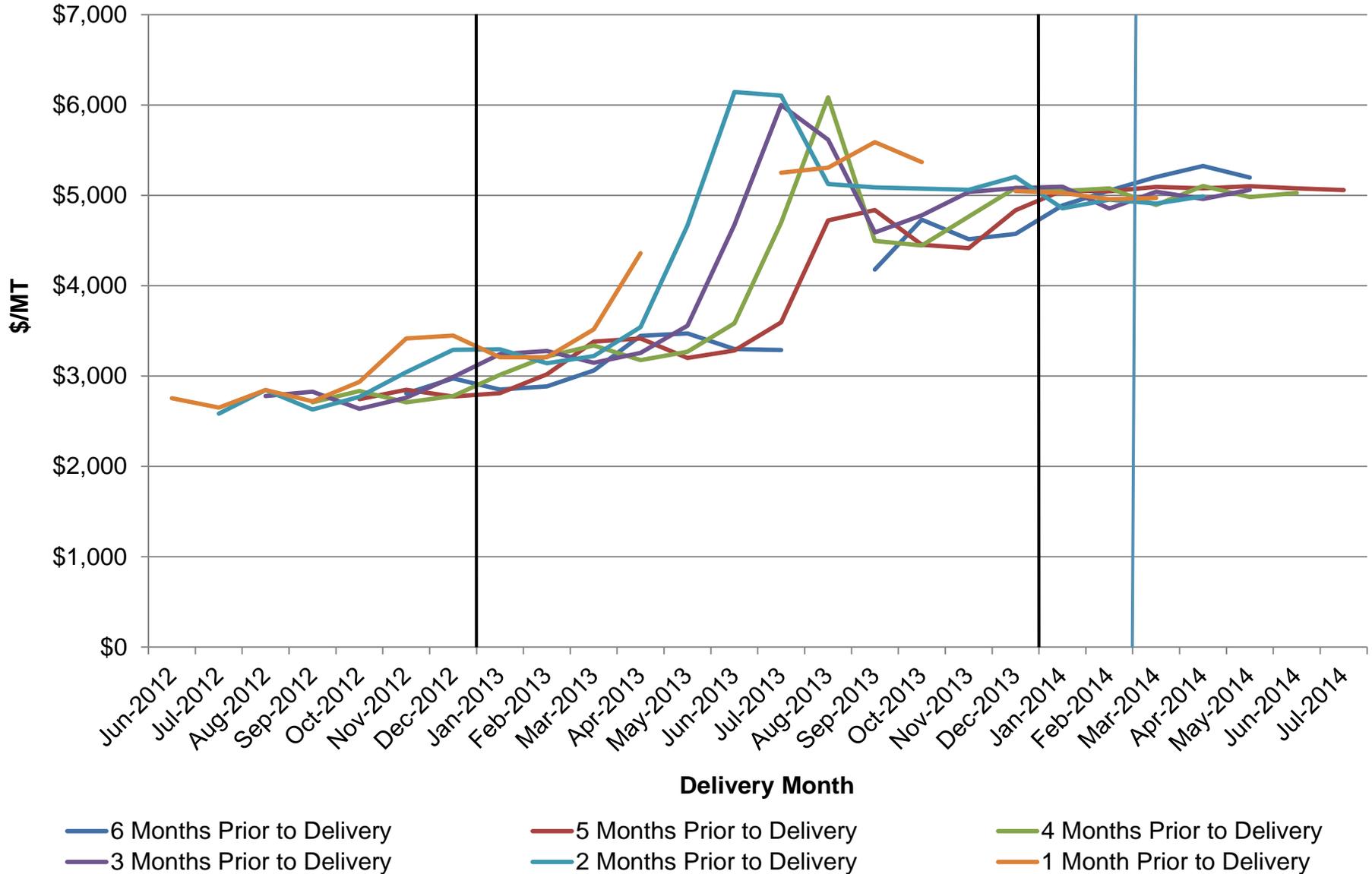
GlobalDairyTrade Forward Prices by Delivery Month

Skim Milk Powder



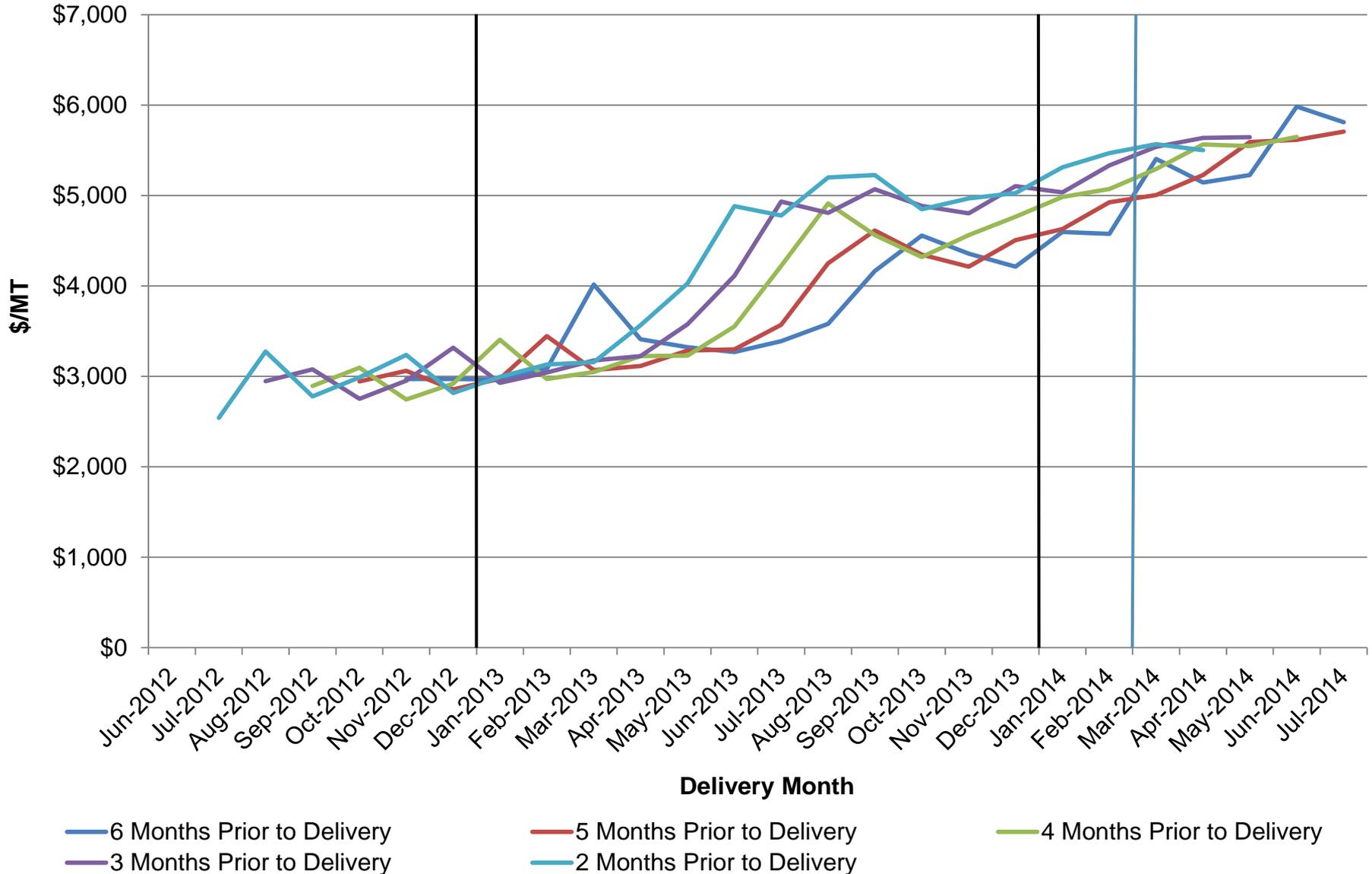
GlobalDairyTrade Forward Prices by Delivery Month

Whole Milk Powder



GlobalDairyTrade Forward Prices by Delivery Month

Anhydrous Milk Fat



Conclusion

- Innovative platform provides reliable, credible prices and market information through an efficient and transparent price discovery process
 - Establishes benchmark prices used in commodity dairy transactions
 - Widely accepted by market participants
 - Platform is highly scalable
- Value created in the marketplace is a win-win for buyers, sellers, and all market participants
 - Enables better business decisions, planning and investment decisions
 - Lowers transaction costs in commodity businesses
 - Facilitates risk management activities

About CRA

Introduction: CRA International, Inc.

- “CRA” = CRA International, Inc. d/b/a Charles River Associates
- Founded 1965 and listed on the NASDAQ stock exchange (CRAI, www.crai.com)
- 20 worldwide locations
- Comprehensive services in
 - **Auctions & Competitive Bidding**
 - Management Consulting
 - Finance, Applied Economics, and Litigation
 - Industry-specific practices
 - Software engineering and IT

Amsterdam
Brussels
Geneva
Frankfurt
London
Munich
Paris



Los Angeles
Oakland
Pleasanton
Salt Lake City



Boston (HQ)
Chicago
College Station
Dallas
Houston
New York
Tallahassee
Toronto
Washington DC

CRA's Auctions & Competitive Bidding Practice

- Designing and implementing marketplaces since 1995
 - Successfully hosted ~200 auctions and trading events for various industries (approx. US\$25 billion transacted to date)
 - From a few to up to hundreds of bidders per event simultaneously in numerous time zones
- Auctions expertise
 - Experts and practitioners in game theory, auction theory, market design, and practical applications
- Full range of services for auctions and trading platforms
 - Design, rules, implementation, management, and hosting
 - Independent monitoring
 - Bidding strategy support
 - Dispute matters

Representative Clients

