Northington Partners

FONTERRA SHAREHOLDERS' COUNCIL

Fonterra
Dairy for life

INDEPENDENT ASSESSMENT OF FONTERRA'S FINANCIAL PERFORMANCE SINCE INCEPTION

NOVEMBER 2018

Executive Summary

Metric Examined	Measured By	Fonterra's Performance
Shareholder Returns	What was the average **Total Shareholder Return** (Change in Share Price + Dividends) since inception?	**$1** invested in Fonterra would be worth **$2.84** today (before taxes), representing a **6.3% p.a.** return
Financial Performance	What was the average **Return on Capital Employed** since inception and was this in line with appropriate benchmarks?	Fonterra's Return on Capital has averaged **6.0% p.a.** (post-tax), which is lower than the assessed benchmark of **6.9% - 7.7% p.a.**
Segment Performance	How much higher was the **Value-Add** business Return on Capital compared to the **Ingredients** business, and was this sufficient to compensate for the increased risks?	The Value-Add business returned **0.2% p.a.** more than Ingredients, significantly below the **1.3% p.a.** premium needed to justify the increased risk.
Other Contributions to Farmer Wealth	Farmers should also take into account: 1. The gap has closed between the NZ milk price and international prices since Fonterra's formation. 2. There has been a significant increase in the Milk Price since the inception of the Milk Price Manual. 3. The value of farmland has increased since Fonterra's formation (even after adjusting for productivity improvements on-farm). 4. Fonterra's performance includes the impact of ongoing support and stability during weak economic conditions.	

This report has been prepared by Northington Partners in conjunction with the Fonterra Shareholders' Council solely for the purpose of providing an independent view of Fonterra's actual performance since its formation. It is based on publicly available information and discussion with select members of Fonterra's management. Nothing in the nature of an audit of any of that information has been performed.

In preparing this report Northington Partners and the Fonterra Shareholders' Council, and their respective directors, councillors, employees and representatives, have endeavoured to provide accurate analysis and supporting discussion that is not misleading in any way, and to exercise reasonable care and judgement. However, no liability or responsibility is accepted for any errors or omissions, or for any consequences arising from the use of, or reliance on, this report.

From the Chairman

Dear Shareholders

In June your Council engaged Northington Partners to assess Fonterra's financial performance since its inception.

This work was in response to a heightened level of commentary within the supplier base, media and the broader financial community in relation to the perceived performance of our Co-op since it was formed in 2001. Council saw benefit in obtaining an independent and reliable view of actual performance over the last 17 years based on sound methodology and having access to relevant financial information.

This report provides a high-level summary of the results that is clear and accessible to all of our Co-op members. We believe it will be a useful input into the ongoing discussions about our Co-op's continued evolution.

It's important to note that the review looked at just one part of the overall returns that Farmers earn - their return on capital invested in Fonterra. Fonterra's role is far greater than this - as set out in the Fonterra constitution. Fonterra exists to maximise returns to farmers through Milk Price and dividend, and the standalone performance of the Co-op is therefore only one component of the overall returns achieved by Fonterra suppliers.

In simple terms, Fonterra effectively operates two businesses. The Milk Price received by its Farmers is a measure of global supply and demand for base milk ingredients and the efficiency of converting that milk into those ingredients, whereas the share value is a measure of the Co-op's success in delivering value over and above the Milk Price through time.

The assessment clearly shows that Fonterra's financial performance since inception has been unsatisfactory.

When considered as a stand-alone investment, the average returns generated by Fonterra since inception are lower than relevant benchmarks.

The assessment was deliberately restricted to a small number of key metrics:

- Shareholder Returns – what annual returns have Farmer Shareholders received from their investment in Fonterra shares since Fonterra's inception?
- Financial Performance – what Return on Capital has Fonterra achieved from the business and how does this compare to appropriate benchmarks?
- Segment Analysis – does Fonterra earn a higher Return on Capital from its Value-Add business units?

Northington Partners believes that given the nature of the data that is available for the full period, these metrics are the best available and sufficient to provide an over-arching view. The results are unambiguous. A range of alternative measures was also examined but incorporating them in the assessment did not add to or materially change the general conclusions.

Consistent with the agreed scope of the review, Northington Partners has made no attempt to identify potential explanations for the results. Nor do they offer any thoughts on possible changes to improve performance.

Council's view is that the information provided in this report should inform a wider discussion between Board, Management and Shareholders around the continued evolution of our Co-op and in particular what can be done to ensure ongoing returns meet, as a minimum, the opportunity cost of Farmers' capital invested in the Co-operative.

Notwithstanding the findings of this report, Council remains firmly of the view that the co-operative structure is the only structure that will provide for the enduring needs of our intergenerational farming families. Our three key takeouts are:

1. Fonterra has failed to deliver meaningful returns over and above the cost of capital since inception. Milk growth over the past 15 years has been an impediment but is now largely historical. It is critical that this be addressed to ensure continued supply of milk and capital.
2. Milk price has and continues to be the greatest driver to on farm profitability. The Milk Price Manual continues to drive transparency and efficiency, placing increasing tension on the business to deliver value over and above this. This is the most appropriate tension for Farmers as suppliers of milk and providers of capital. All dairy farmers in New Zealand benefit from this irrespective of whom they supply.
3. Given the relationship between Milk Price and earnings it's important that Shareholders look at the total available for payout as a true measure of performance over time.

Regards

Duncan Coull
Chairman
Fonterra Shareholders' Council

*Northington Partners is an independent corporate advisory business. For the last three years it has supported Council in its review of Fonterra's annual and half year results. It does not undertake any other work for Fonterra.

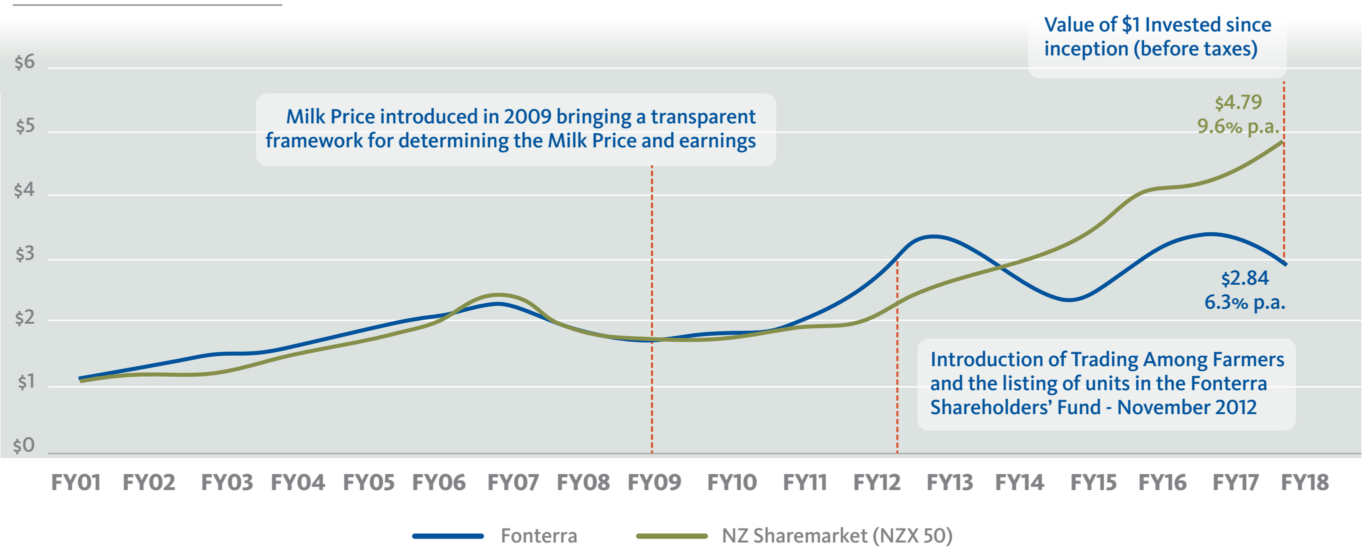
Shareholder Returns

What annual returns have Farmer Shareholders received from their investment in Fonterra shares?

An investment in Fonterra shares has earned an average pre-tax return of 6.3% p.a. since inception. This includes the returns from both dividend payments and changes in share value.

While not directly comparable in terms of risk profile, the graph below summarises Fonterra's performance relative to the NZ sharemarket (NZX 50) as a whole. This shows that the total Shareholder return for Fonterra has fluctuated considerably through time, particularly since 2012 when Trading Among Farmers was introduced and units in the Fonterra Shareholders' Fund were listed.

Total Shareholder Return



COUNCIL'S VIEW

Prior to the introduction of Trading Among Farmers the value of a Fonterra share was determined by an independent valuer (appointed by the Shareholders' Council) who took a forward-looking approach using a discounted cashflow methodology to determine a range within which the Board chose the fair value of a share.

The structure of Trading Among Farmers, incorporating the farmer only Fonterra Shareholders' Market and the publicly listed Fonterra Shareholders' Fund, has facilitated a market driven price for the fair value of a share.

One of the driving principles of Trading Among Farmers was to ensure the Co-op had permanent capital to invest in its strategy, eliminating the redemption risk to which Fonterra was previously exposed. While Trading Among Farmers has undoubtedly been a success in this respect, the question must be asked as to whether this permanent capital has been invested in assets that are generating an appropriate risk-adjusted rate of return?

EXPLANATION

Q: Why have you compared Fonterra's Total Shareholder Return to the NZ Sharemarket (NZX 50)?
A: This comparison is to provide some general context for Fonterra's performance only, and is not meant to suggest that the two are directly comparable. Arguably Fonterra's risk profile means it should be expected to deliver a lower return than the sharemarket as a whole, but we think the comparison with the sharemarket helps suppliers put Fonterra's performance into context.

Q: Why didn't you compare Fonterra with other dairy co-operatives and companies?
A: Fonterra is very different to other entities in the NZ dairy sector and it's not possible to accurately adjust for the fundamental differences in order to provide a meaningful comparison to most of the other entities. Comparisons with the total shareholder returns for international dairy processors are difficult for similar reasons, but also because most of those businesses are not listed and we can't accurately measure share price performance.

A comparison of Fonterra's performance on the basis of Return on Capital is set out on page 9.

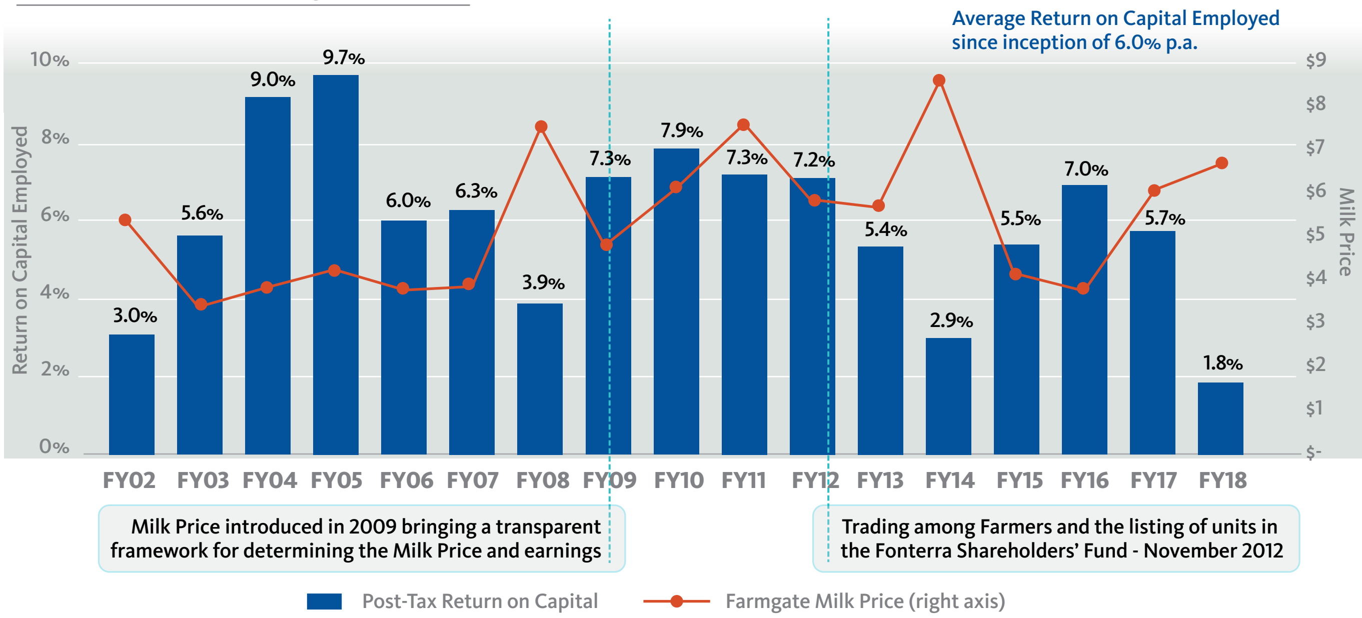
Financial Performance

What Return on Capital has Fonterra achieved from the business?

Fonterra has delivered an average post-tax Return on Capital of 6.0% p.a. since 2001.

The graph below shows that performance is volatile year-to-year and is generally negatively correlated with the Milk Price.

Return on Capital and Farmgate Milk Price



COUNCIL'S VIEW

Volatility of milk price has had, and will continue to have, an impact on Fonterra's earnings from year to year because the Milk Price is the most significant contributor to cost of sales. Greater transparency over the determination of the Milk Price since the introduction of the Milk Price Manual regime has added to the annual volatility. Farmers generally understand and accept this relationship.

It is relevant to acknowledge the 45% increase in milk collections from 1,110 m kgMS (2001/2002) to a peak of 1,614m kgMS (2014/15) since Fonterra's inception (1,505m kgMS (2017/2018)). Appropriate investments have had to be made to accommodate this growth and to find competitive markets for the increased volume of product sales, which have largely been very successful.

However, even allowing for some of these contributing factors, it remains clear that Fonterra has generated lower returns on capital over recent years. Given the heightened competition for milk in New Zealand Fonterra needs to do better in order to earn the trust of Farmers' milk and capital.

EXPLANATION

Return on Capital Employed (ROCE) assesses how well capital has been invested. It is calculated as:

$$\text{ROCE} = \frac{\text{Earnings before interest and tax x (1-effective tax rate)}}{\text{market value of capital employed}}$$

Q: What is the difference between Book and Market Value, and how does this impact the Return on Capital Employed (ROCE) calculation?
A: Book value is the value of equity in Fonterra's financial statements. Market Value is the value that people are willing to pay for Fonterra's equity, as reflected in its traded share price. As Market Value is typically higher than Book Value, the ROCE calculation is lower if it is based on Market Value.
Ideally, ROCE is calculated on Market Value as that is more representative of the wealth of shareholders invested in the business. However, when comparing segments or against competitors who are not listed themselves, Book Value must be used to ensure consistency.

EXPLANATION

Q: Why was Total Shareholder Return (on page 4) considered on a pre-tax basis, while Return on Capital was considered on a post-tax basis?
A: It would generally be preferable to calculate both metrics on a pre-tax basis as the marginal tax rate for Fonterra's shareholders may individually differ. However, our WACC benchmark for Return on Capital performance is typically determined as a post-tax rate. It is simpler and generally more accurate to convert the Return on Capital to a post-tax measure, than it is to convert the WACC to an equivalent pre-tax measure.

Q: Why is Return on Capital for FY18 different from Fonterra's reported FY18 Return on Capital?
A: Our FY18 Return on Capital is based on actual EBIT, while Fonterra's reported FY18 Return on Capital is based on normalised EBIT. In addition, Fonterra's capital base uses more detailed (monthly) figures that are not publicly available, while our capital base is measured using the average of year-end balances.

Q: Why is Return on Capital calculated on actual rather than normalised EBIT?
A: Normalised EBIT is used to compare year-to-year performance by excluding the impact of one-off factors. However, analysis of performance over a long period of time should include the impact of these one-off items as they ultimately have resulted in increases or decreases to Fonterra's value and therefore the value of shares in Fonterra.

Q: Why did you use actual EBIT rather than spread one-off impacts over multiple years?
A: We acknowledge that it may be theoretically more accurate to spread a one-off impact over the time the impact was accrued (e.g. spreading the Beingmate impairment across each year since the FY15 investment). However, this requires assumptions around the timing of the one-off items and leads to a trade-off between meaningfulness and complexity. The impact of smoothing these impacts through time does not have a meaningful impact on the overall assessed returns.

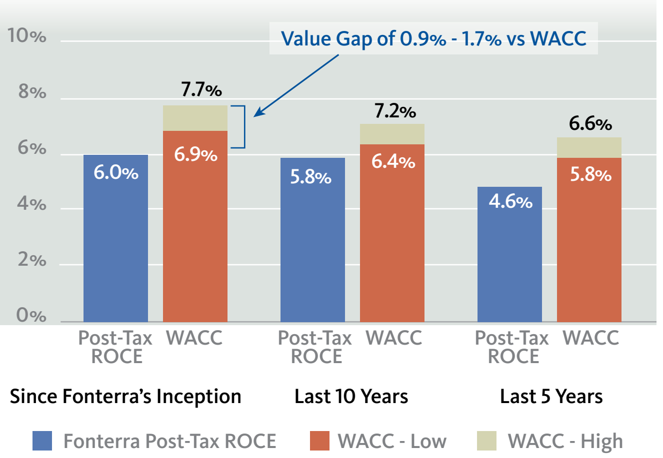
How does Fonterra's Return on Capital compare to appropriate benchmarks?

The average post-tax return Return on Capital employed by the Fonterra business of 6.0% p.a. is materially lower than the estimated return benchmark range of 6.9% - 7.7% p.a. Average returns on capital have also deteriorated over the last five years.

This differential is material when considered over the full 17-year period, amounting to an opportunity cost of over $2 billion in foregone earnings. In simple terms, this is the gap between the returns actually achieved by Fonterra and the benchmark cost of capital over time.

If the impact of the Milk Price improvements since 2009 are added back, the average Return on Capital Employed over the last 10 years increases by 0.7% – with this adjustment, the outcome is marginally higher than the bottom end of the benchmark WACC range. See Appendix 1 for more detail.

Average Post-Tax Return on Capital Employed vs Weighted Average Cost of Capital Benchmark



COUNCIL'S VIEW

The opportunity cost of around $2 billion is reflective of the Co-op's inability to generate Shareholder value over and above the cost of capital for its owners. The 28.3 cents increase in the Milk Price since FY09 arising from Milk Price calculation method changes has been a key driver of this over the past five years, as has the impact of events such as the Beingmate impairment and Danone arbitration costs. Prior to 2009 and the introduction of the Milk Price Manual it could be argued Farmers were being underpaid for their milk.

EXPLANATION

Return on Capital Employed (ROCE) assesses how well capital has been invested. It is calculated as:

$$\text{ROCE} = \frac{\text{Earnings before interest and tax x (1-effective tax rate)}}{\text{market value of capital employed}}$$

Weighted Average Cost of Capital (WACC) combines the cost of debt and equity capital that has been used to fund Fonterra's business. WACC reflects the return that should have been earned to compensate investors for the risk associated with their investment. If:

- **ROCE exceeds WACC** the company has created shareholder value.
- **ROCE is lower than WACC** the business has underperformed and investors have effectively suffered a notional loss.

Q: Why have you used a range for the benchmark WACC?
A: There has been significant debate between Fonterra stakeholders as to what an appropriate cost of capital should be for the business. Due to this, we believe it is more meaningful to provide a range for the benchmark WACC, and we have done this drawing from the wealth of analysis behind all sides of the debate.
The difference between the low and high points of our benchmark WACC range is the assumed Asset Beta for the Value-Add segment of the business: 0.51 at the low point and 0.75 at the high point.

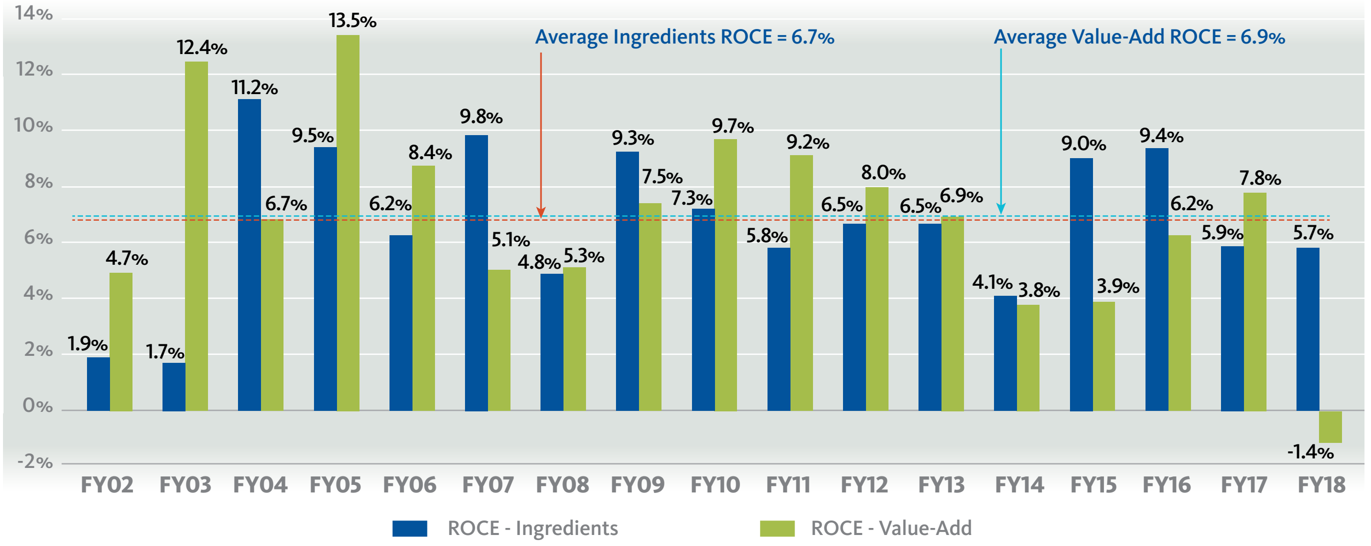
Segment Analysis

Does Fonterra earn a higher Return on Capital from its Value-Add business units?

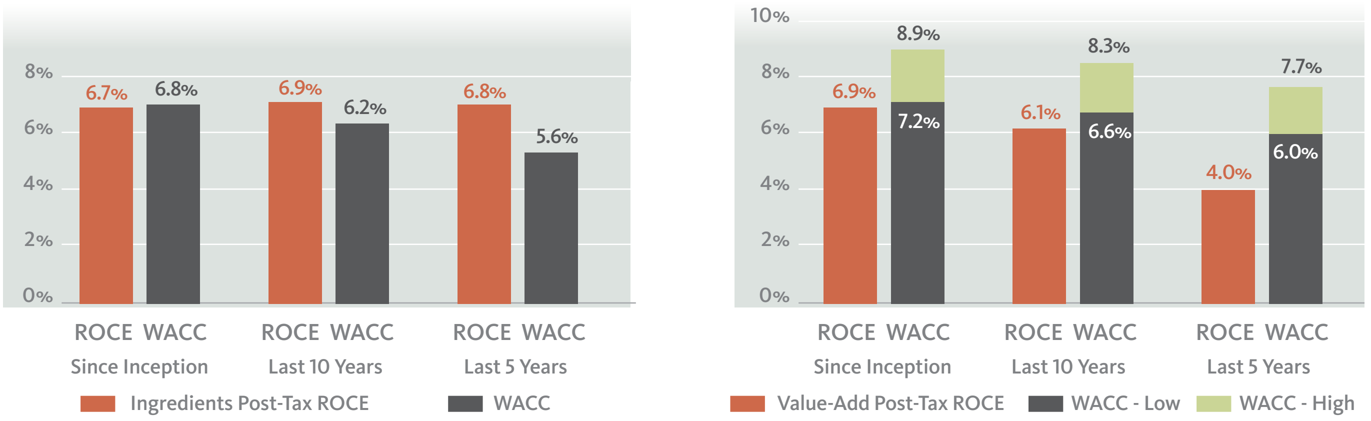
A separate assessment of the return from different segments of the Fonterra business is not straightforward given ongoing changes to internal reporting structures and some significant data limitations. However, the available data does allow an examination of returns for the Ingredients and Value-Add segments since inception.

The analysis shows that the Value-Add segment of Fonterra's business has generated a return that is only 0.2% p.a. higher than the Ingredients segment. This premium is far lower than the estimated 1.3% margin that is required to compensate investors for the higher risk profile associated with the Value-Add business (based on the WACC framework). Recent returns in the Value-Add business segment have been severely affected by the Beingmate impairment.

Segment Post-Tax Return on Capital Employed (based on book values) since inception



Segment Return on Capital Employed vs Segment Weighted Average Cost of Capital Benchmark



COUNCIL'S VIEW

The above analysis broadly illustrates that Fonterra has not generated sufficient additional return on its Value-Add business.

This is important because the Value-Add business units are now using an increasing share of Fonterra's capital. For the first five years since inception (FY02 – FY06), the Value-Add business accounted for 36% of Fonterra's capital. This has increased to 50% of Fonterra's capital over the last 5 years (FY14 - FY18).

However, we should also note that recent investment in consumer brands and other value-add opportunities represents a long-term proposition that may take some time to generate the expected outcomes. For example, the initial investment in China was expected to be loss-making in its early years, before generating target returns after the business matures and reaches the required scale. Higher returns from these investments may yet be realised.

EXPLANATION

The differential between the Ingredients segment and Value-Add segment return on capital is the key metric to consider as opposed to their individual values. Note that the group return on capital (as described on page 3) has been calculated based on market values of capital, but the segment returns have been calculated based on book values. As a result, the segment returns on capital are both higher than the group return on capital.

Fonterra's reported operating segments have changed significantly since inception in 2001 as outlined in the table below.

A high-level segmentation enables an assessment of Fonterra's ability to create value for farmers through operations beyond the collection, processing and sale of NZ milk.

For the purposes of this Segment Analysis aspect of the assessment:

- The **Ingredients segment** means the Commodity business (including advanced ingredients) in NZ *only*, plus general group costs.
- The **Value-Add segment** means all other businesses, including Consumer & Foodservice, China Farms and international milk pools.

We have included an adjustment to reflect assets held by the Ingredients segment but actually used for the benefit of the Value-Add segment.

This segmentation was applied due to the historical reporting and availability of financial information.

ROCE = see explanation on page 6

Benchmarks = WACC as explained on page 6.

	FY02 FY03 FY04	FY05 FY06 FY07	FY08 FY09 FY10	FY11	FY12 FY13 FY14	FY15 FY16 FY17
New Zealand Commodity Segment ("Ingredients")	NZ Milk Products	Ingredients	Commodities & Ingredients	Standard & Premium Ingredients	NZ Milk Products	Global Ingredients & Operations (GIO)
Value-Add Segment ("Value-Add")	New Zealand Milk	Consumer	Australia and New Zealand			Oceania
			Asia / Africa and Middle East AME		Asia	Asia
						Greater China
			Latin America			

Major Reporting Change in FY08

Strategic Platforms Introduced in FY15

Comparable dairy company analysis

Fonterra is very different to the other entities operating in the New Zealand dairy sector due to a range of factors, and we therefore believe that a direct comparison of each company's performance is misleading. Key differences include:

- **Obligation to Supply:** Fonterra's historic obligation to supply competitors means that it effectively internalises some production and volume risks on behalf of its competitors.
- **Open Entry vs Catchment:** Tatua and Westland purchase from a very limited catchment with unique economics. Synlait and OCD have the ability to change their catchment over time to suit their needs. Fonterra is however obliged to collect from an extensive catchment.
- **Scale:** Fonterra collects approximately 12 times as much milk as OCD, 25 times as much as Synlait and 102 times as much as Tatua. Given its scale Fonterra is more exposed to international commodity prices and market fluctuations.
- **Product Mix:** The product mix of each of Fonterra, OCD, Synlait, Westland and Tatua differs – there is a mix of higher and lower proportions of commodity products.

NZ Milk Collections by Share

Source: Company Annual reports

As a result of the clear differences in scale and scope of the businesses, comparing Fonterra's performance to its NZ competitors is generally considered to be potentially misleading because it is not possible to accurately adjust for the differences outlined above.

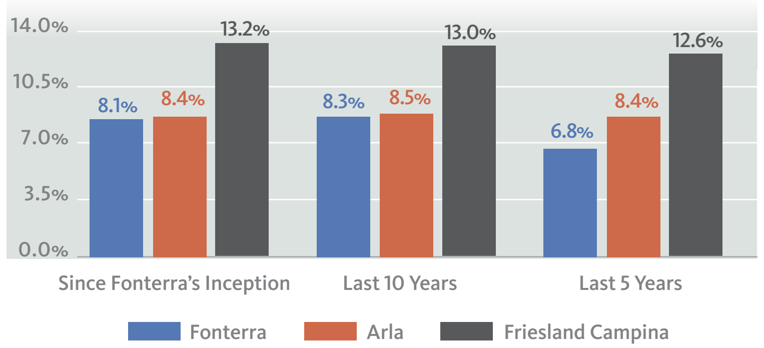
Of the local processors, OCD is arguably the most comparable to Fonterra because it is the largest competitor and is predominantly focused on commodity ingredients. Over the last 10 years OCD has delivered an average pre-tax Return on Capital Employed of 7.0% p.a., which is lower than Fonterra's equivalent return of 8.3% p.a. over the same period (based on book values.)

Arguably more comparable entities to Fonterra can be found overseas. The most similar businesses to Fonterra globally are Arla and Friesland Campina, both farmer co-operatives (based in Denmark and the Netherlands respectively) with substantial commodity and consumer operations. However, neither company is subject to the same regulatory regime as Fonterra.

Comparison is best measured by pre-tax return on capital employed to control for tax differences in overseas jurisdictions.

Based on the book value of Capital Employed for all three entities, Fonterra's historical performance has been in line with Arla, achieving similar returns on capital both since inception and over the last 10 years. However, Fonterra's performance has been significantly lower than Friesland Campina's across all comparable time periods.

Pre-Tax Return on Capital Employed



The Bigger Picture

Apart from the investment returns, to what extent has Fonterra directly or indirectly impacted farmer wealth?

Milk Price Performance

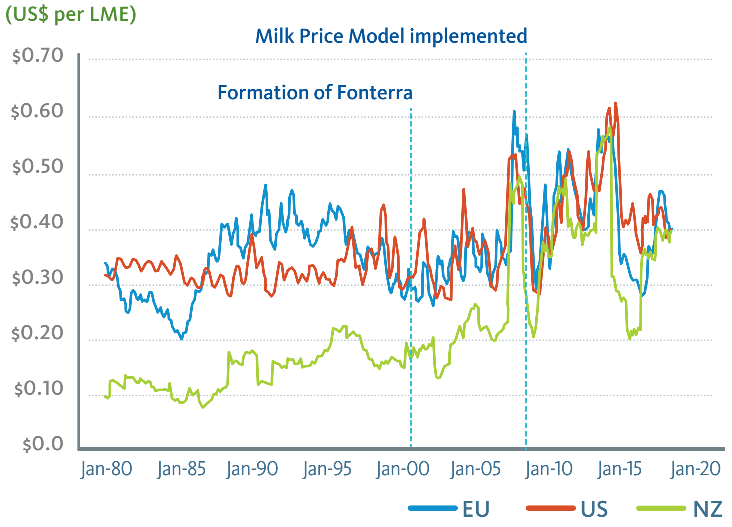
There has been an historical gap between the milk price achieved in New Zealand compared to the milk price received by farmers in the European and US markets. Since Fonterra's formation, NZ's milk prices have increasingly correlated with these benchmark markets, and this price gap has now closed.

While it is not possible to gauge the degree to which Fonterra has explicitly effected this improvement in prices, Farmer Shareholders should recognise that improvements in Fonterra's business may be reflected in stronger Milk Prices rather than increased earnings as previously discussed.

The Milk Price Manual has provided a greater level of transparency of the cost of goods for the business.
The introduction of Global Dairy Trade has provided a true market signal, both internally and externally, of the market value for milk off farm.

Council's view is that the Milk Price model is the greatest driver of efficiency in the business and the greatest determinant to on farm profitability.

Average Milk Prices Achieved

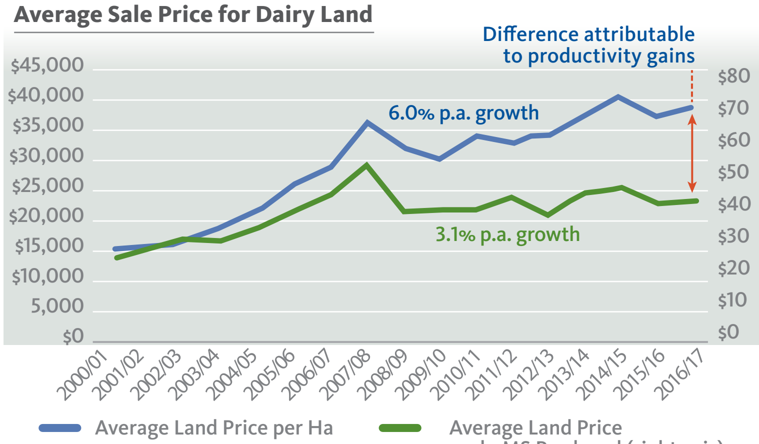


As Shareholders we should always look to total Shareholder return as the measure of performance of our Co-op.

Land value appreciation

Farmers have also benefited considerably from increases in their land value over the period since Fonterra's inception. When considered across all regions, land value appreciation has averaged 6.0% p.a. for the last 17 years and these capital gains have been a fundamental driver of improvements in farmer's net wealth position. While productivity improvements have contributed approximately half of this value, some of the benefit can also reasonably be attributed to Fonterra's significant role in the sector.

Average Sale Price for Dairy Land



Source: DairyNZ

Support/stability in weak economic conditions

The Co-op exists for the benefit of its Farmer Shareholders. As such, it looks to maximise the sustainable value of the milk supplied by Shareholders.

From time to time the Co-op provides other benefits to its Shareholders to support the ongoing sustainability of their businesses. Recent examples include:

- The Co-op support loan which provided an additional 4 cents per kgMS through relief of working capital on farm.
- The introduction of the Farm Source model and its Rewards programme which has rewarded Shareholders who purchase farm supplies exclusively through Farm Source stores at around 10 cents per kgMS annually.
- On-farm support through in-house sustainabilty programmes supporting farmers in developing comprehensive farm environment plans free of charge for Shareholders.

Appendix 1 - Impact of Milk Price Manual Changes

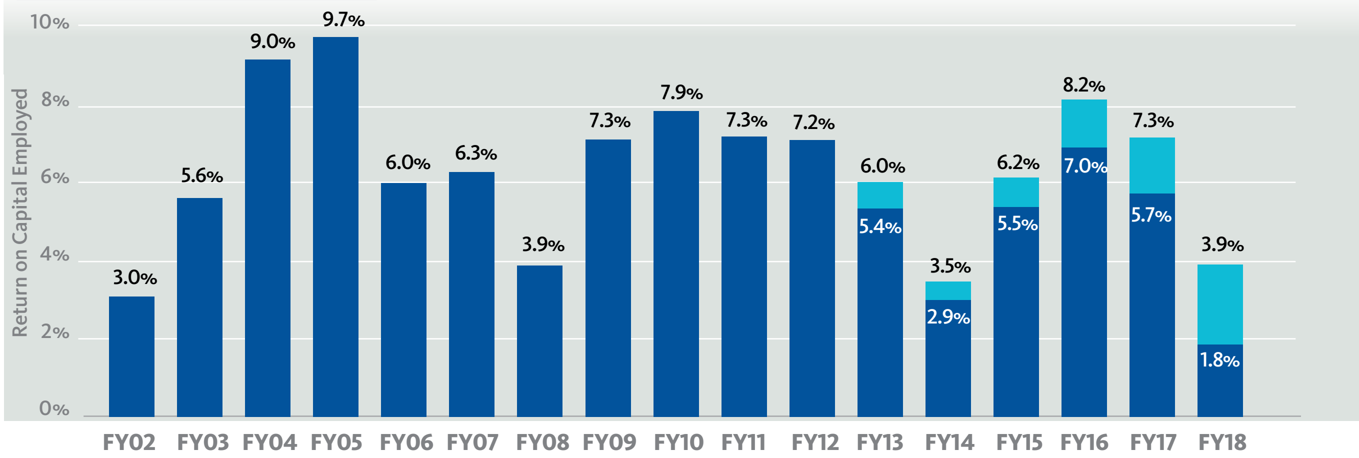
The Milk Price Manual was introduced in FY09 to support a transparent approach for calculating the Farmgate Milk Price. The calculation methodology for the Farmgate Milk Price is adjusted each year to ensure that it reflects a value that an efficient processor would pay for milk, and is in compliance with the Milk Price Principles in the Constitution and the milk price requirements in the Dairy Industry Restructuring Act 2001 (DIRA). These changes can be split into items attributable to Fonterra (e.g. efficiency gains) and items attributable to wider market conditions (e.g. changes in market interest rates).

The cumulative impact of these changes since FY09 is 51.8 cents/kgMS. That means that if no adjustments were made to the methodology, the FY18 Milk Price would be 51.8 cents/kgMS lower. Of this total amount, 28.3 cents is attributable to improvements in Fonterra's performance and 23.5 cents to wider market conditions. (We note that the 2018 Milk Price Statement states 29.6 cents is attributable to Fonterra, but this includes a 1.3 cents impact from a change in Asset Beta, which we view as a market condition change). While for a standard company these improvements would increase its earnings, for Fonterra this effectively represents a 28.3 cents increase in the Milk Price since FY09. It is therefore important to consider what Fonterra's earnings and returns would have been prior to the impact of these changes to the Milk Price.

We have adjusted the Return on Capital Employed calculation by adding the improvements in Milk Price back into Fonterra's earnings. These results are summarised in the chart below and show that the impact in some years since FY13 is material.

If these changes to the Milk Price had not been made, Fonterra's Return on Capital since inception would increase from 6.0% to 6.4%. Similarly, the Return on Capital for both the last 5-year period and the last 10-year period would be marginally above the bottom end of the benchmark WACC range.

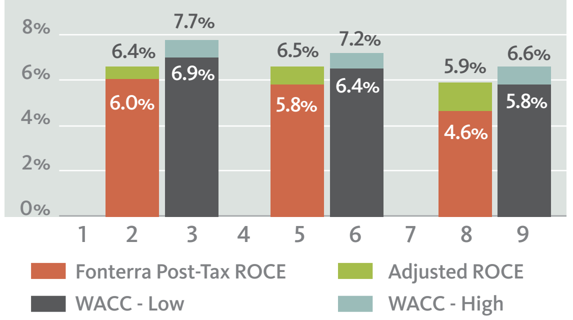
Return on Capital and Farmgate Milk Price with Adjustments for Milk Price Manual Methodology Changes Attributable to Fonterra



Value of Methodology Changes Attributable to Fonterra	Changes made since FY09 but not disclosed until FY13	7.8c	9.3c	10.0c	16.2c	22.2c	28.3c
Total Value		$114m	$147m	$161m	$254m	$339m	$426m

Post-Tax Return on Capital   Adjusted Return on Capital

Average Post-Tax Return on Capital Employed (Adjusted for Milk Price Manual Changes) vs Weighted Average Cost of Capital Benchmark



We note that this analysis represents an estimate, meant to provide a general indication of the value transfer, rather than a precise calculation, due to the following factors:

- Although the changes to the Milk Price calculation methodology started in FY09, the impact of the changes did not start being disclosed until FY13.
- A comprehensive breakdown of the changes is only available for FY16 and FY18. The value of the changes for other years has been estimated based on Milk Price Statement disclosures.
- The analysis is based on simplifying assumptions in relation to the value of capital employed and the taxation treatment of the incremental earnings.

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