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How to have your say

Submissions process

The Ministry for Primary Industries (MPI) is seeking written submissions on the issues, options and questions raised in this document. Submissions are due by 5pm on Friday 8 February 2019.

Your submission may respond to any or all of the questions. We also encourage your input on any other relevant matters. Where possible, please include evidence to support your views, for example references to independent research, facts and figures, or relevant examples. Submissions backed by evidence and argument will carry more weight than statements of opinion.

You can make your submission by:

- Filling in the online submission form at http://www.mpi.govt.nz/dira-review.
- Attaching your submission as a Microsoft Word attachment and sending to dira@mpi.govt.nz.
- Mailing your submission to:

DIRA Review team

Agriculture, Marine and Plant Policy Policy and Trade Branch Ministry for Primary Industries PO Box 2526 Wellington 6140 New Zealand

Please make sure you include the following information in your submission: the title of this discussion document; your name and title; your organisation's name (if you are submitting on behalf of an organisation) and whether your submission represents the whole organisation or a section of it; and your contact details (that is, phone number, address and email).

Submissions received after 5pm on Friday 8 February 2019 may not be considered.

Please direct any questions that you may have in relation to the submission process to diracmpi.qovt.nz.

Use of information

The information provided in submissions will be used to inform MPI's policy development process, and will inform advice to Government on the operation of the Dairy Industry Restructuring Act 2001 and its impact on the dairy industry, including possible options for regulatory change. We may contact submitters directly if we require clarification of any matters in submissions.

In the interests of a fully transparent process, MPI will upload PDF copies of submissions received to MPI's website at http://www.mpi.govt.nz/dira-review in accordance with the Official Information Act 1982.

Please set out clearly with your submission if you have any objection to the release of any information in the submission, and in particular, which part(s) you consider should be withheld, together with the reason(s) for withholding the information under that Act.

If your submission contains any confidential information, please indicate this on the front of the submission, mark it clearly in the text, and provide a separate version excluding the relevant information for publication on our website.

MPI reserves the right to withhold information that may be considered offensive or defamatory.

The Privacy Act 1993 establishes certain principles with respect to the collection, use and disclosure of information about individuals by various agencies, including MPI. Any personal information you supply to MPI in the course of making a submission will only be used for the purpose of assisting in the development of policy advice in relation to this review.

Minister's **Foreword**

This Government is committed to addressing the long-term challenges for the country, including sustainable economic development, increased value for exports and decent jobs paying higher wages, a healthy environment and a fair society.



The time is right to have a conversation about the role agriculture plays in New Zealand, particularly dairy. Dairy, as one of the two largest export earners for New Zealand, is a key contributor to the Government's objectives.

In 2001, the dairy industry sought government support for a major structural reform to help the industry drive strategic change. The Dairy Industry Restructuring Act 2001 (DIRA) enabled the industry restructure to go ahead and allowed Fonterra to form. The DIRA also created a regulatory regime to mitigate the risks associated with there being a company with a near monopoly position in the domestic dairy markets.

Seventeen years on, it is timely to take stock of the DIRA and its impact on the dairy industry's performance. In particular, it is important to ask whether the DIRA has achieved its original objectives, created any unintended consequences, and whether it is still needed in its current form.

It is clear that the dairy industry has grown significantly. Since 2001, dairy export receipts have more than doubled in value. This growth has been good for the country economically. Dairy farmers work hard to support the high living standards of all New Zealanders.

However, along with benefits, the growth of the dairy industry has had negative effects on our environment, through increased greenhouse gas emissions, nitrate leaching, and the expansion of dairy into increasingly marginal land areas.

Our dairy exports' growth has also contributed to the ongoing reliance on commodities, and the advantages of more strategic global value-add opportunities are not being pursued at scale.

We want to ensure that future dairy industry performance is optimised for the benefit of the New Zealand economy, farmers, and consumers.

This discussion document considers the dairy industry's performance since 2001, and outlines preliminary analysis of the potential effects the DIRA and other factors have had on industry performance. It also identifies a range of options for change.

I want the analysis in this document to be tested, to ensure any changes to the DIRA deliver the right outcomes, are workable, and any unintended consequences are minimised.

I encourage you to share your views on the issues and options outlined in this document, as we work to ensure the DIRA is fit-for-purpose, and is effective at promoting the best outcomes for all New Zealanders.

Hon Damien O'Connor Minister of Agriculture

DIRA Discussion Document – **Overview**

What is the purpose of this document and what do we need from you?

The Government is reviewing the Dairy Industry Restructuring Act 2001 (DIRA) and its impact on the dairy industry.

This document sets out the key issues in relation to the DIRA and the extent to which it has, or has not, driven the performance of the New Zealand dairy industry over the past seventeen years.

We are asking for your thoughts in relation to the issues discussed, and views on if, and how, the DIRA should be amended to achieve different outcomes for the dairy industry and New Zealand as a whole.

Why is the DIRA being reviewed?

The DIRA was enacted in 2001 to facilitate the formation of a national champion, Fonterra, to drive New Zealand dairy industry's economic performance in global dairy markets, and to regulate Fonterra's dominance domestically, for the long-term interests of New Zealand dairy farmers, consumers and the wider economy.

Since 2001, the dairy industry's economic contribution to New Zealand has more than doubled, and there has been significant processor entry and some product diversification, both in export-focused and domestic consumer dairy markets.

However, economic value growth has come primarily from greater volume of commodity production, in response to demand from global markets, and increased cow numbers. The expansion of the dairy industry has had negative impacts on the environment.

Some stakeholders are concerned that the DIRA regulatory provisions may have contributed to adverse industry performance outcomes. For example, there are concerns that the DIRA may be encouraging uneconomic and environmentally unsustainable milk production; preventing Fonterra from transitioning to higher value-add processing activities; and incentivising inefficient market entry by new dairy processors. There is also a question of whether the DIRA regulatory regime is still needed.

The purpose of the review is to ensure that the DIRA:

- is effective at achieving its regulatory purpose and remains fit-for-purpose;
- does not create unintended consequences; and
- does not stay in place for longer than necessary.

What stage is the DIRA review at?

Following the release of the Government's terms of reference for the review, the Ministry for Primary Industries (MPI) engaged with a large and diverse group of key industry stakeholders to help clarify concerns, establish facts and build evidence to inform preliminary analysis of issues and options for potential legislative amendments.

We completed 28 engagement meetings and received written input from twelve organisations. We have also commissioned two reports from an independent economic consultancy, Frontier

Economics, on the performance of New Zealand dairy industry and its underlying drivers. The industry input and consultancy reports can be found at http://www.mpi.govt.nz/dira-review.

The purpose of this discussion document is to:

- test current understanding and preliminary analysis of issues and options with the wider industry and public, and
- seek input on costs, benefits and other impacts of the options for change to help ensure that any legislative amendments deliver the right outcomes and are workable.

What have we found so far?

DIRA REGULATORY PURPOSE

As depicted in the diagram, the DIRA's core regulatory objective is to prevent Fonterra from using its dominance to create barriers for farmers' milk and land flowing to their highest value uses.

The DIRA achieves this by ensuring that farmers have access to transparent information about Fonterra's performance (in terms of Fonterra's milk and share prices). This transparency is provided through the DIRA's requirements for the base milk price calculation and Trading Among Farmers (TAF) provisions.

The DIRA's open entry and exit provisions then enable farmers to act on Fonterra's performance information by freely switching their milk supply from and to Fonterra.



The DIRA also facilitates an entrance pathway for new dairy processors and supports competition in the domestic consumer dairy markets through the Raw Milk Regulations. These provide for independent processors without their own viable milk supply to have access to a limited quantity of regulated milk from Fonterra.

PRELIMINARY ANALYSIS OF ISSUES

In developing this discussion document, we have spoken to a wide range of people operating in the dairy industry. The preliminary analysis of stakeholder concerns indicates that the DIRA is:

- ✓ effective at achieving its core regulatory objective of managing Fonterra's dominance;
- ✓ still relevant and needed at this stage; and
- ✓ unlikely to be encouraging inefficient industry growth or preventing Fonterra from pursuing a value-add strategy.

But, the DIRA appears to be:

- preventing Fonterra from effectively managing some aspects of its farmers' environmental performance, thus producing unintended consequences; and
- providing access to regulated milk for large dairy processors for whom it may no longer be necessary, thus not being fit-for-purpose.

In addition, there is an opportunity to consider whether the DIRA should be amended to:

- promote greater confidence in the base milk price calculation; and
- preserve competition in the domestic consumer dairy markets in the short term, while discouraging any undue regulatory dependency in the longer term.

OPTIONS FOR POTENTIAL LEGISLATIVE AMENDMENTS

The discussion document outlines a range of options for potential legislative amendments.

The options aim to address the issues and opportunities identified by the preliminary analysis, while maintaining the effectiveness of the DIRA in achieving its core regulatory purpose.

The key areas of focus for potential legislative amendments are:

- 1. the DIRA open entry requirements;
- 2. access to regulated milk for large dairy processors (except Goodman Fielder);
- 3. the base milk price calculation;
- 4. access to regulated milk for Goodman Fielder and smaller processors; and
- 5. the DIRA review and expiry provisions.

In each of these areas of focus, the options range from 'retaining the status quo' to 'modifying the current provisions' and in some areas to 'repealing the current provisions entirely'.

The discussion document does not have preferred options. Instead, at this stage, we are seeking feedback on all options outlined in this document, and any additional options stakeholders may put forward, in order to understand the costs, benefits and impacts associated with each option to help inform future policy decisions.

Where to next?

Written submissions on issues, options and all other aspects of this discussion document are due by 5pm on Friday 8 February 2019. This can be provided by:

- Filling in the online submission form at http://www.mpi.govt.nz/dira-review.
- Emailing your submission as a Microsoft Word attachment to dira@mpi.govt.nz.
- Mailing your submission to:

DIRA Review team
Agriculture, Marine and Plant Policy, Policy and Trade Branch
Ministry for Primary Industries
PO Box 2526
Wellington 6140
New Zealand

During the consultation process, public meetings will be held throughout the country to give all interested persons an opportunity to get involved in the process. These will be publicised on the MPI's DIRA Review webpage and MPI social media channels.









Once we have received written submissions, we will analyse these to identify and synthesise views on all issues and options. We will then work with affected stakeholders to include them in the process of identifying and assessing the preferred solutions and their impacts.

We expect to hold a series of targeted workshops post consultation, during the months of February and March 2019. These discussions will inform the final recommendations that the Government will consider later in 2019.



1.1 Purpose and context of the review

The Government is reviewing the Dairy Industry Restructuring Act 2001 (DIRA) and its impact on the dairy industry.

The terms of reference for the review are available at http://www.mpi.govt.nz/dira-review.

The purpose of this review is to consider:

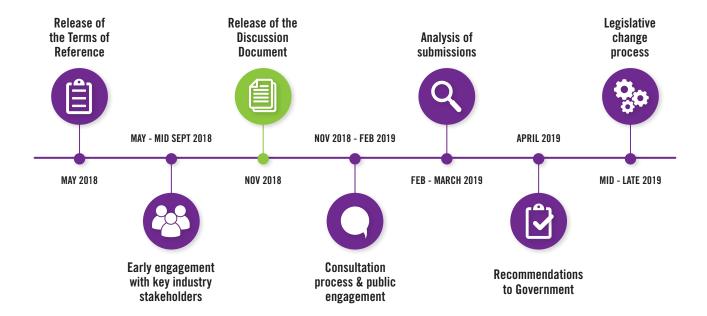
- whether the DIRA is operating in a way that protects the long term interests of New Zealand dairy farmers, consumers and the nation's overall economic, environmental and social wellbeing;
- whether, and if so the extent to which, the DIRA gives rise to any unintended consequences manifesting themselves in other parts of the wider regulatory system; and
- whether the purpose and form of the DIRA remainS fit-for-purpose, given the dairy industry's current structure, conduct and performance, as well as the global and domestic challenges and opportunities facing the industry, the wider regulatory system within which it operates, and the Government's broader policy objectives.

In considering the provisions of the DIRA, the review will take account of the wider context in which the dairy industry operates, namely other relevant statutes and regulations, New Zealand's trade relations, and changing market dynamics.

1.2 Process and timeline of the review

Following the public release of the terms of reference in May 2018, we invited all interested parties to provide initial input to help us establish facts and build evidence to support our preliminary analysis of the issues and potential options for change.

The key stages of the review process, and the tentative timeline, are set out in the diagram below.



1.3 Purpose and structure of this discussion document

The purpose of this discussion document is to:

- test our understanding and preliminary analysis of issues and outcomes that have arisen in the dairy industry since 2001; and
- seek input and views on options for change.

The structure of this discussion document is outlined below. We welcome your feedback in response to specific questions or any other relevant information that you wish to provide.

- Chapter 1: Purpose, process and timing of the review
- Chapter 2: Performance of the dairy industry
- Chapter 3: The effects of the DIRA and other factors on industry performance
- Chapter 4: Options for change
- Chapter 5: Summary of issues, objectives and options
- Chapter 6: Next steps

1.4 Getting involved in the process

This document is one means by which we are seeking feedback. We also plan to hold public meetings throughout New Zealand to give people at a grassroots level an opportunity to engage in the process, as well as targeted industry meetings and workshops to test and refine our understanding and analysis of issues and options set out in this document.

An indicative itinerary for public meetings is set out below. However, arrangements are subject to change, so please use the DIRA Review webpage, and MPI social media channels, to access the latest information.

| WHERE | WHEN |
|-------------------|-------------------------------|
| Wairarapa | Mid November |
| Taranaki | Late November |
| Waikato | Early December (two meetings) |
| Bay of Plenty | Early December |
| North Canterbury | Mid December |
| South Canterbury | Mid December |
| Manawatu-Wanganui | Mid December |
| West Coast | Late January |
| Tasman | Late January |
| Southland | Late January |
| Northland | Late January |

1.5 What happens next

Submissions on this document are due by 5pm on Friday 8 February 2019. Once we have received written submissions, we will analyse these to identify and synthesise views on all issues and options. We will then work with affected stakeholders to include them in the process of identifying and assessing the preferred solutions and their impacts.

We expect to hold a series of targeted workshops post consultation, during the months of February and March 2019. These discussions will inform the final recommendations that the Government will consider later in 2019.



2.1 2001 structural reform to enable the industry to drive strategic change

LEADING UP TO THE STRUCTURAL REFORM

The New Zealand dairy industry is primarily owned and controlled by dairy farmers.

Dairy co-operatives, involving farmer ownership of the dairy processing sector, are commonly used by farmers around the world as a means of reducing farmers' on-farm risk and enhancing financial viability.

Co-operative structures are particularly attractive for New Zealand dairy farmers because of New Zealand's pastoral-based farming systems. New Zealand climatic conditions provide dairy farmers with a relatively low cost but highly seasonal milk production, with 70 percent of all raw milk produced over a three month period.

The highly perishable nature of farmers' milk and the need to handle the peak milk supply flows requires dairy processors to make substantial investments in transport infrastructure and processing capacity that tends to be underutilised during off peak periods. Farmers' collective investment in, and ownership and control of, the dairy processing assets reduces the risk to farmers of their milk not being picked up and processed, and maximises their returns on milk production.

By the late 1990s numerous small dairy co-operatives in New Zealand had consolidated into just four. The consolidation was driven by improved transport links, improved economies of scope and scale, and the need for dairy processors to make progressively larger investments to cope with the increasing volumes of milk production.

The two largest dairy co-operatives, New Zealand Dairy Group and the Kiwi Co-operative Dairy Company, together collected 96 percent of all milk production in New Zealand. They had also taken over most of the town milk companies, which serviced the small New Zealand consumer markets, and integrated them into their export-focused processing facilities. Dairy exports were under the statutorily-mandated control of a single desk marketing board, the New Zealand Dairy Board.

In 1999, the two largest dairy co-operatives sought Commerce Commission authorisation for them to merge. The proposal was for all processing and export marketing assets to be owned by a single farmer-owned dairy co-operative company, Fonterra.

The proposed merger aimed to create a company with sufficient scope and scale to compete strongly in international markets; realise further cost savings and productivity improvements through size and coordinated manufacturing and marketing; and, create impetus for a strategic shift from commodity to value-added processing of New Zealand milk production.

The proposal also recognised that the statutory control of all export marketing of New Zealand dairy products through the New Zealand Dairy Board was no longer an optimal arrangement given developments in global dairy markets.

The Commerce Commission concluded (in its draft determination) that, when compared against other likely industry structures, the loss of competition with the proposed merger was likely to lead to a less efficient and innovative processing industry in New Zealand, potentially leading to reduced farmer returns and economic value to New Zealand over time.¹

The dairy industry withdrew its merger application, and asked the Government to legislate to facilitate the merger, outside the provisions of the Commerce Act 1986.

GOVERNMENT POLICY OBJECTIVES FOR THE MERGER

The then Government's objectives in considering the industry's request were to:

maximise the economic performance of the dairy industry by allowing the structure of the industry to
evolve in response to changes in the domestic and global dairy industry;

¹ Commerce Commission, Draft Determination (1999): https://comcom.govt.nz/__data/assets/pdf_file/0025/77164/3388dr.pdf.

- remove constraints on dairy industry performance created by the structure that was imposed by existing legislation (including the export monopoly of the New Zealand Dairy Board);
- facilitate the emergence of new competition and new strategies in the dairy industry;
- limit the potential for dairy farmers, New Zealand consumers and other firms or co-operatives in the dairy industry to be adversely affected by the use of monopoly power by the merged entity; and
- ensure lowest regulatory and compliance costs while achieving the above objectives².

The proposed industry merger and the regulatory regime to manage its risks were implemented through the DIRA.

THE DIRA AS AN ENABLING FRAMEWORK

The DIRA created a framework that aimed to ensure that the dairy industry's resources (milk production and farm land) could flow to their highest value use, despite Fonterra's dominance³ and its associated ability and incentive to create barriers to such industry dynamic.

The DIRA does not prescribe what that highest value use should be, or how dairy farmers and processors (including Fonterra) should structure or size their commercial operations, what investments they should make, or what dairy products they should produce.

The chief way in which the DIRA intervenes in the industry dynamics is by incentivising Fonterra to use price signals as the means of managing the volume of its milk supply.

The DIRA open entry and exit requirements (outlined below) ensure that Fonterra cannot directly control its milk supply volumes simply by refusing to accept new milk supply or preventing its existing suppliers from switching their milk supply to other dairy processors or land uses.

Instead, the DIRA leaves Fonterra with an ability to control its milk supply volumes from farmers through the price it pays them for their milk, and through the cost of farmers' shareholding in Fonterra. The intent is that Fonterra is incentivised to set its milk price and cost of shareholding in a way that produces an optimal volume of milk to run its existing processing capacity (i.e. its sunk investment) while directing further investment to higher value use/product lines.

Higher prices for farmers' milk and a lower cost of shareholding tend to incentivise increased milk production. If Fonterra sets a milk price that is "too high" and the cost of shareholding in Fonterra that is "too low" it risks incentivising farmers to produce excessive volumes of milk. Of necessity, excessive milk production will require investment in additional processing capacity that is capable of managing large volumes (i.e. commodity processing).

The DIRA leaves Fonterra free to manage its price signals in line with its chosen business strategy, without pre-determining how the company should price its inputs, source its capital requirements, and what business strategy it should pursue.

THE DIRA AS A RISK MITIGATION TOOL

The key risks with the proposed merger were that Fonterra would have a near monopoly in the market for farmers' milk and the market for New Zealand consumer products. The risks associated with such monopoly position were:

- risk to future earnings of dairy farmers, and the overall economy, and
- risk of New Zealand consumers being charged excessive monopoly prices and/or having limited product choice.

² MPI archives, Cabinet papers (2001) Facilitation of the proposed dairy industry merger: paper one; and Dairy industry merger proposal: paper two: regulatory package and tax provisions. Available at http://www.mpi.govt.nz/dira-review.

In this document we use the term "dominance" to mean "substantial degree of market power".

Risk to future earnings of dairy farmers, and the overall economy

The merger placed the management of almost all of New Zealand's dairy exports in the hands of a single entity (all eggs in one basket). There was a risk that Fonterra could lack incentives to perform efficiently in the absence of direct competitive pressure for raw milk (its key input). Although Fonterra would face competition for its output in international markets, New Zealand's relatively low cost milk production provided the company with an inherent competitive advantage which could be used to offset any under-performance.

The expectation was that if dairy farmers had sufficiently transparent information about Fonterra's performance and were dissatisfied with it, they could shift their resources to higher value use (either by supplying their milk to another processor or changing to an alternative land use). The risk was that Fonterra's dominance would give it the ability and incentive to disincentivise and/or restrict farmers' ability to "vote with their feet" through:

- paying excessive prices for milk, and/or
- lowering the cost of farmers' shareholding, and/or
- requiring farmers to sign up to exclusive long-term supply contracts, and/or
- imposing restrictions on new farmers' supply, including as a means of creating a chilling effect on existing farmers' willingness to switch their supply.

As depicted in the diagram, the DIRA mitigates this risk by ensuring that dairy farmers have access to sufficient information about Fonterra's performance through its base milk price calculation and monitoring provisions, and the Trading Among Farmers provisions⁴. The DIRA's open entry and exit provisions then ensure that farmers, armed with that performance information, can act on it in a way they see fit.

Specifically:

- The base milk price calculation and monitoring requirements provide for a transparent benchmark of the value of farmers' milk in global dairy markets during the particular season. This benchmark price provides farmers with a reference point against which Fonterra's and other dairy processors' milk price offers can be assessed.
- **Trading Among Farmers** provisions ensure that the prevailing market price for Fonterra's shares transparently reflects Fonterra's financial performance in the particular year. This enables farmers to assess the adequacy of the returns on their capital contributions to Fonterra and compare them against alternative uses of that capital.
- **Open entry** provisions require Fonterra to accept all applications from farmers to become shareholders or to increase their existing shareholdings in Fonterra, subject to two exceptions. Open entry also requires Fonterra to accept all milk produced by its shareholders subject to Fonterra's terms of supply, which must not discriminate between a new entrant and a shareholding farmer in the same circumstances. These provisions prevent Fonterra from imposing blunt volume restrictions on new farmers' supply.
- **Open exit** provisions require Fonterra to allow farmers to withdraw from the co-operative without unreasonable restrictions or penalties. Fonterra must offer its shareholding farmers milk supply contracts for at least one season, but it may offer longer-term contracts if a third of all milk produced within a 160km radius of any point in New Zealand is supplied either to other dairy processors or under short-term contracts with Fonterra. These provisions ensure that farmers can switch their supply to other dairy processors or land-uses.

⁴ The DIRA was amended in 2012 to enable Fonterra to move to its current Trading Among Farmers capital structure.

⁵ These exceptions are: 1) if the applicant plans to supply less than 10,000 kg of milk solids in a season, and 2) if the cost of transporting the milk of the applicant exceeds the highest cost of transporting another existing shareholding farmer's milk.



The DIRA, through the Raw Milk Regulations, also addresses an additional barrier newly establishing large dairy processors may face. Specifically:

• The Raw Milk Regulations require Fonterra to sell up to 50 million litres of raw milk per season, on agreed or regulated terms, to dairy processors who have not yet established their own supply from farmers. The regulations provide new dairy processors who are in the process of establishing own supply with an "entrance pathway" into the market for farmers' milk.

Risk of New Zealand consumers of dairy products being charged excessive monopoly prices and/or having limited product choice

The merger could have also meant that Fonterra would be the only large-scale supplier of staple dairy products (fresh milk, butter and table cheese) to New Zealand consumers. In that case, Fonterra might have had the ability to charge excessive wholesale prices and/or restrict the quantity and variety of dairy products available to New Zealand consumers.

To manage this risk Fonterra was required to divest 50 percent of its domestic consumer business, thus creating a competitor of comparable size. Since the newly-formed competitor (now Goodman Fielder) did not have its own milk supply, this was provided for under a long-term commercial contract with Fonterra. This has guaranteed the presence of at least one large-scale competitor to Fonterra in the domestic consumer market.

The contract was backed by the Raw Milk Regulations, made under the DIRA, which enable Goodman Fielder to purchase up to 250 million litres of raw milk per annum from Fonterra on regulated terms. It was expected that, over time, Goodman Fielder would develop its own supply of raw milk, independent of Fonterra.

The Raw Milk Regulations also enable smaller processors supplying the domestic consumer market to purchase up to 50 million litres of raw milk each season from Fonterra on agreed or regulated terms. This enables small dairy processors, who may not be able to obtain their own supply of raw milk, to offer diverse product choice and specialty consumer products including cheeses, yoghurts, ice cream and organic fresh milk.

THE NEED FOR THE DIRA IS CONTINGENT ON FONTERRA'S DOMINANCE

When the DIRA was passed, the assumption was that over time Fonterra's dominant position in the market for farmers' milk could be eroded.

The original DIRA contained automatic expiry provisions. In 2011, these expiry provisions were amended to provide for a review of the state of competition to be undertaken prior to the new automatic expiry provisions taking effect. In February 2018, the DIRA review and expiry provisions were repealed to prevent the upcoming expiry of the DIRA in the South Island and to enable the current review to take place in a stable regulatory environment.

The DIRA does not, however, seek to reduce Fonterra's market share, it simply eliminates some of the barriers that might otherwise exist as a result of Fonterra's market dominance. By eliminating such barriers, the DIRA establishes a framework to enable farmers' milk supply to flow to its highest value use, whether to Fonterra or other dairy processors.

The need for the DIRA is contingent on Fonterra retaining its dominant position (i.e., having a substantial degree of market power). If Fonterra was no longer dominant, active competition for farmers' milk, rather than regulation, would become the means of ensuring that farmers' milk supply flowed to its highest value use. In the absence of the DIRA, the management of any risks of anti-competitive behaviour among competing firms would rely solely on the provisions of the Commerce Act 1986.

2.2 Industry performance since the restructure

This section summarises our high level observations on how the dairy industry has developed since its 2001 restructure.

Appendix 1 provides further information on the expansion of dairying and exports, Fonterra's business, profiles of independent processors that have established in New Zealand, impacts on the domestic consumer market for dairy products, and the impacts of dairying on the environment.

Detailed analysis of the dairy industry's performance, which we commissioned from an independent economic consultancy, Frontier Economics, can be found at http://www.mpi.govt.nz/dira-review.

HIGH LEVEL OBSERVATIONS OF INDUSTRY PERFORMANCE

The dairy industry has grown significantly since its 2001 restructure. Its contribution to per capita GDP is 74 percent higher than in 2001. Dairy export receipts have more than doubled since 2001.

However, New Zealand's dairy exports remain strongly focussed on commodities, exposing the industry to international price volatility. The focus on commodities is particularly evident in Fonterra's export product mix.

As outlined in the Frontier Economics' reports, the investment by New Zealand dairy processors to move up the value chain has been modest by global standards. For example, Fonterra has invested approximately NZ\$900 million in research and development over the past decade, or approximately 0.6% of its annual turnover, compared to the average of 1.1% of annual turnover invested in research and development by the largest food producers globally over the past 10 years.

Since 2004, a number of large-scale dairy processors have established in New Zealand. Most have focussed on higher value products, which have formed a growing segment of New Zealand's export products.

In most cases new dairy processors have been backed by foreign investors (some in partnership with New Zealand and Māori interests). This has provided linkages to established international distribution and marketing chains, which has facilitated access to growing Asian markets.

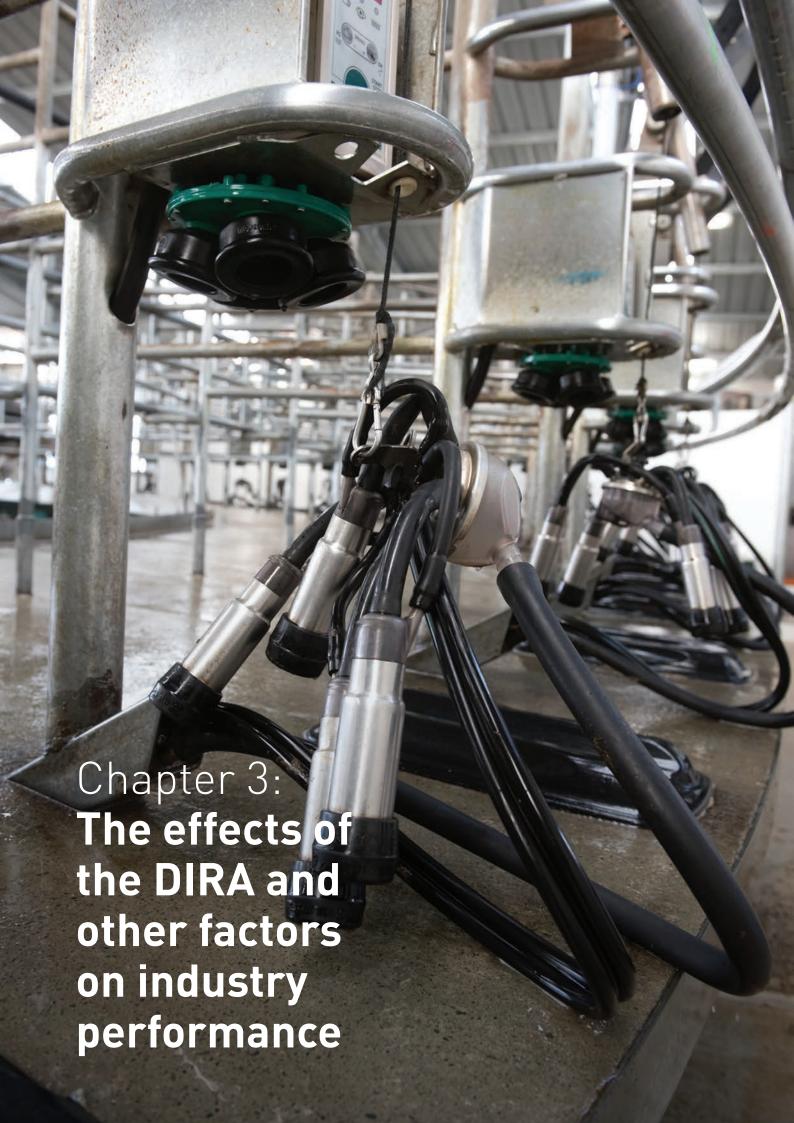
While the growth of the dairy industry has had undoubted economic benefit, it has come at a cost to the environment. With rising international demand and high prices for dairy products, cow numbers have increased, and dairying has expanded into areas where production is less sustainable.

The number of new dairy farm conversions has peaked at around 320 in the 2008/09 year and has since fallen away sharply to around ten in 2017/18 year. Overall milk production volumes have also plateaued.

New Zealand consumers have access to a wide range of consumer dairy products, across the basic, standard and premium product range and price points. With the current exception of butter, the retail prices of dairy products (including fresh milk) have moved in line with other retail grocery products. Diversity in the consumer market is served by a large number of small niche producers, and two large-scale processors, Fonterra Brands and Goodman Fielder. Product ranges have expanded over time, particularly in the range of specialist and niche dairy products beyond cheese, including ice cream, organic fresh milk, flavoured milks and yoghurt.

QUESTIONS:

- 1. Do you agree with our description of the DIRA regulatory regime and its original policy rationale? Do you consider the original policy rationale is still valid?
- 2. Are there any other dairy industry developments or industry performance indicators that are not captured in Chapter 2, Appendix 1, or the reports by Frontier Economics? Please provide details and supporting evidence.



This Chapter focusses on a number of questions, issues and outcomes that have arisen in the dairy industry since 2001, and considers the extent to which the DIRA and/or other factors may have accounted for them, including:

- Has the DIRA been effective at managing Fonterra's dominance in the market for farmers' milk, and is it still needed?
- Does the DIRA encourage industry growth?
- Does the DIRA influence Fonterra's strategy?
- Does the DIRA impact on the industry's environmental performance?
- Does the DIRA incentivise inefficient entry by large dairy processors?
- Does the DIRA promote sufficient confidence in the base milk price calculation?
- Does the DIRA support competition in New Zealand consumer dairy markets?

3.1 Has the DIRA been effective at managing Fonterra's dominance in the market for farmers' milk, and is it still needed?

As outlined in Chapter 2, the DIRA established a framework within which the dairy industry's resources (milk production and land) could flow to their highest value use, despite Fonterra's dominance and its associated ability and incentives to create barriers to this.

It is evident that the DIRA, through its open entry and exit provisions, enabled the entry of new independent processors in New Zealand, by enabling them to compete with Fonterra for farmers' milk supply. The DIRA also enabled new dairy processors to access raw milk from Fonterra, on agreed or regulated terms, during their initial establishment phase.

In 2001, Fonterra accounted for 96 percent of the national market for farmers' milk. Although the total volume of milk produced since 2001 has increased by around 60 percent, Fonterra's national market share fell to 80.5 percent in 2018. Over the last five years, independent processors have grown their milk volumes by about 10 percent per annum on average.

Despite this market entry, Fonterra remains the only processor with truly national coverage, with 77 percent or more of the farmers' milk market in most dairying regions. Of the existing independent processors, one (Open Country Dairy) has the broadest coverage, operating in Auckland, Waikato, Bay of Plenty, Otago and Southland. The regions with the greatest number of processors are Canterbury, Auckland, Waikato and Bay of Plenty.

The current market structure raises the question of whether the DIRA is still needed. The following factors are relevant to the consideration of this question:

- Is Fonterra still dominant?
- Does the DIRA impose unreasonable costs on Fonterra?
- Could the Commerce Act alone be relied upon to manage Fonterra's dominance?

IS FONTERRA STILL DOMINANT?

Our preliminary analysis of regulatory precedent and economic literature suggests that at a market share of over 70 percent a firm could have the ability to exercise market power, especially if competition was relatively weak and barriers to entry were material. Some economic analysis also suggests that effective competition would require at least two independent processors competing with Fonterra in each regional market, whereas one rival could be sufficient if entry and expansion barriers were not material.⁶

Fonterra's national market share has reduced from 96 percent in 2001 to 80.5 percent in 2018. At a regional level, the extent of competition varies depending on whether or not Fonterra faces competition in its collection areas. It appears that apart from two regions in New Zealand (Northland and Wairarapa), there is at least one

⁶ NERA (2010) An Assessment of the DIRA Triggers. Available at http://www.mpi.govt.nz/dira-review.

independent processor competing with Fonterra for farmers' milk, each of whom have now had sufficient time to establish their operations.

The key issue then is whether, in the absence of the DIRA open entry and exit regime, Fonterra would have the ability and incentive to create barriers to farmers switching to other processors, thus frustrating expansion of its existing rivals or preventing new processors from establishing.

Our preliminary view is that, in the absence of the DIRA, the barriers to entry and expansion by independent processors could become significant. This is particularly so given that milk supply appears to have reached its limits, which, in turn, is likely to lead to more intense competition for farmers' milk. In particular:

- Statistics NZ figures show that dairy cow numbers decreased by 3.1 percent in the 2017/18 season and cow numbers are forecast to fall further.
- The availability of land for further conversions is constrained and efforts to improve water quality are expected to impact on cow numbers. Regional councils are required to have water quality objectives and limits on discharge and abstraction volumes in place by 2025.
- Regional councils are introducing measures such as caps on nutrient discharges, requirements to demonstrate good farming practice and controls on land use intensification.
- The Government is also in the process of considering the form of its 2050 emissions target and whether agriculture should be included in the Emissions Trading Scheme. Decisions on these may further affect milk production volumes in New Zealand.

Fonterra and other dairy processors have invested heavily in processing capacity over the last decade. They face strong incentives to retain their current suppliers to avoid asset stranding and plant closures. While all dairy processors will have strong incentives to secure and lock in farmers' milk supply, Fonterra, given its current size, may have the ability to do so to an extent that could be detrimental for the entire dairy industry and the wider economy. In this context, farmers' ability to switch their supply to alternative processors and/or land uses will be an essential factor in directing milk production and land use to their highest value uses.

DOES THE DIRA IMPOSE UNREASONABLE COSTS ON FONTERRA?

Regulation of dominant companies (e.g. through price control) can impose significant costs on the regulated business, particularly when that regulation is prescriptive.

The DIRA does not prescribe Fonterra's strategy, investment plans and pricing decisions. Instead it aims to mimic the dynamics of a workably competitive market for farmers' milk, by exposing Fonterra to the same business risks and costs that Fonterra would have faced had it not been a dominant firm.

The key additional cost that the DIRA open entry requirements create for Fonterra comes in the form of Fonterra having to hold some additional excess capacity to provide an extra buffer for new or returning shareholding suppliers. To minimise these costs, the DIRA allows Fonterra to issue a capacity constraint notice and defer accepting new milk for one year. We understand that Fonterra has not to date used its ability to issue such capacity constraint notices.

Critically, in 2015/16 the Commerce Commission conducted a detailed examination of the cost to Fonterra of having to hold an extra buffer for new or returning shareholders. The Commission found the DIRA open entry requirements had not had a material effect on the excess capacity Fonterra has to hold. This is because Fonterra's business model and strategy already require significant investment in substantial excess capacity to provide for Fonterra's existing milk supply growth, optionality in its production mix, and the natural weather dependent variations in milk supply.⁷

COULD THE COMMERCE ACT ALONE BE RELIED UPON TO MANAGE FONTERRA'S DOMINANCE?

In the absence of the DIRA, actions by Fonterra that may be anti-competitive would only be constrained by the general provisions of section 36 of the Commerce Act 1986.

⁷ Commerce Commission (2016) *Report on the state of competition in the New Zealand dairy industry:* https://comcom.govt.nz/regulated-industries/dairy/projects/report-on-the-state-of-competition-in-the-new-zealand-dairy-industry.

The Commerce Act has a range of tools to prohibit a firm with a substantial degree of market power from taking advantage of it (i.e. acting anti-competitively). However, the Commerce Act does not seem to be well equipped to reduce a firm's substantial degree of market power if it already possesses it.

The key differences between the DIRA and the Commerce Act are that the DIRA is designed to deter Fonterra from engaging in a strategic anti-competitive behaviour, and its provisions are relatively clear-cut and are relatively easy to enforce. In contrast, the Commerce Act is a generic regime, which means that the boundaries between what conduct is prohibited, and what is not, are not always clear up front. This can make enforcement much more costly and complex. In some cases, if parties engage in conduct which is later deemed to be a breach of the Commerce Act, the effects may be irreversible.

The Government has signalled its intention to review section 36 of the Commerce Act. This followed earlier analysis by the Ministry of Business, Innovation and Employment (MBIE) which concluded that the current section 36 has the potential to under-capture anti-competitive behaviour, is costly and complex to enforce, and may lack predictability of outcomes. While a reform of section 36 would aim to improve the deterrence of anti-competitive behaviour by firms with substantial market power, it is still unlikely to offer the upfront predictability and ease of enforcement of the DIRA.

In summary, the potential for Fonterra to create barriers to farmer switching, the relatively low costs the DIRA imposes on Fonterra, and the difficulties involved in deterring potential anti-competitive behaviour under the Commerce Act all suggest that the DIRA is still needed at this stage. However, careful consideration is required as to when this issue should be revisited.

QUESTIONS:

- 3. Do you consider the DIRA has been effective at achieving its core regulatory objective of preventing Fonterra from using its dominance to create barriers to farmers' milk and land flowing to their highest value uses? If not, please provide reasons and supporting information/evidence.
- 4. Do you think Fonterra is still dominant in the market for farmers' milk, at the national and regional levels?
- 5. Do you think the DIRA imposes unreasonable costs on Fonterra? If so, please provide supporting information/evidence.
- 6. Are there ways for the costs imposed on Fonterra to be mitigated without impacting on the effectiveness of the DIRA regulatory regime? If so, please provide supporting information.
- 7. Are there any other regulatory tools that, in your opinion, would be more effective than the current DIRA provisions at managing Fonterra's dominance? If so, please provide examples and supporting information/evidence.
- 8. Are there other factors you consider need to be taken into account when considering the effectiveness of the DIRA regime and whether it is still needed?

Further information on MBIE's analysis of section 36 of the Commerce Act can be found at https://www.mbie.govt.nz/info-services/business/competition-policy/targeted-review-of-the-commerce-act/phase-one/targeted-commerce-act-review/issues-paper.pdf-1.

3.2 Does the DIRA encourage industry growth?

As discussed in Chapter 2, Appendix 1 and reports from our economic advisors (available at http://www.mpi.govt.nz/dira-review), the dairy industry has grown substantially since 2001.

Our preliminary analysis suggests that the DIRA has enabled the industry's growth but has not been its primary driver. Instead, the growth of the dairy industry is more directly related to, and is influenced by, the growth in international demand for dairy products, and rising international prices, including for commodities such as milk powders. This external demand created incentives for increased dairy activity and investment in new processing facilities. New Zealand already had a well-established and efficient dairy industry that was well placed to take advantage of expanding overseas market opportunities. The relative profitability of alternative land uses and financial institutions' willingness to lend capital for dairy conversions have also played a role in the expansion of the dairy industry.

Within the context of the above drivers, the DIRA has provided a regulatory environment conducive to industry growth. In the absence of the DIRA it is possible that New Zealand may have been less well placed to respond to growing international market opportunities. Specifically, the DIRA:

- Enabled the creation of Fonterra. This provided New Zealand with a dairy company of sufficient scope and scale and an opportunity to compete at scale against other international dairy companies.
- Enabled the entry of other dairy processors in New Zealand, through the open entry and exit provisions, which allowed processors to compete with Fonterra for farmers' milk supply. The DIRA also enabled new dairy processors to access raw milk from Fonterra, on agreed or regulated terms, during their initial establishment phase.

At the same time the following factors have helped drive growth in the dairy industry:

- New Zealand established a free trade agreement with China in 2008. The economies of China and other Asian countries grew rapidly. Increasing consumer affluence meant increasing demand for dairy products.
- Global demand for dairy products saw steadily rising prices from 2006/07 to 2013/14.
- New Zealand has a highly regarded food safety regime that has more stringent standards than those in many of the countries that experienced significant growth in dairy demand, particularly in Asia. This is likely to have provided New Zealand dairy products with a competitive advantage relative to locally-produced dairy products in those high growth markets.
- The growth in demand for dairy products in South East Asia gave rise to investment in the New Zealand dairy industry by Chinese and other South East Asian interests. New Zealand already had a well established reputation for safety and quality. Overseas investors' decisions appear to have been influenced at least in part by investors wishing to exercise control over all parts of the supply chain.
- While New Zealand's Overseas Investment Act 2005 imposed constraints on the purchase of sensitive land (including farmland), the weighting of decision-making criteria under the Act for much of the period under review focussed relatively strongly on economic benefit.

Increased global demand has resulted in higher milk prices being paid to New Zealand dairy farmers. In particular, Fonterra's price for farmers' milk is based on a bundle of commodities. If commodity prices are high, the milk prices received by farmers follow. This may have incentivised farmers to expand milk production over time.

It is unclear what the extent of growth in economic benefit would have been, had the DIRA regulatory regime not been in place - that is, if Fonterra's dominance had not been constrained by legislation. Economic and export growth could not have occurred in the absence of overseas demand from new markets and New Zealand was well placed to capitalise on that demand growth.

However, if the DIRA had not been in place, it is conceivable that Fonterra may have attempted to act strategically to frustrate entry by new processors (e.g., by locking farmers into long-term contracts or imposing restrictions on new milk as a means of creating a chilling effect on farmers considering switching their supply to other processors). If successful, such attempts (albeit somewhat constrained by the application of section 36 of the Commerce Act and potential enforcement actions by the Commerce Commission) may have limited the dairy industry's ability to increase the supply of milk to meet the increased demand from export markets.



QUESTIONS:

9. Do you agree with our preliminary assessment of the extent to which the DIRA encourages industry growth? If not, please provide reasons and supporting information/evidence.

3.3 Does the DIRA influence Fonterra's strategy?

Fonterra and a number of other industry stakeholders have expressed concerns about potential unintended consequences of the DIRA open entry requirements. Open entry is perceived as driving a volume-based dairy industry because Fonterra is unable to control the amount of milk it receives from farmers, and is therefore forced to invest in supply-driven commodity processing assets, rather than in demand-driven production of higher value-added dairy products.

Our preliminary analysis indicates that New Zealand dairy farmers' milk production decisions are sensitive to price. Although we recognise that the price-volume relationship is not linear, can be subject to time lags, and also impacted by multiple other factors, when the price paid to farmers for milk is high, production volumes tend to increase. Similarly, when prices fall, production tends to decrease.

This effect was seen in 2013/14 when global demand for commodity dairy products fell, along with global commodity prices, and New Zealand farmers produced lower milk supply volumes. Fonterra noted that the 2013/14 fall in milk production enabled the company to stop investing in commodity processing assets and instead allowed it to shift its investment focus on to the higher value-add processing assets (see Appendix 1).

This effect occurred as a reaction to global prices for commodity products. The policy issue, however, is whether there is anything in the DIRA that prevents Fonterra from adjusting its milk price *proactively*, that is, taking a strategic decision to pay farmers less over multiple seasons as a means of managing the volume of milk produced so that it can pursue a business strategy based on lower milk volumes and/or a focus on investing in demand-driven value-added processing assets.

The following factors seem to be relevant to Fonterra's ability to manage the volumes of milk it receives from farmers through price, notwithstanding the DIRA open entry requirements:

- Fonterra's price for farmers milk;
- Fonterra's terms of supply;
- Fonterra's shareholding requirements; and
- Fonterra's dividend policy.

FONTERRA'S PRICE FOR FARMERS' MILK

All dairy processors (including Fonterra) are free to set their own milk price. Independent processors tend to set their prices for milk with reference to Fonterra's. Given Fonterra's dominance, Fonterra's milk price tends to be the default price in the market for farmers' milk in New Zealand.

Fonterra sets its milk price in reference to a base milk price it calculates in accordance with its Milk Price Manual. The base milk price calculation provides a benchmark of the value of farmers' milk in global dairy markets during the particular season, based on the assumption that milk is processed only into commodities. The calculation of the base (benchmark) price is based on the revenues and costs of a notionally efficient processor of Fonterra's size and scale, processing all its milk supply into a bundle of profitable commodity products, and selling them in global dairy markets in the particular season.⁹

The DIRA does not regulate the price Fonterra pays farmers for milk. It sets out the purpose, principles and processes to underpin Fonterra's base milk price calculation, and provides for the Commerce Commission to monitor Fonterra's methodology and calculation of the base milk price against the statutory purpose and principles. The DIRA allows and specifically provides for Fonterra to set a milk price that is different from the calculated base (benchmark) milk price. Fonterra is required to publicly disclose its reasons for deviating from the calculated base (benchmark) milk price.

Information on Fonterra's Milk Price Manual and the notionally efficient processor construct is available on Fonterra's website at https://www.fonterra.com/content/dam/fonterra-public-website/phase-2/new-zealand/pdfs-docs-infographics/pdfs-and-documents/milk-prices/pdf-f18-milk-price-manual-final-1-august-2017.pdf and the Commerce Commission's website at https://comcom.govt.nz/regulated-industries/dairy/milk-price-manual-and-calculation.

Instances when Fonterra may have commercial and strategic reasons to deviate from the calculated base (benchmark) milk price include:

- Fonterra may not be able to afford to pay the calculated base (benchmark) milk price. Since the calculation of the base (benchmark) milk price relies on the revenues and costs of a notionally efficient processor, there may be times when Fonterra's actual performance differs significantly from that of the notionally efficient processor. In the 2013/14 season, Fonterra chose to pay \$0.53 per kgMS less than the calculated base (benchmark) price. In the 2017/18 season, Fonterra has also chosen to pay \$0.05 per kgMS less than the calculated base (benchmark) milk price.
- Fonterra may be facing intense competition for its milk supply. At times of scarce milk supply, Fonterra (as well as other dairy processors) may place a higher value on security of supply and pay above the base (benchmark) milk price. This would reflect the willingness of Fonterra's shareholders (similar to the shareholders of other dairy processors) to sacrifice some of the shareholder return in the short term to maintain supply and ensure the company's long-term viability. So long as Fonterra does not engage in strategic behaviour that would prevent, restrict, deter or eliminate competition for farmers' milk (e.g., through predatory pricing), Fonterra has the same right to compete for farmers' milk as any other processor. Engaging in strategic behaviour that would prevent, restrict, deter or eliminate competition for farmers' milk may breach section 36 of the Commerce Act 1986.
- Fonterra may want to reduce its milk supply volumes and secure funding to pursue a value-added strategy. A value-added, consumer-driven, business strategy may require Fonterra to focus on developing demand in a new product market and aligning its milk supply volumes and funding sources accordingly. This may require Fonterra to hold back some of the money that an efficient commodity-only dairy processor would have paid to farmers for their milk, in the short term, in exchange for future returns on investment into such activities as research and development of new products and markets, marketing/brand development, capital investment into higher value-add processing assets, etc.

It would therefore appear that the DIRA does not prevent Fonterra from adjusting its milk price to manage the volumes of milk it receives from farmers, and therefore to direct its investment to further value-added processing, should that approach be aligned with Fonterra's desired strategic direction.

However, we acknowledge that adjusting the milk price to manage the volumes of milk Fonterra receives presents a significant management challenge for a large co-operative company, with a significant existing investment in highly efficient commodity processing assets, a highly seasonal milk supply, and a highly diffused and relatively risk-averse supplier-shareholder base.

When global commodity prices are high, farmers could expect to receive high prices for their milk supply. In the short term, therefore, there may be a strong incentive for Fonterra to continue to produce commodity products and sell them for the high prices the global commodity markets are willing to pay. The issue for the company is how to convince farmers to trade off the short-term attraction of high commodity prices against investment into higher value-added products, which could produce higher and less volatile returns in the long term, but would require much higher levels of capital investment and risk-taking by shareholders.

Production of higher value-added dairy products requires less seasonal milk supply volumes, relatively higher capital investment, extensive management expertise and capability in identifying the right product mix, as well as extensive marketing and branding efforts to create and secure consumer demand for such products. In contrast, production of commodity products offers a practical solution to the need to process a large volume of perishable milk at the peak of the season. Commodity products also have the advantages of requiring a relatively lower cost per litre of additional capacity installed capital investment and a relatively higher level of certainty of having matching demand, compared to most value-add products.

We understand from Fonterra that its co-operative structure requires conservative risk management and strong fiscal discipline, resulting in a bias towards manufacturing capacity that relies on lower capital investment per litre of capacity and higher certainty of demand.

At times when global commodity prices are high the difference between the risk-adjusted rates of return on commodity and value-added production may be small. When global commodity prices are low such difference could be significant.

A key strategic management challenge for Fonterra and its farmer-shareholders is to determine the company's long-term strategic goals and invest into an optimal mix of production assets to enable it to achieve those goals, having made short/medium-term price (and therefore volume) trade-offs, if any, as required by the company's strategy. This would require identifying an optimal balance between incentivising production of "just enough" milk supply volumes to run Fonterra's existing commodity processing plants (to minimise potential asset stranding problems) but "not so much" that it would preclude Fonterra from directing further investment to higher value product lines.

FONTERRA'S TERMS OF SUPPLY

All processors (including Fonterra) are also free to pay their individual suppliers different prices depending on a variety of factors relating to the specific value of the milk being supplied by individual farmers.

We understand that Fonterra's current terms of supply enable it to differentiate the price it pays individual farmers for their milk on grounds that include:

- milk components (milk with higher protein attracts a premium, whereas milk with higher fat component receives a discount; similarly milk with a higher proportion of milksolids is priced higher than milk that has a higher water content);
- seasonal variation (farmers who are able to supply milk outside of peak season receive a premium for that milk); and
- speciality milk (winter milk, organic milk, and colostrum is paid a premium).

The DIRA does not prohibit Fonterra from also differentiating the prices it pays to farmers on the basis of individual farmers' distance from a processing facility, although we understand Fonterra currently chooses not to do so. Fonterra could pay differential prices based on transport distances and collection costs of individual suppliers, which could disincentivise farmers located further away from Fonterra's processing plants from supplying Fonterra.

While the DIRA does not prescribe Fonterra's terms of supply, it does require that Fonterra's terms of supply not discriminate between new and existing farmer-shareholders in the same circumstances (e.g. supplying the same type of milk, at the same time of year).

FONTERRA'S SHAREHOLDING REQUIREMENTS

The DIRA does not require Fonterra to take any particular corporate form. Fonterra has a co-operative structure because this is what its farmer-shareholders prefer. As a consequence of Fonterra's co-operative structure, its shareholders are required to purchase and hold a certain number of shares per kilogram of milk solids (kgMS) supplied to Fonterra.

The price of Fonterra shares is established on a trading platform, known as Trading Among Farmers. Fonterra requires farmers to buy and sell its shares on this trading platform at the prevailing market prices. The DIRA requires Fonterra to ensure liquidity in the market for Fonterra shares and transparency of Fonterra's share price discovery process.

The number of Fonterra shares that farmers must purchase and hold per kgMS is determined by Fonterra, at its complete discretion. Where the number of shares that must be held per kgMS is high, the cost to farmers of supplying milk to Fonterra is high. Fonterra can influence farmers' overall profitability of supplying milk to Fonterra by increasing or decreasing the numbers of shares it requires its suppliers to hold per kgMS.

It appears that since 2013 Fonterra has undertaken a number of initiatives that have made it cheaper for farmers to supply more milk to Fonterra. These include:

• Issuing bonus shares that provided farmers with one additional share for every 40 already held, free of charge. This increased the total shares on issue by 2.5 percent meaning that an estimated 95 percent of farmers needed not share up to grow their milk volumes that year.

- The development of special growth supply contracts. Such contracts give farmers more time and options to buy shares to match their production. Under such contracts farmers could be required to purchase only 10 percent of the required number of shares upfront, with no further purchases needing to be made until the fourth season.
- The introduction of MyMilk that assists Fonterra in maintaining and growing its milk supply in more competitive regions by allowing farmers to supply milk for five years without having to share-up.

FONTERRA'S DIVIDENDS POLICY

Fonterra can also influence its milk supply volumes through its dividends policy. Fonterra suppliers receive two income streams from Fonterra: a milk price as suppliers of milk, and a dividend on their shares in Fonterra. Since Fonterra's shareholding requirements are linked to the volume of farmers' milk supply, higher dividends could be incentivising higher milk production volumes.

Our preliminary analysis indicates that Fonterra's dividend payout ratio has been trending upward over time. This suggests that Fonterra's dividend policy could be incentivising further milk production, while limiting Fonterra's ability to rely on retained earnings as a source of funding for investment.

In summary, it appears that Fonterra can and does influence its milk supply volumes through the various price signals it sends to farmers. The degree to which Fonterra may choose to rely on price signals to influence its milk supply volumes depends on Fonterra's strategic and commercial decisions.

The DIRA does constrain Fonterra's ability to control its milk supply through volume restrictions. However, this is a fully intended (rather than an unintended) consequence of the DIRA regulatory regime, aimed at ensuring that Fonterra, as a dominant company, does not restrict farmers' ability to respond to Fonterra's and other dairy processors' (and alternative land uses') price signals and direct their milk production and land uses to their highest value use, as farmers see fit.

With that in mind, our preliminary analysis indicates that DIRA does not appear to create unintended consequences in terms of driving Fonterra's overall business and investment strategy and, therefore, does not prevent Fonterra from being able to manage its milk supply volumes in a way that aligns with its chosen strategic direction.

QUESTIONS:

- 10. Do you agree with our preliminary assessment of the extent to which Fonterra can influence milk supply volumes through price, notwithstanding the DIRA open entry requirements?
- 11. Are there other factors that you consider should be taken into account? Please provide detailed comment in support of your views.
- 12. Do you consider that the DIRA provisions governing Fonterra's base milk price calculation and Commerce Commission monitoring may be preventing or disincentivising Fonterra from deviating from the base milk price calculation for strategic or commercial reasons?
- 13. If the DIRA is not driving Fonterra's business and investment strategy, what is? Please provide detailed comment in support of your views.

3.4 Does the DIRA impact on the industry's environmental performance?

As discussed in Chapter 2 and Appendix 1, the dairy industry has had negative environmental impacts. These impacts have resulted particularly from the expansion of the dairy industry, including into areas of special environmental sensitivity or natural amenity.

Some stakeholders consider that the DIRA's open entry requirements have contributed to these negative environmental outcomes. The concern is that open entry provides farmers with a guaranteed buyer (Fonterra) for all and as much milk as they choose to produce. This has resulted in overproduction of milk and expansion of dairying to a level where in some areas this activity has now exceeded its sustainable environmental limits.

Dairying has indeed expanded and its environmental impacts have been, in some cases, negative. However, the question is to what extent has the DIRA been responsible for these outcomes.

As outlined in sections 3.1 and 3.2, our preliminary analysis indicates that the main driver for the growth of the dairy industry appears to be the incentives created by growing international demand for dairy products and associated high prices for commodities. It also appears that, notwithstanding the DIRA open entry requirements, which did provide a suitable environment for expansion, Fonterra can and does influence farmers' milk supply decisions through its price signals to align with its chosen strategic direction. It also appears that Fonterra has been encouraging milk supply growth, which may suggest that it was consistent with Fonterra's chosen business strategy.

Critically, water and other resource-uses in New Zealand are regulated. The Resource Management Act 1991 (the RMA) empowers local communities to make decisions on how their environment is managed through regional and district plans. Accordingly, regional and local authorities play a critical role in determining what land use and economic activity, including dairying, can be established and under what conditions, to ensure that they are environmentally sustainable.

The Ministry for the Environment is currently progressing policy work on its Essential Freshwater work programme. This programme has three objectives: stopping further degradation and loss of our freshwater resources; reversing past damage; and addressing water allocation issues. The work programme intends to deliver on these objectives through:

- targeted action and investment in at-risk catchments;
- amendments to the National Policy Statement for Freshwater Management;
- a new National Environmental Standard for Freshwater Management; and
- wide engagement in developing options for allocating water resources, starting with allocation of discharges to water in 2019.

Dairy processors have also introduced programmes to support and recognise their farmer-suppliers who are taking measures to minimise the impact of their milk production on the environment. For example:

- Fonterra provides support to its farmer-suppliers with advice, tools and systems to help meet environmental limits set by councils and local communities. Fonterra has a network of Sustainable Dairy Advisers, who provide advice to farmer-suppliers through Tiaki (Fonterra's Sustainable Dairying Programme). While no milk premiums are paid to farmer-suppliers who are signed up to Tiaki, those that meet and exceed expected standards are eligible for discounted advisory services and products. Additionally, farmer-suppliers that do not meet Fonterra's minimum conditions of supply could be subject to a charge for the visit of a Fonterra representative, or suspension of milk collection.
- **Synlait** runs its Lead With Pride programme, which recognises and financially rewards farmer-suppliers who achieve best practice standards. In the environmental sphere, Synlait's farmer-suppliers are expected to achieve excellence in water and effluent management, soil quality, biodiversity, emissions and energy management. Farmer-suppliers that meet the standards of best practice or leading practice receive premium payments for their milk.
- **Miraka** has its Te Ara Miraka Farming Excellence programme that aims to improve efficiency and produce high quality milk, improving profitability for farmer-suppliers and Miraka, with a lower environmental footprint. All Miraka's farmer-suppliers are encouraged to be proactive in the

management of their farm environment in order to minimise any negative impact. The Te Ara Miraka Farming Excellence programme gives farmers the potential to earn a premium on their raw milk by meeting 31 standards, including 13 mandatory ones.

RESIDUAL REPUTATIONAL RISK

There is however a residual concern that warrants further consideration. The DIRA open entry requirements mean that Fonterra must accept applications to become shareholders (and accept milk) from farmers who may not meet Fonterra's standards, as set out in its terms of supply (including in relation to environmental, climate change, animal welfare, hygiene and health and safety compliance).

Fonterra considers that the DIRA open entry requirements create a reputational risk for the co-operative, its farmer-shareholders and the wider dairy industry, namely that:

- allowing a farmer that doesn't meet the standards to become a shareholder in the first place sends a message about the types of conduct Fonterra considers acceptable;
- farmer shareholders whose conduct is unacceptable to Fonterra may have an adverse impact on other shareholding farmers and their reputation, as well as the reputation of Fonterra and the wider dairy industry; and
- dealing with such shareholders requires significant investment of time and effort that Fonterra would prefer to avoid.

Our preliminary analysis indicates that Fonterra has, and is actively using, a range of tools available to deal with a farmer-shareholder who fails to comply with its terms of supply. These include financial penalties, requiring a farmer to work with an on-farm consultant, or, in extreme cases, suspending collection of milk.

However, it appears that Fonterra may only take such action after the farmer is accepted into the co-operative as a shareholder-supplier. It seems that Fonterra may not currently be in the position to decline an application from new or existing farmers on the basis that the applicant has a record of poor on-farm practice and will likely fail to meet Fonterra's terms of supply.

In addition, there appears to also be some ambiguity as to whether Fonterra could, through its terms of supply, provide positive financial incentives (i.e., pay price premiums) to reward dairy farmers who are performing at or above Fonterra's environmental standards, or provide financial disincentives (i.e., apply price discounts) to dairy farmers whose greenhouse gas emissions performance is at or above Fonterra's emissions standards.

Such restrictions on Fonterra's terms of supply do not contribute to the purpose of the DIRA regulatory regime, and thus represent an unintended consequence, in a form of reputational risk, for Fonterra, its farmer-shareholders and the wider dairy industry.

QUESTIONS:

- 14. Do you agree with our preliminary analysis of the DIRA's impact on the industry's environmental performance? If not, please provide your reasons and supporting evidence.
- 15. Do you agree with our view that environmental issues are best dealt with through the Resource Management Act and not the DIRA regime?
- 16. Are there other environmental issues that you consider should be addressed either through the DIRA review or some other means?

3.5 Does the DIRA incentivise inefficient entry by large dairy processors?

The DIRA has a number of provisions that may influence large (and therefore by definition export-focused) dairy processors' decisions to enter and compete with Fonterra for farmers' milk. These include:

- the open entry and exit requirements, which enable large dairy processors to attract milk supply from farmers who are supplying Fonterra;
- Fonterra's base milk price calculation and the Commerce Commission's monitoring, which provide for a transparent benchmark price for large dairy processors to rely on when setting their prices for farmers' milk; and
- the Raw Milk Regulations, which enable large dairy processors to purchase up to 50 million litres of raw milk per season from Fonterra, on agreed or regulated terms, for up to three seasons, while they are establishing their own supply from farmers.

The following questions are relevant to our analysis of the extent to which the DIRA may influence large dairy processors' strategies and entry decisions:

- Does the DIRA incentivise inefficient entry by large dairy processors?
- Does the DIRA undermine Fonterra's competitive advantage offshore?

DOES THE DIRA INCENTIVISE INEFFICIENT ENTRY BY LARGE DAIRY PROCESSORS?

Some stakeholders are concerned that the DIRA open entry and exit requirements could be encouraging farmers to take a risk in supplying a new processor on the basis that Fonterra must always take them back. The concern is that the ease of farmer switching could lead to investment in excess processing capacity that may create a downward spiral of low-margin competition, inability to move up the value chain and, ultimately, factory closures. A further concern is that providing large export-focused dairy processors with access to regulated milk from Fonterra further reinforces the perceived incentives for inefficient entry created by the DIRA open entry and exit provisions.

Our preliminary analysis indicates that there are significant disciplines and constraints on new investment. The establishment of a large processing plant involves significant amounts of capital, long term investment, and the need to generate sufficient returns to recoup and sustain that investment. Large dairy processors also have to pay a highly competitive milk price to secure sufficient milk supply volumes, including for regulated milk. It seems unlikely that just because farmers are able to switch their supply, large dairy processors would be making such substantial and long term investments in the absence of a solid business case for such investments.

Furthermore, access to 50 million litres of raw milk from Fonterra at the initial stages of a new processor's operations is unlikely to be sufficient to sustain the operation of a large processing plant, nor be sufficient to drive investment strategies.

Nevertheless, it seems timely to consider whether the original rationale for providing access to regulated milk to large dairy processors during their establishment stage still stands. These access provisions were put in place to help dairy processors seeking entry into the market for farmers' milk overcome an initial "catch 22" problem. Farmers did not want to commit supply until there was a processing plant to take it, and financiers did not want to commit funding until there was sufficient milk supply secured.

Since then, a number of dairy processors have entered and, with the exception of one (NZ Dairies Ltd), all have successfully built their own business models and proved their credibility and viability with farmers. This may suggest that providing such "entrance pathway" provisions for future large dairy processors may no longer be necessary.

DOES THE DIRA UNDERMINE FONTERRA'S COMPETITIVE ADVANTAGE OFFSHORE?

Fonterra's shareholders have expressed concern that allowing large dairy processors (who are typically backed by foreign capital and large global businesses), to purchase regulated milk from Fonterra, effectively at cost, undermines Fonterra's competitive advantage in export markets where those processors then compete with Fonterra for global customers.

Our preliminary analysis suggests that more often than not large dairy processors would not necessarily be Fonterra's closest competitors in export markets. It appears that the entry of other processors likely provides a net gain in New Zealand exports. Several established large dairy processors have direct links to foreign distribution channels through partnership or foreign ownership arrangements. This is arguably providing access to markets through distribution channels that may not have otherwise been available to New Zealand.

In summary, while the DIRA makes it possible for large dairy processors to attract milk supply, it seems unlikely to be incentivising entry by inefficient dairy processors or undermining Fonterra's competitive advantage in export markets. Nevertheless, it seems timely to consider whether the original rationale for providing access to Fonterra's milk to large dairy processors during their initial establishment stage still stands.

QUESTIONS:

- 17. Do you agree with our preliminary analysis of the impact the DIRA has on new processor entry? If not, please provide your reasons and information/evidence in support of your views.
- 18. Do you consider that large dairy processors should continue to be eligible to purchase regulated milk from Fonterra under the Raw Milk Regulations or not? Please provide detailed comment in support of your views.

3.6 Does the DIRA promote sufficient confidence in the base milk price calculation?

The price Fonterra pays dairy farmers for milk is a key industry metric that drives both Fonterra's and independent processors' profitability. Fonterra's dominance means that its milk price effectively sets the default price all dairy processors have to match or better to attract and maintain supply from farmers.

The DIRA does not regulate the price Fonterra pays farmers for milk. Instead, the DIRA:

- sets out the purpose and principles to underpin Fonterra's base milk price calculation;
- requires Fonterra to maintain certain milk price governance arrangements (e.g. having a Milk Price Panel to oversee the base milk price calculation and make recommendations to the Fonterra Board);
- imposes certain milk price information disclosure obligations on Fonterra (e.g. publicly disclosing the base milk pricing methodology, the Milk Price Panel's recommendations to the Fonterra Board and the Board's reasons for not adopting the Panel's recommendations); and
- provides for the Commerce Commission to monitor Fonterra's methodology and calculation of the base milk price.

The purpose of the above DIRA provisions is to promote transparency and confidence in the base price that guides Fonterra's and other dairy processors' prices they pay farmers for milk. Critically, the DIRA allows and specifically provides for Fonterra to set a milk price that is different from the calculated base (benchmark) milk price. Fonterra is required to publicly disclose its reasons for deviating from the base (benchmark) milk price.

The purpose and principles that underpin Fonterra's base milk price calculation aim to promote consistency with contestable market outcomes. The contestability (rather than competition) standard means that the base (benchmark) milk price should be:

- "high enough" to incentivise Fonterra to strive to be more efficient even if competitive entry does not occur; but
- "low enough" to ensure that it was still practically feasible for an efficient processor to enter and compete for farmers' milk.

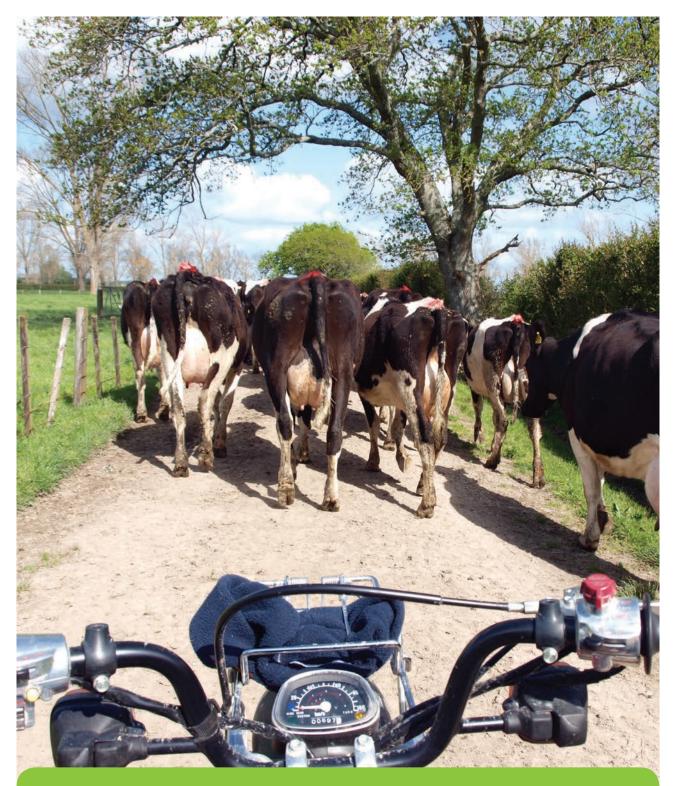
Some stakeholders have expressed concern that the current calculation and monitoring of Fonterra's base milk price may not be promoting sufficient confidence in the base milk price calculation. This is particularly around the assumptions, inputs and processes that ensure that the calculated base milk price is "low enough" to not preclude efficient processors from being able to enter and compete for farmers' milk.

The DIRA currently provides Fonterra with a wide discretion to determine the types of assumptions, inputs and processes that would ensure that the base milk price calculation is "practically feasible" for an efficient processor. Through its monitoring of Fonterra's base milk price calculation, the Commerce Commission reviews and comments on the appropriateness of the "practical feasibility" of Fonterra's assumptions, inputs and processes. However, Fonterra is not required to change its approach if the Commission finds that the assumptions are not consistent with the legislative purpose.

While this is consistent with the nature of a light-handed monitoring regime, the level of discretion around the term "practically feasible" is in some contrast to the level of prescription the DIRA currently provides around the "efficiency" component of the base milk price calculation. The DIRA specifically provides for a number of mandatory assumptions, inputs and processes that Fonterra must use in the base milk price calculation to incentivise efficiency. Such level of prescription provides Fonterra and the Commerce Commission with a set of boundaries within which to calculate and monitor the base milk price, thus promoting confidence in the base milk price calculation outcomes.

It is therefore timely to consider whether a similar level of guidance/prescription could usefully be provided for the "practically feasible" part of the base milk price calculation to further improve confidence in the base milk price calculation outcomes.

Other stakeholders consider that sufficient confidence in the base milk price calculation could only be achieved if the base milk price was set by an independent body (e.g. the Commerce Commission), rather than being set by Fonterra, subject to non-binding oversight and commentary by the Commission.



QUESTIONS:

- 19. Do you consider that greater confidence in the base milk price calculation outcomes could be achieved if additional legislative guidance on the term "practically feasible" were to be provided for in the DIRA? Please provide detailed comment in support of your views.
- 20. Do you consider that the base milk price should be set by an independent body (e.g. the Commerce Commission)? If so, please provide supporting information.

3.7 Does the DIRA support competition in New Zealand consumer dairy markets?

As outlined in Chapter 2, the formation of Fonterra created a risk that there would be a lack of competition in the supply of fresh milk and other dairy products to New Zealand consumers, with consequent impacts on prices and product choice.

Consumers in New Zealand appear to be relatively well served at present. There is a year round supply of fresh milk (without any seasonal price variation), and substantial choice in dairy products, ranging from basics to premium or specialised products, at different price points. Changing prices for consumer dairy products have generally been in line with other consumer products.

The DIRA has had an enabling effect on New Zealand consumer markets in three key ways:

- a) The DIRA enabled the creation of what is now Goodman Fielder, thus ensuring the presence of at least one major competitor to Fonterra in the supply of New Zealand consumer dairy products, and the Raw Milk Regulations provide Goodman Fielder assurance of an ongoing raw milk supply from Fonterra.
- b) A range of other smaller dairy processors have also been granted access to raw milk from Fonterra through the DIRA Raw Milk Regulations. 10 Some speciality processors are of a size that would make it difficult to obtain their own milk supply from farmers, and the DIRA has accordingly ensured a larger number of specialty processors supplying the domestic consumer markets.
- c) The DIRA open entry and exit provisions also enable dairy processors to secure farmers' milk supply and supply domestic dairy products to New Zealand consumers. While most large dairy processors that source milk from farmers appear to be almost entirely export focused, there are examples of smaller regional operators whose business models are based on supplying town milk to New Zealand consumers (e.g. Fresha Valley).

ONGOING RISK

Our preliminary analysis highlighted an ongoing risk to New Zealand consumers, arising from the milk supply arrangements currently in place. The New Zealand consumer market is small (accounting for less than five percent of all milk produced in New Zealand), consumer demand is relatively static and the consumer market's raw milk requirements are all-year-round. Fonterra and Goodman Fielder are the only two large-scale dairy processors supplying the New Zealand consumer dairy products and, in particular, supplying fresh consumer milk. Foodstuffs and Progressive Enterprises are also the only two large-scale retail chains supplying dairy products to New Zealand consumers.

When the DIRA was passed, there was an assumption that Goodman Fielder would obtain its own milk supply over time. This has not occurred and Goodman Fielder remains almost entirely reliant on Fonterra for its raw milk requirements. Goodman Fielder's current supply arrangement with Fonterra expires in 2021. The continued presence of Goodman Fielder as a viable large-scale competitor to Fonterra depends at present on Goodman Fielder securing sufficient quantities of raw milk all-year-round on terms and conditions that do not create a significant cost disadvantage for Goodman Fielder.

Other large-scale dairy processors (who have their own milk supply and may not face the same cost pressures as Goodman Fielder) have to date shown limited interest in participating in the domestic consumer market. Exceptions to this are Westland Milk selling premium butter products on the New Zealand market and Synlait who plan to start toll processing¹¹ fresh consumer milk products on behalf of Foodstuffs South Island's private label brand from 2019.

Some processors also access raw milk from Fonterra farmers under the 20 percent rule. The 20 percent rule is part of the DIRA open entry and exit regime. Under this rule, Fonterra is required to allow its farmer-shareholders to supply independent processors with up to 20 percent of their weekly milk production.

¹¹ Toll processing is referred to an arrangement whereby a company, with a specialised equipment, processes raw materials on behalf of another company.

Without a viable large-scale competitor with access to raw milk, Fonterra could exert market power over wholesale supply of domestic consumer dairy products in New Zealand. This could flow through to consumers in terms of higher prices or decreased product choice.

The DIRA ensures that there is viable competition in the New Zealand domestic consumer markets in the short term, but it may also be facilitating a long term, and potentially undue, dependency on regulated milk supply from Fonterra.

- 21. Do you agree with our preliminary analysis of the DIRA impact on the domestic consumer dairy markets? Please provide your reasons and information/evidence in support of your views.
- 22. Are there any other factors that should be taken into account regarding the domestic consumer dairy markets? Please provide your reasons and information/evidence in support of your views.

3.8 Summary of issues

In summary, our preliminary analysis indicates that the DIRA is:

- ✓ effective at achieving its core regulatory objective of managing Fonterra's dominance;
- ✓ still relevant and needed at this stage; and
- ✓ unlikely to be encouraging inefficient industry growth or preventing Fonterra from pursuing a value-add strategy.

But, the DIRA appears to be:

- preventing Fonterra from effectively managing some aspects of its farmers' environmental performance, thus producing an unintended consequence; and
- providing access to regulated milk for large dairy processors for whom it may no longer be necessary, thus not being fit-for-purpose.

In addition, there is an opportunity to consider whether the DIRA should be amended to:

- promote greater confidence in the base milk price calculation; and
- preserve competition in the domestic consumer dairy markets in the short term, while discouraging any undue regulatory dependency in the longer term.



This Chapter sets out a range of options for potential legislative amendments.

At this stage of the analysis, there are no preferred options. Instead, the Government is seeking feedback on all options outlined in this document, and any additional options stakeholders may put forward, in order to understand the costs, benefits and impacts associated with each option to help inform future policy decisions.

Consistent with the purpose of the review outlined in Chapter 1 and the preliminary analysis of issues set out in Chapter 3, we identified the following objectives and trade-offs for the potential legislative amendments:

- to minimise unintended consequences, while preserving the effectiveness of the DIRA in achieving its core regulatory purpose of managing Fonterra's dominance;
- to ensure that access to regulated milk from Fonterra is targeted at dairy processors for whom it is necessary to operate in New Zealand dairy markets, thus ensuring that the DIRA remains fit-for-purpose;
- to promote greater confidence in the base milk price calculation to further improve the effectiveness of the DIRA regime;
- to preserve competition in domestic consumer dairy markets in the short term, while reducing any undue regulatory dependency in the long term, thus ensuring that the DIRA remains fit-for-purpose; and
- to balance the risk of regulating Fonterra for longer than necessary with the risk of removing regulation too early.

We have included, at the end of each option, our preliminary views on the effectiveness of each option in meeting its relevant objectives. We are seeking your views and feedback on the options outlined in this document, and any additional options that might be put forward, particularly on:

- the relative effectiveness of the options in meeting their relevant objectives, and
- the principles of good regulatory practice that promote regulatory certainty and predictability of regulatory outcomes, as well as transparency, cost-effectiveness and timeliness of regulatory processes.

Once we have received all submissions, we will analyse the impacts of all the options. We will then work with the affected stakeholders to include them in the process of identifying and assessing the preferred options and their impacts.

We expect to hold a series of targeted workshops post consultation, during the months of February and March 2019. These discussions will inform the final recommendations that the Government will consider later in 2019.

4.1 Options for the DIRA open entry requirements

As outlined in earlier chapters, the DIRA open entry requirements are a key part of the open entry and exit regulatory regime that manages Fonterra's dominance.

Our preliminary analysis suggests that the DIRA is effective at managing Fonterra's dominance and does not create unintended consequences in terms of driving Fonterra's overall business and investment strategy.

However, the DIRA open entry requirements do appear to be creating an unintended consequence in terms of preventing Fonterra from being able to effectively manage reputational risks in having to accept milk from farmers who are unlikely to be able to comply with Fonterra's terms of supply.

The options for the DIRA open entry requirements, therefore, aim to minimise this unintended consequence, while preserving the effectiveness of DIRA in achieving its core purpose of managing Fonterra's dominance. The options include:

- Option 4.1.1: Status quo: retain the existing DIRA open entry (and exit) requirements.
- Option 4.1.2: Repeal the DIRA open entry requirements.
- Option 4.1.3: Amend the DIRA open entry requirements to allow Fonterra to decline to accept applications from new and existing farmers if Fonterra considers their supply is unlikely to comply with Fonterra's terms of supply.

OPTION 4.1.1: STATUS QUO: RETAIN THE EXISTING DIRA OPEN ENTRY (AND EXIT) REQUIREMENTS

This option would see the current open entry requirements unchanged. Fonterra would continue to be required to:

- accept all applications by dairy farmers to become shareholders or to increase their existing shareholdings in Fonterra (subject to existing exceptions); and
- once farmers have become shareholders, accept all their milk subject to Fonterra's terms of supply. Terms of supply would continue to be set at Fonterra's discretion, subject to the existing requirement that Fonterra must not discriminate between a new entrant and a shareholding farmer in the same circumstances.

This option would maintain current disciplines on Fonterra's dominant position. Farmers would continue to be the decision-makers on whether to become Fonterra shareholders and how much milk to produce in response to Fonterra's strategy, performance and price signals.

Similarly, farmers would continue to be the decision-makers on whether to exit Fonterra and supply other dairy processors or pursue a land-use change for their farm, without the risk of being unable to reverse their decision if circumstances changed.

This option would not enable Fonterra to manage the reputational risk identified in Chapter 3. Fonterra would continue to be required to accept an application to become a shareholding farmer (or an application by a shareholding farmer to increase their shareholding in, and supply of milk, to Fonterra) even if the applicant was unlikely to meet the standards set out in Fonterra's terms of supply, for example, where an applicant was already known to have a record of ongoing or serious non-compliance with animal welfare or environmental regulation.

Our preliminary view is that this option would not fully meet its objective. Although it would preserve the effectiveness of the DIRA in achieving its core regulatory purpose of managing Fonterra's dominance, it would not minimise the unintended consequences of preventing Fonterra from effectively managing reputational risks associated with its suppliers not meeting Fonterra's environmental and other standards.

OPTION 4.1.2: REPEAL THE DIRA OPEN ENTRY REQUIREMENTS

This option would see the current open entry requirements repealed. Under this option, Fonterra would be free to:

- accept or decline applications by dairy farmers to become shareholders or to increase their existing shareholdings in Fonterra; and
- offer the same or different terms of supply to farmers depending on whether they are new or existing shareholders.

Without the open entry requirements, the remaining regulatory disciplines on Fonterra's dominance would be substantially weakened. The key remaining disciplines would be the base (benchmark) milk price calculation and monitoring provisions and the structural and behavioural obligations around Trading Among Farmers.

These measures provide farmers with transparent information on which to base their decisions on whether to enter or exit Fonterra. However, without the open entry requirements, Fonterra could significantly limit the scope for farmers to act on this transparent information. The removal of farmers' guaranteed ability to return to Fonterra could have a strong chilling effect on farmers' willingness to switch to supply other dairy processors. This would, in turn, reduce pressure on Fonterra to improve its performance, and prevent other, potentially better performing, dairy processors from entering or expanding their operations.

Our preliminary view is that this option would significantly weaken the effectiveness of the DIRA in achieving its core regulatory purpose of managing Fonterra's dominance. However, it would effectively remove the unintended consequences of preventing Fonterra from effectively managing reputational risks associated with its suppliers not meeting Fonterra's environmental and other standards.

OPTION 4.1.3: AMEND THE DIRA OPEN ENTRY REQUIREMENTS TO ALLOW FONTERRA TO DECLINE TO ACCEPT APPLICATIONS FROM NEW AND EXISTING FARMERS IF FONTERRA CONSIDERS THEIR SUPPLY IS UNLIKELY TO COMPLY WITH FONTERRA'S TERMS OF SUPPLY

This option would see the current open entry requirements amended to provide for a new exception. Fonterra would be able to reject an application to become a shareholder, or an application from an existing shareholder to supply, if Fonterra believed that the applicant was unlikely to comply with its terms of supply. This would avoid a situation where Fonterra had to accept a new shareholder into the co-operative and then had to manage non-compliance with Fonterra's standards, as set out in Fonterra's terms of supply.

To provide further clarity and certainty about the scope of Fonterra's ability to set various performance standards for farmers in its terms of supply, a further amendment could be made to set out the types of standards Fonterra could include in its terms of supply. This could make explicit, for example, that Fonterra's terms of supply can relate to, and price differentiate on, matters such as environmental (including climate change) impact of the production of milk, health and safety, animal welfare, or hygiene.

Fonterra would continue to be required to not discriminate in its terms of supply between a new entrant and a shareholding farmer in the same circumstances.

Decisions made by Fonterra in relation to these new provisions would be subject to the existing dispute resolution mechanism in the DIRA. An applicant rejected by Fonterra could seek a Commerce Commission determination on Fonterra's decision.

This option would enable Fonterra to manage known instances of poor environmental, greenhouse gas emissions, animal welfare or product quality issues, to safeguard its and the wider dairy industry's reputation. It would also ensure that Fonterra was operating on a level playing field with other dairy processors and reinforce the good environmental practice that Fonterra could be seeking to promote.

Our preliminary view is that this option would be relatively effective in meeting the objective of minimising unintended consequences while also preserving the effectiveness of DIRA in achieving its core regulatory purpose of managing Fonterra's dominance.

- 23. Are there any other options for the DIRA open entry requirements that you think should be considered? Please provide sufficient detail when describing any alternative options as well as reasons for considering these.
- 24. What costs and benefits would each of the options for the DIRA open entry requirements create for your business? Please provide quantitative information if possible.
- 25. How well do you think each of the options for the DIRA open entry requirements would perform against the principles of good regulatory practice of promoting certainty and predictability of regulatory outcomes, transparency, cost-effectiveness and timeliness of regulatory processes?
- 26. What is your preferred option for the DIRA open entry requirements? Please provide your reasons and information/evidence in support of your views.

4.2 Options for access to regulated milk for large dairy processors (except Goodman Fielder)

As outlined in earlier chapters, the DIRA Raw Milk Regulations provide large dairy processors with an "entrance pathway" into the market for farmers' milk.

Our preliminary analysis indicates that it may no longer be necessary for large dairy processors to rely on the regulatory "entrance pathway" provisions for entry into the market for farmers' milk.

The options, therefore, aim to ensure that access to regulated milk from Fonterra is targeted at dairy processors who need it to be able to enter and compete in New Zealand dairy markets. This would ensure that these DIRA provisions remained fit-for-purpose. The options include:

- Option 4.2.1: Status quo: retain the existing eligibility provisions for regulated milk in the Raw Milk Regulations.
- Option 4.2.2: Amend the eligibility provisions in the Raw Milk Regulations to exclude large dairy processors.

OPTION 4.2.1: STATUS QUO: RETAIN THE EXISTING ELIGIBILITY PROVISIONS FOR REGULATED MILK IN THE RAW MILK REGULATIONS

Under this option Fonterra would continue to be required to sell up to 50 million litres of raw milk per season to all dairy processors on agreed or regulated terms, until they have their own supply of 30 million litres or more for three consecutive seasons.

As outlined in Chapter 3, this option may not be effective at targeting dairy processors who need access to Fonterra's milk to be able to enter and compete for milk. However, this option would provide ongoing certainty to any future dairy processor looking to establish operations in New Zealand that the initial critical mass of raw milk supply could be purchased from Fonterra on agreed or regulated terms.

Our preliminary view is that this option would not be effective in meeting the objective of ensuring that access to regulated milk from Fonterra is targeted to dairy processors who need it to be able to enter and compete in New Zealand dairy markets. It would not therefore ensure that this aspect of the DIRA regime remains fit-for-purpose.

OPTION 4.2.2: AMEND THE ELIGIBILITY PROVISIONS IN THE RAW MILK REGULATIONS TO EXCLUDE LARGE DAIRY PROCESSORS

Under this option Fonterra would no longer be required to sell regulated milk to any dairy processor once that processor had its own supply (from farmers or another processor) of 30 million litres or more of raw milk in a season. This option differs from the status quo because it removes eligibility for regulated milk immediately once a processor has its own supply, rather than allowing continued access to regulated milk for three seasons.

A transitional arrangement would be included to "grandparent" the current eligibility provisions for dairy processors who had started, or were about to start, utilising the entrance pathway provisions. These processors would continue to have access to regulated milk until they had (as now) obtained their own supply of 30 million litres for three consecutive seasons.

Under this option, processors who source less than 30 million litres of own supply in a season would continue to have access (as now) of up to 50 million litres of regulated milk from Fonterra per season, on agreed or regulated terms.

This amended eligibility rule would clearly distinguish between dairy processors who are in the business of processing large volumes of milk (most likely for export) and those who service small niche product markets (most likely for domestic consumers).

Large dairy processors tend to require significantly higher volumes of own supply than 30 million litres to operate their processing plants efficiently. They therefore have little incentive to operate under the 30 million litre limit to be able to access regulated milk from Fonterra.

In contrast, smaller niche dairy processors tend to rely for supply either entirely on regulated milk from Fonterra or in combination with some milk from farmers or other processors. The 30 million litre "own supply" rule would allow these smaller processors to continue to rely on small volumes of own supply without having to significantly change their business models.

Our preliminary view is that this option could be effective in meeting the objective of ensuring that access to regulated milk from Fonterra is targeted to dairy processors who need it to be able to enter and compete in New Zealand dairy markets. It would therefore ensure that this aspect of the DIRA regime remains fit-for-purpose.

- 27. Are there any other options for access to regulated milk for large dairy processors that you think should be considered? Please provide sufficient detail when describing any alternative options as well as reasons for considering these.
- 28. Do you consider that the proposed 30 million litres threshold is too high or too low? If so, what would you consider the right threshold to be, and why?
- 29. What costs and benefits would each of the options for access to regulated milk for large dairy processors create for your business? Please provide quantitative information if possible.
- 30. How well do you think each of the options for access to regulated milk for large dairy processors would perform against the principles of good regulatory practice of promoting certainty and predictability of regulatory outcomes, transparency, costeffectiveness and timeliness of regulatory processes?
- 31. Do you have a preferred option for access to regulated milk for large dairy processors? Please provide your reasons and information/evidence in support of your views.

4.3 Options for the base milk price calculation

As outlined in earlier chapters, the base milk price is a key industry metric used by Fonterra and other dairy processors as a reference point for setting their prices for farmers' milk.

Our preliminary analysis highlighted an opportunity to consider whether greater confidence in the base milk price calculation could be achieved to further improve the effectiveness of the DIRA regime. The options include:

- Option 4.3.1: Status quo: retain the existing DIRA provisions for Fonterra's base milk price calculation and Commerce Commission monitoring.
- Option 4.3.2: Amend the DIRA to provide additional statutory guidance on the meaning of the term "practically feasible".
- Option 4.3.3: Amend the DIRA to give the Commerce Commission statutory power to set the base milk price for the dairy industry.

OPTION 4.3.1: STATUS QUO: RETAIN THE EXISTING DIRA PROVISIONS FOR FONTERRA'S BASE MILK PRICE CALCULATION AND COMMERCE COMMISSION MONITORING

Under this option Fonterra would continue to calculate its base milk price in accordance with its Milk Price Manual, and the Commerce Commission would continue to monitor and assess Fonterra's Milk Price Manual and the base milk price calculation for consistency with the current regulatory purpose and principles set out in Subpart 5A of Part 2 of the DIRA.

The DIRA currently prescribes a number of mandatory assumptions that must be used in the calculation to incentivise efficiency. However, it leaves Fonterra with a wide discretion to determine the types of assumptions that would ensure that the base milk price calculation was also "practically feasible". The Commerce Commission reviews and comments on the appropriateness of the "practical feasibility" of Fonterra's assumptions, inputs and processors, but Fonterra is not required to change its approach even if the Commission finds that the assumptions are not appropriate.

Since the introduction of the base milk price monitoring regime, the Commission has conducted numerous reviews and worked through and assessed a large volume of submissions and expert opinions on each of the assumptions, inputs and processes that currently form the "practically feasible" aspects of the calculation. The Commission has to date been satisfied with all but one (asset beta) of Fonterra's assumptions, inputs and processors that feed into the "practically feasible" part of the base milk price calculation. It is unclear at this stage whether Fonterra would change its asset beta assumption in light of the Commission's concerns.

If Fonterra did address the Commission's concerns and its assumptions, inputs and processes were to remain relatively stable over time, this option might provide sufficient confidence in the base milk price calculation, without any further legislative prescription. On the other hand, if the assumptions, inputs and processes were to be amended, the lack of any legislatively prescribed boundaries within which to base the assumptions may result in ongoing uncertainty for the industry and undermine the confidence in the base milk price calculation. Still, the level of discretion afforded by this option provides Fonterra and the Commerce Commission with potentially much needed flexibility to take account of changing market dynamics.

Our preliminary view is that it is uncertain whether this option would provide sufficient confidence in the base milk price calculation and ensure the effectiveness of the relative DIRA provisions. The impact of this option would depend on how Fonterra responds to the Commerce Commission conclusion on the "practical feasibility" of the asset beta assumption, and the extent to which Fonterra may choose to change its assumptions, inputs and processes for the base milk price calculation, in the future.

OPTION 4.3.2: AMEND THE DIRA TO PROVIDE ADDITIONAL STATUTORY GUIDANCE ON THE MEANING OF THE TERM "PRACTICALLY FEASIBLE"

Under this option the DIRA would be amended to provide additional guidance/prescription on the types of assumptions, inputs and processes that Fonterra must rely on in its base milk price calculation to ensure that the calculation is consistent with the notion of "practical feasibility".

Such additional guidance would be principle-based, set at a level similar to the current principles set out in s 150C of the DIRA that relate to the "efficiency" part of the calculation. Guidance could, for example, codify the Commerce Commission's conclusions developed over the last six years of the Commission's monitoring experience.

This option would restrict Fonterra's current discretion and ensure that if Fonterra were to change any of its existing assumptions, inputs and processes that form the "practically feasible" part of the base milk price calculation, it would need to do so within the bounds of the legislative principles. Locking in the key legislative principles would provide for an additional degree of confidence in the future base milk price calculation.

However, developing such legislative principles is difficult. Codifying the Commission's conclusions in legislation could result in re-litigation of highly technical issues that the Commission has extensively consulted on, and assessed the merits of, over the years. The issues are highly contentious and require high levels of regulatory economics expertise and judgement. Aiming to provide for such technical terms in legislation could lead to unintended consequences.

Any additional statutory guidance would also come at the expense of often needed flexibility to take changing market dynamics into account, thus potentially increasing the risk of the benchmark price not always reflecting the most up to date market dynamics.

Our preliminary view is that this option could be effective at promoting greater confidence in the base milk price calculation. However, implementation of this option is likely to be very challenging, creating the risk of unintended consequences. Provided that careful legislative drafting could be achieved, this option could improve the effectiveness of this part of the DIRA regime.

OPTION 4.3.3: AMEND THE DIRA TO GIVE THE COMMERCE COMMISSION STATUTORY POWER TO SET THE BASE MILK PRICE FOR THE DAIRY INDUSTRY

Under this option, the Commerce Commission would have the statutory power to derive and publish an annual independent benchmark milk price. Although Fonterra would continue to be able to deviate from the benchmark price, the Commission's benchmark price is likely to become the perceived default market price in the dairy industry.

This option could potentially provide higher levels of confidence in the base milk price calculation, due to the Commission's independence and regulatory expertise.

However, there are likely to be significant costs and risks associated with this option. It would involve the Commerce Commission building and running an independent pricing model for the dairy industry, with the associated significant administrative costs and risks of regulatory error due to asymmetric information available to the Commission.

Our preliminary view is that the increased level of confidence (and therefore effectiveness of this part of the DIRA regime) would not be sufficient to outweigh the additional costs and risks associated with this option.

- 32. Are there any other options for the base milk price calculation that you think should be considered? Please provide sufficient detail when describing any alternative options as well as reasons for considering these.
- 33. What costs and benefits would each of the options for the base milk price calculation create for your business? Please provide quantitative information if possible.
- 34. How well do you think each of the options for the base milk price calculation would perform against the principles of good regulatory practice of promoting certainty and predictability of regulatory outcomes, transparency, cost-effectiveness and timeliness of regulatory processes?
- 35. Do have a preferred option for the base milk price calculation? Please provide your reasons and information/evidence in support of your views.

4.4 Options for access to regulated milk for Goodman Fielder and smaller processors

As outlined in earlier chapters, the DIRA Raw Milk Regulations support competition in the New Zealand consumer markets for dairy products by providing Goodman Fielder and smaller dairy processors with access to Fonterra's milk, on agreed or regulated terms.

Our preliminary analysis indicates an ongoing risk to New Zealand consumers, arising from the upcoming changes in Goodman Fielder's milk supply arrangements from Fonterra. It also indicates that the regulations may have facilitated a long term, and potentially undue, regulatory dependency.

The options for access to regulated milk for Goodman Fielder and smaller processors, therefore, aim to preserve competition in the New Zealand consumer dairy product markets in the short term, while reducing any undue regulatory dependency in the long term. This would ensure that these DIRA provisions remained fit-for-purpose. The options include:

- Option 4.4.1: Status quo: retain the existing provisions in the Raw Milk Regulations as they apply to Goodman Fielder and smaller processors.
- Option 4.4.2: Amend the Raw Milk Regulations to update the terms on which Goodman Fielder can access regulated milk from Fonterra.
- Option 4.4.3: Amend the Raw Milk Regulations to gradually reduce Goodman Fielder's eligibility for regulated milk over time.
- Option 4.4.4: Amend the Raw Milk Regulations to remove limits on the amount of regulated milk available to dairy processors supplying New Zealand consumer markets.
- Option 4.4.5: Amend the Raw Milk Regulations so that the terms on which dairy processors supplying New Zealand consumer markets can access regulated milk mirror the terms on which Fonterra supplies its own New Zealand consumer business.

OPTION 4.4.1: STATUS QUO: RETAIN THE EXISTING PROVISIONS IN THE RAW MILK REGULATIONS AS THEY APPLY TO GOODMAN FIELDER AND SMALLER PROCESSORS

This option would see the current regulatory arrangements maintained. Smaller domestic dairy processors would continue to be able to purchase up to 50 million litres per year from Fonterra on agreed or regulated terms. Goodman Fielder would continue to be able to purchase up to 250 million litres of raw milk per season from Fonterra on agreed or regulated terms. This option would ensure ongoing certainty of supply to smaller processors, which would in turn preserve choice in the New Zealand domestic consumer dairy market.

Goodman Fielder's current contractually agreed terms of supply with Fonterra expire in 2021. Should the parties not establish a further contract, Goodman Fielder would continue to have assurance of supply on the terms set out in the Raw Milk Regulations.

There is a risk that the regulated terms could be less favourable than the contractual terms currently in place. This may, in turn, lead to negative impacts on New Zealand consumers. Goodman Fielder is currently the only large-scale competitor to Fonterra in the supply of domestic consumer products, including fresh milk. If Goodman Fielder were unable to compete strongly, and no other large-scale new market entry were to take place, Fonterra could have the potential to raise wholesale prices for domestic consumer dairy products. In this case, if the retail sector did not absorb any such wholesale price increases, this could expose New Zealand consumers to higher retail prices for dairy products.

The outcomes of this option are therefore highly uncertain. The extent to which this option might lead to negative consumer outcomes would depend on actions, reactions, cost structures, and strategic and commercial decisions of multiple players at various parts of the dairy supply chain.

Given the uncertainty of outcomes and impacts, our preliminary view of this option is that it may not be effective in meeting the objective of preserving competition in domestic consumer dairy markets in the short term. It is also uncertain whether it would be effective in reducing any undue regulatory dependency in the long term.

OPTION 4.4.2: AMEND THE RAW MILK REGULATIONS TO UPDATE THE TERMS ON WHICH GOODMAN FIELDER CAN ACCESS REGULATED MILK FROM FONTERRA

This option would amend the regulated terms on which Goodman Fielder could source raw milk supply from Fonterra. The current regulated terms that apply to Goodman Fielder were put in place in 2002, have not been used by Goodman Fielder, and remain largely unchanged. For example, they do not take account of pricing implications of Goodman Fielder's demand curve for raw milk, and changing demand in the domestic consumer market. If Goodman Fielder were to now rely on the regulated terms for their raw milk supply, a number of regulatory amendments could be considered, including:

- a) Amendment 1: Goodman Fielder requires raw milk on a "flat" rather than seasonal curve in order to supply fresh milk all-year-round to the New Zealand consumer market. The current regulations provide for a flatter curve. Goodman Fielder could purchase from Fonterra, each month except for the winter months, up to 110 percent of the volume of regulated milk they purchase in the dairy season's peak month of October. However, under the current regulations the price Goodman Fielder would be required to pay for the "flattening" of the seasonal curve is set to reflect Fonterra's average milk price as it relates to the seasonal milk curve. This average price does not take into account the economic cost to Fonterra of selling raw milk to Goodman Fielder in the "shoulder" months of the season when it is more valuable. To compensate Fonterra for this economic cost, the regulated price could be amended to include a margin of around \$0.10 above Fonterra's milk price.
- b) Amendment 2: The regulations could be amended to allow Goodman Fielder to purchase raw milk from Fonterra at fixed quarterly prices. The regulations were amended in 2012 to allow other dairy processors without their own supply to purchase milk from Fonterra at fixed quarterly prices. This was provided for as a means of managing the price uncertainty associated with the dairy industry's ex-post pricing system. That amendment was not at the time extended to Goodman Fielder because of its contractual terms. However, if Goodman Fielder were to rely on the regulated terms, its payment terms could be aligned with other processors supplying the domestic consumer markets.
- c) Amendment 3: Increase the total amount of regulated milk that Goodman Fielder could buy from 250 million litres to 350 million litres per season. The original cap was set at 50 percent of the raw milk supply used by the two dairy companies that became Fonterra to manufacture consumer dairy products for the New Zealand consumer market (200 million litres per season) with a small provision for market growth (50 million litres). Today the 50 percent figure would be close to 300 million litres per season. The same small provision for market growth would take Goodman Fielder's cap to 350 million litres per season.

This option offers a higher degree of certainty that it would be effective at preserving competition in the domestic consumer milk markets, compared to Option 4.4.1. However, unlike Option 4.4.3, it may be less effective at incentivising Goodman Fielder to transform its business model, secure alternative sources of raw milk supply, and reduce its regulatory dependency over time.

Our preliminary view of this option is that it could be relatively effective in meeting the objective of preserving competition in domestic consumer dairy markets in the short term. However, it is unlikely to reduce undue regulatory dependency in the long term.

OPTION 4.4.3: AMEND THE RAW MILK REGULATIONS TO GRADUALLY REDUCE GOODMAN FIELDER'S ELIGIBILITY TO ACCESS REGULATED MILK OVER TIME

This option would retain the key features of either Option 4.4.1 or Option 4.4.2 for the time being (e.g. for three to five years) and gradually reduce Goodman Fielder's entitlement to regulated milk over time. There are various forms such gradual reduction could take. For example, Goodman Fielder's total regulatory cap could be reduced by 50 or 100 million litres per season. The detailed design of such gradual reduction would need to be considered carefully to ensure an orderly transition to unregulated milk supply.

This option would incentivise Goodman Fielder to secure alternative sources of raw milk supply in the longer term, thus reducing its regulatory dependency over time.

Our preliminary view is that this option could be effective at preserving competition in domestic consumer dairy markets in the short term and reducing undue regulatory dependency in the long term. However, there is a relatively high risk that this option may simply deprive Goodman Fielder of a reliable raw milk supply, with consequent detriment to consumers.

OPTION 4.4.4: AMEND THE RAW MILK REGULATIONS TO REMOVE LIMITS ON THE AMOUNT OF REGULATED MILK AVAILABLE TO DAIRY PROCESSORS SUPPLYING NEW ZEALAND CONSUMER MARKETS

This option would remove the current total and individual processor caps on the amount of regulated milk that eligible processors could purchase from Fonterra. Instead, under this option, Fonterra would be required to sell raw milk at a regulated price to any dairy processor who did not have its own milk supply of 30 million litres or more and was producing dairy products for New Zealand consumer markets. Some form of verification would be required to confirm eligibility as above, and that the raw milk was not then diverted to production for export, or resold.

This option could lead to increased demand for regulated milk from Fonterra. This could impose additional costs on Fonterra, which might in turn justify an upward adjustment of the regulated price. Because processors' demand would not be capped, the regulations may also require amendment to impose more stringent forecasting requirements and a "take or pay" requirement.

This option would preserve and could possibly enhance competition in the domestic consumer dairy markets, as removing the caps on regulated milk might allow Goodman Fielder and smaller processors additional scope for growth. This might, in turn, lead to stronger and more effective competition with Fonterra in the domestic consumer markets.

However, we note also that with the exception of Goodman Fielder, none of the other small processors that currently purchase regulated milk require the full 50 million litres and therefore still have scope to grow within their existing caps. Further growth by smaller processors would also depend on investment of substantial amounts of additional capital expansion which may not be sustainable given the small size of the domestic market.

This option could have unintended consequences. Processors with existing own supply could be incentivised to shift to regulated milk and processors who may have been considering obtaining their own supply could be disincentivised from doing so. It could therefore increase, rather than reduce, undue regulatory dependency on regulated milk, while providing little or no new consumer benefit.

Our preliminary view is that this option could be effective at preserving competition in domestic consumer dairy markets in the short term, but could also increase undue regulatory dependency over time.

OPTION 4.4.5: AMEND THE RAW MILK REGULATIONS SO THAT THE TERMS ON WHICH DAIRY PROCESSORS SUPPLYING NEW ZEALAND CONSUMER MARKETS CAN ACCESS REGULATED MILK MIRROR THE TERMS ON WHICH FONTERRA SUPPLIES ITS OWN NEW ZEALAND CONSUMER BUSINESS

This option would amend the regulated terms on which dairy processors supplying the domestic consumer markets purchase raw milk from Fonterra to mirror the terms on which Fonterra supplies raw milk to its own domestic consumer business, Fonterra Brands. This option could supplement other options, for example Option 4.4.4.

This option could be effective at preserving and possibly enhancing competition in the domestic consumer dairy markets and benefiting consumers. It would place all eligible processors on the same terms as those of Fonterra Brands, thus removing any competitive advantage Fonterra Brands may have, arising from its parent company's large scale and vertically integrated business model. If benefits arising from this option were passed through to retailers, and then to consumers, New Zealand consumers could be better off.

This option could also increase price transparency within Fonterra's integrated supply chain, as its implementation would rely on Fonterra accounting for its domestic consumer business in a way that clearly separates it from Fonterra's other business units. Increased price transparency might provide additional

incentives for Fonterra Brands to continuously innovate and improve its product offering for New Zealand consumers and generate higher returns for Fonterra shareholders.

However, this option represents a relatively high level of regulatory intervention, with associated compliance costs. This degree of regulatory intervention is usually considered (and may be justified if its benefits were to outweigh the costs) in cases where there are significant competition issues and barriers to efficient market entry. It is not clear whether this is the case in the New Zealand dairy industry.

Supply of domestic consumer products is constrained by the small market size and the underlying imbalance between the year-round demand from consumers and seasonal supply of milk from farmers. A dairy processor focused solely on New Zealand consumer markets could therefore face inherent difficulties and costs in managing its raw milk requirements.

This may imply that New Zealand consumer markets could be efficiently served by companies that had both domestic and export focused dairy processing assets or if there were high levels of cooperation between stand-alone producers of domestic consumer products and dairy exporters. It is unclear whether a regulatory intervention would be the most optimal means of ensuring such market dynamics.

Our preliminary view is that this option could be effective at preserving competition in domestic consumer dairy markets in the short term, but could also increase undue regulatory dependency over time.

- 36. Are there any other options for access to regulated milk for Goodman Fielder and smaller processors that you think should be considered? Please provide sufficient detail when describing any alternative options as well as reasons for considering these.
- 37. What costs and benefits would each of the options for access to regulated milk for Goodman Fielder and smaller processors create for your business? Please provide quantitative information if possible.
- 38. How well do you think each of the options for access to regulated milk for Goodman Fielder and smaller processors would perform against the principles of good regulatory practice of promoting certainty and predictability of regulatory outcomes, transparency, cost-effectiveness and timeliness of regulatory processes?
- 39. Do you have a preferred option, or a combination of options, for access to regulated milk for Goodman Fielder and smaller processors? Please provide your reasons and information/evidence in support of your views.

4.5 Options for the DIRA review and expiry provisions

As outlined in earlier chapters, the need for the DIRA is contingent on Fonterra's dominance. Our preliminary analysis indicates that Fonterra is still dominant and that the DIRA is still needed at this stage. However, careful consideration is required as to when this issue should be revisited, to ensure that the DIRA remains fit-for-purpose.

The options for the DIRA review and expiry provisions, therefore, aim to balance the risk of regulating Fonterra for longer than necessary with the risk of removing regulation too early. The options include:

- Option 4.5.1: Status quo: no statutory provision for review and/or expiry of the DIRA regulatory regime in legislation.
- Option 4.5.2: Amend the DIRA to require periodic reviews of competition in the dairy industry to determine whether the DIRA regulatory regime should be retained, repealed or amended.
- Option 4.5.3: Amend the DIRA to require a review of competition in the dairy industry to determine whether the DIRA regulatory regime should be retained, repealed or amended, to be undertaken when a set market share threshold has been reached.
- Option 4.5.4: Amend the DIRA to provide for its automatic expiry from a nominated date or when a set market share threshold has been reached.

OPTION 4.5.1: STATUS QUO: NO STATUTORY PROVISION FOR REVIEW AND/OR EXPIRY OF THE DIRA REGULATORY REGIME IN LEGISLATION

Under this option the DIRA regime would remain in place until the Government decided to undertake a legislative review. This would be no different from most regulatory regimes that are permanent features on the New Zealand statute book, with any legislative review subject to Government priorities.

Under this option, there is a risk that the DIRA regulatory regime may continue to apply when it is no longer necessary. Although the Government of the day can initiate a legislative review at any time, this is dependent on other legislative review priorities, which may affect the timeliness of the necessary regulatory change processes.

On the other hand, this option may be seen as providing the dairy industry with regulatory certainty. Dairy farmers and processors would be managing their businesses within a relatively stable and known regulatory environment.

Our preliminary view is that this option would not strike the right balance between the risk of regulating Fonterra for longer than necessary and the risk of removing regulation too early.

OPTION 4.5.2: AMEND THE DIRA TO REQUIRE PERIODIC REVIEWS OF COMPETITION IN THE DAIRY INDUSTRY TO DETERMINE WHETHER THE DIRA REGULATORY REGIME SHOULD BE RETAINED, REPEALED OR AMENDED

This option would amend the DIRA to require a legislative review to be carried out at regular time-bound intervals, e.g. every five years. The review would not trigger an automatic DIRA expiry process.

Under this option, the risk of the DIRA being repealed too early and the risk of it applying for longer than necessary could be relatively balanced. A statutorily-mandated review would ensure that it could not be deferred by other Government priorities. However, the timing for review would be inflexible. Reviews would need to be undertaken regardless of whether there had been significant changes to the industry's competitive landscape since the last review. At the same time, if there were some rapid industry changes, periodic reviews may not be able to respond to them in a timely manner.

This option would give the industry a clear time horizon over which regulatory changes would be unlikely to take place. On the other hand, this option may create some uncertainty, as the industry would face ongoing regulatory instability arising from repeated reviews.

The costs to the industry of having to engage on regular reviews, and the cost to the Government, of undertaking the reviews, could also be significant. The impacts could be mitigated, to some extent, by

ensuring that the intervals between reviews (assuming the first did not result in complete repeal) were designed and planned for with the industry's business cycles and the Government's budget decisions and timeframes in mind.

Our preliminary view is that this option would be relatively effective in balancing the risk of regulating Fonterra for longer than necessary with the risk of removing regulation too early.

OPTION 4.5.3: AMEND THE DIRA TO REQUIRE A REVIEW OF COMPETITION IN THE DAIRY INDUSTRY TO DETERMINE WHETHER THE DIRA REGULATORY REGIME SHOULD BE RETAINED, REPEALED OR AMENDED, TO BE UNDERTAKEN WHEN A SET MARKET SHARE THRESHOLD HAS BEEN REACHED

This option is identical to Option 4.5.2, except for the trigger for review. Rather than requiring the review to take place periodically, this option would set that trigger at a certain market share threshold.

The advantage of using a market share threshold is that it points to the changing competition dynamics in the industry. Unlike a periodic review, a review triggered by a market share threshold would ensure that a review was triggered only when sufficient industry change had taken place.

However, identifying an appropriate market share threshold for a trigger point is difficult. Market share thresholds are highly imperfect proxies of competition. At different times and circumstances a firm holding 40 percent of market share may be able to exercise market power. In other times and circumstances, a firm with a market share as high as 70 percent may still be subjected to substantial competitive pressure from its much smaller rival(s) and/or the bargaining power of its customers. Determining whether there is "sufficient" competition in a market is driven by many different factors. A market share threshold alone cannot determine whether there is "sufficient" competition (so that regulation can be removed or amended). It simply identifies a point in time when a full competition analysis may be warranted.

Linking the next review to a market share threshold may create expectation amongst industry stakeholders that the chosen market share threshold represents the point at which the Government considers the dairy industry to have reached a "sufficient" level of competition, and the regulatory regime could be expected to be repealed, which would be contrary to the policy intent.

Given the difficulties in identifying the right trigger for review, our preliminary view is that this option would be relatively less effective in balancing the risk of regulating Fonterra for longer than necessary with the risk of removing regulation too early.

OPTION 4.5.4: AMEND THE DIRA TO PROVIDE FOR ITS AUTOMATIC EXPIRY FROM A NOMINATED DATE OR WHEN A SET MARKET SHARE THRESHOLD HAS BEEN REACHED

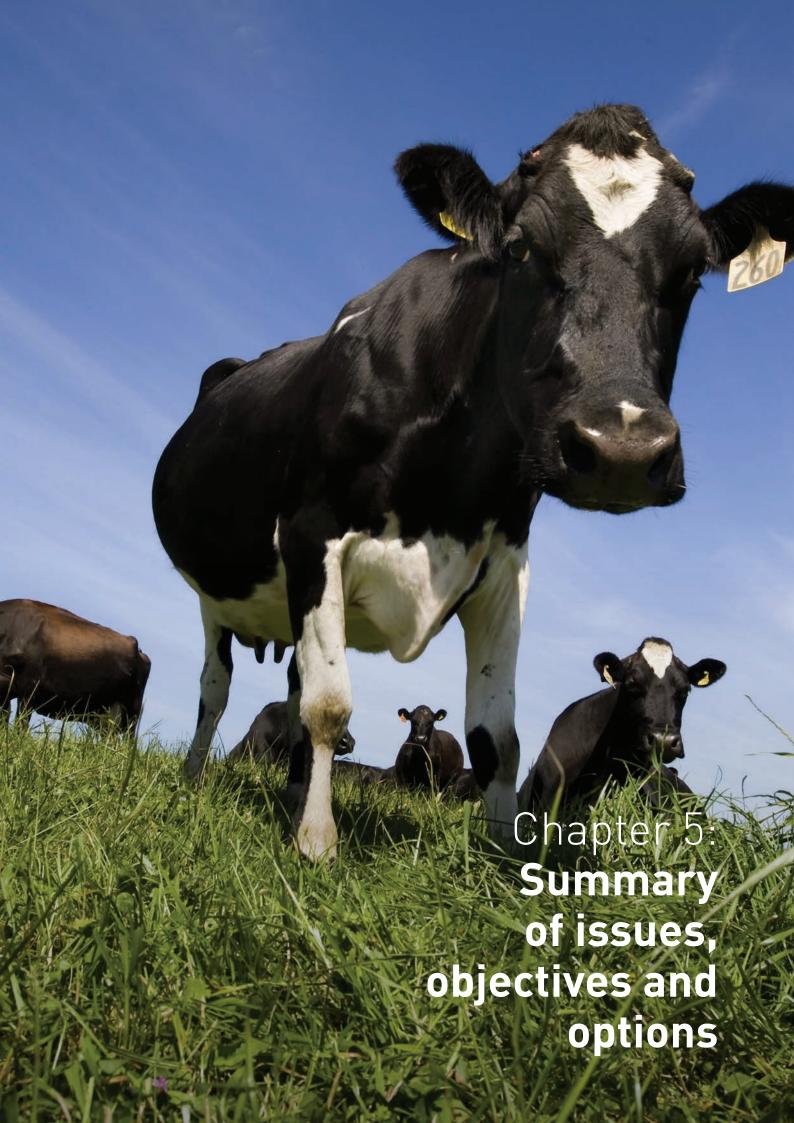
This option does not envisage any further review of the DIRA regulatory regime. It provides for the outright repeal of the entire DIRA regulatory regime on a nominated date in the future or at a certain level of Fonterra's market share (e.g. 70 percent in either, each or both North and South Islands).

Under this option, the chosen trigger for expiry would necessarily need to be conservative to counter the risk of the DIRA regulatory regime being repealed too early. It may then result in the DIRA continuing to apply when it is no longer necessary. Critically, this option provides for a very blunt instrument which does not respond to complex industry dynamics. Under this option, the expiry could occur regardless of whether Fonterra's market power had changed.

This option also lacks provision for any adjustments or transitional arrangements in particular markets where ongoing regulation may still be warranted (e.g. the New Zealand domestic consumer market).

Our preliminary view is that this option would be less effective in balancing the risk of regulating Fonterra for longer than necessary with the risk of removing regulation too early.

- 40. How best do you consider "market dominance" could be measured? For example, are there certain criteria (other than a market share threshold) that could be provided for in legislation as a trigger for review and/or expiry of the DIRA?
- 41. Are there any other options for the DIRA review and expiry provisions that you think should be considered? Please provide sufficient detail when describing any alternative options as well as reasons for considering these.
- 42. What costs and benefits would each of the options for the DIRA review and expiry provisions create for your business? Please provide quantitative information if possible.
- 43. How well do you think each of the options for the DIRA review and expiry provisions would perform against the principles of good regulatory practice of promoting certainty and predictability of regulatory outcomes, transparency, cost-effectiveness and timeliness of regulatory processes?
- 44. Do you have a preferred option, or a combination of options, for the DIRA review and expiry provisions? Please provide your reasons and information/evidence in support of your views.



For ease of reference, the following tables provide a summary of the issues, objectives and options.

DIRA OPEN ENTRY REQUIREMENTS

Issue:

The DIRA open entry requirements play a key role in the wider open entry and exit regime and its effectiveness in managing Fonterra's dominance.

While open entry does not appear to generate unintended consequences in terms of driving Fonterra's business and investment strategy, it could be preventing Fonterra from being able to effectively manage reputational risk.

Objective:

To minimise unintended consequences, while preserving the effectiveness of DIRA in achieving its core purpose of managing Fonterra's dominance.

Options:

- 1. Status quo: retain the existing DIRA open entry requirements.
- 2. Repeal the DIRA open entry requirements.
- Amend the DIRA open entry requirements to allow Fonterra to decline to accept applications from new and existing farmers if Fonterra considers their supply is unlikely to comply with Fonterra's terms of supply.

ACCESS TO REGULATED MILK FOR LARGE DAIRY PROCESSORS (EXCEPT GOODMAN FIELDER)

Issue:

The DIRA original rationale for providing large dairy processors with access to regulated milk from Fonterra, while they are establishing own supply, may no longer stand.

Objective:

To ensure that access to regulated milk from Fonterra is targeted at dairy processors for whom it is necessary to operate in New Zealand dairy markets, thus ensuring that it remains fit-for-purpose.

Options:

- 1. Status quo: retain the existing eligibility provisions for regulated milk in the Raw Milk Regulations.
- 2. Amend the eligibility provisions in the Raw Milk Regulations to exclude large dairy processors.

BASE MILK PRICE CALCULATION

Issue:

The DIRA may be able to promote greater confidence in the base milk price calculation outcomes.

Objective:

To promote greater confidence in the base milk price calculation to further improve the effectiveness of the DIRA regime.

Ontions

- 1. Status quo: retain the existing DIRA provisions for Fonterra's base milk price calculation and Commerce Commission monitoring.
- 2. Amend the DIRA to provide additional statutory guidance on the meaning of the term "practically feasible".
- 3. Amend the DIRA to give the Commerce Commission the statutory power to set the base milk price for the dairy industry.

ACCESS TO REGULATED MILK FOR GOODMAN FIELDER AND SMALLER PROCESSORS

Issue:

The DIRA ensures that there is viable competition in the New Zealand consumer dairy markets, but it may also be facilitating a long term, and potentially undue, dependency on regulated milk from Fonterra.

Objective:

To preserve competition in the New Zealand consumer dairy markets in the short term, while reducing any undue regulatory dependency in the long term, thus ensuring that it remains fit-for-purpose.

Options:

- Status quo: retain the existing provisions in the Raw Milk Regulations as they apply to Goodman Fielder and smaller processors.
- 2. Amend the Raw Milk Regulations to update the terms on which Goodman Fielder can access regulated milk from Fonterra.
- 3. Amend the Raw Milk Regulations to gradually reduce Goodman Fielder's eligibility for regulated milk over time.
- 4. Amend the Raw Milk Regulations to remove limits on the amount of regulated milk dairy processors supplying New Zealand consumer markets may access from Fonterra.
- Amend the Raw Milk Regulations so that the terms on which dairy processors supplying New Zealand consumer markets can access regulated milk mirror the terms on which Fonterra supplies its own New Zealand consumer business.

DIRA REVIEW AND EXPIRY PROVISIONS

Issue:

The need for the DIRA is contingent on Fonterra retaining its dominant position.

While it appears that the DIRA is still needed at this stage, there is a risk that the DIRA could be kept in place for longer than necessary.

Objective:

To balance the risk of regulating Fonterra for longer than necessary with the risk of removing regulation too early.

Options

- 1. Status quo: No statutory provision for review and/or expiry of the DIRA regulatory regime in legislation.
- 2. Amend the DIRA to require periodic reviews of competition in the dairy industry to determine whether the DIRA regulatory regime should be retained, repealed, or amended.
- Amend the DIRA to require a review of competition in the dairy industry to determine whether the DIRA regulatory regime should be retained, repealed, or amended, to be undertaken when a set market share threshold has been reached.
- 4. Amend the DIRA to provide for its automatic expiry from a nominated date or when a set market share threshold has been reached.



This document is one means by which we are seeking feedback on questions, issues and options for potential legislative amendments. We also plan to hold public meetings throughout New Zealand to give people at a grassroots level an opportunity to engage in the process, as well as targeted industry meetings and workshops to test and refine our understanding and analysis of issues and options set out in this document.

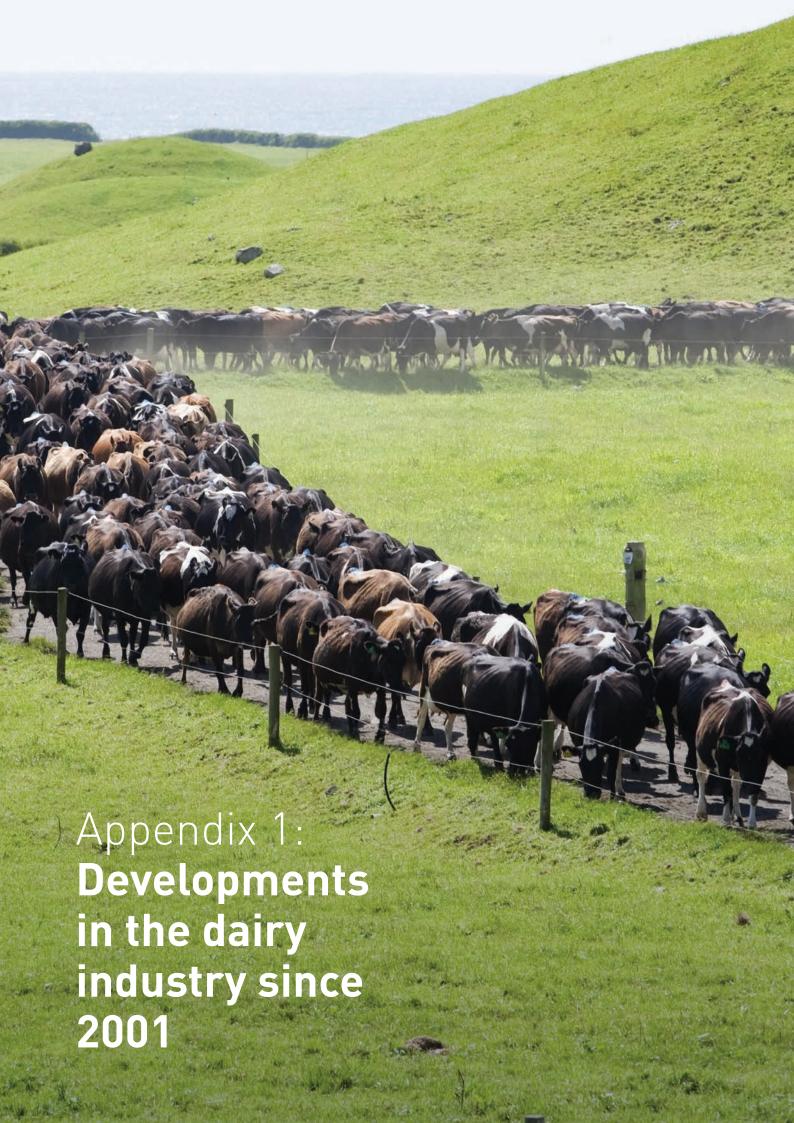
An indicative itinerary for public meetings is set out below. However, arrangements are subject to change, so please use the DIRA Review webpage, and MPI social media channels, to access the latest information.

| WHERE | WHEN | |
|-------------------|-------------------------------|--|
| Wairarapa | Mid November | |
| Taranaki | Late November | |
| Waikato | Early December (two meetings) | |
| Bay of Plenty | Early December | |
| North Canterbury | Mid December | |
| South Canterbury | Mid December | |
| Manawatu-Wanganui | Mid December | |
| West Coast | Late January | |
| Tasman | Late January | |
| Southland | Late January | |
| Northland | Late January | |

Submissions on this document are due by 5pm on Friday 8 February 2019.

Once we have received written submissions, we will analyse these to identify and synthesise views on all issues and options. We will then work with affected stakeholders to include them in the process of identifying and assessing the preferred solutions and their impacts.

We expect to hold a series of targeted workshops post consultation, during the months of February and March 2019. These discussions will inform the final recommendations that the Government will consider later in 2019.



Economic benefits delivered by the dairy industry

The New Zealand dairy sector has provided, and continues to provide substantial economic benefit to New Zealand. The value of the sector grew significantly, by an average of 5.1 percent per annum, from NZ\$7.9 billion in 2001 to NZ\$16.6 billion in 2016. As a comparison New Zealand's nominal gross domestic product (GDP) grew by 4.5 percent annually over the same period.

Milk production has grown relatively consistently at around 3 percent per annum, rising from 12.9 billion litres in 2001 to 20.7 billion litres in 2017. Gains in milk production in the future are likely to come from improvements in efficiency of production, as opposed to increasing the size of the dairy herd.

Dairy exports have grown relatively consistently at around 7 percent per annum (on average) over the period since 2004, with the 2018 value of NZ\$16.7 billion more than double the 2004 value. Exports have continued to focus on commodities, particularly milk powder to China. This has exposed New Zealand to price volatility. While farmers have enjoyed high returns, there have also been damaging price falls, with particularly substantial impacts on farmers in 2014.

Whole milk powder was consistently the largest dairy export product by value (representing 31 percent of all dairy exports in 2004 and 36 percent in 2017), and has contributed the most (40 percent) to growth in dairy exports between 2004 and 2017.

The range of value-added products is, however, diverse and increasing, along a spectrum from more standard consumer products (such as UHT milk) to higher value, more sophisticated products such as infant formula and other nutritionals, as well as specialised pharmaceutical products. Organic dairy products have shown strong export demand, growing in value from \$7.9 million FOB in 2013/14 to \$14.8 million FOB in 2017/18.

Employment in dairy farming and processing has increased relatively consistently at around 3 percent per annum from 2001 (24,840) to 2017 (38,551), varying from a 7 percent increase in the Canterbury region to a 7 percent decrease in Nelson.

Total lending for dairy farming has grown from \$11.2 billion in 2003 to \$40 billion in 2016.

Observations about Fonterra's strategy and performance

The DIRA review is not intended to critique Fonterra's business or investment strategy, performance, management, or governance arrangements. The DIRA does not prescribe such matters, either for Fonterra or other independent processors. The DIRA simply provides a framework to manage risks around Fonterra's dominance and incentivises performance, primarily through price signals.

This section simply sets out some observations, drawn from published sources, about the company in relation to other processors. This forms part of the broad context in which the impact of the DIRA needs to be considered.

One of the objectives of the 2001 restructuring was that Fonterra would be able, as a large-scale, vertically-integrated and well-resourced company, to achieve a high level of business performance. Fonterra has over 10,500 farmer shareholder-suppliers and operates 33 manufacturing sites across New Zealand.

Independent analysis of dairy processors' performance, carried out in 2018, indicated that Fonterra was not performing as strongly as some other processors¹². For example:

- The market value of Open Country Dairy (OCD) and Synlait's combined equity is estimated at \$2.9 billion, which translates to \$15 of equity per kgMS. (These two companies represent 60 percent of the non-Fonterra market). The market value of Fonterra's equity is \$6 per kgMS.
- Fonterra's three year average adjusted return on assets was 7 percent, compared with 9 percent for Synlait, 11 percent for OCD and 18 percent for Tatua.

¹² TDB Advisory (2018) New Zealand Dairy Companies Review: https://www.tdb.co.nz/wp-content/uploads/2018/05/TDB-Dairy-Companies-Review-2018-1.pdf.

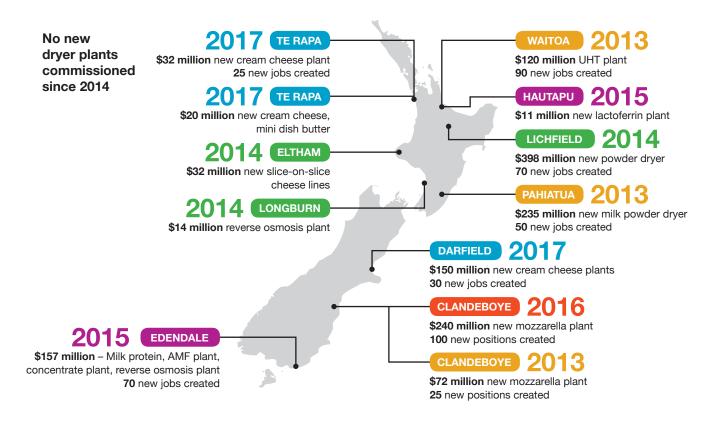
- In terms of revenue per kgMS, Tatua performed best at \$22.26, with Fonterra in second place at \$12.60. Synlait followed at \$11.69, Westland at \$10.60 and OCD at \$8.73. The revenue earned tends to reflect a processor's product mix (e.g. OCD, as an efficient low cost producer of commodity products, generates lower revenue per kgMS).
- The production of higher value products requires an increased level of investment. In line with its revenue per kgMS, Tatua recorded the highest level of investment in fixed assets per kgMS, with Fonterra second.

Since 2001, Fonterra's capital investment has been \$15.2 billion, nearly 5.8 times more capital than the total \$2.65 billion invested by all other large dairy processors operating in New Zealand. This reflects the size and global scale of Fonterra's operations. Fonterra's FY16 turnover was approximately six times that of the large dairy processors.

Fonterra reports its revenue in terms of two "strategic platforms": Ingredients, and Consumer and Foodservice. The ingredients segment consists of Fonterra's core milk production operations in New Zealand, Australia and Latin America, as well as the production of typical dairy products such as butter, cream and mozzarella. Fonterra produced a volume of 21.3 billion LME (litre milk equivalents) in 2017, the majority of which were produced in New Zealand, alongside a nascent Chinese production infrastructure (which yielded 335 million LME in 2017). The Consumer and Foodservice segment contains Fonterra's more specific and higher value-added products, such as infant formula, UHT milk, yoghurts and desserts.

Fonterra's business is still largely commodity based. The ingredients operation is the larger of the two segments, accounting for 70 percent of Fonterra's revenue in 2017. However, in terms of relative profitability, as measured by the fraction of revenue that is converted into EBIT, the Consumer and Foodservice business traditionally operates at a higher EBIT margin. Overall, however, returns from Fonterra's higher-value business segment – Consumer and Foodservice – were fairly flat over the period 2010 to 2017. Fonterra registered CAGRs of 1 percent in revenue (Volume) and 0.62 percent in EBIT (Value). Most of the growth that Fonterra achieved appears to be in its traditional Ingredients business, which registered CAGRs of 2.62 percent and 16.9 percent in revenue and EBIT, respectively, between 2010 and 2017.

Fonterra characterises its strategy as "Volume, Value, Velocity". This focusses on increasing volume sales across all products, and at the same time encourages migration into higher-value products in its Consumer and Foodservice segment. Since 2013 there has been a strong focus on new investment in value-added processing facilities in New Zealand, as shown in the diagram below:



In terms of markets, China and the rest of Asia account for 44 percent of Fonterra's revenue. Most of the growth in these markets has been in lower value products like milk powder. However, Fonterra has also been able to take advantage of the high growth sector of infant formula in China.

Latin America has grown to contribute 11 percent of Fonterra's revenues, as Fonterra has expanded its operations in that region. The proportion of other markets that are likely to demand a greater proportion of value-added products (due to the relatively high purchasing power and preferences of consumers in those markets) has decreased. Europe accounted for 8 percent of revenues in 2010, and 4 percent in 2017. Similarly, revenues from the US declined from 10 percent to 7 percent over the same period.

New dairy processors' entry

There has been significant market entry since the DIRA was passed. Westland and Tatua were in place when Fonterra was formed, and elected not to join the merger. NZ Dairy Foods (acquired by Goodman Fielder in 2005) was established in 2001. Goodman Fielder has no own milk supply from farmers and its activities are limited to the domestic market.

Since 2004, eight other processors have established processing facilities in New Zealand, with a total capital investment of around \$2.65 billion. These are Open Country Dairy (2004), Synlait (2008), NZ Dairies Ltd (2008: in receivership 2012), Miraka (formed 2009, began production 2011), Nutritia Danone (2014), Oceania (2014), Yashili (2015), Mataura Valley Milk (2018). All of these companies are much smaller than Fonterra (within New Zealand) and all are export-focussed.

In 2001, Fonterra accounted for 96 percent of the market for farmers' milk. This fell to 82.4 percent in 2017 and 80.5 percent in 2018. Note, however, that the total volume of milk produced since 2001 has increased by around 60 percent. Over the last five years, independent processors have grown their milk volumes by about 10 percent per annum on average.

Independent processors account for approximately 41 percent of the growth in milk solids collected since 2001, while Fonterra accounts for 59 percent of growth in milk solids collected. With the exception of Yashili, all have established their own milk supply from farmers.

Fonterra remains the only processor with truly national coverage, with 77 percent or more of the farmers' milk market in all major dairying regions except the West Coast, which is served by Westland Milk. Of the independent processors, Open Country Dairy had the broadest coverage, operating in Auckland, Waikato, Bay of Plenty, Otago and Southland. The regions with the greatest number of processors were Canterbury, Auckland, Waikato and Bay of Plenty.

Most of the independent dairy processors focus their production on higher value-added products, with some commodity processing used either as a means of starting their operations or utilising all by-products of higher value-add products. Overseas investment or partnerships have played a significant role in the establishment of several processors. Overseas investors have contributed not only capital and expertise, but also access to high value markets through their established distribution channels. New Zealand appears to have attracted overseas investment as a result of its reputation for high quality dairy products and robust food safety assurance. Foreign investors have seen establishment in New Zealand as ensuring that they can account for the quality of products at every stage of production and distribution. Specifically:

- Open Country Dairy is owned by the Talley's Group. The company mainly focusses on milk powders and cheddar cheese for export.
- Westland Milk Products is a New Zealand owned co-operative. It has multiple processing sites
 throughout the South Island, producing milk powder, milk protein, butter and yoghurt sachets mainly
 for export.
- Synlait produces mainly milk powder, milk protein, infant formula and anhydrous milk fat for export. The company is investing \$250 million in a new processing plant in the North Island. Synlait intends to enter the domestic consumer market in 2019. Bright Dairy of China became a significant partner and shareholder in 2010.

- Tatua Co-operative Dairy is a domestically owned co-operative. It produces high value speciality ingredients, including milk powder, sour cream, ice cream and anhydrous milk fat for export.
- Oceania Dairy is a wholly owned subsidiary of Chinese company Inner Mongolia Yili Industrial Group. Yili is the largest dairy producer in China, with Oceania Dairy solely exporting to China. Oceania produces milk powder, milk protein and UHT milk.
- Miraka is owned by a group of Māori trusts and incorporations, with a 23 percent Vietnamese interest. Miraka produces milk powder and UHT milk for export market, shipping to over 20 countries including USA, Canada, India, Malaysia, China and the Philippines.
- Mataura Valley Milk produces high value nutritional products for export. The China Animal Husbandry group (CHG), an SOE owned by the Chinese Government, has a majority shareholding.
- Yashili produces infant nutritional products for export. In August 2013, the company was acquired by the Mengniu Group, China's largest producer of liquid milk products. In October 2014, Danone became Yashili's second-largest investor, purchasing a 25 percent stake in the company.

Impact of dairy expansion on the environment

The expansion of dairying has delivered economic benefit to New Zealand in terms of export revenue, employment and domestic consumer choice. This has, however, come at a cost to the environment.

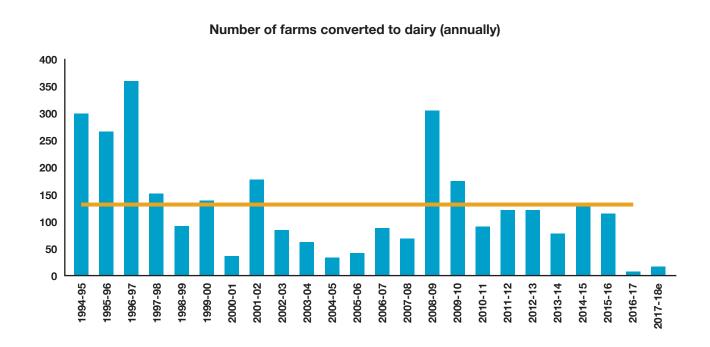
Land use

The use of land for dairy farming and the number of dairy cattle in New Zealand grew substantially between 2001 and 2017, at approximately 2 percent per annum. The average number of cows per hectare remained relatively stable.

The regions with the highest land use for dairy farming are Waikato, Southland and Canterbury. Land use intensity in North and South Canterbury increased markedly between 2001 and 2017.

Dairy farming has typically displaced sheep and beef farming (particularly in the South Island) and in some regions plantation forestry (particularly in Waikato) and, to a much lesser extent, scrub.

As shown in the graph below, the number of new dairy farm conversions has declined since 2009. There has been a particularly marked fall in 2016/17 and 2017/18.



Nitrogen

The effect of increased dairying has resulted in effluent and fertiliser run off into waterways. The data used for this section is derived from the Ministry for the Environment's New Zealand's Environment Reporting series, which last covered nitrogen leaching in 2012. The data indicates an increase in nitrogen leaching of approximately 3 percent per annum, in line with the growth in milk production since 2001.

In contrast, concentrations of dissolved reactive phosphorus in river sites do not seem to have increased in line with the growth in dairy output. Between 1994 and 2013, when phosphorus concentrations were measured by the Ministry for the Environment (MFE), 46 percent of pastoral sites (which included non-dairy farmland) showed an improving trend, 21 percent of pastoral sites showed a worsening trend, and 34 percent of pastoral sites showed an indeterminate trend. MFE reported that the following may have contributed to improvements in pastoral site measurements:

- Various strategies (e.g. stock exclusion) developed since 2003 to mitigate phosphorus loss from land to water.
- The targeting of critical source areas of contaminant loss since 2008 in 77 published documents (industry guidelines, farm environment plans and regional policy).
- Improved education of farm consultants, fertiliser company representatives and regional council staff since 2002 on mitigating phosphorus loss.

Three regions which have seen a large growth in dairy farms from 2008 to 2012 are Canterbury, Southland and Waikato, with dairy pushing out beef and sheep in the two former and plantation forestry in the latter. It is of particular importance to look at the amount of waterway pollution which has occurred since this uptake of dairy. Canterbury is particularly crucial, as it contains 70 percent of New Zealand's irrigated land, meaning a small change in irrigation practices can have a significant effect on local waterways. Water use in Canterbury is expected to double from 2015 to 2025, with the current nitrate in the groundwater system expected to take 30 to 60 years to dissipate completely.

Emissions

The dairy sector accounts for the majority of New Zealand's agricultural emissions. Methane emissions from dairy cattle in New Zealand have grown, albeit slowly, since 2001, at approximately 1 percent per annum. In the agricultural industry as a whole, methane emissions have decreased at a rate of 0.1 percent per annum over this period.

Dairy sector response

It appears that environmental regulations, and enforcement of those regulations in certain parts of New Zealand, has not significantly constrained the growth in dairying that has increased pressures on the environment. Environmental and natural amenity impacts have been unpriced externalities –they have not been fully accounted for in the costs of production (and either borne by producers or passed on to consumers), but have been borne by society as a whole.

This has resulted in an erosion of the dairy sector's social licence in New Zealand. It has also created risks to New Zealand's export trade, by compromising New Zealand's "clean, green" image.

The dairy industry has shown a growing awareness and willingness to address environmental issues at both the level of on-farm practice and in processing. Independent processors incorporate environmental targets into their business strategies and terms of supply.

At the industry level, DairyNZ's Dairy Tomorrow, its industry Strategy for 2017-2025 (a refresh of its 2013 Strategy for Sustainable Dairy Farming) focusses on six goals to promote sustainable dairying with social licence to operate:

- to protect and nurture the environment for future generations
- to build the world's most competitive and resilient dairy farming businesses

- to produce the highest quality and most valued dairy nutrition
- to be world leading in on-farm animal care
- to build great workplaces for New Zealand's dairy workforce
- to help grow vibrant and prosperous communities.

DairyNZ's Water Accord, launched in 2013, provides benchmarks for mitigating dairying's impact on freshwater resources. As of May 2016:

- 99.4 percent of regular stock crossing points have bridges or culverts
- 97.2 percent of waterways have dairy cattle excluded
- 133 rural professionals are now certified nutrient management advisers
- 49.8 percent of dairy farms have installed water meters (this is on track to achieve an 85 percent target by 2020).

Fonterra published its first Sustainability Report in late 2017. Progress on achieving environmental performance targets by Fonterra farmers included:

- 98.4 percent of waterways have dairy cattle excluded
- 99.8 percent of regular stock crossing points have bridges or culverts
- 51 percent of farms have water meters
- 95 percent of farmers are participating in nutrient reporting and benchmarking

Fonterra has also reported on emissions, energy and water efficiency targets as follows:

| Reduction in manufacturing emissions intensity (emissions per tonne of production) | 30% reduction by 2030 from 2010 baseline (NZ and Australia) | 7.8% reduction cumulative to FY17 | This represents 26% progress over 35% of time period |
|---|--|--|--|
| Reduction in absolute manufacturing emissions | 30% reduction in absolute emissions by 2030 from FY15 baseline (Global) | 5.0% reduction cumulative to FY17 | This represents 16% progress over 13% of time period |
| Reduction in manufacturing in manufacturing energy intensity (energy per tonne of production) | 20% reduction by 2020 from FY03 baseline (NZ) | 17.6% reduction cumulative to FY17 This represents 8 progress over 82 time period | |
| Improvement in water efficiency (water used per cubic metre of milk processed) | 20% reduction by 2020 from FY15 baseline for NZ | 5.1% increase cumulative to FY17 | New target to focus on declining water efficiency |
| Site treating wastewater to leading industry standards 100% of sites by 2026 (global target) | | 25% | Long-term target, but on track to achieve as investments are made in site development |

Independent processors are also focusing on excellence in environmental performance. For example:

- **Synlait's** Lead With Pride programme recognises and financially rewards farmer-suppliers who achieve best practice standards. In the environmental sphere, Synlait's farmer-suppliers are expected to achieve excellence in water and effluent management, soil quality, biodiversity, emissions and energy management. Farmer-suppliers that meet the standards of best practice or leading practice receive premium payments for their milk.
- Miraka's Te Ara Miraka Farming Excellence programme aims to improve efficiency and produce high quality milk, improving profitability for farmer-suppliers and Miraka, with a lower environmental footprint. All Miraka's farmer-suppliers are encouraged to be proactive in the management of their farm environment in order to minimise any negative impact. The Te Ara Miraka Farming Excellence programme gives farmers the potential to earn a premium on their raw milk by meeting 31 standards, including 13 mandatory ones.

Supply of New Zealand consumer dairy products

The domestic consumer market for dairy products is very small compared with New Zealand's export markets and accounts for only a small part of New Zealand's milk production (5 percent domestic vs 95 percent exported).

New Zealand's milk production is highly seasonal. The production of milk in winter involves higher costs and on-farm management challenges. Nevertheless, New Zealand consumers are supplied with fresh milk year round, and without seasonal price variation. This contrasts with other seasonal products (e.g. fruit and vegetables) whose availability and price varies throughout the year.

There is a perception, however, that dairy products, and more particularly basics, are not readily affordable. In fact, dairy product price changes have been roughly in line with the CPI and overall retail grocery price trends, increasing at less than 1 percent per annum in real terms. The exception is the price of butter, which has shown a sustained increase, nearly doubling in price since 2007.

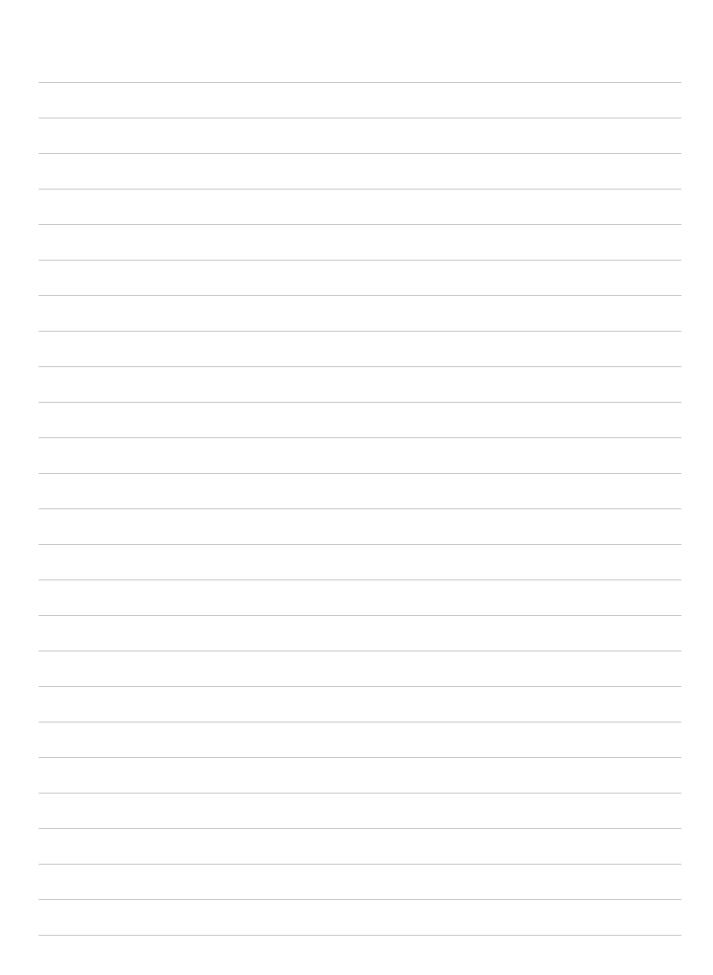
The presence of a large number of smaller niche producers has provided variety in product and price, across a range of dairy products from basic to premium, including yoghurts, ice cream, cream, and specialty milks, flavoured milk and long-life products as well as organic dairy products.

While considerable competition and product differentiation has occurred at the level of smaller niche processors, the state of competition in the supply of fresh milk and other consumer dairy basics has remained largely unchanged since 2001. With the exception of Fresha Valley, which continues to operate as a traditional town milk company in the Northland region, the majority of basic fresh milk is supplied throughout the country by the two larger processors, Goodman Fielder and Fonterra.

As discussed elsewhere, a large-scale competitor to Fonterra (now Goodman Fielder) was "engineered" in 2001 to ensure competition in the supply of basic dairy products to the New Zealand consumer market. Goodman Fielder remains dependent on Fonterra for its supply of raw milk.

There has been no substantial market entry of scale into the consumer basic market since 2001, although Synlait intends to enter the consumer fresh milk market in the South Island in early 2019. Westland supplies its WestGold butter domestically. Fonterra remains the only supplier of bulk butter and table cheese, which is repackaged and branded by other companies.

Notes



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