

Our approach to reviewing Fonterra's Milk Price Manual and base milk price calculation

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Chapter 1 Introduction

Purpose of this paper

1. This paper provides an overview of our approach to the annual reviews of Fonterra's Milk Price Manual (the Manual) and the base milk price calculation (the calculation).¹
2. We recommend using this paper as a frame of reference when considering our reports on our statutory reviews of the Manual and the calculation. It provides context for the conclusions and reasoning surrounding our Manual and calculation reviews. This paper forms part of our Manual and calculation draft and final reports from the 2022/23 calculation review onwards.
3. When appropriate, we will update this paper with any major changes in our approach.

Our review role and process

4. The Dairy Industry Restructuring Act 2001 (DIRA) requires us to complete two separate, but related, reviews of Fonterra's setting of the base milk price for each dairy season:²
 - 4.1 following the start of each dairy season, a review of the Manual that considers Fonterra's methodology for calculating its base milk price for that season; and
 - 4.2 following the end of each dairy season, a review of Fonterra's calculation of the base milk price.

5. Our review roles under DIRA are intended to support the setting of a base milk price by Fonterra that is consistent with the s 150A purpose. -Our reviews focus on the extent to which the Manual and the calculation provide:

5.1 an incentive for Fonterra to operate efficiently (the 'efficiency dimension'); and

5.2 for contestability in the market for the purchase of raw milk from farmers (the 'contestability dimension').

6. Our role is not to determine how the base milk price should be calculated or the assumptions, inputs and processes that should be used in setting the base milk price.

¹ Our approach to the Manual and the calculation reviews are broadly the same. We note that there will be some repetition throughout this paper.

² The dairy season runs from 1 June until 31 May.

Rather, we review the extent to which the Manual is consistent with the s 150A purpose,³ and the extent to which the assumptions inputs and processes used by Fonterra to calculate the base milk price are consistent with the s 150A purpose.⁴ Further, we must not state what we consider the base milk price should be.⁵

5-7. Figure 1.1 outlines the key dates for our reviews of the Manual and the calculation each season. These dates are set out in DIRA.

Figure 1.1 Key dates for our reviews each season⁶



³ DIRA, ss 150H and 150I.

⁴ DIRA, ss 150O and 150P.

⁵ DIRA, s 150P(3)(p).

⁶ We start our reviews before Fonterra provides its Reasons Paper for the Manual and calculation to allow sufficient time to complete the reviews.

Definitions of key terms used in this paper

Base milk price

~~6.8.~~ 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”.⁷ The calculation of this price by Fonterra is subject to a review by us under DIRA.

~~7.9.~~ The Milk Price Panel (Panel) recommends a base milk price to Fonterra that is calculated using the rules in the Manual. This recommendation becomes the base milk price once it is set (approved) by Fonterra’s Board. Fonterra’s Board may set a base milk price different from the Panel’s recommended price, or in the absence of a recommendation from the Panel, its own base milk price, provided it follows the processes set out in s 150N of DIRA.⁸ Fonterra may also change the base milk price after ~~the Commission~~we releases ~~its~~our final report on the base milk price calculation but must follow the process set out in s 150R.

~~8.10.~~ We note that the farmgate (one word) milk price is a term used by Fonterra in the Manual and its annual Farmgate Milk Price Statement. Fonterra describes ~~the~~ farmgate milk price ~~is~~as the average price paid by Fonterra for each kilogram of milk solids (kgMS) supplied by Fonterra’s farmer-shareholders under Fonterra’s standard terms of supply. It is calculated in accordance with the Manual unless Fonterra decides to make an adjustment.⁹ ~~Therefore, this price~~The price set by Fonterra as its farmgate milk price equates to the statutory base milk price ~~recommended by the Panel~~.

~~9.~~ ~~On those occasions when the Board has adjusted the price calculated under the Manual in accordance with s 150N, the new price has been described by Fonterra as the “final farmgate milk price”.¹⁰ Because the “final farmgate milk price” is the price set by the Board it likewise equates to the base milk price as defined in DIRA.~~

⁷ DIRA, s 5.

⁸ All statutory references in this paper are to DIRA unless otherwise specified.

⁹ It is open to Fonterra to set a base milk price for a season that is determined otherwise than in accordance with the relevant Manual, but if it does so it must take the steps set out in s 150N of DIRA.

¹⁰ Fonterra Farmgate Milk Price Statement 2018, page 2 and Fonterra Farmgate Milk Price Statement 2014, page 2. See <https://www.fonterra.com/nz/en/investors/farmgate-milk-prices/milk-price-methodology.html>.

Farm gate milk price

~~10.11.~~ 11. The term “farm gate milk price” is defined in DIRA as “the total cost of milk divided by kilograms of milk solids that Fonterra pays out to shareholder farmers in a season”.¹¹

~~11.12.~~ 12. This price is different from the base milk price. The farm gate milk price is calculated from the sum of the actual payments made by Fonterra that constitute the total cost of milk less total organic milk and total winter premium milk payments.¹² These payments include fixed price payments that have already been made under Fonterra’s fixed milk price offer for the relevant season.¹³

~~12.13.~~ 13. On the other hand, the base milk price recommended by the Panel, as calculated in accordance with the Manual, divides the total Manual-calculated costs, similarly excluding total organic milk and total winter premium milk costs, by the total kilograms of milk solids supplied, but makes no adjustment for fixed price payments.

Example 1 below provides a simplified example of how the base milk price differs from the farm gate milk price.¹⁴

Example 1

Base milk price = \$7.50
 Weighted average fixed price = \$7.00
 % of collections A - applying base milk price = 95%
 % of collections B - applying fixed price = 5%

Farm gate milk price = % collections A * base milk price + % collections B * fixed price

Farm gate milk price = 95% * \$7.50 + 5% * \$7.00 = \$7.475

¹¹ See s 5. The terms “total cost of milk” and “kilograms of milk solids” are also defined in s 5.

¹² - See footnote ~~2319~~ for an explanation of the winter premium milk payments.

¹³ Fonterra’s fixed milk price offer enables farmers to manage price volatility risk by offering a fixed price for a portion of their milk supply, up to a maximum of 5% of collections in a milk season. The fixed price could end up being lower or higher than the base milk price and is set based on an average of the daily settlement price of the NZX Milk Price Futures contract on each NZX trading day during the three days following the first Global Dairy Trade (GDT) event of each month. The fixed price and available volumes on offer are published for each trading month.

¹⁴ The weighted average fixed price in the example is a composite of the fixed prices and volumes offered for all the GDT trading months. For more details, see for example Fonterra “Fixed Milk Price 2020/2021”, available at: <https://nzfarmsource.co.nz/assets/Fixed-Milk-Price/Fixed-Milk-Price-Booklet-2020-FINAL.pdf>.

How we use these terms

~~13.14.~~ 14.14. Wherever we refer to our statutory Milk Price Manual and milk price calculation review processes we use the term 'base milk price'.

~~14.15.~~ 14.15. Because our reviews do not consider the farm gate milk price, we do not use the term as defined in DIRA except in chapter 2, and specifically paragraphs ~~1918-2625~~, to distinguish the price for the purchase of raw milk at the farm gate from the factory gate milk price, wholesale milk price and retail milk price in our discussion of the milk supply chain.

How this paper is structured

~~15.16.~~ 15.16. In this paper we set out our approach to the reviews. It includes an overview of:

~~15.116.1~~ 15.116.1 how the base milk price is set (chapter 2);

~~15.216.2~~ 15.216.2 our interpretation of key legislative provisions guiding our reviews (chapter 3);

~~15.316.3~~ 15.316.3 our practical approach to the statutory reviews (chapter 4);

~~15.416.4~~ 15.416.4 the notional producer and its key assumptions (Attachment A); ~~and~~

16.5 governance supporting the calculation (Attachment B); ~~and~~

~~disclosure of Manual and calculation review information by Fonterra (Attachment C).~~

Chapter 2 Overview of how the base milk price is set

Purpose of this chapter

~~16.17.~~ This chapter:

~~16.1~~17.1 outlines the different milk prices within the milk supply chain;

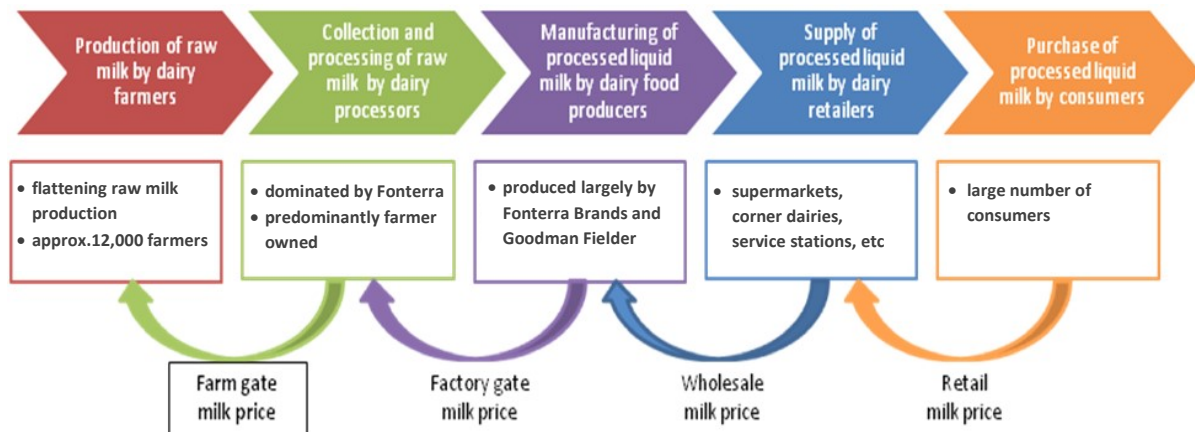
~~16.2~~17.2 explains the unique nature of the farm gate milk market in New Zealand; and

~~16.3~~17.3 explains the methodology Fonterra uses to calculate the base milk price.

Milk prices in New Zealand

~~17.18.~~ The term 'milk price' can have different meanings depending on which stage of the milk supply chain is being considered. Figure 2.1 describes the milk supply chain in New Zealand. It shows the different components of the 'milk price' as generated by different milk markets within the supply chain.

Figure 2.1 Milk supply chain in New Zealand



~~18.19.~~ As shown in Figure 2.1, the 'milk price' in New Zealand is made up of the following four components:

~~18.1~~19.1 farm gate milk price: the price paid by dairy processors (eg, Fonterra) to dairy farmers for raw milk;¹⁵

¹⁵ See paragraph [1514](#) above for an explanation of why we use the term 'farm gate milk price' in this chapter.

~~18.2~~19.2 _____ factory gate milk price: the price paid by dairy processors and dairy food and beverage producers (eg, Goodman Fielder) to other dairy processors for either raw milk or dairy ingredients;

~~18.3~~19.3 _____ wholesale milk price: the price paid by dairy retailers (eg, supermarkets) to dairy food and beverage producers for processed milk; and

~~18.4~~19.4 _____ retail milk price: the price paid by dairy consumers to dairy retailers for processed milk.

~~19.20.~~ Approximately 95% of the total raw milk produced in New Zealand is exported in one or more product forms. The price at each step of the milk chain is influenced by both the international dairy market's demand and supply and by foreign exchange fluctuations. Our reviews focus solely on the base milk price and not any other milk price within the milk supply chain.

Farm gate milk market in New Zealand

~~20.21.~~ In a workably competitive farm gate milk market, the level of the farm gate milk price would be determined through:

~~20.1~~21.1 _____ competition between suppliers of raw milk (ie, farmers) to processors; and

~~20.2~~21.2 _____ those processors competing both for the purchase of raw milk and in its onward sale after processing.

~~21.22.~~ Currently in New Zealand there is not a workably competitive market process to derive a farm gate milk price.¹⁶ Therefore, DIRA requires Fonterra to determine ~~such a price~~the base milk price using an administrative methodology.¹⁷

¹⁶ As at the end of the ~~2018/19~~2021/22 season, Fonterra collected approximately ~~79~~81% of total raw milk supply in New Zealand. See <https://www.dairynz.co.nz/media/5796369/nz-dairy-statistics-2021-22-web.pdf> or Dairy NZ (total New Zealand collection (1,868 m kgMS), Fonterra Milk Price Statement for the Season ended 31 May 2022 (Fonterra collections for 2021/22 season: 1,478 m kgMS). for example, TDB Advisory for the NZ Productivity Commission "The Dairy Sector in New Zealand: Extending the Boundaries" (October 2020), page 8.

¹⁷ ~~ie, the Manual and the base milk price calculation model.~~DIRA, subpart 5A. Fonterra is able to set a base milk price for a season that is determined otherwise than in accordance with the relevant Manual, but if it does so it must take the steps set out in s 150N of DIRA.

Context for Fonterra's approach to calculating the milk price paid at the farm gate

~~22.23.~~ Shareholding dairy farmers have two separate but related interests in Fonterra. They are recompensed through two revenue streams:

~~22.123.1~~ payment for the raw milk they supply; and

~~22.223.2~~ dividend payments for the share capital they hold in the cooperative.¹⁸

~~23.~~ ~~Consequently, farmer shareholders tend to be interested in the total return on raw milk and share capital invested in Fonterra, rather than the individual parts.~~

24. From its formation in 2001 until 2009, Fonterra's payment to dairy farmers for their raw milk was bundled together with the returns for their shareholding. During that time, Fonterra's milk price paid at the farm gate was calculated only for the purpose of estimating its long-run earnings for share valuation purposes.

25. In 2009, Fonterra unbundled its total return to farmers into the milk price paid for raw milk at the farm gate and the returns on share capital. With the unbundling came the need to set the milk price at the farm gate independently of Fonterra's share valuation processes.

26. In 2012, Fonterra shareholders voted to change Fonterra's capital structure to implement Trading Among Farmers (TAF).¹⁹ TAF lets outside investors buy units in Fonterra. These investors get the economic benefits of shares but do not have the right to vote.²⁰ ~~Under TAF, the economic interests of outside (non farmer) investors are for Fonterra to maximise the share price and the return on share capital invested in Fonterra, rather than the return on raw milk.~~

27. Parliament amended DIRA in 2012, at Fonterra's request, to enable it to move to TAF. As part of this amendment, Fonterra's unbundled milk price was introduced into DIRA as the base milk price.

¹⁸ To supply raw milk to Fonterra, dairy farmer-shareholders are required to hold one share for every three kilograms of milk solid they wish to supply to the cooperative. There are a small number of dairy farmers who supply Fonterra with raw milk on a contract supply basis and do not hold shares.

¹⁹ TAF was endorsed by Fonterra shareholders in June 2012 with the live trading of shares commencing on 30 November 2012. TAF replaced the Fonterra share purchase and sale process, which involved the issuing and redemption of shares by Fonterra.

~~²⁰ We note that in May 2021 Fonterra proposed changes to its capital structure that, if accepted, could remove the ability of non farmer investors to invest via the Fonterra Shareholders Fund.~~

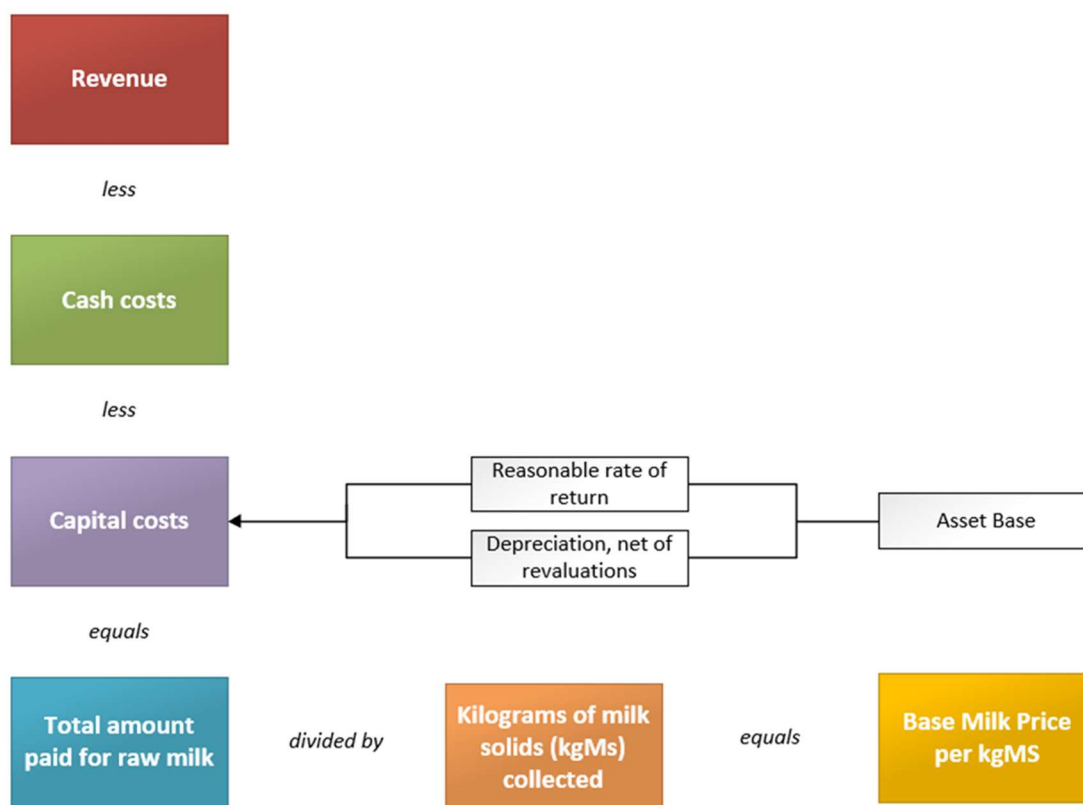
28. In 2021, Fonterra initiated a capital restructure which included a restricted farmer-only market for share trading. The ~~non-farmer~~ publicly traded unit fund was retained but capped so that shares could no longer be exchanged into new units on a day-to-day basis, and the ~~overall~~ maximum size of the unit fund was reduced.
29. The partial delinking of the unit fund from the farmer-only market required a further amendment to DIRA.- This was because the TAF enabling provisions in DIRA ~~relied on~~ included a reference to the link between the farmer-owned shares and the unit fund to ensure efficient price -discovery and mobility of farmer capital investment in Fonterra as a means of maintaining contestability in the farm gate milk market.
- 26-30. The amendment legislation was passed in November 2022 and included several new requirements for the setting of the base milk price. These requirements are discussed in Chapter 3.

Fonterra's methodology for setting the base milk price²¹

- 27-31. Fonterra's methodology for calculating the base milk price is guided by a set of principles set out in its Constitution and outlined in the Manual. Figure 2.2 provides a visual representation of Fonterra's methodology.

²¹ As explained in paragraphs 108-19 above, in describing its methodology Fonterra uses the term farmgate milk price to refer to the same concept defined in DIRA as the base milk price.

Figure 2.2 Fonterra's base milk price methodology



28.32. The base milk price is expressed in terms of dollars per kgMS supplied to Fonterra. This price represents an average price paid to farmers. The actual payments to individual farmers for their milk are adjusted for the composition of the milk supplied,²² and the timing of supply.²³

29.33. Fonterra calculates the base milk price from the total pool of money available for payment to farmers for their raw milk supply each season. This is determined by:

29.133.1 the revenue Fonterra would earn in NZ dollars if the equivalent of all the raw milk supplied to Fonterra in New Zealand was converted into the Reference Commodity Products (RCP) product mix, and sold on international dairy markets;²⁴ less

29.233.2 the 'cash' costs (or operating costs) of collecting raw milk from farms, processing it into the RCP product mix and transporting this product to the

²² In terms of the fat and protein components.

²³ Milk supplied during the winter period attracts certain premiums. The winter premiums are not included in the base milk price, although they are paid out to farmers.

²⁴ See paragraphs 6057-6259 below for an explanation of the RCP.

point of export from New Zealand, plus the costs of selling the finished product, administration/overhead, and tax expenses; less

29.333.3 the capital costs, which provide for depreciation of fixed assets, return on capital investment, and working capital.

30.34. Fonterra makes several payments to farmers for raw milk during the dairy season (based on its Advanced Payment Rate Schedule which is linked to its forecast milk price). However, Fonterra's current policy is to confirm the final base milk price after the end of the season. Fonterra's final base milk price is typically set in September following the end of the financial year (31 July), at which time sales of most of the season's production have been completed. This results in end of year 'wash-up' payments to farmers.

Chapter 3 Our interpretation of key legislative provisions

Purpose of this chapter

~~31.35.~~ In this chapter we set out our interpretation of the following key legislative provisions in DIRA that guide our reviews:

~~31.1~~35.1 the purpose of the base milk price monitoring regime [s 150A];

~~31.2~~35.2 ‘safe harbours’ [s 150B [provisions](#)];

~~31.3~~35.3 ‘mandatory principles’ [s 150C];

~~31.4~~35.4 our Manual review and report [ss 150H, 150I and 150J]; and

~~31.5~~35.5 our calculation review and report [ss 150O, 150P and 150Q].

Policy objectives of the base milk price monitoring regime

~~32.36.~~ 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 raw milk.

~~33.37.~~ The regime promotes greater transparency of Fonterra’s base milk price setting processes.²⁵

The s 150A purpose

~~34.38.~~ Section 150A sets out the purpose of subpart 5A of DIRA, which gives effect to the base milk price monitoring regime:

150A Purpose of this subpart

- (1) The purpose of this subpart is to promote the setting of a base milk price that provides an incentive to new co-op to operate efficiently while providing for contestability in the market for the purchase of milk from farmers.
- (2) For the purposes of this subpart, the setting of a base milk price provides for contestability in the market for the purchase of milk from farmers if any notional costs, revenues, or other assumptions taken into account in calculating the base milk price are practically feasible for an efficient processor.

²⁵ Dairy Industry Restructuring Amendment Bill (Government Bill) 2012, p. 2 [and Dairy Industry Restructuring \(Fonterra Capital Restructuring\) Amendment Bill - Final report of the Primary Production Committee, p 2.](#)

~~35-39.~~ Our reviews of the Manual and the calculation consider the efficiency and contestability dimensions.²⁶ They focus on the extent to which the Manual and the calculation provide:

~~35-139.1~~ an incentive for Fonterra to operate efficiently (the ‘efficiency dimension’); and

~~35-239.2~~ for contestability in the market for the purchase of raw milk from farmers (the ‘contestability dimension’).

~~36-40.~~ To satisfy the provisions in s 150A, our interpretation is that our statutory reviews must assess both dimensions. We attach equal weight to both dimensions in our assessment.

~~37-41.~~ The High Court has endorsed ~~the Commission’s~~ our interpretation of the efficiency dimension and the contestability dimension.²⁷

Interpretation of the efficiency dimension

~~38-42.~~ Section 150A(1) refers to incentives for Fonterra to “operate efficiently”.

~~39-43.~~ There are many factors which can, and do, incentivise Fonterra to operate efficiently. We have interpreted the primary focus of the efficiency dimension to be providing incentives for Fonterra to drive cost efficiencies (ie, productive, and dynamic efficiency) through setting the base milk price.²⁸

~~40-44.~~ When assessing the efficiency dimension, we focus on the following:

~~40-144.1~~ our review of the Manual requires us to report on the extent to which the methodology for calculating the base milk price in the Manual incentivises Fonterra to operate efficiently; and

~~40-244.2~~ our review of the calculation requires us to assess the extent to which the assumptions adopted, and the inputs and process used by Fonterra in setting the base milk price incentivise Fonterra to operate efficiently.

²⁶ These two interlinked dimensions form the s 150A purpose under Subpart 5A of DIRA.

²⁷ *Open Country Dairy Ltd v Commerce Commission* [2020] NZHC 334 at [61].

²⁸ Productive efficiency is achieved when producers use inputs in such a manner as to minimise costs, subject to technological constraints. Dynamic efficiency relates to decisions made over time which result in improvements in productive efficiency. We are primarily concerned with productive and dynamic efficiencies when reviewing Fonterra’s costs. For revenue items where productive efficiency is not relevant (such as the selection of reference commodity products and sales prices), we necessarily focus on allocative efficiency. Allocative efficiency occurs when there is an optimal distribution of goods and services and involves considering consumers’ preferences.

41.45. Our view is that the methodology for calculating the base milk price in the Manual will provide an incentive for Fonterra to operate efficiently where the Manual provides for independent notional benchmarks for the revenue and cost inputs in the calculation. Our view is that the assumptions adopted, and inputs and process used in the calculation will provide an incentive for Fonterra to operate efficiently where the calculation uses these benchmarks for the revenue and cost inputs.

42.46. This is consistent with DIRA, which envisages the use of notional values, and involves the assumption of a notional milk processing and collecting business (the 'notional producer').

Interpretation of the contestability dimension

43.47. Section 150A(2) outlines the contestability dimension as a function of whether any notional costs, revenues, or other assumptions taken into account in the calculation are "practically feasible" for an efficient processor.

44.48. Our interpretation is that the contestability dimension is satisfied if:

44.148.1 the Manual provides for the assumptions used in setting the base milk price to be practically feasible for an efficient processor; and

44.248.2 the assumptions adopted, inputs and process used in the calculation are practically feasible for an efficient processor.

45.49. In our view 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.

What is practically feasible for an efficient processor?

46.50. The terms 'practically feasible' and 'efficient processor' are not defined in DIRA.

47.51. Our interpretation is that practical feasibility under s 150A goes further than theoretical feasibility and technical feasibility. Subject to the [safe harbours assumptions specified](#) in s 150B and the mandatory principles in s 150C, practical feasibility includes commercial feasibility in the sense that it must be possible for an efficient processor operating in New Zealand to replicate or achieve the component being assessed.

48.52. In our view, there is clear evidence that a notional cost, revenue, or other assumption is commercially feasible if it can be demonstrated that an existing plant, or processor, can achieve the revenue, cost, or other assumption (eg, the unit costs achieved at one existing plant, or the gross values achieved in a part of Fonterra's current business).

~~49.53.~~ Our interpretation of the term ‘efficient processor’ is that it is a processor that can operate at least cost over time. This is consistent with our view that the primary focus of the efficiency dimension is on improving incentives for Fonterra to drive cost efficiencies over time.²⁹

~~50.54.~~ We consider a new entrant or existing processor expanding in the New Zealand farm gate milk market is more likely to achieve a lower cost of operation over time. This is because a newly built plant would be able to take advantage of the latest technology. This ‘incremental’ plant could be built at a capacity to take the best possible advantage of cost efficiencies in activities such as the collection and processing of milk.

~~51.55.~~ Our interpretation of the term ‘efficient processor’ is not limited to the existing processors, as other potential entrants exist and may enter the market for the purchase of milk from farmers. Under DIRA, it does not matter whether existing independent processors can necessarily achieve that efficiency in practice or not. If Fonterra or some other potential entrant can achieve that level of efficiency, then that ensures that the base milk price reflects a practically feasible level and would provide a normal return on the incremental investment.

~~52.56.~~ We therefore consider the base milk price setting is consistent with the contestability dimension if the assumptions adopted, and inputs and process used, are practically feasible for Fonterra, or another processor that is efficiently building and operating an incremental plant.

~~‘Safe harbours’—sSection 150B provisions~~

~~57.~~ Section 150B lists certain assumptions that, if used in the Manual or the calculation, do not detract from the achievement of the purpose set out in s 150A. ~~We interpret s 150B as being intended to create ‘safe harbours’, where Fonterra can use these assumptions without affecting the conclusions of our reviews. However, we are able to review “the way in which the [Fonterra] uses an assumption s have been used in setting the base milk price” for consistency with the purpose in s 150A.~~³⁰

~~58.~~ Section 150B(2) was introduced to strengthen the Commission’s review function in conjunction with amendments relating to Fonterra’s capital structure that carried the risk of weakening the achievement of the s 150A purpose.³¹ Parliament did not

²⁹ ie, productive, and dynamic efficiency.

³⁰ [DIRA, s 150B\(2\).](#)

³¹ [MPI “Fonterra Capital Restructure: Decisions on Regulatory Design” \(20 June 2022\), at paragraph 54.](#)

accept the IDP's submission that section 150B should be removed entirely,³² and section 150B(1) continues to apply and must be given effect to. Parliament also clarified that the Commission's role includes reviewing the way in which that assumptions have been used in setting the base milk price.

59. Our review of the way in which the s 150B assumptions have been used in setting the base milk price will include assessing whether:

59.1 Fonterra has correctly interpreted the meaning of sections 150B(1)(a)-(d);

59.2 how Fonterra has exercised judgement or discretion in incorporating the assumption into the model; and

59.3 where the section permits the use of Fonterra's actual characteristics rather than the notional characteristics of the notional producer, how those actual figures are incorporated into the calculation.

~~53. We note that while the use of the safe harbour provisions by Fonterra is discretionary, s 150B provides a conclusive presumption that the assumptions it contains do not detract from the purpose set out in s 150A (including the contestability purpose).~~

'Mandatory principles' – s 150C

54-60. To achieve the purpose of s 150A, s 150C requires the base milk price to be set in a way that is consistent with certain principles. In particular, the revenues and costs (including capital costs and a return on capital) taken into account in calculating the base milk price must be determined from the prices of a portfolio of 'Reference Commodity Products' (RCPs). A "commodity" is defined in s 5 of DIRA as:

a product made by the processing of milk that is—

(a) traded in significant quantities in globally contested markets; and

(b) characterised by uniform technical specifications.

55-61. This portfolio of commodities is referred to in s 150C(2). Section 150C(2) requires the base milk price to include the commodities that are likely to be the most profitable over a period not exceeding 5 years and for the commodities to utilise all

³² See Miraka, Westland Milk Products, and Synlait Milk "Joint Submission to the Ministry for Primary Industries re: Fonterra Capital Restructuring: Proposed Government Response - Proposed Amendments to the Dairy Industry Restructuring Act 2001" (3 June 2022), at [paragraph 28](#).

components of the milk. The setting of the base milk price must include the costs of processing milk into the same portfolio of RCPs.

~~56.62.~~ Section 150C(3) requires any estimate of the return on capital to be made by applying the capital asset pricing model. In turn, the asset beta used in the application of the capital asset pricing model must be consistent with the estimated asset betas of other processors of dairy and other food products that are:³³

~~56.162.1~~ _____ traded in significant quantities in globally contested markets; and

~~56.262.2~~ _____ characterised by uniform technical specifications.

Interpretation of assumptions, inputs, and process for the calculation review

~~57.63.~~ We interpret the terms “assumptions adopted and the inputs and process used” to have the following meaning:³⁴

~~57.163.1~~ _____ assumptions: the underlying rationale as to why certain inputs and process were selected (ie, ‘the why’);

~~57.263.2~~ _____ inputs: what data or description of data sources are used to populate the calculation (ie, ‘the what’); and

~~57.363.3~~ _____ process: how inputs are being transformed into the components of the calculation (ie, ‘the how’).

Our review and report requirements

The Manual review requirements

~~58.64.~~ We have a statutory requirement to review the Manual for each dairy season.³⁵

~~59.65.~~ DIRA requires us to publish a report on the extent to which the Manual for each dairy season is consistent with the s 150A purpose.³⁶ In providing our report, we must consider the following information provided by Fonterra:

~~59.165.1~~ _____ the Manual;

³³ 'Asset beta' is defined in s 150C(5) as "a measurement of a firm's exposure to systematic risk where systematic risk measures the extent to which the returns on a company fluctuate relative to the equity returns in the stock market as a whole."

³⁴ DIRA, s 150P.

³⁵ DIRA, s 150H.

³⁶ DIRA, ss 150I and 150J.

~~59.265.2~~ Fonterra’s ‘reasons’ paper outlining its view on the extent of the consistency of the Manual with the s 150A purpose; and

~~59.365.3~~ Fonterra’s submission on our draft report (if provided).

~~60.66.~~ DIRA requires us to provide the draft report and consult with Fonterra on the draft report unless another procedure is agreed between us and Fonterra.³⁷

~~61.67.~~ In practice we also consult on our draft report with other dairy sector stakeholders.

The calculation review requirements

~~62.68.~~ We have a statutory requirement to review the calculation for each dairy season.³⁸

~~63.69.~~ DIRA requires us to publish a report on the extent to which the assumptions adopted and the inputs and process used by Fonterra in calculating the base milk price for the season are consistent with the s 150A purpose.³⁹ In providing our report we must consider the following information provided by Fonterra:

~~63.169.1~~ Fonterra’s ‘reasons’ paper outlining its view on the extent of the consistency of the calculation with the s 150A purpose; and

~~63.269.2~~ Fonterra’s submission on our draft report (if provided).

~~64.70.~~ DIRA requires us to provide the draft report to Fonterra and Fonterra must either make a submission on the draft report or notify us that it does not wish to make a submission on the draft report, unless another procedure is agreed between us and Fonterra.⁴⁰

~~65.71.~~ In practice we also consult on our draft report with other dairy sector stakeholders.

Our interpretation of our review roles

~~66.72.~~ Our review roles under DIRA are intended to support the setting of a base milk price by Fonterra that provides incentives for Fonterra to operate efficiently while also providing for contestability. As stated in paragraphs ~~3938~~ and ~~4039~~ above we consider both interlinked dimensions when carrying out our reviews.

~~67.73.~~ When reviewing the Manual, our role is not to determine how the base milk price should be calculated ourselves. Similarly, when reviewing Fonterra’s calculation our

³⁷ DIRA, ss 150K and 150M.

³⁸ DIRA, s 150O.

³⁹ DIRA, ss 150P and 150Q.

⁴⁰ DIRA, ss 150S and 150U.

role is not to determine the assumptions, inputs, and process of the calculation ourselves, but to review those used by Fonterra.

~~68.74.~~ To conclude on the extent to which the components of the calculation are consistent with the efficiency and contestability purposes of s 150A our review role may require us to consider what component values would meet those purposes. ~~However, our role does not include developing an alternative approach to calculating the base milk price or suggesting alternative components of the calculation that we think would better promote the efficiency and contestability purposes under s 150A. Further, in making our report on the calculation, we are not required to calculate the costs of an independent processor and must not state what we consider the base milk price should be.~~⁴¹

~~69.75.~~ As stated by the High Court in *Open Country Dairy Ltd v Commerce Commission*:⁴²

The Commission's role does not extend to developing an alternative approach to calculating the base milk price nor to suggesting alternative components for the calculation that it might consider better promotes the efficiency and contestability purpose under the DIRA.

Moreover, in making its report on the calculation the Commission is not required to calculate the costs of an independent processor and it is expressly prohibited from stating what it considers the base milk price should be.

~~70.76.~~ Our reviews are also constrained by ~~the safe harbours under s 150B, s 150B,~~ the mandatory principles under s 150C, and the test for contestability set by s 150A(2).⁴³

77. Our review roles under subpart 5A of DIRA are therefore not the same as our roles under those regulatory regimes where we are the primary regulatory decision-maker (for example under Part 4 of the Commerce Act 1986 and under the Telecommunications Act 2001). Under these other regimes, we are specifically required (and have the express power) to make determinations that give effect to the objects of those enactments. However, as discussed in paragraphs 78 to 83 below, we have the power to direct Fonterra to take actions in relation to matters referred to in our Manual and calculation reviews.

Our direction powers

78. Section 150UA allows the Commission to direct Fonterra to take action in relation to a matter referred to in its reviews of the base milk price manual and calculation.

⁴¹—DIRA, s 150P(3).

⁴² *Open Country Dairy Ltd v Commerce Commission* [2020] NZHC 334 at [13]-[14].

⁴³ Section 150A(2) states that "the setting of a base milk price provides for contestability in the market for the purchase of milk from farmers if any notional costs, revenues, or other assumptions taken into account in calculating the base milk price are practically feasible for an efficient processor".

~~The Commission~~We may also direct Fonterra to publish any information requested by or provided to ~~the Commission~~us as part of ~~its~~our reviews where we are satisfied that the information is not sensitive.^{44,45} -Fonterra is required under s 150UA(3) to comply with a direction given by the Commission.

79. When providing a direction, we must state the date by or period within which the direction must be complied with and the reasons for which the direction is given. ~~The Commission~~We must make any direction and its reasons publicly available.

80. We may only give a direction that is consistent with the purpose set out in s 150A.

81. Before giving a direction, ~~the Commission~~we must:

81.1 make the proposed direction and the reasons for the proposed direction publicly available;

81.2 consult with Fonterra about the proposed direction and the reasons for the direction; and

81.3 have regard to any submissions or evidence received through consultation.⁴⁶

82. We may also amend or revoke a direction, either on our own initiative or at Fonterra's request, if provided with evidence of reasonable grounds for change.⁴⁷

83. We are required to follow the same process as outlined in para [81](#) above, when amending or revoking a direction, unless that amendment is considered to be minor in nature. In this instance we are not required to publish the proposed change to the direction.⁴⁸

⁴⁴ [DIRA, s 150UB\(3\).](#)

⁴⁵ ~~Except if the~~Sensitive information is what Fonterra reasonably- considered~~ed~~ -to be commercially sensitive, subject to legal privilege or personal information.

⁴⁶ [DIRA, ss 150UB and 150UC.](#)

⁴⁷ [DIRA, s 150UD\(1\).](#)

⁴⁸ [DIRA, s 150UD\(2\).](#)

Chapter 4 Our analytical and practical approach to the statutory reviews

Purpose of this chapter

71-84. This chapter describes our analytical and practical approach to carrying out the statutory reviews.

72-85. We cover our analytical approach to each dimension, followed by our practical approach to both the Manual review and the calculation review.

Our analytical approach to the efficiency dimension

73-86. There are many factors which can, and do, incentivise Fonterra to operate efficiently. Improvements in efficiency end up being passed through to a higher base milk price or to a higher Fonterra dividend.⁴⁹

74-87. Our reviews are concerned with the extent to which the Manual and the calculation are consistent with promoting the setting of a base milk price that incentivises Fonterra to operate efficiently. We focus on:

74-187.1 the use of notional inputs in the calculation of the base milk price; and

74-287.2 instances when it may be reasonable to use actual data in setting the base milk price.

The use of notional inputs in the base milk price

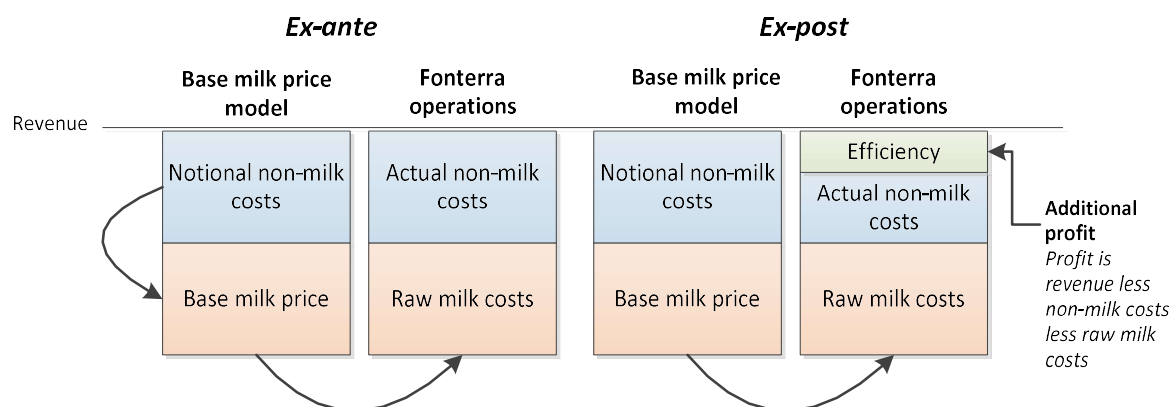
75-88. Our view is that Fonterra has a stronger incentive to operate efficiently when the base milk price is set independently of Fonterra's actual performance.⁵⁰

76-89. The efficiency incentive affects Fonterra's profitability. This is because the price of milk is Fonterra's largest cost driver. For a given level of revenue, any improvements in actual cost efficiency relative to the notional values used in setting the base milk price will result in higher profits. There is no unique price that needs to be ascertained to provide incentives for Fonterra to improve its efficiency. Figure 4.1 illustrates how the use of notional data to set the base milk price can lead to higher profits.

⁴⁹ ie, through Fonterra earning greater profit.

⁵⁰ ie, the calculation uses notional data.

Figure 4.1 Efficiency incentive effect on Fonterra's profitability



77.90. Using notional data provides Fonterra with a benchmark to beat.⁵¹ This increases transparency to shareholders about the extent to which Fonterra is achieving efficiency gains relative to the alternative of using data on Fonterra's actual performance to set the base milk price.

78.91. In some cases, the notional data used in setting the base milk price is based on Fonterra's actual data in a previous year or years. Therefore, efficiency savings achieved in one year (which result in a reduction in actual costs) may lead to a higher base milk price in a later year.

79.92. This approach is consistent with Subpart 5A of DIRA. It envisages the use of notional values and the assumption of a notional milk processing and collecting business (the 'notional producer').

Instances when it may be reasonable to use actual data in setting the base milk price

80.93. There are instances where it may be reasonable to use actual data in setting the base milk price, for example:

80.193.1 when there is insufficient information to know what an appropriate notional value would be, or it would be unreasonably costly to obtain this information; or

80.293.2 Fonterra has very limited control over the actual costs.

81.94. Where actual data has been used to set the base milk price, we explore whether notional data could reasonably have been used instead. We assess whether the use of this data may distort or weaken Fonterra's incentives to operate efficiently. For

⁵¹ Ideally the benchmark should be stable over time to provide an incentive to operate efficiently over time and to provide transparency to shareholders on efficiency gains achieved.

example, whether it provides Fonterra with an opportunity to earn higher profits without achieving efficiencies.

Fonterra has incentives to improve efficiency to maximise profits

~~82.— We consider that Fonterra has an incentive to maximise its overall payments to farmers and to shareholders, including unitholders in the publicly listed Fonterra Shareholders' Fund (FSF), which was created in 2012 as part of TAF.⁵² Improvements in efficiency may be passed through into a higher base milk price benefitting farmer-shareholders or result in higher profits for Fonterra potentially benefiting outside investors in FSF through higher dividends.⁵³~~

~~83.— We consider Fonterra's management has an incentive to maximise profits (which benefits both farmers and shareholders, including unit holders in the publicly listed FSF).⁵⁴ This incentive is reinforced by the transparency associated with the listing on the stock exchange of the non-voting units, and the importance to Fonterra of ensuring that its TAF regime works.⁵⁵~~

Our analytical approach to the contestability dimension

~~84-95.~~ As explained in chapter 3, s 150A(2) sets out the approach to assessing the contestability dimension.

~~85-96.~~ For the Manual review, we consider the extent to which any notional costs, revenues, or other assumptions considered in the Manual are 'practically feasible' for an efficient processor.

~~86-97.~~ For the calculation review, we consider the extent to which the assumptions adopted, and inputs and process used in the calculation are practically feasible for an efficient processor. If it is practically feasible for either Fonterra or another processor, then it is consistent with the contestability dimension.

⁵²— See also paragraph 26 above.

⁵³— The use of the term 'profits' throughout this report refers to the difference between Fonterra's revenues and costs (including the cost of raw milk) and includes dividends paid to shareholders (including farmers and unit holders in the publicly listed FSF).

⁵⁴— Under TAF, farmers buy and sell Fonterra shares among themselves, rather than directly with Fonterra.

⁵⁵— As noted in footnote 16, in May 2021 Fonterra announced proposed changes to its capital structure that, if accepted, could remove the ability of outside investors to invest via the FSF. Such changes, if accepted, are likely to require an amendment to the TAF provisions under DIRA.

Our practical approach to the Manual review

~~87-98.~~ Our Manual review for each season builds on the conclusions from our previous reviews. In the Manual review we consider:

~~87-198.1~~ Fonterra's amendments to the Manual for the dairy season;

~~87-298.2~~ outstanding issues from previous Manual reviews;

~~87-398.3~~ issues arising from our previous calculation review (including submissions), which relate to the Manual;

~~98.4~~ issues arising from submissions by interested parties during the Manual review; and

~~87-498.5~~ [any changes to DIRA.](#)

~~88-99.~~ Our review groups issues by common themes and is particularly focused on the issues that are most likely to have a material impact on the calculation. Our approach involves:

~~88-199.1~~ assessing the extent to which the Manual provides incentives for Fonterra to operate efficiently;

~~88-299.2~~ assessing the extent to which the Manual provides for the notional costs, revenues and other assumptions that are individually practically feasible for Fonterra; and

~~88-399.3~~ performing cross-checks to ensure the Manual provides for the notional costs, revenues and other assumptions that are practically feasible in the aggregate.

~~89-100.~~ We rely on past conclusions for the provisions in respect of which:

~~89-1100.1~~ -Fonterra has not made any amendments to the Manual for the season; and

~~89-2100.2~~ there are no outstanding issues.

Assessing whether Fonterra's Manual assumptions are individually practically feasible

~~90-101.~~ Where the Manual provides for notional costs, revenues, and other assumptions to be used in calculating the base milk price, we examine whether these are practically feasible for Fonterra. [If these notional costs, revenues and other assumptions can be achieved by Fonterra, we consider that ~~are~~ would be generally they would be](#) practically feasible for an efficient processor.

91-102. This is because the Manual largely provides for the use of inputs that are based on the average across all relevant notional RCP plants used in the calculation, rather than on any single recently built Fonterra plant. This is consistent with assuming that there is a national network of facilities for the collection and processing of milk.⁵⁶

103. The use of parameters that reflect Fonterra's actual 'average' plant capacity rather than its most cost-efficient plant(s) means an efficient processor building an incremental plant should be able to achieve lower costs than this.

104. We also examine whether our assessment is affected by unique features of Fonterra which are not subject to s 150B or 150C provisions.⁵⁷ If the Manual provides for assumptions that are only practically feasible for Fonterra due to features unique to Fonterra, then such assumptions may not be practically feasible for another efficient processor.⁵⁸

Assessing whether the Manual provides for practically feasible assumptions in aggregate

~~92. We also examine whether our assessment is affected by unique features which are not subject to 'safe harbour provisions'. For example, we consider whether the Manual provides for assumptions that are individually practically feasible for Fonterra due to features unique to Fonterra, and but which do not relate to Fonterra acting efficiently. In that case, any such notional costs, revenues, or other assumptions may not be practically feasible for another efficient processor, therefore the assumptions in aggregate may not be practically feasible for another efficient processor.~~⁵⁹

93-105. We acknowledge there is a potential risk that the individual assumptions, inputs, and process specified in the manual may not collectively be practically feasible. Therefore, we also consider:

93-1105.1 the internal consistency of provisions in the Manual; and

⁵⁶ Consistent with the ~~safe harbour~~ provision in s 150B(a).

⁵⁷ For notional costs, revenues and other assumptions which are not subject for s 150B or 150c provisions.

⁵⁸ For example, ocean outfall which impacts effluent disposal costs provides a useful illustration of features that are not subject s150B or 150C provisions, and which may not be practically feasible for another efficient processor.

~~93-2105.2~~ the overall impact of any assumptions in the Manual which may not be individually practically feasible or that we are unable to conclude on in our review.⁶⁰

Assessing components under the ~~safe harbour~~ s 150B provisions

~~94-106.~~ Where revenue or cost components of the calculation apply ~~the 'safe harbour'~~ one or more of the provisions ~~in~~ s 150B, ~~the Commission~~ we are able to review and report on the way the assumption has been used.⁶¹ ~~they are excluded from our assessment against the s150A purpose.~~

~~95.~~ ~~Our analysis of these components is limited to verifying whether the methodology is consistent with the 'safe harbour' provisions in s 150B.~~

Assessing assumptions within the Manual for consistency with s 150C

107. Our Manual review involves examining whether the assumptions in the Manual are consistent with the principles outlined in s 150C.

Assessing Manual assumptions that are non-prescriptive

~~96.~~ ~~We may not be able to conclude on the extent to which some aspects of the Manual are consistent with the s 150A purpose.~~

~~97-108.~~ As the Manual's rules are not always prescriptive, we may not be able to conclude on the extent to which some aspects of the Manual are consistent with the s 150A purpose. ~~we may not be able to conclude on the efficiency and contestability dimensions of all notional costs, revenues, and assumptions referenced in the Manual.~~ If so, we will, to the extent possible, assess the relevant costs, revenues and assumptions during our review of the calculation in the season that the Manual relates to.

Our practical approach to the calculation review

~~98-109.~~ Our review of the calculation builds on the conclusions from our previous reviews. In each calculation review we consider:

~~98-1109.1~~ outstanding issues from our previous calculation and Manual review(s);

⁶⁰ We refer to the methodology in the Manual as the notional assumptions. In some cases, we may not be able to conclude on the practical feasibility of the notional assumptions until we see how they are actually applied in the base milk price calculation.

⁶¹ [DIRA, s 150I\(1A\).](#)

~~98.2~~109.2 Fonterra's review of assumptions and components in accordance with its Manual;⁶²

~~98.3~~109.3 Fonterra's amendments to the current season's Manual or any amendments to Fonterra's approach to calculating the components that do not require a Manual amendment;

109.4 issues arising from submissions made by interested parties;

109.5 any changes to DIRA;

~~98.4~~109.6 sensitivity of the base milk price to changes in components (fit for purpose review);⁶³ and

~~98.5~~109.7 any adjustments made to the base milk price by Fonterra.⁶⁴

~~99.110.~~ Based on the information we gather we determine the key areas to focus on for each calculation review.

~~100.111.~~ For the revenue and cost components that are not part of the key areas that we focus on, we undertake a 'fit for purpose' review, which involves:

~~100.1~~111.1 a review of the consistency of input values and assumptions against those previously used for the same component; and

~~100.2~~111.2 a review of the internal consistency of the assumptions and inputs between different components.

~~100.3~~111.3 a review of any structural changes to Fonterra's base milk price reporting model.⁶⁵

~~101.112.~~ 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.⁶⁶

⁶² The summary calculation of the base milk price is broken down into various revenue and cost components. The Manual provides a timeline~~s~~ for Fonterra to review certain assumptions and revenue and cost components every four years (or when the Panel chooses to complete a review).

⁶³ See paragraph ~~111.108-112.109~~.

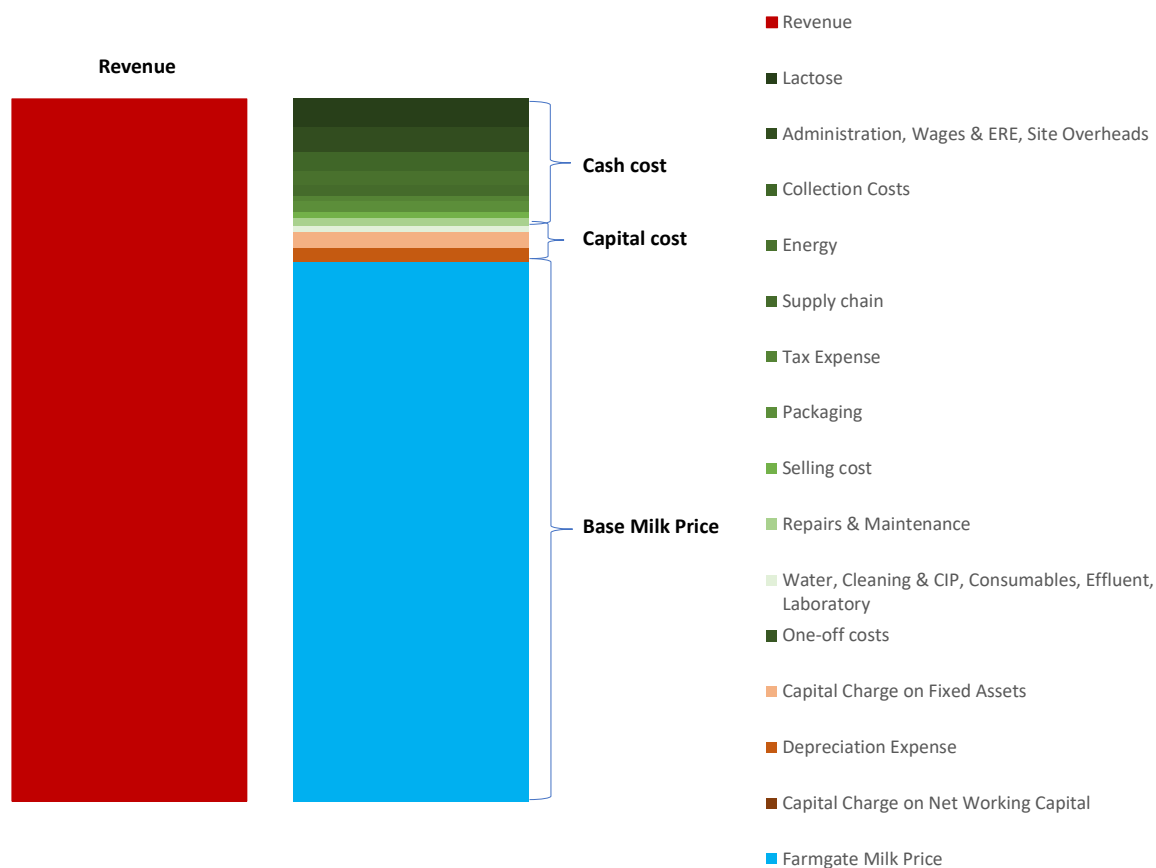
⁶⁴ See discussion in paragraphs ~~129.124 - 133.128~~.

⁶⁵ We are provided with the full model, its underlying models and documentation for the purposes of our review. The public version of Fonterra's milk price reporting model is available at Fonterra's website.

⁶⁶ For the purposes of identifying changes which might become 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.

102.113. Figure 4.2 shows the relative size of each component of the base milk price calculation, based on data from the 2019-2020 season. The relative size of each cash and capital costs component is relatively stable over time.

Figure 4.2 Relative size of components of the base milk price



Assessing components under the [safe harbours 150B](#) provisions

103.114. Like the Manual review, we ~~are able to consider~~ ~~exclude~~ ~~the appropriateness~~ ~~of the use of~~ ~~assumptions~~ ~~and inputs which apply a 'safe harbour'~~ ~~assumptions~~ ~~identified in the s 150B provisions~~ ~~from assessment against~~ ~~when assessing~~ ~~compliance consistency with~~ the s 150A purpose.⁶⁷

104. ~~Our analysis of these assumptions and inputs is limited to verifying whether their calculation is consistent with the 'safe harbour' provisions in s 150B.~~

⁶⁷ [DIRA, s 150P\(1A\).](#)

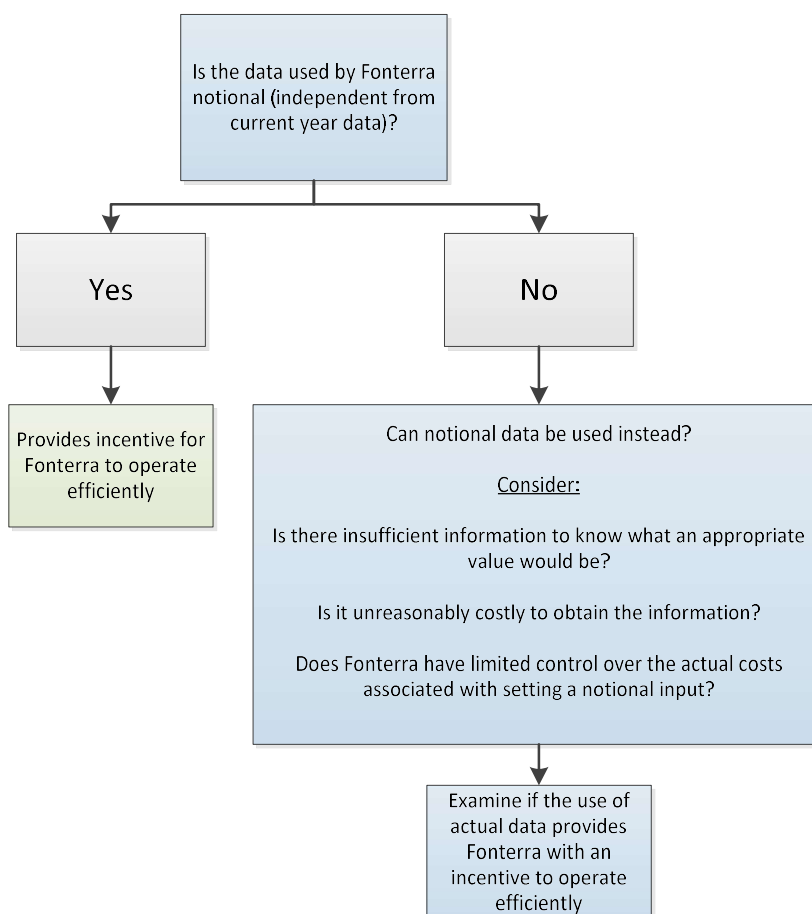
Assessing assumptions within the calculation for consistency with s 150C

105-115. Our calculation review involves examining whether the calculation of the milk price is consistent with the principles outlined in s 150C.

Assessing the efficiency dimension

106-116. The way we apply our analytical approach for testing the efficiency dimension of the different assumptions, inputs and process is outlined in Figure 4.3.

Figure 4.3 Process for assessing the efficiency dimension



Assessing the contestability dimension

107-117. Our approach to assessing the contestability dimension involves:

107-117.1 assessing the extent to which the assumptions adopted, inputs and process are individually practically feasible for Fonterra or an efficient processor; and

107-2117.2 performing cross-checks to ensure the assumptions adopted, inputs and process are practically feasible in aggregate. This involves analysing the extent to which the assumptions, inputs and process are consistent between

the various cost components and are also consistent between the revenue and cost components.⁶⁸

~~108.118.~~ We review the line-item breakdown of components which incorporate the assumptions, inputs and process adopted by Fonterra.⁶⁹

~~109.119.~~ We assess whether the individual assumptions, inputs and process relating to the different components are practically feasible for an efficient processor (building an incremental plant). This involves examining, wherever possible, whether the assumptions, inputs and process reflect activities and achievable levels of performance based on evidence provided by Fonterra.

~~110.120.~~ For the majority of the data, we can examine whether the assumptions adopted, and inputs and process used to calculate the base milk price are practically feasible for Fonterra.

~~111.121.~~ This approach is appropriate because, by and large, the data used reflects the costs of Fonterra's 'average' plant rather than its most cost-efficient plant(s). Therefore, an efficient processor (building an incremental plant) should be able to achieve lower costs.

~~112.122.~~ Where we are unable to conclude that Fonterra's notional average values are practically feasible or where average data has not been used, then, if some part of Fonterra's business (such as a specific plant), is able to achieve those costs,⁷⁰ an efficient processor (building an efficient incremental plant) should also be able to achieve them.

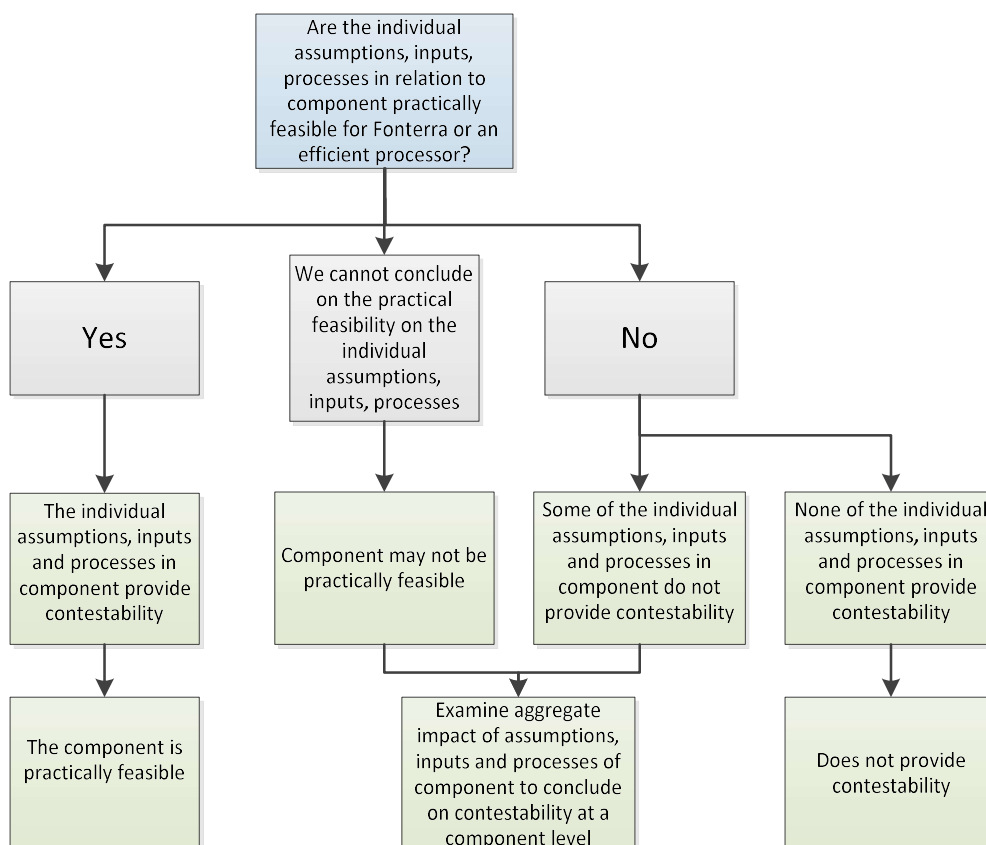
~~113.123.~~ Our process for assessing the contestability dimension is outlined in Figure 4.4.

⁶⁸ For example, the assumed production yields and site costs should be consistent with the plant capacity and capital costs assumed in the model.

⁶⁹ The breakdown of the base milk price into line-item components can be found in Figure 4.2 and Fonterra's seasonal Reasons Paper in support of its base milk price calculation.

⁷⁰—Subject to the safe harbour provisions in s 150B.

Figure 4.4 Process for assessing the contestability dimension



114.124. To reach our conclusion on the practical feasibility of the individual assumptions, inputs, and process, as a cross-check we consider whether the assumptions, inputs and process are only practically feasible for Fonterra due to features unique to Fonterra. ~~(which do not relate to Fonterra acting efficiently)~~. In that case, the assumptions, inputs, and process may not be practically feasible for another efficient processor.

115.125. We acknowledge there is a potential risk that the individual assumptions, inputs, and process may not collectively be practically feasible. We undertake the following cross-checks:

115.125.1 checking the assumptions, inputs and process used to determine the base milk price are internally consistent with each other;

~~115.2~~125.2 whether the combined assumptions adopted, inputs and process used are practically feasible;⁷¹ and

~~115.3~~125.3 checking the overall impact on the base milk price of the assumptions, inputs and process which are not individually practically feasible or that we are unable to conclude on.⁷²

Consistency of calculation with the Manual

~~116.~~126. Before assessing the contestability dimension, we perform a check on whether the calculation is consistent with the provisions set out in the Manual.

Our practical approach to applying materiality considerations

127. Materiality assists in informing the degree of priority we assign to our review of particular assumptions, inputs and processes. Materiality is relevant to setting the scope of our calculation reviews in two ways:

127.1 we consider materiality as part of determining the areas that we choose as the key focus areas for each calculation review; and

127.2 for the aspects of the base milk price calculation that are not part of the key focus areas, we undertake a “fit for purpose” review to identify material changes from our previous review of the base milk price reporting model.⁷³

128. Once the scope of the review has been established, we apply proportionate scrutiny when determining the extent of the examination and the level of evidence we require to support a particular conclusion on the inputs, processes and assumptions adopted in setting the base milk price. In broad terms, ‘proportionate scrutiny’ means that we will apply the level of scrutiny that is commensurate with the potential base milk price impact.

Our practical approach to the calculation review if Fonterra makes an adjustment to the base milk price

~~117.~~129. The Fonterra Board sets the base milk price for each dairy season based on the recommendations of the Panel.⁷⁴ It is expected that the Panel will recommend

⁷¹ Recognising the extent to which DIRA ~~allows Fonterra to use certain assumptions and~~ specifies the assumptions Fonterra must use in calculating the base milk price (~~eg, ie, the safe harbour and the~~ mandatory ~~principles~~ assumptions).

⁷² If the overall impact of such an assumption was small, we would conclude that the assumption relating to that component was not practically feasible but that the impact was small.

⁷³ As noted at footnote 66 above, we use an ‘indicative operational’ materiality of an equivalent of 0.5% of WACC. The equivalent impact on the milk price will vary year on year.

⁷⁴ The Milk Price Panel was established under s 150D.

the setting of the base milk price equal to the milk price set in accordance with the Manual.⁷⁵

~~118.130.~~ However, if Fonterra does not set the base milk price in accordance with a recommendation by the Panel, or without having received a recommendation from the Panel, it is required to make a public statement about its reasons for doing so.⁷⁶

~~119.131.~~ If Fonterra does not set the base milk price in accordance with the Panel recommendation, our calculation review includes an analysis of the way the adjustment amount is determined. This also enables us to conclude on the extent to which applying an adjustment to the base milk price set by the Manual is consistent with the efficiency and contestability dimensions in s 150A.

~~120.132.~~ Along with the assessment of the adjusted price, we still complete our assessment of the base milk price calculated under the Manual. This involves assessing the extent to which Fonterra's assumptions adopted, and inputs and process used in calculating the base milk price are consistent with the efficiency and contestability dimensions.⁷⁷

~~121.133.~~ If Fonterra changes the base milk price after we have published our final report on the base milk price calculation, Fonterra is required to publish the new base milk price and its reasons for changing the base milk price without delay.⁷⁸

⁷⁵ Chapter 2 outlines how Fonterra sets the base milk price and Attachment B contains more information about Fonterra's governance surrounding the setting of the base milk price.

⁷⁶ DIRA, s 150N.

⁷⁷ The extent of analysis is dependent on the size of the adjustment. Documenting our component analysis helps in undertaking our next calculation review and provides an ongoing trend assessment.

⁷⁸ DIRA, s 150R.

Attachment A The notional producer and its key assumptions

Purpose of this attachment

- A1 This attachment provides a description of the notional producer by outlining the following:
- A1.1 the notional producer concept; and
 - A1.2 key assumptions relating to the notional producer.

The concept of the notional producer

- A2 Fonterra calculates the base milk price by using a notional construct that we call ‘the notional producer’.
- A3 The aim is to use this notional construct to set an efficient milk price (ie, a milk price that is derived by Fonterra or another efficient processor producing only commodity dairy products).
- A4 The notional producer has the same total site footprint as Fonterra’s manufacturing site footprint but only produces Fonterra’s five most profitable commodity products. The notional producer uses actual Fonterra data to reflect some of its revenue and cost components, such as Fonterra’s actual revenues for certain commodities sold on its Global Dairy Trade (GDT) auction platform, off-GDT revenues, and the foreign exchange rates that have produced Fonterra's gains and losses.⁷⁹
- A5 This is distinct from an efficient processor as referred to in DIRA, which could be an entrant building a single plant.
- A6 The key assumptions made in determining the revenue and costs associated with the notional producer are set out [in Table A1](#).

⁷⁹ GDT is owned [and managed as a strategic partnership between the European Energy Exchange, by Fonterra and NZX, with equal one-third shareholdings but is operationally separate](#). It operates an online global dairy auction platform and as such provides a transparent reference price for dairy ingredients. See www.globaldairytrade.info.

Table A1 Key assumptions made for the Notional Producer

Assumption	Details
Commodity business	Standard dairy commodity manufacturer that produces: <ul style="list-style-type: none"> • whole milk powder (WMP) • skim milk powder (SMP) its by-products: <ul style="list-style-type: none"> • butter • anhydrous milk fat (AMF) • buttermilk powder (BMP). Collectively these are known as the RCPs. ⁸⁰
Milk Collection	Collects and uses the same amount of milk as Fonterra each season. The notional producer also uses the same milk composition.
Production and export	All products are produced in New Zealand, and all are exported.
Site footprint	Site footprint is the same as Fonterra's commodity processing site footprint. ⁸¹
Sales channel	Sells products through GDT and off-GDT sales channels. ⁸²
Pricing	Prices achieved are aligned to Fonterra's prices achieved for the reference commodity products. ⁸³
Conversion rate	Sales revenue converted to NZD at the same foreign currency conversion rates as achieved by Fonterra.
Lactose	Lactose for standardising milk powders is imported.
Company structure	Like Fonterra, the notional producer is assumed to be a co-operative.
Capital charge	Uses a 'spread back' asset approach, which results in capital charges in both the initial year of installation and in subsequent years which are independent of the year in which the notional producer's assets were assumed to have been installed.

⁸⁰ Section 150C requires Fonterra in setting the base milk price to include the commodities that are likely to be the most profitable over a period not exceeding 5 years and for the commodities to utilise all components of the milk. It should be noted that there are separate commodities within each Reference Commodity Product category as sellers provide technical specifications at this 'sub-Reference Commodity Product' level, and not at the Reference Commodity Product level. See Commerce Commission "Review of Fonterra's 2019/20 base milk price calculation: Dairy Industry Restructuring Act 2001" (15 September 2020) paragraph 2.21.

⁸¹ This means that collection costs to primary sites (with WMP and SMP plants) are aligned to Fonterra's collection costs to primary sites.

⁸² ~~We previously assumed the notional producer sells 90% of its products on the GDT and the remaining 10% sold to government procurement agencies. Fonterra amended its Manual for the 2016/17 season to include Fonterra off-GDT sales as a reference to calculate WMP, SMP and AMF prices.~~

⁸³ Prices are derived from Fonterra's GDT and off-GDT prices. The Manual allows Fonterra to use prices derived from Fonterra's off-GDT sales.

A7 Table A2 outlines the plant and site assumptions of the notional producer.

Table A2 Notional producer plant and site assumptions

Plant and site assumption	Details
Site size	Three site sizes: Small: 1 plant; Medium: 2 plants; and Large: 3 or more plants.
Unstandardised products	If there is a shortage in plant capacity within an island to process milk, plants process unstandardised products in the event of excess milk volumes. ⁸⁴ Unstandardised products are assumed to be sold at the equivalent standardised product prices achieved by Fonterra.
Processing capacity	Processing capacity assumed on an island basis (North and South Island); Total processing capacity by site is materially aligned to Fonterra's capacity.
Specification of product	Each plant produces one or more specifications of products per standard specification commodity product: <ul style="list-style-type: none"> • WMP: Regular – NZ; • SMP: Medium Heat – NZ; • Butter: Unsalted – NZ; • AMF: Premium 210kg drum – NZ; and • BMP: UHT – NZ.
Technology	All plants operate at a level consistent with modern efficient technology.
Replacement of manufacturing plants	Each manufacturing plant is replaced in full at the end of a weighted average effective life of 31 years.

⁸⁴ These unstandardised milk powders contain extra protein.

Attachment B Governance supporting the base milk price calculation

Purpose of this attachment

B1 This attachment outlines the governance supporting the calculation of the base milk price.

Fonterra's base milk price calculation governance and assurance processes

B2 The Panel and base milk price calculation are supported by governance and assurance mechanisms provided by both internal and external parties. Fonterra's governance structure and processes are described in detail in its Reasons Papers supporting the base milk price calculation and its annual Farmgate Milk Price Statements.⁸⁵

B3 These mechanisms are intended to ensure:

B3.1 the integrity of the data extracted from Fonterra's systems and used in the calculation of the base milk price;

B3.2 the integrity of the calculation methodology (for example, that the financial models used to calculate the base milk price are arithmetically correct, and that they contain the correct inputs);

B3.3 the consistency of the calculation methodology with the rules set out in the Manual;⁸⁶ and

B3.4 the consistency of changes to the Manual, and of the application of the Manual, to the Milk Price Principles, as set out in Fonterra's constitution and in section 2 of Part A of the Manual.⁸⁷

~~B3.5 The bodies which support the integrity of the base milk price calculation are outlined in Table B1 and Table B2 below.~~

⁸⁵ The Reasons Paper incorporates Fonterra's reasons for its certified view on the extent to which the assumptions adopted and the inputs and process used in calculating the proposed base milk price are consistent with the purpose in s 150A.

⁸⁶ Any changes to the Manual take effect in the calculation for the same season. For example, changes to the 2020/2021 Manual must be applied in the milk price for the 2020/2021 season.

⁸⁷ ~~Fonterra "Reasons Paper in Support of Fonterra's Base Milk Price for the 2019/20 Season", (1 July 2020), page 5.~~

Table B1 — Outline of milk price calculation internal reviews**Board of Directors**

The Board of Directors is accountable for overall setting of the base milk price, any adjustments and making it publicly available, including reasons for setting a price different to what has been recommended by the Panel.

Milk Price Management Steering Committee

The Milk Price Management Steering Committee coordinates with the Milk Price Group to provide management input on base milk price matters. This includes ensuring the base milk price calculation takes into account the full range of costs and matters impacting the revenue of a manufacturer of commodity milk powders and their by-products. The Committee also oversees the internal control environment for Fonterra's business processes that support the milk price.

Internal Parties**Internal Audit Team**

Fonterra's internal audit team provides assurance over the integrity of data sourced from Fonterra's systems, including with respect to the controls maintained to ensure ongoing data integrity.

Fonterra Senior Managers

Fonterra senior managers provide internal oversight of the calculation of the actual and forecast base milk price in accordance with the Manual and detailed models and procedures. Fonterra management is also responsible for operational engagement with the Commerce Commission.

Outline of milk price calculation external reviews

Milk Price Group (MPG)

The MPG is a working group established by Fonterra. The Head of the MPG is independent of Fonterra's management and reports directly to the Chair of the Panel. The functions of the MPG are contracted out to Ernst & Young and other technical experts who are not employees of Fonterra. Its responsibilities include:

- ensuring that the base milk price is calculated in accordance with the Manual and making recommendations in respect of the base milk price to the Panel;
- considering any proposed amendments to the Manual, including those the Milk Price Group itself considers are appropriate, and ensuring they are in accordance with the Milk Price Principles in Fonterra's Constitution;
- providing assurance to the Fonterra Board over the calculation of the base milk price;
- managing engagement with external reviewers;
- engaging with the Commerce Commission on matters relating to the Manual and calculation of the milk price, including to ensure full disclosure of all material aspects of the base milk price derivation each year.

External Auditors

The external auditor audits the base milk price each year and provides assurance that the base milk price has been determined in accordance with the Milk Price Principles, Methodologies and detailed rules of the Manual.

External Parties

Milk Price Panel (the Panel)

The Panel has been maintained by Fonterra since the introduction of the current milk price mechanism in 2008, and is now statutorily required to be maintained under s 150D of DIRA. The Panel has five members, who are appointed by Fonterra, with one of the members nominated by the Minister. Fonterra must ensure that a majority of members of the Panel are independent (including the Chair), as that term is defined in s 5 of DIRA.

The Panel is responsible for providing recommendations to the Board on changes to the Manual and assurance to the Board that the base milk price each year has been calculated in accordance with the Manual. The Panel recommends the base milk price to Fonterra.⁸⁸

Summary of statutory governance processes

B4 Under s 150F of DIRA Fonterra must maintain the Manual that sets out how the base milk price is calculated. The base milk price must be set in a way that is consistent with the principles set out in s 150C ~~and allowing for the 'safe harbour' assumptions described in s 150B.~~

B5 — The Panel is established under s 150D of DIRA. The appointment of its members by Fonterra is prescribed in s 150E and must include two members who are nominated by the Minister and a fully independent chair. If the Panel chair is a member

⁸⁸ — DIRA, s 150D(3).

nominated by the Minister, the Minister can nominate a third member that Fonterra must appoint.

B5

B6 The Panel must, for each season,

~~B6.1~~ appoint an external party to perform the base milk price calculation each year and change this person regularly;⁸⁹

~~B6.2~~B6.1 supervise the calculation of the base milk price carried out by the external third party;

~~B6.3~~B6.2 advise Fonterra as necessary on the application of the base milk price manual; and

~~B6.4~~B6.3 recommend to Fonterra the base milk price.⁹⁰

B7 The Panel may, as it considers necessary or desirable, make recommendations to Fonterra in respect of the milk price manual, including a recommendation that it should be amended and a recommendation that a proposed amendment should not be made.

B8 If the Board of Fonterra sets a base milk price other than in accordance with a recommendation by the Panel or in the absence of a recommendation by the Panel, it must follow the process set out in s 150N.

B9 If the Board of Fonterra changes the base milk price after ~~the Commission~~we have made ~~its~~our report under s 150P it must follow the process set out s 150R.

B10 If the Board of Fonterra does not amend the Manual in accordance with a recommendation by the Panel, contrary to a recommendation by the Panel or in the absence of a recommendation by the Panel, it must follow the process set out in s 150G.

B11 Fonterra must, for each season, appoint an external party to perform the base milk price calculation each year and change this person regularly.⁹¹

⁸⁹ DIRA, s 150EA.

⁹⁰ DIRA, s 150(D)(3).

⁹¹ DIRA, s 150EA

Disclosure of Manual and calculation review information

- Fonterra is required to make all non-sensitive information that has been requested by or provided to the Commission in relation to its review of the Manual or its review of the milk price calculation publicly accessible within 20 working days of the Commission publishing its final report.⁹²
- Non-sensitive information is information Fonterra reasonably considers is not commercially sensitive, subject to legal privilege, or personal information.⁹³

⁹² DIRA, ss 150JA and 150QA.

⁹³ DIRA, ss 150JA(2) DIRA, s 150QA.