Commerce Commission workshop – asset beta & further reference to off-GDT sales in Fonterra's Milk Price

Fonterra Co-operative Group Limited

23 May 2017

Asset beta

Asset beta – outstanding issues

Practical feasibility

- Our interpretation of 'practical feasibility' in the context of the asset beta is that the level of systematic risk assumed for the notional milk price business should be consistent with:
  - The allocation of risk implied by the Milk Price Manual and by the DIRA framework, both of which imply a materially equivalent allocation of risk.
  - The actual allocation of risk between Fonterra's suppliers and Fonterra's RCP processing business, and
  - The allocation of risk between other NZ manufacturers of the RCPs and their suppliers that is either (a) actually observed in practice or (b) could be achieved by the manufacturers with feasible amendments to their milk pricing mechanisms.*
- Both the Manual and DIRA assume a mechanism in which commodity price risk, FX risk, short to medium term milk supply risk and general cost risk are materially allocated to suppliers, and where differences between within season forecast milk prices and the end of season milk prices implied by the pricing mechanisms are also allocated to suppliers, not earnings. Other NZ processors have pricing mechanisms with materially the same allocation of risks.
- Independent processors are exposed to incremental earnings risk relative to Fonterra's RCP business to the extent they (a) consider themselves obliged to match Fonterra's milk price (most IPs have demonstrated they can depart somewhat from Fonterra's price without losing supply) and (b) do not have perfect real time information on Fonterra's sales and contract phasings. However, our analysis implies this risk is not systematic.

* We have included (b) for completeness only. We are not aware of any NZ processor with a milk price mechanism that results in a materially different allocation of systematic risk between milk price and earnings, but in any case a voluntary decision to do so by an NZ processor should not have any implications for the practical feasibility of the asset beta used in the milk price calculation.

Asset beta cont.

The Commission's questions

- The Commission has raised two matters on which it has requested further evidence from Fonterra:
  - Information that would assist the Commission judge whether Fonterra and its expert, Dr Alastair Marsden, have given sufficient weight to the comparable company evidence, and
  - Evidence of the extent to which other processors in the comparable company set have the ability (or a reduced ability) to make ex post adjustments to pass through variances between the forecast and actual milk price, and how any such ability compares to the notional processor's.
- We have commissioned a further report considering these and related matters from Dr Marsden, which has been separately provided to the Commission. After further analysis of the matters raised by the Commission Dr Marsden remains of the view that the comparator company evidence is consistent with an asset beta of 0.38 for the notional milk price business.
- The two matters raised by the Commission are interrelated:
  - NZ dairy processors are extreme outliers relative to processors located in other jurisdictions in terms of their exposure to global commodity markets and prices, and in terms of the proportion of their production with commodity characteristics.
  - The milk pricing mechanisms employed in NZ are a direct consequence of these features, and are not employed by listed companies elsewhere other than in Australia.
  - Consequently, the only processors in the comparable company set that are directly comparable to the notional processor are the NZ processors, Fonterra and Synlait, though even these processors undertake 'value-add' activities that the notional processor does not, and – to a limited extent – Murray Goulburn & Bega in Australia.

Asset beta cont.

- The table shows total dairy production and dairy exports for the countries in which the dairy processors in our comparable company set are headquartered.

	Liquid milk equivalent, million litres		
	Production	**Exports**	**% exported**
New Zealand	22,930	22,146	96.6%
Australia	9,065	2,867	31.6%
Ireland	6,506	1,514	23.3%
Switzerland	3,833	822	21.4%
France	23,693	3,947	16.7%
United States	85,926	7,227	8.4%
Italy	10,572	695	6.6%
Canada	7,897	462	5.9%
United Kingdom	13,941	640	4.6%
Mexico	11,304	453	4.0%
Japan	6,416	28	0.4%
China	31,841	95	0.3%

Source: Fonterra analysis based on 2016 production and trade data.

We note:

- Domestic markets in virtually all these jurisdictions are disconnected from globally traded markets, significantly sheltering domestic dairy earnings from global commodity price fluctuations.
- Australia, where the only other processors in our comparable company set who defer setting their final annual milk prices until year-end are domiciled, exports the second largest proportion of its milk supply. Historically, when current pricing mechanisms had their genesis, the percentage of Australian milk that was exported was significantly higher (>50% in 2002).

Asset beta cont.

- The available evidence suggests all the non-NZ comparable dairy processors derive significantly lower proportions of their total revenue from commodity-type products than NZ processors, a consequence in part of their closer proximity to markets significantly larger than the NZ domestic market.
- The only listed NZ comparable companies are Fonterra and Synlait, but neither is solely a commodity processing business. The average updated asset beta estimate across these companies is 0.29 – 0.31.
- The two Australian processors remaining in the comparable company set, Murray Goulburn and Bega Cheese, have very different average assets betas (-.10 and 0.76), & are arguably of limited relevance:
  - MG's milk pricing mechanism is ostensibly an actual return sharing mechanism, but has been severely challenged in the period since MG's ASX listing. (MG has committed to paying materially more than the price implied by its published mechanism in FY17.)*
  - Bega Cheese is a very different business to the notional processor, with a very significant exposure to the Aus domestic market, and no real competition for circa 50% of its milk (~ 60% of production by volume is in the retail and foodservice categories, and a portion of the remaining production is into nutritional powders).

* The correlation between MG's returns & the ASX since April 2016 will have been severely influenced by factors specific to MG, & is evident in the volatility in estimates of its asset beta.

Inclusion of off-GDT sales in Milk Price

Inclusion of off-GDT sales in Milk Price

- Changes to assumptions adopted, and inputs and processes used due to this Manual amendment:

  Assumptions

  – That average prices used in the Milk Price calculation are consistent with those that could be achieved by an efficient commodity manufacturer, and are therefore practically achievable.

  Inputs

  – Costs incorporate additional costs associated with further off-GDT sales – refer later slide

  – Off-GDT sales of commodity specification WMP, SMP and AMF, sold into freely contested global markets.

  Processes

  – Additional operational rules applied to Fonterra's revenue population, to determine Milk Price inform revenue series.

  – Robust, consistent process introduced for inform decisions on new materials:

    - Formalised decision criteria – refer later slide
    - New material decisions judged against formal criteria, and reviewed by senior management and MPG

  – Systemised, automated, application of rules into Milk Price calculation.

Assumptions – further detail

- That the extended series of prices now used in the milk price calculation represent an unbiased estimate of the prices achievable by an efficient processor of Fonterra's scale for commodity specification product sold on current arm's length terms into freely contestable global markets:
  - Prices are those actually achieved by Fonterra on the sales of commodity product on GDT and in other competitive markets.
  - Sales excluded from calculation represent non-commodity characteristics (e.g. physical composition or requiring specialised plant or intellectual property for manufacture) or fall outside the contract tenure as defined by GDT, generally have higher 'value add' components, either in the product's physical characteristics or in the range of services bundled with the sale, and therefore generally attract higher prices. Consequently, the average price achieved on the sample of sales included in the milk price calculation is practically feasible for Fonterra when considered in aggregate.
  - Publicly available information on average prices reported by other NZ processors on similar products exported from NZ implies the average prices included in the milk price calculation are also practically feasible for other NZ processors.

Inputs – revised selection criteria

Criteria to determine if particular SKUs sold off-GDT are “commodity products”

Milk Price revenue informing inclusions	Milk Price revenue exclusions
RCP’s (WMP, SMP, Butter, BMP, AMF)	All non RCP’s
Standard material requiring no additional specialised plant or technical resources	Non-standard materials – e.g. pastry butter / spreadable butter - AMF - ghee crystalline, AMF fractionated materials, SMP base powder for use in nutritional powders via dry blending
Standard product offering	Non-standard offerings - e.g. butter containing high moisture content
Standard packaging	Non-standard packaging, packaging less than 25kg, AMF - materials packed in cartons, WMP in bulk bags.
Cascadable to general trade materials	Non-cascadable to general trade materials; SMP/ WMP with additional fortification (calcium or iron) materials, e.g. LICONSA fortified WMP

Criteria to determine if particular categories of off-GDT sales are sales in “freely contested global markets”

Milk Price revenue informing inclusions	Milk Price revenue exclusions
FAS equivalent GDT sales and non GDT sales	Tenders, ex-warehouse, intercompany sales
C1 – C5 contract tenor	C6+ contract tenor
Spot pricing mechanism in contract	Tailored customer pricing models

Impact on costs

- To ensure the sales (and other) costs taken into account in the milk price calculation continue to be aligned to the revenue inputs, Fonterra performed a detailed analysis of cost areas that could have been impacted by the inclusion of further off-GDT sales, including impact on costs associated with customer technical support, market access, quality assurance, food safety, and associated selling costs.
- Fonterra does not have separate sales functions for GDT and non-GDT general trade sales. As such, existing sales cost allowances in the Milk Price model effectively included necessary cost provision for all general trade sales.
- Incremental key areas of cost impact:

Driver	Incremental costs
Additional skus	- Quality Assurance and Food Safety headcount - Technical Support headcount
Sales into additional countries	- Market Eligibility / MPI Relationship headcount - Additional sales costs

Thank you