

5 July 2018

## **Fonterra Response to the Commission's Review of Fonterra's 2017/18 base milk price calculation – Emerging views on asset beta**

### **Introduction**

This submission has been prepared in response to the Commission's paper *Review of Fonterra's 2017/18 base milk price calculation – Emerging views on asset beta* (Emerging Views), released on 14 June 2018, and the accompanying report prepared by Cambridge Economic Policy Associates (CEPA), *Dairy Notional Processor's Asset Beta – Response to Submissions* (CEPA Response), dated 4 June 2018.

We commissioned Dr Alastair Marsden of the University of Auckland to prepare a response to the analysis underpinning the Commission's emerging view that an asset beta of 0.38 is unlikely to be practically feasible when setting the price for raw milk collected from NZ farmers.<sup>1</sup> We asked Dr Marsden to review the Commission's and CEPA's analysis and advise whether this changed his opinion on the asset beta of 0.38 for Fonterra's New Zealand-based commodity milk powder manufacturing business, which we consider an appropriate proxy for the NP.

After carefully considering the Commission's and CEPA's analysis and arguments, Dr Marsden concludes that he continues to consider that our current estimated asset beta of 0.38 is supportable, having regard to his assessment of the relevant evidence and the matters raised by the Commission and CEPA.

We have reviewed Dr Marsden's report and agree with his analysis and conclusion, and request that it be read in conjunction with this submission. Our focus below is therefore on providing additional evidence on four matters raised by the Commission, comprising:

- The consequences of setting the asset beta 'too low' relative to the consequences of setting it 'too high'.
- Whether it is appropriate to have regard to factors that the Commission or CEPA consider may be Fonterra-specific, particularly relating to the relevance of Fonterra's asset beta and the subordination of Fonterra's milk price to payments to providers of debt.

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<sup>1</sup> Paragraph 14 of Emerging Views. We note that the Commission's language in respect of its emerging view is somewhat inconsistent throughout the report – compare for example the paragraph 14 'unlikely to be practically feasible' formulation to the paragraph 7 'on balance ... not practically feasible' formulation. Since elsewhere in the report the Commission acknowledges the inherent difficulties in estimating beta that result in assessment 'grey areas', and the possibility that its assessment might be incorrect, we assume the 'unlikely' rather than 'not' language best represents the Commission's emerging view. As we discuss further below, we think it is important that the Commission exercises care when presenting its views on asset beta, to properly reflect the inherent difficulties and uncertainty that it has correctly acknowledged.

- The differences in the relative significance of commodity and ‘value-add’ businesses between Fonterra (and the NP) and other dairy comparators.
- The Commission’s comments on our reliance on the estimate of the asset beta derived by the Commission from its sample of electricity distribution businesses.

### ***The consequences if the asset beta is wrong***

The Commission acknowledges that "it is difficult to estimate beta with reliability and confidence", and therefore there is an "inevitable" risk of its assessment being wrong.<sup>2</sup> The Commission therefore considers whether it is better to err upwards or downwards in its assessment.

The Commission argues that it “appear[s] that in the medium term, owing to the way milk price is set, that an asset beta that is too high may have a less adverse effect on the milk price market than too low an asset beta.”<sup>3</sup> The Commission has not previously argued that a milk price that is ‘too high’ will potentially have greater adverse effects than a milk price that is ‘too low’. The Commission’s arguments in support of its position are that:

111. If the price for milk is set too high then this market may be unable to function properly and correct itself, resulting in a sustained high price. This could result in:
  - 111.1 expanding output inefficiencies;
  - 111.2 returns to milk processors not being sufficient to offset the costs and risks from investing in milk processing plant; and
  - 111.3 current and prospective alternate processors potentially being deterred from investing.
112. If we conclude that the asset beta adopted by Fonterra is not practically feasible when it is, and Fonterra subsequently changes the asset beta used to set the milk price to reflect a higher estimate of asset beta (even though the asset beta of 0.38 is practically feasible), then independent processors may compete more aggressively for milk supply if this leads to lower milk prices. This competition may also then increase the price independent processors are willing to pay for milk supply. This increased competition may cease when the price reaches market equilibrium.
113. While neither scenario is desirable, it does appear that in the medium term, owing to the way milk price is set, that an asset beta that is too high may have a less adverse effect on the milk price market than too low an asset beta.

We agree that the Commission's analysis must accommodate the fact that its assessment could be wrong. However, we do not agree with the Commission’s analysis on the direction in which it should err, particularly its assessment of the consequences of setting a milk price that was too low. This (emerging) conclusion has potentially very significant implications for Fonterra’s ability to

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<sup>2</sup> Paragraph 110.

<sup>3</sup> Paragraph 113.

successfully compete for milk in an increasingly competitive market for raw milk and therefore warrants significantly more analysis and support than that provided by the Commission.

The Commission’s analysis in paragraphs 111 – 113 assumes that (a) not unreasonably, if the Commission was to make a final finding that Fonterra’s current asset beta is not practically feasible, we would respond by increasing our assumed asset beta and (b) there are no offsetting errors in inputs which mean the overall milk price might nonetheless be practically feasible even if the asset beta is not. Assumption (b) means that in its analysis the Commission has considered just a subset of the full range of potential outcomes from an erroneous finding: as summarised in Table 1 below, the Commission has considered Outcomes 1 and 2, but not outcomes 3 or 4.<sup>4</sup>

**Table 1: Implications of erroneous conclusion on asset beta**

	<i>No offsetting inputs</i>	<i>Offsetting inputs</i>
<i>Commission erroneously concludes asset beta is practically feasible when it is not (asset beta too low)</i>	<u>Outcome 1</u> Milk Price too high, and Commission’s analysis in para 111 applies.	<u>Outcome 3</u> Milk Price not too high, and Commission’s analysis in para 111 is incorrect.
<i>Commission erroneously concludes asset beta is not practically feasible when in fact it is (asset beta too high)</i>	<u>Outcome 2</u> Milk Price too low. Commission’s analysis in para 112 is incorrect, per below.	<u>Outcome 4</u> Milk Price significantly too low.

We accept, at a high level, the Commission’s analysis of the consequences of ‘outcome 1’, but emphasise that (a) this is only one of four possible outcomes and (b) our evidence on independent processors’ investment patterns strongly implies that, even if our asset beta is too low, the overall milk price is still practically feasible.

We do not accept the Commission’s analysis, in paragraph 112, of the consequences of Outcomes 2 or 4. If an erroneous finding that the asset beta was too low in turn resulted in Fonterra increasing the asset beta and therefore setting a milk price that was materially ‘too low’, the obvious consequence would be inefficient entry by independent processors. And we do not see how increased competition between independent processors could in practice result in the milk price increasing to its equilibrium level, given the reality that any such ‘competition’ would involve picking off Fonterra’s supply since Fonterra would in effect be prohibited from responding.

The better approach under DIRA is for the Commission to present its findings in a manner that more clearly reflects that estimating beta is uncertain, and that the two limbs of the DIRA purpose provision establish a range of milk prices that promote the purpose (ie there is no "perfect" milk price that promotes efficiency *and* contestability). Instead of inappropriately taking comfort that it should err in a certain direction, the Commission should simply acknowledge more clearly that its findings on asset beta are not definite (they are "likelihoods" and are subject to error).

<sup>4</sup> In contrast, the Commission only considers Outcomes 3 and 4, but not 1 or 2, in its rejection in paragraph 127.2 of our evidence on the significance of independent processors’ investment patterns.

### ***The relevance of Fonterra-specific factors***

CEPA and the Commission argue that two Fonterra-specific factors should be disregarded when setting the asset beta:

- Fonterra's asset beta. The Commission argues that Fonterra's share price, and therefore its asset beta, may be influenced by seasonal trading in either shares in Fonterra or units in the Fonterra Shareholders' Fund, and that in consequence Fonterra's asset beta should be excluded from the comparator set.
- The impact of milk price subordination on Fonterra's cost of debt. CEPA argues, and the Commission notes, that Fonterra faces a lower cost of debt than might otherwise be the case because of the effective subordination of payments for milk to payments to providers of debt.

We note Dr Marsden's opinion to the effect that the ANZ analysis cited by the Commission is not conclusive (and is not represented as being conclusive by the ANZ). However, for reasons noted below, we consider it appropriate to include Fonterra's asset beta irrespective of whether there is any seasonality in Fonterra's share price.

In particular, our position is that Fonterra's milk price should reflect the actual allocation of risk between suppliers of milk and suppliers of equity to Fonterra:

- If Fonterra's shareholders' exposure to systematic risk is lower than it otherwise would be because of the interplay between farmers' shareholding obligations and other factors, then this is simply a factual matter that should be reflected in the equity return allowed for in Fonterra's milk price calculation. It is neither necessary nor appropriate to instead provide shareholders with higher compensation, by way of a lower milk price, for the higher level of risk they might be exposed to under an alternative set of institutional arrangements, but are not exposed to under Fonterra's.
- Similarly, subordination of payments for milk to payments to debt holders results in the transfer of risk from debt-holders to suppliers of milk, with the resultant lower interest rates offset by a reduction in expected (as compared to headline) payments for milk. Suppliers should be compensated for the relevant risk through a higher milk price. (And to the extent there is any expectation that payments for milk may in certain circumstances also be subordinated to payments to equity holders, it is appropriate to compensate suppliers of milk for this additional risk through a higher milk price, with returns to equity-holders reduced accordingly.)<sup>5</sup>

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<sup>5</sup> CEPA posits, in section 3.1.3 of its response, that "another New Zealand processor might struggle to have the same [subordination] arrangements." This supposition is incorrect. Even NZ processors which do not have formal subordination provisions in their debt facilities are able to effectively subordinate milk payments to payments to debt providers, given they do not finalise their milk prices until year end, and we would expect this effective subordination to be reflected in their financing risk.

### ***Fonterra's approach places too much weight on US listed energy utilities***

The Commission notes that neither Fonterra nor its expert CEPA have investigated the risks attaching to the mainly US listed energy utilities that the Commission had regard to when setting its asset beta for EDBs at 0.34.<sup>6</sup>

This is a new argument. While we understand it has been made in response to a proposition advanced by NERA, we consider its significance has been overstated by the Commission. Both our expert and Dr Lally for the Commission determined that New Zealand EDBs are an appropriate comparator for the NP, and then relied on the Commission's own analysis in settling on 0.34 as an appropriate reference point when setting the asset beta for the NP. Under this approach, we do not see any reason to replicate the detailed assessment already undertaken by the Commission into the appropriateness of relying on the asset betas for the individual comparators in a New Zealand regulatory context.

Our position continues to be that because the NP's milk price, unlike any of the dairy comparators, is derived under a quasi-regulatory building blocks framework, the best comparator set constitutes other businesses that are subject to similar regulatory regimes. This is because for the NP, like many other regulated businesses, it is the regulatory framework, rather than conventional market forces, that is the primary determinant of both expected returns and the likely covariance of those returns with market returns.

### ***CEPA's argument that other dairy processors should have cost bases that are similar to the NP's***

In their discussion on operational leverage (p.11) CEPA posits that "as other processors, rather than ELBs, **should** have cost bases that are similar to the NP's, we still consider that these companies are a more appropriate starting point for comparisons" (emphasis added).

Analysis of the cost structure of the NP relative to the comparators is a basic step that we had assumed CEPA would have undertaken in the course of their analysis. Figure 1 below shows dairy-related revenue (in USD) per litre of milk processed for the sample of dairy processors for which we can obtain reliable data.<sup>7</sup> A portion of the variation in average revenue across processors may reflect differences in average milk prices and average returns per litre. But it appears clear that the

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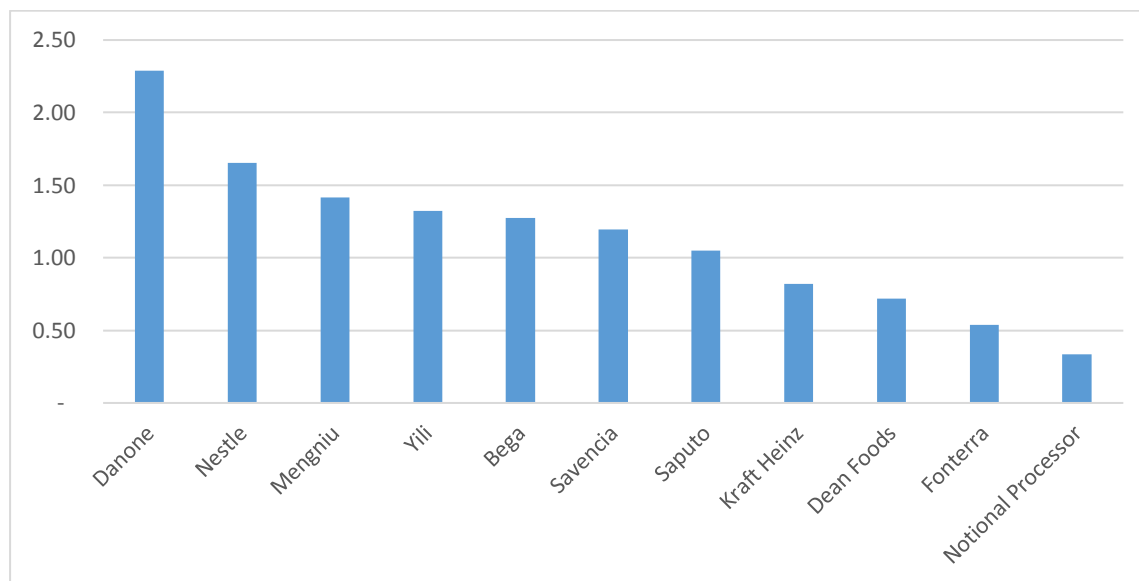
<sup>6</sup> Dr Marsden's initial report referenced the Commission's original Input Methodologies (in 2010) estimated asset beta for ELBs of 0.34. Dr Marsden advises that he does not consider the Commission's subsequent revision to 0.35 in 2016 to be material in the context of his analysis. (See Uniservices, Asset beta for Fonterra's NZ based commodity manufacturing business and specific risk premium for Fonterra's notional business, 2 December 2014, <http://comcom.govt.nz/regulated-industries/dairy-industry/review-of-fonterra-s-farm-gate-milk-price-and-manual/statutory-review-of-milk-price-calculation-2/review-of-milk-price-calculation-201415-season/>)

<sup>7</sup> We previously submitted similar data, in Fonterra – Submission on review of Fonterra base milk price calculation draft report – 1 September 2017, p.5, <http://comcom.govt.nz/regulated-industries/dairy-industry/review-of-fonterra-s-farm-gate-milk-price-and-manual/statutory-review-of-milk-price-calculation-2/review-of-milk-price-calculation-201617-season/>

data presented in Figure 1 implies major variations in average costs per litre across processors, contrary to CEPA’s assumption.

In addition, Figure 1 also implies that the other processors clearly derive a much higher proportion of their revenue from ‘value add’ activities than Fonterra or the NP.

Figure 1: USD revenue per litre of raw milk for selected dairy processors, 2016



Source: GIRA Dairy Club, Synthesis – World Dairy Markets to 2022, 2017, p.55. Fonterra analysis for Bega and the Notional Processor.

### Concluding comments

At the heart of our disagreement with the Commission’s emerging view is our very different position to CEPA and the Commission’s on the comparability to the NP of the dairy processor comparator set relative to a comparator set based on businesses subject to a similar regulatory regime as the NP. This difference in positions can be summarised by reference to CEPA’s comment that:<sup>8</sup>

[I]f we can control for the price (and volume) pass-through aspects of the risk profiles, it makes sense to review the asset betas of companies that have similar cost bases, operating characteristics, and longer-term growth options to that of the NP. As per our relative risk analysis, we do not consider that ELBs fit this profile.

Taking each of the characteristics raised by CEPA in turn:

- *Price and volume risk.* CEPA concludes that differences in ability to pass on price risk between businesses in CEPA’s subgroups does not constitute systematic risk. This conclusion is predicated on an assumption that CEPA’s commodity pass-through group does in fact have a greater ability to pass on price risk than other companies in the sample.

<sup>8</sup> CEPA 4 June 2018, p.6.



However, CEPA does not provide any analysis in support of this assumption.<sup>9</sup> We consider it unlikely that the very marked differences between the NP and the non-NZ comparators' exposure to price and volume risk do not contribute to a difference in systematic risk.<sup>10</sup>

- *Cost bases.* Per the analysis above, the companies in the comparator set have very different cost bases to the NP.
- *Operating characteristics.* Dr Marsden explains why, unlike the comparator set, but similar to ELBs, there is unlikely to be much if any correlation between percentage movements in the NP's revenue and EBIT.
- *Growth options.* As highlighted by Dr Marsden, the NP has only one, low value, growth 'option' available to it, whereas any real world dairy business will have a range of positive NPV options available. However, the NP's 'option' to invest in additional capacity to process incremental milk is not an option at all, inasmuch as the NP does not have the ability to elect not to exercise its option, and its impact on investors' expectations regarding future returns will not have the same leveraged characteristics as a true growth option.

In contrast, on comparing the NP to ELB's on each of these dimensions:

- *Price and volume risk.* Both ELBs and the NP operate under a regulatory framework that is designed to allow the pass through of both price and (at least) expected volume risk.
- *Cost bases.* We accept that these will be different, but it is not obvious why this might give rise to differences in systematic risk, given both the NP and ELBs are effectively subject to cost pass-through regimes.
- *Operating characteristics.* CEPA is careful to note that ELB's proportionately higher fixed cost structure means they will have a 'different' risk profile to the NP, but does not note that this difference in principle implies the NP's asset beta should be lower, not higher, than ELBs.
- *Growth options.* As noted by Dr Marsden, the Commission has previously concluded that regulation will significantly limit the value of growth options, and as noted above this impact should be materially similar for both the NP and ELBs.

We therefore continue to hold the view that the NP's exposure to systematic risk is much closer to ELBs (and similar regulated utilities) than to the dairy comparator set.

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<sup>9</sup> On page 10 CEPA note that "we **assumed** that the demand for milk was relatively inelastic and therefore volume risk was low for dairy companies." CEPA does not provide supporting analysis of the comparators' product mix, and does not acknowledge the difference between its assumption of 'low' volume risk and the NP's nil volume risk. CEPA do acknowledge that even its commodity price 'pass-through' group cannot pass through all price risk, with there just being "scope for them to pass on some of this risk". Again, however, CEPA do not provide any evidence that there is a material difference in the ability of comparators in the group to pass through price risk relative to the rest of the sample.

<sup>10</sup> Five of the processors shown in Figure 1 are included in CEPA's 'cost pass-through sample (Danone, Mengniu, Yili, Savencia and Dean Foods). These processors had average 2016 revenue per litre of USD 1.39, compared to USD 0.54 for Fonterra and USD 0.34 for the NP. Thus, even if they had an equivalent ability to Fonterra and the NP to pass through their dairy price exposure (which they do not), this would not imply an equivalent level of cost-related systematic risk.