

Review of Fonterra's 2021/22 base milk price calculation: Dairy Industry Restructuring Act 2001

Draft report

The Commission: Vhari McWha
 Sue Begg
 Elisabeth Welson

Date of publication: 15 August 2022



Associated documents

Publication date	Title
19 April 2022	<u>Proposed focus areas for our review of Fonterra's 2021/22 base milk price calculation</u>
15 December 2021	<u>Final Report – Review of Fonterra's 2021/22 milk price Manual: Dairy Industry Restructuring Act 2001</u>
15 September 2021	<u>Final Report – Review of Fonterra's 2020/21 base milk price calculation: Dairy Industry Restructuring Act 2001</u>
5 July 2021	<u>Our approach to reviewing Fonterra's Milk Price Manual and base milk price calculation</u>
13 October 2020	<u>Fibre input methodologies – Reasons paper main final decisions</u>
15 September 2020	<u>Final report – Review of Fonterra's 2019/20 base milk price calculation: Dairy Industry Restructuring Act 2001</u>
15 September 2016	<u>Final report – Review of Fonterra's 2015/16 base milk price calculation: Dairy Industry Restructuring Act 2001</u>
15 September 2015	<u>Final report – Review of Fonterra's 2014/15 base milk price calculation: Dairy Industry Restructuring Act 2001</u>

Contents

Chapter 1	Introduction.....	4
Chapter 2	Our review framework.....	7
Chapter 3	Draft conclusions	11
Attachment A	Responses to proposed focus areas paper submissions	37
Attachment B	Glossary of terms	40
Attachment C	Fonterra explanation of the change in application of the cascadable product rule	41

Chapter 1 Introduction

Purpose of this report

- 1.1 This report sets out our draft conclusions from our statutory review of the extent to which Fonterra's 2021/22 base milk price calculation (the **Calculation**) is consistent with the purposes of the base milk price monitoring regime under subpart 5A of the Dairy Industry Restructuring Act 2001 (**DIRA**).¹
- 1.2 This report follows our review of Fonterra's Milk Price Manual (**Manual**) for the 2021/22 season and builds on the analysis and conclusions from our previous Manual and review of Fonterra's Base Milk Price Calculation (**Calculation review**).²

How this report is structured

- 1.3 Chapter 2 explains our review framework and the scope of our 2021/22 Calculation review.
 - 1.3.1 Chapter 3 sets out our draft conclusions from:
 - 1.3.2 our review of the focus areas for the 2021/22 Calculation review; and
 - 1.3.3 our fit for purpose review of the assumptions adopted, and inputs and processes used by Fonterra when calculating the base milk price.
- 1.4 Attachment A provides a summary of our responses to submissions by stakeholders on our Proposed Focus Areas Paper for our review of Fonterra's 2021/22 base milk price calculation where we have not included them in our focus area reviews in Chapter 3.³
- 1.5 Attachment B provides a glossary of the key terms and abbreviations used in this draft report.
- 1.6 Attachment C provides a detailed explanation of the process and impact of the change in application of the cascadable product rule, as provided by Fonterra.

¹ The term 'base milk price' defined by DIRA is the price per kilogram of milk solids set by Fonterra for a dairy season. See also paragraph 2.6 below.

² [Commerce Commission "Final Report – Review of Fonterra's 2021/22 milk price Manual: Dairy Industry Restructuring Act 2001" \(15 December 2021\).](#)

³ [Commerce Commission "Proposed focus areas for our review of Fonterra's 2021/22 base milk price calculation" \(19 April 2022\).](#)

How you can provide your views

Invitation to comment

- 1.7 As required under DIRA, we are consulting with Fonterra on this draft report.⁴ We have also extended our consultation process to other interested parties.
- 1.8 We welcome stakeholder views on any aspects of this draft report before we finalise our conclusions. Your views on our draft report will help inform our final conclusions for our review.⁵

Deadline for submissions

- 1.9 We invite submissions on this draft report from interested parties, which we will consider when preparing our final report.
- 1.10 To allow us time to consider your views, submissions on this draft report must be provided to us no later than **12 noon, Thursday 1 September 2022**.
- 1.11 Our final report on the Calculation will be published on 15 September 2022.

Format of submissions

- 1.12 Please address all written comments to:

Keston Ruxton, Manager Fuel and Dairy

c/o market.regulation@comcom.govt.nz

Subject line: Milk Price Calculation 2021/22

- 1.13 We prefer submissions in both a format suitable for word processing (such as a Microsoft Word doc), and a 'locked' format (such as a PDF) for publication on our website.
- 1.14 The protection of confidential information is something the Commission takes seriously. The process requires you to provide (if necessary) both a confidential and public version of your submission and to clearly identify the confidential and public versions.
- 1.15 When including commercially sensitive or confidential information in your submission, we offer the following guidance:
- 1.15.1 Please provide a clearly labelled confidential version and public version of your submission. We intend to publish all public versions on our website.

⁴ DIRA, section 150U.

⁵ DIRA, section 150U.

1.15.2 The responsibility for ensuring that confidential information is not included in a public version of a submission rests entirely with the party making the submission.

1.16 Please note that all submissions we receive, including any parts that we do not publish, can be requested under the Official Information Act 1982. This means we would be required to release material that we do not publish unless good reason existed under the Official Information Act 1982 to withhold it. We would normally consult with the party that provided the information before any disclosure is made.

Chapter 2 Our review framework

Our approach for the Calculation review

- 2.1 This report should be read with our 2021 approach paper, Our approach to reviewing Fonterra's Milk Price Manual and base milk price calculation (**Approach paper**), which we have applied in this review and which forms part of this report.⁶ The Approach paper provides an overview of the approach we take in our reviews of Fonterra's Manual and base milk price calculation and includes:
- 2.1.1 an overview of how the base milk price is set;
 - 2.1.2 our interpretation of key legislative provisions guiding our statutory reviews; and
 - 2.1.3 our analytical and practical approach to our statutory reviews.
- 2.2 The base milk price monitoring regime is intended to provide incentives for Fonterra to act efficiently, while providing for contestability in the market for the purchase of milk from farmers. The regime also promotes greater transparency of Fonterra's base milk price setting processes.⁷
- 2.3 In our Approach paper, we discuss both the efficiency and contestability dimensions in the context of the base milk price Calculation review.⁸ In summary:
- 2.3.1 Efficiency: our view is that the assumptions adopted, and inputs and processes used in the Calculation will provide an incentive for Fonterra to operate efficiently where the Calculation uses independent notional benchmarks for the revenue and cost inputs.
 - 2.3.2 Contestability: the contestability dimension is satisfied if the assumptions adopted, inputs and processes used in the Calculation are practically feasible for an efficient processor. The essence of contestability is that efficient firms can compete in the market. If efficient firms are able to compete in the market, then contestability is provided for.

⁶ [Commerce Commission "Our approach to reviewing Fonterra's Milk Price Manual and base milk price calculation" \(5 July 2021\).](#)

⁷ [Dairy Industry Restructuring Amendment Bill \(Government Bill\) 2012, at 2.](#)

⁸ [Commerce Commission "Our approach to reviewing Fonterra's Milk Price Manual and base milk price calculation" \(5 July 2021\), at \[34-52\].](#)

- 2.4 Our analytical and practical approach to our statutory reviews is described in Chapter 4 of the Approach paper.⁹
- 2.5 Under DIRA we are required to review the Calculation of the base milk price and assess the extent to which the assumptions adopted, and the inputs and processes used by Fonterra in setting the base milk price, are consistent with the efficiency and contestability dimensions, as outlined in section 150A of DIRA (the **section 150A Purpose**).
- 2.6 The base milk price in relation to a season means the price per kilogram of milk solids that is set by Fonterra for that season.¹⁰ The forecast for the base milk price is currently \$9.10 - \$9.50 per kilogram of milk solids (**kgMS**) for the season under review in this draft report, which ended on 31 May 2022.¹¹
- 2.7 We note that Fonterra uses the term farmgate (one word) milk price when referring to the base milk price in its Manual and annual Farmgate Milk Price Statement. In this draft report we use the term 'base milk price' in all cases unless quoting from Fonterra materials.
- 2.8 More information on the distinction between the base milk price, which is subject to our statutory reviews, and other prices in the dairy supply chain is provided in our Approach paper.

Scope of our review of the 2021/22 calculation

- 2.9 Our review of the Calculation builds on the conclusions from our previous reviews. Based on the information we gather, we determine the key areas to focus on for each Calculation review.¹² These constitute our 'focus areas' for which we undertake more detailed analysis.
- 2.10 For the other revenue and cost components of the Calculation that are not part of the focus areas analysis, we undertake a fit for purpose review, which includes:¹³
- 2.10.1 an analytical verification of the values used in each component against our previous reviews of the same component; and

⁹ [Commerce Commission "Our approach to reviewing Fonterra's Milk Price Manual and base milk price calculation" \(5 July 2021\), at 18-30.](#)

¹⁰ DIRA, section 5.

¹¹ See <https://www.nzx.com/announcements/391677>.

¹² [Commerce Commission "Our approach to reviewing Fonterra's Milk Price Manual and base milk price calculation" \(5 July 2021\), at 101.](#)

¹³ [Commerce Commission "Our approach to reviewing Fonterra's Milk Price Manual and base milk price calculation" \(5 July 2021\), at 102-102.3.](#)

- 2.10.2 a review of the consistency of the assumptions, inputs and processes related to the different components.
- 2.11 If any aspect of this fit for purpose review identifies material changes from our previous analysis of the base milk price reporting model, we will consider whether more analysis of that component is required.¹⁴ This year we have only identified material changes to two components compared to last year: the lactose cost and off-GDT prices.
- 2.12 For this year’s Calculation review, our focus areas are:
- 2.12.1 asset beta;
 - 2.12.2 post tax market risk premium (**PTMRP**);
 - 2.12.3 Qualifying Materials and incremental product cost (**IPC**) adjustments;¹⁵ and
 - 2.12.4 cost inflation adjustments.
- 2.13 In our Proposed Focus Areas Paper, we proposed the asset beta, PTMRP, and Qualifying Materials and IPC adjustments as focus areas for this year’s review.¹⁶ We have also included cost inflation adjustments as a focus area in response to submissions requesting we review the impact on milk price costs of current inflationary pressures across the broader economy. This review is limited to a consideration of adjustments to capital asset costs and variable manufacturing costs.
- 2.14 Where stakeholders raised points in their Proposed Focus Areas Paper submissions relevant to the focus areas in this year’s review, we have addressed these points in Chapter 3. In Attachment A we provide a summary of our responses to other matters raised in submissions.

¹⁴ [Commerce Commission "Our approach to reviewing Fonterra's Milk Price Manual and base milk price calculation" \(5 July 2021\), at \[103\]](#). As described, for purposes of identifying changes which might become future focus areas we apply an ‘indicative operational’ materiality of an equivalent of 0.5% of the WACC used in the milk price reporting model for the season under review.

¹⁵ The meaning of these two terms is explained below in paragraphs 3.43 to 3.45 and 3.63.

¹⁶ [Commerce Commission "Proposed focus areas for our review of Fonterra’s 2021/22 base milk price calculation" \(19 April 2022\)](#).

Information considered in our review process

2.15 In reaching our draft conclusions we have considered:

2.15.1 submissions received on the proposed focus areas;¹⁷

2.15.2 Fonterra's reasons paper in support of the base milk price calculation for the 2021/22 season;¹⁸

2.15.3 the advice of Mr Greg Winter;¹⁹ and

2.15.4 additional models and documentation that Fonterra provided to us in confidence during our review which show the application of the assumptions, inputs and processes used by Fonterra in the base milk price calculation.

¹⁷ Submissions on our Proposed Focus Areas Paper were received from four stakeholders (Fonterra Co-operative Group Limited, Miraka Limited, Open Country Dairy Limited and Synlait Milk Limited), available at <https://comcom.govt.nz/regulated-industries/dairy/milk-price-manual-and-calculation/milk-price-calculation/milk-price-calculation-202122-season>.

¹⁸ [Fonterra "Reasons' Paper in Support of Fonterra's Base Milk Price for the 2021/22 Season" \(1 July 2022\)](#).

¹⁹ We engaged Mr Winter to provide technical expertise in support of our review of the Qualifying Materials & IPC adjustments. Mr Winter previously provided independent expert reports for our 2012/13 and 2015/16 Calculation Reviews. In this instance the scope of his engagement did not extend to the provision of a report. His advice is reflected in the draft conclusions set out in this report.

Chapter 3 Draft conclusions

Purpose of this chapter

- 3.1 In this chapter we outline our draft conclusions on the extent to which the assumptions, inputs and processes of the base milk price calculation for the 2021/22 season are consistent with the section 150A Purpose.
- 3.2 Specifically, we set out:
 - 3.2.1 a summary of our overall draft conclusion and draft conclusions on our focus areas review and fit for purpose review;
 - 3.2.2 our detailed findings from the review of the focus areas; and
 - 3.2.3 our detailed findings from the fit for purpose review.

Summary of overall draft conclusion

- 3.3 Our draft conclusion, subject to consideration of the further information we have recently requested from Fonterra on the material change in the impact of off-GDT pricing on the contestability dimension of section 150A, is that the assumptions adopted, and the inputs and processes used by Fonterra to calculate the 2021/22 base milk price are consistent with the contestability and the efficiency dimensions of the section 150A Purpose.
- 3.4 In undertaking our review of this season's calculation, we have applied the section 150C requirements in DIRA, including the requirements set out in section 150C(4) relating to the calculation of the asset beta. These requirements came into force on 1 June 2021 and, therefore, apply from the season that is under review in this draft report.
- 3.5 On this basis, our draft conclusions with respect to the asset beta consider whether the estimated value is likely to be appropriate for an efficient processor *and* whether the methodology applied to arrive at this value is consistent with section 150C(4).
- 3.6 Although not a matter that impacts our assessment of the assumptions adopted and the inputs and processes used by Fonterra to calculate the base milk price for 2021/2022, we suggest that Fonterra reconsider the inclusion of Fonterra data in the comparator set used to estimate the asset beta in its next review of the asset beta.
- 3.7 In order to improve transparency, we recommend the Manual be revised to include the requirements of the cascable product rule as it is applied.

Focus areas review

Contestability

- 3.8 Our draft conclusion is that the assumptions adopted, and the inputs and processes used by Fonterra that we reviewed as part of our focus areas review are consistent with the contestability dimension of the section 150A Purpose. We consider that:
- 3.8.1 the Milk Price Group (**MPG**) estimate of the asset beta, at 0.48, is within a reasonable range of asset beta values for an efficient processor;
 - 3.8.2 the PTMRP input value of 7.5% reflects the Commerce Commission's most recent estimate prior to the beginning of the review period of the post-tax difference between the expected return on a market portfolio and the risk-free rate faced by investors in the broader market;²⁰
 - 3.8.3 the list of Qualifying Materials constituting the Reference Commodity Products (**RCPs**) can be manufactured using standard plant and could be sold by an efficient processor at prices that are consistent with the reference prices;
 - 3.8.4 the IPCs are generated by Fonterra's internal costing system and are therefore achievable by Fonterra and an efficient processor; and
 - 3.8.5 the methods used for updating costs incorporate the effects of inflation and are appropriate for the capital asset and variable manufacturing cost lines to which they have been applied. The methods are based on industry trends in actual cost data and therefore we consider the outcomes they produce are practically feasible for an efficient processor.

Efficiency

- 3.9 Our draft conclusion is that the assumptions adopted, and the inputs and processes used by Fonterra that we reviewed as part of our focus areas review are consistent with the efficiency dimension of the section 150A Purpose. We consider that:
- 3.9.1 the asset beta input value of 0.48 is a notional value derived from independent data;
 - 3.9.2 the PTMRP input value of 7.5% is a notional value derived from an independent benchmark;

²⁰ [Commerce Commission "Fibre input methodologies – Main final decisions – reasons paper" \(13 October 2020\)](#).

- 3.9.3 although the Calculation revenues are based on Fonterra's actual sales of RCPs, as provided for in section 150C(1)(a), using a GDT or off-GDT benchmark set independently of Fonterra's current year performance provides an incentive to Fonterra to operate efficiently;
- 3.9.4 given the IPCs in the Calculation are forecast costs, they provide an appropriate notional benchmark to beat; and
- 3.9.5 for cost inflation adjustments, the rates used are compiled independently of Fonterra's current year performance and so provide an appropriate notional benchmark to beat.²¹

Fit for purpose review

- 3.10 In our fit for purpose review, we identified a material variance from last year's costs for lactose costs. This was driven by changes in international lactose prices applied to the notional milk price volumes and is outside Fonterra's control.
- 3.11 We also identified a material change in the impact of off-GDT pricing that requires consideration in relation to the contestability dimension of section 150A. Fonterra says that this was caused by unusually favourable market conditions which enabled the achievement of higher than normal off-GDT premiums. As noted in paragraph 3.122 below, we have recently asked Fonterra to provide further evidence to support its explanation of the 3.6 cents per kgMS impact, which we will take into account in our final report.
- 3.12 We did not identify any other material variances in inputs and assumptions compared with last year's base milk price calculation.
- 3.13 In its reasons paper in support of the Calculation, Fonterra has confirmed that it has:
 - 3.13.1 not made any substantive amendments to the Manual for 2021/22 in respect of the revenue calculation; and
 - 3.13.2 not made any material changes to the Calculation methodology since last year.²²

²¹ [Commerce Commission "Our approach to reviewing Fonterra's Milk Price Manual and base milk price calculation" \(5 July 2021\), at 75-79.](#)

²² [Fonterra "Reasons' Paper in Support of Fonterra's Base Milk Price for the 2021/22 Season" \(1 July 2022\), at 11, 20 and 32.](#)

- 3.14 We rely on our conclusions from previous years' reviews for those aspects of the Manual and the Calculation methodology that have not significantly changed from previous years.
- 3.15 Therefore, subject to our consideration of the further information we have recently requested from Fonterra on the material change in the impact of off-GDT pricing on the contestability dimension of section 150A, for the assumptions and inputs that we have analysed as part of the fit for purpose review, our draft conclusions are as follows:
- 3.15.1 the assumptions adopted, and the inputs and process used by Fonterra in calculating the 2021/22 base milk price are consistent with the efficiency dimension of the section 150A Purpose; and
- 3.15.2 the assumptions adopted, and the inputs and process used by Fonterra to calculate the 2021/22 base milk price are consistent with the contestability dimension of the section 150A Purpose.

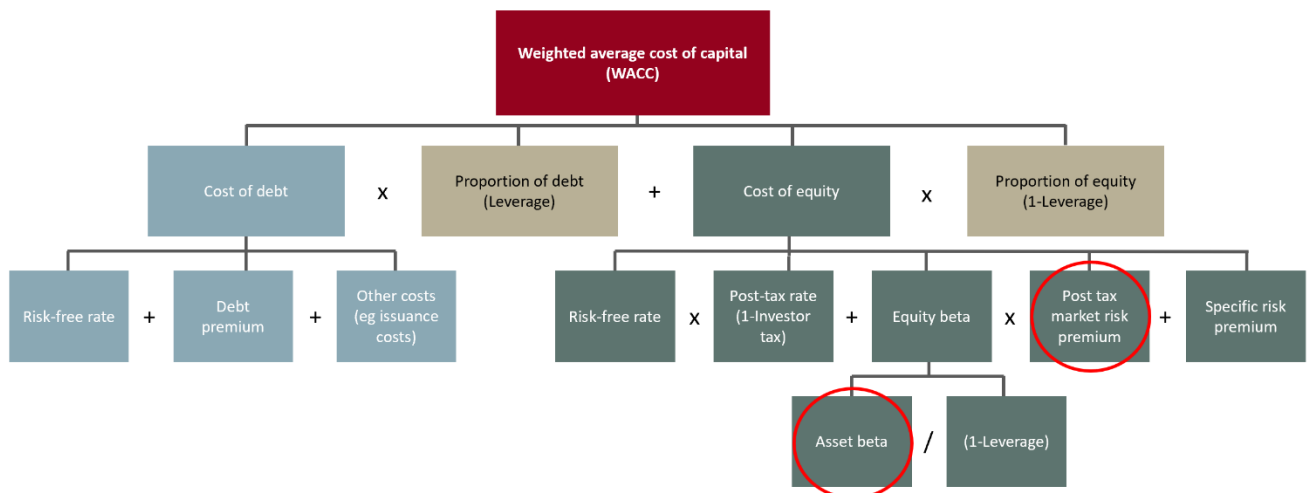
Detailed findings from our focus areas review

- 3.16 For our 2021/22 Calculation review, we have included the following focus areas:
- 3.16.1 asset beta;
- 3.16.2 PTMRP;
- 3.16.3 Qualifying Materials and IPC adjustments; and
- 3.16.4 cost inflation adjustments.
- 3.17 We have dealt with Qualifying Materials and IPC adjustments in separate sections below.

Asset beta

- 3.18 The asset beta is a material input into the weighted average cost of capital (**WACC**). The WACC is a material input into the Calculation. It represents the best estimate of the return that an efficient processor has an opportunity to earn in a workably competitive market. Two of our focus areas in this season's review, the asset beta and the PTMRP, are components of the WACC.
- 3.19 Table 3.1 below illustrates how the different components of the WACC calculation fit together, including the asset beta and the PTMRP.

Figure 3.1 WACC components



- 3.20 The asset beta provides an allowance for systematic risk faced by shareholders. Systematic risk measures the extent to which the returns of a company fluctuate relative to the equity returns in the stock market as a whole. Systematic risk cannot be diversified away by holding a portfolio of shares in different companies.²³
- 3.21 The Dairy Industry Restructuring Amendment Act 2020 introduced new requirements for the asset beta that clarified the characteristics of firms to be used as comparators when estimating the asset beta. The amended provisions are contained in section 150C(4) of DIRA and came into force on 1 June 2021.
- 3.22 In order to meet the purpose in section 150A, section 150C(4) requires Fonterra to use an asset beta that is consistent with the estimated asset betas of other processors of dairy and other food products that are:
- (a) traded in significant quantities in globally contested markets; and
 - (b) characterised by uniform technical specifications.²⁴
- 3.23 Prior to the introduction of section 150C(4) there were no specific requirements for calculating the asset beta.

²³ An asset beta removes the effect of the firm's capital structure by estimating the equity beta for an unlevered (zero debt) firm. Therefore, asset beta is a measure of systematic risk that can be compared across firms, without being affected by their specific financing strategies.

²⁴ DIRA, section 150C(4).

- 3.24 Our final report on the 2020/21 Calculation review made two observations on what we consider to be an appropriate implementation of these provisions:
- 3.24.1 an asset beta based on the average, estimated using a set of comparators that meets the requirements of section 150C(4)(a) and (b), will satisfy the efficiency and contestability requirements of section 150A;²⁵ and
 - 3.24.2 any adjustment away from that average will not be consistent with the provisions of section 150C(4) once in force.²⁶
- 3.25 We encouraged Fonterra to consider our comments on their methodology when estimating the asset beta for the Calculation. Our view was that maintaining an adjustment away from the average asset beta would not be consistent with the provisions of section 150C(4) once in force.²⁷
- 3.26 In our final report on the 2021/22 Manual review, we concluded that with regard to the asset beta, Rule 42, as currently worded, is inconsistent with section 150C(4) and is therefore inconsistent with the statutory purpose set out in section 150A of DIRA.
- 3.27 While Rule 42 is unchanged in respect of the 2021/22 Calculation, we note that Fonterra has made the following amendments to this rule with application from the 2022/23 season to address our concerns:
- 3.27.1 Rule 42 now includes the requirement that the point estimate selected from a range of DIRA-compliant estimates reflects the value which best reflects the exposure to systematic risk of an efficient New Zealand-based manufacturer of RCPs, rather than one that reflects Fonterra-specific risk; and
 - 3.27.2 Rule 42 now makes it explicit that the MPGs estimate **must** comply with section 150C(4).²⁸

²⁵ [Commerce Commission "Review of Fonterra's 2020/21 base milk price calculation: Final report" \(15 September 2021\), at \[3.27\].](#)

²⁶ [Commerce Commission "Review of Fonterra's 2020/21 base milk price calculation: Final report" \(15 September 2021\), at \[3.27\].](#)

²⁷ [Commerce Commission "Review of Fonterra's 2020/21 base milk price calculation: Final report" \(15 September 2021\), at \[3.61-3.62\].](#)

²⁸ [Fonterra "Reasons' Paper in Support of Fonterra's Milk Price Manual for the 2021/22 Season" \(30 July 2021\), Rule 42, at 56.](#)

- 3.28 This is the first Calculation review requiring consideration of the amended DIRA asset beta provisions after they took effect and on this basis, we proposed to include the asset beta as a focus area in our Proposed Focus Areas Paper.²⁹
- 3.29 The scope of our focus area review regarding asset beta was to consider the asset beta value in light of our findings from the 2021/22 Manual review. This includes the application of Rule 42 that we found to be inconsistent, in particular the finding that any asset beta that has been adjusted away from the comparator set on the basis of Fonterra-specific systematic risk would not be consistent with the estimated asset betas of other processors of dairy and other food products. It would therefore be inconsistent with section 150C(4).
- 3.30 We have considered the submissions made by stakeholders in response to our Proposed Focus Areas Paper but have not made any changes to our proposed scope regarding asset beta. We have set out the reasons for not expanding our scope in Attachment A and have included some discussion on the comparator set in response to submissions in paragraphs 3.34 to 3.38 below.

Methodology for calculating the asset beta in the Calculation

- 3.31 Our review of the models and documentation supplied by Fonterra confirms that an asset beta value of 0.48 has been applied in the Calculation.
- 3.32 In its reasons paper in support of the Calculation, Fonterra outlines the reasoning for its adoption of an asset beta value of 0.48:³⁰
- 3.32.1 the MPG undertook a limited scope ‘within-period review’ under Rule 23 of the Manual, restricting the scope to the Commerce Commission’s conclusion in its final report on our Review of Fonterra’s 2021/22 Milk Price Manual; and
- 3.32.2 notes that the asset beta estimate of 0.45 used to calculate the 2020/21 base milk price has been increased to 0.48, removing the downwards adjustment Fonterra had previously applied.³¹

²⁹ [Commerce Commission “Proposed focus areas for our review of Fonterra’s 2021/22 base milk price calculation” \(19 April 2022\), at \[15\].](#)

³⁰ [Fonterra “Reasons’ Paper in Support of Fonterra’s Base Milk Price for the 2021/22 Season” \(1 July 2022\), at 34.](#)

³¹ [Commerce Commission “Review of Fonterra’s 2020/21 base milk price calculation: Final report” \(15 September 2021\), at 3.51.](#)

Assessment of asset beta value against the purposes at section 150A

3.33 Fonterra has resolved our outstanding concern about the methodology applied to calculate the asset beta and the value is consistent with the value we estimated in last year's Calculation review applying section 150C(4). Accordingly, our draft conclusions are:

3.33.1 That an asset beta value of 0.48 is a notional input based on assumptions and processes that incentivise Fonterra to operate efficiently and is therefore consistent with the efficiency dimension of the section 150A Purpose.

3.33.2 That an asset beta value of 0.48 is an appropriate value for an efficient processor and thus practically feasible, and therefore consistent with the contestability dimension of the section 150A Purpose.

3.33.3 The methodology applied to arrive at this value is consistent with section 150C(4).

Comparator set

3.34 In their submissions on our Proposed Focus Areas Paper, Miraka and Synlait requested we include in our focus area review two matters regarding the comparator set used to establish the asset beta:

3.34.1 whether it is appropriate for Fonterra to be included in the comparator set,³² and

3.34.2 a review of the full comparator set.³³

3.35 Regarding the first matter, the concerns expressed by Miraka around the inclusion of Fonterra relate to the "restricted market discount" on the Fonterra share price "at least partially anticipated" by investors off the back of Fonterra's announcement of plans to change its capital structure in May 2021.³⁴

3.36 We note that the comparator set data utilised has not been refreshed from last year and includes data up to 31 December 2020. As this precedes Fonterra's restructuring announcement, the comparator set data excludes any "restricted market discount" effect.

³² [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\)](#), at 44.

³³ [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\)](#), at 41-43.

³⁴ [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\)](#), at 44.

- 3.37 Furthermore, in Fonterra's 2020/21 reasons paper Fonterra estimated that the exclusion of Fonterra from the comparator set at that time would result in a one or two basis point change (increasing the capital charge by, at most, ~1 cent per kgMS) from the asset beta for the core comparator set and the full comparator set respectively. We do not consider this effect to be material and so have not included it for consideration in this year's focus area review.
- 3.38 However, we suggest the continued inclusion of Fonterra data in the comparator set used to estimate the asset beta is a matter for Fonterra to consider in its next review of the asset beta.

Post Tax Market Risk Premium

3.39 The Manual identifies 2021/22 as a review year for the PTMRP. This input is material to the WACC and the Calculation overall and we therefore proposed a review of the PTMRP in our Proposed Focus Areas Paper. We do not propose a change in the scope described in that paper and we received no substantive submissions from stakeholders on the PTMRP during consultation on our Proposed Focus Areas Paper.

3.40 The definition of the PTMRP in Part C of the Manual is:³⁵

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.

3.41 In our final report on the 2020/21 Calculation review we recorded that:

3.41.1 The Manual's WACC specification in Rule 41 includes provision for a PTMRP that is to be updated along with the asset beta in each Review Year. Unlike the asset beta and SRP no year was specified for the PTMRP in the Review Year definition in the Glossary of Fonterra's 2020/21 Milk Price Manual.³⁶

³⁵ [Fonterra "Farmgate Milk Price Manual – Part A" \(1 August 2021\), at 78.](#)

³⁶ [Commerce Commission "Review of Fonterra's 2020/21 base milk price calculation: Final report" \(15 September 2021\), at \[3.141\]; Fonterra "Attachment 1 – Fonterra's marked up version of the 2020/21 Manual for the 2020-21 season – 1 August 2020" \(18 September 2020\), at 90.](#)

3.41.2 If the PTMRP had been assigned the same review year as the asset beta and a review had been undertaken in 2020/21, then it appears clear that “the amount which can most reasonably be considered to represent the Commission’s current position”, per the Manual’s Part C requirement, would be 7.5%.³⁷

3.41.3 Fonterra amended the 2021/22 Manual to align the review of the PTMRP with the reviews of the asset beta and specific risk premium. We noted our expectation that the PTMRP review would result in an increase in the PTMRP to 7.5% from the 2021/22 season onward.³⁸

3.42 Fonterra has adopted a PTMRP value of 7.5% for the Calculation, which we have confirmed through our analysis of the models and documents supplied to us. Fonterra sets out its reasoning in its reasons paper:

In October 2020, the Commission concluded on a value of 7.5% in the context of its review of fibre input methodologies. While the Commission has continued to use 7.0% in other contexts, pending its next scheduled review of Input Methodologies under Part 4 of the Commerce Act in 1986, we consider it reasonable in the circumstances to believe 7.5% represents the Commission’s current position, and have therefore adopted that value.³⁹

Assessment of the PTMRP value against the purposes at section 150A

3.43 Our draft conclusion is that a PTMRP of 7.5% is a notional figure set independently of Fonterra which provides a benchmark for Fonterra. It therefore is consistent with the efficiency dimension of the section 150A Purpose.

3.44 Our draft conclusion is that a PTMRP of 7.5% is derived from the Commerce Commission’s most recent estimate, prior to the beginning of the review period, of the difference between the expected return on a market portfolio and the risk-free rate faced by investors in the broader market. It is therefore consistent with the contestability dimension of the section 150A Purpose.

Qualifying Materials

3.45 A RCP is a commodity group in the reference basket required under section 150C(2) of the DIRA.

3.46 The term ‘commodity’ is defined in section 5 of the DIRA and all Qualifying Materials must meet the relevant criteria to be RCPs.

³⁷ [Commerce Commission “Review of Fonterra’s 2020/21 base milk price calculation: Final report” \(15 September 2021\), at 3.144.](#)

³⁸ [Commerce Commission “Review of Fonterra’s 2020/21 base milk price calculation: Final report” \(15 September 2021\), at 3.145](#)

³⁹ [Fonterra “Reasons’ Paper in Support of Fonterra’s Base Milk Price for the 2021/22 Season” \(1 July 2022\), at 35.](#)

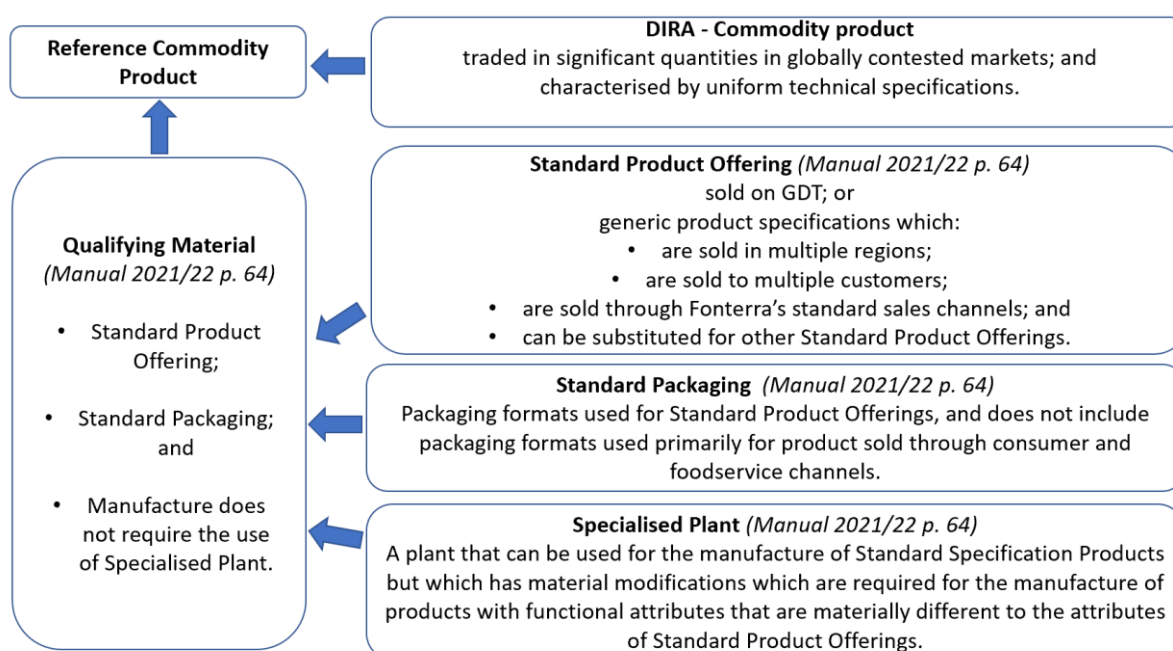
3.47 Qualifying Materials is a term used in the Manual. A Qualifying Material is a product manufactured by Fonterra from milk supplied in New Zealand that can in the view of the MPG be reasonably regarded as being a relatively undifferentiated commodity product that in normal circumstances could be expected to transact at a comparable price to other products within the same RCPs, after adjusting for any costs that are normally recoverable from purchasers of the product. A product can only be a Qualifying Material if:

3.47.1 it is a Standard Product Offering;

3.47.2 its packaging format is Standard Packaging; and

3.47.3 its manufacture does not require the use of Specialised Plant.

Figure 3.2 RCP criteria



3.48 In our 2019/20 Calculation review we reviewed the inclusion of Instantised skim milk powder (**ISMP**) as a Qualifying Material and concluded that:

The range of products assumed to have been sold off-GDT constitute Reference Commodity Products that could be sold by the Notional Processor at prices that are consistent with the reference prices.⁴⁰

⁴⁰ [Commerce Commission "Review of Fonterra's 2019/20 base milk price calculation: Final report" \(15 September 2020\), at 2.9.1.](#)

- 3.49 In this year’s Calculation review, we have conducted a full review of the list of Qualifying Materials and engaged an expert to assist us with this review.⁴¹ The purpose of this review was to determine whether the products meet the definition of ‘commodity’ in the DIRA and whether they constitute RCPs on a reasonable interpretation of the Manual. We also considered whether there are any aspects of the Manual rules for determining Qualifying Materials that need to be clearer.^{42, 43}
- 3.50 We reviewed a sales report of products sold both on and off-GDT in 2021/22, including product descriptions, component specifications and sales volumes to consider whether:
- 3.50.1 on the basis of the descriptions, component specifications and sales volumes any of the products could be considered an outlier for closer review;
- 3.50.2 all of the products can be manufactured without the need to use Specialised Plant.

Table 3.1 Summary of products reviewed by RCP group

RCP Group	GDT product	Number of Qualifying Materials
WMP	WMP Reg FLC 25kg MBG	25
SMP	SMP Reg MH 25kg MBG	21
BMP	BMP REM/UHT 25kg MBG	2
Butter	Btr US 25kg CTN 6 High	13
AMF	AMF REG 210KG DRM	8

The commodity product criteria in the DIRA

- 3.51 We consider that all the products on the list of Qualifying Materials meet the definition of ‘commodity product’ in section 5 of the DIRA.

⁴¹ See Footnote 19.

⁴² Specialised Plant is defined in the Manual as “[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”.

⁴³ In our previous Manual reviews, our assessment was that the Manual is consistent with the section 150C requirements relating to commodities.

Manual criteria for Qualifying Materials

- 3.52 We did not identify any products that we considered outliers warranting further investigation. We consider that all products on the list of Qualifying Materials meet the relevant RCP criteria as set out in paragraph 3.45 above.

Standard Product Offering

- 3.53 We consider the list of products fall within the Manual criteria of a Standard Product Offering.

Standard Packaging

- 3.54 Our review of the product packaging descriptions did not identify any stock items with non-Standard Packaging.

Specialised Plant

- 3.55 In our findings in the 2019/20 Calculation review, we concluded that the Qualifying Materials can be manufactured on Standard Plant without material modifications.⁴⁴ We reached this conclusion after reviewing actual plant production data supplied to us by Fonterra.
- 3.56 A key area we considered in our previous review was whether Specialised Plant was necessary for the manufacture of ISMP, a product identified for review because it requires an additional agglomeration step in the manufacturing process. Our review confirmed that the notional Standard Plant has the capability to manufacture instant milk powders either by agglomeration and or addition of a wetting additive to enhance the dissolution of the powder. There is little set up time involved and if scheduled properly (refer to our discussion at paragraphs 3.72 to 3.75 below), this would not add to the product turnaround time, or lessen production run lengths.
- 3.57 This year we considered whether any other product might require the use of Specialised Plant.
- 3.58 We did not identify any other product on the list of Qualifying Materials that requires an additional step in the manufacturing processes or otherwise requires the use of Specialised Plant. We therefore consider that all of the Qualifying Materials can be manufactured on Standard Plant.

⁴⁴ [Commerce Commission "Review of Fonterra's 2019/20 base milk price calculation: Final report" \(15 September 2020\), at 2.9.3.](#)

Clarity of generic product specifications

- 3.59 We note that to promote greater clarity Fonterra has included a list of Standard Product Offerings in Attachment 5 of its 2021/22 reasons paper.
- 3.60 In our final report on the 2020/21 Calculation review, we recommended that Fonterra clarify the definition of Standard Packaging and its application of the cascable product rule in the Manual.⁴⁵
- 3.61 While there has been no change to the Manual, Fonterra's 2021/22 reasons paper identifies a change in the application of the cascable product rule that relates to customer-specific product specifications and packaging. Under this rule, a product will qualify as a Standard Product Offering if it can be substituted for other Standard Product Offerings.⁴⁶ Substitutable products are now excluded if there is a prima facie reason to believe prior consultation would be required with customers before substituting these products for a general trade product, including as a result of the packaging.⁴⁷
- 3.62 The off-GDT sales impact of this change in the application of the cascable product rule on the milk price, had it been applied in 2020/21, was a reduction of 2.7 cents per kgMS. This is discussed further in paragraph 3.119 below.
- 3.63 In order to improve transparency, we recommend the Manual be revised to include the requirements of the cascable product rule as it is applied .

Assessment of Qualifying Materials against the purposes of section 150A

- 3.64 Our draft conclusions are:
- 3.64.1 Although calculation revenues are based on Fonterra's actual sales of RCPs, as provided for in section 150C(1)(a), using a GDT or off-GDT benchmark set independently of Fonterra's current year performance provides an incentive to Fonterra to operate efficiently.
- 3.64.2 We are satisfied that the range of Qualifying Materials that have been sold off-GDT constitute RCPs that could be sold by an efficient Notional Processor (**NP**) at prices that are consistent with the reference prices. We are also satisfied that the list of Qualifying Materials can be manufactured using standard plant. Therefore, we consider that the use of these prices to inform the milk price is practically feasible for an efficient NP.

⁴⁵ [Commerce Commission "Review of Fonterra's 2020/21 base milk price calculation: Final report" \(15 September 2021\), at 3.7.4.1.](#)

⁴⁶ Refer Manual definition of Standard Product Offering.

⁴⁷ [Fonterra "Reasons' Paper in Support of Fonterra's Base Milk Price for the 2021/22 Season" \(1 July 2022\), at 49.](#)

Incremental Product Cost adjustments

- 3.65 For a product that is a Qualifying Material, but which is not a Standard Specification Product, cost adjustments by way of IPCs are made to fully capture the product manufacturing costs. IPCs are defined as the net difference between the cost of manufacturing the product and the cost of manufacturing a Standard Specification Product.
- 3.66 IPCs are generated by Fonterra's internal costing system used to value its inventory and for measuring relative product margin performance. The costing system is subject to regular internal and external audits, and the cost outputs are reviewed by Fonterra's independent expert on a quarterly basis. The variable costs, comprising the majority of the costs, are applied to the milk price calculation on a per metric tonne basis and so costs are automatically adjusted for the greater volumes of RCPs produced by the NP.
- 3.67 In respect of the process used to generate IPCs, Miraka submitted on the 2021/22 Proposed Focus Areas Paper that:
- In the case of milk cost, this is described in the Manual as "the implied value of milk components at the time the product is manufactured". That potentially describes a complex process but in practice Miraka assumes milk components are costed in accordance with the finally determined Fonterra FGMP. If that is not the case, Miraka requests the Commission review the process for determining the cost rate for milk price components.⁴⁸
- 3.68 We have confirmed that the components are costed based on the monthly milk price which reflects the contracted sales and the full year sales forecast, including forecast average conversion rate, in that month. As such this is not based on the finally determined base milk price.
- 3.69 We consider this is a reasonable basis on which to calculate IPCs for application to monthly sales.
- 3.70 To carry out our review of IPCs we analysed an IPC extract report showing the breakdown of IPCs for each of the products we considered in our Qualifying Materials review.

⁴⁸ [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\), at 18 a.](#)

- 3.71 We considered:
- 3.71.1 what changes, if any, should be made to the milk price production loss and yield assumptions of the IPCs to accommodate actual switching from the manufacture of one product to another to produce the quantities likely to inform the milk price;
 - 3.71.2 whether the use of IPCs is practically feasible in light of the manufacturing capability of Standard Plant; and
 - 3.71.3 whether the IPCs fully account for the different manufacturing costs (processing and overheads) and component costs (eg, protein, fat, minerals) of various products, including yield adjustments.

What changes, if any, should be made to the milk price production loss and yield assumptions?

- 3.72 IPCs for products that are not Standard Specification Products (products sold on GDT) are based on scheduled production runs specified by the milk price production plan. Our review of the IPC extract report confirmed that milk solid composition adjustments affecting yield include incremental adjustments for the usage of protein, fat, lactose and whey.
- 3.73 Scheduling is critical to the maintenance of good quality control and the minimisation of downgrade product. Maintaining a plant on the same product for the length of time needed to fill production plan requirements gives the best outcome in terms of product consistency and low variable production costs. There is no evidence in the data supplied by Fonterra that product run lengths are sub-optimal.
- 3.74 Assuming that the production scheduling is optimised means there is no need for further composition adjustments based on more frequent switching between products.
- 3.75 The IPCs generally take into account differences in costs arising from slower throughput and associated losses such as cleaning and stack losses. This is consistent with our finding in our 2020/21 Calculation review that ISMP requires shorter evaporator run lengths (resulting in extra losses and cleaning costs) and slightly slower throughput on the plant which is captured within the incremental fixed cost and depreciation.⁴⁹

⁴⁹ [Commerce Commission "Review of Fonterra's 2020/21 base milk price calculation: Final report" \(15 September 2021\), at 3.112.](#)

3.76 In its submission on the 2021/22 Proposed Focus Areas Paper, Miraka submitted:

The yields of qualifying reference sales which are not standard specification products will be different to the NP yields for the standard specification products. This is because of differences in product composition and product specification affecting difficulty of manufacture, but also because of the assumed NP highly efficient production of the standard specification products. The nominal volume of those qualifying reference sales which are not standard specification products will therefore be different to the nominal volume of highly efficient production of the standard specification products in effect displaced by those qualifying reference sales. IPCs will not adjust for this volume factor. Rolling up the prices for those qualifying reference sales accordingly requires a further “volume adjustment” to achieve equivalence with the volume of NP standard specification product before attributing those prices to the standard specification product. The Commission is requested to include a review of this further volume factor and its impact on practical feasibility of the NP selling prices.⁵⁰

3.77 Fonterra has explained that the value component (milk solid) costs within the IPC cost calculation allows for the composition/loss adjustment differences relative to the Standard RCPs. For example, instant WMP with 28% fat would have an additional fat cost of [] kgMT within the IPC, plus a further [] kgMT Lecithin ingredient fat cost to account for the 2% fat difference between instant and regular WMP. This effectively adjusts for the volume difference, ie, 100 MT of instant WMP would make 2 MT less AMF than 100 MT of regular WMP.

3.78 We consider this achieves the “volume adjustment” described by Miraka.

Is the use of incremental costs reasonable in light of the manufacturing capability of Standard Plant?

3.79 Fonterra’s assumptions regarding the manufacturing capability of Standard Plant are set out in Attachment 3 of Fonterra’s 2021/22 reasons paper.⁵¹

3.80 As noted in our discussion in paragraphs 3.55 to 3.58 above, we have not identified any IPCs that relate to the use of Specialised Plant.

Do IPCs fully account for the different manufacturing costs and component costs of various products, including yield adjustments?

3.81 We reviewed the range of IPCs applied to account for the different manufacturing and component costs of products that are not Standard Specification Products.

⁵⁰ [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\), at 33.](#)

⁵¹ [Fonterra “Reasons’ Paper in Support of Fonterra’s Base Milk Price for the 2021/22 Season” \(1 July 2022\), at 45.](#)

3.82 The IPC adjustments, excluding milk solid composition adjustments (see paragraph 3.72 above), include adjustments for:

- 3.82.1 Fixed manufacturing costs;
- 3.82.2 Variable manufacturing costs;
- 3.82.3 Domestic storage and freight;
- 3.82.4 Downgrade product;
- 3.82.5 Packaging;
- 3.82.6 Ingredients;
- 3.82.7 Overhead costs;
- 3.82.8 Commercial adjustments;
- 3.82.9 WACC working capital;
- 3.82.10 WACC asset footprint; and
- 3.82.11 Manufacturing depreciation.

3.83 In respect of fixed costs and overheads, the Manual definition of IPC states that:

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.

3.84 Miraka requested that the Commission review whether the exclusion of fixed costs occurs in practice when they don't meet this criterion and if so to consider whether the resulting selling price can be deemed "practically feasible" for the NP.⁵²

3.85 Fonterra has explained as follows:

The majority of the circumstances where this situation arises are related to additional IPCs for GDT materials (normally due to country specific requirements) where this is a zero spec cost within the pricing build. In these situations a separate "GDT documentation fee" is setup within the SAP pricing build as a recovery mechanism for the IPCs not recovered within the spec cost. This fee is treated symmetrically to the cost, and is excluded from the base milk price.⁵³

⁵² [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\), at 18 b.](#)

⁵³ Fonterra response to Commerce Commission request for information.

- 3.86 In these cases, the product is the same as the GDT standard offering so there is no IPC associated with manufacturing according to a different specification, hence the term ‘zero spec cost’. There are administrative fixed costs which some customers prefer to have treated as a contract documentation fee. This is offset against the contract price with the same effect as if it were included as an IPC.
- 3.87 Fonterra identified that the application of this approach resulted in an under-recovery of fixed costs of ~US\$300k in 2021/22. We consider this impact to be insignificant.

Other matters raised in submissions on our Proposed Focus Areas Paper

- 3.88 Miraka requested that “the scope of work for the 2021/22 Calculation review include an assessment of whether the costing systems used to determine the IPCs are fit for purpose, and consider the Miraka view that for purposes of practical feasibility, the costs for the standard specification product (the benchmark for the IPC calculations) must be drawn from NP model itself.”⁵⁴
- 3.89 While this is outside the scope of our current focus area review, we may consider this as a topic for a future focus area review. Therefore, we are interested to better understand whether Fonterra’s IPC system is fit for purpose.
- 3.90 We have compared Fonterra’s costing with the NP costing in two previous reviews. Our 2015/16 comparison of the NP costs and the costs derived from Fonterra’s global ingredients business (**GOGI**) concluded that the GOGI RCPs are a good proxy for the NP. Further, we noted that we would expect greater economies of scale from the scaled-up entity than those achieved by the GOGI RCP operation (potentially resulting in a higher milk price).⁵⁵
- 3.91 Our 2019/20 Calculation review (after the introduction of off-GDT sales for WMP, SMP and AMF) concluded that:
- The Incremental Product Costs are practically feasible as they are derived from Fonterra’s costing system used to establish its actual costs (which are then subject to external audit).⁵⁶

⁵⁴ [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\)](#), at 24.

⁵⁵ [Commerce Commission "Review of Fonterra’s 2015/16 base milk price calculation: Final report" \(15 September 2016\)](#), at 4.27-4.27.4.

⁵⁶ [Commerce Commission "Review of Fonterra’s 2019/20 base milk price calculation: Final report" \(15 September 2020\)](#), at 2.9.4.

3.92 Miraka submits that, with the expanded use of off-GDT sales, revenues now reflect the earnings of a far more complex business model and thus revenues are now inflated by comparison with costs. At the same time, Miraka appears to suggest that the IPC adjustments to some extent account for the changes arising from the expanded use of off-GDT sales:

While the IPCs in the NP calculations are an adjustment to selling prices, in effect they account for the higher production costs the NP would incur for the more complex business model reflected in the NP sales revenues.⁵⁷

3.93 It is not clear to us what testing or enhancement would be necessary to verify the fitness for purpose of Fonterra's costing model to estimate the NP costs. Miraka has previously suggested that a "fit for purpose" costing system of the type it envisages that would produce practically feasible IPCs would require a fundamental rethink of the NP model.⁵⁸

3.94 Miraka has also suggested that "those latter costs [NP costs of the standard specification products] must be drawn from the NP model itself. That procedure should be simple given the NP model only includes one product for each relevant commodity product group."⁵⁹

3.95 We invite interested parties to provide further explanation of why the IPC costing system may not be fit for purpose (with illustrative examples if possible), by way of submission on this report as set out in paragraph 1.9 above. In particular we welcome suggestions of what testing procedures could be used to resolve Miraka's concerns as we may consider this further in a future review.

Assessment of IPC adjustments against the purposes of section 150A

3.96 Our draft conclusions are:

3.96.1 the IPCs are generated by Fonterra's internal costing system and are achievable by Fonterra and an efficient processor. We therefore consider they are practically feasible; and

3.96.2 the IPCs in the Calculation are forecast costs and so provide an appropriate notional benchmark to beat. Therefore, we consider that the efficiency dimension is met.

⁵⁷ [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\), at 6 and 22.](#)

⁵⁸ [Miraka Limited "Submission on draft report on review of Fonterra's 2019-20 base milk price calculation" \(1 September 2020\)" \(1 September 2020\), at 39-46.](#)

⁵⁹ [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\), at 23.](#)

Cost inflation adjustments

- 3.97 Stakeholders requested that we consider adding as a focus area, a review of assumptions relating to the impact on milk price costs of current inflationary pressures across the broader economy.
- 3.98 In its submission on the 2021/22 Proposed Focus Areas Paper, Open Country Dairy (OCD) submitted regarding the capital asset base:

We ask the Commission to ensure Fonterra correctly calculates the capital costs for the notional producer's capital asset base in a manner consistent with the contestability dimension, given the high and rising capital goods prices in recent years.⁶⁰

- 3.99 Synlait submitted on variable manufacturing costs:

As part of the 2021/22 milk price review Synlait recommends a focus on cost inflation assumptions. Covid-19 induced global supply chain disruptions have caused decades-high levels of inflation globally and domestically. Synlait expects higher than average cash cost inflation in 2021/22.⁶¹

- 3.100 We have reviewed the processes for updating capital asset base and variable manufacturing costs to take account of the current cost environment.

Capital asset base costs

- 3.101 Fonterra has carried out an annual update of capital goods inflation based on an independent report from Jones Lang LaSalle (JLL) using movements in Fonterra asset values.⁶²
- 3.102 We have reviewed the advisory report prepared by JLL for the purpose of valuation of specified plants and assets at various sites to assist with the milk price index pricing update.⁶³
- 3.103 The information sources used to create the capital cost index include, but are not limited to:
- 3.103.1 JLL Plant & Machinery Database;
 - 3.103.2 searches of similar plant from internet websites;
 - 3.103.3 discussions with suppliers and dealers of machinery & equipment; and

⁶⁰ [Open Country Dairy Limited "Submission on proposed focus areas for base milk price calculation 2021-22" \(6 May 2022\), at 1.](#)

⁶¹ [Synlait Milk Limited "Submission on proposed focus areas for base milk price calculation 2021-22" \(6 May 2022\), at 2.](#)

⁶² From MPG 2021/22 work programme.

⁶³ JLL, Valuation Advisory, 24 May 2022.

3.103.4 information provided by Fonterra such as receipts, fixed asset schedule and verbal advice as to original purchase costs and date of assets when acquired.

3.104 The overall increase in the replacement cost of the asset base from 2021 to 2022 was 10.5%. In its submission OCD identified both the Capital goods price index: plant, machinery, and equipment and the PPI Outputs Building construction index, as relevant benchmarks. We have performed a crosscheck against these benchmarks. The respective annual movements in these indices for the March 2022 quarter was 7.8% and 13.2%.^{64,65}

3.105 We therefore consider that the capital asset costs have been appropriately adjusted to take account of current inflationary effects and are practically feasible.

Variable manufacturing costs

3.106 We have reviewed the variable manufacturing cost lines to assess the appropriateness of the methods used to update the costs.

3.107 The list of the cost lines and the method applied to each line are outlined below.

Table 3.2 Variable manufacturing cost variances and methods

Cost line	Cents per kgMS delta*	% change*	Unit cost update basis	Usage rate basis
Packaging	+\$0.010	+8.7%	Actual unit packaging costs for Milk Price Base Product Specifications.	Packaging usage items as per Fonterra Product Specification, Wastage as per Fonterra actuals after outlier data exclusions.
Energy	+\$0.020	+10.7%	Actual rates	Actual usage rates from Milk Price Energy Audits on Fonterra Plants (Darfield / Pahiatua), Equipment supplier data for Butter, AMF and BMP.
Water	+\$0.000	+1.1%	Budget rates	Equipment supplier information.
Cleaning & CIP	+\$0.005	+36.1%	Actual rates	Equipment supplier Information and Plant acceptance testing information.
Consumables	+\$0.002	+13.2%	Actual rates	Equipment supplier Information.

⁶⁴ Statistics NZ, Capital goods price index tables for March 2022 quarter.

⁶⁵ Statistics NZ, PPI Outputs price index tables for March 2022 quarter.

Cost line	Cents per kgMS delta*	% change*	Unit cost update basis	Usage rate basis
Effluent	-\$0.000	-3.0%	Budget rates	Effluent kg's Fat/Protein from Milk Price Loss audit of Actual Fonterra Plants.
Laboratory	+\$0.001	+8.9%	Prior year actuals + Inflation (PPI)	Unit testing requirement as Per Fonterra Product specification, in-process testing requirements as per Fonterra actual in process costs for Benchmark plants comparable to NMPB plants.
Total	+\$0.038	+10.3%		

* Change from 2020/21 season

3.108 The allowable methods for updating variable manufacturing costs are specified in the Manual in table 3.1 Detailed Rules. We consider the cost assumptions have been updated in accordance with the Manual.

Assessment of Cost Inflation adjustments against the purposes of section 150A

3.109 Our draft conclusions are:

3.109.1 the methods used are appropriate for the capital asset and variable manufacturing cost lines to which they have been applied. They are based on industry trends in actual cost data and therefore we consider they are practically feasible; and

3.109.2 the rates used are compiled independently of Fonterra's current year performance and so provide an appropriate notional benchmark to beat. Therefore, we consider that the efficiency dimension is met.

Detailed findings from our fit for purpose review

3.110 We reviewed Fonterra's base milk price calculation model, as well as supporting models for each of the key inputs. We assessed further information on a confidential basis where we considered it necessary.

3.111 As part of the analysis set out above, we have also examined any changes in the following assumptions that could materially impact the base milk price:

3.111.1 changes in costs;

3.111.2 inclusion of off-GDT sales as a reference for calculating RCP prices;

3.111.3 changes in sales phasing;

3.111.4 changes in timing or volume of milk collected; and

3.111.5 yield and loss calculations.

3.112 Our draft conclusion, subject to our consideration of further information we have requested from Fonterra on the material change in the impact of off-GDT pricing on the contestability dimension of section 150A, is that we consider that the inputs and assumptions and processes covered in our fit for purpose review are consistent with the efficiency and contestability dimensions of section 150A.

Changes in costs versus prior year

3.113 Except for lactose costs, there has not been a significant increase in milk price component costs for the 2021/22 season.

3.114 Lactose costs have increased by \$32.7m or around 4c per kgMS for the 2021/22 season. The increase is driven by changes in international lactose prices applied to the notional milk price volumes and is outside Fonterra's control.

3.115 Prior to the beginning of a season, Fonterra decides whether it will use its own lactose price or that of other processors in calculating the base milk price. For the 2021/22 season, Fonterra has used the competitor price series, reflecting actual costs for lactose landed in New Zealand. We therefore consider that the assumptions relating to lactose costs are practically feasible.

3.116 We consider that selecting the lower of Fonterra's or its competitors' actual lactose costs as a benchmark, prior to the beginning of the season, in combination with notional lactose volume requirements that are significantly larger than Fonterra's actual volumes, meaning that lactose costs are significantly multiplied in the Calculation, incentivises Fonterra to reduce its actual lactose costs (ie, operate efficiently).

3.117 Therefore, our draft conclusion is that we consider the lactose cost assumptions are consistent with the efficiency and contestability dimensions of section 150A.

Inclusion of off-GDT sales as a reference for calculating commodity prices

3.118 In our fit for purpose review, we looked at the off-GDT prices and volumes against the previous season to obtain comfort in what was being used as a reference for prices used for the NP.

3.119 We obtained the same information for the 2021/22 season as at 30 June 2022. This shows that the overall impact of off-GDT pricing for WMP, SMP and AMF was 10.9 cents per kgMS compared with 10.1 cents per kgMS in 2020/21, an increase of 0.8c (including the effect of the change in the cascability rule referred to in 3.62).

Table 3.3 Breakdown of annual change in off-GDT pricing impact (cents per kgMS)

2020/21 final impact	Cascadable product review impact	Revised start point 2020/21	Annual change	2021/22 June
+10.1	-2.7	+7.3	+3.6	+10.9

- 3.120 To provide a like-for-like comparison, the products excluded in 2021/22 as a result of the change in the application of the cascadable product rule, have also been excluded from 2020/21, giving rise to the -2.7 cents per kgMS adjustment shown in Table 3.3. The remaining change in off-GDT impact is 3.6 cents per kgMS, which Fonterra has attributed to favourable market conditions. Refer to the full explanation in Attachment C “Fonterra explanation of the change in the application of the cascadable product rule”.
- 3.121 We have reviewed the underlying product sales detail giving rise to the -2.7 cents per kgMS impact and are satisfied it supports this number.
- 3.122 We have recently asked Fonterra to provide further evidence to support its explanation of the 3.6 cents per kgMS impact, which we will take into account in our final report.
- 3.123 Subject to our consideration of further information regarding Fonterra’s explanation of the 3.6 cents per kgMS impact, we consider that the use of off-GDT sales pricing is practically feasible.
- 3.124 Also, since prices independently set on GDT continue to provide a benchmark for off-GDT sales, we continue to consider that the prices provide an incentive for efficiency.

Sales phasing

- 3.125 Fonterra’s approach to sales phasing has not changed from previous years’ reviews. The revenue is recognised in the base milk price model based on the contracted prices, and the use of total phasing is consistent with the production profile of the NP, therefore our draft conclusion is that we consider that the phasing is practically feasible.
- 3.126 While the incentive to operate efficiently is potentially weaker than if notional data had been used, we continue to consider the current approach to sales phasing using Fonterra’s actual data to be consistent with the efficiency dimension of the purpose because:
- 3.126.1 there is insufficient data to develop a reasonable notional figure; and

3.126.2 Fonterra only has limited discretion over its sales phasing.⁶⁶

- 3.127 We note the Miraka has raised a particular issue regarding the phasing of off-GDT sales. We note that to the extent there is a mismatch of price and volume metrics the outcome will be unbiased but agree that this may warrant revisiting in a future review. Refer to Attachment A.

Changes in volumes of milk collected

- 3.128 The 2021/22 volume of milk collected (1,478m kgMS) was around 4% lower than 2020/21. As a result of the lower volume, only standardised product was processed. This means there has been no need to review the volume and manufacturing capacity calculations.

Yield calculations

- 3.129 A full description of Fonterra's process to update the specification offset and loss assumptions (the yield inputs) can be found in its 2021/22 reasons paper. This year's specification offsets and losses are in line with those achieved last season.
- 3.130 We confirmed the calculated yield by performing a 'mass balance' calculation to verify that loss assumptions have been properly taken into account. This reconciles the milk solids in the total volume of raw milk purchased by the NP with the fat and protein milk solids components of the RCPs together with associated losses.
- 3.131 The yield input assumptions are based on manufacturing field trials of plants that are similar to the NP Standard Plant and recommendations by Fonterra's independent expert.
- 3.132 Having reviewed the information provided by Fonterra and performing our own 'mass balance' calculation using the yield input assumptions, we are satisfied that the yields of RCPs can be achieved by Fonterra and that they are therefore practically feasible for an efficient processor.
- 3.133 The specification offset and loss inputs are notional and provide a benchmark to beat. Therefore, our draft conclusion is that the yield inputs are consistent with the efficiency dimension of the section 150A Purpose.

⁶⁶ [Commerce Commission "Review of Fonterra's 2014/15 base milk price calculation - Final report" \(15 September 2015\), at 7.94-7.106.](#)

Attachment A Responses to proposed focus areas paper submissions

Submitter(s)	Key points	Our response
Asset Beta		
Miraka Ltd⁶⁷ and Synlait Milk Ltd⁶⁸	The required update of the asset beta for the comparator set remain in scope for the Calculation review and to review the comparator set in the 2022/23 reviews.	We have not carried out a review of Fonterra’s asset beta value of 0.48 since this value is the same as our preferred estimate of 0.48 estimated in last year’s Calculation review using the average value of the same core comparator set. ⁶⁹ We will consider reviewing the comparator set as a focus area when it is next updated.
	Determine whether Fonterra should be included in the asset beta comparator set or should be removed for the purposes of the 2021/22 asset beta calculation.	Refer to paragraphs 3.34 to 3.38 of this report.
Incremental Product Costs		
Miraka Ltd⁷⁰ and Synlait Milk Ltd⁷¹	Assessing the reasonableness of the assumption that Fonterra’s costing systems provide a proxy for the NP costs of standard specification products, and whether these should be drawn from the NP model itself.	Refer to paragraphs 3.88 to 3.95 of this report.

⁶⁷ [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\), at 41-44.](#)

⁶⁸ [Synlait Milk Limited "Submission on proposed focus areas for base milk price calculation 2021-22" \(6 May 2022\), at 1.](#)

⁶⁹ [Commerce Commission "Review of Fonterra’s 2020/21 base milk price calculation: Final report" \(15 September 2021\), at 3.36.](#)

⁷⁰ [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\), at 23-24.](#)

⁷¹ [Synlait Milk Limited "Submission on proposed focus areas for base milk price calculation 2021-22" \(6 May 2022\), at 1.](#)

Prevailing Market Price Test		
Miraka Ltd⁷² and Synlait Milk Ltd⁷³	Expand the focus areas to explicitly request Fonterra demonstrate that qualifying reference sales do in fact meet a “prevailing market price” test.	We consider we have addressed the outstanding issues in respect of the application of the “prevailing market price” test. Our final report on our 2021/22 Manual Review concluded that the amendment to the benchmark selling price and the clarification of the term ‘prevailing’ are consistent with the contestability dimension of the section 150A Purpose. Miraka and Synlait have not provided any new evidence or information on these matters and we therefore do not consider these further or revisit our previous conclusions regarding the use of exclusion criteria and the prevailing market price.
Weighted Average Selling Prices		
Miraka Ltd⁷⁴	Fonterra should provide a sufficiently detailed description of the processes for determining the weighted average selling prices so they can be replicated and thus provide assurance that they are reasonable.	To improve transparency we encourage Fonterra to consider disclosing a detailed description of these processes. This includes the phasing, as outlined below. We will consider reviewing this, along with the phasing of off-GDT sales, as a focus area in a future review.
Miraka Ltd⁷⁵	Review the various processes performed in the translation of the arms-length selling prices achieved on actual sales, to the selling prices attributed to the NP, and to confirm that all the translation processes are practically feasible and that the resulting selling prices remain practically feasible. Also, to seek increased transparency in this matter.	

⁷² [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\), at 4.](#)

⁷³ [Synlait Milk Limited "Submission on proposed focus areas for base milk price calculation 2021-22" \(6 May 2022\), at 1.](#)

⁷⁴ [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\), at 27.](#)

⁷⁵ [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\), at 34.](#)

Phasing		
Miraka Ltd⁷⁶	The difference in phasing between the price inform sales and the volume inform sales drives a wedge between prices which are demonstrably practically feasible, and prices which are an artefact of a calculation procedure which mismatches commercial metrics of price and volume. The mismatch of price and volume metrics is problematic and it would be more difficult to attribute practical feasibility to the calculated outcome.	We note that to the extent there is a mismatch of price and volume metrics the outcome will be unbiased but agree that this warrants revisiting. We will consider reviewing phasing of off-GDT sales as a focus area in a future review.
Off-GDT Sales		
Open Country Dairy Ltd⁷⁷	Ensure Fonterra's off-GDT sales inputs are made transparent and the discrepancy between GDT and off-GDT RCP prices is fully explained.	To improve transparency we recommend that Fonterra consider publishing more information on the off-GDT sales inputs and how they affect off-GDT RCP prices.
Milk Collection Costs		
Miraka Ltd⁷⁸	Undertake a review of the practical feasibility of milk collection costs and consider including a review of milk collection costs in the 2022/23 Calculation review.	We will consider the inclusion of milk collection costs as a focus area in a future Calculation review.

⁷⁶ [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\)](#) , at 29.

⁷⁷ [Open Country Dairy Limited "Submission on proposed focus areas for base milk price calculation 2021-22" \(6 May 2022\)](#) , at 1.

⁷⁸ [Miraka Limited "Submission on the proposed focus areas paper for base milk price calculation 2021-22" \(6 May 2022\)](#) , at 35.

Attachment B Glossary of terms

Term/Abbreviation	Definition
AMF	Anhydrous milk fat
Approach paper	Our approach to reviewing Fonterra's Milk Price Manual and base milk price calculation
Base milk price	Means the price per kilogram of milk solids that is set by Fonterra for that season
BMP	Butter milk powder
Calculation review	Review of Fonterra's base milk price calculation
Dairy season	1 June to 31 May
DIRA, or the Act	Dairy Industry Restructuring Act 2001
GDT	Global dairy trade, online auction platform used to sell dairy commodities
IPC	Incremental product costs
ISMP	Instantised skim milk powder
kgMS	Kilogram of milk solids
Manual review	Review of Fonterra's Milk Price Manual
MPG	Milk price group, the independent group responsible for calculating the base milk price
Milk Price Manual or the Manual	Fonterra's Farm Gate Milk Price Manual generally referred to by the version relating to each dairy season (eg, 2021/22 Manual). The Manual contains the methodology used to calculate Fonterra's base milk price
MT	Metric tonne
Notional Producer, or NP	The notional commodity business that is used to calculate the base milk price
NMPB	Notional Milk Price Business, comprising the notional milk powder manufacturing business conducted by the Notional Producer as implied by Fonterra's Farmgate Milk Price Manual
PTMRP	Post Tax Market Risk Premium
RCP	Reference Commodity Product. These products, manufactured and sold by the Notional Producer, are in the Reference Basket. They currently include WMP, SMP, BMP, Butter and AMF
Reference Basket	The RCPs used to calculate the base milk price
Reasons paper	Fonterra's reasons paper which is provided alongside the Manual for each dairy season (this is also provided when Fonterra discloses its base milk price calculation at the end of each dairy season)
SMP	Skim milk powder
SRP	Specific risk premium
the Calculation	Fonterra's 2021/22 base milk price calculation
PTMRP	Post tax market risk premium
WACC	Weighted average cost of capital
WMP	Whole milk powder

Attachment C Fonterra explanation of the change in application of the cascable product rule

- C1 This attachment provides Fonterra’s detailed explanation of the process and impact of the change in application of the cascable product rule.⁷⁹
- C2 The criteria used to determine whether a SKU (or material) is a Qualifying Material are applied through a manual process, in contrast to the filters then used to determine whether a sale of a Qualifying Material is a price-informing or volume-informing sale, which are applied automatically. Consistent with the Commission's explanation in (among other places) paragraph 38 of its 2019 final report on the 2019/20 Manual, Fonterra management assesses each new SKU (or material) against the 'decision tree' criteria and provides a preliminary 'price-informing' or 'non-price-informing' recommendation to the MPG, which has responsibility for the final decision. Once a material's status is set to 'informing' all sales of that material will be included in the milk price revenue calculation, subject to the specific sale satisfying the non-materials related criteria (contract tenor, sale at a current price and to an arm's length party, etc), unless and until a subsequent manual review results in a change in status.
- C3 In the initial 2016 review of WMP, SMP and AMF materials sold off-GDT, materials were only considered as potentially price-informing if they conformed to the product specifications of one of the Standard Product Offerings described in Attachment 5 to our 2021/22 reasons paper. In general, when a customer purchases a 'standard' product, Fonterra is warranting no more than that the product satisfies the technical specifications for the relevant Standard Product Offering (as well as any applicable market-specific requirements), and Fonterra is generally specifically not warranting that it will deliver to the client a specific SKU from the range of SKUs which satisfy those technical specifications. This ability to substitute SKUs without any formal requirement for customer notification is the definition of cascability which was applied in 2015/16.

⁷⁹ This is discussed in paragraphs 3.62 and 3.119 to 3.120 of this report.

- C4 In practice, there are some SKUs which will satisfy the technical specifications for a Standard Product Offering which Fonterra will not substitute for another SKU within the same Standard Product Offerings group without first engaging with the customer. The operational process used to classify new materials was informally refined subsequent to 2016 to provide that where there was a *prima facie* reason to believe a new SKU would not be substituted for an SKU in the same Standard Product Offering group without initially consulting the customer, that SKU would not be classified as a Qualifying Material. This refinement was first documented in our 2019/20 base milk price reasons paper, where we amended the relevant text in Attachment 5 which defines "Milk Price Revenue informing inclusions [as including materials which are]... cascadable to general trade materials (*i.e., can be used to satisfy an order for a standard product offering, such as regular WMP, without any additional notification to the customer*)." The bracketed italicised phrase was not included in the corresponding sections of the 2016/17, 2017/18 or 2018/19 reasons papers.
- C5 The full review of all Qualifying Materials which was undertaken in 2021 identified two categories of products which had been (correctly at the time) classified as Qualifying Materials but which had attributes which implied that in practice the products would not be supplied in substitution for another SKU without first consulting the customer. The first category involved product packaged in standard packaging formats, but which had unique artwork. The second category involved product which included additional protein or milkfat (but still within the allowable range for the relevant standard product offering), which may affect product application by the end-user. A small number of SKUs in each of these categories have been reclassified as non-Qualifying Materials with effect from 2020/21. Had this reclassification been applied in 2020/21, the base milk price in that year would have been 2.7 cents lower, with approximately 85% of this impact arising from the reclassification of [].