

Farmgate Milk Price Statement

FOR THE SEASON ENDED 31 MAY 2018



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Introduction

The primary purpose of this Statement is to help Fonterra farmer shareholders, unit holders in the Fonterra Shareholders’ Fund, and other interested parties better understand the Farmgate Milk Price.

- This Farmgate Milk Price Statement:
- sets out information about the Farmgate Milk Price and outlines the way that Fonterra Co-operative Group Limited (Fonterra) has calculated the Farmgate Milk Price for the milk season that ended on 31 May 2018 (2018 Season); and
 - explains that Fonterra has paid a Final Farmgate Milk Price that differs from the Farmgate Milk Price calculated under the Farmgate Milk Price Manual.

The appendices provide an overview of the Farmgate Milk Price and a report by Fonterra’s external auditors that confirms that the aggregate amount available to pay for New Zealand supplied milk for the 2018 Season has been derived in accordance with the Principles, Methodologies and Detailed Rules in Fonterra’s Farmgate Milk Price Manual, dated 1 August 2017.

Five attachments provide further detail for the past three seasons on the most significant factors that affect the Farmgate Milk Price. A glossary of the terms used completes the report.¹

Fonterra has also released as an adjunct to this Statement an unaudited Microsoft Excel-based financial model that shows how the information set out in the Statement has been used to calculate the Farmgate Milk Price for the 2018 Season.

Numbers in this Statement have been rounded and, as a result, some tables may not exactly total or sum to 100 per cent.² The information on the Farmgate Milk Price presented in this Statement is based on data used within the Milk Price Model, not Fonterra’s actual data.

A Farmgate Milk Price Statement is made available each year with Fonterra’s annual results on www.fonterra.com.

¹ Capitalised terms in this Statement are defined in the glossary.
² Percentage changes shown in tables in this Statement have been calculated by reference to the underlying data, and may differ from percentage movements between the rounded data presented in the tables.

Farmgate Milk Price for the 2018 Season

This section sets out the Announced Farmgate Milk Price for the 2018 Season, comprising the Farmgate Milk Price calculated under the Manual, less the Milk Price Adjustment.

The Manual sets out the methodology for determining the base amount to be paid by Fonterra for milk supplied to Fonterra in New Zealand in a season. Fonterra’s Milk Price Panel advises the Fonterra Board on matters concerning the Manual, including the calculation of the Farmgate Milk Price.

The Farmgate Milk Price is defined as the average price paid by Fonterra for each kilogram of milk solids (kgMS) supplied by farmer shareholders under Fonterra’s standard terms of supply.³ For the 2018 Season, the Farmgate Milk Price calculated under the Manual is **NZD\$6.74**.

Milk Price Adjustment

The Fonterra Board has adjusted the Farmgate Milk Price calculated under the Manual downwards by NZD\$0.05 (the Milk Price Adjustment), resulting in a Final Farmgate Milk Price for the 2018 Season of **NZD\$6.69**. The Board has made this decision with a view to ensuring that Fonterra is able to maintain a strong balance sheet. The higher Milk Price in the 2018 Season has put pressure on Fonterra’s earnings, and therefore its balance sheet in a year which was already challenging due to the arbitration award payment to Danone and impairment of Fonterra’s Beingmate investment. The Board made this decision in the best long-term interests of the Co-operative.

Farmgate Milk Price Calculated Under the Manual

\$6.74 per kgMS

Milk Price Adjustment

\$0.05 per kgMS

Announced Farmgate Milk Price

\$6.69 per kgMS

Farmgate Milk Price Overview

Table 1 summarises the key components of the Farmgate Milk Price for the milk supplied in the 2016, 2017 and 2018 Seasons.

The Manual determines the Aggregate Farmgate Milk Price. For the 2018 Season, the Aggregate Farmgate Milk Price was NZD\$10.142 billion. The Aggregate Farmgate Milk Price is divided by Fonterra’s total New Zealand milk supply (1.505 billion kgMS) resulting in a Farmgate Milk Price of NZD\$6.74. The Aggregate Farmgate Milk Price is determined by:

1. Calculating the total amount available to pay for milk supplied to Fonterra in New Zealand, other than premiums that exceed those that a commodity processor would be willing to pay. This aggregate amount, which was NZD\$10.153 billion for the 2018 Season, is the Aggregate Commodity Milk Payments Amount.

2. Deducting premiums (offset by any discounts) for milk not supplied on standard terms, such as Winter Milk and contract milk, to the extent those premiums would have been paid by a commodity-only processor. These are Additional Commodity Milk Payments.
3. Adding or deducting adjustments made to payments for milk supplied on standard terms, such as the net amount of demerit deductions for milk quality issues. These are Standard Supply Adjustments.

Table 1: Farmgate Milk Price Summary			
Season	2018 NZD\$ Million	2017 NZD\$ Million	2016 NZD\$ Million
Farmgate Milk Price Revenue	13,164	12,400	9,134
Lactose	(441)	(415)	(302)
Net Revenue	12,723	11,985	8,832
Farmgate Milk Price Cash Costs	(1,753)	(1,763)	(1,815)
Farmgate Milk Price Capital Costs ⁴	(817)	(873)	(915)
Total Costs	(2,570)	(2,636)	(2,731)
Aggregate Commodity Milk Payments	10,153	9,349	6,101
Additional Commodity Milk Payments and Standard Supply Adjustments	(11)	(13)	
Aggregate Farmgate Milk Price	10,142	9,336	6,101
Million kgMS	1,505	1,526	1,566
Farmgate Milk Price calculated under the Manual (NZD\$ per kgMS) ⁵	6.74	6.12	3.90

- The cost of New Zealand-sourced milk disclosed in Fonterra’s financial statements for the year ended 31 July 2018 is NZD\$10.115 billion. The difference between this amount and the Aggregate Farmgate Milk Price calculated under the Manual of NZD\$10.142 billion primarily reflects the following four factors:
- The aggregate amount for the Milk Price Adjustment.
 - The financial statements report the cost of milk acquired during the financial year comprising the 12 months ended 31 July 2018. In contrast, the Aggregate Farmgate Milk Price for the season relates to milk supplied in respect of the 12 month season ended 31 May 2018.

- The Milk Price Manual determines the aggregate amount that a manufacturer of commodity milk powders will be willing to pay for the milk supplied to Fonterra. A commodity processor would not pay premiums for milk sourced specifically for value-add applications, such as organic milk, or pay as high a premium for Winter Milk that an integrated processor such as Fonterra would pay. The aggregate amount of premiums that exceed the amount a commodity processor would be willing to pay are a cost of New Zealand-sourced milk for Fonterra.
- The net amount of Additional Commodity Milk Payments and Standard Supply Adjustments.

³ In previous seasons the term Farmgate Milk Price was used to describe both the aggregate amount available to pay for milk supplied to Fonterra in New Zealand (as recommended by the Milk Price Panel to the Board), which in the 2018 Season was NZD\$10.153 billion, and the amount calculated by dividing this aggregate amount by total milk supplied. This amount is typically slightly different to the average price paid for milk supplied on standard terms. As explained on page 9, the Manual has been amended with effect from the 2019 Season to make clearer the calculations and processes used to determine the average price paid for milk supplied on standard terms, and to align terminology (particularly the term Farmgate Milk Price) with common usage. Since these changes are presentational, and do not impact on the actual amounts paid to farmers, we have used the new terminology in this Statement.

⁴ Includes depreciation, tax and capital charge on fixed assets and net working capital.

⁵ Table 1 and Figure 1 are consistent with prior year disclosures. In the 2017 Season, we defined for the first time the Farmgate Milk Price as the average price paid for milk supplied on standard terms of supply. In 2016, the corresponding amount was NZD\$3.89.

Farmgate Milk Price Overview

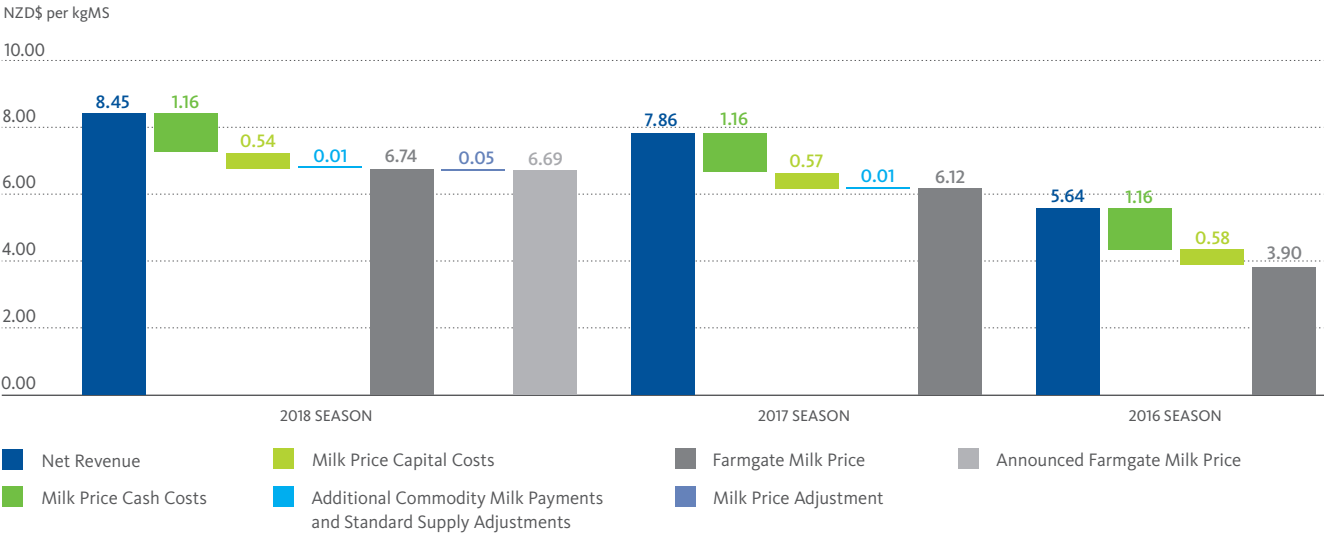
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The most significant factor that affects the Farmgate Milk Price from season to season is revenue.

Figure 1 below shows that changes in the Farmgate Milk Price over the past three seasons have been driven mainly by changes in commodity prices converted into NZD.

The first three subsections below describe the key factors that influence revenue, while the subsequent two subsections describe the key factors influencing cash costs and capital costs, respectively.

FIGURE 1: CHANGES IN THE FARMGATE MILK PRICE SEASONS: 2016 – 2018



Farmgate Milk Price Revenue and Costs

MILK SUPPLY, PRODUCTION AND SALES VOLUMES

Farmgate Milk Price Revenue varies according to the volume of milk supplied during the season, product mix, sales volumes and prices in NZD. Farmgate Milk Price Revenue is the most significant driver of the Farmgate Milk Price.

Figure 2 shows the relationship between when milk is collected during a season (the blue line), the volume of products manufactured from that milk (the grey line) and when that product is shipped (the green line). The key points to note are as follows:

- Milk supplied during the 2018 Season comprised 1.505 billion kgMS. Attachment 1 provides information on milk supplied every quarter for each of the past three seasons.
- This amount of milk is assumed to be converted into Reference Commodity Products. The mix between the various products that goes into the Farmgate Milk Price is aligned to Fonterra's actual mix between Whole Milk Powder (WMP) and Skim Milk Powder (SMP), and between butter and Anhydrous Milk Fat (AMF) (production of Buttermilk Powder (BMP) is a residual amount). Attachment 1 provides Farmgate Milk Price production by quarter for each Reference Commodity Product for the past three seasons.
- Sales volumes reflect the pattern of Fonterra's actual shipments of Reference Commodity Products manufactured from milk supplied during the season. Figure 2 shows the lag between production and shipment as well as the fact that minimal milk is supplied in June and July. These factors mean that shipments of products manufactured from milk collected in a season (beginning 1 June) do not normally commence until August at the earliest. Shipments are normally complete by the end of October in the following year, again as illustrated in Figure 3.

Attachment 2 sets out sales volumes by quarter for each of the past three seasons.

Revenues are recognised when sales are invoiced, at the time of shipment. Sales prices included in the Farmgate Milk Price are always set prior to the month of shipment, primarily via Global Dairy Trade (GDT) events. Figure 3 shows the average lag between when prices are struck and when product is shipped.

This matches Fonterra's actual average lag for product that is sold on terms that are typical for the sale of commodity products from New Zealand. To ensure that this is the case, contracts with more than five months between when a price is set and shipment occurs are not taken into account in determining shipment prices.⁶

Attachment 3 sets out the average number of months prior to shipment that prices were struck for each quarter over the past three seasons. Attachment 3 also sets out the average percentage of sales contracted in each month prior to shipment in the past three seasons.

FIGURE 2: TIMING OF SUPPLY, PRODUCTION AND SALES VOLUMES

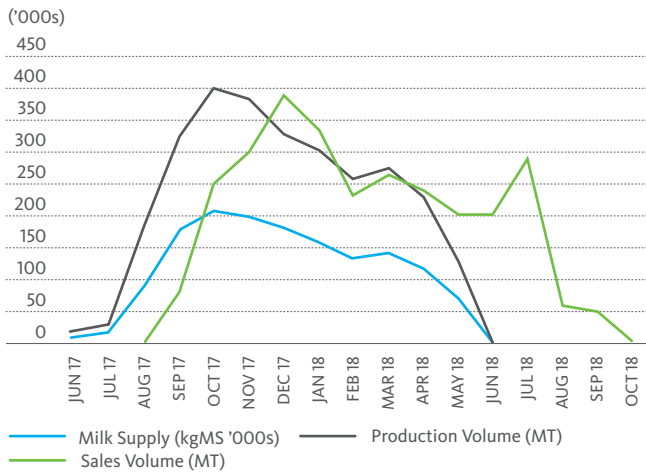
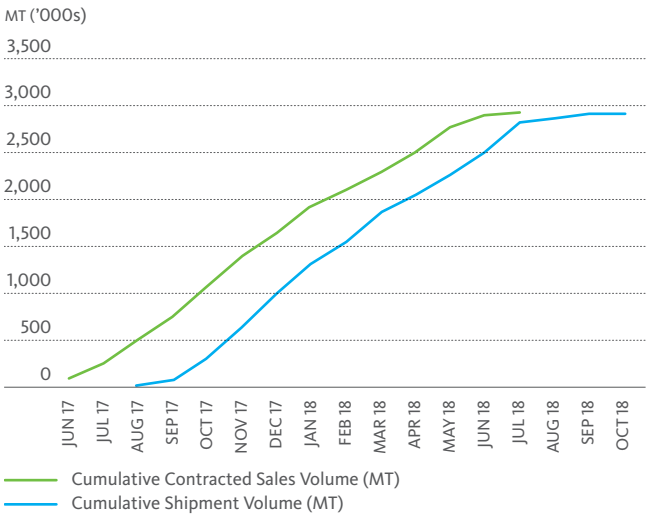


FIGURE 3: AVERAGE LAG BETWEEN WHEN PRICES WERE STRUCK AND SHIPMENT



⁶ For each of the 2016, 2017 and 2018 Seasons, approximately 5 per cent of Fonterra's sales of Reference Commodity Products were sold under contracts with more than 5 months between the price being set and shipment occurring.

Farmgate Milk Price Revenue and Costs

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PRICES

The weighted average monthly prices used to calculate Farmgate Milk Price Revenue reflect prices actually achieved by Fonterra on the sale of commodity product on GDT, and on the sale of commodity product with similar specifications at current market prices established on arm's length terms to customers in freely contestable global markets. Detailed rules in the Manual dictate which contracts can be taken into account. Contracts that are excluded, for example, include sales to Fonterra subsidiaries.

Between the 2012 and 2016 Seasons, GDT was the sole source of prices for WMP, SMP and AMF, and was a primary reference point for BMP and butter. Off-GDT contracts Fonterra entered into were also used to establish prices for butter and BMP.

Since the 2017 Season, off-GDT contracts have also been used to establish prices for WMP, SMP and AMF. The relevant contracts are for product of a similar specification and sold on similar terms to product sold on GDT. For the 2018 Season, the inclusion of off-GDT sales of WMP, SMP and AMF resulted in an increase of NZD 8 cents per kgMS.

Attachment 1 highlights that WMP, SMP and AMF (2,569,000 MT) accounted for 89 per cent of the Farmgate Milk Price production of Reference Commodity Products (2,886,000 MT).

The average shipment prices incorporate provisions for the lower prices received for 'downgrade product'. These are products that do not meet manufacturing specifications, some of which may only be suitable for use as stock feed.

TABLE 2: WEIGHTED AVERAGE USD CONTRACT PRICE 2016-2018 SEASONS

WEIGHTED AVERAGE PRICE (USD) PER MT	2018	2017	2016	2018/2017 % CHANGE	2017/2016 % CHANGE
WMP	3,091	2,854	2,111	8.3%	35.2%
SMP	1,968	2,216	1,803	-11.2%	22.9%
Butter	5,575	4,221	2,830	32.1%	49.2%
AMF	6,474	5,076	3,227	27.5%	57.3%
BMP	2,057	2,211	1,723	-6.9%	28.3%
				9.7%	36.1%

Table 2 above shows the weighted average USD contract prices of Reference Commodity Products for the past three seasons. It shows that prices for the Reference Commodity Products increased on average by 9.7 per cent between the 2017 Season and the 2018 Season, compared to an increase of 36.1 per cent between the 2016 Season and the 2017 Season. Average USD prices per MT for each Reference Commodity Product by quarter for the past three seasons are set out in Attachment 4.

2018 SEASON AVERAGE PRICES WERE HIGHER THAN 2017 SEASON BY

9.7%

The Manual provides for the conversion of notional USD Farmgate Milk Price receipts to NZD for each month at the average rate at which Fonterra converts its USD-equivalent foreign currency receipts for the month, taking into account the costs and benefits of Fonterra's hedging activities. Fonterra's policy is to hedge 100 per cent of net recognised foreign currency trade receivables and payables. It also requires hedging of forecast cash receipts from sales for a period of up to 18 months within limits approved by Fonterra's Board. Fonterra uses forward foreign exchange contracts and currency options to hedge its foreign exchange risk.

Fonterra's hedging policy is designed to provide certainty and to reduce the impact on the Farmgate Milk Price of volatility in the NZD, and results in the spot exchange rate at a point in time being reflected in the hedged conversion rate over the subsequent 18 months.

Fonterra's hedging policy resulted in an average foreign exchange conversion rate for the 2018 Season of USD:NZD 0.7074 against an average spot rate of USD:NZD 0.7039. This resulted in a decrease in the Farmgate Milk Price of 5 cents relative to translation at the spot exchange rate. In comparison:

- In the 2017 Season, hedging activities resulted in an increase in the Farmgate Milk Price of 28 cents relative to translation at the spot exchange rate.
- In the 2016 Season, hedging activities resulted in a decrease in the Farmgate Milk Price of 21 cents relative to translation at the spot exchange rate.

Attachment 5 on page 20 shows the average foreign exchange conversion rate (USD:NZD) for the Farmgate Milk Price Revenue for each quarter in the 2016 to 2018 Seasons, based on Fonterra's actual hedging contracts in place, compared to the weighted average spot exchange rate for the quarter.

As at 31 July 2018, Fonterra had foreign exchange contracts in place for approximately 73 per cent of the USD-equivalent operating cash flow exposure expected to impact on the Farmgate Milk Price for the 2019 Season. If the balance was hedged based on a spot exchange rate of 0.6821⁷, the average USD:NZD conversion rate would be 70 cents.⁸

7 The spot exchange rate at 9am on 31 July 2018, the last working day of Fonterra's 2018 financial year.

8 Fonterra uses currency options as well as forward foreign exchange contracts to hedge its foreign currency receipts. Use of options means the average hedged conversion rate may vary with the spot exchange rate.

Farmgate Milk Price Revenue and Costs

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LACTOSE

Lactose is used as an ingredient in the manufacture of WMP, SMP and BMP to achieve a standard protein composition aligned to internationally recognised specifications. Most of the lactose content of milk powders is obtained from the milk supplied to Fonterra. However, a portion is purchased at international prices. Because the cost of purchased lactose depends on global prices and the exchange rate, it is presented in Table 1 as a deduction from Farmgate Milk Price Revenue.

Table 3 provides the basis for the cost of purchased lactose in the 2018, 2017 and 2016 Seasons.

TABLE 3: PURCHASED LACTOSE AND PRICE

SEASON	2018	2017	2016	2018/2017 % CHANGE	2017/2016 % CHANGE
Purchased Lactose (000 MT)	342	351	350	-2.6%	0.5%
Average Price (USD) per MT	908	809	640	12.3%	26.3%
Total Lactose Purchases (USD\$m)	311	284	224	9.5%	26.9%

FIGURE 4: SOURCES OF MOVEMENTS IN AVERAGE CASH COSTS

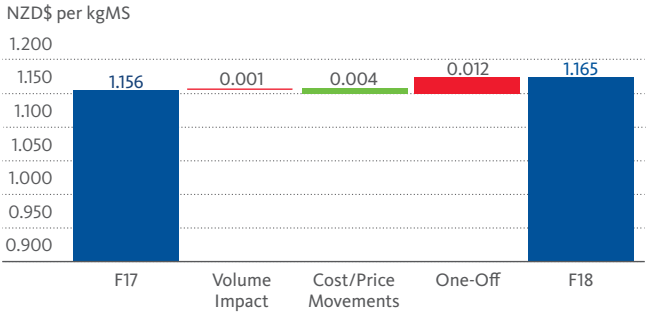


TABLE 4: SUMMARY OF MOVEMENTS IN CASH COSTS

NZD \$ MILLION	F17	VOLUME IMPACT ⁹	COST/PRICE MOVEMENTS	STRUCTURAL CHANGES	ONE-OFF	F18	% CHANGE DUE TO COST	TOTAL % CHANGE
Sales costs	106	-	-	-	-	106	-	-0.3%
Variable manufacturing and supply chain costs	673	(11)	(10)	-	-	652	-1.6%	-3.2%
Fixed manufacturing (including repairs and maintenance)/site overheads and supply chain costs	406	(4)	3	-	-	405	0.8%	-0.2%
Collection costs	339	(6)	6	-	-	339	1.8%	-0.1%
Other costs	239	-	(4)	-	18	252	-1.8%	5.7%
Total Cash Costs	1,763	(22)	(5)	-	18	1,753	-0.3%	-0.5%
% movements		-1.3%	-0.3%	0.0%	1.0%			

9 Volume Impact considers only the change to milk solids collected in the 2018 Season on the 2017 Season cost base.

FARMGATE MILK PRICE CASH COSTS

Farmgate Milk Price Cash Costs reflect:

- Fonterra's actual collection costs, and supply chain costs benchmarked to Fonterra's actual costs.
- Costs associated with modern plants with sufficient capacity to process all milk collected by Fonterra, located on more than 20 reference manufacturing sites (most of which contain multiple plants) with associated overhead costs. The costs of operating these plants are based on daily processing capacities that match Fonterra's averages, and on operating parameters that reflect manufacturers' specifications and Fonterra's per-unit costs.
- Overhead and selling costs that are typical of a commodity-only business that sells product from New Zealand. Overhead costs are calculated by reference to Fonterra's actual costs, but exclude costs that are attributable to the much broader scope of Fonterra's business. Selling costs reflect the cost of selling product on GDT and through the relevant off-GDT channels, having regard to the volume of product assumed to be sold through each sales channel.

Figure 4 and Table 4 summarise the major categories of cash costs and the sources of movements in each category between the 2017 and 2018 Seasons.

The movements in costs are inclusive of the following:

- Milk supply decreased by 1.4 per cent in the 2018 Season compared to the 2017 Season. This resulted in a net increase in costs of 0.1 cents per kgMS, comprising the net impact of fixed costs being spread across lower supply, offset by a reduction in costs due to a different product mix.
- Costs decreased by an average of 0.4 cents per kgMS, due to the net impact of price movements and cost saving initiatives.
- An allowance for one-off costs of NZD\$10 million, or 0.7 cents per kgMS, compared to net one-off benefits of NZD\$8 million in the 2017 Season.

Farmgate Milk Price Revenue and Costs

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FARMGATE MILK PRICE CAPITAL COSTS

The Milk Price Model uses ‘standard’ plants to calculate both operating and plant-related capital costs. These plants have capacities that approximate Fonterra’s average daily capacities for each type of plant and reflect current technology of the type typically employed across the industry.¹⁰

The standard plants are smaller than Fonterra’s newest large manufacturing plants, such as the drier installed at Fonterra’s Darfield Site in Canterbury in 2013 and the drier installed at Lichfield in 2016, but are larger and more efficient than Fonterra’s older smaller plants.

The basis for deriving the benchmark depreciation, tax costs and capital charge is set out in detail in the Manual. In broad terms:

- The capital charge on fixed assets is designed to recover the full cost (through a depreciation charge) of the manufacturing and other assets required to manufacture Reference Commodity Products over the assets’ economic lives, and to generate a return at the benchmark Weighted Average Cost of Capital (WACC, see below) on the undepreciated balance each year.
- The capital charge is calculated in a manner that results in it growing each year approximately in line with capital goods inflation, as long as the WACC does not change. This means that changes in the average age of the asset base do not result in material year-on-year movements in the capital charge, and therefore in the Farmgate Milk Price.
- The Farmgate Milk Price cost base also includes a provision for a capital charge on the monthly net working capital balances implied by the sale and manufacture of the Reference Commodity Products, and by the phasing of Fonterra’s payments for milk to its suppliers. Each of these items varies somewhat between years, resulting in some annual variation in this element of the capital charge.
- The WACC used to determine the capital charge is specified on an after-tax basis, so the Farmgate Milk Price cost base includes a separate provision for corporate tax. This amount is a relatively constant proportion of the WACC charges on fixed assets and net working capital each year.

Table 5 shows the capital costs and the total book value of the Farmgate Milk Price fixed asset base and monthly average net working capital for the 2018, 2017 and 2016 Seasons.

Two matters are relevant to a comparison of capital costs between the 2018 and 2017 Seasons:

- In the 2018 Season, the WACC was 5.4 per cent, down from 5.6 per cent in 2017. By itself, this change resulted in a reduction of NZD\$14 million in the capital charge on fixed assets, a reduction of NZD\$1 million in the charge on net working capital, and a reduction of NZD\$6 million in the tax charge, partially offset by a higher depreciation of NZD\$4 million.
- NZD\$10 million of the reduction in the WACC charge on net working capital between 2017 and 2018 is attributable to the later timing, on average, of payments for milk in 2018 relative to 2017, which resulted in lower average net working capital. The balance of the reduction in the WACC charge on net working capital is mainly attributable to updated assumptions regarding average payment days for receivable and payable balances.

¹⁰ The average daily processing capacity of the standard WMP and SMP plants installed prior to the 2013 Season is approximately 1.9 million litres. Incremental and replacement WMP and SMP plants incorporated in the asset base since the 2013 Season have an average daily processing capacity of approximately 2.5 million litres, equivalent to the plants installed by Fonterra at Darfield in 2011 and Pahiatua in 2015.

¹¹ See, for example, <http://www.comcom.govt.nz/regulated-industries/input-methodologies-2/input-methodologies-review/cost-of-capital-im-review/>

TABLE 5: CAPITAL COSTS, BOOK VALUE OF FIXED ASSET BASE AND AVERAGE NET WORKING CAPITAL			
NZD\$ MILLION	2018	2017	2016
WACC rate % (post-tax)	5.4%	5.6%	5.9%
Depreciation	262	265	266
WACC charge – fixed assets	374	398	407
WACC charge – net working capital	36	55	73
Tax	144	155	169
Total capital costs	817	873	915
Total fixed assets (book value)	7,021	7,195	6,961
Average Net Working Capital	729	913	1,308

CALCULATION OF BENCHMARK WEIGHTED AVERAGE COST OF CAPITAL (WACC)

The WACC used to determine the Fixed Asset Capital Charges and the Net Working Capital Charge is calculated using the ‘simplified Brennan Lally’ methodology employed by the Commerce Commission.¹¹ The methodology applied through to the 2011 Season provided for input parameters into the WACC to be updated every four years. Consequently, the WACC was held constant at 8.5 per cent between the 2009 and 2011 Seasons, and reflected market interest rates as of mid-2008. From the 2012 Season, the methodology was revised to be based on rolling five-year averages of market interest rates, including the five-year New Zealand Government stock rate, resulting in a reduction in the WACC from 7.7 per cent for the 2012 Season to 6.8 per cent for the 2014 Season.

In the 2015 Season, the WACC methodology was changed to incorporate a ‘specific risk premium’ of 0.15 per cent and a reduction in the asset beta from 0.45 to 0.38, on the basis of a review by an independent expert, Associate Professor Alastair Marsden of the University of Auckland. At the request of the Commerce Commission Dr Marsden undertook further analysis in the 2016, 2017 and 2018 Seasons, the result of which was to confirm his previous recommendation. The 2018 Season WACC was 5.4 per cent and the 2019 Season WACC as calculated under the existing methodology and assumptions will be 5.3 per cent, both reflecting further reductions in five-year average government stock rates.

Farmgate Milk Price Manual Changes

Since the Manual was introduced in the 2009 Season, various minor refinements have been made as practical issues were identified and addressed. Such refinements are to be expected given the importance to Fonterra of ensuring the Farmgate Milk Price approach is robust. Any modification to the Manual is required to be consistent with the Milk Price Principles which are set out in both the Manual and Fonterra’s Constitution.

The Manual itself also allows for adjustments to various parameters. An example of this is the Detailed Rule that allows for the addition of new Reference Commodity Products if certain conditions established in the Manual are met.¹² The Manual also provides for reviews of various aspects of the Manual to be carried out at least once every four years. These reviews can result in changes to the application of rules in the Manual or inputs into the Farmgate Milk Price. A review of overhead costs was undertaken in the 2015 and 2016 Seasons and the results were incorporated into the 2016 Farmgate Milk Price. A further review will be undertaken in the 2019 Season and the results will be incorporated in the 2020 Farmgate Milk Price.

As noted in Appendix 1, the Commerce Commission’s final report on the 2017/18 Manual was released on 15 December 2017.

The Board approved a number of amendments to the Manual in July 2018, which will take effect from the 2019 Season. The updated version of the Manual is available on www.fonterra.com. None of the amendments have any impact on the quantum of the Farmgate Milk Price.

The only substantive amendments were focused on creating better alignment between the Manual and the terminology used by Fonterra in other contexts with respect to communications around the Milk Price.

For the 2019 Season, the Manual has been updated to explicitly define the Farmgate Milk Price as the average price paid for milk supplied on standard terms of supply, and to provide that this amount is calculated as follows:

1. The aggregate amount calculated under the Manual, now defined as the Aggregate Commodity Milk Payments Amount.
2. *Less* the net amount of all premiums and discounts, calculated relative to the Farmgate Milk Price, applied to payments for milk supplied other than on standard terms of supply where (and to the extent) the Panel determines it would be commercially appropriate for the Notional Commodity Business to source that milk on the relevant terms for conversion into RCPs (Additional Commodity Milk Payments). Amounts currently captured under this definition would include the portion of Winter Milk premiums funded from the Milk Price and discounts for contract milk.
3. *Plus* the net amount arising from adjustments to payments for milk supplied under Fonterra’s standard terms of supply, such as where milk quality demerits have been applied (Standard Supply Adjustments).
4. *Equals* the Aggregate Farmgate Milk Price.

The Farmgate Milk Price is then defined as the Aggregate Farmgate Milk Price divided by total kilograms of milk solids supplied to Fonterra.

The amendments also codify in the Manual the Panel’s responsibility for determining which payments for milk should not be funded from the Aggregate Commodity Milk Payments Amount. These payments primarily comprise the portion of payments for milk explicitly sourced for the manufacture of value-add products, such as organic products, to the extent the total payment for the milk exceeds the amount a commodity processor would rationally pay if the milk was acquired for the production of RCPs.

¹² Rule 3 in Part B of the Manual.

Changes in Approach to the Calculation

Fonterra included in the 2015 Manual an undertaking to disclose any changes to the application of the Manual that result in materially different values of any input into the Farmgate Milk Price calculation.

There were no changes in the application of the Manual for the 2018 Season that resulted in materially different values of inputs into the Farmgate Milk Price calculation.

Cumulative Impact of Changes in Methodology Between 2009 and 2018 Seasons

Changes in matters under Fonterra’s control – the Manual and the calculation methodology – and the external environment have resulted in a significant ‘structural’ increase in the Farmgate Milk Price since its introduction in the 2009 Season. Indicatively, if the approaches used in 2009 to determine key inputs into the Farmgate Milk Price were still used today, the Farmgate Milk Price calculated under the Manual for the 2018 Season would have been only NZD\$6.23.

Since 2012 Fonterra has set out in the Farmgate Milk Price Statement the impact of significant changes in calculation methodology and to the Manual on the Farmgate Milk Price for that year. The cumulative impact on the 2018 Season Farmgate Milk Price of a number of significant changes made since the 2009 Season is approximately 29.6 cents per kgMS. The most significant drivers of this 29.6 cents per kgMS impact are:

- Changes impacting on net revenue.
- Changes impacting on cash costs.
- Changes impacting on capital costs.

More information about each of those three drivers is set out later in this section.

In addition, the significant reduction in market interest rates since 2008, which has resulted in a reduction in the WACC, coupled with the reduction in the company tax rate in 2012 to 28 per cent, has resulted in a further increase of approximately 22.2 cents per kgMS in the Farmgate Milk Price for 2018, relative to the inputs used in 2009.

APPROACH

To estimate the impact on the Farmgate Milk Price of various changes made over time to the calculation methodology, we populated the financial model used to calculate the Farmgate Milk Price for the 2018 Season with the values of key variables (adjusted where relevant for inflation) used to determine the Farmgate Milk Price for the 2009 Season. Key limitations of this approach include:

- The precise impact of a number of changes depends on a number of factors that vary across years, including commodity prices, the volume of milk collected and product mix. Consequently, the values reported below should be regarded as being indicative only.
- For inputs that are derived from Fonterra’s actual revenue or costs, the analysis does not capture the impact of any changes in Fonterra’s performance impacting on the value of those inputs.
- We have not attempted to estimate the 2018-equivalent values of all inputs into the 2009 Season Farmgate Milk Price.¹³ The impact of extending the analysis to include these inputs could go in either direction.

- The analysis does not capture the impact of the growth in milk collected by Fonterra, from 1.281 billion kgMS in the 2009 Season to 1.505 billion kgMS in 2018.¹⁴

CHANGES IMPACTING ON NET REVENUE

Three categories of changes have resulted in increases in the amount of net revenue per kgMS, at a given level of commodity prices and foreign exchange. The net impact of these changes on the 2018 Farmgate Milk Price, relative to the corresponding 2009 values, is an increase of 13.7 cents per kgMS.¹⁵ These are:

- Improvements in assumed yields and losses, including lactose losses.
- A reduction in the percentage of product that is assumed to be ‘downgraded’ and sold at lower prices.
- The incorporation of margins between the cost to Fonterra and amounts charged to customers for services such as ocean freight and minor variations in product composition relative to ‘base’ composition.

CHANGES IMPACTING ON CASH COSTS

Changes in the calculation methodology have resulted in a net reduction of 9.7 cents in cash costs per kgMS, relative to 2009.

The most significant of these changes related to:

- A revised approach to setting sales costs in 2010, which implies a 10.4 cents per kgMS reduction in sales costs, relative to the previous approach, in 2018.
- Structural increases in repairs and maintenance costs (3.4 cents per kgMS) and energy costs (1.2 cents per kgMS), reflecting a change in maintenance policy and various revisions to energy usage assumptions.
- A net 3.9 cents per kgMS decrease in the allowances for various manufacturing costs and the lower labour costs associated with the manufacturing plants assumed to be installed from 2012 onward.

CHANGES IMPACTING ON CAPITAL COSTS

Three key structural changes have been made to the approach taken to setting inputs into the calculation of capital costs. The net impact of these changes is a 6.2 cents per kgMS increase in the Farmgate Milk Price, relative to the 2009 methodology. These are:

- The reduction in 2015 in the asset beta from 0.45 to 0.38, partially offset by the introduction of a specific risk premium of 0.15, following an independent review by Dr Alastair Marsden, and the inclusion in 2013 of an allowance for debt issuance costs. The impact of these changes in 2018 is an increase of 1.3 cents per kgMS.
- The alignment, first undertaken in 2013, of key working capital assumptions to values actually achieved by Fonterra with respect to sales and purchases relevant to the Farmgate Milk Price. Relative to the assumptions employed in 2009, the current assumptions imply lower working capital costs of 3.2 cents per kgMS.
- Various changes in capital cost inputs, implying a net decrease in capital costs of 1.7 cents per kgMS.

¹³ The focus is on changes considered significant, either due to the magnitude of the change or because the issue has been the subject of particular focus by the Commerce Commission in the course of its annual reviews under subpart 5A of DIRA, such as inputs into the WACC.

¹⁴ Indicatively, the increase in milk supply has resulted in a further increase in the Farmgate Milk Price of approximately 7 - 9 cents per kgMS, due to fixed costs being spread across higher milk volumes. Equivalently, the 2018 Season Farmgate Milk Price would have been only around NZD\$6.14 - NZD\$6.16 if milk supply, as well as the calculation methodology and interest rates, had remained at its 2009 Season level.

¹⁵ We have not included the impact of the inclusion in 2017 of certain off-GDT sales of WMP, SMP and AMF as discussed on page 6 as off-GDT sales of those products were also included in the 2009 Milk Price.

Appendix 1: Farmgate Milk Price Overview

RATIONALE FOR FARMGATE MILK PRICE

Fonterra currently collects around 82 per cent of New Zealand's milk production. Because Fonterra purchases such a large proportion of New Zealand's total milk, there is no 'market price' for milk that is independent of the price paid by Fonterra. As a result, since its formation in 2001, Fonterra has calculated a Farmgate Milk Price that enables total returns to be allocated between payments for milk and returns on the capital invested by Fonterra farmer shareholders and by unit holders in the Fonterra Shareholders' Fund.

FARMGATE MILK PRICE METHODOLOGY

The Farmgate Milk Price has been calculated in accordance with the Manual by:

- Determining the revenue that Fonterra would earn if the equivalent of all the milk Fonterra collects were converted into commodity specifications of WMP and SMP, and their by-products, which are butter, AMF and BMP. These products are referred to in the Manual as 'Reference Commodity Products'. Prices reflect USD prices achieved on the twice-monthly GDT trading events, or prices achieved by Fonterra in off-GDT sales, all of which use the most recent relevant GDT price as a key reference point. Selling prices are converted to NZD using Fonterra's actual average monthly foreign exchange conversion rate.¹⁶
- Deducting costs, including the cost of transporting raw milk to factories, and the cost of efficiently manufacturing Reference Commodity Products and then transporting them to the point of export from New Zealand, along with selling and administration expenses. These costs also include amounts for depreciation of fixed assets and an appropriate return on investment, including investment in working capital.

The balance comprises the Farmgate Milk Price. While this is an aggregate amount, it is usually referred to on the basis of a Farmgate Milk Price per kgMS.

RATIONALE FOR REFERENCE COMMODITY PRODUCTS

Manufacture of the Reference Commodity Products comprised approximately 72 per cent of Fonterra's total New Zealand ingredients production in the 2018 Season.

Almost all additional milk collected over the past decade in New Zealand by Fonterra and its competitors has been used to make milk powders. Because returns from the sale of milk powders and their by-products represent the 'marginal' returns that would drive the price of milk in a competitive market in New Zealand, the Farmgate Milk Price is based on these products. Returns from non-powder commodities, such as cheese and casein, have largely been irrelevant in driving investment in the dairy industry over the past 10 years and are therefore not taken into account in determining the Farmgate Milk Price.

The Farmgate Milk Price approach does not include any returns earned by Fonterra from specialised ingredients and consumer branded products. These types of products earn premiums over the returns to standard commodity ingredients. It is therefore appropriate that these premiums are recognised in Fonterra's earnings rather than in the Farmgate Milk Price.

FARMGATE MILK PRICE GOVERNANCE

The Fonterra Board sets the total amount to be paid by Fonterra for all milk supplied to it in New Zealand in each season. For the 2018 Season, this is made up of the Aggregate Commodity Milk Payments Amount and the aggregate amount of premiums that exceed the amount a commodity processor would be willing to pay for milk sourced specifically for value-add applications.

Both Fonterra's Constitution and the Dairy Industry Restructuring Act (2001) (DIRA) require Fonterra to maintain the Manual, which sets out Fonterra's policies and methodology for determining the Farmgate Milk Price. The Manual must reflect the Milk Price Principles set out in Fonterra's Constitution. The Farmgate Milk Price has been calculated in accordance with the Manual since the start of the 2009 Season.

The Fonterra Board has established a robust governance structure to oversee the setting of the Farmgate Milk Price, which comprises the elements illustrated in the diagram on page 13.

1 MILK PRICE PANEL

The Milk Price Panel plays a key role in overseeing the integrity of the Farmgate Milk Price. It has five members. Two are Fonterra-appointed directors (one of whom is the Chair), one is a Fonterra farmer-elected director and two are appropriately qualified nominees of the Fonterra Shareholders' Council.

The current members of the Panel are: Scott St John (Chair) and Bruce Hassall, who are appointed Fonterra directors; Brent Goldsack, who is a farmer-elected Fonterra director; and Andrew Wallace and Bill Donaldson, who are nominees of the Fonterra Shareholders' Council.

The Panel oversees the governance of the Farmgate Milk Price and the Manual, including changes to the Manual and verification by independent external experts of key parameters (such as resource usage rates, product yields and fixed manufacturing costs).

Appendix 1: Farmgate Milk Price OverviewCONTINUED

The Panel is responsible for:

- Overseeing the calculation of the Farmgate Milk Price and making a recommendation on it to the Fonterra Board.
- Providing recommendations to the Fonterra Board on changes to the Manual.
- Providing assurance to the Fonterra Board that the Farmgate Milk Price has been calculated each year in accordance with the Manual.

The Fonterra Board is responsible for the forecast of the annual Farmgate Milk Price.

2 MILK PRICE GROUP

The Milk Price Group is a working group established by Fonterra. The Head of the Milk Price Group is independent of Fonterra's management and reports directly to the Chair of the Milk Price Panel. The role of the Milk Price Group includes:

- Ensuring that the Farmgate Milk Price is calculated in accordance with the Manual and making recommendations in respect of the Farmgate Milk Price to the Panel.
- Considering any proposed amendments to the Manual, including those the Milk Price Group itself considers are appropriate, and ensuring they are in accordance with the Milk Price Principles in Fonterra's Constitution.
- Providing assurance to the Fonterra Board over the calculation of the forecast of the Farmgate Milk Price.
- Managing engagement with external reviewers.
- Engaging with the Commerce Commission, including to ensure full disclosure of all material aspects of the Farmgate Milk Price derivation each year.

The functions of the Milk Price Group are contracted out to Ernst & Young and other technical experts who are not employees of Fonterra.

3 EXTERNAL REVIEWERS

External reviewers provide expert advice on various inputs, as well as assurance over the accuracy of financial models. In addition, they participate in reviews of key parameters of the Farmgate Milk Price at regular intervals (which can be up to four years).

4 EXTERNAL AUDITOR

The external auditor audits the Farmgate Milk Price each year and provides assurance that the Farmgate Milk Price has been determined in accordance with the Milk Price Principles, Methodologies and Detailed Rules of the Farmgate Milk Price Manual. Fonterra's external auditor is PricewaterhouseCoopers.

5 COMMERCE COMMISSION FARMGATE MILK PRICE OVERSIGHT

Subpart 5A of DIRA, which was passed into law in July 2012, gives the Commerce Commission an oversight role with respect to Fonterra's Farmgate Milk Price.

The purpose of Subpart 5A is to promote the setting of a Farmgate Milk Price that provides an incentive to Fonterra to operate efficiently, while providing for contestability in the market for the purchase of milk from farmers (section 150A). Each year, the Commission is required to review and report on the extent to which the Manual and Fonterra's actual Farmgate Milk Price are consistent with this purpose:

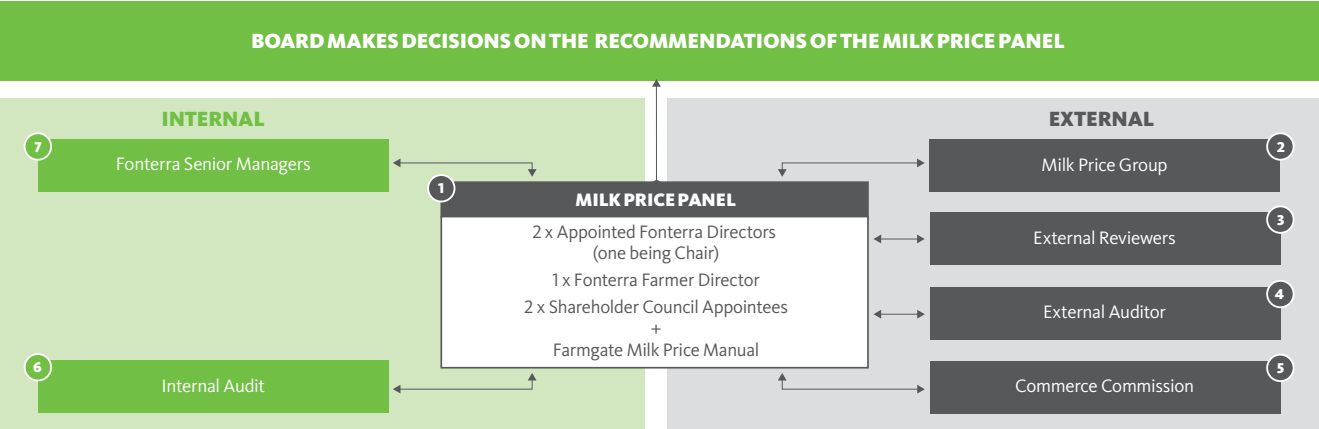
- The Commerce Commission's final report on the Manual for the 2017/18 Season was released on 15 December 2017 and can be found at <https://comcom.govt.nz/regulated-industries/dairy/milk-price-manual-and-calculation/milk-price-manual/milk-price-manual-201718-season>
- The final report on the F18 Farmgate Milk Price calculation was released on 14 September 2018 and can be found at <https://comcom.govt.nz/regulated-industries/dairy/milk-price-manual-and-calculation/milk-price-calculation/milk-price-calculation-201718-season>

6 INTERNAL AUDIT

Fonterra's internal audit team provides assurance over the processes and controls relating to Fonterra data used in the calculation of the Farmgate Milk Price.

7 FONTERRA SENIOR MANAGERS

Fonterra senior managers provide internal oversight of the calculation of the actual and forecast Farmgate Milk Price in accordance with the Manual and detailed models and procedures.



Source: Fonterra

¹⁶ From the 2017 Season, a mixture of on-GDT and off-GDT prices were used for all Reference Commodity Product prices.

Appendix 2: Independent Assurance Report

TO THE DIRECTORS OF FONTERRA CO-OPERATIVE GROUP LIMITED

Scope

We have audited the application of the Principles, Methodologies and Detailed Rules as defined in the Farmgate Milk Price Manual of 1 August 2017 (the Manual) by the Milk Price Group (MPG) in deriving the 'aggregate amount available to pay' for New Zealand supplied milk for the season ended 31 May 2018 of NZ\$10.153 billion, which is referred to as the Aggregate Commodity Milk Payments Amount in the Farmgate Milk Price Statement. We have confirmed the balances contained in the Farmgate Milk Price Statement for the season ended 31 May 2018 (the Farmgate Milk Price Statement) are correctly extracted from the calculation of the Farmgate Milk Price.

Information other than our scope and the assurance report

The Directors are responsible for the Farmgate Milk Price Statement. Our opinion on the Farmgate Milk Price Statement does not cover information other than the balances we confirm have been correctly extracted from the calculation of the Farmgate Milk Price and we do not express any form of assurance conclusions on the other information.

In connection with our scope, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the Farmgate Milk Price Statement or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed on the other information that we obtained prior to the date of this assurance report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Milk Price Group's Responsibilities

The MPG are responsible for the calculation of the Farmgate Milk Price based upon the Manual, ensuring the Farmgate Milk Price has been derived in accordance with the Principles, Methodologies and Detailed Rules set out in the Manual. The MPG is also responsible for the preparation of the Farmgate Milk Price Statement.

Our Independence and Quality Control

We have complied with the independence and other ethical requirements of Professional and Ethical Standard 1 (Revised) issued by the New Zealand Auditing and Assurance Standards Board, which is founded on the fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Professional and Ethical Standard 3 (Amended) and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

Bruce Hassall was appointed an Independent Director and Chair of the Audit and Finance Committee of Fonterra Co-operative Group Limited (Fonterra) on 2 November 2017 and appointed a member of the Milk Price Panel on 7 December 2017. Bruce Hassall was Chief Executive Officer of PricewaterhouseCoopers to 30 September 2016 when he retired from the firm.

Brent Goldsack was appointed a Director of Fonterra on 2 November 2017 and a member of the Milk Price Panel on 13 December 2017. Brent Goldsack retired as a partner of PricewaterhouseCoopers on 22 September 2017. Brent Goldsack was not involved in the provision of any audit services to Fonterra during his time as a partner of PricewaterhouseCoopers.

Bruce Hassall and Brent Goldsack had no financial relationship with PricewaterhouseCoopers upon their appointment as Directors of Fonterra and members of the Milk Price Panel. The engagement partner on the audit has direct access to the Chair of the Milk Price Panel, Scott St John, to address any actual or perceived auditor independence threats.

Our firm carries out assurance services for Fonterra to assess food fraud risks and controls in relation to Fonterra's food supply chain, as well as other assurance and attestation services. Partners and employees of our firm may deal with Fonterra on normal terms within the ordinary course of trading activities of Fonterra.

These matters have not impaired our independence as auditor of Fonterra.

Independent Auditors' Responsibilities

We are responsible for expressing an independent opinion on whether the MPG has complied, in all material respects, with the Principles, Methodologies and Detailed Rules set out in the Manual in deriving the Farmgate Milk Price, and that the balances, in all material respects, in the Farmgate Milk Price Statement have been correctly extracted from those calculations, and reporting our opinion to you.

We conducted our independent assurance engagement in accordance with ISAE (NZ) 3000 *Assurance Engagements Other than Audits or Reviews of Historical Financial Information* and SAE 3100 *Compliance Engagements* issued in New Zealand. Those standards require that we comply with ethical requirements and plan and perform our procedures to obtain reasonable assurance about whether, the MPG has complied, in all material respects, with Principles, Methodologies and Detailed Rules of the Manual in deriving the Farmgate Milk Price, and that the balances, in all material respects, in the Farmgate Milk Price Statement have been correctly extracted from those calculations.

Inherent Limitations

Our engagement includes examining, on a test basis, evidence relevant to the amounts used to derive the Farmgate Milk Price and the balances in the Farmgate Milk Price Statement. It also includes assessing the significant assumptions, estimates and judgements made by the MPG in the calculation of the Farmgate Milk Price and ensuring the Principles, Methodologies and Detailed Rules applied are consistent with those set out in the Manual. Because of the inherent limitations, it is possible that fraud, error or non-compliance may occur and not be detected. As the procedures performed are undertaken on a test basis, our assurance engagement cannot be relied on to detect all instances where the Principles, Methodologies and Detailed Rules set out in the Manual have not been complied with. Our opinion expressed in this report has been formed on that basis.

Independent Assurance Opinion

In our opinion the MPG has complied, in all material respects, with the Principles, Methodologies and Detailed Rules in the Manual in deriving the 'aggregate amount available to pay' for New Zealand supplied milk for the season ended 31 May 2018 of NZ\$10.153 billion, which is referred to as the Aggregate Commodity Milk Payments Amount in the Farmgate Milk Price Statement. We have confirmed the balances contained in this Farmgate Milk Price Statement for the season ended 31 May 2018 are correctly extracted, in all material respects, from the Farmgate Milk Price calculation.

Restriction on Distribution or Use

This report is made solely to the Directors. Our report has been prepared at the request of the Directors and for no other purpose. To the fullest extent permitted by law we do not accept or assume responsibility to anyone other than Fonterra for this report, or for the opinions we have formed.

PricewaterhouseCoopers

PricewaterhouseCoopers

Auckland, New Zealand

12 September 2018



Attachment 1: Milk Supplied and Production Volumes

2018 SEASON	MILK SUPPLIED (MILLION kgMS)	PRODUCTION (000 MT) OF FINISHED PRODUCT					
		WMP	SMP	BUTTER	AMF	BMP	TOTAL
Jun 17 to Aug 17	122	152	48	15	15	5	235
Sep 17 to Nov 17	579	714	228	101	50	21	1,114
Dec 17 to Feb 18	470	537	204	96	42	20	899
Mar 18 to May 18	334	452	98	47	28	13	639
Total	1,505	1,856	577	258	136	59	2,886

2017 SEASON	MILK SUPPLIED (MILLION kgMS)	PRODUCTION (000 MT) OF FINISHED PRODUCT					
		WMP	SMP	BUTTER	AMF	BMP	TOTAL
Jun 16 to Aug 16	122	134	59	16	19	5	234
Sep 16 to Nov 16	573	668	250	98	59	23	1,098
Dec 16 to Feb 17	500	604	200	88	46	20	957
Mar 17 to May 17	331	421	110	54	30	14	630
Total	1,526	1,826	619	256	154	63	2,918

2016 SEASON	MILK SUPPLIED (MILLION kgMS)	PRODUCTION (000 MT) OF FINISHED PRODUCT					
		WMP	SMP	BUTTER	AMF	BMP	TOTAL
Jun 15 to Aug 15	127	165	44	11	18	5	243
Sep 15 to Nov 15	609	727	255	99	64	24	1,169
Dec 15 to Feb 16	515	587	225	100	49	22	984
Mar 16 to May 16	315	382	115	51	35	15	597
Total	1,566	1,862	639	261	166	65	2,993

Attachment 2:
Sales Volumes

2018 SEASON						
	SHIPMENTS (000 MT) OF FINISHED PRODUCT					TOTAL SALES
	WMP	SMP	BUTTER	AMF	BMP	
Aug 17 to Oct 17	217	81	18	15	9	340
Nov 17 to Jan 18	654	227	77	31	19	1,007
Feb 18 to Apr 18	476	146	69	32	16	739
May 18 to Jul 18	448	104	73	52	13	691
Aug 18 to Oct 18	61	19	22	5	2	109
Total	1,856	577	258	136	59	2,886

2017 SEASON						
	SHIPMENTS (000 MT) OF FINISHED PRODUCT					TOTAL SALES
	WMP	SMP	BUTTER	AMF	BMP	
Aug 16 to Oct 16	257	104	27	30	2	419
Nov 16 to Jan 17	616	222	86	50	17	991
Feb 17 to Apr 17	405	115	62	29	16	628
May 17 to Jul 17	485	155	59	39	24	761
Aug 17 to Oct 17	62	24	23	6	3	118
Total	1,826	619	256	154	63	2,918

2016 SEASON						
	SHIPMENTS (000 MT) OF FINISHED PRODUCT					TOTAL SALES
	WMP	SMP	BUTTER	AMF	BMP	
Aug 15 to Oct 15	195	31	14	16	0	255
Nov 15 to Jan 16	712	281	94	71	25	1,184
Feb 16 to Apr 16	413	147	58	27	13	658
May 16 to Jul 16	447	147	65	41	19	720
Aug 16 to Oct 16	94	33	29	11	9	176
Total	1,862	639	261	166	65	2,993

Attachment 3:
Average Number of Months Prior to
Shipment that Prices were Struck

2018 SEASON					
	AVERAGE NUMBER OF MONTHS PRIOR TO SHIPMENT				
	WMP	SMP	BUTTER	AMF	BMP
Aug 17 to Oct 17	2.9	3.1	3.2	2.8	3.6
Nov 17 to Jan 18	2.7	3.0	2.7	2.8	2.6
Feb 18 to Apr 18	3.0	3.1	2.7	2.5	3.2
May 18 to Jul 18	2.5	2.8	2.5	2.4	2.4
Aug 18 to Oct 18	2.9	3.1	2.7	3.1	4.0
	2.7	3.0	2.7	2.6	2.9

2017 SEASON					
	AVERAGE NUMBER OF MONTHS PRIOR TO SHIPMENT				
	WMP	SMP	BUTTER	AMF	BMP
Aug 16 to Oct 16	2.9	3.2	3.0	2.8	2.7
Nov 16 to Jan 17	3.1	3.1	3.2	3.1	2.6
Feb 17 to Apr 17	2.6	2.9	2.9	2.8	2.4
May 17 to Jul 17	2.6	2.5	2.5	2.6	2.7
Aug 17 to Oct 17	3.7	3.8	3.1	3.7	3.6
	2.9	3.0	2.9	2.9	2.7

2016 SEASON					
	AVERAGE NUMBER OF MONTHS PRIOR TO SHIPMENT				
	WMP	SMP	BUTTER	AMF	BMP
Aug 15 to Oct 15	3.1	2.7	2.8	2.8	N/A ¹⁷
Nov 15 to Jan 16	3.1	3.4	2.8	3.3	3.3
Feb 16 to Apr 16	2.8	3.0	2.9	2.7	2.6
May 16 to Jul 16	2.9	2.8	2.6	2.6	3.2
Aug 16 to Oct 16	2.9	2.9	2.9	3.3	2.9
	3.0	3.1	2.8	3.0	3.0

The tables on the next page supplement those above by providing information on the average percentages of sales contracted in each of months 1 to 5 prior to shipment in the 2016 to 2018 Seasons.

17 Not applicable: No BMP sales informed the Farmgate Milk Price Revenue in this quarter.

Attachment 3:

Average Number of Months Prior to Shipment that Prices were Struck

CONTINUED

AVERAGE % OF SALES CONTRACTED IN EACH MONTH PRIOR TO SHIPMENT

2018 SEASON					
	AVERAGE PERCENTAGE OF SALES CONTRACTED IN EACH OF MONTHS 1-5 PRIOR TO SHIPMENT				
	WMP	SMP	BUTTER	AMF	BMP
1	12%	7%	16%	16%	12%
2	35%	33%	36%	35%	36%
3	25%	27%	22%	29%	23%
4	18%	21%	18%	13%	12%
5	9%	13%	10%	7%	17%

2017 SEASON					
	AVERAGE PERCENTAGE OF SALES CONTRACTED IN EACH OF MONTHS 1-5 PRIOR TO SHIPMENT				
	WMP	SMP	BUTTER	AMF	BMP
1	11%	9%	9%	10%	11%
2	31%	31%	29%	29%	33%
3	29%	27%	29%	32%	37%
4	18%	19%	18%	20%	18%
5	11%	13%	14%	9%	1%

2016 SEASON					
	AVERAGE PERCENTAGE OF SALES CONTRACTED IN EACH OF MONTHS 1-5 PRIOR TO SHIPMENT				
	WMP	SMP	BUTTER	AMF	BMP
1	8%	6%	7%	10%	7%
2	33%	29%	37%	33%	32%
3	28%	28%	32%	28%	24%
4	19%	24%	17%	19%	29%
5	13%	13%	6%	11%	8%

Attachment 4:

Average USD Prices

2018 SEASON					
SHIPMENT PERIOD	USD PER MT OF FINISHED PRODUCT				
	WMP	SMP	BUTTER	AMF	BMP
Aug 17 to Oct 17	3,172	2,080	5,848	6,574	2,186
Nov 17 to Jan 18	3,058	1,971	5,886	6,644	1,996
Feb 18 to Apr 18	2,937	1,859	5,303	6,637	2,007
May 18 to Jul 18	3,244	2,006	5,461	6,266	2,113
Aug 18 to Oct 18	3,233	2,078	5,494	6,252	2,041
	3,091	1,968	5,575	6,474	2,057
Full season GDT-only prices ¹⁸	3,056	1,951	5,464	6,422	2,038

2017 SEASON					
SHIPMENT PERIOD	USD PER MT OF FINISHED PRODUCT				
	WMP	SMP	BUTTER	AMF	BMP
Aug 16 to Oct 16	2,271	1,919	2,936	3,840	1,767
Nov 16 to Jan 17	2,709	2,236	3,589	4,655	2,338
Feb 17 to Apr 17	3,250	2,576	4,388	5,497	2,656
May 17 to Jul 17	3,005	2,135	5,016	6,073	1,900
Aug 17 to Oct 17	2,951	2,102	5,601	6,270	1,909
	2,854	2,216	4,221	5,076	2,211
Full season GDT-only prices	2,837	2,188	4,184	4,977	2,172

2016 SEASON					
SHIPMENT PERIOD	USD PER MT OF FINISHED PRODUCT				
	WMP	SMP	BUTTER	AMF	BMP
Aug 15 to Oct 15	1,957	1,480	2,467	2,732	N/A ¹⁹
Nov 15 to Jan 16	2,093	1,789	2,769	3,093	1,868
Feb 16 to Apr 16	2,239	1,950	3,000	3,654	1,732
May 16 to Jul 16	2,065	1,765	2,832	3,331	1,567
Aug 16 to Oct 16	2,221	1,732	2,853	3,374	1,632
	2,111	1,803	2,830	3,227	1,723

18 Full season GDT-only prices were disclosed for the first time for the 2017 Season, following the inclusion of off-GDT sales of WMP, SMP and AMF in the Farmgate Milk Price. Quarterly prices are the total weighted average prices informing the Farmgate Milk Price, consistent with prior season disclosures.

19 Not applicable: No BMP sales informed the Farmgate Milk Price Revenue in this quarter.

Attachment 5:

Average USD:NZD Conversion and Spot Rates

Note that the spot data is based on the weighted average conversion rate that would have been achieved if the revenue collected during the shipping period was converted at the average spot rate in the month of collection. Certain average spot exchange rate figures for the 2017 Season differ from those disclosed in the 2017 Farmgate Milk Price Statement, as forecast exchange rates have been replaced with actual exchange rates.

2018 SEASON	FONTERRA'S AVERAGE CONVERSION RATE	SPOT EXCHANGE RATE
Aug 17 to Oct 17	0.6988	0.6968
Nov 17 to Jan 18	0.7097	0.7147
Feb 18 to Apr 18	0.7112	0.7172
May 18 to Jul 18	0.7050	0.6853
Aug 18 to Oct 18	0.7061	0.6821 ²⁰
Revenue-weighted annual average	0.7074	0.7039

2017 SEASON	FONTERRA'S AVERAGE CONVERSION RATE	SPOT EXCHANGE RATE
Aug 16 to Oct 16	0.6766	0.7156
Nov 16 to Jan 17	0.6830	0.7117
Feb 17 to Apr 17	0.6922	0.6978
May 17 to Jul 17	0.7071	0.7293
Aug 17 to Oct 17	0.7136	0.7173
Revenue-weighted annual average	0.6924	0.7137

2016 SEASON	FONTERRA'S AVERAGE CONVERSION RATE	SPOT EXCHANGE RATE
Aug 15 to Oct 15	0.7359	0.6581
Nov 15 to Jan 16	0.7231	0.6637
Feb 16 to Apr 16	0.7076	0.6803
May 16 to Jul 16	0.6849	0.7130
Aug 16 to Oct 16	0.6790	0.7275
Revenue-weighted annual average	0.7082	0.6820

20 The spot exchange rate for the period from August to October 2018 equals the spot rate at 9am on 31 July 2018, the last working day of Fonterra's 2018 financial year.

Glossary

In this Statement, unless the context otherwise requires, the following terms have the meanings set out next to them:
Additional Commodity Milk Payments Amount is defined in the Manual for the 2019 Season.

Aggregate Commodity Milk Payments are defined in the Manual for the 2019 Season.

Aggregate Farmgate Milk Price is defined in the Manual for the 2019 Season.

AMF means anhydrous milk fat.

BMP means buttermilk powder.

Detailed Rules means the detailed rules for calculating the Farmgate Milk Price as set out in the Manual.

DIRA means the Dairy Industry Restructuring Act 2001, which authorised Fonterra's formation and regulates its activities.

Farmgate Milk Price means Fonterra's Farmgate Milk Price as determined under the Manual for the 2019 Season.

Farmgate Milk Price Capital Costs are defined in the Manual.

Farmgate Milk Price Cash Costs are defined in the Manual.

Farmgate Milk Price Manual or **Manual** means Fonterra's Farmgate Milk Price Manual which is available on www.fonterra.com.

Farmgate Milk Price Revenue is defined in the Manual.

Final Farmgate Milk Price means the aggregate amount approved by Fonterra's Board as payment for milk supplied in the 2018 Season.

Financial Year means Fonterra's financial year, which runs from 1 August to the following 31 July.

Fixed Asset Capital Charges are defined in the Manual.

Fonterra means Fonterra Co-operative Group Limited.

Global Dairy Trade or **GDT** means the electronic auction platform that is used to sell commodity dairy products.

kgMS means kilograms of milk solids.

Methodologies means the methodologies for calculating the Farmgate Milk Price as set out in the Manual.

Milk Price Adjustment means the difference between the Farmgate Milk Price and the Final Farmgate Milk Price for the 2018 Season.

Milk Price Model means the model used to calculate the Farmgate Milk Price set out in the Manual.

Milk Price Principles or **Principles** means the Milk Price Principles set out in Fonterra's Constitution.

MT means metric tonnes.

Net Working Capital Charges are defined in the Manual.

NZD means New Zealand dollars.

Reference Commodity Products or **RCP** means the commodity products used to calculate the Farmgate Milk Price, comprising WMP, SMP, BMP, AMF and butter.

Season means the 12-month period from 1 June to the following 31 May.

SMP means skim milk powder.

Standard Supply Adjustments are defined in the Manual for the 2019 Season.

USD means United States dollars.

Winter Milk means milk supplied by farmers in the months of May, June and July.

WMP means whole milk powder.



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