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<td>• Ability to capture value</td>
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<td></td>
<td>• Role of Ingredients</td>
</tr>
<tr>
<td></td>
<td>• Open Q&amp;A</td>
</tr>
</tbody>
</table>
Welcome – Simon Till
Director Capital Markets
Investor Day purpose
Ingredients – the engine of Fonterra

“Improve understanding of the Ingredients business and key earnings drivers”

1. Value creation framework
   - The business
     - Full value chain, optimisation and product mix
   - Quality of earnings
     - Regulated return and value-add, key drivers

2. Strategy
   - Current: developing optionality, higher sustainable earnings
   - Future: decision-framework, global market trends
Ingredients value chain

- **Milk**: Collect milk from over 10,000 supplier shareholder farms
- **Optimisation**: Optimise product mix for 20 billion litres of milk to maximise value
- **Contract**: Find demand for over 30 product groups through our global NZMP sales force
- **Production**: Lowest cost and highest quality production at over 30 sites
- **Shipment**: Deliver 2.7 million MT to over 140 countries via global supply chain
- **Customer**: Supply high value products and solutions to hundreds of customers
Ingredients Value Creation
Lukas Paravicini
CFO
Global scale and leadership
Global sales force accessing 140+ countries

World’s largest milk processor¹

<table>
<thead>
<tr>
<th>Company</th>
<th>Intake (million tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fonterra</td>
<td>22</td>
</tr>
<tr>
<td>DFA</td>
<td>17</td>
</tr>
<tr>
<td>Lactalis</td>
<td>15</td>
</tr>
<tr>
<td>Arla Foods</td>
<td>14</td>
</tr>
<tr>
<td>Nestle</td>
<td>14</td>
</tr>
<tr>
<td>Friesland</td>
<td>13</td>
</tr>
<tr>
<td>Campina</td>
<td>12</td>
</tr>
<tr>
<td>Dean Foods</td>
<td>8</td>
</tr>
<tr>
<td>DMK</td>
<td>8</td>
</tr>
<tr>
<td>Saputo</td>
<td>8</td>
</tr>
<tr>
<td>Danone</td>
<td>8</td>
</tr>
</tbody>
</table>

1. Source: IFCN 2015. DFA collects 28.1 million tonnes but processes an estimated 17.1 million tonnes. 11 million tonnes sold to other processors.

World’s largest dairy exporter²

<table>
<thead>
<tr>
<th>Product</th>
<th>Fonterra’s % share of global exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Market share</td>
<td>17%</td>
</tr>
<tr>
<td>WMP share</td>
<td>48%</td>
</tr>
<tr>
<td>SMP share</td>
<td>16%</td>
</tr>
<tr>
<td>Butter share</td>
<td>39%</td>
</tr>
</tbody>
</table>

Fonterra has increased the value of New Zealand milk and encouraged volumes to grow

Global milk prices (USD / litre)

New Zealand versus Australian milk pool (m kgMS)

Note: All prices are adjusted to a milk composition of 3.5% protein and 4.2% fat and for spot exchange rates.
Source: DairyNZ (NZ to May 2014); Fonterra announced payout (milk price and dividend) (NZ from June 2014); USDA; European Milk Market Observatory (Netherlands milk price).
Ingredients business is two-thirds of Fonterra’s earnings

FY16 Normalised EBIT

Ingredients $1.2b
Consumer & Foodservice $0.6b
China Farms Group (1) $(0.06b)

$1.4b

NZ Ingredients $1,140m
Latam Ingredients $18m
Australia Ingredients $63m
Farm Source Stores $(1m)

Note: Total Ingredients EBIT includes $(16m) in eliminations and other EBIT

1. Unallocated costs and eliminations

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Value created at each stage

Milk
- Collect all milk
- Capture right to earn regulated return

Optimisation
- Set optimal 18-month plan
- Create maximum value from all product streams

Contract
- Sell to plan
- Generate demand and premiums for spec, supply, terms, etc.

Production
- Produce to plan and contracted sales
- Minimise cost and maximise quality

Shipment
- Store and ship
- In-market storage for greater flexibility

Customer
- Payment on competitive terms
- Create value-in-use for customers

Monetise Optionality
- Creating value through flexibility between products, assets and customers including financial derivatives
NZ Ingredients earnings significantly exceed Milk Price Model (MPM) benchmark

<table>
<thead>
<tr>
<th></th>
<th>FY16</th>
<th></th>
<th>Other</th>
<th>Gross</th>
<th>SG&amp;A</th>
<th>Normalised EBIT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Revenue</td>
<td>Milk Cost</td>
<td>COGS</td>
<td>Margin</td>
<td>$6.1b</td>
</tr>
<tr>
<td>NZ Ingredients</td>
<td></td>
<td>$11.8b</td>
<td>$6.2b</td>
<td>$3.9b</td>
<td></td>
<td>$1.7b</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$7.49</td>
<td>$3.90</td>
<td>$2.49</td>
<td></td>
<td>$1.10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1,583m kgMS</th>
<th>1,566m kgMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NZ Ingredients</td>
<td>$11.8b</td>
<td>$9.1b</td>
</tr>
<tr>
<td></td>
<td>$7.49</td>
<td>$5.83</td>
</tr>
</tbody>
</table>

Milk Price Model

<table>
<thead>
<tr>
<th></th>
<th>1,583m kgMS</th>
<th>1,566m kgMS</th>
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</thead>
<tbody>
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<tr>
<td></td>
<td>$7.49</td>
<td>$5.83</td>
</tr>
</tbody>
</table>
## Important definitions for New Zealand Ingredients

**Prices**

<table>
<thead>
<tr>
<th>Price Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Price</td>
<td>Weighted average price of standard specification RCPs on GDT and Spot</td>
</tr>
<tr>
<td>Contract Price</td>
<td>Actual realised selling price of Fonterra product</td>
</tr>
<tr>
<td>Base Price</td>
<td>Market-referenced benchmark used internally by Fonterra (GDT referenced)</td>
</tr>
</tbody>
</table>

**Earnings**

<table>
<thead>
<tr>
<th>Earnings Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulated Return</td>
<td>Allowed return on capital per the MPM</td>
</tr>
<tr>
<td>Price Achievement</td>
<td>Price achieved over and above benchmark Base Prices</td>
</tr>
<tr>
<td>Stream Return</td>
<td>Differential between MPM GM and GM on benchmark Base Prices</td>
</tr>
<tr>
<td>Milk Price Gap</td>
<td>Cost differential between Fonterra actuals and MPM</td>
</tr>
</tbody>
</table>

### Diagram

- **Contract Price**
- **Base Price**
- **Reference Price**
- **Price Achievement**
- **Stream Return**
- **Regulated Return**
- **Milk Price Gap**

### Notes

- *RCP = Reference Commodity Product (WMP, SMP, Butter, AMF, BMP)*
- *Non-RCP = All other Ingredients products (eg. Cheese, Proteins, Specialty, Nutritionals)*

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## New Zealand Ingredients earnings and drivers

<table>
<thead>
<tr>
<th>Component</th>
<th>Definitions</th>
<th>Drivers</th>
</tr>
</thead>
</table>
| Regulated Return   | + Earnings component of Milk Price from WACC (weighted average cost of capital) return on modelled assets | • WACC rate  
• Fixed asset base (model)  
• Actual working capital – RCP sales rate, advance rate  
• Timing of sales |
| Stream Return      | +/- Gross margin differential between Non-RCP product streams and WMP stream (based on base prices) | • Product mix  
• Asset flexibility  
• Volumes  
• Customer demand and contract profile |
| Price Achievement  | + Revenue achieved over Base Price  
- Incremental supply chain costs over Milk Price model  
+/- Risk management on contract pricing | • Base prices  
• Volumes  
• Customer willingness-to-pay for solutions/services/supply  
• Contract risk, e.g. long-dated, fixed-price |
| Milk Price Gap     | +/- Delta between actuals and Milk Price costs for RCPs  
+/- Delta between actual operating costs for producing Non-RCPs and Milk Price Model cost for processing same volume of milk into RCPs | • Actual manufacturing footprint  
• Product mix and volumes  
• Operating performance  
• Timing of manufacture |
| Other              | + Liquid milk sales (under DIRA)  
+ Kotahi (incremental to Milk Price) & DFE JV earnings  
+ Global sourcing  
- Incremental SG&A over Milk Price model | • Timing of sales  
• Performance of individual businesses  
• Global dairy prices and ability to arbitrage  
• Opex spend levels |
Regulated Return and Price Achievement and most important earnings buckets
FY16 New Zealand Ingredients earnings ($m)

<table>
<thead>
<tr>
<th>Bucket</th>
<th>FY16 Earnings ($m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulated Return</td>
<td>680</td>
</tr>
<tr>
<td>Stream Return</td>
<td>140</td>
</tr>
<tr>
<td>Price Achievement</td>
<td>650</td>
</tr>
<tr>
<td>Milk Price Gap</td>
<td>(435)</td>
</tr>
<tr>
<td>Other</td>
<td>105</td>
</tr>
<tr>
<td>NZ Ingredients EBIT</td>
<td>1,140</td>
</tr>
</tbody>
</table>

Note: Regulated Return is that earned in the FY (based on actual sales) rather than total outlined in the Milk Price model for the season (a different time period)
RCP products make up the bulk of our volume
Non-RCP products the bulk of our value

In FY16, **NZ Ingredients** manufactured 2.7m MT
72% were RCP products

In FY16, **Milk Price Model**
production was 3m MT

1. RCP = Reference Commodity Product (WMP, SMP, Cream (Butter & AMF), BMP) – only products manufactured in the Milk Price Model
2. Non-RCP = All other Ingredients products (eg. Cheese, Proteins, Specialty, Nutritionals)

*Note: Manufacture of Non-RCP product streams (eg. Casein) produces RCP by-products (eg. Cream) – these volumes are not included in the Milk Price Model*
Value of Non-RCP comes from higher selling prices relative to RCP

<table>
<thead>
<tr>
<th></th>
<th>FY16 Revenue</th>
<th>Milk Cost</th>
<th>Other COGS</th>
<th>Gross Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>NZ Ingredients</td>
<td>1,583m kgMS</td>
<td>$7.49</td>
<td>$3.90</td>
<td>$2.49</td>
</tr>
<tr>
<td>Non-RCP</td>
<td>423m kgMS</td>
<td>$8.46</td>
<td>$4.04</td>
<td>$2.13</td>
</tr>
<tr>
<td>RCP</td>
<td>1,083m kgMS</td>
<td>$5.81</td>
<td>$3.85</td>
<td>$1.38</td>
</tr>
<tr>
<td>Milk Price Model</td>
<td>1,566m kgMS</td>
<td>$5.83</td>
<td>$3.90</td>
<td>$1.29</td>
</tr>
</tbody>
</table>
Strong value creation strategy in place

Our Vision and Objectives

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<th>Cash Generators</th>
<th>Growth Generators</th>
<th>New Business Generators</th>
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<tbody>
<tr>
<td>‘Must do’</td>
<td>‘Can do’</td>
<td>‘Want to do’</td>
</tr>
<tr>
<td>Source of cash to finance growth</td>
<td>Source of future cash</td>
<td>Mould-breaking investment opportunities</td>
</tr>
</tbody>
</table>

CREATE OPTIONALITY
- Improve asset flexibility to achieve a 50% reduction in Non-RCP force-make and improve returns from Non-RCP streams
- Increase options in our contract book through more flexible contracting and channels to market
- Grow and leverage financial contracts

GROWTH GENERATORS
- Rebalance current portfolio to improve earnings stability and enable growth
- Invest in mozzarella, UHT (NZ sourced and recombined), speciality and nutritional products
- Reduce allocations to natural cheese and casein

MULTI-HUBS
- Align demand with most attractive milk pools
- Accelerate investment in whey from Europe
- Build nutritional/cheese/whey COE in Australia
- Invest in Chilean milk hub to service expansion in Brazil
- Align China Farms to in-market processing facilities

Organisational Capabilities:
Org design will need to support new approach

Capital Structure:
Global Co-op Model
Our multi-hub strategy is already in place

Primary investment

Complementing our New Zealand Milk Pool

- Enable growth of Ingredients business to support customer demand (All)
- Secure access for our NZ milk exports (China and Sri Lanka)
- De-risk supply for ingredients customers (Australia and Europe)
- Optimise our ingredients manufacturing footprint (Europe and US)
- Enable our development of higher margin consumer brands and foodservice opportunities (Chile, China and Australia)
We are rebalancing our New Zealand asset portfolio through recent and future investments.

- **Neutral**
  - (Invest if returns significantly exceed cost of capital over time)

- **Accelerate Investment**
  - UHT
  - Mozzarella / SOS
  - Specialty & Functional Proteins
  - Cream Cheese

- **Grow with Market**
  - Butter / AMF
  - WMP / SMP

- **Supports Earnings Stability/Growth**

- **Supports V3 Strategy**
  - Natural cheese
  - Casein

**High**

**Low**
Developing optionality across Ingredients to deliver higher sustainable earnings

Asset Flexibility
New capacity removing production constraints

Mix Optimisation
Increase our contract book to reduce demand constraints

Financial (futures) Markets
Made deeper to enable asset flexibility to be monetised

Higher Sustainable Earnings
That are less volatile and difficult for competitors to match

Precendents
Grain (Cargill)
Utilities (electricity)
Oil industry

If the scale of our capacity is matched by greater depth and flexibility in sales channels, and financial markets, substantially higher and less volatile earnings are possible
Key messages on Ingredients value

• Ingredients business is two-thirds of Fonterra’s earnings

• Milk Price Model allows us to earn a Regulated Return

• Optionality in NZ Ingredients business creates higher earnings than Milk Price Model

• Our strategy has increased optionality and quality of earnings
Regulated Return
Paul Washer
Director Financial Performance & Planning
# Milk Price Model & Regulated Return

<table>
<thead>
<tr>
<th>Component</th>
<th>Definitions</th>
<th>Drivers</th>
</tr>
</thead>
</table>
| Regulated Return           | + Earnings component of Milk Price from WACC (weighted average cost of capital) return on modelled assets
   | +/- Gross margin differential between Non-RCP product streams and WMP stream (based on base prices) | • WACC rate
   | Stream Return              | + Revenue achieved over Base Price Incremental supply chain costs over Milk Price model
   | Price Achievement         | +/- Risk management on contract pricing                                     | • Fixed asset base (model)
   | Milk Price Gap            | +/- Delta between actuals and Milk Price costs for RCPs
   | Other                     | + Liquid milk sales (under DIRA)                                           | • Actual working capital – RCP sales rate, advance rate
   |                           | + Kotahi (incremental to Milk Price) & DFE JV earnings                      | • Timing of sales
   |                           | + Global sourcing                                                           | • Performance of individual businesses
   |                           | + Incremental SG&A over Milk Price model                                    | • Global dairy prices and ability to arbitrage
   |                           |                                                                             | • Opex spend levels
Rationale for a Milk Price Model

- Currently there is no true market for all raw milk produced in New Zealand
- **No ‘market price’** for milk collected within New Zealand
- Farmgate Milk Price provides farmers with a market signal

Share of New Zealand milk collection 2015/16 season¹

1. Information from Dairy NZ Annual Reports

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¹ Information from Dairy NZ Annual Reports
Milk Price Model follows three basic principles

• Farmgate Milk Price methodology is codified in the Farmgate Milk Price Manual
• This detailed framework is guided by the Farmgate Milk Price Principles:

1. Should reflect the benefits of scale and other economies enjoyed by Fonterra

2. Should be the maximum amount an efficiently-run commodity player can sustainably pay

3. Should allocate the impact of risks between suppliers (via the Farmgate Milk Price) and Fonterra based on an ability to manage it

Transparent governance, audit and reporting processes
Milk Price Model allows Fonterra to retain specified dollar amount as Regulated Return. Currently over $600m

<table>
<thead>
<tr>
<th>Reference Commodity Products 100%</th>
<th>2016 Milk Price Model NZD</th>
<th>Per kgMS¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk Price Revenue</td>
<td>$9.1b</td>
<td>$5.83</td>
</tr>
<tr>
<td>Milk Price Cash Costs</td>
<td>$2.4b</td>
<td>$1.52</td>
</tr>
<tr>
<td>Regulated Return (Milk Price Capital Costs)</td>
<td>$0.6b</td>
<td>$0.41</td>
</tr>
<tr>
<td>Farmgate Milk Price</td>
<td>$6.1b</td>
<td>$3.90</td>
</tr>
</tbody>
</table>

Based on GDT and spot prices of reference commodity products (RCPs)

Combination of actual and assumed operating costs – includes depreciation

WACC return on both fixed assets and working capital

WACC rate 5.9%
$6.9b fixed assets
$1.3b working capital

1. 1,566m kgMS
Note: MPM year-end is 31 May versus Fonterra at 31 July; gross revenue shown

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Drivers of the Milk Price

<table>
<thead>
<tr>
<th>Changes that ‘pass through’ to the Milk Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCP product mix</td>
</tr>
<tr>
<td>RCP sales phasing</td>
</tr>
<tr>
<td>Commodity prices</td>
</tr>
<tr>
<td>Currency</td>
</tr>
<tr>
<td>Resource unit costs</td>
</tr>
<tr>
<td>Milk collection and logistics costs</td>
</tr>
</tbody>
</table>

Drivers of the Regulated Return

<table>
<thead>
<tr>
<th>WACC rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted annually in line with market interest rates and funding spreads to government bonds (NZ 5-year)</td>
</tr>
<tr>
<td>Beta adjusted through 5-yearly review</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fixed asset base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reviewed annually to assess sufficient modelled capacity to process forecast milk volumes</td>
</tr>
<tr>
<td>Assets depreciated over asset life then ‘replaced’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Working capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moves with changes in RCP sales rates and the advance rate of payments to Fonterra suppliers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Timing of sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model uses Fonterra’s actual sales phasing of RCPs</td>
</tr>
<tr>
<td>Regulated return may be earned through product sale in next financial year</td>
</tr>
</tbody>
</table>
Milk Price then forms key component of New Zealand Ingredients COGS

Milk Price paid to NZ farmers

Reference Commodity Products 100%

- Milk Price Revenue
- Milk Price Cash Costs
- Regulated Return (Milk Price Capital Costs)
- Farmgate Milk Price

NZ Ingredients

RCPs ~70%

- Revenue
- Operating and Overhead Costs
- Farmgate Milk Price¹

Non-RCPs ~30%

- Revenue
- Operating and Overhead Costs
- Farmgate Milk Price¹

NZ Ingredients EBIT

1. Includes “approved adjustments” in respect of, for example, premiums for organic milk and winter milk
Key messages on Regulated Return

- Fixed dollar amount calculated on annual basis
- Variable component linked to actual working capital
- Independent of milk volume in given year
- Can be offset by pricing risk in product mix decisions
Optimisation
Josh Sigmund
Director NZMP Sales and Transformation
Optimisation & Stream Return

Component |
--- |
Regulated Return |
Stream Return |
Price Underpinning |
Milk Price Gap |
Other |

Definitions

- Earnings component of Milk Price from WACC (weighted average cost of capital) return on modelled assets
- +/- Gross margin differential between Non-RCP product streams and WMP stream (based on base prices)
- Revenue achieved over Base Price
- +/- Risk management on contract pricing
- +/- Delta between actuals and Milk Price costs for RCPs
- +/- Delta between actual operating costs for producing Non-RCPs and Milk Price Model cost for processing same volume of milk into RCPs
- Liquid milk sales (under DIRA)
- Kotahi (incremental to Milk Price) & DFE JV earnings
- Global sourcing
- Incremental SG&A over Milk Price model

Drivers

- WACC rate
- Fixed asset base (model)
- Actual working capital – RCP sales rate, advance rate
- Timing of sales
- Product mix
- Asset flexibility
- Volumes
- Customer demand and contract profile
- Base prices
- Volumes
- Customer willingness-to-pay for solutions/services/supply
- Contract risk, e.g. long-dated, fixed-price
- Actual manufacturing footprint
- Product mix and volumes
- Operating performance
- Timing of manufacture
- Timing of sales
- Performance of individual businesses
- Global dairy prices and ability to arbitrage
- Opex spend levels
Fonterra’s optimisation process

1. **S&OP** = Sales & Operations Planning

### Strategic Portfolio Management

- Group function driven by analysis and scenario-testing
- Manages Global S&OP
- Defines global asset portfolio

### Global Ingredients S&OP¹

- Single global S&OP for Ingredients
- Consumer regions input via demand signals sent to S&OP
- Overseen by Global S&OP

### Manufacturing and Logistics

- Rolling 2-week schedule
- Controlled by central planning with local scheduling
- Consumer regions plan in-line with demand forecasts

---

¹ S&OP = Sales & Operations Planning
Optimisation factors

1. Commodity prices / Stream returns

2. Supply

3. New Zealand asset footprint

4. Customer demand / contract profile
Optimisation allocates the components of milk to the highest value product streams

Water 86%

Total Solids 14%

- Lactose 4.6%
- NPN\(^1\) 0.2%
- Whey Protein 0.6%
- Casein Protein 2.9%
- Protein 3.7%
- Fat 4.8%

**Milk Solids 8.5%**

1. NPN = Non-Protein Nitrogen

Page 35 © Fonterra Co-operative Group Ltd.
Fonterra produces and sells three distinct groups of dairy ingredients

- Powders
- Cheese
- Protein
Downstream / by-products are created when we produce any one product

**Powder Stream — Whole Milk Power**

- **AMF**
- **BMP**

**Protein Stream — Rennet Casein**

- **Butter**
- **BMP**
- **WPC**
- **Lactose**
We evaluate stream returns fortnightly and optimise our available production

### Powder Stream
- **Whole Milk Powder**

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
<th>Product Margin</th>
<th>Yield</th>
<th>Base Product Return</th>
<th>Downstream Products</th>
<th>Stream Return</th>
<th>Stream Return (c/kgMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Price</td>
<td>$2,800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable Cost</td>
<td>- 200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Margin</td>
<td>$2,600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yield</td>
<td>x 1.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base Product Return</td>
<td>$4,550</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downstream Products</td>
<td>+ 700</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stream Return</td>
<td>$5,250</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stream Return (c/kgMS)</td>
<td>525</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Protein Stream
- **Rennet Casein**

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
<th>Product Margin</th>
<th>Yield</th>
<th>Base Product Return</th>
<th>Downstream Products</th>
<th>Stream Return</th>
<th>Stream Return (c/kgMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Price</td>
<td>$7,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable Cost</td>
<td>- 1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Margin</td>
<td>$6,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yield</td>
<td>x 0.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base Product Return</td>
<td>$2,160</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downstream Products</td>
<td>+ 4,200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stream Return</td>
<td>$6,360</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stream Return (c/kgMS)</td>
<td>636</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Numbers are for illustration purposes only.
Relative product stream returns provide short and long-term value creation opportunities

Optimisation allows us to profit from short-term optionality

Long-term strategy is to move asset portfolio towards higher returning Non-RCP streams

![Graph showing Individual Product Streams with stream return percentages and relative stream returns from 2006-2016 with average and median values.](image-url)
New Zealand’s milk supply profile and our asset footprint provide considerable constraints.
Current footprint allows flexibility between RCP and Non-RCP product streams

Production capacity by commodity group

Production capacity by RCP and Non-RCP

Non-RCP production range of approximately 25% to 45%
Committed volumes impact flexibility but offer incremental value

Note: Numbers are for illustration purposes and do not reflect actuals
Key messages on Optimisation

• Drives product mix

• Maximises for total shareholder value – Milk Price and EBIT combined

• Based on projected demand at forecast prices

• Constrained by milk supply and asset footprint

• Creates potential (positive or negative) stream return risk

• Long-run prices favour allocation to Non-RCP capacity
Global Operations
Robert Spurway
COO Global Operations
## Operations and Milk Price Gap

<table>
<thead>
<tr>
<th>Component</th>
<th>Definitions</th>
<th>Drivers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regulated Return</strong></td>
<td>+ Earnings component of Milk Price from WACC (weighted average cost of capital) return on modelled assets</td>
<td>• WACC rate</td>
</tr>
<tr>
<td></td>
<td>+/- Gross margin differential between Non-RCP product streams and WMP stream (based on base prices)</td>
<td>• Fixed asset base (model)</td>
</tr>
<tr>
<td><strong>Stream Return</strong></td>
<td>+ Revenue achieved over Base Price Incremental supply chain costs over Milk Price model +/- Risk management on contract pricing</td>
<td>• Actual working capital – RCP sales rate, advance rate</td>
</tr>
<tr>
<td><strong>Price Achievement</strong></td>
<td>+/- Delta between actuals and Milk Price costs for RCPs +/- Delta between actual operating costs for producing Non-RCPs and Milk Price Model cost for processing same volume of milk into RCPs</td>
<td>• Timing of sales</td>
</tr>
<tr>
<td><strong>Milk Price Gap</strong></td>
<td>+ Liquid milk sales (under DIRA) + Kotahi (incremental to Milk Price) &amp; DFE JV earnings + Global sourcing Incremental SG&amp;A over Milk Price model</td>
<td>• Actual manufacturing footprint</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td>• Product mix</td>
</tr>
</tbody>
</table>

### Definitions

- **Regulated Return**
  - Earnings component of Milk Price from WACC (weighted average cost of capital) return on modelled assets
  - +/- Gross margin differential between Non-RCP product streams and WMP stream (based on base prices)

- **Stream Return**
  - Revenue achieved over Base Price Incremental supply chain costs over Milk Price model
  - +/- Risk management on contract pricing

- **Price Achievement**
  - +/- Delta between actuals and Milk Price costs for RCPs
  - +/- Delta between actual operating costs for producing Non-RCPs and Milk Price Model cost for processing same volume of milk into RCPs

- **Milk Price Gap**
  - Liquid milk sales (under DIRA)
  - Kotahi (incremental to Milk Price) & DFE JV earnings
  - Global sourcing Incremental SG&A over Milk Price model

- **Other**
  - Timing of sales
  - Performance of individual businesses
  - Global dairy prices and ability to arbitrage
  - Opex spend levels
Global Operations expertise from grass-to-glass

End-to-end control of our products

- Over 10,000 suppliers
  4.5 million cows
  20 billion litres

- Fonterra vats:
  2.4 million farm collections

- 14 depots
  506 tankers
  95 million kilometres

- 96 primary plants across
  33 site locations
  2.7m MT of product

- Kotahi Maersk strategic p/ship
  5 deep sea ports, >1,800 voyages
  300+ destination ports

- Coda logistics reduces waste

- 55 Fonterra owned stores
  30 third party providers

- Secondary processing:
  Eltham cheese,
  Canpac infant formula

Fonterra vats:
2.4 million farm collections

Secondary processing:
Eltham cheese,
Canpac infant formula
Supporting all parts of Fonterra business

CONSUMER STRATEGY

FOODSERVICE STRATEGY

GLOBAL INGREDIENTS STRATEGY

ENHANCING OUR REPUTATION
Partner in the delivery of our Ingredients strategy

To be the #1 preferred supplier of dairy ingredient solutions
Globally Optimised, Multi-hub, Multiple sources

Global Operations strategy connection

- **Consolidating our #1 dairy ingredients reputation** through foundations of trust in source, delivery performance and customer satisfaction
- **Conversion cost leadership**
- **Creation of differentiated products and segmented supply chains** and to create customer value across the dairy ingredients portfolio
- **Global supply points for security and speed of supply**

Turning the wheel with integrated category teams
Production spread across 10 different product groups

In FY16, **NZ Ingredients** manufactured 2.7m MT
72% were RCP products

In FY16, **Milk Price Model** production was 3m MT

---

1. RCP = Reference Commodity Product (WMP, SMP, Butter, AMF, BMP) – only products manufactured in the Milk Price Model
2. Non-RCP = All other Ingredients products (eg. Cheese, Proteins, Specialty, Nutritionals)

Note: Manufacture of Non-RCP product streams (eg. Cheese) produces RCP by-products (eg. Cream) – these volumes are not included in the Milk Price Model
Majority of costs in primary processing and storage

- Milk collection: $0.4b
  - Collecting raw milk from farm vats
- Direct manufacturing and domestic supply chain cost: $1.9b
  - Fixed costs of $730m
  - Variable costs of $865m
  - Domestic supply chain costs of $315m
- Secondary processing / other: $0.7b
  - Eltham cheese
  - Waitoa UHT
  - Canpac
  - Waharoa Agbiz
  - Heerenveen whey and lactose
- Shared services: $0.2b
  - Product management and development
  - Asset footprint and optimisation
  - Plant automation and process control
  - Product testing laboratories
  - Overheads
- Shipping costs: $0.5b
  - Sea freight costs
- Total Global Operations costs: $3.7b

Costs per kilogram milk solids (kgMS):
- $1.28 / kgMS
- $2.47 / kgMS
Gap to Milk Price Model is driven by production of Non-RCPs and higher storage costs

Non-RCPs  $2.02 / kgMS

Milk collection  $1.28 / kgMS
Direct manufacturing and domestic supply chain cost  $1.9b
Secondary processing / other
Shared services
Shipping costs
Total Global Operations costs  $3.7b

RCPs  $1.03 / kgMS

Domestic Supply Chain Costs
Fixed Costs
Variable Costs

1.03
1.01
0.12
0.23
0.34
0.36
0.55
0.45
1.26
0.69

Powder Plants Cream Plants (Fonterra GO Plants)

Milk Price  Fonterra Global Operations
Performance focus is on balancing customer service and lower unit costs while mitigating risks

**Manufacturing costs**
Ingredient variable costs / kgMS manufactured

<table>
<thead>
<tr>
<th>Year</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$0.90</td>
<td>$0.96</td>
<td>$0.96</td>
<td>$0.91</td>
<td>$0.78</td>
</tr>
</tbody>
</table>

Ingredient fixed costs / kgMS manufactured

<table>
<thead>
<tr>
<th>Year</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$0.74</td>
<td>$0.78</td>
<td>$0.71</td>
<td>$0.74</td>
<td>$0.78</td>
</tr>
</tbody>
</table>

**Key risks**
Peak milk costs ($m)

<table>
<thead>
<tr>
<th>Year</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>13</td>
<td>75</td>
<td>59</td>
<td>0</td>
</tr>
</tbody>
</table>

Manufacturing quality costs ($m)

<table>
<thead>
<tr>
<th>Year</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grading Complaints</td>
<td>11</td>
<td>7</td>
<td>37</td>
<td>14</td>
</tr>
<tr>
<td>Cost</td>
<td>50</td>
<td>74</td>
<td>64</td>
<td>33</td>
</tr>
</tbody>
</table>
Capital plan is driven by asset portfolio strategy

- **Neutral**
  - (Invest if returns significantly exceed cost of capital over time)

- **Accelerate Investment**
  - UHT
  - Mozzarella / SOS
  - Specialty & Functional Proteins
  - Cream
  - Cheese

- **Grow with Market**
  - Butter / AMF
  - WMP / SMP

- **Reduce**
  - (Allocation)
  - Natural cheese
  - Casein

- **Supports Earnings Stability/Growth**
  - High
  - Low
Passed period of significant capacity spend and now focusing on higher return on capital investments.
Key messages on Global Operations

• Manufacture according to optimal plan

• Focus on gap to Milk Price Model but strategic decisions to take on more cost in order to produce Non-RCPs or add value to RCPs

• Key value drivers are efficiency, service, quality, and asset footprint

• Future investments aligned to value add strategy and capacity requirements
NZMP
Kelvin Wickham
COO NZMP
## NZMP Sales and Price Achievement

<table>
<thead>
<tr>
<th>Component</th>
<th>Definitions</th>
<th>Drivers</th>
</tr>
</thead>
</table>
| Regulated Return   | + Earnings component of Milk Price from WACC (weighted average cost of capital) return on modelled assets | • WACC rate  
• Fixed asset base (model)  
• Actual working capital – RCP sales rate, advance rate  
• Timing of sales |
| Stream Return      | +/- Gross margin differential between Non-RCP product streams and WMP stream (based on base prices) | • Product mix  
• Asset flexibility  
• Volumes  
• Customer demand and contract profile |
| Price Achievement  | + Revenue achieved over Base Price  
- Incremental supply chain costs over Milk Price model  
+/- Risk management on contract pricing | • Base prices  
• Volumes  
• Customer willingness-to-pay for solutions/services/supply  
• Contract risk, e.g. long-dated, fixed-price |
| Milk Price Gap     | +/- Delta between actuals and Milk Price costs for RCPs  
+/- Delta between actual operating costs for producing Non-RCPs and Milk Price Model cost for processing same volume of milk into RCPs | • Actual manufacturing footprint  
• Product mix and volumes  
• Operating performance  
• Timing of manufacture |
| Other              | + Liquid milk sales (under DIRA)  
+ Kotahi (incremental to Milk Price) & DFE JV earnings  
+ Global sourcing  
 Incremental SG&A over Milk Price model | • Timing of sales  
• Performance of individual businesses  
• Global dairy prices and ability to arbitrage  
• Opex spend levels |
NZMP is the leading player in the globally traded dairy market

New Zealand
- Significant participant in tradable market

Globally Traded Dairy Market\(^1,3\)
- Global export/import market
- Informs Farmgate Milk Price

Formal Dairy Market\(^2,3\)
- Reflects total dairy demand

---

Sources: International Farm Comparison Network (IFCN), Economist Intelligence Unit (EIU), Euromonitor, Fonterra analysis
Note: Volume is on an LME basis with standardised composition of milk (4.2% fat / 3.5% protein)
Volatility is here to stay

1. China, Algeria and Venezuela
NZMP – ingredients business with global reach

Our major hubs and sales offices are close to our customers

NZ & Australia Ingredients Sales Volumes

778K MT
Europe & MEA

630K MT
Greater China

721K MT
SEA

297K MT
Oceania

161K MT
North Asia

353K MT
Americas

NZ & Australia Ingredients Sales Volumes FY16: 353K MT
FY15 growth rate: 40%
FY16 growth rate: 0%

Europe & MEA:
FY16 sales volume: 778K MT
FY15 growth rate: 43%
FY16 growth rate: 17%

Greater China:
FY16 sales volume: 630K MT
FY15 growth rate: 4%
FY16 growth rate: 2%

SEA:
FY16 sales volume: 721K MT
FY15 growth rate: 12%
FY16 growth rate: 2%

North Asia:
FY16 sales volume: 161K MT
FY15 growth rate: 18%
FY16 growth rate: 2%

Oceania:
FY16 sales volume: 297K MT
FY15 growth rate: 2%
FY16 growth rate: 10%

New Zealand:
NZMP sales hub

Canada:
NZMP sales hub

USA:
NZMP sales hub

Mexico:
NZMP sales hub

Venezuela:
NZMP sales hub

Brazil:
NZMP sales hub

South Africa:
NZMP sales hub

Egypt:
NZMP sales hub

Russia:
NZMP sales hub

North Korea:
NZMP sales hub

Taiwan:
NZMP sales hub

Philippines:
NZMP sales hub

South Africa:
NZMP sales hub

New Zealand:
NZMP sales hub

Australia:
NZMP sales hub

Thailand:
NZMP sales hub

Indonesia:
NZMP sales hub

Southeast Asia (SEA):
NZMP sales hub

North Asia:
NZMP sales hub

Europe & MEA:
NZMP sales hub

Americas:
NZMP sales hub
We have a long history of developing products and markets

- **1960s**: Mechanise casein production
- **1970s**: Technical sales delegations to China
- **1980s**: Whole milk powder into Venezuela
- **1990s**: Specialty proteins at scale Mozz cheese technology
- **2000s**: Protein for sports drinks, Functional proteins for bars, Protein for sports drinks
Five strategic pathways to drive sustained value creation

- Global milk pools
- Global supply chain and logistics hubs
- Customer-led operations

- Connecting Our World
  - Customer price risk management solutions
  - Arbitrage
  - Financing solutions

- Committed Teams
  - Top quartile engagement
  - Sales & marketing capability build

- Customer Leadership
  - Segmentation and value propositions
  - Customer plans
  - Price and contract management

- Central Portfolio Management

- Category Solutions
  - Strong innovation pipeline
  - Build NZMP Brand

- Connecting Our World
Investing in our People and Processes

1. Sales & Marketing Capability

2. Customer-central Roadmap

3. Integrated Business Planning

4. SmartPrice

- Segmentation and Price Guidance
- Scientific Analytics
- SmartPrice

Data feed
Customer segmentation – targeted value propositions

- **Customers**
  - Partners
  - Priority Value
  - Resellers
  - SmartServe

- **Volume**
  - Partners
  - Priority Value
  - Resellers
  - SmartServe

- **Price Achievement**
  - Partners
  - Priority Value
  - Resellers
  - SmartServe
Five focus categories to drive future differentiation …

… and develop solutions with a segmented customer base

<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Powders</td>
<td>Powders supplied to B2B customers for repacking</td>
</tr>
<tr>
<td>Dairy Beverages</td>
<td>Dairy/non-dairy beverages and cultured brands, targeted at mainstream consumers</td>
</tr>
<tr>
<td>Dairy Foods</td>
<td>Foods that use dairy as a key ingredient: cheese, butter, desserts</td>
</tr>
<tr>
<td>Active Nutrition</td>
<td>Category covering sports, healthy lifestyles/aging and medical nutrition</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>Dairy nutrition to support the growth and development of new-borns and infants</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consumer Trends</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordability and new experiences</td>
<td>Powders supplied to B2B customers for repacking</td>
</tr>
<tr>
<td>Freshness and premiumisation</td>
<td>Dairy/non-dairy beverages and cultured brands, targeted at mainstream consumers</td>
</tr>
<tr>
<td>Convenience and westernisation</td>
<td>Foods that use dairy as a key ingredient: cheese, butter, desserts</td>
</tr>
<tr>
<td>Increasing health awareness</td>
<td>Category covering sports, healthy lifestyles/aging and medical nutrition</td>
</tr>
<tr>
<td>Nutrition offerings that match benefits parents are looking for</td>
<td>Dairy nutrition to support the growth and development of new-borns and infants</td>
</tr>
</tbody>
</table>
Unlocking value through Central Portfolio Management

Sales Book Management
- Sales tactics
- Monetising insights
- Contract tenor

Arbitrage
- Tariff efficiency across global milk pools
- Geographic pricing spreads

Customer PRM Solutions
- Spread between buy-side and sell-side products
- Contract markets eg. fixed price

Monetising Optionality
- Asset flexibility
- Mix optimisation
- Financial markets
Enabled by the continued development in our supply chain

**US**
Whey and lactose partnership supports our whey portfolio and provides lactose for standardisation in New Zealand

**Chile**
Cheese and butter to Mexico and the US

**Europe Whey Pools**
Multi-origin whey sourcing options increases supply optionality and supply security; giving us the right to win and grow with our key partners

**Australia**
Cheese to North Asia

<table>
<thead>
<tr>
<th>Milk Powder / Foodservice</th>
<th>Cheese / Whey / Infant Formula</th>
<th>Whey</th>
<th>UHT / Foodservice</th>
<th>New regional hub</th>
</tr>
</thead>
</table>
Examples of delivering solutions for our customers to build sustainable premiums

**Tailored Whey Offering**
Whey innovation for sports nutrition with leading Japanese dairy company – backed by multi-origin sourcing options

**Cheese Innovation**
New affordable cheese formulation with increased ‘stretch’ for pizzas in our key Asia markets

**Financial Services**
Long fixed price contracts to a portfolio of customers to manage cost of goods – backed by hedging derivative

**Supply Chain Solution**
Dubai in-market warehouse increasing customer responsiveness on order lead times
Strong ability to capture premiums over time

Price Achievement (US$m)

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual (NZ$)</th>
<th>Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY15</td>
<td>$550m</td>
<td>434</td>
</tr>
<tr>
<td>FY16</td>
<td>$650m</td>
<td>460</td>
</tr>
<tr>
<td>FY17</td>
<td>$650m</td>
<td>450</td>
</tr>
<tr>
<td>FY18</td>
<td>$700m</td>
<td>480</td>
</tr>
<tr>
<td>FY19</td>
<td>$750m</td>
<td>500</td>
</tr>
</tbody>
</table>
Key messages on NZMP

• Global sales network and well established customer base
• Proven track record navigating volatility, building markets and innovation
• Earning premiums for product and service differentiation above reference prices
• Focused investment in innovation, capability and services to win with targeted customers
• Leveraging global supply footprint to build out success options
Fonterra Strategy
Theo Spierings
CEO
On track to meet our 2025 ambition

With our purpose, story and values at the heart, our ‘This is Fonterra framework’ brings together our people, identity and strategy commitments to guide us to be the world’s most trusted source of dairy nutrition.

OUR STRATEGY
The KPI strategy is growing volume in higher value at velocity. It is delivered through our seven strategic pathways.

1. OPTIMISE
   - New Zealand milk

2. BUILD AND GROW
   - Beyond our current consumer positions

3. DELIVER
   - On Foodservice potential

4. GROW
   - Our Arien business

5. DEVELOP
   - Leading positions in premium and infant nutrition

6. SELECTIVELY INVESt
   - In milk pools

7. ALIGN
   - Our business and organisation

OUR PEOPLE
All of us, together: farmers and employees, part of one team, delivering our potential.

- Caring for our people, farmers and customers
- Trusted, open and engaging leaders
- Growing our people, continuously improving, investing for the future

OUR IDENTITY
Creating long-term shared value for our farmers, our communities and the environment.

- Making trusted dairy nutrition accessible to the world
- Leadership in food safety, quality and dairy integrity
- Championing the health of farms, waterways and communities

OUR VALUES
Our values are our guide and underpin how we do business:

- CO-OPERATIVE SPIRIT
- DO WHATS RIGHT
- CHALLENGE BOUNDARIES
- MAKE IT HAPPEN
Delivering our strategy
Volume to higher Value at Velocity

<table>
<thead>
<tr>
<th>Step</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Optimise NZ milk</td>
</tr>
<tr>
<td>2</td>
<td>Build and grow beyond our current consumer positions</td>
</tr>
<tr>
<td>3</td>
<td>Deliver on Foodservice potential</td>
</tr>
<tr>
<td>4</td>
<td>Grow our Anlene™ business</td>
</tr>
<tr>
<td>5</td>
<td>Develop leading positions in paed &amp; maternal nutrition</td>
</tr>
<tr>
<td>6</td>
<td>Selectively invest in milk pools</td>
</tr>
<tr>
<td>7</td>
<td>Align our business and organisation</td>
</tr>
</tbody>
</table>

**FY16 result**
- GDT volume lower
- Ingredients
  - Optionality improved mix
  - Ingredients solutions for customers adding value
  - Lower operating costs
  - Return on capital of 13.4%
- Consumer and Foodservice
  - Added 380m more LMEs
  - 1 billion added in two years
  - Return on capital of 41.7%

Note: Return on Capital (ROC) excludes goodwill, brands and equity accounted investments

Source: Wheel shows percentage of total FY16 external sales (LME) by strategic platform; Growth rates include intercompany sales to other strategic platforms
Strategic planning cycle

STRATEGIC ANALYSIS

1. Define and disaggregate
2. Analyse
3. Synthesise

Approach
What this gives us
Timing

Identify the key questions and assumptions that underpin the success of the 7 strategic pathways

A clearer picture of SWOT¹ in each pathway, and a blue ocean view of technologies and innovation with potential to transform our business model

Feb '17

Food has a massive global economic, social and environmental footprint...

- **40%** Global employment
- **10%** Consumer spending NZ$8 trillion
- **1 billion** farms
- **Global dairy industry supports** 1 billion livelihoods
- **Family of 30,000** 1 billion consumers
- **25%** NZ exports $12 billion into the New Zealand economy

NZ$8 trillion

1 billion

25%
The productivity and climate challenge

• Dairying is 20% of all global agricultural land

• Today farmers grow 5-6 times the amount of produce from the same hectare of land as 100 years ago BUT...

• Global productivity growth of food production was 3-4% annually for much of the post war era

• However it has now fallen to below 1% annually

• If global food productivity growth was 2-3%, the impact on combating global poverty would be immense

Post-war era

3-4%

Today

<1%

Tomorrow

2-3% ?
Resurgent nationalism brings uncertainty
Global mega trends and social responsibility influence our choices

- Climate change working against future of food
- Food production contributes 30% of global greenhouse gas emissions
- Serious land degradation affects 20% of world's arable land

- Nationalism
  - Resurgence of nationalism brings uncertainty
  - Protectionism threatens global trade
  - Volatility in commodity prices to prevail

- Climate Change
  - Dairying is 20% of all global agricultural land
  - Current food productivity growth is 1% per annum
  - If we could raise it to 2-3% we could help alleviate world poverty

- Global Trends
  - Feeding the world (7.5B people), a third of which is wasted
  - Food has a massive global impact:
    - 40% of global employment
    - NZ$8 trillion industry – 10% of consumer spend
  - Dairy contributes >NZ$12bn to the NZ economy supported by a 30,000 strong family

- Socio-economic
  - Productivity
Strategic planning cycle

**Approach**

**What this gives us**

**Timing**

1. **STRATEGIC CHOICES**
   - Define and disaggregate
   - Analyse
   - Synthesise

2. Make choices on adjustments to where and how to compete within each strategic pathway

3. A strong link between the Ambition and the most important moves that need to be taken at BU level

April '17
Our strategic choices are anchored by our beliefs and assessed through commercial filters

Beliefs

- Dairy is demand-led
- NZ milk can sustainably grow at 2-3% p.a.
- Offshore milk is needed to meet demand

Filters

- Strategic Relevance
- Return on Capital
- Market Potential
- Ability to Win
Strategy house

Group Themes

1. Optimise NZ milk
2. Build and grow beyond our current consumer positions
3. Deliver on Foodservice potential
4. Grow our Anlene business
5. Develop leading positions in paed & maternal nutrition
6. Selectively invest in milk pools
7. Align our business and organisation

Cash Generators “Must Do”

- Are we capturing maximum stream returns?
- Are we capturing maximum value through our current commercial model?
- What level of NZ milk pool growth is sustainable?

Growth Generators “Can Do”

- What are the best long term uses for each Milk Pool?
- Is there enough whitespace in our target markets to satisfy our growth ambitions?
- Where does Consumer and Foodservice growth create the most value?
- Can we win in our target growth markets with our current proposition and capabilities?

New Business Generators “Want to Do”

- How and where do we use NZMP to seed Consumer brands?
- How do we compete effectively in low cost markets as well as traditional developed markets?
- Are we the natural owner of milk pools?

Organisational Capabilities

Where does an integrated model create competitive advantage?

Capital Management

What are the capabilities needed to implement our strategy?
Strategic choices

V3 Strategy
‘Cash’ and ‘Growth’

- Market / Product Selection
- Commercial Models
- Growth Paths
- Resource Allocation

Future Growth Platforms
‘Growth’ and ‘New Business’

- Innovation
- Disruption
- Technology
- Digital Transformation
- M&A

Sustainable Long-term Model

- Future of Food
- Future State Operations
- Consumer of the Future
- Sustainable Production

Scope

Value Horizon

1-3 years
5-10 years
>10 years
Strategic planning cycle

**Approach**

What this gives us

Timing

---

**STRATEGIC ANALYSIS**

1. Define and disaggregate
2. Analyse
3. Synthesise

A clearer picture of SWOT in each pathway, and a blue ocean view of technologies and innovation with potential to transform our business model

**STRATEGIC CHOICES**

- Define and disaggregate
- Analyse
- Synthesise

Identify the key questions and assumptions that underpin the success of the 7 strategic pathways

**STRATEGIC IMPLEMENTATION**

1. Define and disaggregate
2. Analyse
3. Synthesise

A strong link between the Ambition and the most important moves that need to be taken at BU level

Identify the most important actions to take to maximize the chances of successfully 'landing' the strategy

A clear implementation plan connected to action, aligned and integrated with the three year business plan

June ‘17
Ingredients strategy in place and underway

**Asset Flexibility**
New capacity removing production constraints

**Mix Optimisation**
Increase our contract book to reduce demand constraints

**Financial (futures) Markets**
Made deeper to enable asset flexibility to be monetised

**Higher Sustainable Earnings**
That are less volatile and difficult for competitors to match

**Precedents**
- Grain (Cargill)
- Utilities (electricity)
- Oil industry

If the scale of our capacity is matched by greater depth and flexibility in sales channels, and financial markets, substantially higher and less volatile earnings are possible.
Consumer & Foodservice strategy delivering higher incremental returns

...by focusing on key benefit platforms...

<table>
<thead>
<tr>
<th>Benefit Platforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
</tr>
<tr>
<td>Growth and Development</td>
</tr>
<tr>
<td>Mobility</td>
</tr>
<tr>
<td>Cognition</td>
</tr>
<tr>
<td>Uncompromised Taste</td>
</tr>
<tr>
<td>and Quality</td>
</tr>
</tbody>
</table>

...enabled by our current and future core strengths...

<table>
<thead>
<tr>
<th>Technical Differentiators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer and recombined powders</td>
</tr>
<tr>
<td>Functional proteins</td>
</tr>
<tr>
<td>Milkfat and emulsion expertise</td>
</tr>
<tr>
<td>Unlocking &amp; validating nutritional</td>
</tr>
<tr>
<td>benefits of our dairy components</td>
</tr>
<tr>
<td>Grass to glass traceability</td>
</tr>
<tr>
<td>Enabling authentic/genuine milk</td>
</tr>
<tr>
<td>production</td>
</tr>
</tbody>
</table>

...commercially delivered through 8 big plays

<table>
<thead>
<tr>
<th>8 Big Plays</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EVERYDAY VITALITY</strong></td>
</tr>
<tr>
<td><strong>UNLEASH POTENTIAL</strong></td>
</tr>
<tr>
<td><strong>CULINARY @HOME</strong></td>
</tr>
<tr>
<td><strong>ADVANCED MOBILITY</strong></td>
</tr>
<tr>
<td><strong>ADVANCED COGNITION</strong></td>
</tr>
<tr>
<td><strong>ASIAN BAKERIES – CHEF LED</strong></td>
</tr>
<tr>
<td><strong>ITALIAN KITCHENS – CHEF LED</strong></td>
</tr>
<tr>
<td><strong>QSR SUPPLIER OF CHOICE</strong></td>
</tr>
</tbody>
</table>

...focused on 4 + 4 Markets

<table>
<thead>
<tr>
<th>Demand Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route to Market</td>
</tr>
<tr>
<td>End to End Supply Chain</td>
</tr>
<tr>
<td>Capital</td>
</tr>
<tr>
<td>People</td>
</tr>
<tr>
<td>Operating Model</td>
</tr>
<tr>
<td>Digital</td>
</tr>
</tbody>
</table>
Supplementary Slides
## Gross Margin composition in FY15

<table>
<thead>
<tr>
<th></th>
<th>Revenue</th>
<th>Milk Cost</th>
<th>Other COGS</th>
<th>Gross Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>NZ Ingredients 1,554m kgMS</td>
<td>$8.43</td>
<td>$4.75</td>
<td>$2.73</td>
<td>$0.95</td>
</tr>
<tr>
<td>per kgMS:</td>
<td><strong>$9.24</strong></td>
<td><strong>$5.57</strong></td>
<td><strong>$1.94</strong></td>
<td><strong>$1.73</strong></td>
</tr>
<tr>
<td>Non-RCP 395m kgMS</td>
<td>$6.79</td>
<td>$4.50</td>
<td>$1.57</td>
<td>$0.72</td>
</tr>
<tr>
<td>RCP 1,092m kgMS</td>
<td>$6.53</td>
<td>$4.40</td>
<td>$1.51</td>
<td>$0.69</td>
</tr>
<tr>
<td>Milk Price Model 1,614m kgMS</td>
<td>$6.53</td>
<td>$4.40</td>
<td>$1.51</td>
<td>$0.69</td>
</tr>
</tbody>
</table>
Ingredients business with global reach
Leadership position in key product portfolios

Global Ingredients FY16 Sales Profile and Estimated Fonterra Share of Region’s Dairy Imports

- **Americas**
  - WMP 23%
  - SMP 4%
  - Butter 26%
  - AMF 54%
  - Cheese 8%
  - Protein 28%

- **Europe MEA**
  - WMP 41%
  - SMP 11%
  - Butter 25%
  - AMF 58%
  - Cheese 5%
  - Protein 11%

- **Greater China**
  - WMP 61%
  - SMP 56%
  - Butter 49%
  - AMF 83%
  - Cheese 22%
  - Protein 3%

- **North Asia**
  - WMP 2%
  - SMP 14%
  - Butter 70%
  - AMF 7%
  - Cheese 19%
  - Protein 11%

- **SEA**
  - WMP 67%
  - SMP 28%
  - Butter 91%
  - AMF 59%
  - Cheese 36%
  - Protein 8%

*Note: FY16 sales (MT) are shown on the basis of the shipping destination for the product.*
Example NZMP products

Products

Consumer Powders
- WMP (Instant, Reg etc.)
- Instant SMP
- Flavoured milk powders
- FFMP & Powder Blends
- Casein(ates) & MPCs

Dairy Beverages
- UHT WMP
- MPC
- SMP (Reg & UHT)
- WPCs

Dairy Foods
- Mozzarella
- Natural Cheese (Edam, Gouda, Egmont)
- Butter
- AMF
- MPC

Active Nutrition
- WPC/WPI
- MPC (70, 85, functional)
- Functional WPCs
- Caseinates
- TMP
- Specialty whey e.g. hydrolysates

Paediatrics
- IF, FO & GUMP base powders
- Paediatric grade WMP, SMP & BMP
- WPC80, D90
- IF grade Lactose & GOS
- Hydrolysate, lactoferrin
- Probiotics
Appendix
Milk Price Model
Milk Price Model – building blocks

Assumes all milk collected in a season is processed into a Reference Commodity Product (RCP)

- Allocation of milk to product streams broadly matches Fonterra
- Sales phasing aligns to Fonterra, and contract phasing broadly aligns
- Lactose for standardisation – effectively a ‘negative revenue’
- Notional US$ revenue converted to NZ$ at Fonterra’s average monthly conversion rate

Revenue

- Manufacturer specifications of resource usage for modern powder plants, but Fonterra unit costs
- Fonterra collection costs
- Commission / supply chain costs assume set percentage sold via GDT, and minimal offshore network
- Administration / overhead a scaled down (RCP only) version of Fonterra costs

Cash costs

- Manufacturer specifications for ‘standard’ 1.9 million litre per day milk powder plants – new powder plants 2.4 million litres per day from 2013 on
- Other assets based on Fonterra replacement cost
- Working capital follows Fonterra’s, but based on powder stream only
- Depreciation allowance and post-tax WACC capital charge on total capital employed

Capital charge
## Milk Price Model – detailed P&L

<table>
<thead>
<tr>
<th>Milk Price Model (NZD $m)</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Million kgMS</td>
<td>1,566</td>
<td>1,614</td>
<td>1,584</td>
</tr>
<tr>
<td>Net Revenue</td>
<td>8,832</td>
<td>9,937</td>
<td>16,834</td>
</tr>
<tr>
<td>Milk Cost</td>
<td>(6,101)</td>
<td>(7,096)</td>
<td>(14,151)</td>
</tr>
<tr>
<td>Cash Costs</td>
<td>(1,815)</td>
<td>(1,889)</td>
<td>(1,819)</td>
</tr>
<tr>
<td>Depreciation</td>
<td>(266)</td>
<td>(263)</td>
<td>(250)</td>
</tr>
<tr>
<td><strong>Regulated Return (EBIT)</strong></td>
<td>650</td>
<td>689</td>
<td>614</td>
</tr>
<tr>
<td>WACC – fixed assets</td>
<td>(407)</td>
<td>(393)</td>
<td>(436)</td>
</tr>
<tr>
<td>WACC – net working capital</td>
<td>(73)</td>
<td>(120)</td>
<td>(26)</td>
</tr>
<tr>
<td>Tax</td>
<td>(170)</td>
<td>(176)</td>
<td>(152)</td>
</tr>
<tr>
<td>NPAT</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Fixed assets</strong></td>
<td>$6.9b</td>
<td>$6.5b</td>
<td>$6.4b</td>
</tr>
<tr>
<td><strong>Working capital</strong></td>
<td>$1.3b</td>
<td>$2.3b</td>
<td>$0.9b</td>
</tr>
<tr>
<td><strong>WACC rate</strong></td>
<td>5.9%</td>
<td>6.1%</td>
<td>6.8%</td>
</tr>
</tbody>
</table>

*Note: Milk Price year is to 31 May versus Fonterra financial year ending 31 July*
Milk Price Model – components
## Milk Price Model – cash costs assumptions

<table>
<thead>
<tr>
<th>Cash Costs</th>
<th>Milk Collection</th>
<th>Factory</th>
<th>Lactose</th>
<th>Supply Chain</th>
<th>Admin / Overhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fonterra’s collection cost</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturer’s specifications of resource usages (energy, labour, losses) for modern powder plants, but Fonterra’s unit costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bought-in lactose for powder standardisation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflect assumption that Milk Price business supported by an offshore network</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Based on Fonterra’s, but reflect narrower scope of milk price business</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Milk Price Model – capital charge

• Fixed asset base reflects:
  – Manufacturer’s costs for ‘standard’ 2.5m litres per day milk powder plants
  – Other assets based on Fonterra replacement costs
  – WACC charge and depreciation allowed for in respect of fixed assets
  – Working capital requirements over the course of the season primarily vary with Milk Price sales phasing and the profile of payments to farmers (Advance Rate Schedule)
  – Capital charge is applied to monthly net working capital balance (one implication is that farmers are compensated for deferral of payments for milk, and that Milk Price therefore effectively includes an interest component, which varies from year to year)
  – WACC is post-tax, so separate provision included for tax