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Assessment of Competition in Raw Milk Markets and Costs and Benefits of the DIRA provisions

Fonterra Co-operative Group Limited

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1. Introduction and executive summary

1.1. Introduction

The Commerce Commission has been asked by the Minister of Primary Industries to produce a report on the state of competition in the New Zealand dairy industry, pursuant to section 148 of the Dairy Industry Restructuring Act 2001 ("DIRA"). In the context of this process, we have been asked by Fonterra to:

- Analyse competition in the farm and factory gate markets; and
- Consistent with the Commission's proposed approach as articulated in its 12 June 2015 consultation paper, consider whether the relevant markets could be more efficient with alterations to the DIRA.

As the Commission notes in its 12 June 2015 consultation paper, in 2010 we were engaged by the then Ministry of Agriculture and Forestry to review the state of competition in the farm and factory gate markets, and the implications for the DIRA.[2] We use our findings in that report as a form of benchmark for our analysis in this report, and we also consider the situation as at 2001, when Fonterra was created and the DIRA came into force.

As we did in our 2010 report, we use the term "independent processors" ("IPs") to refer to all processors other than Fonterra, including Tatua and Westland.[3]

Fonterra confidential information is identified by square brackets and yellow highlighting.

1.2. Executive summary

1.2.1. Competition in the farm gate market

Fonterra still has a high share of raw milk collected if assessed on a national basis (about 85-86%), and an even higher share in the North Island (about 91%). IPs have taken a materially larger share in the South Island, leaving Fonterra with 78%, and triggering expiry of the pro-competition DIRA provisions in the South Island by no later than May 31, 2018, unless there is legislative change before then.[4]

These measures of share understate the competitive impact IPs are having, as illustrated by the materially higher shares the IPs are generally able to pick up:

- In their own catchment zones; and

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2 See NERA Economic Consulting (2010) "An Assessment of the DIRA Triggers", report for the Ministry of Agriculture and Forestry.

3 As we set out later in our report, the major IPs are Tatua, Westland, OCD, Synlait, Miraka, Oceania and Gardians. Yashili has also constructed a factory but is not yet processing raw milk.

4 See https://gazette.govt.nz/assets/pdf-cache/2015/final/2015-08-13_Gazette_88.pdf and http://newsroom.co.nz/stories/businessdesk-independent-south-island-milk-processors-cross-competition-threshold-guy-says.

- Of new conversions.

This competitive pressure has external effects beyond the IPs' catchment zones, because as a co-operative it will be difficult for Fonterra to discriminate (e.g., on milk price or transport costs) between shareholder suppliers, particularly between existing shareholder suppliers. Uniform pricing means that Fonterra shareholder suppliers without local IP options still enjoy the benefit of IP competition. For this reason, it is not necessary to be too concerned about geographic market definition for present purposes (i.e., when assessing the efficiency of the DIRA).[5] If the majority of Fonterra's suppliers have the option to switch to IPs, then Fonterra would be subject to pressure to be productively and dynamically efficient (and of course Fonterra is also subject to global competition).

If the Commission feels it is necessary to define the geographic (farm gate) market, the analysis above implies that it should be defined as a national market, for present purposes. The practical implication of this is that any changes to the DIRA should apply nationally, not regionally.

Of the two long-established co-operatives that did not join the creation of Fonterra, Tatua continues to be "closed" (i.e., does not accept new supply) and accordingly presents a limited constraint on Fonterra's behaviour. However, Westland has expanded strongly into Canterbury since our 2010 report.

Of the IPs established since the creation of Fonterra, most have demonstrated growth and confidence, and there continues to be investment. They offer farmers a differentiated product (e.g., no capital requirements), and are investing in value added outputs. There is also an emerging trend of global food company ownership of IPs, for strategic reasons, which we would expect to provide some comfort to farmers around solidity.

It seems likely that these IPs would be sustainable (provided they are efficient) without the DIRA – indeed, they are continuing to invest in the knowledge that the DIRA will at some point disappear.

Two other important developments since our 2010 review are the:

- Setting of the raw milk price in accordance with the Fonterra Milk Price Manual, which is now overseen by the Commission; and
- Setting of the Fonterra share price by a market ("Trading Among Farmers" or "TAF").

While both of these institutions are enshrined or facilitated by the DIRA, it seems likely that both would survive independently of the DIRA. TAF enables Fonterra to avoid redemption risk while permitting farmers to free up capital, and investors are likely to place importance on the transparency of the raw milk price setting under the manual.

[5] Market definition is a tool to assist competition analysis, and so the most appropriate market definition depends on the issue at stake. Here it is assessment of the efficiency of the DIRA.

Accordingly we can be more confident about the competitive pressures on Fonterra if the DIRA (or parts of it) fell away, compared to the situation in 2010. However, we might not say there would be "workable competition" without the DIRA just yet:

- Fonterra is still materially larger than even the IPs put together,[6] and could still use strategies to raise switching costs (although this has been made harder by the milk price manual and TAF);
- Fonterra's domestic processing is more diversified than that of the IPs; and
- Fonterra is probably still seen as a backstop and benchmark by farmers.

Having said this, the situation in the South Island suggests that the farm gate market is tracking towards workable competition.

1.2.2. Competition in the factory gate market

The factory gate market serves three primary functions:

- Transacting of overs-and-unders;
- Complementing processors' own supply with additional milk; and
- Providing access to raw milk for processors without their own supply.

Because the factory gate market is largely bilateral trades between processors, there is limited public information about who is participating in the market, other than in respect of regulated raw milk transactions.

Fonterra would find it difficult to raise price in the factory gate market above the competitive level, because IPs would have the ability to switch material levels of production to the factory gate market. However, the factory gate market is still immature, and potentially undermined by the raw milk regulations because of the ability of IPs to procure milk from Fonterra at a regulated price that might be less than its opportunity cost.

Furthermore, the demand-side of the factory gate market will generally be competing with the supply-side in other markets (e.g., in the farm gate market or downstream domestic markets). This issue is particularly sensitive given the role of Goodman Fielder in downstream New Zealand dairy markets.

1.2.3. Efficiency assessment of DIRA provisions

Adopting the framework set out in the Commission's 12 June 2015 consultation paper, the state of competition in the relevant markets is not yet at the point where we would recommend complete deregulation. However, there are sufficient constraints and institutions to justify considering the costs and benefits of altering the relevant DIRA provisions. DIRA is basically about enabling IP entry, and there has been plenty of entry. So it is legitimate to consider whether the relevant markets could now be more efficient with alterations to the DIRA.

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[6] Excluding the overseas businesses of global owners.

We have not spent much time analysing the efficiency of the DIRA provisions relating to (enshrining) the milk price manual or (facilitating) TAF. This is because:

- It is clear that both the manual and TAF play important roles in facilitating competition; and
- As already noted, it seems likely that both would survive independently of the DIRA.

Rather, we have focussed our analysis on the raw milk regulations and the free entry and exit provisions of the DIRA, and relatedly the non-discrimination rule and the 160km rule. We have also briefly considered the 20% rule and the milk vat rule. Our analysis of these provisions assumes that the manual and TAF would continue.

Regarding the raw milk regulations:

- Regulated milk benefits two distinct groups:
  - IPs who aim to enter the farm gate market; and
  - Downstream processors who are more likely to rely on the factory gate (e.g., Goodman Fielder and niche processors);
- Regarding the first group, the benefit of the raw milk regulations is in addressing the catch-22 situation set out in our 2010 report – guaranteed supply from Fonterra enables an IP to get started and develop a reputation sufficient to attract its own suppliers;
- It is probably reasonable to conclude that the raw milk regulations have facilitated entry into the farm (and factory) gate market, quite successfully;
- However, the benefit of the raw milk regulations has decreased since 2001 and 2010:
  - The farm gate market is more competitive than it was; and
  - IPs will believe that farmers will be more willing to supply IPs than they were – the track record of sustainable entry and global brand names will have reduced the level of farmer caution;
- The costs of the raw milk regulations have probably increased since 2001 and 2010. There is now a material number of IPs in the market, and there is an efficiency trade-off in a small economy between the number of competitors and scale. We are not making a claim that the correct balance has been reached, as this would be very difficult to determine. However, we do think it is more important now to ensure that any assisted entry is not inefficient, and the most obvious way to do this is to replicate the contractual arrangements we would observe in other markets requiring sunk cost investment, i.e., entrants making volume commitments[7] and paying a price that covers opportunity cost – neither are features of the current raw milk regulations; and
- The costs and benefits are slightly different in the case of the second group mentioned above (Goodman Fielder and niche processors), and so on balance we would not recommend any changes to the regulations as they relate to them.

[7] Or paying a premium for flexibility.

Regarding free entry:

- The benefit of free entry is that it facilitates switching by farmers, by overcoming a reticence to supply lesser known IPs;
- Having said that, the benefits of the free entry provision are lower today than they were in 2001 and 2010:
  - The efficiency of the milk price and share price are now governed by the milk price manual and TAF;
  - Several of the IPs have developed a reputation for being reliable and competitive buyers of milk from suppliers;
  - IPs are continuing to invest, despite the expectation that at some point the DIRA is likely to be withdrawn; and
  - The evidence suggests that investor-owned IPs have an advantage in attracting suppliers (particularly new conversions), being the absence of a requirement to purchase share capital;
- A cost of free entry is that existing shareholder suppliers to, and investors in, Fonterra, are required to fund inefficiently high transport and plant costs, in case other farmers exercise their "free option" to enter. The larger the farm in question, the more significant is the cost of this option. Indeed, it is difficult to think of firms in other markets in the economy that have such little control over the quantity of their inputs;
- The free entry provision is particularly costly in respect of potential suppliers to Fonterra (e.g., sheep or beef farmers or foresters considering converting to dairy). As a generalisation, it is likely that future dairy conversions are going to be more costly than existing farms, due to distance, topography, water requirements, etc. There may be objective ways for Fonterra to agree on efficient supply terms with these new dairy farms, but which are constrained by the DIRA;
- On balance, there are net costs in continuing with the free entry obligation (and relatedly, the section 106 non-discrimination rule) in respect of this "potential supplier" group;
- However, we think there are net benefits in continuing with "free re-entry" for existing suppliers (to Fonterra or an IP), who have made decisions on the basis of the free entry rule. One way to mitigate the social costs would be to time limit the free option, e.g., permit free re-entry for up to three years from exit, but to provide the discretion to Fonterra after that. There may also be ways to define objective exceptions – the key is to address the types of costs described above, while minimising switching costs for farmers.

Regarding free exit:

- The competition benefit of the free exit rule is a minimising of switching costs. Until the market is workably competitive, there is a valid rationale for ensuring that Fonterra cannot tie enough suppliers in to make life difficult for IPs. Relevant to this is the 160km rule, non-discrimination and TAF;

- Our understanding is that Fonterra has not even come close to the constraint imposed by the 160km rule – in fact, the highest percentage of total supply Fonterra has contracted in an IP's collection zone is [redacted] percent.[8] Therefore the combination of the free exit and 160km rules does not appear to be imposing a material cost on Fonterra today, and Fonterra has quite a lot of scope to contract suppliers, for investment certainty;[9] and
- Furthermore, there would be a cost to Fonterra in removing the free exit provision, even if an amendment to the DIRA permitted that. Removing the free exit right would make it harder for Fonterra to attract suppliers in the first place.

Regarding the 20% rule:

- As we understand it, the 20% rule is currently only being used in respect of a single supplier. As already noted in this report, there are certain interdependencies between the various DIRA provisions, but on the assumption that the buyer of that milk could use the raw milk regulations instead, it would seem that the 20% rule could be deleted from the DIRA with little impact on the market (particularly if an efficient form of free entry and exit is maintained); and
- It could be argued that the 20% rule does not impose any material costs on Fonterra, but it seems like good public policy to delete regulations that have no real function.

Regarding the milk vat rule:

- In contrast to the 20% rule, we understand that the milk vat rule is used quite frequently, and it is likely to facilitate switching of farmers between processors. Given that Fonterra is entitled to receive the market value of the vat, the rule does not appear to impose material costs on Fonterra, or more broadly; and
- Accordingly there does not seem to be a strong case for changing the milk vat rule.

[8] Based on Fonterra's May 2015 analysis for the 2015/16 season.

[9] Subject to the 15% limit on contract supply in Fonterra's constitution.

2. Background

2.1. The co-operative nature of Fonterra

Fonterra is a vertically integrated co-operative, owned by its shareholder suppliers. Its co-operative nature has important implications for the Commission's competition assessment.

The most obvious implication is that Fonterra will not exercise market power against its shareholder suppliers. This feature was a positive contributing element in the competition evaluation of the merger that created Fonterra in 2001,[10] and was also recognised by the Commission in *Decision NZCC 21*.[11]

Another important implication is that it will be difficult for Fonterra to discriminate (e.g., on milk price or transport costs) between supplying shareholders, particularly between existing suppliers. Discrimination could affect wealth (land values) of different suppliers, and generally raise tensions (for example, if there was discrimination on transport costs, there could be lobbying by shareholder suppliers as to the location of new processing plants).

Under principle 5 of Fonterra's Co-operative Principles, the financial benefits and obligations that arise from cornerstone activities are allocated to supplying shareholders in proportion to milk supply. [12] The importance of transparent and fair transactions between Fonterra and its supplying shareholders has been emphasized by Fonterra in its co-operative principles policy documents, stating that (page 8):[13]

> *Fonterra Co-operative Group exists to serve its dairy farmer members. A culture of acting in the shareholders' best interests and of treating all shareholders fairly and equitably is essential to earning shareholder commitment and loyalty. Ensuring transparency of Fonterra's transactions with its supplying shareholders is demonstrable proof of such a culture*

Fonterra's equitable, uniform price treatment of shareholder suppliers is consistent with accepted definitions of a "co-operative" in agricultural settings.[14]

Consistent with this, we have been advised by Fonterra that Westland (also a co-operative) does not price discriminate between its Canterbury and Westland farmers. We do not know whether Tatua engages in price discrimination.

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[10] See Lewis Evans, 2004: "Structural Reform: the Dairy Industry in New Zealand", presented at the *APEC High Level Conference on Structural Reform*, Tokyo, Japan. http://www.mofa.go.jp/policy/economy/apec/conference/present0409/session4-11.pdf

[11] See paragraph 87 of *Decision NZCC 21* which notes:

"…in the present case and with the present regulatory environment, the Commission considers that the evidence suggests that Fonterra's buyer side market power is constrained by its co-operative structure such that Fonterra would have no incentive to pay below competitive prices. Paying a raw milk price below competitive levels would be against the ethos of Fonterra as a co-operative."

[12] Fonterra, Co-operative Philosophy, Co-operative Principle 5.

[13] Fonterra's Co-operative Philosophy: Questions and Answers.

[14] For example, the US Department of Agriculture (USDA) have defined co-operative in general terms to be a business owned and democratically controlled by the people who use its services and whose benefits are derived and distributed equitably on the basis of use. See http://www.rd.usda.gov/files/cir55.pdf.

2.2. Rationale for DIRA

The creation of Fonterra in 2001, from a merger of the two largest dairy co-operatives in operation at the time and the New Zealand Dairy Board, created a monopsony in the raw milk markets – Fonterra purchased 96% of the raw milk supplied by farmers, with the two remaining co-operatives, Tatua and Westland, purchasing 4% combined.[15] An earlier version of the proposed merger was initially declined authorisation in a draft determination by the Commerce Commission in 1999.[16] However, the Commission had no authority to change regulations, i.e., to remove the Dairy Board's export monopoly. The merger to Fonterra and the Dairy Industry Restructuring Act ("DIRA") was a package of reform that included enabling competition by removing the dairy single-desk exporter (the Dairy Board).

To ensure that the monopsony Fonterra was constrained by competition, Part 2, subpart 5 of the DIRA was put in place to provide the regulatory framework for the "efficient operation of dairy markets in New Zealand" (section 70). The key provisions of subpart 5 are as follows:

- Fonterra has an obligation (with some exceptions) to accept supply from any farmer and to allow withdrawal ("**free entry and exit**").[17] As well as enabling entry by IPs, this provision had the effect of providing incentives for efficient pricing of milk and Fonterra shares,[18] functions which are now governed by more recent institutional changes, as we discuss later in this report;
- Shareholding farmers are able to allocate up to 20% of their weekly production to IPs without having to exit Fonterra ("**the 20% rule**");[19]
- Fonterra cannot discriminate between suppliers in the same circumstances;[20]
- At least 33% of all milksolids supplied within 160km of any point in New Zealand are either supplied under contracts with IPs or, if supplied to Fonterra, are contestable;[21]

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15 MAF (2009), "The Future of the Pro-Competition Regulatory Regime in the New Zealand Dairy Industry", Consultation Document, December.

16 Commerce Commission, Draft Determination on "Newco" dairy merger, 27 August 1999.

17 The obligation to accept supply is set out in sections 73-85, and the right to withdrawal is set out in sections 97-105.

18 See Evans, Lewis and Neil Quigley (2001) "Watershed for New Zealand Dairy Industry", *ISCR Monographic Series*, No. 1.

19 Section 108.

20 Section 106.

21 Section 107. Specifically section 107 (3) of the DIRA states:

New co-op must ensure that, at all times, 33% or a greater percentage of the milksolids produced within a 160 kilometre radius of any point in New Zealand-

a) is supplied under contracts with independent processors; or

b) is supplied under contracts with new co-op that-

i) expire or may be terminated by the supplier at the end of the current season without penalty to the supplier; and

ii) on expiry or termination, end all the supplier's obligations to supply milk to new co-op

- Fonterra must sell the milk vat of an exiting farmer to that farmer or to an IP at market value ("**the milk vat sale rule**");[22] and

- Fonterra has an obligation to supply milk to IPs if an order in council is made.[23] This provision of the DIRA led to the Dairy Industry Restructuring (Raw Milk) Regulations, which require that Fonterra must sell up to 250 million litres of raw milk per season to Goodman Fielder, and up to 50 million litres of raw milk per season to individual IPs ("**regulated milk**") at an agreed or default milk price (up to a cap of 795 million litres).

When these provisions are viewed collectively, it is clear that a purpose is to enable efficient entry and expansion by IPs.

At the time of Fonterra's formation the optimal structure of the dairy markets in New Zealand was a matter of debate. The DIRA with its strictures on Fonterra sought a structure that, in accord with modern corporate governance principles, enabled the optimal industry and organisational structures to evolve over time in response to forces of competition in the product, ownership, capital and labour markets.

2.3. Previous review

In 2010, we were engaged by the then Ministry of Agriculture and Forestry to review the state of competition in the farm and factory gate markets, and the implications for the DIRA.[24] Our key conclusions were as follows:

- As the DIRA triggers were specified at that time, the DIRA would have come off when Fonterra had a farm gate market share of approximately 87.5% in the North Island and 80-82% in the South Island;
- There was a key entry condition, being the "catch-22" situation where farmers will not commit to IPs without a track record, but IPs need farmers before they make sunk investments;
- To achieve workable competition, there would likely need to be two "efficient IPs" in each Island, or maybe one if entry/expansion was easier. However, at the time at least some of the IPs were still in establishment mode without a long track record, and potentially vulnerable to shocks and strategic behaviour (such as raising switching costs);
- Accordingly Fonterra was likely to have the ability to exercise market power in the farm gate market when the DIRA expired under the then triggers;
- Fonterra was unlikely to have the ability to raise the factory gate price above the competitive level, as the market was smaller than the capacity of IPs, meaning it would be easy for the IPs to undermine an attempted price increase by Fonterra;

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22 Section 109.

23 Section 115.

24 See NERA Economic Consulting (2010) "An Assessment of the DIRA Triggers", report for the Ministry of Agriculture and Forestry.

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- There was a domestic competition policy argument for extending the application of the DIRA, at least to the point at which there could be more confidence in the sustainability of the IPs, particularly given that costs imposed by the DIRA appeared to be low compared to more general forms of economic regulation; and
- The threshold for the DIRA being repealed should be a comprehensive competition review when Fonterra's farm gate market share dropped to 75% (for each Island).

3. Competition in the farm gate market

3.1. Introduction

In this section we analyse competition in the farm gate market, and relatedly institutional developments governing the pricing of raw milk and Fonterra shares. We begin by briefly discussing market definition, before turning to analysis of the competitive dynamics in this market.

3.2. Market definition

3.2.1. Implications of uniform pricing

We agree with the Commission's product and functional market definition (paragraph 38 of 12 June 2015 consultation paper). The more interesting issue is the geographic dimension.

Competitive options for suppliers do vary by location. For example, Fonterra analysis indicates that approximately 73% of its total milk supply is in the collection areas of IPs, while 27% is not.[25] See also Figure 1 below.

Figure 1
Geographic overlap of competitor supply zones with Fonterra farms

[25] This is based on a number of assumptions such as the IP collection radii, and ignores smaller players that will have a collection radius of sorts. It also excludes Yashili, on the basis that it currently does not have its own supply.

Therefore in Northland, parts of Taranaki, the Wairarapa, Hawkes Bay, and other pockets around the country, it is likely a farmer's only option (currently) is Fonterra (although some Green Valley Milk supplying farms are located in Northland).[26]

However, uniform pricing means that Fonterra suppliers without IP options still enjoy the benefit of IP competition. Even without the DIRA, Fonterra is likely to continue with uniform pricing to its shareholder suppliers, as discussed in section 2.1 of this report, and as noted by the Commission at paragraph 96 of *Decision NZCC 21*:[27]

> *Given Fonterra sets the raw milk price that it pays to its suppliers on a national basis, and which strategy, in the Commission's view, is unlikely to change, the Commission concludes that Fonterra would have little incentive or ability to lower its raw milk price to farmers in only the NZDL catchment area. The evidence points to the likelihood of such a strategy leading to significant conflict amongst Fonterra's shareholders.*

For this reason, it is not necessary to be too concerned about geographic market definition for present purposes (i.e., when assessing the efficiency of the DIRA).[28] If the majority of Fonterra's suppliers have the option to switch to IPs, then Fonterra would be subject to pressure to be productively and dynamically efficient (and of course Fonterra is also subject to global competition). Those shareholding suppliers without options would be protected - because Fonterra must set the milk price at a level that retains farmers in competitive areas, farmers in non-competitive areas would still receive the competitive price.

Similarly, if Fonterra's operations in non-competitive areas became inefficient, these inefficiencies would flow through to the uniform price[29] and affect Fonterra's ability to compete for farmers in the competitive areas.

3.2.2. Westland has "crossed the Alps"

Another geographic issue is whether Westland competes with Fonterra. In our 2010 report, we noted that (page 3):

…the Southern Alps are likely to constrain the pressure Westland can place on Fonterra, due to transport costs

Because at the time Westland had no suppliers or investments on the eastern side of the Southern Alps, and Fonterra had no suppliers or investments on the western side, there did not appear to be any direct competition between the two co-operatives. Accordingly, Westland (the region) was probably a distinct market.

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[26] We understand that Northland Milk New Zealand Ltd plans to build a UHT plant near Kerikeri. See, e.g. http://www.nzherald.co.nz/northern-advocate/news/article.cfm?c_id=1503450&objectid=11443432.

[27] We note that Fonterra at one stage engaged in "tactical pricing" by offering farmers who were considering leaving (or were at risk of leaving) a bespoke, non-shareholding contract. We understand this practice was abandoned and Fonterra does not currently engage in tactical pricing.

[28] Market definition is a tool to assist competition analysis, and so the most appropriate market definition depends on the issue at stake. Here it is assessment of the efficiency of the DIRA.

[29] Setting aside for the moment the milk price manual.

However, Westland has now "crossed the Alps". Westland commissioned a reverse osmosis (RO) plant at Rolleston in 2010. This allows Westland to collect milk in Canterbury (the first train of milk from Rolleston to Hokitika arrived on 19 August 2010[30]), condense it (to reduce transport costs) and then transport it across the Alps to Hokitika for processing. We understand that Westland now collects approximately 20% of its milk from the Canterbury region.[31]

We also understand that Westland has consent to build an infant toddler nutrition plant[32] in Rolleston. Once this plant is commissioned, Westland is likely to have an even stronger incentive to compete for Canterbury farmers, as noted at paragraph 22 of Westland's 10 July 2015 submission:

> *If we proceeded with that venture is it probable that we would seek to attract additional milk from within the Canterbury region*

We more generally discuss entry and expansion by IPs in section 3.3 of this report. The Westland example is illustrative of the expansion by IPs.

3.2.3. Conclusion

If the Commission feels it is necessary to define the geographic (farm gate) market, the analysis above implies that it should be defined as a national market, for present purposes. The practical implication of this is that any changes to the DIRA should apply nationally, not regionally.

3.3. Competitive dynamics in the farm gate market

3.3.1. Market shares

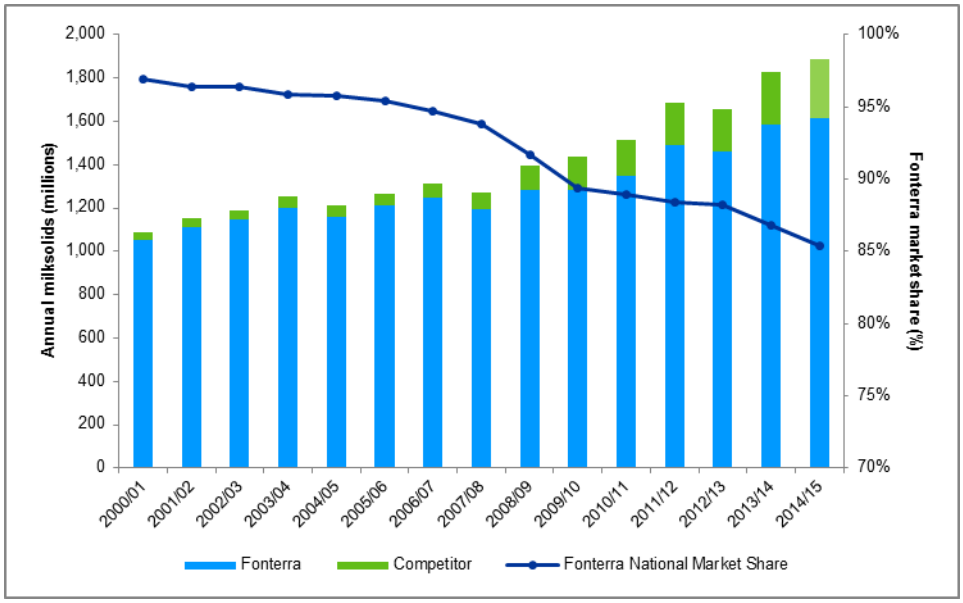
While the volume of milk Fonterra collects has increased since 2010, Fonterra's national share of milk collected has continued to decline – see Figure 2

[30] https://www.westlandcareers.co.nz/history

[31] See paragraphs 3 and 7 of Westland Milk Products, *Submission on the Dairy Competition Review Consultation Paper 12 June 2015*, 10 July 2015, which notes that Westland collects 20% of its milk from Canterbury, with 600 million litres coming Westland and 160 million litres coming from Canterbury.

[32] Paragraph 22 of Westland Milk Products, *Submission on the Dairy Competition Review Consultation Paper 12 June 2015*,10 July 2015.

Figure 2
Fonterra's national share of milk collection

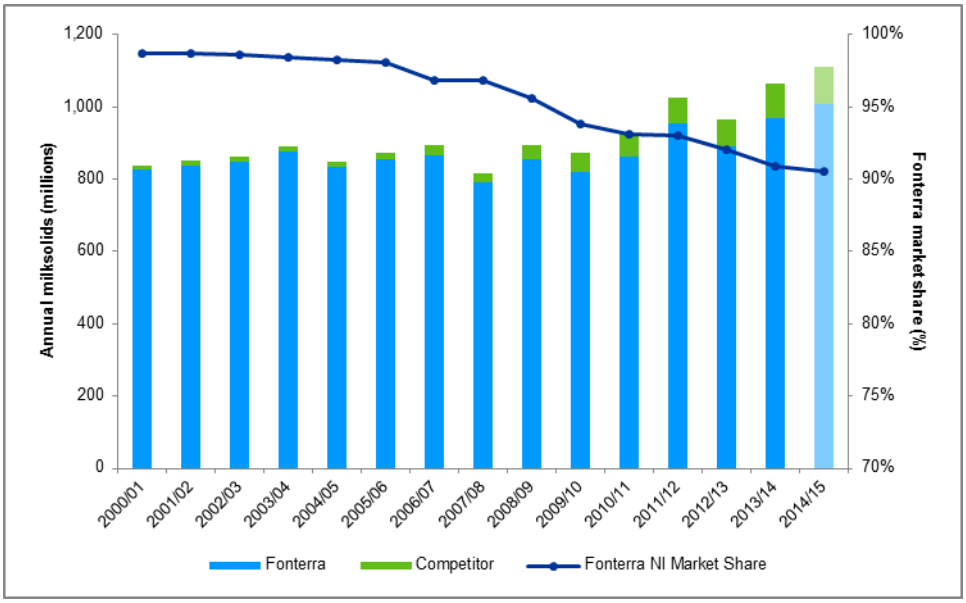


Source: Fonterra

Fonterra has a lower share in the South Island than it does in the North Island– see Figure 3 and Figure 4. As the volume data in these graphs show, the amount of milk collected in the South Island has grown materially more quickly than that in the North Island. In fact, the government has certified that the market share threshold for the South Island (IPs collecting more than 20% of milk solids) has been met for the 2014/15 season.[33] We understand this trend is largely driven by new conversions in the South Island. As we explore in section 3.3.5, IPs are believed to be winning a disproportionate share of new conversions, which partially explains Fonterra's lower market share in the South Island.

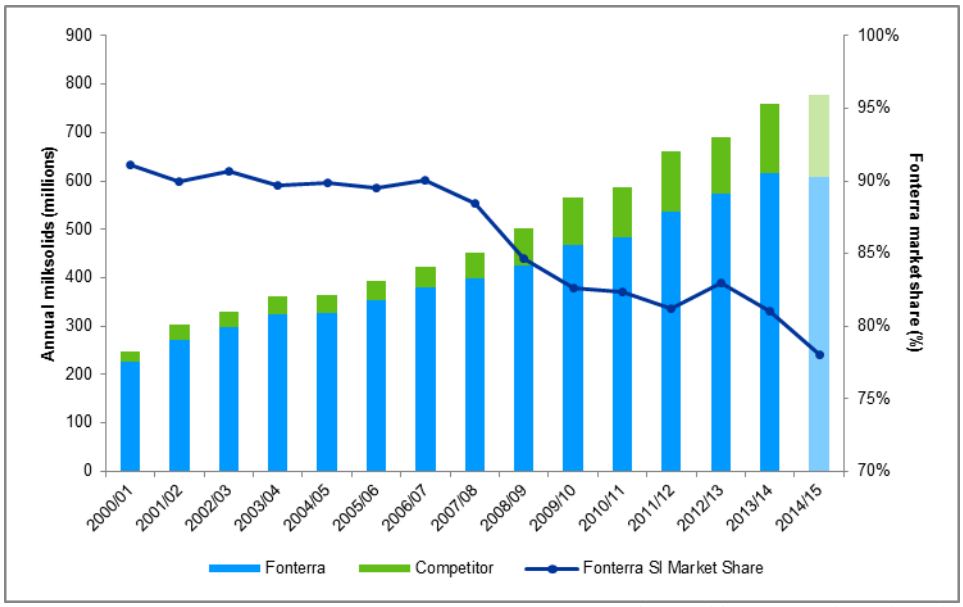
[33] See https://gazette.govt.nz/assets/pdf-cache/2015/final/2015-08-13_Gazette_88.pdf

Figure 3
Fonterra's North Island share of milk collection



Source: 2000/01 to 2013/14 = Fonterra. For 2014/15, we have combined Fonterra's volumes with MPIs stated IP volume for the 2014/15 season. Note that because the MPI figure is rounded, the NI and SI quantities do not sum to the NZ total we have obtained from Fonterra.

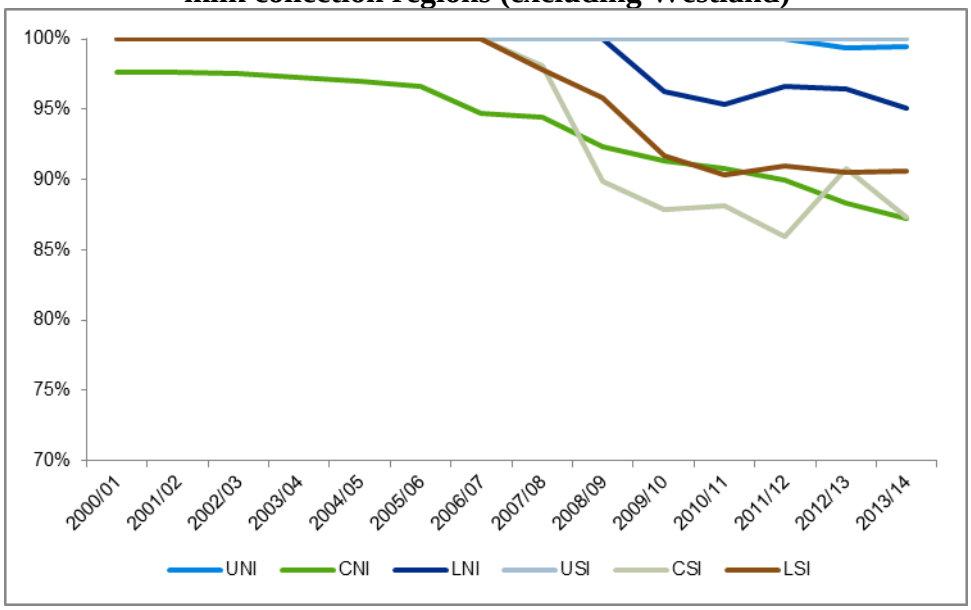
Figure 4
Fonterra's South Island share of milk collection



Source: 2000/01 to 2013/14 = Fonterra. For 2014/15, we have combined Fonterra's volumes with MPIs stated IP volume for the 2014/15 season. Note that because the MPI figure is rounded, the NI and SI quantities do not sum to the NZ total we have obtained from Fonterra.

Turning now to regional shares, Figure 5 shows Fonterra's market share in each of the Upper, Central and Lower areas of the North and South Island. Fonterra has been gradually losing market share in the Central North Island since its formation and has lost material market share in the Central and Lower South Island since 2006, with smaller losses in the Lower North Island and Upper South Island.

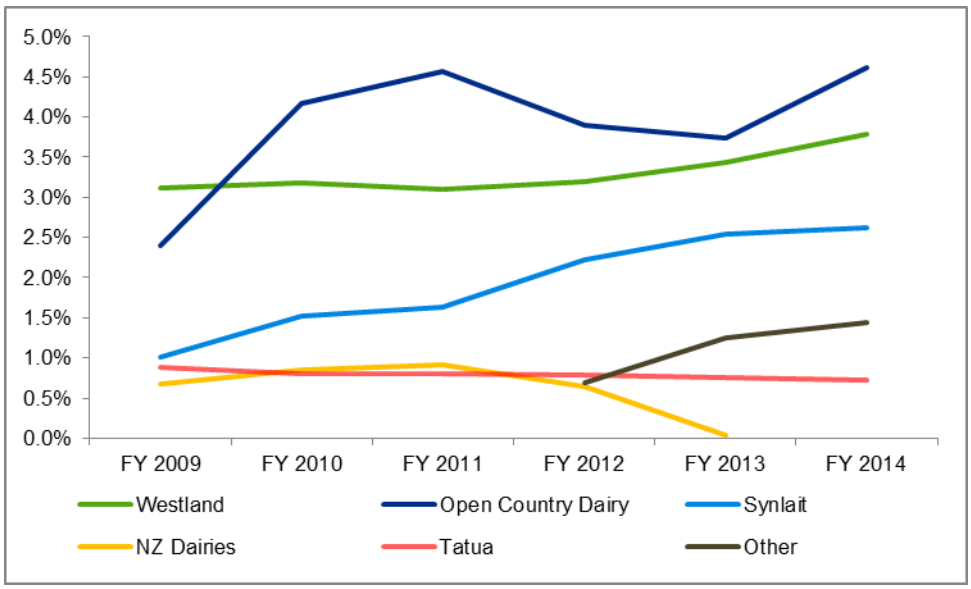
Figure 5
Fonterra: Market shares in Fonterra designated milk collection regions (excluding Westland)



Source: Fonterra

Regarding the national share of the IPs, data on the Dairy NZ levy can be used to impute the volume of milk collected by each firm. Using this to calculate market shares results in Figure 6.

Figure 6
National market share of IPs implied by the Dairy NZ levy



Source: Fonterra based on Dairy NZ annual reports

This shows that with the exception of NZDL (which went into receivership, and the assets of which were subsequently purchased by Fonterra) and the closed nature of Tatua, all of the IPs have been growing their share.

A more granular analysis reveals that IPs have been particularly successful at contracting farms close to their plants. This is demonstrated by Figure 7 below, which shows that IPs generally have significantly higher shares (relative to their national/Island levels) in their collection zones. Because Fonterra operates national pricing, IPs that incur transport costs lower than Fonterra's national average can afford to offer a higher farm gate price (all else being equal).

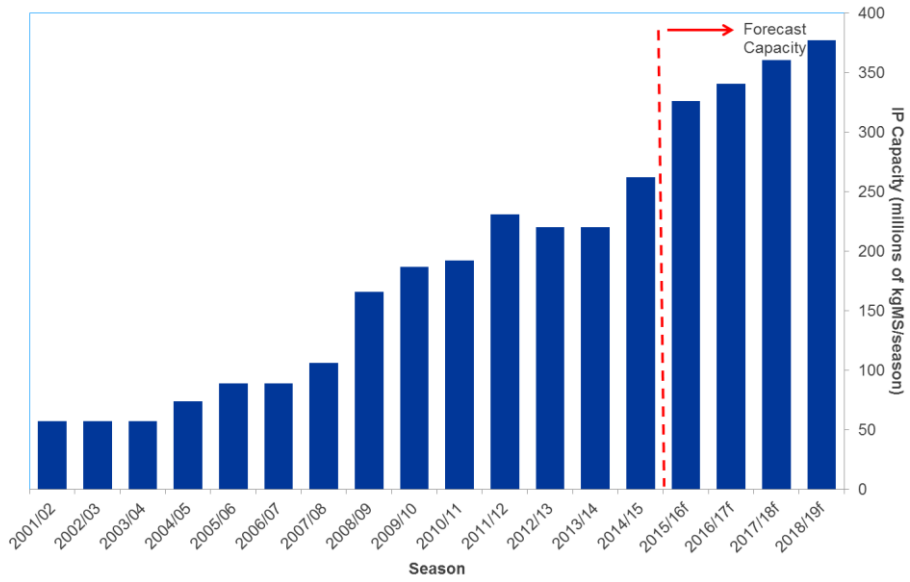
Figure 7
Fonterra market share in IP collection zones (2014/15 Fonterra estimate)

3.3.2. Investment by IPs

The trends we have discussed are likely to continue, given IPs have been expanding capacity and are forecast by Fonterra to continue to do so – see Figure 8.[34] Note that every existing IP, other than Tatua, is expanding, or is planning to expand, its capacity.

[34] We understand this forecasting exercise was carried out in March 2015 and is based on public statements by the IPs and Fonterra's market intelligence.

Figure 8
Historic and forecast capacity of IPs



Source: Fonterra (based on information gleaned from public announcements and other market intelligence)

We have also obtained data estimating Fonterra's historic and forecast capacity over a similar period (2002/03 - 2016/17) and used this to calculate an estimate of Fonterra's share of capacity over this period (see Figure 9 below).

Figure 9
Fonterra: National share measured by capacity

[redacted]

Therefore Fonterra's national share of capacity has been falling over time and is currently approximately [redacted]%. Based on Fonterra's current expectations of competitor expansion plans and its own plans, we calculate that Fonterra's share of capacity will fall further.

We are also aware of plans for three new investments in the North Island: one in Northland,[35] an organic infant formula plant near Otorohanga,[36] and conversion of a cheese factory near Waharoa into a UHT plant.[37]

This investment and the IP investment depicted in Figure 8 suggest a high degree of confidence, and it is interesting to consider what role the DIRA plays in this. Presumably continued investment by an IP does not depend on continued access to DIRA raw milk, because Fonterra is not obliged to supply raw milk to an IP that has collected 30 million litres or more for three consecutive seasons.[38]

Furthermore, it must at least be questionable whether the planned investment depends on the DIRA free entry and exit provisions, because the legislation clearly implies a trigger for its potential removal. It could be that the IPs:

- Are backing themselves to be well enough established by the time that occurs for it not to be a problem; and/or
- Consider Fonterra would retain free entry and exit even in the absence of the DIRA (we discuss this possibility in section 5 of our report); and/or
- Do not depend on free entry and exit.

3.3.3. IP sustainability and reputation

A key aspect of the "catch-22" problem we outlined in our 2010 report was that if farmers were unsure of the track record/reputation of IPs, they would be hesitant to commit their milk supply given it is a perishable good. Relevant to this issue is longevity and ownership of the IPs. Table 1 below sets out the entry date and ownership of each of the main IPs.

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35 Northland Milk New Zealand Ltd plans to build a UHT plant near Kerikeri. See, e.g. http://www.nzherald.co.nz/northern-advocate/news/article.cfm?c_id=1503450&objectid=11443432.

36 We understand the Commission has been advised of this, and has seen a copy of the letter sent by the potential investor to prospective neighbours.

37 See http://www.stuff.co.nz/waikato-times/business/9271048/Long-life-seen-in-future-for-Kaimai-cheese-factory.

38 Subpart 6(3) of the Raw Milk Regulations states: "Despite subclauses (1) and (2), new co-op is not required to supply raw milk to an independent processor (other than Goodman Fielder New Zealand Limited) in a season beginning on and after 1 June 2016 if the independent processor's own supply of raw milk in each of the 3 consecutive previous seasons was 30 million litres or more as specified in returns provided to new co-op under regulation 18(2)".

Table 1
IP establishment and current ownership

IP	Ownership	Entry date
Westland	Farmer owned co-operative	1937
Tatua	Farmer owned co-operative	1914
Synlait	Bright Dairy (39%); Friesland Campina (10%); Mitsui (8%); John Penno (3.7%)	2008
Open Country Dairy	Talley's Group (69%); Olam (15%); Dairy Investment Fund (8%); Balle Bros Capital (3.4%)	2004
NZDL	Ceased trading	2007
Yashili	Mengniu (51%); Danone (25%); COFCO (unknown)	2015
Miraka	Wairarapa Moana Inc (27%); Tuaropaki Kaitkati (27%); Vinamilk (22%); Te Tumu Paeroa (unknown)	2011
Oceania	Yili (100%)	2014
Gardians	Danone (100%)	2012

Source: Fonterra and public sources (see also footnotes below)

It is probably fair to characterise Synlait and OCD as being well established now, along with Tatua and Westland. Furthermore, there appears to be an emerging trend of global food and dairy companies vertically integrating upstream into New Zealand by taking material ownership stakes in the IPs. For example, Oceania,[39] Yashili[40] and Gardians[41] are all 100% owned by for foreign food/dairy companies. Some of these companies (or related companies) were previously customers (or potential customers) of Fonterra/the IPs. Foreign food/dairy companies have also taken significant, but minority shares, in investor owned IPs such as Synlait,[42] Miraka[43] and OCD.[44]

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[39] See http://www.oceaniadairy.co.nz/, which states that "Oceania Dairy Limited is a wholly-owned subsidiary of Inner Mongolia Yili Industrial Group (Yili)"

[40] Companies office records accessed on 29/7/15 indicate Yashili New Zealand Dairy Co. is 100% owned by Yashili International Group Limited, which is domiciled in Hong Kong. For information on Yashili International see http://www.yashili.hk/html/about_profile.php

[41] http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11247038

[42] Bright Dairy Holding Limited (China: http://en.people.cn/102775/203908/index.html) has a 39% shareholding and Mitsui (Japan: https://www.mitsui.com/au/en/business/1197861_3926.html) has an 8% shareholding. See https://www.business.govt.nz/companies/app/ui/pages/companies/1600872/shareholdings accessed 29/07/15.

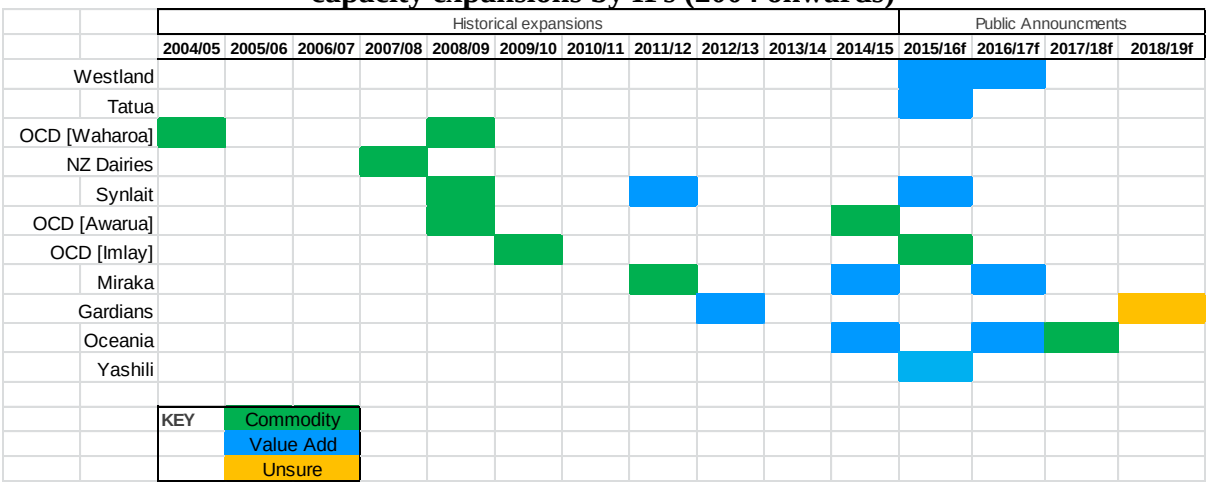
[43] Vinamilk (Vietna: https://www.vinamilk.com.vn/) owns roughly 22% of Miraka. See https://www.business.govt.nz/companies/app/ui/pages/companies/2244299/shareholdings accessed 29/07/15.

[44] Olam (Singapore: http://olamgroup.com/products-services/food-staples-packaged-foods/dairy/).

Because this is upstream vertical integration, these investors will be less concerned about finding output markets for their processing investments. This in turn will provide some comfort to farmers about the sustainability of these processors. Farmers will also be aware that these global food companies may have strategic reasons to vertically integrate into New Zealand, such as diversity/security of supply and branding.

The product mix of IPs has also evolved from commodity products towards value added products. Figure 10 below presents a timeline of major expansions of bulk raw milk processing capacity by IPs and Fonterra's forecast of what types of major capacity investments the IPs will be making in the future. This does not pick up more incremental investments that IPs have been making in downstream processing and therefore is only part of the picture.

Figure 10
Product type of forecast and historical bulk raw milk capacity expansions by IPs (2004 onwards)



Source: NERA analysis of Fonterra data.
Note: Data is based upon public announcements and relates to bulk processing capacity of competitors. Fonterra does not have information on the historical investments of Westland and Tatua. This only includes major expansions and therefore will miss more gradual upgrades.

This suggests an evolution in the way IPs compete, and a more competitive farm gate market. Previously IPs could compete for suppliers by:

- Being more efficient than Fonterra; and/or
- Selling commodity products and simply arbitraging Fonterra's nationally averaged pricing and picking up farms close to their factories.

Now with a move to producing more complex, higher margin products, IPs can afford to offer higher milk prices than Fonterra if they have superior performance in their output markets. And as already noted, the global food company-owned IPs may have broader strategic objectives in sourcing milk from New Zealand, which could also affect competition for suppliers.

The production of value added products also provides a hedge against commodity price fluctuations. Another hedge for IPs is that as the commodity price drops, the price paid to farmers also drops.

The more recently established IPs are also differentiated from Fonterra in their ownership models and therefore the requirements for farmers to supply them. Other than Tatua and Westland, all the IPs are investor-owned. To supply a co-operative a farmer must also buy shares. We are advised by Fonterra that this is a key point of differentiation when competing for new conversions (we discuss this further in section 3.3.5). Similarly, the lack of a requirement to supply capital may entice a farmer to switch to an investor-owned IP. More generally, this differentiation may attract farmers who wish to free up more of their capital.

Finally, we have been provided with financial information on the IPs. Our review was not comprehensive or detailed, and the information set is not exhaustive. However, as far as we could tell the information did not contain any suggestion that these firms are financially unstable. None make losses, and no obvious financial warning signs were apparent to us.

3.3.4. Supplier switching

IPs are not just picking up new conversions (we discuss conversions in section 3.3.5) – suppliers are switching from Fonterra to IPs as well. When a farmer leaves, Fonterra endeavours to ascertain their reasons for doing so. We are advised that in addition to the right to return to Fonterra, many farmers cite the ability to free up their capital as a factor in their exit decision.

Figure 11 and Figure 12 below present data on the number of "competitive ceases"[45] and the average size of farms giving competitive ceases respectively. Note that because Fonterra does not collect perfect information on the reasons why a farmer ceases supplying it, this data is indicative only.

[45] I.e., when Fonterra loses a supplier to IP. Fonterra also receives cease notices when farmers exit dairying or sell their farm.

Figure 11
Fonterra: number of "competitive ceases" by island

Figure 12
Average size of farmer giving competitive cease (kgMS)

This data is interesting in that the majority of the existing dairy farms Fonterra has lost to rivals have been in the North Island. However, because the switching farms tend to be larger in the South Island, Fonterra has lost roughly the same amount of milk in each island.[46] We

[46] In the North Island, competitive ceases account for [redacted] kgMS over the history of Fonterra whereas the figure for the South Island is [redacted] kgMS. Note that these figures have not been adjusted for productivity changes over time. Therefore summing the figures over time may distort the analysis if, for example, most South Island ceases occurred

understand that in general, the average Fonterra farm is larger and has higher productivity in the South Island.[47] This suggests that the South Island is a key competitive battle ground for Fonterra, particularly in light of the large number of new conversions forecast to occur there, which we now discuss.

3.3.5. New conversions

We are advised by Fonterra that a key difficulty it faces in attracting new conversions is the requirement to invest additional capital in shares. Fonterra has responded to this concern by allowing farmers to "share up" over time,[48] but Fonterra is limited in the extent it can do this primarily by the constitution[49] and also the 160km rule.

We understand that there is no reliable data on the number of "dry farms" that are converted to dairy in New Zealand each year and therefore Fonterra's share of new conversions. However, Fonterra advises that internal, anecdotal, evidence suggests that it has historically won less than its market share of conversions in the South Island where the majority of growth of milk supply has occurred.

A corroborating fact is that historically Fonterra has picked up a similar number of "dry farms" (i.e., conversions) in the North Island as in the South Island – see Figure 13.

recently and productivity has been rising over time. The distribution of cease notices does not appear to suggest the comparison will be materially biased.

47 For example, measuring productivity by taking the average of the kgMS per cow for each season between 2003/04 and 2014/15 seasons, gives figures of [redacted] kgMS/cow for the North Island and [redacted] kgMS/cow in the South Island. Similarly, the average number of cows per farm averaged over the same period is [redacted] in the North Island and [redacted] in the South Island.

48 This is also achieved through MyMilk (see http://mymilk.co.nz/), which allows South Island farmers not currently supplying Fonterra to supply on a contract basis for up to 5 years, after which point they must become a shareholder (or stop supplying). We understand MyMilk is designed to secure additional supply from farmers who are at the stage in their business where sharing up is not within their reach. However, unlike sharing up over time, the supplier is free to leave MyMilk at the end of every season (with notice given prior to December 31). The milk price in any season is set by MyMilk and must not be less than the lower of (a) 15c per kgMS below the Fonterra contract milk price for that Season or (b) the Fonterra farm gate milk price for that season. MyMilk will initially be limited to no more than 5% of Fonterra's total milksolids supply.

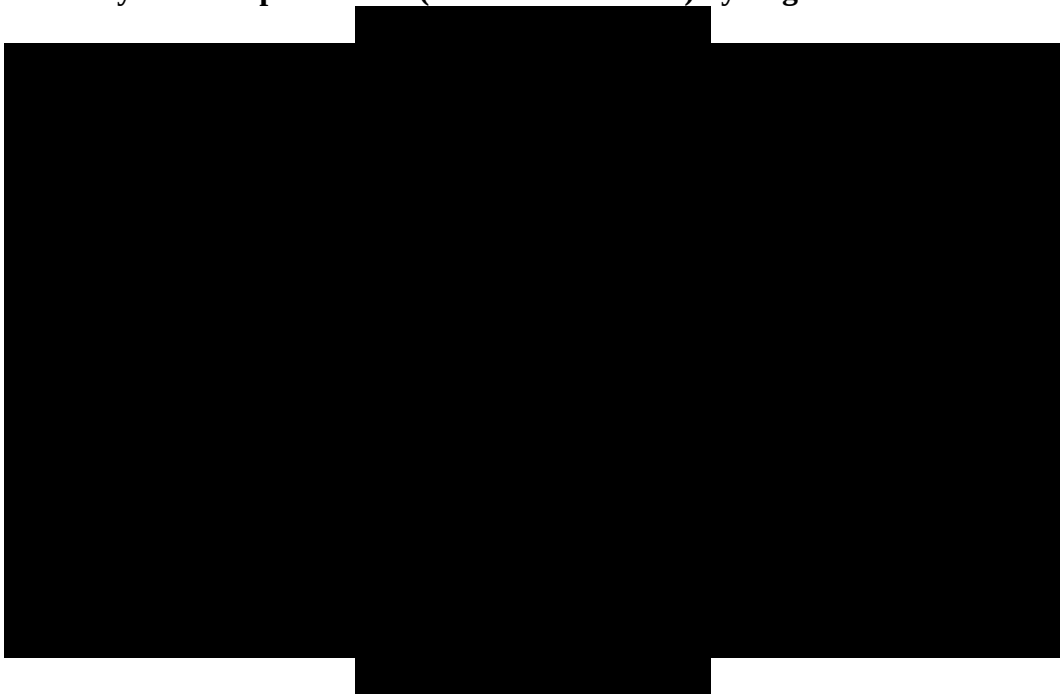
49 The Fonterra constitution only allows 15% of total milks solids to be on a contract supply basis.

Figure 13
Fonterra: Number of "dry farms" (new conversions)

If it is correct that the majority of conversions are occurring in the South Island, then all other things being equal we might expect Fonterra to be picking up significantly more conversions in the South Island.

Figure 14 is taken from a forecasting exercise Fonterra undertook in October 2013, and shows the expected geographic distribution in milk growth over the next 10 years. The same exercise estimated that of the new land forecast to be converted to dairy farming over the next 10 years, approximately 90% would be located in the South Island.

Figure 14
Forecast 10 year Milk production (as at October 2013) by Region and Growth Driver

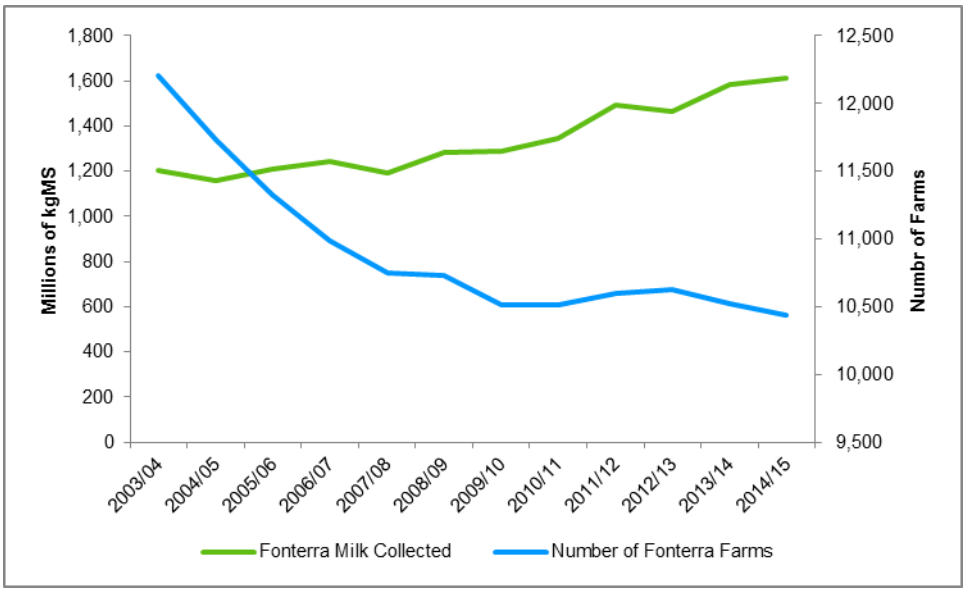


This is also interesting given, as already discussed above, dairy farms in the South Island are on average larger and more productive than in the North Island. If it is correct that IPs are relatively more successful in winning conversions, we can expect entry and expansion via this route in the South Island to continue and to be material, further eroding Fonterra's South Island market share.

3.3.6. Increasing farm size

Despite a decreasing number of farms (which we understand is due to ceases and consolidations), Fonterra is still experiencing growth in total milk collected – see Figure 15. Therefore the average farm size (measured by kgMS) is also increasing.

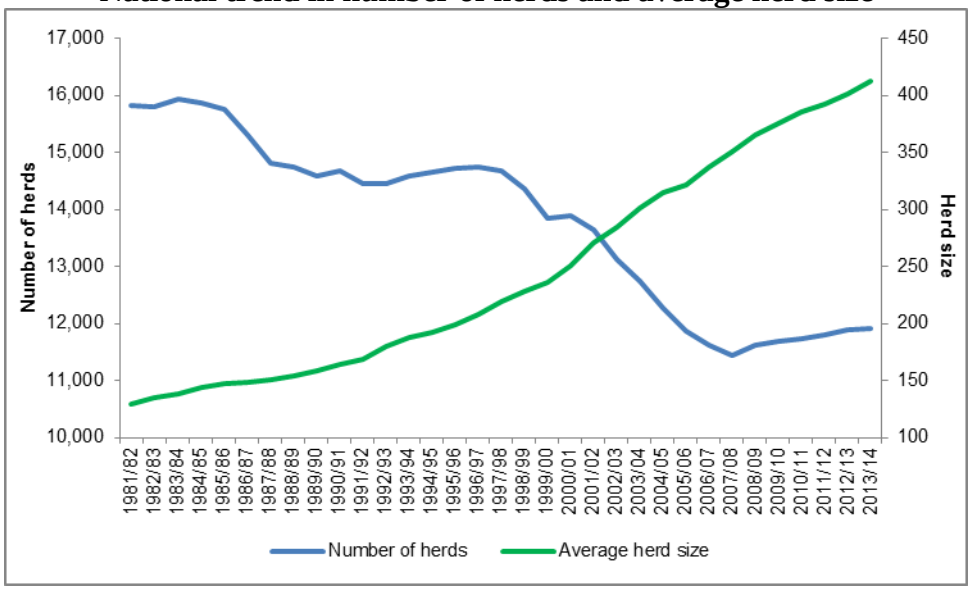
Figure 15
Fonterra: Number of farms and milk collected



Source: Fonterra

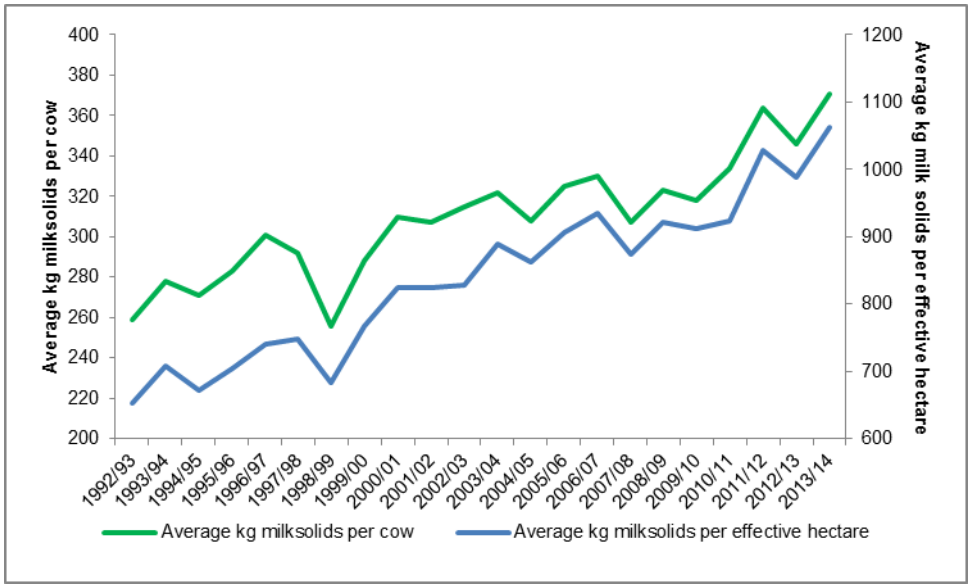
There has also been a nationwide increase in the average herd size (see Figure 16) as well as productivity improvements in the dairying sector (see Figure 17).

Figure 16
National trend in number of herds and average herd size



Source: New Zealand Dairy Statistics 2013-14

Figure 17
National Milk solid production per cow and per effective hectare



Source: New Zealand Dairy Statistics 2013-14

This data is relevant because it means an IP needs to contract with fewer farmers to underwrite a new dairy plant than previously.[50] The existence of very large corporate farmers is also relevant in this regard. Indeed, we understand that some IPs have entered with a "cornerstone" supplier, which Fonterra advise us had at least 3m kgMS of annual production in each case – see Table 2.

[50] Assuming the efficient plant size for an IP has not increased.

Table 2
New entry partnered with "cornerstone" suppliers (i.e. >3m kgMS per year)

Independent processor	Cornerstone supplier
Synlait	Synlait Farms[51]
Gardians	Grant Patterson farms[52]
OCD Southland	Grant Patterson farms[53]
Miraka	Tuaropaki Trust and Wairarapa Moana Incorporation[54]
NZDL	Waitaki Suppliers Group[55]
Oceania	Waitaki Suppliers Group[56]

Source: Fonterra and public sources

Note that these volumes are significantly above the average annual production of a Fonterra farm (~143,000 kgMS for the 2014/15 season) or the average NZ dairy herd (153,012 kgMS for the 2013/14 season).[57] Note also that the average New Zealand dairy herd produced approximately 1.7 million litres of milk in the 2013/14 season.[58] This compares to the 50 million litres of milk IPs can take under the raw milk regulations. This suggests that taking milk under the raw milk regulations can substitute for roughly 29 farms.

The analysis in Sections 3.3.4 and 3.3.5 showing that farms are on average larger and more productive in the South Island therefore also suggests that entry is likely to be easier in the South Island.

3.4. Milk price manual

In 2009, Fonterra unbundled its total return to shareholder suppliers into a farm gate milk price and a return on capital. The framework for determining a market price at the farm gate is set out in the Fonterra Milk Price Manual.

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51 http://www.synlait.com/about/our-history/

52 http://www.odt.co.nz/news/business/180131/new-dairy-plant-going

53 We have been advised by Fonterra that Grant Patterson farms originally supplied OCD, then left and set up Gardians with Sutton Group.

54 http://www.ruraldelivery.net.nz/2015/06/a-tour-around-mirakas-factory/

55 See, e.g. http://www.ruralnewsgroup.co.nz/dairy-news/dairy-general-news/global-processor-breaks-into-south-island and http://www.nbr.co.nz/adriaan-wilma-van-leeuwen

56 See, e.g. http://www.ruralnewsgroup.co.nz/dairy-news/dairy-general-news/global-processor-breaks-into-south-island and http://www.nbr.co.nz/adriaan-wilma-van-leeuwen

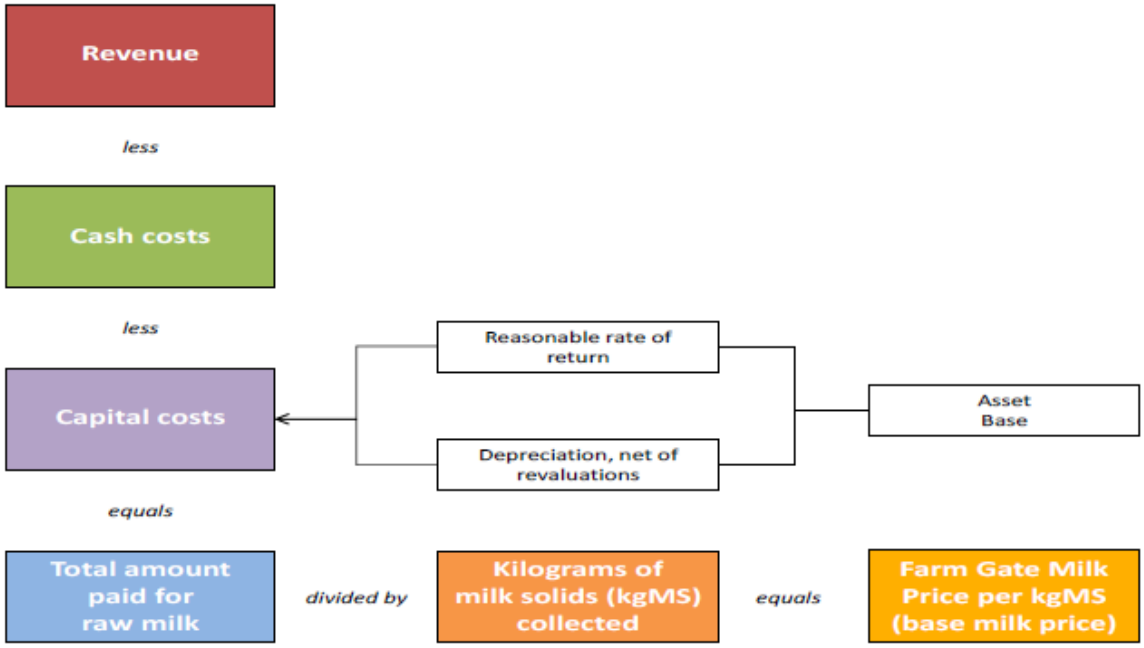
57 Table 2.3 of New Zealand Dairy Statistics 2013-14.

58 See table 2.3 of New Zealand Dairy Statistics 2013-14. The average herd produced 1,731,985 litres of milk.

Under the DIRA (as amended in July 2012), the Milk Price Manual is subject to review by the Commerce Commission each season. The Commission must review Fonterra's base milk price calculations and report on the extent to which the farm gate milk price-setting mechanism (as set out in the Milk Price Manual) is consistent with the purpose set out in section 150A of the DIRA. The first review was completed on 14 December 2012.

Under the manual, the farm gate milk price is calculated as the price Fonterra would be able to pay if it operated solely as a commodity manufacturer of milk powder and associated by-products. The high level methodology by which the milk price is calculated is well explained by the following figure from the Commerce Commission's 2014/15 Review of the Milk Price Manual.

Figure 18
Milk price calculation methodology



Source: Commerce Commission

Revenue is calculated assuming that Fonterra's entire volume of milk[59] is processed and sold as commodity products using prices actually achieved by Fonterra, primarily on GDT.[60] From this revenue, the notional manufacturing costs of an efficient competitor (including capital costs) and overhead, collection and other costs derived from Fonterra's actual costs are deducted to give the dollar amount that Fonterra can afford to pay for milk. This is divided by the volume of milk collected to give the milk price.

By calculating the milk price on a commodity price basis:

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[59] I.e., including regulated milk and milk that is actually turned into value-add products.

[60] A very small proportion (~5% or less) of sales that inform the milk price are of butter and BMP through channels other than GDT.

- Returns from Fonterra's value added activities can be allocated to shares/investors on the basis of financial performance; and
- Farmers have appropriate signals to supply milk.

As noted, the Commerce Commission has had oversight of Fonterra's milk price calculation since 2012.[61] The purpose of the milk price monitoring regime (set out in section 150A of the DIRA) is to "promote the setting of a base milk price that provides an incentive to [Fonterra] to operate efficiently while providing for contestability in the market for the purchase of milk from farmers".

In its most recent review of the milk price manual,[62] the Commission's broad conclusion was that the use of notional costs gives Fonterra an incentive to operate efficiently. Similarly, by using notional *average* costs, efficient IPs should be able to compete for farmers.[63]

3.5. TAF

Trading Among Farmers ("TAF") has two key, interdependent components, being the Fonterra Shareholders' Market ("FSM") and the Fonterra Shareholders' Fund ("FSF"). FSM is a private market for farmer shareholders to buy and sell shares among themselves. FSF supports FSM by introducing a wider group of investors with more disparate views, who will add additional market depth and reduce risks of one-sided trading. This is designed to smooth out peaks and troughs in share values driven by farmer share trading, which might to be lumpy since farmers are likely to buy and sell shares at similar times over the season.[64] In FSF, "units" are traded among dairy farmers and the public. Trading in units was designed to provide superior price discovery and a deeper, more liquid market.[65]

The idea of TAF is to create a well-informed, liquid market in shares, with the market price being driven by downstream returns. TAF facilitates farmers entering and exiting freely, enabling supplier shareholders to free up capital. TAF also removes Fonterra's redemption obligations under the DIRA. Removing these obligations has provided Fonterra with a more stable capital base.

In our 2010 report, we raised a potential concern that if the market is illiquid, this could result in difficulties for farmers in exiting Fonterra. Time delays in releasing capital, along with the

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61 Sub part 5A of the DIRA was inserted on 27 July 2012 by section 14 of the Dairy Industry Restructuring Amendment Act 2012 (2012 No 51).

62 Commerce Commission, *The Dairy Industry Restructuring Act 2001 Review of Fonterra's 2014/15 Milk Price Manual*, 15 December 2014.

63 As the Commission notes at B33 of the 2014/15 review of the Milk Price Manual:

"Our practical approach examines whether the Manual provides for the notional costs, revenues, and other assumptions taken into account in calculating the base milk price to be practically feasible for Fonterra. This approach is appropriate because, more often than not, **the Manual provides for the use of parameters reflective of Fonterra's 'average' plant rather than its most cost efficient plant(s), and therefore an efficient processor (building an incremental plant) should be able to achieve lower costs. [emphasis added]**"

64 See for example, Fonterra, "Trading Among Farmers Summary Sheet", May 2012. Accessed at: https://www.fonterra.com/wps/wcm/connect/b1bb1b804b71268ba6e5ae28499bab7b/Trading+Among+Farmers+Summary+Sheet+May+2012.pdf?MOD=AJPERES

65 See for example Fonterra, "Blueprint for Trading Among Farmers" (draft version 1, 15 May 2012).

potential for non-market pricing, could impose switching costs for farmers, raising barriers for IPs. However we understand that this concern has not eventuated. While a full study of the success of TAF is outside the scope of this report, we note a report by Forsyth Barr finding that the market maker and external unit holders appear to provide sufficient liquidity to alleviate concerns about raised switching costs to farmers.[66] Indeed, the 2014 annual report of the FSF states:[67]

> Trading in the units continues to be strong, with FSF ranked seventh place on the NZX in terms of liquidity.[1] On average, more than half a million units were traded on a daily basis over the past 12 months
>
> 1 Liquidity has been calculated as median daily value traded (six months) / Average Daily New Zealand Free Float Market Cap (six months) (Source: NZX).

3.6. Conclusions

Fonterra still has high market shares if assessed on a national or Island by Island basis, particularly in the North Island. However, this measure understates the competitive impact IPs are having, as illustrated by the materially higher shares the IPs are generally able to pick up in their own catchment zones and of new conversions. For the reasons discussed in section 3.2.1, this competitive pressure has external effects beyond the IPs' catchment zones.

Of the two long-established co-operatives that did not join the creation of Fonterra, Tatua continues to be "closed" (i.e., does not accept new supply) and accordingly presents a limited constraint on Fonterra's behaviour. However, Westland has expanded strongly into Canterbury since our 2010 report.

Of the IPs established since the creation of Fonterra, most have demonstrated growth and confidence, and there continues to be investment. They offer farmers a differentiated product (e.g., no capital requirements), and are investing in value added outputs. There is also an emerging trend of global food company ownership of IPs, for strategic reasons, providing comfort to farmers around solidity.

It seems likely that these IPs would be sustainable (provided they are efficient) without the DIRA.

Accordingly we can be more confident about the competitive pressures on Fonterra if the DIRA (or parts of it) fell away, compared to the situation in 2010. We might not say there would be "workable competition" without the DIRA:

- Fonterra is still materially larger than even the IPs put together,[68] and could still use strategies to raise switching costs (although this has been made harder by the milk price manual and TAF);

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66 Forsyth Barr, "Fonterra: Is TAF working?" New Zealand Equity Research, 13 July 2015.

67 Page 3 of https://www.fonterra.com/wps/wcm/connect/cca100c1-d297-4dcf-8d5c-8882e257eea1/FSF+2014+Annual+Report.pdf?MOD=AJPERES

68 Excluding the overseas businesses of global owners.

- Fonterra's domestic processing is more diversified than that of the IPs; and
- Fonterra is probably still seen as a backstop and benchmark by farmers.

However, there are sufficient constraints and institutions to justify considering the costs and benefits of altering the relevant DIRA provisions. DIRA is basically about enabling IP entry, and there has been plenty of entry. So it is legitimate to consider whether the relevant provisions are still needed in their current form.

Therefore, consistent with the Commission's proposed approach as articulated in its 12 June 2015 consultation paper, in section 5 of our report we consider whether the relevant markets could be more efficient with alterations to the DIRA.

4. Competition in the factory gate market

4.1. Introduction

The factory gate market is where sales occur between processors. The supply-side consists of Fonterra and IPs. The demand-side consists of Fonterra (potentially), IPs and other processors, such as Goodman Fielder and "niche" processors. A key feature of this market is that the demand-side often competes with the supply-side in other vertically related markets. For example, Fonterra and the IPs are competitors in the farm gate market and in export markets. Similarly, Fonterra competes with Goodman Fielder and niche processors in downstream markets. Subject to the level of competition, there is accordingly the potential for strategic behaviour by the supply-side to disadvantage competitors in vertically related markets. As an indication of the size of the factory gate market, the total volume of regulated milk supplied in the 2014/15 season was [redacted] million litres, which represents around [redacted] of total milk processed in New Zealand.[69] Further, we estimate that roughly 1,149 million litres of milk was consumed in New Zealand in 2014/15.[70] By comparison, total collection of raw milk by IPs in 2014/15 was approximately 3,121 million litres.[71]

Factory gate transactions serve three primary purposes:

- As an "unders-and-overs" market;
- As a complement to own supply; and
- For processors without their own supply, as the sole source of the milk input into their production.

The exporting IPs are the typical users of the factory gate for the first two purposes while niche processors and domestic food companies without own supply such as Goodman Fielder use the factory gate market for the third.

To examine competition in the factory gate market it is important to understand the impact of the raw milk regulations, given they compel Fonterra to supply a large volume of milk into this market at a regulated price.

4.2. Distortion caused by raw milk regulations

Under the raw milk regulations, Fonterra is required to make raw milk available to IPs of up to 50 million litres each per season (subject to certain requirements). Based upon the national average litres per herd of 1,731,985 litres for the 2013/14 season, this is equivalent to

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69 Using 2013/14 volume of 20.7 billion litres (source: LIC and Dairy NZ (2014), *New Zealand Dairy Statistics 2014/15*). Note that 2014/15 information not yet available.

70 This is based on MAF's (2009) assessment that domestic milk consumption is approximately 7% of total milk supply, and relies on the 2013/14 volume of 20.7 billion litres as noted above. See MAF (2009), "The future of the pro-competition regulatory regime in the New Zealand dairy industry", Consultation Document, December.

71 Here we have used a conversion factor from kgMS to litres of 11.32, obtained by taking total New Zealand collection volumes provided by LIC and Dairy NZ (2014) for the 2013/14 year (20,657 million litres / 1,825 million kgMS).

approximately 29 farms.[72] The raw milk regulations also determine the factory gate price Fonterra can charge for this milk. Any factory gate milk sold outside of the regulations is subject to normal commercial negotiations and pricing.

A key purpose of the raw milk regulations is to assist IPs to enter the farm gate market, by supplementing their own supply and addressing the "catch 22" situation. It appears that the raw milk regulations have successfully achieved this purpose. Indeed, while the factory gate market is still relatively immature, a number of sustainable IPs have emerged as discussed in section 0 above.

However, there must at least be times when the regulated milk price is below opportunity cost to Fonterra. The regulated milk price is effectively equal to the raw milk price determined by the manual. This assumes the milk is processed and sold as a commodity, whereas there will be times when the milk could be processed and sold as a higher value product, providing higher returns.

A regulated factory gate milk price set below opportunity cost could limit the incentives for IPs to trade raw milk. In this sense, the regulated milk regime may result in Fonterra "crowding-out" other IPs who might enter the factory gate market.

4.3. Evidence of competition

Evidence regarding the amount of trading that occurs in the factory gate market outside of the regulations is mixed. Many submitters to the Commission's process have argued that there is no factory gate market.[73] On the other hand, Westland argues that there is a robust factory gate market and states (paragraphs 24-26 of its submission) that it has traded raw milk, cream retentate and permeate with other processors. It states there are commercial, environmental/reputational and risk mitigation drivers for this that exist outside of the DIRA. Furthermore, we understand that OCD has an agreement with Tatua[74] for milk supply. Anecdotal evidence from Fonterra staff is that Miraka and OCD tankers are often seen taking milk to Tatua's factory.

We also understand that Yashili has been in negotiations with both Fonterra and OCD for a raw milk supply contract that would satisfy all of its milk requirements (i.e., it does not currently intend to obtain its own farmers).[75]

It has been argued by Miraka that there is no incentive for milk to be traded at the factory gate as factories are right sized for peak supply and milk is scarce during shoulder periods, and therefore particularly valuable.[76] However, if processors are compensated for their

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[72] We have already noted that productivity and farm size varies significantly between the North and South Island. The purpose of this calculation is not to provide exact farm equivalence, rather it is simply to gain a feel for the assistance IPs receive from the regulated milk regulations.

[73] E.g., Miraka, and the NZ Specialist Cheesemakers.

[74] This claim has been noted in the media, see, e.g., http://www.stuff.co.nz/business/farming/dairy/63702051/Tatua-dairy-company-punches-above-weight.

[75] See, e.g. http://www.smh.com.au//breaking-news-business/yashili-danone-to-build-formula-plant-20150727-3zzip.html.

[76] 2.2 of Miraka's 10 July Submission to the Commerce Commission.

opportunity costs, then they would have the incentive to sell milk at the factory gate. In addition to trading "overs-and-unders" at peak,[77] the following are situations where an IP could have the incentive to sell milk to another IP:

- Certain producers may be willing to pay a premium for a "flat" supply of milk;
- Firms that do not wish to manage supplier relationships and a milk collection network may be willing to a pay a premium; and
- IPs could sell milk that would otherwise be turned into a commodity product to an IP that would use it for manufacturing a value added product.

In our 2010 report, we noted that on its face it appears Fonterra may not have the ability to raise price above the competitive level in the absence of the DIRA, because the IPs have sufficient capacity to switch milk into the domestic market in the event of a price rise. The quantity figures noted in section 4.1 above confirm this is still the case. However, in our 2010 report we raised a potential concern that these constraints could weaken over time without the DIRA, through strategic behaviour targeted at damaging IPs, increasing Fonterra's market power at the farm and factory gate. We see this risk of the IPs going backwards as being less likely now, given the IPs are now more established and have more of their own supply.

4.4. Goodman Fielder

Goodman Fielder has argued in its submission to the Commission that IPs cannot provide the year round supply it needs.[78] This might be a function of Goodman Fielder's national footprint, the volumes it requires and its desire for a flat supply. The combination of these factors may mean that Fonterra is the only processor that is able to supply Goodman Fielder at this stage. We have not tested whether OCD or a combination of IPs (e.g., one in each island) would be able to satisfy Goodman Fielder's demands.

Therefore it may be that a lack of supply-side substitutes means that the factory gate market should be delineated along a customer dimension for present purposes, with firms like Goodman Fielder being in a separate market. This drives our discussion of the efficacy of the retaining the raw milk regulations in Section 5.2.

[77] If a processor has excess milk at peak then the opportunity cost of that milk is effectively zero.

[78] Goodman Fielder submission on *Commerce Commission Consultation Paper: Review of the state of competition in the New Zealand dairy industry*, 10 July 2015.

5. Efficiency assessment of DIRA provisions

5.1. Introduction

The evidence above suggests that the farm and factory gate markets cannot yet be characterised as workably competitive. If they were, then this might suggest complete removal of the DIRA provisions. Nonetheless, as the Commission correctly notes[79], there may be net benefits to removing or amending certain aspects of the regulations. In this section we assess the key benefits and costs of the main DIRA provisions. Where those costs are substantial, we suggest various ways that the regulations might be amended to reduce those costs while still maintaining the pro-competitive benefits.

We have not spent much time analysing the efficiency of the DIRA provisions relating to (enshrining) the milk price manual or (facilitating) TAF. This is because:

- It is clear that both the manual and TAF play important roles in facilitating competition; and
- As already noted, it seems likely that both would survive independently of the DIRA.

Rather, we have focussed our analysis on the raw milk regulations and the free entry and exit provisions of the DIRA, and relatedly the non-discrimination rule and the 160km rule. We have also briefly considered the 20% rule and the milk vat rule. Our analysis of these provisions assumes that the manual and TAF would continue.

5.2. Raw milk regulations

5.2.1. Who is taking raw milk?

The evidence is that the raw milk regulations are being used by exporting IPs, as well as Goodman Fielder and smaller players. Excluding Goodman Fielder, since the raw milk regulations came into effect there have been:[80]

- 44 customers whose maximum take was less than 10m litres annually; and
- 17 customers whose maximum take was greater than 10m litres annually.

Therefore, there have been twice as many small customers as there have been large customers since the introduction of the regulations.[81, 82] Figure 19 shows regulated milk sales to IPs, grouped into these two categories and excluding volumes to Goodman Fielder, since the regulations came into effect.

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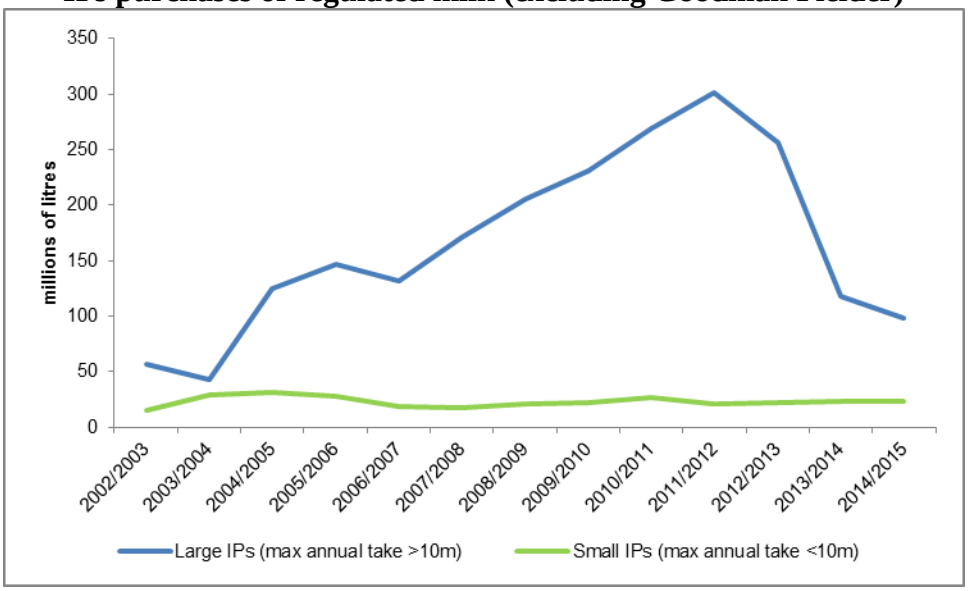
79 Commerce Commission, "Review of the state of competition in the New Zealand dairy industry, Consultation paper – process and approach", 12 June 2015, para. 36 and 37.

80 Calculations are based upon internal Fonterra data of sales of regulated milk to IPs.

81 Note that by analysing this over time, these figures take into account entities that have ceased trading or changed names/ownership.

82 For the 2014/15 season, excluding Goodman Fielder there were 19 "small" customers and 6 "large" customers.

Figure 19
IPs purchases of regulated milk (excluding Goodman Fielder)



Source: NERA analysis of Fonterra data

Figure 19 shows the significant growth in the volume of regulated milk taken by larger IPs, which has subsequently tapered off. We understand the key reason for the reduction was the 2012 introduction of clause 6(2) in the regulations. This had the effect of requiring IPs to take the seasonal milk curve instead of taking a "flat curve". Potentially another reason is anticipation of the obligation to supply ceasing for IPs whose own supply of raw milk was 30 million litres or more for three consecutive seasons (provided for in new regulation 6(3)).

5.2.2. Costs and benefits of the raw milk regulations

We can characterise the raw milk regulations as serving two purposes:

- Assisting entry into the farm gate market by IPs. Here regulated milk mitigates the catch-22 problem and allows entrants to get a foothold and eventually gain their own farmers; and
- Addressing insufficient competition in the factory gate market for downstream processors who will always rely on the factory gate for their milk input, for reasons of scale, logistics, etc.

For either group (IPs who wish to enter the farm gate market or downstream processors), if there was workable competition in the factory gate markets, there would be no efficiency rationale for requiring Fonterra to sell raw milk to them. Both Fonterra and IPs would be willing to supply milk to others if compensated for the opportunity cost of doing so. Therefore if an IP could put the milk to a higher value use, trade would occur.

Even if we do not have workable competition in the farm and factory gate markets yet, there is sufficient competition to at least question the costs and benefits of the raw milk regulations, including whether the costs and benefits differ between the two groups.

Regarding the first group (large IPs with aims to enter the farm gate market), it is probably reasonable to conclude that the raw milk regulations have facilitated entry into the farm gate market. The two important questions now are:

- Whether the raw milk regulations are still necessary in order to enable entry into the farm gate market?
- Even if they are, whether the costs of the raw milk regulations outweigh the benefits?

The benefit of the raw milk regulations is in addressing the catch-22 situation set out in our 2010 report – guaranteed supply from Fonterra enables an IP to get started and develop a reputation sufficient to attract its own suppliers. Interestingly, our understanding is that the majority of entrants since the creation of Fonterra have entered on the basis of a combination of regulated raw milk and direct supply (see Table 2 showing the "cornerstone" suppliers that IPs have partnered with).

However, that benefit is no longer so important:

- As discussed earlier in this report, Tatua, Westland, OCD and Synlait are all well-established. Even more recent entrants Oceania and Gardians have captured an impressive share of supply in their catchment areas;[83]
- Recent IP investors include established overseas dairy players (with global reputations), with strategic reasons to be in vertically integrated into New Zealand; and
- Despite the factory gate market not being mature, sales do occur, and Yashili has been negotiating with OCD as well as Fonterra ([redacted]).[84] In other words, we might be observing entry without explicit reliance on regulated milk, although the backstop of having that milk available may be assisting Yashili in its negotiations.

In effect, statutory assistance for entry is less important than it was because:

- The farm gate market is more competitive than it was; and
- IPs will believe that farmers will be more willing to supply IPs than they were – the track record of sustainable entry and global brand names will have reduced the level of farmer caution.

There is also an overlap between the roles of the raw milk regulations and the free entry and exit provisions – so if free entry and exit is retained (discussed further below), the argument for retaining the raw milk regulations (at least in their current state) is even weaker.

Having said this, there might be a further benefit of the raw milk regulations in respect of Goodman Fielder, domestic food companies and boutique/small niche processors. To the degree that Fonterra still has market power in the upstream markets, it might have the incentive and ability to raise its downstream rivals' costs (in the absence of the DIRA).

Now consider the costs of requiring Fonterra to supply milk to IPs at the regulated price:

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83 See Figure 7 detailing Fonterra's estimates of IPs' market shares within their own catchments.

84 http://www.smh.com.au//breaking-news-business/yashili-danone-to-build-formula-plant-20150727-3zzip.html.

- To the degree that price is less than opportunity cost,[85] then:
  - Investors (who are often suppliers) would be subsidising entry. As well as being allocatively inefficient, this could reduce Fonterra's ability to invest in profitable opportunities; and
  - This could lead to inefficient entry. As noted in our 2010 report, there is an efficiency trade-off in a small economy between the number of competitors and scale; and
- Particularly because IPs can significantly vary forecasts (by up to 40% of the original estimate 1 week prior to taking delivery of the milk),[86] there is uncertainty to Fonterra regarding the quantity of milk it might need to process, leading to, for example, potential plant overbuild or other inefficient operating decisions. We understand that this issue is particularly costly for Fonterra at peak when it may not be able to process milk, or may incur large transport costs to process milk that IPs decide they do not need at late notice. In effect, this flexibility grants IPs a free option to vary milk taken from Fonterra at peak, which transfers the risks IPs would otherwise face around forecasting peak supply onto Fonterra.

Note that these costs might not be so material in respect of Goodman Fielder and "boutique" competitors, either because of greater volume certainty (in the case of Goodman Fielder), or lower volumes (in the case of the more "niche" players).

5.2.3. Conclusion

In many markets where entry requires sunk investment, we observe entrants underwriting that investment with contracts, on either or both of the input and output sides. Because the primary entry hurdle to the raw milk markets is security of raw milk supply, it is not clear to us why entrants should be given:

- The option of varying their regulated milk requirements; and
- A price that might be below Fonterra's opportunity cost.

Given the state of competition, we think there would be net costs in continuing with the raw milk regulations in their current form, with the exception of the supply to Goodman Fielder and "niche" processors. At the very least, the regulations could be amended to require IPs to commit to their required volumes well in advance (e.g., make the contracts include a "take or pay" component), and pay the opportunity cost, even if that exceeds the farm gate price. Such an approach would still assist entry, while minimising the subsidy and broader social costs.

As already noted in this report, there is some overlap in the functions of the free entry requirement and the raw milk regulations. If an efficient form of the free entry requirement

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[85] There must at least be times when the regulated milk price is below opportunity cost to Fonterra. The regulated milk price is effectively equal to the raw milk price determined by the manual. This assumes the milk is processed and sold as a commodity, whereas there will be times when the milk could be processed and sold as a higher value product, providing higher returns.

[86] Clause 10 (2) (b) of the Dairy Industry Restructuring (Raw Milk) Regulations 2012.

was to remain (see the discussion below), then there is an argument for eliminating the raw milk regulations completely,[87] with the exception of the supply to Goodman Fielder and "niche" processors. While Fonterra does still have a high market share, the catch-22 issue is not as stark as it was, and the established IPs are investing and expanding.[88] In a small economy, there is a legitimate question about the efficient number of processors, and accordingly caution is needed in having policies that could lead to inefficient entry.

5.3. Free entry and exit

5.3.1. Introduction

Even though the legislative requirements appear in different sections, the free entry and exit provisions have often been referred to together in DIRA discussions. This may reflect their symmetric roles in price setting, a function that is no longer so important, given the monitored milk price manual and TAF. Accordingly, we will analyse the provisions separately in this section.

5.3.2. Free entry

We are advised by Fonterra that farmers often cite their ability to return to Fonterra as an important factor in their decision to switch to supplying an IP. It is not really possible to rigorously test the proposition that free entry facilitates switching, and so we probably need to assume that it does. In other words, we probably need to assume that fewer farmers would switch in the absence of the free entry provision, at least given the current market structure.

Having said that, the benefits of the free entry provision are clearly lower today than they were in 2001 and 2010:

- The efficiency of the milk price and share price are now governed by the milk price manual and TAF;
- Several of the IPs have developed a reputation for being reliable and competitive buyers of milk from suppliers;
- IPs are continuing to invest, despite the expectation that at some point the DIRA is likely to be withdrawn; and
- The evidence suggests that investor-owned IPs have an advantage in attracting suppliers, being the absence of a requirement to purchase share capital.

Therefore, it is reasonable to assess the costs of the free entry requirement, in order to assess the net benefits.

Before considering the costs of the free entry requirement, it is worth noting that Fonterra will always have an incentive to accept milk (including without the DIRA), provided the incremental revenue from that milk exceeds the incremental cost. For example, if a farmer in

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87 Or at least limiting the time for which an IP could use the regulated milk.

88 The raw milk regulations could be phased out, so as to minimise the impact on those that have made investment decisions on the expectation of receiving regulated raw milk.

the middle of the (relatively low transport cost) Waikato wishes to return to Fonterra, Fonterra is likely to accept that farmer, assuming Fonterra has sufficient processing capacity.[89]

The same is true for a farmer in a more remote area, i.e., facing higher transport costs. Probably the most material issue arises in respect of potential conversions in areas beyond Fonterra's existing footprint. In these situations, Fonterra would have an incentive to accept the milk if the same incremental revenue/cost test is satisfied, but it might be efficient to charge the converting farmer a higher transport cost. This would be socially efficient, and should not be considered a competition problem – before making any sunk conversion investment, the farmer could consider the proposed transport costs. This is quite different to the situation where the farmer has already made his sunk dairy investment.

This segues into a discussion of costs arising from the DIRA. The DIRA constrains Fonterra's ability to enter into efficient arrangements with farmers. In particular, the DIRA:

- Constrains Fonterra's discretion to "say no", except in very limited exceptions; and
- Constrains Fonterra's discretion to "say yes with conditions", i.e., discriminate.[90]

Section 95(1) of the DIRA provides that Fonterra may reject an application by a farmer to supply if the cost of transporting the milk of the farmer exceeds the highest cost of transporting another shareholding farmer's milk. We are advised by Fonterra that in practice this exception is not clear cut, and that in fact there is region creep, gradually raising transport costs that are spread over all suppliers. And if Fonterra can use the section 95(1) exception to turn down a farmer, this might still be inefficient, because with more flexibility, Fonterra could negotiate a bespoke deal that would increase profitability without negatively affecting existing suppliers.[91]

Another situation where flexibility might be efficient is if the applying farm would raise particular reputation or branding concerns.[92]

Consider a further example, this time focused on capacity decisions. In this example the farmer:

- Is not currently supplying Fonterra; and
- Is near a Fonterra factory that is currently at capacity.

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89 In this regard, we note that the Fonterra Shareholders' Council "Fonterra's Co-operative Philosophy: Questions and Answers" states (page 8): "Consequently accepting all existing shareholders' milk is a priority for Fonterra. Furthermore, as long as accurate signals are provided regarding the economic value of that milk, it is in Fonterra's and the shareholders' best interests to accept all shareholders' milk to maintain its competitive position."

90 Of course, the co-operative nature of Fonterra also constrains Fonterra's ability to discriminate between supplying shareholders, particularly between existing suppliers, as described in section 2.1 of this report.

91 Indeed, Fonterra's reticence to expand in the absence of bespoke deals is amplified by the fact that if Fonterra did accept a conversion in a new, higher cost area, this would open up the whole area, requiring Fonterra to accept supply throughout that area and in other similarly high cost areas.

92 Regarding the latter, see the cubicle dairy farm proposal referred to at page 20 of our 2010 report.

In the absence of an obligation to accept, Fonterra would consider the margin it could make processing and selling the milk, including:

- The costs of transporting milk to a distant site that does have capacity; and/or
- The costs of expanding capacity at the site in question.

If the transport costs of moving milk to a more distant site are too high and/or if there is insufficient expected growth in the area to justify expanding capacity, then it is uneconomic for Fonterra to accept the milk at that point in time, if Fonterra is required to offer non-discriminatory terms. Therefore, if Fonterra is obliged to accept this milk (subject to being able to delay acceptance by 12 months), it will either:

- Incur inefficiently high transport costs; or
- Expand capacity either:
  - Earlier than is optimal; or
  - At a sub-optimal scale.

We can characterise the free entry provision as requiring Fonterra to grant a "free option" to farmers. This option has costs to Fonterra similar to those just mentioned. This is because Fonterra faces uncertainty over the volume and location of raw milk that it is required to accept and must make largely sunk investments to process that supply.[93] Given that milk dumping is costly and not always easy to arrange (and if not managed strictly in accordance with regional authority requirements, illegal), Fonterra is therefore required to build more capacity than it otherwise would. This option to switch is free to the holder, but is funded by the existing shareholder suppliers to Fonterra.[94]

It is also important to note that, due to the seasonal nature of milk production in New Zealand, the extra capacity Fonterra needs to account for free entry is peak capacity, e.g., whole milk powder driers which can process large volumes of milk at peak. An opportunity cost of this is the allocation of scarce capital to plants such as whole milk powder driers, rather than to plants that can produce higher value products (e.g., lactoferin). As we noted in our 2010 report (page 20), as a co-operative, capital constraints are a major issue for Fonterra.

So, the free entry requirement has a cost to Fonterra and its suppliers, although it also confers a competition benefit. We think that the costs (and therefore the net benefits) of the free entry provision depends on the set of suppliers we are considering:

- Existing suppliers (to Fonterra or an IP), who have made decisions on the basis of the free entry rule; and
- Potential suppliers (e.g., sheep or beef farmers or foresters considering converting to dairy).

Free entry to the second set might impose higher costs on Fonterra, because the transport, reputation and capacity planning costs might be higher. As a generalisation, it is likely that

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93 This is exacerbated by the fact that Fonterra needs to forecast peak milk volumes at least three years into the future (the time it takes to commission a plant), so that it has sufficient capacity to process potential growth milk at peak.

94 Because the milk price manual uses Fonterra's actual plant configurations (i.e., they are not optimized), if Fonterra has excess capacity then this will reduce the milk price relative to a situation where capacity more closely matched output.

future dairy conversions are going to be more costly than existing farms, due to distance, topography, water requirements, etc. There may be objective ways for Fonterra to agree on efficient supply terms with these new dairy farms, but which would be constrained by the DIRA.

On balance, there are net costs in continuing this obligation (and relatedly, the section 106 non-discrimination rule), even if there are net benefits in continuing with "free re-entry" for the first set.[95]

Regarding "free re-entry", one way to mitigate the costs on Fonterra would be to time limit the free option, e.g., permit free re-entry for up to three years from exit, but to provide the discretion to Fonterra after that. There may also be ways to define objective exceptions – the key is to address the types of costs described above, while minimising switching costs for farmers.

5.3.3. Free exit

Free exit is the ability of a supplier to leave Fonterra, taking his capital with him. It is subject to contractual relationships.[96] In this regard, the 160km rule essentially prevents Fonterra from tying up more than 67% of a particular region.[97]

So what free exit probably really means is that Fonterra cannot prevent a farmer from retaining the option to leave with his capital. However, a supplier can agree to be contractually tied, subject to compliance with the 160km rule.

The competition benefit of the free exit rule is a minimising of switching costs. Until the market is workably competitive, there is a valid rationale for ensuring that Fonterra cannot tie enough suppliers in to make life difficult for IPs. Relevant to this is the 160km rule, and TAF.

Our understanding is that Fonterra has not even got close to the constraint imposed by the 160km rule – in fact, the highest percentage of total supply Fonterra has contracted in an IP's collection zone is [redacted] percent.[98] Therefore the combination of the free exit and 160km rules do not appear to be imposing a material cost on Fonterra today, and Fonterra has quite a lot of scope to contract suppliers, for investment certainty.[99]

Furthermore, there would be a cost to Fonterra in removing the free exit provision, even if an amendment to the DIRA permitted that. Removing the free exit right would make it harder for Fonterra to attract suppliers in the first place.

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95 In our 2010 report, we also floated this idea, but cautioned that (page 21) "a risk of such a change would be the potential undermining of the incentives that free entry and exit provide on Fonterra to set an efficient milk price". This risk is now mitigated by the monitored milk price manual.

96 See section 97(2) of the DIRA.

97 See section 107(3) of the DIRA.

98 Based on Fonterra's May 2015 analysis for the 2015/16 season.

99 Subject to the 15% limit on contract supply in Fonterra's constitution.

5.4. The 20% rule

As we understand it, the 20% rule is currently only being used in respect of a single supplier.[100] As already noted in this report, there are certain interdependencies between the various DIRA provisions, but on the assumption that the buyer of that milk could use the raw milk regulations instead, it would seem that the 20% rule could be deleted from the DIRA with little impact on the market (particularly if an efficient form of free entry and exit is maintained).

It could be argued that the 20% rule does not impose any material costs on Fonterra, but it seems like good public policy to delete regulations that have no real function.

5.5. The milk vat rule

In contrast to the 20% rule, we understand that the milk vat rule is used quite frequently, and it is likely to facilitate switching of farmers between processors. Given that Fonterra is entitled to receive the market value of the vat, the rule does not appear to impose material costs on Fonterra, or more broadly.

Accordingly there does not seem to be a strong case for changing the milk vat rule.

[100] See the Karikaas submission to the Commission dated 12 June 2015.

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