



# FARMGATE MILK PRICE MANUAL – PART A: OVERVIEW

EFFECTIVE DATE: 1 August 2018~~7~~

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**1.4 DEFINITIONS – CAPITAL COSTS**

**1.5 DEFINITIONS – AGGREGATE FARMGATE MILK PRICE**

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**6262**

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**8181**

**GLOSSARY**

**8484**

# 1. INTRODUCTION

## 1.1 BACKGROUND

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Fonterra has a Farmgate Milk Price for a number of reasons. It is the key indicator of the value of Milk at the farm gate for suppliers. The Farmgate Milk Price is also used:

- to measure the earnings performance of Fonterra's business units;
- as a benchmark for setting the price of unshared Milk and contract Milk supplied on standard terms; and
- as a benchmark for pricing Milk supplied at wholesale to third party processors on commercial terms or on terms dictated by DIRA.

Fonterra processes a large proportion of New Zealand's total Milk, no other processor purchases Milk New Zealand-wide, and most of Fonterra's competitors use the Farmgate Milk Price as the benchmark for their market offerings rather than establishing their own independent milk prices. This means that there is not enough depth in the market for Milk supplied in New Zealand to establish a New Zealand-wide 'market price' for Milk that is independent of the price paid by Fonterra. It has therefore become necessary for Fonterra to establish an alternative mechanism to determine the aggregate price for Milk supplied to Fonterra in New Zealand. This is the [Fonterra Aggregate Farmgate Milk Price](#).

~~Nonetheless, Fonterra operates in a competitive environment for milk in New Zealand. Fonterra will always act to legitimately protect the interests of the Co-operative and its farmer shareholders, including through the setting of the Farmgate Milk Price. This Manual should be read and interpreted in the context of this competitive (and changing) environment.~~

~~Fonterra's Constitution contains a set of Milk Price Principles and requires the Manual to reflect those Principles.~~

The mechanism for calculating the [Aggregate Farmgate Milk Price](#) is set out in this Farmgate Milk Price Manual which is in four parts – Part A Overview, Part B Detailed Methodology, Part C Definitions and a Glossary.

~~Fonterra's Constitution contains a set of Milk Price Principles and requires the Manual to reflect those Principles.~~

~~The Manual does not determine the basis on which the Board allocates payments between the individual supplies made by suppliers of Milk to Fonterra or the apportionment of payments for Milk between Shareholders. These are determined by the Board in accordance with clause 10 of the Constitution. The Manual does, however, set out the process to be followed in determining the average price paid by Fonterra for Milk supplied on standard terms of supply (the Farmgate Milk Price), given the aggregate amount available for payment for milk calculated under the Manual, and the principles for determining which other payments for Milk should be funded from this aggregate amount.~~

Under the Constitution, the Board sets the price for Milk, and for this purpose may from time to time adopt a Farmgate Milk Price policy. This policy may from time to time address the circumstances where the Board could pay more for Milk than the amount calculated under the Manual. If the requirement to do so arises, however, this would represent grounds to review the operational details of the Manual against the Principles.

In particular, Nonetheless, Fonterra operates in a competitive environment for milk in New Zealand. Fonterra will always act to legitimately protect the interests of the Co-operative and its farmer shareholders, including through the setting of the Farmgate Milk Price. This Manual should be read and interpreted in the context of this competitive (and changing) environment.

Part A of the Manual sets out:

- The Principles underpinning the calculation of the Farmgate Milk Price;
- An overview of the methodology relating to the calculation of the Farmgate Milk Price; and
- The organisational arrangements to support the administration of the Manual.

~~The Manual does not determine the basis on which the Board allocates payments between the individual supplies made by suppliers of Milk to Fonterra or the apportionment of payments for Milk between Shareholders. These are determined by the Board in accordance with clause 10 of the Constitution.~~

## 1.2 EXECUTIVE SUMMARY

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In broad terms, the Aggregate Farmgate Milk Price is calculated under the Manual by:

- Determining the revenue that Fonterra would derive if it converted all milk into commodity wholemilk powder (WMP) and skim milk powder (SMP) and their by-products (buttermilk powder, or BMP, butter and anhydrous milkfat, or AMF). These are the products that currently make up the 'Reference Commodity Products'. Prices primarily reflect US dollar prices achieved by Fonterra on the twice-monthly GlobalDairyTrade trading events, converted to New Zealand dollars at Fonterra's actual average monthly foreign-exchange conversion rate.
- Deducting costs, such as those which would be incurred to transport raw milk to Fonterra's New Zealand factories, produce these same commodities in an efficient way, freight them to the point of export from New Zealand and make a market return on investment. To the extent feasible and where doing so is consistent with the Farmgate Milk Price Principles, costs are derived from Fonterra's actual costs associated with these activities.

The balance comprises the aggregate amount payable to Fonterra farmers. After adjusting this aggregate amount for certain premiums and discounts that are paid or deducted by Fonterra for Milk that is not supplied under Fonterra's standard terms of supply, and which a manufacturer of the Reference Commodity Products could be expected to pay or deduct, and for the net impact of certain adjustments to the amounts paid for Milk supplied under Fonterra's standard terms of supply, the residual balance is the Aggregate Farmgate Milk Price. This is an aggregate amount, but for convenience, it is divided by the amount of milk supplied to arrive at a Farmgate Milk Price per kgMS.

The Reference Commodity Products that inform the Farmgate Milk Price ~~currently~~ typically comprise around 70% of Fonterra's total New Zealand production. Both revenues and costs are scaled up to take into account all of Fonterra's actual collection, logistics and plant administration costs that are incurred to convert Fonterra's actual milk collection into manufactured products.

Reference Commodity Products are sold at prices that include few, if any, premiums arising from proprietary intellectual property (such as brands or Fonterra-specific product features) and are predominantly sold in the most freely-contestable export markets with low trade barriers. The Farmgate Milk Price Methodology excludes Fonterra's returns from value-add products (such as infant formula and specialised protein products) and branded products. These products yield premiums that are attributable to significant investment by Fonterra shareholders. It is therefore appropriate that these premiums are reflected in Fonterra's earnings rather than in a higher Farmgate Milk Price.

The Farmgate Milk Price Methodology also excludes returns from non-powder commodities, such as cheese and casein, because almost all the additional Milk collected by Fonterra and its competitors over the last decade has been used to make milk powders. Therefore from a competitive viewpoint, returns from the sale of powder products represent the 'marginal' returns that would drive a Farmgate Milk Price in a New Zealand-wide competitive market.

This section contains only a broad overview of the Farmgate Milk Price Methodology. A more detailed explanation of each of the key components of the Farmgate Milk Price Methodology is set out in Sections 2, 3 and 4 below.

## 1.3 INTERPRETING THE MANUAL

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The Manual is an operational document that gives effect to the Principles. It must be interpreted so as to best give effect to the Principles and to provide stable and clear outcomes.

To assist in the day to day application of the Manual, the following rules will apply:

- (a) If there is any ambiguity in, or a dispute concerning, the interpretation of the Manual, the ambiguity or dispute must be resolved on the basis which best satisfies the Principles.
- (b) If a decision must be made, or a discretion or election exercised, under the Manual, it must be made or exercised on the basis which best satisfies the Principles.
- (c) If an issue or ambiguity arises in applying or reviewing the Manual, any outcome should be compared to the outcome that would be expected to arise under a contract between a group of suppliers and Fonterra that had been negotiated under the circumstances underpinning the Principles. The outcome which is most closely aligned with those circumstances should be adopted.
- (d) In giving effect to a general statement or rule in this Manual (for example, the more general descriptions in Part A of the Manual), a more detailed statement or rule in another part of the Manual (including the definitions in Part C of the Manual) should be taken into account. In the case of any conflict between a general statement or rule and a more detailed statement or rule, then the more detailed statement or rule should generally prevail. This rule of interpretation is subject in all respects to the overriding requirement to give effect to the Principles.

In the normal course, any amendment to the Manual will take effect no earlier than the Financial Year following the Financial Year in which the Board approves the amendment, provided that the Board retains the discretion to require that an amendment take effect at an earlier time where the Board considers that this is appropriate given all relevant matters (including the circumstances giving rise to the requirement for the amendment and any consequences of a later effective date).



## 2. THE PRINCIPLES

### 2.1 OVERVIEW

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The Principles are set out in the Constitution:

- The Farmgate Milk Price for a Season should reflect the benefits that arise from the collective selling power of Shareholders as suppliers to Fonterra, and from scale and other economies Fonterra enjoys in production and sales.
- In this context, the Farmgate Milk Price should be the maximum amount that Fonterra, reflecting its status as a properly-managed and efficiently-run, sustainable co-operative, could pay for the Milk supplied to it in a Season if:
  - Shareholders and other suppliers of Milk to Fonterra collectively contracted to supply all their Milk to Fonterra;
  - Fonterra, on their behalf, processed that Milk into commodity products which were sold on freely-contested global markets;
  - Fonterra was appropriately encouraged to make investment, production and sales decisions that maximise the Farmgate Milk Price, both now and in the future; and
  - Fonterra was able to earn a risk-adjusted return on the assets required to collect, process and sell that Milk that is sufficient to warrant long-term investment in new and replacement assets necessary to collect, process and sell the Milk reasonably expected to be supplied to Fonterra in future Seasons.
- Risks should be allocated between Milk suppliers and Fonterra in a manner which appropriately reflects the relative abilities of each party to manage those risks.

### 2.2 PRINCIPLE 1

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The Farmgate Milk Price for a Season should reflect the benefits that arise from the collective selling power of Shareholders as suppliers to Fonterra, and from scale and other economies Fonterra enjoys in production and sales.

This Principle reflects an important reason why Fonterra is a co-operative – to ensure that benefits arising from the collective selling power of farmers acting together flow through into a higher [Farm-gate Milk Price](#).

## 2.3 PRINCIPLE 2

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In the context of Principle 1, the Farmgate Milk Price should be the maximum amount which Fonterra, reflecting its status as a properly-managed and efficiently-run, sustainable co-operative, could pay for the Milk supplied to it in a Season if:

- Shareholders and other suppliers of Milk to Fonterra collectively contracted to supply all their Milk to Fonterra;
- Fonterra, on their behalf, processed that Milk into commodity products which were sold on freely-contested global markets;
- Fonterra was appropriately encouraged to make investment, production and sales decisions (including foreign exchange hedging decisions) that maximise the Farmgate Milk Price, both now and in the future; and
- Fonterra was able to earn a risk-adjusted return on the assets required to collect, process and sell that Milk that is sufficient to warrant long-term investment in new and replacement assets necessary to collect, process and sell the Milk reasonably expected to be supplied to Fonterra in future Seasons.

The detail of the Manual has been designed to give effect to the maximum sustainable Farmgate Milk Price that is provided for in Principle 2, including the associated sub-principles.

The first sub-principle contemplates that Shareholders and other suppliers of Milk will supply all of their Milk. If there were significant split supply under DIRA or the Constitution, the application of the Principle would need to take this into account.

The reference to commodity products in the second sub-principle above conveys that the Farmgate Milk Price should not be artificially (and unsustainably) inflated by returns from specialised value-add business activities.

The third sub-principle is that shareholders need to be sure that Fonterra always has the capacity in place to process their Milk. Achieving this requires that Fonterra can expect to recover the full costs of building new plant, including an appropriate return to Shareholders on what they have invested to finance it.

## 2.4 PRINCIPLE 3

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Risks should be allocated between Milk suppliers and Fonterra in a manner which appropriately reflects the relative abilities of each party to manage those risks.

In terms of this Principle, the Farmgate Milk Price Methodology broadly provides for costs and risks, such as changes in international Commodity Product prices and changes in foreign currency exchange rates, to pass through to the Farmgate Milk Price (as suppliers have better incentives and capabilities to manage these types of risks, in the short run by altering feed and milking practice, and in the long run by substituting alternative land uses) and costs and

risks such as inventory and sales management (including receivables risk), Product Mix, product quality, long-term sales contracts and permanent changes in the supply of Milk to pass through to Fonterra's earnings.

Table 2.1 contains a non-exhaustive list of risks and the allocation of risks in a manner which is consistent with this Principle.

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**Table 2.1: Allocation of Risks between Farmgate Milk Price (suppliers) and Earnings (Fonterra)**

Item	Allocation
International price and foreign-exchange risks	International Commodity Product prices and exchange rates should pass through to the Farmgate Milk Price as suppliers have better incentives and capabilities to manage these risks (in the short-run by altering feed and milking practices, and in the long-run by substituting alternative land uses).
Fonterra's sales phasing	Fonterra should bear the financial consequences of carrying stock beyond a practicably feasible competitive benchmark, as it has better information and capability through its day-to-day involvement in the markets to manage this risk, and should face strong performance incentives around sales strategy and implementation.
Fonterra's contract position	For the same reason, Fonterra should bear the financial consequences of Fonterra entering into forward contracts with an average term beyond competitive benchmarks.
Relative price risk across different Product Streams	Fonterra should bear the financial consequences of adopting a Product Mix different from a competitive benchmark, as it is better able to manage this risk through having both better information than suppliers, and a capability advantage through its ability in the short-run to alter product mix, and in the long-term through plant investments.
Changes in industry costs	While Fonterra has an advantage in understanding industry-wide manufacturing costs, suppliers have better capability to manage the impact on returns by changing feed, milking practice and land use. Accordingly, changes in industry costs should pass through to the Farmgate Milk Price but with performance incentives on Fonterra.
Fonterra-specific costs	Fonterra has the best information and capability to manage cost variances against an efficient near-term rival, and thus should bear the financial consequences of costs exceeding an efficient rival's costs. The Farmgate Milk Price should provide incentives for Fonterra to minimise costs and to invest appropriately in processing quantity and quality. Costs in this context include costs of downgrade product or product that otherwise does not meet quality standards.
Temporary supply risks	Both Fonterra and suppliers have the capability and incentives to respond to temporary reductions in milk supply; accordingly, costs of lower fixed-cost recoveries and temporarily stranded assets should 'lie where they fall'.
Permanent supply shocks	International price impacts should flow through to suppliers (as noted above) while costs associated with permanently stranded assets should fall on Fonterra. Other costs should lie where they fall.
Receivables Risk	Receivables risk is most readily managed by Fonterra. Accordingly, provisions for bad or doubtful debts should not affect the Farmgate Milk Price.
Fonterra's pricing performance relative to market	Fonterra should bear the financial consequences of any difference between prices Fonterra is able to achieve compared to market benchmarks, as it is best able to manage this risk.

## 2.5 OBJECTIVE AND TRANSPARENT PROCESS

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Although not a Principle, an objective of the Manual is that the process for calculating the Farmgate Milk Price must:

- be objective and independent;
- be sufficiently simple and transparent to enable Fonterra to be able to project future Farmgate Milk Prices within commercially reasonable bounds of confidence, and to project the relationship between the Farmgate Milk Price and Commodity Product prices, and to give the necessary level of confidence to the Board and Shareholders as to the accuracy of the calculation of the Farmgate Milk Price;
- minimise incentives and opportunities for manipulation of the Farmgate Milk Price;
- not require unnecessarily complex administrative structures; and
- comply with all applicable laws.

The application of the Manual should be supported by strong audit and reporting processes under the oversight of the Board.

## 2.6 CONSISTENCY OVER TIME

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Although not a Principle, Fonterra recognises that consistency of application of the Manual across years is important. Consequently, it is intended that:

- Other than in exceptional circumstances, the Milk Price, and inputs into its calculation, will evolve in a manner that could be achieved by a 'real world' dairy processor that is operated in a manner that satisfies the requirements of Principle 2.
- Where more than one approach to applying a rule is available, Fonterra will disclose any change in approach that results in a materially different value of an input used to calculate the Farmgate Milk Price, and provide an explanation of the rationale for the change, in the Farmgate Milk Price Statement and in the 'reasons paper' provided to the Commerce Commission under section 150T(c) of the Dairy Industry Restructuring Act 2001. Where such a change in approach has been determined prior to the finalisation of the Farmgate Milk Price Statement for the Season preceding the Season in which the change is first applied, Fonterra will disclose the change and provide an explanation of its rationale in the Statement for that preceding Season.

### 3. KEY ASSUMPTIONS

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The key assumptions underlying the Manual are described below.

- **Absence of a competitive benchmark.**

The Manual has been developed as a means of determining a price for New Zealand-sourced Milk in the absence of a sufficiently deep New Zealand-wide competitive market for Milk supplied in New Zealand. If such a deep market becomes available, it will be appropriate to adopt a market-derived milk price in place of the Farmgate Milk Price Methodology.

It is not feasible to include in the Manual an exhaustive set of tests for determining whether any particular market price which might emerge in New Zealand is an appropriate substitute for the Farmgate Milk Price. However, the primary test in considering whether it is appropriate to substitute a particular market-derived milk price for the Farmgate Milk Price should be whether the price reasonably reflects the amounts Fonterra's efficient near-term competitors would be willing to pay for Milk which will be converted into product for export.

In considering whether a particular market derived milk price satisfies this primary test, it will be appropriate to consider the following factors:

- The percentage of New Zealand's total Milk supply which is transacted using the market-derived milk price.
- The percentage of the total Milk requirements of users of the market mechanism which is procured using the pricing methodology. Does the market price reasonably reflect the average price paid for most of the Milk purchased by the market participants, or (for example) does it reflect a higher price they may be willing to pay for shoulder or winter milk?
- The characteristics of the products which are produced from the Milk transacted using the pricing methodology. Are purchasers of Milk in the market predominantly manufacturers of durable Commodity Products for export, or (for example) of liquid or chilled product for sale in the domestic market?
- Whether the price is derived on a basis which is sufficiently transparent and independent of the Farmgate Milk Price, such that it will be a robust reflection of a 'market price' if the Farmgate Milk Price is no longer calculated and published by Fonterra.

- **Nature and activities of competitors.**

The Farmgate Milk Price Methodology (and in particular the definition of the Farmgate Milk Price Commodity Business described in Section 1 of Part B and Section 1.1 of Part C of the Manual) assumes that Fonterra's efficient near-term competition for New Zealand Milk would be from new entrants who would construct milk powder plants. There is no certainty that this will be the case in the longer-term. The Farmgate Milk Price Methodology also assumes that Fonterra's efficient near-term competitors for New Zealand Milk will not, over the long-term, pass through into the price they pay for Milk any returns attributable to the conversion of Milk to, and sale of, products other than Reference Commodity Products, and will seek to earn an appropriate risk-adjusted return on invested capital on average over time.

It is important to note, in relation to this assumption, that, at the Effective Date of the Manual, co-operatives do not provide the main source of competition with Fonterra for New Zealand Milk.

If any of the above assumptions are incorrect at any time, the Manual (in particular, the definition of the Farmgate Milk Price Commodity Business) should be reviewed to determine whether amendments are required to better satisfy the Principles.

- **Capacity of competitors' plants.**

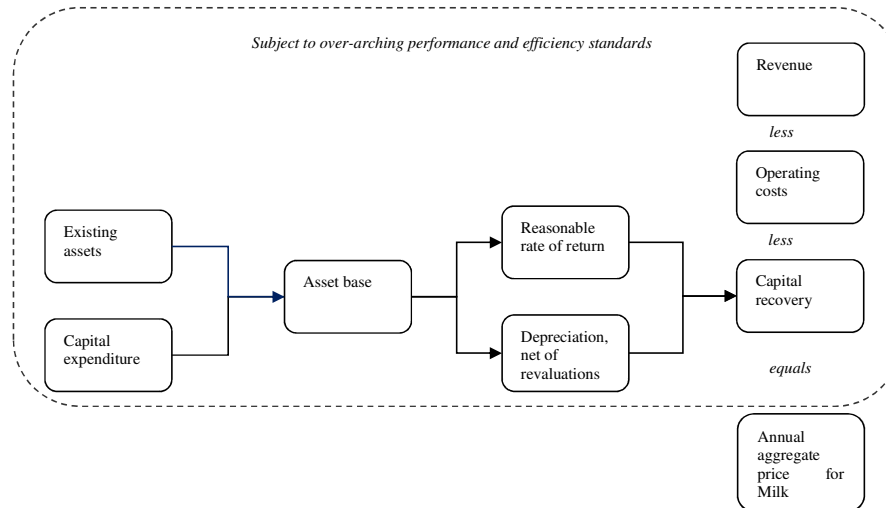
The Farmgate Milk Price Methodology (in particular the calculation of Farmgate Milk Price Capital Costs described in Section 4 of Part B of the Manual) assumes that the average processing capacity of the Standard Plants of Fonterra is greater than (or at least equal to) the average processing plant capacity of Fonterra's efficient near-term competitors. If this assumption is incorrect, the processing capacity of those Standard Plants used in the Farmgate Milk Price Methodology should be reviewed.

## 4. OVERVIEW OF METHODOLOGY

### 4.1 OVERVIEW

The Farmgate Milk Price Methodology results in an [Aggregate](#) Farmgate Milk Price which is consistent with Fonterra earning an appropriate risk-adjusted rate of return on its manufacturing assets, subject to achieving benchmark performance targets. This approach is a modified version of the 'building block' approach used to set prices for businesses subject to 'rate of return' regulation, as summarised in Figure 4-1.

**Figure 4-1: Building Block Approach Modified for Fonterra**



This building block approach has been implemented by 'carving out' from the full Fonterra business a benchmark pure Commodity Product manufacturing business, and calculating the revenues, costs and capital requirements of that business. The isolation of this business has been performed in a way that ensures that Fonterra will receive a return on its assets which is commensurate with the risks it is taking on, whilst providing Milk suppliers with an equivalent

assurance that Fonterra is both required and incentivised to pay as high a price for Milk as possible consistent with the Principles, while maintaining Fonterra's long-term viability (refer to Section 2.3).

From Figure 4-1, the building block approach, as applied to Fonterra, has four key elements:

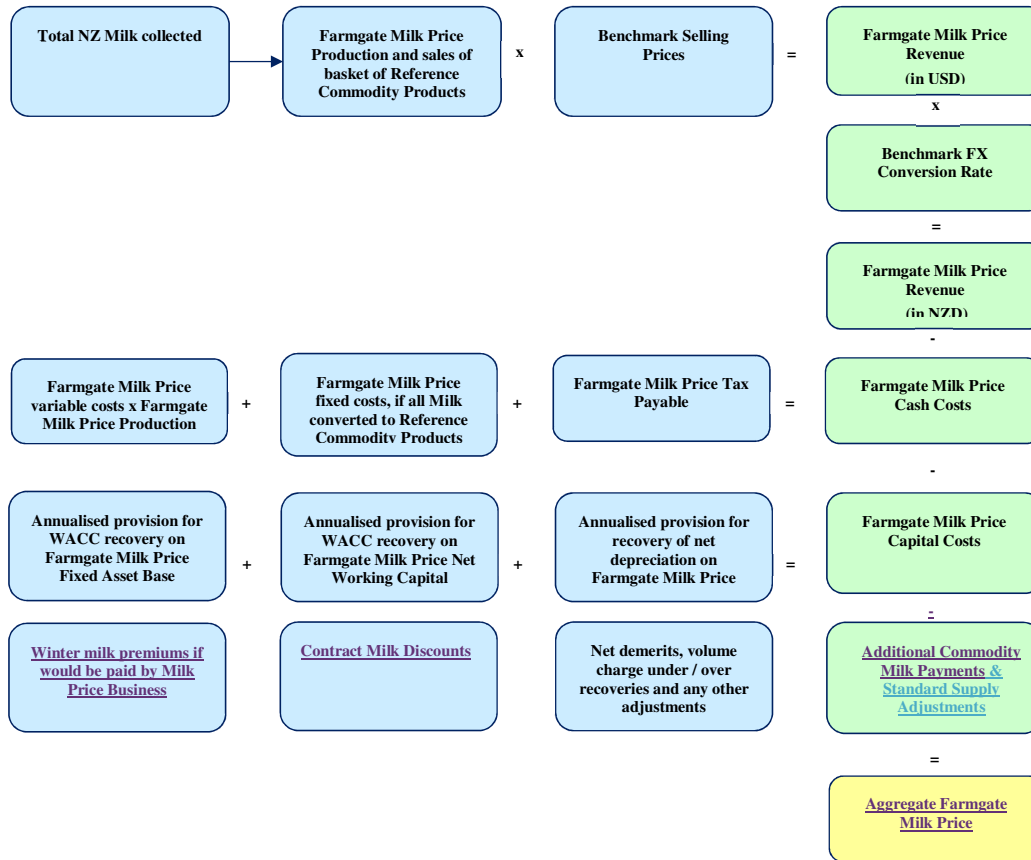
1. The boundaries of the benchmark Commodity Product manufacturing business (Farmgate Milk Price Commodity Business) must be identified.
2. The calculation of the commodity revenue (Farmgate Milk Price Revenue) of that business.
3. The calculation of the recoverable costs (Farmgate Milk Price Cash Costs) of that business.
4. The calculation of an appropriate 'capital recovery' amount (Farmgate Milk Price Capital Costs) for that business.

Where feasible, and where doing so is consistent with the Principles, each of these elements is calculated by reference to Fonterra's actual business, actual commodity revenue, actual foreign exchange conversion rates, actual costs and actual asset base.

A diagrammatic representation of each element is set out in Figure 4-2, followed by an overview of each element in Sections 4.2 to 4.5.



Figure 4.2: Farmgate Milk Price Methodology



## 4.2 FARMGATE MILK PRICE COMMODITY BUSINESS

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The first element of the Farmgate Milk Price Methodology is the definition of the Farmgate Milk Price Commodity Business. The details of this definition are set out in Section 1 of Part B and Section 1.1 of Part C of the Manual. The definition is based on the following design rules:

- The Farmgate Milk Price Commodity Business should reflect the characteristics and Product Mix of Fonterra's efficient near-term competitors in New Zealand. Other things being equal, this should result in a Farmgate Milk Price which over time is on average equal to the price which Fonterra's efficient near-term New Zealand-based competitors for Milk of a comparable scale would pay in a competitive market (on the basis of the assumptions set out in Section 3 under the heading of 'Nature and activities of competitors').
- The boundaries of the Farmgate Milk Price Commodity Business should facilitate benchmarking of Fonterra's performance to external comparators. The international market is deepest and most transparent for milk powders and cream products, implying that it is more straightforward to benchmark the prices achieved on the sale of powder stream product (i.e., WMP and SMP, and their by-products Butter, AMF and BMP) than for other Product Streams (such as cheese and its by-products, or casein and its by-products). In addition, externally verifiable Benchmark Selling Prices are generally available on a FAS basis for these products, which means it is viable to carve out a commodity manufacturing business which delivers product to its customers at the New Zealand wharf.
- The revenues of the Farmgate Milk Price Commodity Business should be based on objective market prices, and the costs of the business should reflect the costs of selling for delivery to customers at the New Zealand wharf.

On that basis, and having regard to Section 3 (under the headings 'Nature and activities of competitors' and 'Capacity of competitors' plants'):

- The Farmgate Milk Price Commodity Business will convert all Milk collected by Fonterra into Reference Commodity Products from four 'base' milk powder streams, comprising four combinations of WMP or SMP, butter or AMF, and BMP. Going forward, the Reference Basket of the Farmgate Milk Price Commodity Business may be adjusted if Fonterra faces a material and sustainable level of likely future competition for milk in New Zealand from producers of commodity products other than the then current Reference Commodity Products, and it is expected that inclusion in the Reference Basket of one or more of those other commodity products will result in a higher average Milk Price over time.
- The Farmgate Milk Price Commodity Business will sell its entire product on arm's length terms for delivery to the New Zealand wharf (i.e., on free alongside ship, or FAS, terms).

## 4.3 FARMGATE MILK PRICE REVENUE

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The next element is the determination of the Farmgate Milk Price Revenue. Key features of the determination are:

- The revenue of the Farmgate Milk Price Commodity Business should be the maximum amount available to Fonterra to pay for Milk consistent with the Principles, before the deduction of relevant costs, under the assumption that all Milk collected by Fonterra in New Zealand is converted into Reference Commodity Products for sale to external customers at the New Zealand wharf (refer Section 2.3).
- Consistently with the Allocation of Risks (refer Section 2.4), calculation of the Farmgate Milk Price Revenue should result in Fonterra bearing the consequences of all of the following (such that they should not affect calculation of Farmgate Milk Price Revenue):
  - Short term decisions to manufacture a Product Mix which is different from a benchmark mix of Reference Commodity Products, subject to there being sufficient flexibility in the framework to provide for the prospective adjustment of the benchmark mix so as to maximise the Farmgate Milk Price consistent with the Principles.
  - Decisions to defer sales rather than selling product as soon as is practicably feasible after the product is manufactured.
  - Under-performance or over-performance in pricing Reference Commodity Products (relative to a market price).
- To allocate those risks in that manner, benchmarks need to be established as follows:
  - **Production Plan and Product Mix:** The Farmgate Milk Price Production Plan, and the benchmark Product Mix it reflects, must: (a) be feasible given the configuration of the Farmgate Milk Price Fixed Asset Base; (b) result in the conversion of all Milk Supply into Reference Commodity Products; (c) be consistent with an objective of maximising the aggregate Farmgate Milk Price and the profits of the Farmgate Milk Price Commodity Business having regard to expected relative returns between Reference Commodity Products; and (d) result in Fonterra facing strong incentives to optimise its Product Mix. The Farmgate Milk Price Production Plan should reasonably reflect the relative weights placed on the Reference Commodity Products in Fonterra's actual allocation of Milk to alternative products, subject to that allocation being commercially supportable by reference to relevant information available at the time the allocation is made. The Farmgate Milk Price Production Plan will serve as the production volumes for the Farmgate Milk Price Commodity Business.
  - **Sales Phasing:** The Farmgate Milk Price Sales Phasings map sales by month of production onto month of sale. The Sales Phasings are set on a prospective basis during the course of the Year, and must reflect the overriding principle that product is to be sold in the month in which it is expected (at the time the phasings are set) the Farmgate Milk Price Commodity Business would maximise the sales value, net of holding costs. The default assumption is that Fonterra's actual phasing of sales of Reference Commodity Product manufactured in the Season is consistent with this overriding principle and that it is therefore appropriate to align the Farmgate Milk Price Sales Phasings to Fonterra's actual phasing of sales of Reference Commodity Products. The Board may impose, on a prospective basis, alternative Sales Phasings which result in the earlier sale of

Farmgate Milk Price Production if it has reasonable cause to consider that Fonterra's actual phasing of sales is not consistent with the overriding principle. The monthly sales determined in this way will serve as the sales of the Farmgate Milk Price Commodity Business.

- **Selling Prices:** When the Benchmark Selling Prices are applied to the sales plan of the Farmgate Milk Price Commodity Business, Farmgate Milk Price Revenue (in USD) will be determined. Benchmark Selling Prices should:
  - Reflect actual prices realised by Fonterra on the sale of Reference Commodity Products across a range of contract terms which is consistent with prevailing market conventions.
  - Result in Fonterra facing strong incentives to optimise its Product Mix.
  - Result in Fonterra facing strong incentives to maximise its Benchmark Selling Prices.

Between F2011 and F2016, Benchmark Selling Prices for WMP were established solely by reference to prices achieved through GlobalDairyTrade, and this approach was also applied for SMP and AMF between F2012 and F2016. GlobalDairyTrade is owned by Fonterra, but is operationally and physically separate from Fonterra. GDT has a clear governance structure. An independent Oversight Board oversees GDT's rules and structures so that they are monitored and developed in a neutral and transparent manner operates in accordance with a policy set by the Board from time to time, concerning such matters as the frequency of auctions, the contract terms offered and the volume of product to be sold.

Where GlobalDairyTrade does not cover a sufficient volume of sales to provide, in the view of the Board, a sufficiently reliable benchmark of commodity prices for a Reference Commodity Product on its own, or where the prices achieved on GlobalDairyTrade for a Reference Commodity Product are not, in the view of the Board, materially representative of the prices Fonterra and its competitors should generally be able to achieve for sales of the Reference Commodity Product, it is necessary to supplement GlobalDairyTrade sales with other sales of Reference Commodity Products entered into by Fonterra. Prices from these supplementary sales will be derived under operating procedures advised to the Board and assuming a contract profile for those sales that complies with policies set by the Board from time to time.

- **FX conversion:** That USD Farmgate Milk Price Revenue will then need to be converted to NZD, giving a NZD Farmgate Milk Price Revenue. The conversion rate used for Farmgate Milk Price Revenue in a month will be Fonterra's volume-weighted average conversion rate for the month, based on foreign exchange hedging contracts Fonterra has in place under its financial risk management policies.

The detailed rules relating to the determination of Farmgate Milk Price Revenues are set out in Section 2 of Part B and Section 1.2 of Part C of the Manual.

## 4.4 FARMGATE MILK PRICE CASH COSTS

The manufacturing and other costs of the Farmgate Milk Price Commodity Business must then be determined. The methodology for determining Farmgate Milk Price Cash Costs reflects the following design rules:

- Consistently with Section 2.3, the calculation of the manufacturing and other cash costs of the Farmgate Milk Price Commodity Business should reflect the costs Fonterra would incur if:
  - All New Zealand-sourced Milk supplied to Fonterra was converted into Reference Commodity Products;
  - Fonterra undertook the level of sales and supporting activities that was consistent with the sale of Reference Commodity Products primarily through GlobalDairyTrade; and
  - Fonterra achieved challenging but attainable performance benchmarks.
- Consistently with Section 2.5, the approach used to derive the Farmgate Milk Price Cash Costs should also ensure that:
  - The costs taken into account in calculating the Farmgate Milk Price are calculated using a process which is transparent and which lends itself to external verification; and
  - The process for determining the costs does not create undue adverse incentives or opportunities for manipulation.
- The Farmgate Milk Price Methodology seeks to determine the manufacturing, maintenance, collection, supply chain and certain other costs of the Farmgate Milk Price Commodity Business. The other costs include amounts to reflect the cost of trading through GlobalDairyTrade or through a sales agent, the cost of meeting any shortfall between actual available lactose and the required lactose for the Farmgate Milk Price Production Plan, Corporate Overheads, laboratory costs, research and development costs, and taxation.
- Farmgate Milk Price manufacturing costs will reflect the costs Fonterra would incur if it did nothing other than manufacture Milk sourced from within New Zealand into Reference Commodity Products, and if Fonterra's manufacturing plants incorporated the technology incorporated in the Standard Plants. In summary, the approach involves the establishment of reasonable provisions for all variable and fixed costs incurred in the manufacture of Reference Commodity Products, with the basis for these provisions contained in financial models maintained at a level of specificity that enables the review and audit of the calculation of each cost taken into account in calculating the Farmgate Milk Price.
- To determine Variable Manufacturing Costs, Resource Usage Rates for each Standard Plant will be set initially at the manufacturer's specified rates, where these are available. Otherwise, they will be set at a rate reflecting Fonterra's optimal achievable actual rate. These rates are subject to review by an Independent Reviewer, who may (for example) set reasonably attainable efficiency targets. Costs of packaging, energy, water, chemicals, consumables, effluent disposal, product testing, product downgrade and on-site storage will be calculated using contracted prices (where relevant), hedged costs (again where relevant), the prior Financial Year's prices adjusted by movements in relevant indices or Fonterra's current Financial Year's budgeted or actual costs.
- A reasonable provision will also be made for Fixed Manufacturing Costs, including labour and employee related costs, which will again be validated by an Independent Reviewer.

- Maintenance costs of the Farmgate Milk Price Commodity Business will be based on actual maintenance costs incurred by Fonterra on sites with assets broadly comparable to those assumed in the Farmgate Milk Fixed Asset Base. A separate provision for fixed costs shall be established by reference to Fonterra's prior year actual costs, if sufficiently accurate information is available. For other costs, a provision shall be established by determining the ratio of Fonterra's actual costs on those sites over the four Financial Years preceding the current Year, to the replacement cost of the fixed assets installed on the relevant sites, and applying that ratio to the aggregate replacement cost of the relevant Reference Assets.
- Actual costs incurred by Fonterra in collecting Milk will be utilised as the collection costs of the Farmgate Milk Price Commodity Business, with adjustments to reflect any material differences between the actual cost incurred by Fonterra in transferring Milk or Milk components between Sites, and the cost for such transfers implied by the Farmgate Milk Price Production Plan and the allocation of Standard Plants to Regions and other Reference Assets to Sites.
- Supply chain costs will comprise the costs Fonterra could reasonably expect to incur if it manufactured the Reference Commodity Products under the Farmgate Milk Price Production Plan, and will reflect (where relevant) Fonterra's actual factory to wharf transport costs and storage costs.
- The Farmgate Milk Price Commodity Business will also be treated as incurring sales costs, calculated as the lesser of the amount that would be charged by an arm's length sales agent and Fonterra's actual selling costs, adjusted to reflect the Farmgate Milk Price Production Plan, including the cost of selling through GlobalDairyTrade.
- The cost of meeting any shortfall between actual available lactose, and the required lactose for the Farmgate Milk Price Production Plan, will be determined using a price for lactose which is representative of the price paid by New Zealand processors for lactose used to standardise milk powders.
- The other overhead costs of the Farmgate Milk Price Commodity Business, including site overheads, research and development costs, general overheads and corporate costs, will be established in every Review Period, based on the budgeted costs of Fonterra in the Review Year, adjusted for differences between budgeted costs and the costs Fonterra could be expected to incur if it only manufactured the Reference Commodity Products, and subject to independent validation. In intervening years, these costs will be increased by the annual movement in an appropriate index, such as the Producers Price Index or the Labour Cost Index, and will be checked for continued reasonableness by the Milk Price Group against movements in Fonterra's actual and budgeted costs, having particular regard to any significant change in Fonterra's overhead costs (such as any change resulting from a restructuring).
- The Farmgate Milk Price Commodity Business will also be treated as incurring certain costs of a non-recurring nature which are not otherwise provided for under a specific Rule, such as costs due to actual milk supply in a Region exceeding the level of processing capacity provided for in that region in the Farmgate Milk Price Fixed Asset Base, or costs arising from a natural disaster.
- Because the Farmgate Milk Price Commodity Business is treated as if it were a standalone business, and because the WACC used to calculate the capital recovery amounts in the Farmgate Milk Price is defined on an after-tax basis, it is necessary in calculating the Farmgate Milk Price to deduct a reasonable provision for the income tax that would be paid by the Farmgate Milk Price Commodity Business.
- To provide assurance on the determination of Farmgate Milk Price Cash Costs, Independent Reviewers will:

- If required, validate, and comment on, the initial financial models prepared to calculate Farmgate Milk Price Cash Costs, and the inputs of each model.
- At the end of each Review Period, validate, and comment on, the revised financial models and inputs prepared by the Milk Price Group.
- In reviewing, and commenting on, the cost inputs of models, expressly review and comment on the costs and performance of Standard Plants relative to Fonterra plants, and the manufacturing performance and targets of the Standard Plants relative to Fonterra plants, and of Fonterra plants relative to external benchmarking data. As a consequence, the Independent Reviewer may set maximum Resource Usage Rates or costs for the following Review Period.

The detailed rules concerning the determination of Farmgate Milk Price Cash Costs are set out in Section 3 of Part B and Section 1.3 of Part C of the Manual.

## 4.5 FARMGATE MILK PRICE CAPITAL COSTS

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The calculation of Farmgate Milk Price Capital Costs reflects the following design rules:

- Consistent with Section 2.3, the calculation of the capital costs of the Farmgate Milk Price Commodity Business should permit Fonterra to generate an after-tax cash return, after paying for Milk, which, subject to Fonterra achieving a benchmark level of performance, is sufficient to:
  - Recover the cost of acquiring the fixed assets in the Farmgate Milk Price Fixed Asset Base; and
  - Yield an after-tax return on both the Farmgate Milk Price Fixed Asset Base, and on an efficient level of net working capital, which provides a fair return to Fonterra on the capital requirements of the Farmgate Milk Price Commodity Business, given the risks borne by it.
- To reflect these design rules, it is necessary to:
  - Identify an initial Farmgate Milk Price Fixed Asset Base which reasonably reflects Fonterra's actual manufacturing asset base, but which is configured to be consistent with the conversion of all Milk collected by Fonterra in New Zealand into Reference Commodity Products;
  - Establish a process for adjusting the Farmgate Milk Price Fixed Asset Base going forward to account for the replacement of assets included in the initial Farmgate Milk Price Fixed Asset Base and changes in required capacity;
  - Establish a methodology for calculating Farmgate Milk Price Net Working Capital in a manner which is consistent with the other components of the Farmgate Milk Price; and
  - Establish a process for calculating a WACC which appropriately reflects the Allocation of Risks.

- This Section summarises the steps involved in calculating the Annual Capital Recovery Amounts in respect of the Fixed Asset Base and Farmgate Milk Price Net Working Capital.
- The Annual Capital Recovery Amount in respect of the Farmgate Milk Price Fixed Asset Base is calculated using the following steps:
  - Initially, determine the number of manufacturing plants Fonterra would require if: (a) all New Zealand-sourced Milk were converted into Reference Commodity Products; (b) Fonterra had only one 'standard' plant configuration for the manufacture of each Reference Commodity Product; and (c) each Standard Plant configuration had a capacity that was materially equivalent to Fonterra's actual average capacity of plant used in the manufacture of the relevant Reference Commodity Product.
  - Determine the installation cost at 31 May 2008 of each Standard Plant, and the economic lives of the major components of the Standard Plant.
  - Allocate sufficient Standard Plants to each of Fonterra's manufacturing sites as would be required to process all Milk expected to be collected by Fonterra in the 2008/2009 Season, while maintaining an appropriate level of buffer capacity, and while broadly aligning (a) where feasible, notional Site capacity with actual capacity and (b) otherwise, notional regional capacity with actual regional capacity.
  - Determine the current installation costs and economic lives of the ancillary assets that would be required by Fonterra on each Site given the volume of milk actually processed at the Site. The allocated Standard Plants and ancillary assets, together with the other assets that would be required by the Farmgate Milk Price Commodity Business, such as milk collection assets and land, represent the initial Farmgate Milk Price Fixed Asset Base.
  - Allocate to each asset included in the initial Farmgate Milk Price Fixed Asset Base a prior Financial Year deemed acquisition date using an approach which results in an even spread of deemed acquisition dates.
  - Determine a deemed acquisition cost for the assets allocated to each prior Financial Year by reference to the replacement costs calculated as at 31 May 2008, and to the total movement in the capital goods price index (or a relevant sub-index or sub-indices thereof) between the deemed acquisition date and 31 May 2008.
  - For each deemed acquisition date, and for each asset class, calculate a stream of annuities which is sufficient to return both a WACC return and a recovery of the initial deemed acquisition cost over the asset's assigned economic life, under the assumption that the annual annuity amounts increase at a rate that is reasonably representative of the expected nominal rate of increase in installation costs. The sum of these annuity amounts is the Annual Capital Recovery Amount on the Farmgate Milk Price Fixed Asset Base.
  - For each Financial Year subsequent to F2008, the Farmgate Milk Price Fixed Asset Base will be adjusted:
    - for the replacement of Reference Assets assumed to have reached the end of their economic lives in the preceding Financial Year;
    - where the relevant tests are satisfied, for the removal or addition of assets to reflect changes in the need for production capacity or the introduction of new technology.



- At the end of each Review Period Fonterra will obtain updated estimates of installation costs, capacity and economic lives for Reference Assets, but these will only be utilised for assets added to the Farmgate Milk Price Fixed Asset Base in the following Review Period.
- During Review Periods, installation costs are adjusted for estimates of movements in the replacement costs of Reference Assets.
- For each Financial Year subsequent to F2012, the Annual Capital Recovery Amounts in respect of milk collection assets (comprising the assets used in the collection of milk, including assets used to concentrate milk prior to final delivery to a manufacturing site, and on-farm vats) will be calculated by reference to the book value of, and depreciation on, the relevant assets of Fonterra, as maintained by Fonterra for financial reporting purposes.
- Calculation of the Annual Capital Recovery Amount in respect of Farmgate Milk Price Net Working Capital involves the following steps:
  - Calculate Farmgate Milk Price Net Working Capital for each month.
  - Calculate the Farmgate Milk Price Net Working Capital Charge as the Monthly WACC multiplied by Opening Farmgate Milk Price Net Working Capital for the month.

The detailed rules concerning the determination of Farmgate Milk Price Capital Costs are set out in Section 4 of Part B and Section 1.4 of Part C of the Manual.

## 4.6 AGGREGATE FARMGATE MILK PRICE

The aggregate price in a Season for Milk supplied to Fonterra in New Zealand will be determined in accordance with the following formula:

$$A - B - C$$

Where:

A is Farmgate Milk Price Revenue,.

B is Farmgate Milk Price Cash Costs.

C is Farmgate Milk Price Capital Costs

This amount is ~~the Farmgate Milk Price~~ the Aggregate Commodity Milk Payments Amount.

The Aggregate Farmgate Milk Price, which is the aggregate amount paid for Valued Components (milk fat and protein) supplied under Fonterra's standard terms of supply, is calculated by deducting from the Aggregate Commodity Milk Payments Amount the following amounts:

- Additional Commodity Milk Payments, comprising certain amounts paid as a premium or discount to the Farmgate Milk Price in respect of Milk that is not supplied under Fonterra's standard terms of supply, and which the Milk Price Panel nonetheless determines would be paid by a Farmgate Milk Price Business which only manufactured the Reference Commodity Products.
- Standard Supply Adjustments, comprising the net amount of any adjustments to payments for Milk supplied under Fonterra's standard terms of supply, such as deductions for milk quality.

In applying these formulae, each item is adjusted to appropriately provide for:

- the impact on the present values of each amount of differences in the timing of receipt of Farmgate Milk Price Revenue and payment of Farmgate Milk Price Costs, Additional Commodity Milk Payments and Standard Supply Adjustment Payments; and
- the deemed timing of Farmgate Milk Price Capital Costs.

~~This is the Farmgate Milk Price. For ease, the Farmgate Milk Price for a Season is divided by Milk Supply in that Season to provide an average price for every kgMS of Milk supplied to Fonterra in New Zealand (the kgMS Farmgate Milk Price).~~

Section 5 of Part B and Section 1.5 of Part C of the Manual set out the detailed rules for the final determination of the Aggregate Farmgate Milk Price.

## 5. ORGANISATIONAL ARRANGEMENTS

### 5.1 OVERVIEW

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This Section sets out the organisational arrangements for the administration of the Manual, and the periodic calculation of both projected and actual Farmgate Milk Prices.

The objectives of these arrangements are to:

- (a) ensure the calculation of projected and actual Farmgate Milk Prices is undertaken in a robust manner which provides sufficient assurance to the Board, Shareholders and other interested parties as to the accuracy of those calculations;
- (b) provide a process to ensure that the Manual remains consistent with the Principles; and
- (c) ensure that the calculation of projected and actual Farmgate Milk Prices, and the ongoing administration of the Manual, is efficient and cost-effective.

### 5.2 GOVERNANCE

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The Board has overall responsibility for the Manual, the calculation of projected and actual Farmgate Milk Prices, and resolving any issues that arise in the interpretation and operation of the Manual. The Board approves all amendments to the Manual.

The Board will establish and maintain a committee to be known as the Milk Price Panel ('**Panel**'), to advise the Board on matters concerning the Manual, including amendments to the Manual. The Panel must comprise five members: two must be appointed directors under the Constitution (one of whom must act as the Chair of the Panel); one must be an elected director under the Constitution; and two must be nominated by the Fonterra Shareholders' Council (and at least one of whom must be independent of the Council).

The Board will determine from time to time a policy governing the administration of the Manual. That policy will (among other things) set out the levels of authority of the Panel, the Milk Price Group, the Chief Executive Officer, the Chief Financial Officer and any other person or group having or requiring authority under the Manual as to any matter relating to the Manual, including without limitation, the determination (and publishing) of projected and actual Farmgate Milk Prices, the exercise of discretions required with respect to the calculation of Farmgate Milk Prices, and recommendations for the refinement and amendment of the Manual.

### 5.3 MILK PRICE GROUP

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The day-to-day administration of the Manual will be carried out by an independent group, to be known as the 'Milk Price Group'. The Board will appoint the head of the Milk Price Group ('MPG Head'), who will be an independent party. In order to enhance the independence of the Milk Price Group, the MPG Head will report to the Panel in relation to all matters, including matters relating to, or arising from, the administration, operation and application of the Manual and the performance of the MPG Head and the Milk Price Group, and to the MPG Head's appointment. The MPG Head will, in consultation with the Chair of the Panel, determine the staffing requirements of the Milk Price Group.

### 5.4 THE ROLE OF THE MILK PRICE GROUP

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The Milk Price Group will operate within the policy set by the Board referred to in Section 5.2. Within that policy, it will act to either undertake the following matters, or recommend to the Board, the Panel, or the Chief Executive Officer or the Chief Financial Officer, as the case may require, the appropriate course of action to be taken with respect to the following matters:

- (a) The determination of both projected and actual Farmgate Milk Prices (and, where appropriate projected and actual Farmgate Milk Price ranges) for provision to the Board and the Panel.
- (b) The provision of such other information concerning the Manual or the Farmgate Milk Price requested by the Board, the Panel or any other committee of the Board, or any advisor to any such committee, or the Chief Executive Officer or the Chief Financial Officer.
- (c) Where the Manual provides for a decision to be made, or an election or discretion to be exercised, the making of that decision, or the exercise of that discretion or election where that is within the authority of the Milk Price Group (with a requirement that the Panel is informed of any such exercise of a material election or discretion), or the making of recommendations to the appropriate decision-maker.
- (d) To periodically validate (at intervals set by the Board, and being no less than once in every Review Period) the administration of the Manual, and the determinations of actual and projected Farmgate Milk Prices which have been made, against the Principles, to determine whether the Manual is satisfying (or could better satisfy) the Principles.
- (e) The appointment, removal and replacement of Independent Reviewers, and to periodically (at intervals set by the Board, and being no less than once in every Review Period or as specifically required by the Manual) seek a review (from an Independent Reviewer, or from Fonterra personnel) as to the derivation of projected or actual Farmgate Milk Prices, or any component of the Farmgate Milk Price, or the administration of all, or of any element, of the Manual.
- (f) To recommend to the Panel amendments to the Manual in order to:
  - (i) remove areas of ambiguity or possible dispute;

- (ii) address circumstances which were unforeseen on the Effective Date of the Manual; or
  - (iii) ensure that the Farmgate Milk Prices calculated in accordance with the Manual, and all other elements of the administration of the Manual, satisfy the Principles.
- (g) To assist the Panel to discharge any duties delegated to the Panel by the Board in respect of Fonterra's obligations under Subpart 5A (Base milk price) of the Dairy Industry Restructuring Act.

## 5.5 ASSURANCE

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The Board will require the Milk Price Group (at such time as required by the Board and being no less than once every Review Period) to seek a review from an Independent Reviewer, or from Fonterra personnel, of the calculation of Farmgate Milk Prices, or any component of the Farmgate Milk Price, and any other element of the administration of the Manual requested by the Board.

Without limiting the preceding paragraph, the Milk Price Group or any other nominee of the Board will:

- (a) seek or arrange for reviews as required by, and at the times set out in, the Manual and, where the reviews are provided to the Milk Price Group or any other nominee of the Board, report the results of those reviews to the Board; and
- (b) provide to the Board, at the same time as it provides to the Board any recommendation as to the Farmgate Milk Price to be determined/published for any Season, a certificate from the Milk Price Group confirming, in the opinion of the Milk Price Group, that the Farmgate Milk Price has been calculated in accordance with the Manual.

## 5.6 RESOURCES

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The physical location of the Milk Price Group, the IT and other systems of the Milk Price Group, and the external advisors (if any) to the Milk Price Group, will be determined in accordance with the policy of the Board referred to in Section 5.2.

## 5.7 INFORMATION

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To fulfil the role described in Section 5.4, the Milk Price Group will require access to information relating to business units within Fonterra including information that may be commercially sensitive to Fonterra. The Milk Price Group will be given access to all information relating to Fonterra's business that is required by it, and will be given the opportunity (if required) to review, verify and test that information.

However, the access to, and use of, commercially-sensitive information by the Milk Price Group will be governed by a protocol approved from time to time by the Board or Panel.

## 6. DISCLOSURE

### 6.1 OVERVIEW

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This Section sets out matters relevant to disclosure of the Farmgate Milk Price Manual and the calculation of the Farmgate Milk Price for a Season.

The objectives of these arrangements are to:

- (a) so far as feasible while preserving Fonterra's legitimate commercial interests, provide transparency with respect to the Rules governing the calculation of the Milk Price and the application of those Rules for a Season; and
- (b) satisfy Fonterra's obligations with respect to the Farmgate Milk Price oversight regime set out in Subpart 5A of the Dairy Industry Restructuring Act 2001.

The primary disclosure mechanisms with respect to the Farmgate Milk Price comprise:

- (a) The Farmgate Milk Price Manual;
- (b) The Farmgate Milk Price Statement, released alongside Fonterra's Annual Report;
- (c) The Report prepared each year by Fonterra under section 150L of the Dairy Industry Restructuring Act 2001, which among other things certifies to the Commerce Commission the extent to which Fonterra considers the Farmgate Milk Price Manual is consistent with the purpose of Subpart 5A of the Dairy Industry Restructuring Act; and
- (d) The Report prepared each year by Fonterra under section 150T of the Dairy Industry Restructuring Act 2001, which among other things certifies to the Commerce Commission the extent to which Fonterra considers the assumptions adopted and the inputs and process used by Fonterra in calculating the Farmgate Milk Price for the relevant Season are consistent with the purpose of Subpart 5A of the Dairy Industry Restructuring Act 2001.

## 6.2 DISCLOSURE OF THE FARMGATE MILK PRICE MANUAL

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The Farmgate Milk Price Manual will be publicly disclosed on Fonterra's website.

## 6.3 FARMGATE MILK PRICE STATEMENT

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The Farmgate Milk Price Statement with respect to the Farmgate Milk Price for a Year will be publicly disclosed, on or around the date that Fonterra releases its financial results for that Year.

The Farmgate Milk Price Statement must contain disclosures [for the relevant Season](#) with respect to:

(a) \_\_\_\_\_ The total ~~amount~~ of the [Aggregate Farmgate Milk Price](#), [Standard Supply Adjustments](#) and [Additional Commodity Milk Payments](#), comprising the aggregate minimum payment ~~for Milk~~ calculated under the Manual) ~~for the relevant Season~~;

~~(a)(b)~~ \_\_\_\_\_ [the Farmgate Milk Price](#);

~~(b)(c)~~ \_\_\_\_\_ Fonterra's total New Zealand supply of Milk ~~for that Season~~ and total assumed production of each Reference Product ~~for that Season~~;

~~(c)(d)~~ \_\_\_\_\_ the material components of Farmgate Milk Price Revenue ~~for the Season~~, including average prices for each Reference Product, information on sales phasing and contract tenor, and information on average USD-: NZD conversion rates, and a comparison of each component to the prior Season;

~~(d)(e)~~ \_\_\_\_\_ the aggregate amount of cash costs and capital costs per kilogram of milksolids, and an explanation of sources of movement in these costs relative to the prior Season;

~~(e)(f)~~ \_\_\_\_\_ a summary of amendments to the Manual since the previous Farmgate Milk Price Statement, and information on the impact of those amendments on the quantum of the Farmgate Milk Price;

~~(f)(g)~~ \_\_\_\_\_ any change in the application of the Manual that has a material impact on the quantum of the Farmgate Milk Price;

~~(g)(h)~~ \_\_\_\_\_ the materiality threshold applied with respect to item ~~(g)~~; and

~~(h)(i)~~ \_\_\_\_\_ confirmation from Fonterra's external auditor with respect to the compliance of the calculation of the [Aggregate Farmgate Milk Price](#) for the relevant Season with the Manual and the accuracy of the information reported in the Farmgate Milk Price Statement.



## 6.4 REPORTS REQUIRED UNDER THE DAIRY INDUSTRY RESTRUCTURING ACT

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Fonterra will make publicly available, modified where necessary to protect the disclosure of information that would be prejudicial to Fonterra's legitimate commercial interests, the Reports prepared for a Year by Fonterra under:

- (a) Section 150L of the Dairy Industry Restructuring Act which, among other things, certifies to the Commerce Commission the extent to which Fonterra considers the Manual is consistent with the purpose of Subpart 5A of the Dairy Industry Restructuring Act 2001; and
- (b) Section 150T of the Dairy Industry Restructuring Act 2001 which, among other things, certifies to the Commerce Commission the extent to which Fonterra considers the assumptions adopted and the inputs and process used by Fonterra in calculating the Farmgate Milk Price for the relevant Season are consistent with the purpose of Subpart 5A of the Dairy Industry Restructuring Act 2001.



# FARMGATE MILK PRICE MANUAL – PART B: DETAILED METHODOLOGY

EFFECTIVE DATE: 1 August 20187

# 1. THE FARMGATE MILK PRICE COMMODITY BUSINESS

## 1.1 DETAILED RULES

Table 1.1 sets out the detailed rules underpinning the definition of the Farmgate Milk Price Commodity Business.

**Table 1.1: Farmgate Milk Price Commodity Business – detailed rules**

		<b>Objective</b>	<b>Rule</b>
1	Volume of milk processed	The Farmgate Milk Price Commodity Business will manufacture all milk collected in New Zealand by Fonterra into Reference Commodity Products.	The Farmgate Milk Price Production Plan calculation will reflect all Milk collected by Fonterra in New Zealand, including Milk sold to third party processors in accordance with DIRA. An implication of this provision is that any difference between the Farmgate Milk Price and the price received by Fonterra for milk supplied to third party processors in accordance with Fonterra's obligation under DIRA to supply Milk to third party processors will accrue to Fonterra.
2	Initial Reference Basket	The initial basket of Reference Commodity Products which is taken into account in deriving Farmgate Milk Price Revenue should reflect the Products that would be produced as a result of the likely investment decisions of an efficient near-term competitor to Fonterra for raw milk in New Zealand.	The Initial Reference Basket will comprise standard specification commodity product manufactured from four 'base' milk powder streams, comprising four combinations of WMP or SMP, Butter or AMF, and BMP.
3	Subsequent revisions to Reference Basket	The Reference Basket must be revised if Fonterra faces an actual or likely material and sustainable level of actual or potential future competition for Milk in New Zealand from producers of other than Reference Commodity Products.	Additional or replacement Reference Commodity Products may be included in the Reference Basket. A Reference Commodity Product may only be: <ul style="list-style-type: none"> <li>▪ Removed from the Reference Basket if: <ul style="list-style-type: none"> <li>○ Fonterra does not face a material and sustainable level of likely future competition for Milk in New Zealand from producers of the Reference Commodity Product; and</li> <li>○ Removal of the product is expected to result in a higher Farmgate Milk Price on average over the remaining economic life of any associated assets that would be removed from the</li> </ul> </li> </ul>

		<b>Objective</b>	<b>Rule</b>
			<p>Farmgate Milk Price Fixed Asset Base, having regard to any adjustments required under Rule 30.</p> <ul style="list-style-type: none"> <li>▪ Added to the Reference Basket if: <ul style="list-style-type: none"> <li>○ Fonterra faces a material and sustainable level of likely future competition for Milk in New Zealand from producers of the Reference Commodity Product, and</li> <li>○ Addition of the product is expected to result in a higher Farmgate Milk Price on average over the economic life of any additional assets required to manufacture the product.</li> </ul> </li> </ul> <p>The combination of Reference Commodity Products included in the Reference Basket must be consistent with the conversion of all milk components collected by Fonterra into Reference Commodity Products.</p>
4	Sale for delivery to NZ wharf	The boundaries of the Farmgate Milk Price Commodity Business should facilitate performance benchmarking to external comparisons.	The Farmgate Milk Price Commodity Business will sell all its product on arm's length terms for delivery to the New Zealand wharf on a FAS-equivalent basis.
5	Sales through GDT	The revenues of the Farmgate Milk Price Commodity Business should reflect externally verifiable FAS-equivalent prices.	<p>If the Board determines that it is appropriate to place sole reliance on Benchmark Selling Prices achieved on GDT, the Farmgate Milk Price Commodity Business's selling prices will be determined solely by reference to prices achieved by Fonterra on the sale of product on GDT.</p> <p>In determining whether it is appropriate to place sole reliance on Benchmark Selling Prices achieved on GDT in respect of a particular Reference Commodity Product, the Board will have regard to:</p> <ul style="list-style-type: none"> <li>▪ The volume of the Reference Commodity Product traded on GDT relative to the total volume of the Reference Commodity Product sold by Fonterra.</li> <li>▪ Any factors relevant to determining whether the prices achieved on GDT can be considered to be materially representative of the prices Fonterra (and its competitors) should generally be able to achieve for Qualifying Materials traded on terms comparable to those typically provided by sellers of those products.</li> </ul>

## 2. FARMGATE MILK PRICE REVENUE

### 2.1 DETAILED RULES

Table 2.1 sets out the detailed rules underpinning the calculation of Farmgate Milk Price Revenue.

**Table 2.1: Farmgate Milk Price Revenue – detailed rules**

		<b>Rule</b>	<b>Application</b>
6	Farmgate Milk Price Production Plan	<p>The Farmgate Milk Price Production Plan should:</p> <ul style="list-style-type: none"> <li>▪ Be feasible given the configuration of the Farmgate Milk Price Fixed Asset Base.</li> <li>▪ Result in the conversion of all Milk Supply into Reference Commodity Products.</li> <li>▪ Be consistent with the objective of maximising the <u>sum of the Aggregate of the</u> Farmgate Milk Price and the profits of the Farmgate Milk Price Commodity Business, having regard to the relative returns of different Reference Commodity Products.</li> <li>▪ Result in Fonterra facing strong incentives to optimise its Product Mix.</li> </ul>	<p>The Farmgate Milk Price Production Plan:</p> <ul style="list-style-type: none"> <li>▪ Will be calculated to utilise all Milk Supply (including all Milk sold in liquid form by Fonterra), given the product yields established under Rule 8.</li> <li>▪ Should reasonably reflect Fonterra's actual allocation of milk to different Reference Commodity Products, subject to that allocation being commercially supportable by reference to relevant information available at the time the allocation is made.</li> <li>▪ Will be calculated to be feasible given the composition of the Farmgate Milk Price Fixed Asset Base.</li> </ul>
7	Product Yields	<p>The yield factors used to convert Milk Supply into the Farmgate Milk Price Production Plan will reflect the composition of standard specification commodity product and a target level of losses that is subject to independent verification.</p>	<p>The yield assumptions used to determine the Farmgate Milk Price Production Plan for a Season will reflect:</p> <ul style="list-style-type: none"> <li>▪ The Composition Target for each Reference Commodity Product; and</li> <li>▪ The Allowable Yield Losses for each Reference Commodity Product.</li> </ul> <p>The yield assumptions will be subject to review by an independent expert in each Review Year.</p>
8	Benchmark Selling Prices	<p>Benchmark Selling Prices should:</p> <ul style="list-style-type: none"> <li>▪ Reflect actual prices realised by Fonterra on sale on a FAS-equivalent basis of standard quality Commodity Product across a range of contract</li> </ul>	<p>If the Board considers the conditions set out in Rule 5 have been satisfied, the Benchmark Selling Price for a month for a Reference Commodity Product will be calculated solely by reference to prices achieved on GDT for product which is invoiced in the month.</p>

		<p>terms which is consistent with prevailing market conventions;</p> <ul style="list-style-type: none"> <li>▪ Result in Fonterra facing strong incentives to optimise its Product Mix; and</li> <li>▪ Result in Fonterra facing strong incentives to maximise its Selling Prices.</li> </ul>	<p>If these conditions are not satisfied in respect of a Reference Commodity Product, the Benchmark Selling Price for a month for the Reference Commodity Product will be calculated by reference to the prices achieved by Fonterra in respect of sales of the product in that month that satisfy the conditions set out in items 2 and 3 of the definition of Qualifying Reference Sales.</p>
9	Farmgate Milk Price Sales Phasing	<p>Fonterra should bear the risks and returns from any decision to not sell product in the month in which the expected sales value, net of holding costs, would be maximised.</p>	<p>The Farmgate Milk Price Sales Phasings map sales by month of production onto month of sale. The Sales Phasings must be set on a prospective basis during the course of a Year, and must reflect the overriding principle that product is to be sold in the month in which it is expected (at the time the phasings are set) the Farmgate Milk Price Commodity Business would maximise the sales value, net of holding costs.</p> <p>Subject to the following paragraph, the Farmgate Milk Price Sales Phasings for each Reference Commodity Product will be aligned to Fonterra's actual phasing of sales of each product manufactured from milk supplied in the Season.</p> <p>The Board may prospectively impose alternative Sales Phasings if it has reasonable cause to consider that Fonterra's actual phasing of sales is not consistent with the overriding principle. An alternative set of Sales Phasings must:</p> <ul style="list-style-type: none"> <li>▪ Be prospective.</li> <li>▪ Reflect a presumption that product is to be shipped as soon as is feasible after the month in which the product is manufactured and ready for sale, modified where required to attain consistency with the overriding principle. (It may, for example, be appropriate to defer sales if the market would not have the capacity to absorb the volumes at issue without a material adverse impact on realised prices.)</li> </ul>

10	Conversion of USD revenue to NZD	Because the management and execution of Fonterra's actual hedging activities are governed by an established Financial Risk Management framework, it is appropriate to convert Farmgate Milk Price USD Receipts to NZD at Fonterra's actual average economic conversion rate.	<p>The process for converting USD revenue in respect of a Season to NZD shall reflect the following process:</p> <ul style="list-style-type: none"> <li>▪ Farmgate Milk Price USD Receipts for each month will be calculated by reference to Farmgate Milk Price US Dollar Commodity Revenue and Farmgate Milk Price Revenue Days</li> <li>▪ Farmgate Milk Price NZD Receipts for the month will be calculated by multiplying Farmgate Milk Price USD Receipts by the Benchmark FX Conversion Rate for the month.</li> </ul> <p>The Benchmark FX Conversion Rate for a month is the average rate at which Fonterra actually converts net receipts denominated in any currency other than NZD to NZD in the month, specified as a ratio of USD to NZD and calculated with regard to all costs and benefits of Fonterra's hedging activities in respect of amounts converted in that month.</p>
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### 3. FARMGATE MILK PRICE CASH COSTS

#### 3.1 DETAILED RULES

Table 3.1 sets out the detailed rules for the calculation of Farmgate Milk Price Cash Costs.

**Table 3.1: Farmgate Milk Price Cash Costs - detailed rules**

		<b>Objective</b>	<b>Rule</b>
11	Farmgate Milk Price Cash Costs	<p>Costs taken into account in calculating the Aggregate Farmgate Milk Price should:</p> <ul style="list-style-type: none"> <li>▪ Reflect the Variable Manufacturing Costs and Fixed Manufacturing Costs that Fonterra could reasonably be expected to incur if it manufactured the Reference Commodity Products included in the Farmgate Milk Price Production Plan; and</li> <li>▪ Reflect the other cash costs, including Milk Collection Costs, Overhead Costs, and Supply Chain Costs, that would reasonably be incurred by Fonterra if it only manufactured Reference Commodity Products to the Farmgate Milk Price Production Plan for sale on GDT and for delivery to a New Zealand wharf.</li> </ul>	<p>The Milk Price Group will maintain financial models at a level of specificity that enables the review and audit of the calculation of each cost taken into account in calculating the Aggregate Farmgate Milk Price for a Year.</p> <p>These models will:</p> <ul style="list-style-type: none"> <li>▪ Reflect the Variable Manufacturing Costs of manufacturing Reference Commodity Products (comprising those costs which vary materially with changes in the amount of Milk collected, production volumes or Product Mix, where such changes are within the limits which Fonterra might normally expect to experience in the course of a four year period) given the allocation of Standard Plants to Regions and other Assets to Sites.</li> <li>▪ Reflect the indirect costs and overhead costs (excluding capital costs) that Fonterra could reasonably be expected to incur at each Site if the Site only manufactured the Reference Commodity Products.</li> </ul> <p>The Milk Price Group will also maintain appropriate models for the calculation of the provisions for overhead costs (including corporate costs) and supply chain costs to be deducted in calculating the Farmgate Milk Price.</p>
12	Variable Manufacturing Costs	<p>The Farmgate Milk Price Commodity Business may recover the Variable Manufacturing Costs that it could reasonably be expected to incur if it manufactured the Reference Commodity Products to the Farmgate Milk Price Production Plan.</p>	<p>In calculating the Aggregate Farmgate Milk Price a reasonable provision for Variable Manufacturing Costs shall be deducted, calculated for each category of cost by reference to the Resource Usage Rate and the Unit Resource Cost.</p> <p>Initial Resource Usage Rates for each Standard Plant:</p>



		Objective	Rule
			<ul style="list-style-type: none"> <li>▪ Will be set at the manufacturer’s specified rates (where available), subject to confirmation by an Independent Reviewer that these rates reasonably reflect achievable usages; and</li> <li>▪ Will otherwise reflect optimal rates achievable by Fonterra, having regard to the specification of each Standard Plant, the Product Specification for each Reference Commodity Product, and the Farmgate Milk Price Production Plan, and subject to sign-off by an Independent Reviewer.</li> </ul> <p>Resource Usage Rates for each Standard Plant and for each Reference Commodity Product will subsequently be updated in each Review Year. The updated Resource Usage Rates will be subject to sign-off by an Independent Reviewer that the Resource Usage Rates reasonably reflect optimal achievable usages having regard to:</p> <ul style="list-style-type: none"> <li>▪ The specification of the Standard Plants and the Standard Plant asset footprint;</li> <li>▪ The Product Specification for each Reference Commodity Product;</li> <li>▪ The length of production runs expected to be reflected in the Farmgate Milk Price Production Plans over the next Review Period;</li> <li>▪ The manufacturer’s specified usages; and</li> <li>▪ Any other information considered relevant by the Independent Reviewer, including Fonterra-specific benchmark information and the manufacturing KPIs established for Fonterra plants.</li> </ul> <p>Resource Usage Rates may be adjusted during a Review Period in the event of a Within-Period Review, and the adjusted rates will be subject to sign-off by an Independent Reviewer.</p> <p>The Independent Reviewer may specify different Resource Usage Rates for each Year in a Review Period, either to reflect changes in the composition of the Farmgate Milk Price Fixed Asset Base over the Review Period or to reflect target efficiency improvements that the Independent Reviewer considers would be reasonably attainable in an efficiently operated plant.</p> <p>Allowable Unit Resource Costs will comprise whichever of the following that the Milk Price Group determines to be appropriate:</p> <ul style="list-style-type: none"> <li>▪ Contracted rates, where applicable; or</li> </ul>

		<b>Objective</b>	<b>Rule</b>
			<ul style="list-style-type: none"> <li>▪ For resource costs which can be fully hedged before the start of a Financial Year, the cost that would be incurred if the Farmgate Milk Price Commodity Business had hedged the cost; or</li> <li>▪ Fonterra's prior Financial Year average unit resource rate adjusted by the percentage movement in a relevant Statistics NZ index between the middle of the previous Financial Year and the middle of the current Financial Year; or</li> <li>▪ Fonterra's budgeted average resource rate for the Year; or</li> <li>▪ Fonterra's actual average unit resource rate for the Year; or</li> <li>▪ If the Milk Price Group determines that an estimate based on any of the preceding methods may not be sufficiently reliable, a provision based on any other method that the Milk Price Group determines will provide a reasonable estimate of the cost that would be incurred by an efficient commodity manufacturer.</li> </ul> <p>The following categories of costs are included within the definition of Variable Manufacturing Costs: energy, water, chemicals, consumables, effluent, product testing, packaging, and product downgrade. However, to the extent any material portion of these costs does not vary significantly with production volumes, that portion is included in Fixed Manufacturing Costs.</p>
13	Fixed Manufacturing Costs	The Farmgate Milk Price Commodity Business may recover the Fixed Manufacturing Costs that it could reasonably be expected to incur if it manufactured the Reference Commodity Products to the Farmgate Milk Price Production Plan.	<p>In calculating the Aggregate Farmgate Milk Price a reasonable provision for Fixed Manufacturing Costs shall be deducted. This provision will be subject to review by an Independent Reviewer in each Review Assessment Year and in any other Year in which there is a material change in the approach taken to calculating the provision.</p> <p>Fixed Manufacturing Costs comprise Direct Manufacturing Labour and Employee Related Expenses, Repairs and Maintenance Costs and any material portion of costs that does not vary materially with production volumes and that would otherwise have been included in the definition of Variable Manufacturing Costs.</p>
14	Repairs and Maintenance Costs	The Farmgate Milk Price Commodity Business may recover a reasonable provision for the costs of repairing and maintaining the Farmgate Milk Price Fixed Asset Base to the standard implied in an Independent Reviewer's selection of economic lives for these Assets.	<p>In calculating the Aggregate Farmgate Milk Price a reasonable provision for Repairs and Maintenance Costs shall be deducted, calculated as follows:</p> <ul style="list-style-type: none"> <li>▪ For Maintenance Department Labour Costs, a provision calculated by reference to Fonterra's actual prior-year costs, adjusted where</li> </ul>

		Objective	Rule
			<p>appropriate for inflation and differences in the characteristics of Fonterra's fixed assets and the Farmgate Milk Price Fixed Asset Base;</p> <ul style="list-style-type: none"> <li>▪ For other costs, the amount</li> </ul> <p>A x B</p> <p>where</p> <p>A is the ratio of Fonterra's average expenditure over the preceding four years on repairs and maintenance with respect to the fixed assets on manufacturing sites that have fixed assets that are broadly comparable to those assumed in the Farmgate Milk Price Fixed Asset Base to the average assessed replacement cost of those assets (but excluding any labour costs provided for in the immediately preceding calculation); and</p> <p>B is the current-year assessed replacement cost of the assets, other than milk collection fixed assets and dry stores fixed assets, included in the Farmgate Milk Price Fixed Asset Base.</p> <p>Consistent methods and assumptions are to be used to determine the average assessed replacement costs of the Fonterra fixed assets referred to in item A and the assessed replacement costs of the Farmgate Milk Price fixed assets referred to in item B. This Rule does not apply to repairs and maintenance costs associated with milk collection fixed assets, which are to be calculated under Rule 15 (Milk Collection Costs), or dry stores fixed assets, which are calculated under Rule 20 (Supply Chain).</p>
15	Milk collection costs	The Farmgate Milk Price Commodity Business may recover Fonterra's actual Milk Collection costs, adjusted for any material differences between actual costs and the costs that would have been incurred by Fonterra if it only manufactured Reference Commodity Products according to the Farmgate Milk Price Production Plan and the allocation of Reference Assets to Sites.	In calculating the Farmgate Milk Price Fonterra's actual milk collection costs for a Year shall be deducted, adjusted for any difference between the actual cost to Fonterra of diverting product between Sites and the diversion costs implied by the Farmgate Milk Price Production Plan and the allocation of Reference Assets to Sites if the difference is material to either the <a href="#">Aggregate</a> Farmgate Milk Price or to Fonterra's earnings after paying for Milk at the Farmgate Milk Price.

		<b>Objective</b>	<b>Rule</b>
16	Lactose	The Farmgate Milk Price Commodity Business may recover the cost of purchasing any shortfall between available lactose and required lactose for the Farmgate Milk Price Production Plan at a reasonable estimate of prevailing global prices.	<p>In calculating the Aggregate Farmgate Milk Price a provision for the cost of purchasing any shortfall between available lactose and required lactose for the Farmgate Milk Price Production Plan, shall be deducted, calculated as the product of:</p> <ul style="list-style-type: none"> <li>▪ Lactose Requirements, and</li> <li>▪ Relevant costs, comprising an appropriate estimate of the Lactose Price converted to NZD at the Benchmark FX Conversion Rate, and any additional costs that might reasonably be incurred in transporting the Lactose Requirements to Fonterra's Sites, each expressed in NZD per MT.</li> </ul> <p>The Lactose Price for the Season will be set equal to either the volume weighted average price declared to New Zealand Customs by Fonterra or the volume weighted average price declared to New Zealand Customs by other New Zealand processors, as reported by Statistics New Zealand, for lactose imported into New Zealand over a 12 month period that reasonably approximates the period over which the Farmgate Milk Price Commodity Business could be expected to import its Lactose Requirements for the Season. The MPG will determine which of these prices will be used prior to the commencement of the Season, based on the MPG's assessment of which volume weighted average price is likely to be lower.</p> <p>The calculation of Lactose Requirements for a Season shall appropriately reflect:</p> <ul style="list-style-type: none"> <li>▪ The Farmgate Milk Price Production Plan for the Season, as finalised at the end of the Season.</li> <li>▪ The composition of all Milk Collected in the Season.</li> <li>▪ The Composition Target for each Reference Commodity Product.</li> <li>▪ Supportable assumptions in respect of all other matters material to the calculation, including provisions for losses and for the moisture content of Lactose.</li> </ul>
17	Sales Cost	The costs of the Farmgate Milk Price Commodity Business should not exceed the lesser of (a) the costs Fonterra would incur if it sold the product implied by the Farmgate Milk Price Production Plan on an arm's length basis through a sales agent and (b) the selling costs	The Sales Cost is to be calculated by reference to the costs Fonterra could reasonably be expected to incur if it converted all milk into standard specification Reference Commodity Products, and where feasible sold those products through <a href="#">Global Dairy Trade GDT</a> , but shall not exceed the amount that would be incurred by a manufacturer of Reference

		<b>Objective</b>	<b>Rule</b>
		actually incurred by Fonterra, adjusted to reflect the Farmgate Milk Price Production Plan and having regard to any cost reductions achievable through the extension of <a href="#">GlobalDairyTradeGDT</a> .	<p>Commodity Product that paid an arm's length commission to a sales agent in respect of all costs incurred beyond the New Zealand wharf. Subject to this constraint, the Sales Cost should reasonably reflect:</p> <ul style="list-style-type: none"> <li>▪ The need to maintain the sales channels implied by the composition of the Qualifying Reference Sales, including costs incurred in stimulating customer interest in procuring product through GDT and other channels, and in servicing customers.</li> <li>▪ The volume of each Reference Commodity Product that is assumed to be sold through each of those sales channels.</li> <li>▪ An assumption that the Farmgate Milk Price Commodity Business participates as a third party seller on GDT.</li> <li>▪ A reasonable provision for credit risk and any other risks customarily assumed by a seller of Qualifying Materials, with such provision not to exceed the cost of paying a third party to assume these risks.</li> </ul>
18	Other costs, including site overheads, general overhead costs, and R&D costs	The Farmgate Milk Price Commodity Business may recover a reasonable provision in respect of any other costs that it could reasonably be expected to incur if it only undertook the activities performed by the Farmgate Milk Price Commodity Business, including expenditure on Site Overheads, General Overheads, Information Systems, and Research and Development.	<p>In calculating the Farmgate Milk Price reasonable provisions for Site Overheads, Research and Development Costs, Information Systems costs and General Overheads that Fonterra could reasonably be expected to incur if Fonterra only undertook the activities performed by the Farmgate Milk Price Commodity Business, but which are not subject to a specific rule, shall be deducted.</p> <p>These costs are to be apportioned into two categories, comprising:</p> <ul style="list-style-type: none"> <li>▪ Costs that can reasonably be anticipated to be relatively constant across time.</li> <li>▪ Costs that are likely to vary across time to the extent that inflation-indexation is not appropriate.</li> </ul> <p>In a Review Assessment Year reasonable provisions for costs falling in the first category will be determined for the following Review Year. These provisions will be subject to review by an Independent Reviewer. Each initial provision will be indexed for each remaining year in the Review Period to whichever of the Producers Price Index and the Labour Cost Index is most appropriate.</p> <p>A provision for costs falling in the second category will only be deducted in the calculation of the Farmgate Milk Price where the Milk Price Group is satisfied as to the reasonableness of the provision.</p>

		<b>Objective</b>	<b>Rule</b>
			<p>In establishing a provision for Research and Development Costs, regard should be had to:</p> <ul style="list-style-type: none"> <li>▪ Fonterra's actual research and development spend in respect of its Farmgate Milk Price Commodity Business;</li> <li>▪ Any target efficiency improvements specified by an Independent Reviewer; and</li> <li>▪ The extent to which Fonterra's actual research and development expenditure can be expected to result in a reduction in the costs deducted in calculating the Farmgate Milk Price.</li> </ul>
19	Non-recurring costs	The Farmgate Milk Price Commodity Business may recover a reasonable provision in respect of any non-recurring costs that it could reasonably be expected to incur if it only undertook the activities performed by the Farmgate Milk Price Commodity Business, and which are not provided for under any other Rule.	<p>In calculating the Farmgate Milk Price a provision for costs of a non-recurring nature shall be deducted where Fonterra could reasonably be expected to incur those costs given the Farmgate Milk Price Production Plan, Farmgate Milk Price Sales Phasing and Site Footprint, to the extent that the costs are not otherwise provided for (whether on an ex ante or ex post basis) under any other Rule.</p> <p>By way of example only, costs that may be deducted under this provision include:</p> <ul style="list-style-type: none"> <li>▪ Costs (including foregone revenue) incurred as a result of actual milk supply in a Region exceeding the level of processing capacity for that Region provided for in the Farmgate Milk Price Fixed Asset Base.</li> <li>▪ Costs that could reasonably be expected to have been incurred by the Farmgate Milk Price Business as a consequence of a natural disaster.</li> </ul>
20	Supply chain	The Farmgate Milk Price Commodity Business may recover the Supply Chain Costs that it could reasonably be expected to incur given the Farmgate Milk Price Production Plan, benchmark Sales Phasing and Site footprint.	<p>In calculating the Farmgate Milk Price a provision for the costs Fonterra could reasonably be expected to incur given the Farmgate Milk Price Production Plan, Farmgate Milk Price Sales Phasing and Site Footprint shall be deducted.</p> <p>This provision will appropriately provide for the following costs, having regard to the Farmgate Milk Price Production Plan, Farmgate Milk Price Sales Phasings, Site Footprint and any other relevant characteristics of the Farmgate Milk Price Commodity Business:</p> <ul style="list-style-type: none"> <li>▪ Factory to wharf transport costs (Freight Costs);</li> <li>▪ Storage Costs;</li> <li>▪ Supply Chain Overhead costs; and</li> </ul>

		Objective	Rule
			<ul style="list-style-type: none"> <li>▪ Any other supply chain-related costs (Minor Supply Chain Costs) that the Farmgate Milk Price Commodity Business could reasonably be expected to incur.</li> </ul> <p>All items other than the provision for Minor Supply Chain and supply chain-related overhead costs will be established by reference to Fonterra's actual costs for the relevant Year. Reasonable provisions for Minor Supply Chain and Supply Chain Overhead costs will be established in each Review Assessment Year for the following Review Year. In intervening years, the provision will be set equal to the prior year's provision indexed by the Producers Price Index.</p> <p>An Independent Reviewer will review the reasonableness of the provision for Minor Supply Chain costs and Supply Chain Overhead costs in each Review Year.</p>
21	Farmgate Milk Price tax recovery	The Farmgate Milk Price Commodity Business may recover a provision for tax on the Farmgate Milk Price Taxable EBIT.	<p>In calculating the Farmgate Milk Price a provision will be deducted for the amount of income tax (the Farmgate Milk Price Tax Recovery) that the Farmgate Milk Price Commodity Business could reasonably have expected to have paid if:</p> <ul style="list-style-type: none"> <li>▪ It only manufactured Reference Commodity Products for sale on GDT and for delivery to a New Zealand wharf;</li> <li>▪ The Farmgate Milk Price Commodity Business were operated on a standalone basis; and</li> <li>▪ The profits of the Farmgate Milk Price Commodity Business were not deductible on distribution to its owners.</li> </ul>
22	Benchmark Data	Fonterra will make available to the Milk Price Group information on actual factory and site performance which can be used to benchmark the equivalent Standard Plant performance.	Fonterra will establish an annual internal audit programme designed to generate data on actual Resource Usage Rates and yield performance of Fonterra plants used to manufacture the Reference Commodity Products. This programme will be subject to MPG approval.
23	Role of Independent Reviewer in assessing reasonableness of Farmgate Milk Price Cash Costs	The assessment of Farmgate Milk Price Cash Costs will be subject to independent review and sign-off.	<p>In each Review Year, the assessment of Farmgate Milk Price Cash Costs, and the methodologies and systems (including the financial models) established to calculate Farmgate Milk Price Cash Costs in the following Review Period, will be reviewed by an Independent Reviewer.</p> <p>In exceptional circumstances during a Review Period, a Within-Period Review may be initiated, at which time an Independent Reviewer would be engaged to undertake all or some of the reviews that would be undertaken in a Review Year, with the outcomes of those reviews</p>

		<b>Objective</b>	<b>Rule</b>
			<p>applying prospectively to the remaining Years in the Review Period. A Within-Period Review should be initiated if there is reason to believe that the costs allowed in calculating the Farmgate Milk Price would not, in the absence of a review, accurately reflect the actual costs that Fonterra would incur if it manufactured the Reference Commodity Products using currently appropriate technology to anticipated Farmgate Milk Price Production Plans over the balance of the Review Period, and the difference between allowable and actual costs would be material to either the <a href="#">Aggregate</a> Farmgate Milk Price or to Fonterra's earnings after paying for Milk at the Farmgate Milk Price. Such circumstances might include the introduction of significant new technology or a material change in relevant legislation or regulations.</p>



## 4. FARMGATE MILK PRICE CAPITAL COSTS

### 4.1 DETAILED RULES

Table 4.1 sets out the detailed rules for the calculation of Farmgate Milk Price Capital Costs.

**Table 4.1: Farmgate Milk Price Capital Costs - detailed rules**

		Objective	Rule
24	Farmgate Milk Price Fixed Asset Base	The Farmgate Milk Price Fixed Asset Base will comprise the fixed assets required by the Farmgate Milk Price Business, given the volume of milk processed by the business, the Reference Basket and the Site Footprint.	<p>The Farmgate Milk Price Fixed Asset Base will comprise:</p> <ul style="list-style-type: none"> <li>▪ Standard Plants which are reasonably representative of the average capacity of the Fonterra plants used to produce Reference Commodity Products;</li> <li>▪ Ancillary Assets, comprising the site services and other 'on site' assets required to process the total volume of milk collected by Fonterra and manufacture it into Reference Commodity Products, on the assumption that the volume of milk that can be processed at each Farmgate Milk Price site is materially equivalent to the volume of milk Fonterra is actually able to process at the site;</li> <li>▪ The dry stores required to store the product manufactured under the Milk Price Production Plan;</li> <li>▪ The assets required to store milk on farm prior to collection, to collect and deliver milk to sites, and to transfer milk between sites;</li> <li>▪ The Information System Assets that would reasonably be required by a manufacturer of the Farmgate Milk Price Product Mix; and</li> <li>▪ The land required for manufacturing purposes at Fonterra's manufacturing sites.</li> </ul>
25	Standard Plants and other Reference Assets	<ul style="list-style-type: none"> <li>▪ The installation cost and specification of new and replacement Reference Assets, reflecting current and appropriate technology, will be determined in each Review Assessment Year.</li> </ul>	<p>As at 31 May 2008, and subsequently as at 31 May in each Review Year:</p> <ul style="list-style-type: none"> <li>▪ A Standard Plant will be specified for the manufacture of each initial Reference Commodity Product, and one or more independent reputable engineering firms in the business of supplying major dairy manufacturing equipment and turn-key project management will be commissioned to provide an assessment of the cost of installing each Standard Plant</li> </ul>

		Objective	Rule
			<ul style="list-style-type: none"> <li>▪ The Ancillary Assets required for the manufacture of the Farmgate Milk Price Product Mix and implied by (a) the volume of milk actually processed by Fonterra at each Site and (b) the requirement to process milk collected by Fonterra that is not processed at a manufacturing site, will be specified, and an estimate of the current cost of installing the ancillary assets will be obtained.</li> <li>▪ An assessment of the current cost of installing additional dry storage capacity, in units applicable to the Farmgate Milk Price business, will be obtained.</li> <li>▪ The Information System Assets that would reasonably be required by a manufacturer of the Farmgate Milk Price Product Mix will be determined.</li> </ul> <p>The Reference Assets will incorporate current and appropriate technology.</p> <p>An Independent Reviewer will:</p> <ul style="list-style-type: none"> <li>▪ Determine which engineering firm's assessment will be used in calculating the Farmgate Milk Price;</li> <li>▪ Assess the reasonableness and completeness of the costing information and technical solutions supplied by the selected firm;</li> <li>▪ Provide an assessment of the economic life of each major component of each Reference Asset; and</li> <li>▪ Provide an estimate of a reasonable provision for, and the timing of, such future capital expenditure as can reasonably be anticipated as being required to maintain the asset's productive capacity for its projected economic life (but excluding any allowance for maintenance costs which will be allowed as a Farmgate Milk Price deduction). The present value of this amount is to be added to the replacement cost of the asset in undertaking the annuity calculation described below.</li> </ul>
26	Capacity of Standard Plants	The average processing capacity of a Standard Plant should reflect Fonterra's weighted average processing capacity of plants used to manufacture the relevant Primary Reference Commodity Product.	<p>The Standard Plant specified in a Review Assessment Year for each:</p> <ul style="list-style-type: none"> <li>▪ Primary Reference Commodity Product should have an average daily processing capacity that will result in the overall weighted average daily processing capacity of all Standard Plants for the manufacture of that Reference Commodity Product projected to be included in the Farmgate Milk Price Fixed Asset Base at the end of</li> </ul>

		Objective	Rule
			<p>the subsequent Review Period being materially consistent with the overall weighted average daily processing capacity of the plants projected to be used (or able to be used) by Fonterra to manufacture the relevant Reference Commodity Product at that time.</p> <ul style="list-style-type: none"> <li>Secondary Reference Commodity Product should have an average daily processing capacity that is consistent with the capacity of plants currently available from equipment suppliers, and, where these fall in a range, erring toward the average capacity of the plants currently included in the Farmgate Milk Price Fixed Asset Base.</li> </ul>
27	Allocation of Standard Plants to Regions	Standard Plants are to be allocated to Regions so as to materially align notional and actual regional capacity.	Standard Plants are to be allocated to each Region on a basis which will provide for all Milk to be processed, and with a commercially supportable provision for buffer capacity. The aggregate daily processing capacity of the Standard Plants allocated to each Region must be materially aligned to Fonterra's actual aggregate daily processing capacity in the Region, adjusted where necessary to account for Milk collected but not processed by Fonterra.
28	Deemed acquisition dates of initial Reference Assets	Each initial Reference Asset is allocated an initial deemed acquisition date which results in the initial Farmgate Milk Price Fixed Asset Base having an age profile that is reasonably consistent with the age profile of Fonterra's actual fixed assets.	The Reference Assets in the initial Farmgate Milk Price Fixed Asset Base will be allocated in a manner which results in an even allocation of Reference Assets to acquisition dates over time, having regard to the assessed economic lives of the Reference Assets.
29	Consequences of Review Year reviews	Updated estimates of installation costs, Standard Plant capacity and economic lives will only be applied to Reference Assets notionally installed in or after the Review Year.	<p>The revised estimates derived in each Review Assessment Year of installation costs, processing capacity and economic lives of Standard Plants and other Reference Assets will be applied in adjustments during the Review Period commencing in the Review Year to the Farmgate Milk Price Fixed Asset Base in respect of:</p> <ul style="list-style-type: none"> <li>The replacement of Reference Assets deemed to have reached the end of their economic lives.</li> <li>The installation of additional processing capacity.</li> </ul> <p>The revised estimates will not give rise to any adjustment to any annuity calculation in respect of any Reference Asset added to the Farmgate Milk Price Fixed Asset Base prior to the Review Year.</p>
30	Interim assessments of installation costs	In Financial Years between Review Years the installation cost of a Standard Plant or other Reference Asset will be obtained by updating the prior Financial	For Financial Years where an updated estimate of the cost of installing a Standard Plant or other Reference Asset is not obtained, the installation cost will be deemed to be the prior Financial Year's installation cost

		<b>Objective</b>	<b>Rule</b>
	of Reference Assets	Year's estimates for reasonable estimates of movements in the cost of Reference Assets.	increased by the annual percentage changes in either the appropriate capital goods sub-indices identified by an Independent Reviewer or in a customised index constructed by an independent expert.
31	Replacement of Reference Assets	In the Financial Year after the final year of a Reference Asset's deemed economic life, a replacement Reference Asset may be added to the Farmgate Milk Price Fixed Asset Base.	A replacement Reference Asset will be added to the Farmgate Milk Price Fixed Asset Base in the Financial Year after the final year of a Reference Asset's deemed economic life, subject to there not being surplus capacity in the region to which the asset is allocated.
32	Adjustments for amendments to Reference Commodity Products	If the basket of Reference Commodity Products is adjusted (refer Section 1.1), it will be necessary to identify new Standard Plants and to otherwise reconfigure the Farmgate Milk Price Fixed Asset Base.	<p>If the basket of Reference Commodity Products is adjusted (refer Section 1.1), then, subject to sign-off by an Independent Reviewer:</p> <ul style="list-style-type: none"> <li>▪ For each new Reference Commodity Product, a Standard Plant will be determined and the approaches and procedures set out in Rules 25 and 27 with respect to Standard Plants and their allocation to Regions will be applied.</li> <li>▪ The allocation of Standard Plants and other Reference Assets to Regions and to Sites will be appropriately adjusted to reflect the new composition of the Reference Commodity Basket.</li> </ul> <p>Where this adjustment requires the removal from the Farmgate Milk Price Fixed Asset Base of an existing Reference Asset, the relevant asset with the shortest remaining assessed economic life shall be removed first.</p> <p>The financial implications of removing a Reference Asset under this Rule, being either the remaining stream of annuities or an annual amount or amounts with the same present value, will be deducted in calculating the Farmgate Milk Price, except if:</p> <ul style="list-style-type: none"> <li>▪ This would result in the Farmgate Milk Price being significantly less than the milk price Fonterra's competitors for milk in New Zealand are able to pay while still earning a reasonable risk-adjusted return on their invested capital; or</li> <li>▪ Fonterra has previously been compensated for the risk of removal of the Reference Asset, whether under Rule 44 (Specific Risk Premium) or under any other provision of this Manual.</li> </ul>
33	Surplus capacity	Where peak Milk Supply in a Region has decreased by an amount that results in one or more Standard Plants being surplus to requirements, the Farmgate Milk Price Fixed Asset Base must be adjusted.	In a Review Year, an Independent Reviewer will determine whether the Farmgate Milk Price Commodity Business has surplus Standard Plant capacity in any Region, having regard to:

		Objective	Rule
			<ul style="list-style-type: none"> <li>▪ Fonterra's current Milk Supply in the region and Fonterra's projections of future Milk Supply in the region, in turn having regard to current and future competitor entry in the Region.</li> <li>▪ Planned initiatives of Fonterra to improve peak utilisation of existing capacity.</li> <li>▪ The necessity of maintaining a prudent level of buffer capacity to cover variations in year on year supply and unplanned plant downtime.</li> </ul> <p>In a circumstance where an Independent Reviewer has identified an excess of Standard Plant capacity, the Standard Plant (or Plants) in the Region with the earliest deemed acquisition date (or dates) will be removed from the Farmgate Milk Price Fixed Asset Base.</p> <p>The financial implications of removing a Reference Asset under this Rule, being either the remaining stream of annuities or an annual amount or amounts with the same present value, may not be deducted in calculating the Farmgate Milk Price.</p>
34	Shortfalls in capacity	Where peak Milk Supply in a Region has (or is reasonably expected to) increased by an amount that would result in the commissioning of an additional Standard Plant, the Farmgate Milk Price Fixed Asset Base will be adjusted accordingly.	An additional Standard Plant will be added to the Farmgate Milk Price Fixed Asset Base if peak Milk Supply increases in circumstances where Fonterra has increased its actual processing capacity in a region, and where a requirement for increased processing capacity is otherwise indicated by an increase in actual or reasonably foreseeable peak supply in the Region.
35	Site footprint	The Site Footprint of the Farmgate Milk Price Commodity Business, comprising the number of Sites, their location, and their peak processing capacity, will be materially aligned to Fonterra's actual commodity product manufacturing site footprint, comprising the Sites to which Fonterra delivers raw milk for processing into commodity products.	<p>The initial Site Footprint is aligned to Fonterra's actual commodity product manufacturing site footprint. The number and locations of sites included in the Site Footprint will be adjusted:</p> <ul style="list-style-type: none"> <li>▪ When Fonterra adds a new commodity product manufacturing site, or</li> <li>▪ Closes a site or ceases production of commodity ingredients at a site.</li> </ul> <p>Where an additional manufacturing site is included in the Site Footprint:</p> <ul style="list-style-type: none"> <li>▪ A reasonable provision for the cost of land will be included in the Farmgate Milk Price Fixed Asset Base, established with regard to the cost or market value of the land.</li> <li>▪ Reasonable provisions for Ancillary Assets and dry stores assets will be included in the Farmgate Milk Price Fixed Asset Base,</li> </ul>

		Objective	Rule
			<p>established by regard to the peak volume of milk expected to be processed, and the Reference Commodity Products assumed to be manufactured, at the site.</p> <p>Where a manufacturing site is removed from the Site Footprint, a reasonable provision for the difference (if any) between the assumed market value of the land and assets allocated to the site, and the current value allocated to the land and assets in the Farmgate Milk Price Business Fixed Asset Base, will be included in the calculation of the Farmgate Milk Price in the year in which the site is removed.</p> <p>Inputs to the Farmgate Milk Price that are to be calculated by reference to the Site Footprint comprise Milk Collection Costs, Freight Costs, Site Overheads, Ancillary Assets and dry stores capital.</p>
36	Initial annuity calculations	<p>Fonterra may recover an Annual Capital Recovery Amount in respect of each Reference Asset, which over the economic life of the asset is sufficient to recover the present value of the cost of installing the asset and of maintaining its productive capacity over its assessed economic life (to the extent such costs are not otherwise deductible in calculating the Farmgate Milk Price).</p>	<p>On the addition of a Reference Asset to the Farmgate Milk Price Fixed Asset Base, Fonterra will calculate a series of Annual Capital Recovery Amounts in respect of each year of the asset's assessed economic life, in accordance with the following formulae:</p> $A_1 = V(r - i) \frac{(1 + r)^N}{(1 + r)^N - (1 + i)^N}, \text{ and}$ $A_s = \text{Prior year's Capital Recovery Amount} \times (1 + i),$ <p>where</p> <p><math>A_1</math> is the initial Capital Recovery Amount</p> <p><math>A_s</math> is the Capital Recovery Amount in respect of a year subsequent to the initial year (and ending in the year which corresponds to the final year of the asset's assessed economic life)</p> <p><math>r</math> is the current WACC, calculated using inputs which are consistent with the Review Period</p> <p><math>N</math> is the assessed economic life</p> <p><math>V</math> is the calculated present value of (a) the asset's initial cost (b) the amount calculated under Rule 25 in respect of future capital expenditure required to maintain the asset's productive capacity</p>

		<b>Objective</b>	<b>Rule</b>
			<p>for its projected economic life, and (c) a reasonable provision for a residual value.</p> <p>i is a reasonable estimate of the long-run annual rate of increase in the nominal cost of the Reference Asset.</p> <p>The Annual Capital Recovery Amounts are deducted in calculating the Farmgate Milk Price, beginning in the year in which the asset is first notionally used in the production of the product mix.</p>
37	Periodic revisions of annuity calculations	In each year the annuity for each Reference Asset should be recalculated using the updated WACC and an updated estimate of long-run inflation, but without adjusting the assessed economic life.	<p>In each Year, the initial annuity calculation formula will be applied in respect of each Reference Asset, substituting for item:</p> <p>V the present value of the most recent, previously calculated annuity amounts for the Year and all years subsequent to the Year;</p> <p>N the remaining assessed economic life of the Reference Asset (but without any adjustment to the previously assessed total economic life);</p> <p>r the current WACC;</p> <p>i the current estimate of the long-run annual rate of increase in the nominal cost of the Reference Asset.</p>
38	Adjustments for new technology	A provision for the capital cost of new technology should be included in the Farmgate Milk Price Fixed Asset Base in any circumstance where the actual installation of such technology would be economically rational and the technology is available to Fonterra's competitors.	In each Review Year, an Independent Reviewer will determine whether any technologically feasible upgrades to existing Reference Assets would have material positive net present values and, if so, will in consultation with Fonterra determine a series of adjustments to the Farmgate Milk Price Fixed Asset Base and to the Farmgate Milk Price Cash Costs which have the effect of reasonably allocating the net present values between the Farmgate Milk Price and Fonterra.
39	Milk collection assets	The Annual Capital Recovery Amount in respect of Milk Collection Assets (including on-farm vats) required to collect the total volume of milk collected by Fonterra and to deliver that milk to its actual delivery point will be calculated by reference to Fonterra's actual milk collection assets.	<p>The Annual Capital Recovery Amount in respect of Milk Collection Assets for a Year will be calculated as the sum of:</p> <ul style="list-style-type: none"> <li>▪ The product of (a) the opening book value of Fonterra's milk collection assets (as calculated for financial reporting purposes) and (b) the WACC, and</li> <li>▪ The aggregate amount of depreciation calculated with respect to Fonterra's milk collection assets by Fonterra for financial reporting purposes for the Year.</li> </ul>

		<b>Objective</b>	<b>Rule</b>
40	WACC recovery on Farmgate Milk Price Net Working Capital	<p>Fonterra may recover the cost of financing the net working capital requirements implied in combination by:</p> <ul style="list-style-type: none"> <li>▪ The Farmgate Milk Price Production Plan and Sales Phasings;</li> <li>▪ Reasonable creditor and debtor days targets; and</li> <li>▪ The Supplier Payables days implied by Fonterra's Advance Rate Schedule.</li> </ul>	<p>Farmgate Milk Price Net Working Capital will be calculated on a monthly basis. The Monthly WACC will be applied to the monthly opening Net Working Capital position. Commercially reasonable and supportable assumptions will be applied with respect to relevant parameters, such as debtor and creditor days, in calculating Farmgate Milk Price Net Working Capital.</p> <p>Fonterra's Advance Rate Schedule for the Year will be applied to the calculation of the opening Supplier Payables balance for each month.</p>
41	WACC specification	<p>To the extent possible, the WACC calculation should:</p> <ul style="list-style-type: none"> <li>▪ Reflect the application of a 'mechanical' or prescriptive calculation methodology; and</li> <li>▪ Reflect a calculation methodology which is familiar to suppliers and potential investors.</li> </ul>	<p>The WACC will be recalculated each Year using updated inputs for the Risk Free Interest Rate, the Cost of Debt and the Company Tax Rate. The Post Tax Market Risk Premium and Asset Beta will be updated in each Review Year.</p>
42	Asset beta	<p>The WACC should be consistent with the principle that providers of capital to Fonterra should receive a commercially reasonable return on their investment in Fonterra's New Zealand manufacturing asset base.</p>	<p>An Independent Reviewer will provide an updated Asset Beta in a Review Year. In calculating the Asset Beta, the Independent Reviewer is required to have regard to Fonterra's exposure to systematic earnings risk with respect to the portion of its business corresponding to the Farmgate Milk Price Business, as implied by the allocation of risks between Fonterra and suppliers under the Farmgate Milk Price Methodology.</p>
43	Specific risk premium	<p>The WACC should incorporate appropriate compensation for risks that investors in the Farmgate Milk Price Commodity Business would seek compensation for, and which are not otherwise provided for in the Farmgate Milk Price calculation methodology.</p>	<p>An Independent Reviewer will recommend a Specific Risk Premium in a Review Year. In calculating the Specific Risk Premium, the Independent Reviewer is required to have regard to:</p> <ul style="list-style-type: none"> <li>▪ Fonterra's exposure to earnings risk as a consequence of assets being removed from the Farmgate Milk Price Business asset base due either to a shortfall in milk supply or an adjustment to the Reference Basket;</li> <li>▪ Any other factors which in the Independent Reviewer's opinion would result in investors in the Farmgate Milk Price Commodity Business requiring additional compensation for risk; and</li> <li>▪ The extent to which compensation for such additional risk has otherwise been provided for in the Farmgate Milk Price calculation methodology.</li> </ul>



## 5. FARMGATE MILK PRICE

### 5.1 DETAILED RULES

		Objective	Rule
44	<a href="#">Aggregate Commodity Milk Payments Amount</a>	<a href="#">The Aggregate Commodity Milk Payments Amount</a> Farmgate will be calculated so as to result in the present value of the residual cash flows to the Farmgate Milk Price Commodity Business equalling the present value of the Annual Capital Recovery Amount.	<p><a href="#">The Aggregate Farmgate Milk Price Commodity Milk Payments Amount</a> is to be calculated so as to result in the following amounts having the same present values, when calculated at the WACC:</p> <ul style="list-style-type: none"> <li>▪ The net amount calculated for each month by deducting from Farmgate Milk Price NZD Revenue for the month Farmgate Milk Price Cash Costs for the month and the Cost of Milk for the month.</li> <li>▪ The net amount obtained for each month by summing the WACC Recovery on Farmgate Milk Price Net Working Capital for the month and, in the twelfth month of the Season, the Annual Capital Recovery Amount.</li> </ul> <p>Equivalently, the <a href="#">Farmgate Milk Price Aggregate Commodity Milk Payments Amount</a> may be calculated so as to result in the following amounts having the same present values, when calculated at the WACC:</p> <ul style="list-style-type: none"> <li>▪ The net amount calculated for each month by deducting from Farmgate Milk Price NZD Receipts for the Month Farmgate Milk Price cash outgoings, including payments for milk.</li> <li>▪ The Annual Capital Recovery Amount, on the assumption that amount is received in the twelfth month of the Season.</li> </ul> <p>These two approaches will generate a common <a href="#">Farmgate Milk Price Aggregate Commodity Milk Payments Amount</a>.</p>
45	<a href="#">Additional Commodity Milk Payments</a>	<a href="#">Premiums paid for milk not supplied on standard terms will only be funded from the Aggregate Commodity Milk Payments Amount to the extent it would be commercially appropriate to pay those premiums for milk used to manufacture Reference Commodity Products, and any discounts for milk not supplied on standard terms will be added back into the Aggregate Farmgate Milk Price.</a>	<a href="#">The net amount of all premiums and discounts, calculated relative to the Farmgate Milk Price, applied to payments for Milk supplied other than on Fonterra's standard terms of supply where (and to the extent) that the Milk Price Panel determines it would be commercially appropriate for the Farmgate Milk Price Commodity Business to source that Milk on the relevant terms for conversion into Reference Commodity Products will be paid from the Aggregate Commodity Milk Payment Amount.</a>

		Objective	Rule
46	<u>Standard Supply Adjustments Payments</u>	<u>The Aggregate Farmgate Milk Price will be adjusted for the net amount of any adjustments to payments for Milk supplied on Fonterra's standard terms of supply.</u>	<p><u>The net amount of deductions from or additions to payments made to Fonterra shareholders under Fonterra's standard terms of supply will be paid from the Aggregate Commodity Milk Payments Amount.</u></p> <p><u>Where this amount represents a net payment to suppliers it is to be treated as a positive amount when applying the formula in Rule 47, and where it results in a net deduction from payments to suppliers, it is to be treated as a negative amount.</u></p>
47	<u>Aggregate Farmgate Milk Price</u>	<p><u>The Aggregate Farmgate Milk Price is calculated so as to result in the net amount of cash paid in respect of the following amounts equalling the Aggregate Commodity Milk Payments Amount:</u></p> <ul style="list-style-type: none"> <li>▪ <u>Aggregate Farmgate Milk Price</u></li> <li>▪ <u>Standard Supply Adjustments, and</u></li> <li>▪ <u>Additional Commodity Milk Payments.</u></li> </ul>	<p><u>The Aggregate Farmgate Milk Price is to be calculated as</u>  <math>A - B - C</math>,  where:  <u>A</u> <u>is the Aggregate Commodity Milk Payments Amount</u>  <u>B</u> <u>is Additional Commodity Milk Payments, and</u>  <u>C</u> <u>is Standard Supply Adjustments.</u></p>
48	<u>Farmgate Milk Price</u>	<u>The Farmgate Milk Price will be calculated by dividing the Aggregate Farmgate Milk Price by total kilograms of milksolids supplied to Fonterra in New Zealand.</u>	<p><u>The Farmgate Milk Price is to be calculated as:</u></p> $\frac{A}{B}$ <p>where:  <u>A</u> <u>is the Aggregate Farmgate Milk Price, and</u>  <u>B</u> <u>is total Milk (measured in kilograms of milksolids) supplied to Fonterra in New Zealand in the Season.</u></p>
49	<u>Non-Commodity Milk Payments</u>	<u>Payments for Milk acquired specifically for the manufacture of products that are not Reference Commodity Products will only be funded from the Aggregate Commodity Milk Payments to the extent the Farmgate Milk Price Commodity Business would make those payments for that Milk.</u>	<u>Payments by Fonterra for Milk that has been sourced for specific purposes other than the manufacture of Reference Commodity Products will not be included in Additional Commodity Milk Payments, and will therefore not be funded from the Aggregate Commodity Milk Payments, if (or to the extent) the Milk Price Panel determines that it would not be commercially appropriate to make those payments for Milk used to manufacture Reference Commodity Products. These payments are referred to as Non-Commodity Milk Payments.</u>

**Commented [PG1]:** This provision is not technically required, since these payments are already excluded under the new definition of Additional Commodity Milk Payments, but it is nonetheless useful to make it explicit that certain payments for specialty milks (etc) which are sourced to generate value-add returns are not funded from the Aggregate Farmgate Milk Price.

		<b>Objective</b>	<b>Rule</b>
455 <u>0</u>	Rounding	Any shortfall between the aggregate <u>amount</u> paid in respect of Milk supplied in New Zealand and the aggregate amount calculated under this Manual that is due solely to rounding may be disregarded.	Fonterra may report its <del>'headline' milk price (such as the average price paid per kilogram of milksolids in respect of share-backed supply)</del> <u>the Farmgate Milk Price</u> rounded to no fewer than two decimal places. Any shortfall in the aggregate amount paid by Fonterra in respect of milk supplied in New Zealand and the <u>Aggregate Farmgate Milk Price</u> <u>Aggregate Commodity Milk Payments</u> calculated under this Manual that is due solely to the rounding of the <del>headline milk price</del> <u>Farmgate Milk Price</u> may be disregarded, so long as it is reasonable to assume that any differences due to this Rule in the amount actually paid and the amount calculated under this Manual will on average be close to nil over time.



# FARMGATE MILK PRICE MANUAL – PART C: DEFINITIONS

EFFECTIVE DATE: 1 August 20187

## 1.1 DEFINITIONS – MILK PRICE COMMODITY BUSINESS

This Section sets out specific terms and calculations relevant to the definition of the Farmgate Milk Price Commodity Business. In this Section (and the remaining Sections), a reference to a 'Rule' is a reference to the relevant rule in Part B of the Manual.

Item	Definition
Milk Supply	For a month, total kilograms of milksolids collected by Fonterra in New Zealand, including: <ul style="list-style-type: none"><li>▪ Milk supplied on non-standard terms, such as winter milk and milk supplied under contract, and</li><li>▪ Milk on-sold to third parties.</li></ul> For a Season, the sum of Milk Supply for each month in the Season.
Reference Commodity Product	A commodity group included in the Reference Basket.
Primary Reference Commodity Product	The principal product in a Product Stream, and currently comprises WMP and SMP.
Reference Basket	The Reference Commodity Products included in the calculation of Farmgate Milk Price Revenue for the Farmgate Milk Price Commodity Business. The Reference Basket may be modified under Rule 3. The initial Reference Basket comprises WMP, SMP, Butter, AMF and BMP.
Standard Specification Product	In respect of each Reference Commodity Product, a product specification from Fonterra's Specification Management System (or its successor system) which can reasonably be regarded as being representative of an undifferentiated commodity product and which Fonterra manufactures in material quantities. Standard Specification Products currently comprise the following products sold by Fonterra on GDT: <ul style="list-style-type: none"><li>▪ AMF Premium 210kg drum – NZ</li><li>▪ BMP UHT – NZ</li><li>▪ Butter Unsalted – NZ</li><li>▪ SMP Medium Heat – NZ</li><li>▪ WMP Regular – NZ</li></ul>
Product Specification	The Milk Price Group shall establish and maintain a Product Specification for each Standard Specification Product that contains the following information: <ul style="list-style-type: none"><li>▪ The Composition Target</li><li>▪ The Valued Component Usage</li><li>▪ The Specification Limit</li></ul>

Item	Definition
	<ul style="list-style-type: none"> <li>All other information that would ordinarily be contained on a bill of materials for the Standard Specification Product and that is required to identify all the inputs (and the quantities of each) required in the Standard Specification Product's manufacture.</li> </ul> <p>Each Product Specification is subject to sign-off by an Independent Expert.</p>
Product Mix	For a Season, the percentage of Milk Supply allocated to each Designated Product Stream.
Sales Cost	For a month, the amount calculated under Rule 17.

## 1.2 DEFINITIONS – MILK PRICE REVENUE

This Section sets out specific terms or calculations relevant to the determination of Farmgate Milk Price Revenue.

Item	Definition
Farmgate Milk Price Production	For each month in a Season, the quantity in MT of each Reference Commodity Product that is manufactured in accordance with Rule 6.
Product Stream	Any combination of products that utilises all the milk components in a given quantity of milk.
Designated Product Streams	For the Initial Reference Basket, the following Product Streams: <ul style="list-style-type: none"> <li>WMP, Butter and BMP</li> <li>WMP, AMF and BMP</li> <li>SMP, Butter and BMP</li> <li>SMP, AMF and BMP</li> </ul>
Product Yields	The factors for converting Milk Supply into Reference Commodity Product, having regard to: <ul style="list-style-type: none"> <li>The actual composition of the Milk Supply for the relevant period, and</li> <li>Valued Component Usage for each Standard Specification Product.</li> </ul>
Valued Component	A component of milk in respect of which Fonterra specifies and pays a separate price, and currently comprising protein and milkfat.
Valued Component Usage	For each Standard Specification Product, the number of kilograms of each Valued Component utilised in the manufacture of a MT of standard specification product. These amounts:

Item	Definition
	<ul style="list-style-type: none"> <li>▪ Should be consistent with the Composition Target for the relevant product; and</li> <li>▪ Should reflect Allowable Yield Losses.</li> </ul>
Composition Target	<p>A target level of Valued Component Usage and moisture content for each Standard Specification Product, calculated as the sum of:</p> <ul style="list-style-type: none"> <li>▪ The Specification Limit; and</li> <li>▪ The Composition Offset.</li> </ul>
Composition Offset	<p>Reasonable provisions for additional usage of Value Components and for less moisture content, to allow for variation in Valued Component content due to variation in the manufacturing process, calculated by reference to Fonterra's performance, the relevant Codex standards, and to the specification of the Standard Plants.</p>
Specification Limit	<p>For a Standard Specification Product, the minimum Valued Component Usage, and maximum moisture content, specified in Fonterra's Specification Management System.</p>
Allowable Yield Losses	<p>The allowances for losses of Valued Components during the manufacturing process established by the independent reviewer under Rule 7 and specified as kilograms of Valued Component lost per MT of Standard Specification Product manufactured.</p>
Farmgate Milk Price Sales	<p>For each month in a Year, and for each Reference Commodity Product, the MT allocated to the month using the Farmgate Milk Price Sales Phasings described in Rule 9.</p>
Benchmark Selling Price	<p>The Benchmark Selling Price for a Shipment Month for a Reference Commodity Product is the volume-weighted average USD price achieved by Fonterra for Qualifying Reference Sales of that Reference Commodity Product in the month, calculated as:</p> $\sum_{i=1}^N \frac{(P_i \times V_i)}{V}$ <p>where:</p> <p><math>P_i</math> is the weighted average Standard Commodity Price achieved for Qualifying Reference Sales in the Shipment Month that were contracted at prices prevailing <math>i</math> months prior to the Shipment Month ("Contract Month <math>i</math>")</p> <p><math>V_i</math> is MT of product <math>s</math> in the Shipment Month that satisfy the Volume Criteria and that were contracted in Contract Month <math>i</math></p> <p><math>V</math> is total MT of product invoiced in the month that satisfy the Volume Criteria, and</p>

Item	Definition
	<p>N is 5, being the maximum number of months prior to a Shipment Month that the Board considers to be reasonably representative of the maximum number of months prior to shipment that a manufacturer of commodity dairy products selling on standard FAS terms would typically contract its sales.</p> <p>If no Qualifying Reference Sales were contracted in Contract Month i, a reasonable proxy will be used.</p> <p>A sale of product will satisfy the Volume Criteria if:</p> <ul style="list-style-type: none"> <li>▪ The product was sold to customers that were independent of Fonterra</li> <li>▪ The product was manufactured from milk supplied in New Zealand</li> <li>▪ The general characteristics of the product are such that it could be manufactured by the Farmgate Milk Price Commodity Business</li> <li>▪ The sale was on FAS (or FAS-equivalent) terms</li> <li>▪ The product was not downgrade product, and</li> <li>▪ The sale can reasonably be regarded as being on arm's length terms at a price that was established by reference to prices prevailing at the time the contract for the sale is entered into.</li> </ul>
Standard Commodity Price	<p>In determining a Benchmark Selling Price, the amount determined by deducting from the actual selling price all costs incurred by Fonterra which could reasonably be expected to be recovered from a purchaser of the product in addition to the FAS sale price that would have been achieved if the product was a Standard Specification Product sold on <a href="#">GlobalDairyTrade-GDT</a> to the same customer at the same time.</p>
Shipment Month	<p>The month in which a sale would be deemed for financial reporting purposes to have been completed, and will normally be the month in which the sale is invoiced and the product is shipped.</p>
Qualifying Reference Sales	<p>For a Reference Commodity Product and a Shipment Month, a sale of a Qualifying Material in the month that is determined by the Milk Price Group to fall in any of the following categories:</p> <ol style="list-style-type: none"> <li>1. For any product in respect of which the Board has determined under Rule 5 of Part B that it is appropriate to place sole reliance on Benchmark Selling Prices achieved on GDT, the product was sold on GDT.</li> <li>2. For any other Reference Commodity Product, if the sale satisfies the following criteria: <ul style="list-style-type: none"> <li>▪ The product was sold on GDT; or</li> <li>▪ The sale can reasonably be regarded as being on arm's length terms at a price that reflects prevailing prices that could be achieved by the Farmgate Milk Price Commodity Business at the time the contract for the sale is entered into; and</li> <li>▪ The contract complies with the relevant Fonterra Risk Management Policy.</li> </ul> </li> <li>3. Any Qualifying Outlier Sales for the month.</li> </ol>





Qualifying Outlier Sale	For a month, any sale of a Reference Commodity Product that is excluded from item (3) of the definition of Qualifying Reference Sales only because the MPG has determined that the price at which the contract for the sale was entered into does not reflect prevailing prices, but in respect of which the Panel considers that on the balance of probabilities the net impact of Fonterra undertaking the sale will be to result in a higher Farmgate Milk Price than would otherwise have been the case.
Qualifying Material	<p>A Qualifying Material is a product manufactured by Fonterra from milk supplied in New Zealand that can in the view of the Milk Price Group be reasonably regarded as being a relatively undifferentiated commodity product that in normal circumstances could be expected to transact at a comparable price to other products within the same Reference Commodity Product, after adjusting for any costs that are normally recoverable from purchasers of the product.</p> <p><u>A product can only be a Qualifying Material if:</u></p> <ul style="list-style-type: none"> <li>▪ <u>It is a Standard Product Offering.</u></li> <li>▪ <u>Its packaging format is Standard Packaging, and</u></li> <li>▪ <u>Its manufacture does not require the use of Specialised Plant.</u></li> </ul> <p>The Milk Price Group will maintain a schedule of Qualifying Materials for each Reference Commodity Product. The schedule of Qualifying Materials maintained by the Milk Price Group need not necessarily include all products that satisfy the definition of Qualifying Material. However, where the Milk Price Group elects to exclude products that satisfy the definition of Qualifying Material it will ensure that the products included on the schedule can reasonably be regarded as being representative of the relevant broader population of all products that satisfy the definition.</p>
<u>Standard Product Offering</u>	<p><u>Reference Commodity Product specifications that are:</u></p> <ol style="list-style-type: none"> <li><u>1. Sold on GDT, or</u></li> <li><u>2. Generic product specifications which:</u> <ul style="list-style-type: none"> <li>▪ <u>Are sold in multiple regions</u></li> <li>▪ <u>Are sold to multiple customers</u></li> <li>▪ <u>Are sold through Fonterra's standard sales channel</u></li> <li>▪ <u>Can be manufactured in Standard Plants, and</u></li> <li>▪ <u>Can be substituted for other Standard Product Offerings.</u></li> </ul> </li> </ol>
<u>Standard Packaging</u>	<u>Packaging formats used for Standard Product Offerings, and does not include packaging formats used primarily for product sold through consumer and foodservice channels.</u>

**Commented [PG2]:** Added per our undertaking in our submission on the Commission's draft F17 base milk price review report.

<u>Specialised Plant</u>	<u>A plant that can be used for the manufacture of Standard Specification Products but which has material modifications which are required for the manufacture of products with functional attributes that are materially different to the attributes of Standard Product Offerings.</u>
Farmgate Milk Price USD Commodity Revenue	For a month and a Reference Commodity Product, the amount obtained by multiplying the Benchmark Selling Price by total MT of Farmgate Milk Price Sales of the Reference Commodity Product in the month.
Incremental Product Cost	For a product that is a Qualifying Material but which is not a Standard Specification Product, the net difference between the cost of manufacturing the product and the cost of manufacturing a Standard Specification Product. In determining Incremental Product Costs: <ul style="list-style-type: none"> <li>▪ Reasonable provision should be made for the difference in cost of milk components included in the product relative to the cost of milk components included in a Standard Specification Product, having regard to the implied value of the milk components at the time the product is manufactured.</li> <li>▪ Reasonable provision should be made for any difference between the variable cost of manufacturing the product and the variable cost of manufacturing the relevant Standard Specification Product.</li> <li>▪ Reasonable provision should be made for any difference between fixed cost or overhead recoveries where such difference is in the normal course of events recovered by Fonterra from its customers through a higher selling price.</li> </ul>
Net Farmgate Milk Price USD Revenue	For a month, the sum of Farmgate Milk Price USD Commodity Revenue for each Reference Commodity Product, less any Sales Cost for the month that is specified in USD.
Farmgate Milk Price NZD Commodity Revenue	For a month, the amount obtained by multiplying Net Farmgate Milk Price USD Revenue for the month by the weighted average of the Benchmark FX Conversion Rate for the month or months in which receipts in respect of the Farmgate Milk Price USD Commodity Revenue would be converted to NZD if the number of days between the derivation of the Farmgate Milk Price USD Commodity Revenue and the receipt of payment equalled the Farmgate Milk Price Revenue Days.
Farmgate Milk Price USD Receipts	For a month, the amount of USD revenue that would be received in the month if the number of days between the derivation of Net Farmgate Milk Price USD Revenue and the receipt of payment equalled the Farmgate Milk Price Revenue Days.
Farmgate Milk Price NZD Commodity Receipts	For a month, the amount obtained by multiplying Farmgate Milk Price USD Receipts for the month by the Benchmark FX Conversion Rate for the month.
Benchmark FX Conversion Rate	For a month, the average rate at which Fonterra actually converts net receipts denominated in any currency other than the NZD to NZD in the month, specified as a ratio of USD to NZD and calculated with regard to all costs and benefits of Fonterra's hedging activities in respect of amounts converted in that month.

### 1.3 DEFINITIONS – MILK PRICE CASH COSTS

This Section sets out specific terms and calculations relevant to the determination of Farmgate Milk Price Cash Costs.

Item	Definition
Supply Chain Costs	For a Year, the supply chain-related costs which would be incurred through to the New Zealand wharf if the Farmgate Milk Price Product Mix was produced, comprising: <ul style="list-style-type: none"> <li>▪ Freight Costs</li> <li>▪ Storage Costs</li> <li>▪ Minor Supply Chain Costs, and</li> <li>▪ Supply Chain Overhead Costs.</li> </ul>
Freight Costs	For a Year, the amount Fonterra would incur if the Farmgate Milk Price Product Mix was produced, given Fonterra's average contracted freight costs for the year for freight from site to wharf for each Site, subject to those costs being representative of the costs that would be incurred by an efficient processor of commodity dairy product.
Storage Costs	For a Year, the amount Fonterra could reasonably be expected to incur if the Farmgate Milk Price Product Mix was produced, having regard to Fonterra's actual average storage costs for each Reference Commodity, given the storage requirements implied by the Farmgate Milk Price Production Plan and Sales Phasings but excluding any amounts in respect of depreciation, capital expenditure or any capital recovery.
Minor Supply Chain Costs	For a Year, a provision for costs falling in the following categories and that Fonterra could reasonably be expected to incur if the Farmgate Milk Price Product Mix was produced: <ul style="list-style-type: none"> <li>▪ Complaints</li> <li>▪ Pallets and recycling</li> <li>▪ Port monitoring</li> <li>▪ Fumigation</li> <li>▪ Pre-shipment inspection, and</li> <li>▪ New Zealand port surcharges.</li> </ul> <p>The provision for Minor Supply Chain Costs is to be calculated by reference to Fonterra's actual costs in each Review Year and set equal to the prior year's provision indexed to the Producer Price Index in other Years.</p>
Supply Chain Overhead Cost	For a Year, a provision for costs falling in the following categories that Fonterra could reasonably be expected to incur if the Farmgate Milk Price Product Mix was produced and sold on a FAS basis, and calculated by reference to the relevant actual costs incurred by Fonterra:

Item	Definition
	<ul style="list-style-type: none"> <li>▪ Costs associated with global supply chain management</li> <li>▪ Costs associated with obtaining global market access, and</li> <li>▪ Documentation and customer service costs.</li> </ul>
Milk Collection Costs	For a Year, Fonterra's actual milk collection costs (excluding depreciation and capital expenditure), adjusted for any difference between the actual cost to Fonterra of diverting product between Sites and the diversion costs implied by the Farmgate Milk Price Production Plan and the allocation of Reference Assets to Sites if the difference is material to either the Farmgate Milk Price or to Fonterra's earnings after paying for Milk at the Farmgate Milk Price.
Lactose Price	For each month in a Season, an estimate of a lactose price that is materially representative of the arm's length prices a commercially astute New Zealand-based manufacturer of milk powders - could be expected to pay for lactose used to standardise milk powders manufactured in that month.
Lactose CIF Costs	For a Year: (a) To the extent that it is reasonable to assume that other New Zealand manufacturers of milk powder are typically required to import Lactose for standardisation, a reasonable provision for the customs, insurance and international sea freight costs that would be incurred in the course of importing Lactose into New Zealand, expressed in USD per MT of Lactose. (b) Otherwise nil.
Lactose Transport Costs	For a Year, a reasonable provision, expressed in NZD per MT, for the cost of transporting Lactose from the New Zealand wharf to Fonterra's Sites, and calculated by reference to Fonterra's average contracted freight costs.
Lactose Requirements	For a Year, the sum of the amounts calculated in respect of each Region, Reference Commodity Product, and month using the following formula: $A \times B$ where: A is kilograms of Standardising Lactose After Adjustment For Losses per MT of Reference Commodity Product, and B is MT of the Reference Commodity Product manufactured in the Region in that month under the Farmgate Milk Price Production Plan.
Standardising Lactose After Adjustment For Losses	For a Region, Reference Commodity Product and month, the amount calculated in accordance with the following formula: $\frac{A}{(1 - B) \times C}$ where:

Item	Definition
	<p>A is the number of kilograms of Lactose required for standardisation of each MT of the Reference Commodity Product given:</p> <ul style="list-style-type: none"> <li>▪ The Composition Targets for that Reference Commodity Product, and</li> <li>▪ The actual composition of milk collected in the Region in that month.</li> </ul> <p>B is a reasonable provision for the percentage of Lactose lost in the course of the manufacturing process.</p> <p>C is a reasonable provision for the percentage of solids content in a given volume of Lactose powder.</p>
Lactose Payable Days	For a Year, a reasonable provision for the number of elapsed days between delivery of Lactose to a site and payment for the Lactose, estimated with reference to prevailing normal commercial terms.
Farmgate Milk Price Lactose Cost	For a Year, the NZD cost calculated by reference to the Lactose Price, Lactose CIF Costs, Lactose Transport Cost, Lactose Requirements, Lactose Payable Days and the relevant Benchmark FX Conversion Rates.
Farmgate Milk Price Cash Costs	<p>For a Year, the sum of:</p> <ul style="list-style-type: none"> <li>▪ Supply Chain Costs</li> <li>▪ Milk Collection Costs</li> <li>▪ Farmgate Milk Price Lactose Cost</li> <li>▪ Variable Manufacturing Cost</li> <li>▪ Fixed Manufacturing Cost</li> <li>▪ Site Overheads</li> <li>▪ Corporate Overheads, and</li> <li>▪ Farmgate Milk Price Tax Recovery.</li> </ul>
Variable Manufacturing Costs	<p>For a Year, the sum of portions of each of the following that vary materially with production volumes:</p> <ul style="list-style-type: none"> <li>▪ Energy Cost</li> <li>▪ Variable Water Cost</li> <li>▪ Cleaning and CIP Cost</li> <li>▪ Consumables Cost</li> <li>▪ Effluent Cost</li> <li>▪ Laboratory Cost</li> <li>▪ Packaging Cost, and</li> <li>▪ Downgrade Cost.</li> </ul>

Item	Definition
Energy Cost	For a Year, the amount Fonterra would incur if the Farmgate Milk Price Product Mix was produced, given: <ul style="list-style-type: none"> <li>▪ The Resource Usage Rates for each Standard Plant, and</li> <li>▪ The Allowable Unit Resource Costs.</li> </ul>
Water Cost	For a Year, the amount Fonterra would incur if the Farmgate Milk Price Product Mix was produced, given: <ul style="list-style-type: none"> <li>▪ The Resource Usage Rates for each Standard Plant, and</li> <li>▪ The Allowable Unit Resource Costs.</li> </ul>
Cleaning and CIP Cost	For a Year, the amount Fonterra would incur if the Farmgate Milk Price Product Mix was produced, given: <ul style="list-style-type: none"> <li>▪ The Resource Usage Rates for each Standard Plant, and</li> <li>▪ The Allowable Unit Resource Costs.</li> </ul>
Consumables Cost	For a Year, the amount Fonterra would incur if the Farmgate Milk Price Product Mix was produced, given: <ul style="list-style-type: none"> <li>▪ The Resource Usage Rates for each Standard Plant, and</li> <li>▪ The Allowable Unit Resource Costs.</li> </ul>
Effluent Cost	For a Year, the amount Fonterra would incur if the Farmgate Milk Price Product Mix was produced, given: <ul style="list-style-type: none"> <li>▪ The Resource Usage Rates for each Standard Plant, and</li> <li>▪ The Allowable Unit Resource Costs.</li> </ul>
Laboratory Cost	For a Year, the amount Fonterra would incur if the Farmgate Milk Price Product Mix was produced, given: <ul style="list-style-type: none"> <li>▪ The Resource Usage Rates for each Standard Plant, and</li> <li>▪ The Allowable Unit Resource Costs.</li> </ul>
Packaging Cost	For a Year, the sum of the following amounts calculated in respect of each item of packaging material specified in the Product Specification for each Reference Commodity Product: $A \times B \times C$ where: A is the usage per MT of the packaging material specified in the Product Specification B is the Allowable Unit Resource Cost for that packaging material, and C is MT of the Reference Commodity Product included in the Farmgate Milk Price Production Plan.
Downgrade Cost	For a Year, the amount obtained by summing for each Reference Commodity Product the amounts allowed for in respect of:

Item	Definition
	<ul style="list-style-type: none"> <li>▪ Placement Specifications</li> <li>▪ Edible Downgrade</li> <li>▪ Stockfood Downgrade, and</li> <li>▪ Rework.</li> </ul>
Placement Specifications	<p>For a Year, the sum of the following amounts calculated in respect each Reference Commodity Product:  <math>A \times B \times C</math>            where:            A is the percentage allowance per MT for placement specifications specified in the Product Specification            B is the Allowable Unit Resource Cost for placement specifications, and            C is MT of the Reference Commodity Product included in the Farmgate Milk Price Production Plan.</p>
Edible Downgrade	<p>For a Year, the sum of the following amounts calculated in respect of each Reference Commodity Product:  <math>A \times B \times C</math>.            where:            A is the percentage allowance per MT for edible downgrade specified in the Product Specification            B is the Allowable Unit Resource Cost for edible downgrade, and            C is MT of the Reference Commodity Product included in the Farmgate Milk Price Production Plan.</p>
Stockfood Downgrade	<p>For a Year, the sum of the following amounts calculated in respect of each Reference Commodity Product:  <math>A \times B \times C</math>            where:            A is the percentage allowance per MT for stockfood downgrade specified in the Product Specification            B is the Allowable Unit Resource Cost for stockfood downgrade, and            C is MT of the Reference Commodity Product included in the Farmgate Milk Price Production Plan.</p>
Rework	<p>For a Year, the sum of the following amounts calculated in respect of each Reference Commodity Product:  <math>A \times B \times C</math>            where:            A is the percentage allowance per MT for rework specified in the Product Specification            B is the Allowable Unit Resource Cost for rework, and            C is MT of the Reference Commodity Product included in the Farmgate Milk Price Production Plan.</p>



Item	Definition
Resource Usage Rates	For a Year, the amounts established under Rule 12.
Allowable Unit Resource Cost	For a Year, the amounts established under Rule 12.
Fixed Manufacturing Costs	For a Year, the sum of Labour and Employee Related Expenses, Repairs and Maintenance Costs and any material portion of costs otherwise classified as Variable Manufacturing Costs that do not vary materially with production volumes.
Direct Manufacturing Labour and Employee Related Expenses	For a Year, an amount calculated by reference to the FTE Allowances for each Standard Plant, the number of Standard Plants, and the relevant Allowable Unit Resource Costs.
FTE Allowance	For a Year and a Standard Plant, the number of full time-equivalent employees at each relevant level to staff the plant, as established by the independent reviewer under Rule 13.
Repairs and Maintenance Costs	For a Year, the amount established under Rule 14.
Maintenance Department Labour Costs	For a Year, the following amount: $A \times B$ where: A is a provision for the number of fulltime-equivalent employees required to staff onsite engineering departments, comprising trade staff, support staff and management, whose primary responsibility is the maintenance of manufacturing plants and ancillary assets, and calculated having regard to the number of employees in each category on Fonterra sites that are broadly comparable to the sites of the notional Milk Price business, and B is the average employment-related cost per employee incurred by Fonterra in respect of the relevant employees.
Site Overheads	The provision for Site Overheads is to be: <ul style="list-style-type: none"> <li>▪ Established in each Review Assessment Year for the following Review Year by reference to Fonterra's actual costs, adjusted to reflect the costs that would be incurred by the Farmgate Milk Price Commodity Business.</li> <li>▪ In any other Year, set equal to the prior Year's provision adjusted for movements in relevant Statistics New Zealand indices.</li> </ul> The amounts established in a Review Assessment Year are to be subject to Independent Review.
General Overheads	The provision for General Overheads is to be: <ul style="list-style-type: none"> <li>A. For costs that can reasonably be anticipated to be relatively constant across time: <ul style="list-style-type: none"> <li>▪ Established in each Review Assessment Year for the following Review Year by reference to Fonterra's actual costs, adjusted to reflect the costs that would be incurred by the Farmgate Milk Price Commodity Business.</li> </ul> </li> </ul>

Item	Definition
	<ul style="list-style-type: none"> <li>▪ In any other Year, set equal to the prior Year's provision adjusted for movements in relevant Statistics New Zealand indices.</li> <li>B. For costs that are likely to vary substantially across time, including costs of a 'one-off' nature, such that inflation-indexation may not be appropriate:               <ul style="list-style-type: none"> <li>▪ Established by the Milk Price Group.</li> </ul> </li> </ul> <p>The amounts established in a Review Assessment Year are to be subject to Independent Review.</p>
Information Systems Costs	<p>The provision for Information Systems Costs is to be:</p> <ul style="list-style-type: none"> <li>▪ Established in each Review Assessment Year for the following Review Year by reference to Fonterra's actual costs (excluding capital costs, which are accounted for in the calculation of Capital Costs), adjusted to reflect the costs that would be incurred by the Farmgate Milk Price Commodity Business.</li> <li>▪ In any other Year, set equal to the prior Year's provision adjusted for (a) movements in relevant Statistics New Zealand indices and (b) any further adjustment resulting from the application of the cross-check against budgeted Fonterra costs described in Rule 18.</li> </ul> <p>The amounts established in a Review Assessment Year are to be subject to Independent Review.</p>
Research and Development Costs	For a Year, the amount established under Rule 18 in respect of Research and Development Costs.
Within Period Review	A review initiated under Rule 23.
Farmgate Milk Price Tax Recovery	For a Year, the product of Farmgate Milk Price Taxable EBIT and the company tax rate for that Year.
Farmgate Milk Price EBIT	<p>For a Year, the result obtained by deducting from Farmgate Milk Price NZD Commodity Revenue the following amounts:</p> <ul style="list-style-type: none"> <li>▪ Selling Costs</li> <li>▪ Supply Chain Costs</li> <li>▪ Milk Collection Costs</li> <li>▪ Farmgate Milk Price Lactose Cost</li> <li>▪ Variable Manufacturing Costs</li> <li>▪ Fixed Manufacturing Costs</li> <li>▪ Site Overheads</li> <li>▪ General Overheads</li> <li>▪ Information Systems Costs</li> <li>▪ Research and Development Costs</li> </ul>

Item	Definition
	<ul style="list-style-type: none"> <li>▪ Farmgate Milk Price Depreciation, and</li> <li>▪ Cost of Milk.</li> </ul>
Farmgate Milk Price Taxable EBIT	For a Year, the following amount: Farmgate Milk Price EBIT <i>plus</i> Farmgate Milk Price Depreciation <i>less</i> Farmgate Milk Price Tax Depreciation.
Farmgate Milk Price Tax Depreciation	For a Year, a reasonable estimate of the amount of depreciation the Farmgate Milk Price Commodity Business would be able to claim in calculating its income tax liability, having regard to all relevant factors, including: <ul style="list-style-type: none"> <li>▪ The difference between the depreciation rates applied by Fonterra in respect of the asset classes relevant to the Farmgate Milk Price Commodity Business when calculating taxable income and the depreciation rates implied by the economic asset lives assumed in the calculation of the Capital Charge</li> <li>▪ The difference between the depreciation methodology used by Fonterra when calculating taxable income in respect of the asset classes relevant to the Farmgate Milk Price Commodity Business and the methodology used to calculate Farmgate Milk Price Depreciation, and</li> <li>▪ The requirement to calculate depreciation for tax purposes by reference to an asset's historic cost rather than its current replacement cost.</li> </ul>
Cost of Milk	For a Year, the <del>product of Milk Supply and Farmgate Milk Prices</del> <i>sum of the Aggregate <a href="#">Commodity Milk Payments Amount</a> <a href="#">Farmgate Milk Price</a> and <a href="#">Additional Commodity Milk Payments</a>.</i>

## 1.4 DEFINITIONS – CAPITAL COSTS

This Section sets out specific terms and calculations relevant to the determination of the Farmgate Milk Price Capital Cost.

Item	Definition
Farmgate Milk Price Fixed Asset Base	The Standard Plants and other Reference Assets which are in aggregate required to produce the Reference Commodity Products included in the Farmgate Milk Price Production Plan for a Year.
Standard Plant	A plant for the manufacture of a Reference Commodity Product, the component parts and costs of which have been established under Rule 25.
Reference Asset	A Standard Plant or any other capital asset that is required by the Farmgate Milk Price Commodity Business, given its requirement to collect milk, produce and store Reference Commodity Products, and to deliver those products to a New Zealand wharf.

Item	Definition
Farmgate Milk Price Fixed Asset Register	A repository of such information in respect of each Reference Asset as is required to calculate the Farmgate Milk Price and to determine whether that calculation complies with the Manual, including: <ul style="list-style-type: none"> <li>▪ The information provided by the Independent Reviewer under Rule 25</li> <li>▪ The allocation under Rule 27 of Standard Plants to Regions</li> <li>▪ The deemed acquisition dates determined under Rule 28</li> <li>▪ Any adjustments made under Rules 30 to 36, and</li> <li>▪ The results of all calculations made under Rules 37 and 38</li> <li>▪ Any adjustments made under Rule 39.</li> </ul>
Reference Asset Annual Capital Recovery Amount	For a Reference Asset and a Year, the amount calculated in respect of the Year and the Reference Asset by applying the formula in Rule 37.
Annual Capital Recovery Amount	For a Year, the sum of the Reference Asset Annual Capital Recovery Amounts for each Reference Asset in the Farmgate Milk Price Fixed Asset Base for the Year.
Reference Asset Farmgate Milk Price Depreciation	For a Reference Asset and a Year: $A - B$ where: A is the present value of the Reference Asset Annual Capital Recovery Amounts for the Reference Asset for the Year and for all subsequent Years, discounted at the WACC for the Year. B is the present value of the Reference Asset Annual Capital Recovery Amount for the Reference Asset for the Year immediately following the current Year and for all subsequent Years, discounted at the WACC for the Year.
Farmgate Milk Price Depreciation	For a Year, the aggregate amount of Reference Asset Farmgate Milk Price Depreciation for the Year.
Fixed Asset Capital Charge	For a Year, the amount obtained by deducting Farmgate Milk Price Depreciation from the Annual Capital Recovery Amount.
Farmgate Milk Price Accounts Receivable	For each month in a Year, the sum of $A + B - C$ where: A is Farmgate Milk Price Accounts Receivable for the preceding month (other than for the first month of the Year, in which case A is nil) B is Farmgate Milk Price NZD Revenue for the month C is Farmgate Milk Price NZD Receipts for the month.

Item	Definition
Farmgate Milk Price Revenue Days	For a Year, and for a Reference Commodity Product, a commercially supportable estimate of the average number of days between raising of an invoice and receipt of cash, calculated having regard to normal commercial terms for Qualifying Reference Sales.
Farmgate Milk Price Trade Payable Days	For a Year, a commercially supportable estimate of the average number of days between a Farmgate Milk Price Cash Cost being incurred and the corresponding payment of cash, calculated having regard to the normal commercial terms faced by Fonterra.
Farmgate Milk Price Inventory Volume	For each month in a Year and for a Reference Commodity Product, the MT that would be on hand at the end of the month given Milk Supply, the Farmgate Milk Price Production Plan and the Farmgate Milk Price Sales Plan.
Cost of Milk for Inventory Valuation	For a Year, and for a MT of a Reference Commodity Product, the cost of the milk used in the manufacture of the Reference Commodity Product given the Farmgate Milk Price, the Valued Component Usage and a cost for each Valued Component that is consistent with the Farmgate Milk Price.
Farmgate Milk Price Inventoriable Value	For a Year, and for a MT of each Reference Commodity Product, the sum of the Cost of Milk for Inventory Valuation and Inventoriable Costs.
Farmgate Milk Price Inventory	For each month in a Year, the sum of the amounts of Farmgate Milk Price Inventoriable Value multiplied by Farmgate Milk Price Inventory Volume for each Reference Commodity Product.
Advance Rate Schedule	For a Year, the schedule specifying the percentage of the Farmgate Milk Price for the year that Fonterra will pay in any particular month for share-backed milk supplied prior to the month.
Farmgate Milk Price Trade Payables	For each month in a Year, the balance outstanding at the end of the month in respect of Farmgate Milk Price Cash Costs (excluding Farmgate Milk Price Tax Recovery) implied by the Variable Manufacturing Cost Phasings, Fixed Cost Phasings, the Farmgate Milk Price Cash Costs, the Selling Costs and the Farmgate Milk Price Trade Payable Days.
Variable Manufacturing Cost Phasings	For each month in a Year, and for each category of Variable Manufacturing Costs, an assessment of the percentage of total Variable Manufacturing Costs for the Year that could reasonably be expected to be incurred in the month, calculated by reference to whichever of the following is relevant: <ul style="list-style-type: none"> <li>▪ The percentage of Milk Supply for the Season collected in the month.</li> <li>▪ The percentages of total MT of each Reference Commodity Product that is manufactured in the Month.</li> <li>▪ The percentages of total MT of each Reference Commodity Product that is sold in the Month .</li> </ul>
Fixed Cost Phasings	For each month in a Year, an assessment of the percentage of total Fixed Costs for the Year that could reasonably be expected to be incurred in the month, calculated by reference to the actual fixed costs incurred by Fonterra in each month in the Year.

Item	Definition
Farmgate Milk Price Suppliers Payable	For each month in a Year, the balance that would be outstanding at the end of the month if the price used to determine Fonterra's cost of milk in each month equalled the Farmgate Milk Price for the year, monthly milk supply equalled Milk Supply for the month, and cash payments to suppliers for milk were calculated by reference to the Advance Rate Schedule.
Farmgate Milk Price Tax Payable	For each month in a Year, the accrued Income Tax Payable amount at the end of the month, calculated under the assumption that the Farmgate Milk Price Tax Recovery for the Year is paid in equal instalments on the standard dates for payment of provisional tax.
Farmgate Milk Price Net Working Capital	For each month, the following amounts calculated in respect of the immediately preceding month: Farmgate Milk Price Accounts Receivable <i>Plus</i> Farmgate Milk Price Inventory <i>Less</i> Farmgate Milk Price Trade Payables <i>Less</i> Farmgate Milk Price Tax Payable <i>Less</i> Farmgate Milk Price Suppliers Payable.
Net Working Capital Charge	For each month in a Year, the amount calculated by multiplying Farmgate Milk Price Net Working Capital by the Monthly WACC.
Capital Costs	For each month in a Year, other than the twelfth month in the Season, the Net Working Capital Charge. For the twelfth month in the Season, the sum of the Net Working Capital Charge, the Fixed Asset Capital Charge and Farmgate Milk Price Depreciation.
WACC	Calculated for a Year: $WACC = k_d(1 - T_c)L + k_e(1 - L)$ where <ul style="list-style-type: none"> <li>▪ <math>k_d</math> is the Cost of Debt</li> <li>▪ <math>k_e</math> is the Cost of Equity</li> <li>▪ <math>T_c</math> is the company tax rate, and</li> <li>▪ <math>L</math> is the Farmgate Milk Price Leverage Ratio.</li> </ul>

Item	Definition
Monthly WACC	For a Year $(1 + \text{WACC})^{\frac{1}{12}} - 1$ .
Monthly Discount Factor	For each month in a Year $\frac{1}{(1 + \text{Monthly WACC})^m}$ , where 'm' is set equal to 1 for the first month in the Season, 2 for the second, and so on.
Cost of Debt	Calculated for a Year as: $k_d = R_f + \text{DM}$ , where <ul style="list-style-type: none"> <li>▪ R<sub>f</sub> is the Risk Free Interest Rate, and</li> <li>▪ DM is the Debt Premium.</li> </ul>
Risk Free Interest Rate	Calculated as: $\left(1 + \frac{R}{2}\right)^2 - 1$ where R is the average secondary market yield on five year government stock as reported by the Reserve Bank of New Zealand for the 60 months preceding the first day of the Season.
Debt Premium (DM)	The sum of: <ol style="list-style-type: none"> <li>(a) The average spread over US Treasury strips for A- rated debt with a five year term to maturity issued by US industrial companies, as reported by Bloomberg for the 60 months preceding the first day of the Season, rounded to the nearest 5 basis points</li> <li>(b) A reasonable provision for any costs that would ordinarily be incurred in swapping item (a) to NZD, and</li> <li>(c) A reasonable provision for the annualised cost associated with issuing debt, to the extent such costs are not otherwise provided for.</li> </ol>
Company Tax Rate	For a Year, the Company Tax Rate for that Year.

Item	Definition
Farmgate Milk Price Leverage Ratio	0.4
Cost of Equity	<p>Calculated for a Year as:</p> $k_e = R_f(1 - T_c) + \beta_e \text{PTMRP} + \text{SRP},$ <p>where</p> <ul style="list-style-type: none"> <li>▪ <math>R_f</math> is the Risk Free Interest Rate</li> <li>▪ <math>T_c</math> is the Company Tax Rate</li> <li>▪ <math>\beta_e</math> is the Equity Beta</li> <li>▪ PTMRP is the Post Tax Market Risk Premium, and</li> <li>▪ SRP is the specific risk premium calculated under Rule 41.</li> </ul>
Equity beta	<p>Calculated for a Year as:</p> $\beta_e = \beta_a \frac{1}{1 - L}$ <p>where:</p> <ul style="list-style-type: none"> <li>▪ <math>\beta_a</math> is the Asset Beta, and</li> <li>▪ <math>L</math> is the Farmgate Milk Price Leverage Ratio.</li> </ul>
Asset beta	The value determined by the Independent Reviewer under Rule 43.
Post Tax Market Risk Premium	The amount used by the Commerce Commission in regulatory decisions in the 12 month period preceding the beginning of the Review Period, and if more than one amount is used by the Commerce Commission in that period, the amount which can most reasonably be considered to represent the Commission's current position at the beginning of the Review Period.



## 1.5 DEFINITIONS – AGGREGATE FARMGATE MILK PRICE

This Section sets out the detailed rules for the calculation of the Aggregate Farmgate Milk Price for a Financial Year.

Item	Definition
Monthly Available for Milk	For each month in a Year: Farmgate Milk Price NZD Revenue <i>Less</i> Farmgate Milk Price Cash Costs <i>Less</i> Capital Costs <i>Less</i> <u>Additional Commodity Milk Payments</u> <i>Less</i> <u>Standard Supply Adjustments.</u>
Discounted Monthly Available for Milk	For each month in a Year: A x B where <ul style="list-style-type: none"> <li>▪ A is Monthly Available for Milk, and</li> <li>▪ B is the Monthly Discount Factor.</li> </ul> For the Year, the sum of the amounts calculated in respect of each month.
Discounted Milk Supply	For a Season, the sum of the following amounts calculated in respect of each month in the Season: A x B where: <ul style="list-style-type: none"> <li>▪ A is Monthly Milk Supply, and</li> <li>▪ B is the Monthly Discount Factor.</li> </ul>
<u>kgMS</u> Farmgate Milk Price	The <u>kgMS</u> Farmgate Milk Price for a Year is calculated as: $\frac{A}{B}$

Item	Definition
	where: <ul style="list-style-type: none"> <li>▪ A is Discounted Monthly Available for Milk, and</li> <li>▪ B is Discounted Milk Supply.</li> </ul>
<u>Farmgate Milk Price Aggregate Commodity Milk Payments Amount</u>	For a Season, the sum of: <ul style="list-style-type: none"> <li>▪ <u>The Aggregate Farmgate Milk Price</u></li> <li>▪ <u>Standard Supply Adjustments</u>, and</li> <li>▪ <u>Additional Commodity Milk Payments</u>.</li> <li>▪ —</li> </ul>
Aggregate Farmgate Milk Price	For a Season, the product of Milk Supply for the Season and the Farmgate Milk Price
<u>Standard Supply Adjustments</u>	<u>For a Season, the sum of the net amount of adjustments under Fonterra's standard terms of supply to payments for Milk for any under or over-recovery of the volume adjustment, the sum of any DDE charges and the net amount of any deductions allowed for under the standard terms of supply, including demerit deductions for milk quality (after providing for any associated costs not otherwise allowed for in the calculation of the Aggregate Commodity Milk Payments).</u>
<u>Additional Commodity Milk Payments</u>	<u>For a Season, the sum of the net amount of all premiums and discounts, calculated relative to the Farmgate Milk Price, applied to payments for Milk supplied other than on Fonterra's standard terms of supply where (and to the extent) the Milk Price Panel has determined it would be commercially appropriate for the Farmgate Milk Price Commodity Business to make those payments for the Milk on the relevant terms for conversion into Reference Commodity Products, including the relevant portion of any premiums paid for winter milk and discounts for contract milk.</u>
<u>Non-Commodity Milk Payments</u>	<u>For a Season, the sum of all payments for Milk not supplied on Fonterra's standard terms of supply and which the Milk Price Panel has determined under Rule 45 and Rule 47 would not have been paid by the Farmgate Milk Price Commodity Business for Milk sourced in equivalent circumstances for the manufacture of Reference Commodity Products.</u>



# FARMGATE MILK PRICE MANUAL – GLOSSARY

## GLOSSARY

In the Manual, capitalised terms have the following meanings:

**Additional Commodity Milk Payments** has the meaning set out in Section 1.5 of Part C of the Manual.

**Adjusted Volume** has the meaning set out in Section 1.2 of Part C of the Manual.

**Advance Rate Schedule** has the meaning set out in Section 1.4 of Part C of the Manual.

**Aggregate Commodity Milk Payments Amount** has the meaning set out in Rule 44 of Part B of the Manual.

**Aggregate Farmgate Milk Price** has the meaning set out in Rule 47 of Part B of the Manual.

**Allocation of Risks** means the allocation of risk between suppliers and investors summarised in Table 2.1 in Part A of the Manual.

**AMF** means anhydrous milk fat.

**Allowable Unit Resource Cost** has the meaning set out in Section 1.3 of Part C of the Manual.

**Allowable Yield Losses** has the meaning set out in Section 1.2 of Part C of the Manual.

**Annual Capital Recovery Amount** has the meaning set out in Section 1.4 of Part C of the Manual.

**Asset Beta** has the meaning set out in Section 1.4 of Part C of the Manual.

**Benchmark FX Conversion Rate** has the meaning set out in Section 1.2 of Part C of the Manual.

**Benchmark Selling Price** has the meaning set out in Section 1.2 of Part C of the Manual.

**BMP** means butter milk powder.

**Board** means the board of directors of Fonterra.

**Capital Costs** has the meaning set out in Section 1.4 of Part C of the Manual.

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**Chief Executive Officer** means the chief executive officer of Fonterra.

**Chief Financial Officer** means the chief financial officer of Fonterra.

**Cleaning and CIP Cost** has the meaning set out in Section 1.3 of Part C of the Manual.

**Commodity Product** means a dairy product that is supplied without qualitative differentiation across a market.

**Company Tax Rate** has the meaning set out in Section 1.4 of Part C of the Manual.

**Composition Target** has the meaning set out in Section 1.2 of Part C of the Manual.

**Constitution** means the constitution of Fonterra as amended from time to time.

**Consumables Cost** has the meaning set out in Section 1.3 of Part C of the Manual.

**Corporate Overheads** has the meaning set out in Section 1.3 of Part C of the Manual.

**Cost of Debt** has the meaning set out in Section 1.4 of Part C of the Manual.

**Cost of Equity** has the meaning set out in Section 1.4 of Part C of the Manual.

**Cost of Milk** has the meaning set out in Section 1.3 of Part C of the Manual.

**Cost of Milk for Inventory Valuation** has the meaning set out in Section 1.4 of Part C of the Manual.

**Debt Premium** has the meaning set out in Section 1.4 of Part C of the Manual.

**Designated Product Streams** has the meaning set out in Section 1.2 of Part C of the Manual.

**DIRA** means the Dairy Industry Restructuring Act 2001.

**Discounted Milk Supply** has the meaning set out in Section 1.5 of Part C of the Manual.

**Discounted Monthly Available for Milk** has the meaning set out in Section 1.5 of Part C of the Manual.

**Downgrade Cost** has the meaning set out in Section 1.3 of Part C of the Manual.

**Edible Downgrade** has the meaning set out in Section 1.3 of Part C of the Manual.

**Effective Date** means the effective date of this Manual set out on its front cover.

**Effluent Cost** has the meaning set out in Section 1.3 of Part C of the Manual.

**Energy Cost** has the meaning set out in Section 1.3 of Part C of the Manual.

**Equity beta** has the meaning set out in Section 1.4 of Part C of the Manual.

**FAS** means 'free alongside ship', such that the seller must bear the cost of delivering the goods to the ship's side at the wharf, including charges for wharfage and portorage. The buyer must bear the cost of delivering the goods into the ship and all subsequent freight charges.

**Farmgate Milk Price** ~~means the average price means the aggregate price of milk for a Season for each kilogram of milksolids supplied under Fonterra's standard terms of supply, and calculated in accordance with the Manual divided by the amount of Milk supplied to Fonterra by Shareholders (measured in kilograms of milksolids) in that Season as set out in Section 1.5 of Part C of the Manual~~ Rule 48 of Part B of the Manual.

**Farmgate Milk Price Accounts Receivable** has the meaning set out in Section 1.4 of Part C of the Manual.

**Farmgate Milk Price Capital Costs** means the Annual Capital Recovery Amount and the Net Working Capital Charge.

**Farmgate Milk Price Cash Costs** has the meaning set out in Section 1.3 of Part C of the Manual.

**Farmgate Milk Price Commodity Business** means a business that collects the Milk Supply and converts it into the Farmgate Milk Price Production Plan for sale at the New Zealand wharf as described in Section 1.1 of Part C of the Manual.

**Farmgate Milk Price Depreciation** has the meaning set out in Section 1.4 of Part C of the Manual.

**Farmgate Milk Price EBIT** has the meaning set out in Section 1.3 of Part C of the Manual.

**Farmgate Milk Price Fixed Asset Base** has the meaning set out in Section 1.4 of Part C of the Manual.

**Farmgate Milk Price Fixed Asset Register** has the meaning set out in Section 1.4 of Part C of the Manual.

**Farmgate Milk Price Inventoriable Value** has the meaning set out in Section 1.4 of Part C of the Manual.

**Farmgate Milk Price Inventory** has the meaning set out in Section 1.4 of Part C of the Manual.

**Farmgate Milk Price Inventory Volume** has the meaning set out in Section 1.4 of Part C of the Manual.

**Farmgate Milk Price Lactose Cost** has the meaning set out in Section 1.3 of Part C of the Manual.

**Farmgate Milk Price Leverage Ratio** has the meaning set out in Section 1.4 of Part C of the Manual.

**Farmgate Milk Price Methodology** means the methods and systems used to calculate the Farmgate Milk Price as set out in the Manual.

**Farmgate Milk Price Net Working Capital** has the meaning set out in Section 1.4 of Part C of the Manual.

**Farmgate Milk Price NZD Commodity Receipts** has the meaning set out in Section 1.2 of Part C of the Manual.

**Farmgate Milk Price NZD Commodity Revenue** has the meaning set out in Section 1.2 of Part C of the Manual.

**Farmgate Milk Price Production** has the meaning set out in Section 1.2 of Part C of the Manual.

**Farmgate Milk Price Revenue** has the meaning set out in Part C of the Manual.

**Farmgate Milk Price Revenue Days** has the meaning set out in Section 1.4 of Part C of the Manual.

**Farmgate Milk Price Sales** has the meaning set out in Section 1.2 of Part C of the Manual.

**Farmgate Milk Price Sales Phasing** has the meaning set out in Rule 9 of Part B of the Manual.

**Farmgate Milk Price Suppliers Payable** has the meaning set out in Section 1.4 of Part C of the Manual.

**Farmgate Milk Price Tax Payable or ITP** has the meaning set out in Section 1.4 of Part C of the Manual.

**Farmgate Milk Price Tax Recovery** has the meaning set out in Section 1.3 of Part C of the Manual.

**Farmgate Milk Price Tax Depreciation** has the meaning set out in Section 1.3 of Part C of the Manual.

**Farmgate Milk Price Taxable EBIT** has the meaning set out in Section 1.3 of Part C of the Manual.

**Farmgate Milk Price Trade Payable Days** has the meaning set out in Section 1.4 of Part C of the Manual.

**Farmgate Milk Price Trade Payables** has the meaning set out in Section 1.4 of Part C of the Manual.

**Farmgate Milk Price USD Commodity Revenue** has the meaning set out in Section 1.2 of Part C of the Manual.

**Farmgate Milk Price USD Payments** has the meaning set out in Section 1.2 of Part C of the Manual.

**Farmgate Milk Price USD Receipts** has the meaning set out in Section 1.2 of Part C of the Manual.

**Financial Year** means a financial year of Fonterra.

**Fixed Asset Capital Charge** has the meaning set out in Section 1.4 of Part C of the Manual.

**Fixed Cost Phasings** has the meaning set out in Section 1.4 of Part C of the Manual.

**Fixed Manufacturing Costs** has the meaning set out in Section 1.3 of Part C of the Manual.

**Fonterra** means Fonterra Co-operative Group Limited and its subsidiaries.

**Fonterra Leadership Team** or **FLT** means the management grouping comprising the Chief Executive Officer and his or her direct reports (or such other management grouping nominated by the Chief Executive Officer).

**Freight Costs** has the meaning set out in Section 1.3 of Part C of the Manual.

**FX** means foreign exchange.

**F[year]** means the Financial Year ending in the specified calendar year.

**GlobalDairyTrade** or **GDT** means the 'GDT Events' electronic trading platform operated by Fonterra for the sale of Commodity Products.

**Independent Reviewer** means a valuer or other expert appointed to perform a review or function with respect to the Manual.

**Information Systems Costs** has the meaning set out in Section 1.2 of Part C of the Manual.

~~**kgMS Farmgate Milk Price** has the meaning set out in Section 1.5 of Part C of the Manual.~~

**Laboratory Cost** has the meaning set out in Section 1.3 of Part C of the Manual.

**Labour and Employee Related Expenses** has the meaning set out in Section 1.3 of Part C of the Manual.



**Labour Cost Index** means series SE49C9 (all labour costs for the manufacturing sector) of the Labour Cost Index maintained by Statistics New Zealand (or any replacement index).

**Lactose CIF Costs** has the meaning set out in Section 1.3 of Part C of the Manual.

**Lactose Payable Days** has the meaning set out in Section 1.3 of Part C of the Manual.

**Lactose Price** has the meaning set out in Section 1.3 of Part C of the Manual.

**Lactose Requirements** has the meaning set out in Section 1.3 of Part C of the Manual.

**Lactose Transport Costs** has the meaning set out in Section 1.3 of Part C of the Manual.

Maintenance Department Labour Costs has the meaning set out in Section 1.3 of Part C of the Manual.

**Manual** means this document, comprising Part A(Overview), Part B (Detailed Methodology) and Part C (Definitions), and the Glossary, as amended from time to time.

**Manufacturing Overheads** has the meaning set out in Section 1.3 of Part C of the Manual.

**Milk** means whole milk, cream and any other component or classification of a mammary secretion of a cow, as may be specified by the Board.

**Milk Collection Costs** has the meaning set out in Section 1.3 of Part C of the Manual.

**Milk Price Group** has the meaning set out in Section 4.3 of Part A of the Manual.

**Milk Supply** has the meaning set out in Section 1.1 of Part C of the Manual.

**Minor Supply Chain Costs** has the meaning set out in Section 1.3 of Part C of the Manual.

**Monthly Available for Milk** has the meaning set out in Section 1.5 of Part C of the Manual.

**Monthly Discount Factor** has the meaning set out in Section 1.4 of Part C of the Manual.

**Monthly WACC has the meaning set out in Section 1.4 of Part C of the Manual.**

**MPG Head** has the meaning set out in clause 4.3 of Part A of the Manual.

**MT** means metric tonne.

**Net Farmgate Milk Price USD Revenue** has the meaning set out in Section 1.2 of Part C of the Manual.

**Net Working Capital Charge** has the meaning set out in Section 1.4 of Part C of the Manual.

**Non-Commodity Milk Payments** has the meaning set out in Section 1.5 of Part C of the Manual.

**NZD** means New Zealand dollars.

**Packaging Cost** has the meaning set out in Section 1.3 of Part C of the Manual.

**Panel** has the meaning set out in Section 4.2 of Part A of the Manual.

**Placement Specifications** has the meaning set out in Section 1.3 of Part C of the Manual.

**Post Tax Market Risk Premium** has the meaning set out in Section 1.4 of Part C of the Manual.

**Primary Reference Commodity Product** has the meaning set out in Section 1.1 of Part C of the Manual.

**Principles** means the overriding principles which are the basis of the Manual, as set out in Section 2 of Part A of the Manual.

**Producers Price Index** means the Producers Price Index maintained by Statistics New Zealand (or any replacement index).

**Product Mix** has the meaning referred to in Section 1.1 of Part C of the Manual.

**Product Specification** has the meaning set out in Section 1.1 of Part C of the Manual.

**Product Stream** has the meaning set out in Section 1.2 of Part C of the Manual.

**Product Yields** has the meaning set out in Section 1.2 of Part C of the Manual.

**Qualifying Material** has the meaning set out in Section 1.2 of Part C of the Manual.

**Qualifying Outlier Sale** has the meaning set out in Section 1.2 of Part C of the Manual.

**Qualifying Reference Sales** has the meaning set out in Section 1.2 of Part C of the Manual.

**Reference Asset** has the meaning set out in Section 1.4 of Part C of the Manual.

**Reference Asset Annual Capital Recovery Amount** has the meaning set out in Section 1.4 of Part C of the Manual.

**Reference Asset Farmgate Milk Price Depreciation** has the meaning set out in Section 1.4 of Part C of the Manual.

**Reference Basket** has the meaning set out in Section 1.1 of Part C of the Manual.

**Reference Commodity Product** has the meaning set out in Section 1.1 of Part C of the Manual.

**Region** means either the North Island or the South Island.

**Repairs and Maintenance Costs** has the meaning set out in Section 1.3 of Part C of the Manual.

**Research and Development Costs** has the meaning set out in Section 1.3 of Part C of the Manual.

**Resource Usage Rate** has the meaning set out in Section 1.3 of Part C of the Manual.

**Review Assessment Year** means the Financial Year immediately preceding a Review Year.

**Review Period**, with respect to an item subject to review, means (a) a period of four Financial Years or (b) such other period as the Milk Price Panel may determine with respect to that item.

**Review Year** means the first Financial Year in a Review Period, and for:

- The review by the MPG of the matters described in paragraph (d) of section 5.4 of Part A of the Manual, means the 2019/20 Season.
- Rule 14 (Fixed manufacturing costs), Rule 17 (Sales Costs) Rule 18 (Site overheads, general overhead costs & R&D costs) and Rule 20 (Certain supply chain costs) means the 2015/16 and 2019~~8~~/2019 Seasons, and
- Rule 7 (Product Yields), Rule 12 (Variable manufacturing costs), Rule 25 (Reference assets), Rule 29 (Allocation of reference assets), Rule 34 (Surplus capacity) and Rule 39 (New technology) means the 2016/17 and 2020/21 Seasons.
- Rule 43 (Asset beta) and Rule 44 (Specific risk premium) means the 2020/21 Season.

**Rework** has the meaning set out in Section 1.3 of Part C of the Manual.

**Risk Free Interest Rate** has the meaning set out in Section 1.4 of Part C of the Manual.

**Sales Cost** has the meaning set out in Section 1.1 of Part C of the Manual.

**Commented [PG3]:** Error correction. Intent / requirement is to undertake this review at 4-yearly intervals.

**Season** means a period of 12 months ending on 31 May in each year.

**Shareholder** means the holder of a co-operative share issued by Fonterra.

**Shipment Month** has the meaning set out in Section 1.2 of Part C of the Manual.

**Site** means a manufacturing site of Fonterra (or, if considered appropriate, two or more smaller manufacturing sites treated as a single manufacturing site).

**Site Footprint** has the meaning set out in Rule 36 of Part B of the Manual.

**Site Overheads** has the meaning set out in Section 1.3 of Part C of the Manual.

**SMP** means skim milk powder.

**Specialised Plant** has the meaning set out in Section 1.2 of Part C of the Manual.

**Specification Limit** has the meaning set out in Section 1.2 of Part C of the Manual.

**Standard Commodity Price** has the meaning set out in Section 1.2 of Part C of the Manual.

**Standard Plant** has the meaning set out in Section 1.4 of Part C of the Manual.

**Standard Packaging** has the meaning set out in Section 1.2 of Part C of the Manual.

**Standard Product Offering** has the meaning set out in Section 1.2 of Part C of the Manual.

**Standard Specification Product** has the meaning set out in Section 1.1 of Part C of the Manual.

**Standard Supply Adjustments** has the meaning set out in Section 1.5 of Part C of the Manual.

**Standardising Lactose After Adjustment for Losses** has the meaning set out in Section 1.3 of Part C of the Manual.

**Stockfood Downgrade** has the meaning set out in Section 1.3 of Part C of the Manual.

**Storage Costs** has the meaning set out in Section 1.3 of Part C of the Manual.

**Supply Chain Costs** has the meaning set out in Section 1.3 of Part C of the Manual.

**Supply Chain Overhead Cost** has the meaning set out in Section 1.3 of Part C of the Manual.

**USD** means US dollars.

**Valued Component** has the meaning set out in Section 1.2 of Part C of the Manual.

**Valued Component Usage** has the meaning set out in Section 1.2 of Part C of the Manual.

**Variable Manufacturing Cost Phasings** has the meaning set out in Section 1.4 of Part C of the Manual.

**Variable Manufacturing Costs** has the meaning set out in Section 1.3 of Part C of the Manual.

**WACC** means the annual percentage amount calculated for each Financial Year using the approach set out in Section 1.4 of Part C of the Manual.

**Water Cost** has the meaning set out in Section 1.3 of Part C of the Manual.

**Within-Period Review** has the meaning set out in Section 1.3 of Part C of the Manual.

**WMP** means whole milk powder.

**Year** means, depending on context, a Financial Year, the Season corresponding to the Financial Year, or the period of time during which cash is deemed to be received or disbursed in respect of Reference Commodity Products manufactured from milk supplied in the Season.