

SGX-NZX Dairy Derivatives

Introduction

SGX-NZX's Dairy Derivatives Market provides the dairy industry with a forward view of dairy prices and a cash settled instrument for managing price risk simply and efficiently. This market provides tools for participants to mitigate the risks associated with movements in dairy prices.

Participants in the international dairy markets are exposed to a high degree of price volatility. Both producers and purchasers of milk products are increasingly seeking ways to create certainty around the price they receive or pay for product.

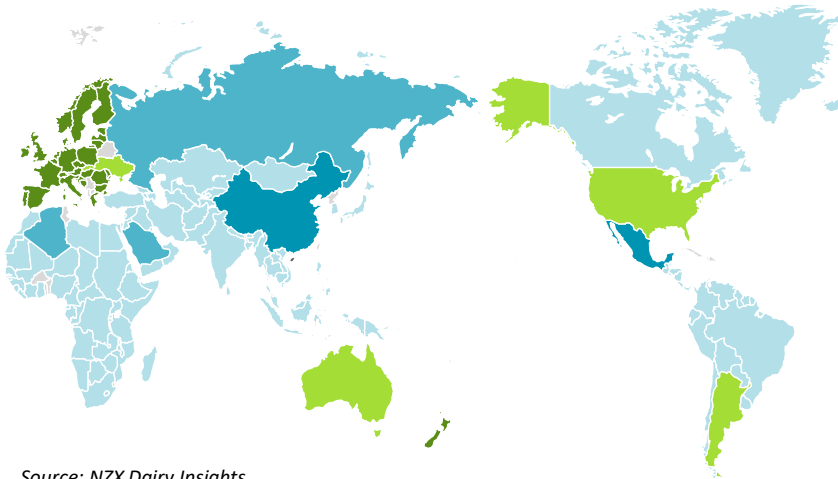
SGX-NZX offers dairy futures and options contracts for all levels of market participants from New Zealand farmers, international dairy market participants through to financial market intermediaries.

Whole milk powder (WMP) is the main dairy commodity produced in New Zealand and New Zealand is the largest supplier of WMP to the international market. Other important commodities produced in New Zealand include Skim Milk Powder (SMP), Anhydrous Milk Fat (AMF), and Butter (BTR).

The price New Zealand dairy farmers receive for the milk produced is directly linked to international dairy markets. This relationship is demonstrated in the NZ Milk Price Settlement mechanism graphic on page two.



Global physical dairy trade overview by region



Source: NZX Dairy Insights, Global Trade Tracker (GTT)

Importer Exporter

Supply and Demand

- New Zealand is the 7th largest dairy producer and is the largest exporter, contributing 31% of global trade¹
- Total cross-border dairy trade is worth an estimated US\$47.2 billion annually²
- China is the world's largest market for dairy products and accounts for 28% of production exported from New Zealand¹
- In 2021, New Zealand supplied 38% of all dairy products and over 87% of the WMP imported by China²
- Other important markets for globally traded dairy products include Southeast Asia, North Africa and the Middle East

Settlement Mechanisms

Ingredients

Global Dairy Trade is the leading global auction for trading dairy ingredients. The platform was established in 2008 and has built a reputation for transparency and integrity.

NZ Milk Price Futures (MKP)

The SGX-NZX New Zealand Milk Price Derivatives settle to the Fonterra Final Farmgate Milk Price (FFFMP). The FFFMP applies to around 80% of New Zealand's milk production and is governed by the Dairy Industry Restructuring Act 2001 (DIRA).

The FFFMP is a theoretical milk price which assumes all milk production is converted into five reference commodities (WMP, SMP, BTR, AMF and Butter Milk Powder (BMP)). It is determined using a formula which captures three main inputs: revenue, operating and overhead costs, and capital recovery.

Revenue is primarily determined from the prices of all sales of referenced commodity products sold in the period on GDT. Operating and overhead costs include cost of production, collection costs, and supply chain costs. The capital recovery element includes a reasonable rate of return on a defined asset base and net revaluations.

In September every year, Fonterra will announce the Final Farmgate Milk Price.

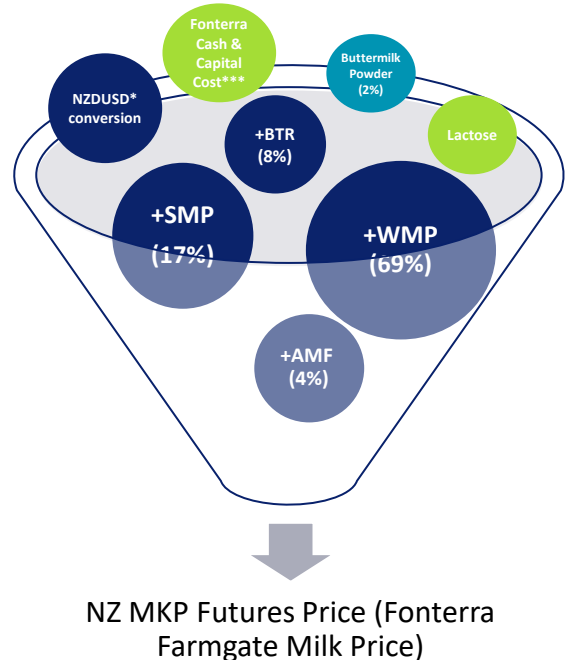
To learn more about how NZ Milk Prices are determined go to the NZ Milk Price Calculator at <https://dairy-tools.nzx.com/fgmp>

Calendar Spreads

A calendar spread is the buying of a futures contract for a contract month and simultaneously selling a different contract month in the same commodity or vice versa. The price of the spread will be the difference of the leg prices. Benefits include, mitigating legging risk, more efficient execution, and margin offsetting.

Quarterly Calendar Strips

Strip trading is the simultaneous buying or selling of multiple contract months for the same product. The price of the strip will be the average of the leg prices.



Key

- Can be traded with exchange/OTC products
- Not available to be traded with exchange/ OTC products
- Can be traded by proxy

*Note that Fonterra import Lactose as they do not produce enough Cheese to create the byproduct. Lactose is used in the production of cheeses and bringing milk powders up to spec.

**Fonterra Cash & Capital cost is Fonterra's cost of transporting and processing the raw milk – this is relatively steady YoY

¹ Sources: International Farm Comparison Network (IFCN), Economist Intelligence Unit (EIU), Euromonitor, Fonterra analysis.

² Global Trade Tracker (GTT) 2021

Contract Specifications - Futures

	Ingredients (USD)				Milk (NZD)
Contract	Whole Milk Powder (WMP)	Skim Milk Powder (SMP)	Anhydrous Milk Fat (AMF)	Butter (BTR)	NZ Milk Price (MKP)
Contract Period	18 consecutive calendar month				3 calendar years
Contract Size	1 MT				6,000 kilograms of milk solids (kgMS)
Tick size	US\$5 per tonne				NZ\$0.01 per kgMS
Trading Hours	T Session: 7.25 am - 6.00 pm				
Last Trading Day (LTD)	Last GDT Auction of the contract month (Generally 3 rd Tuesday of each month)*				Last business day of September
Final Settlement Price	Average of winning prices for Whole Milk Powder, Regular - NZ, Contract 2 in GDT Auction	Average of winning prices for Skim Milk Powder, Medium Heat - NZ, Contract 2 in GDT Auctions	Average of winning prices for Anhydrous Milk Fat, Premium 210kg drum - NZ, Contract 2 in GDT Auctions	Average of winning prices for Butter, Unsalted 25kg - NZ, Contract 2 in GDT Auctions	Relevant Farmgate Milk Price
Settlement Basis	Cash settlement				
Negotiated Large Trade	100 lots	100 lots	50 lots	50 lots	15 lots
Bloomberg Price Info	OMRA Comdty	LMAA Comdty	OMAA Comdty	KTDA Comdty	KKPA Comdty

Contract Specifications - Options

	Ingredients (USD)		Milk (NZD)
Contract	Whole Milk Powder (WMP)	Skim Milk Powder (SMP)	NZ Milk Price (MKP)
Contract Period	12 consecutive calendar month		3 calendar years
Contract Size	1 MT		6,000 kilograms of milk solids (kgMS)
Tick size	US\$0.5 per tonne		NZ\$0.01 per kgMS
Trading Hours	T Session: 7.25 am - 6.00 pm		
Last Trading Day (LTD)	Last GDT Auction of the contract month (Generally 3 rd Tuesday of each month)*		Last business day of September
Option Style	American Style		European Style
Negotiated Large Trade	10 lots	10 lots	5 lots
Bloomberg price info	OMRZ1C 1 Comdty	LMAZ1C 1 Comdty	KKPU2C 1 Comdty

*Please refer to the [GDT calendar](#) for any changes to the last trading day



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Scan below to learn more about the dairy market supply and demand dynamics:



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