Australian Dairy Industry
Response to the Productivity Commission Study

Costs of Doing Business: Dairy Product Manufacturing

Represented by
Australian Dairy Industry Council and
Dairy Australia

Contacts
May 2014

DA: Neil Van Buuren — Program Manager – Manufacturing Innovation, Dairy Australia
03 9694 3811 | nvanbuuren@dairyaustralia.com.au

ADIC: Dr Peter Stahle — Executive Director, Australian Dairy Products Federation
03 8621 4260 | p.stahle@adpf.org.au
The dairy industry supply chain comprises several elements: raw milk production, processing and manufacturing, marketing and distribution, and the retail and export of dairy products (figure 1).

The Commission is seeking views on the nature of the linkages between dairy product manufacturing costs and other parts of the supply chain, and the countries that should be used to assess the relative costs of doing business for Australian dairy product manufacturers.

Introduction

The Australian Dairy Industry Council (ADIC) is the dairy industry’s peak policy organisation that provides whole of industry policy. It represents both dairy farmers, through Australian Dairy Farmers (ADF), and dairy companies, through the Australian Dairy Products Federation (ADPF). The ADIC is supported by Dairy Australia (DA), the dairy industry-owned service body.

The ADIC welcomes the opportunity to provide comment to the Productivity Commission’s study into the Cost of Doing Business: Dairy Product Manufacturing. The dairy industry is one of Australia’s major rural industries. Based on farm gate value of production, it is ranked third behind the beef and wheat industries. There are approximately 6,400 farmers producing over 9 billion litres of milk annually.

The dairy industry is the largest value added food industry, contributing $13 billion at wholesale to the economy. It is estimated that more than 40,000 people are directly employed in this industry on farms, manufacturing, transport, distribution and research and development. As a major regional employer, the industry adds value through the processing of milk to produce drinking milk, cheese, butter, cream, yoghurts and a range of specialty products. The estimated value of farm production is $4 billion annually and total value added production (ex factory) is $13 billion.

The dairy industry is also one of Australia’s leading agrifood industries in terms of adding value to Australia’s primary produce. Much of this processing occurs in rural areas, thus generating significant employment and economic activity in country Australia.

The dairy industry exports approximately 45% of manufactured or further processed product, to over 100 countries, making Australia the seventh largest trader of dairy products on the world market.

Our export markets are concentrated in the Asia/East Asia regions, with Japan being our largest customer, followed by Singapore, Malaysia, Indonesia and China. In terms of our major export products, they are cheese, milk powders (including infant formula), butter, milk, and other dairy ingredients such as casein and whey products.
What are the key elements of the Australian dairy industry supply chain that influence dairy product manufacturing costs?

1. Supply of raw milk

i. Dairy manufacturing and processing efficiency depends on a reliable and constant supply of raw milk.

ii. The seasonality of milk supply (with peak season volumes in Victoria/Tasmania harvested between September-November) affects processing efficiency.

iii. Outside of peak season, a significant part of the dairy manufacturing sector is forced to run at lower capacity: facilities with milk powder dryers run at lower capacity between January and August, and some are forced to shut-down given the high fixed cost associated with such capital intensive plant; most cheese facilities (and by extension whey) are run at more constant capacity levels; butter facilities also run at fairly constant capacity; drinking milk and other fresh (e.g. yoghurt) plants require constant supply but do not require as high a level of capital investment and are not required to operate at full capacity (24/7).

iv. Historically, Australian processors have attempted to manage this milk supply challenge to efficiency through plant design: that is, by opting for smaller dryers (for example, combining at one manufacturing site, two 6 tonne per hour dryers instead of one 12 tonne per hour dryer) to enable shutdown during off-peak when milk supply is too low to maintain efficiency (a 20 hour operational day is required to run such plant efficiently). Australian supply conditions have made 4-6 tonne dryers the optimal size dryer.

2. Transport

i. Milk is highly perishable product with a short life before processing: raw milk requires processing within 48 hours after pick up.

ii. Milk product manufacturing plants must consequently be located in close proximity to farms and commodity-oriented manufacturing has evolved in the regions.

iii. Fresh milk manufacturing facilities in contrast must be in close proximity to their local urban markets given that the cost of transporting bulk milk is lower than that of the finished product. Hence, such plants are invariably in urban areas. Transport of fresh product requires smaller, refrigerated trucks capable of operating in urban distribution areas.

iv. Manufacturers’ decisions about the size of raw milk tanker transports are contingent upon local infrastructure conditions: for example, B-double tankers are used where local road conditions are suitable. Transport options are generally limited to road due to the lack of availability, or where present flexibility, in rail.
v. Efficient transport of milk is required from farm to factory, factory to market for domestic supply, and factory to port for export product.

vi. Transport of bulk commodity products from factory to port is more efficient than transporting raw milk to factory.

vii. The below illustrates fuel requirements for transport of major product groups (in terms of litres of fuel consumed per tonne of final product):

Table 1: Average volume of diesel required for transport of raw milk to processing site and final products to warehouse

<table>
<thead>
<tr>
<th>Fuel consumed</th>
<th>Full Cream Milk</th>
<th>Chocolate Milk</th>
<th>Fresh Yoghurt</th>
<th>Bulk Cheddar</th>
<th>Bulk Butter</th>
<th>FCMP/SMP</th>
<th>Whey Protein Concentrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw milk transport (LNG)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.5</td>
</tr>
<tr>
<td>Raw milk transport (diesel)</td>
<td>1.2</td>
<td>0.4</td>
<td>1.0</td>
<td>10.8</td>
<td>10.8</td>
<td>15.8</td>
<td>20.2</td>
</tr>
<tr>
<td>Transport to warehouse (diesel)</td>
<td>0.0</td>
<td>0.7</td>
<td>3.1</td>
<td>4.1</td>
<td>4.1</td>
<td>3.2</td>
<td>3.2</td>
</tr>
<tr>
<td>Transport other (diesel)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>0.4</td>
<td>0.4</td>
<td>0.2</td>
<td>0.2</td>
</tr>
</tbody>
</table>


Energy

i. Energy is a key component of dairy processing; dairy manufacturers use energy from both electricity and thermal sources. The manufacturing of whey and milk powder are the most energy-intensive processes:

Table 2: Number of sites producing analysed products per state and electricity required to produce each product

<table>
<thead>
<tr>
<th>State</th>
<th>Vic</th>
<th>NSW</th>
<th>Qld</th>
<th>Tas</th>
<th>Electricity required, weighted average (kWh / tonne)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butter</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>185</td>
</tr>
<tr>
<td>Cheddar</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>219</td>
</tr>
<tr>
<td>Chocolate milk</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>43</td>
</tr>
<tr>
<td>Fruit yoghurt</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>193</td>
</tr>
<tr>
<td>Full cream milk</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
<td>49</td>
</tr>
<tr>
<td>Milk powder FCMP/SMP</td>
<td>5</td>
<td></td>
<td></td>
<td>1</td>
<td>380</td>
</tr>
<tr>
<td>Whey protein concentrate</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td>1,146</td>
</tr>
</tbody>
</table>

### Table 3: Number of sites producing analysed products per fuel source. Thermal energy required to produce each product

<table>
<thead>
<tr>
<th>Fuel</th>
<th>Butter</th>
<th>Cheddar</th>
<th>Chocolate milk</th>
<th>Fruit yogurt</th>
<th>Full cream milk</th>
<th>Milk powder</th>
<th>Whey protein concentrate</th>
<th>Natural gas</th>
<th>Briquettes</th>
<th>Black coal</th>
<th>Lignite</th>
<th>LPG</th>
<th>Saw dust</th>
<th>Biogas</th>
<th>Thermal energy required, weighted average (MJ/tonne)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1,174</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1,397</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>133</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>746</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>220</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>8,332</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>11,916</td>
</tr>
</tbody>
</table>


i. Electricity is required for running plant including pumping, refrigeration, lighting and other mechanical processes.

ii. Thermal energy is required for processes including pasteurisation and evaporation.

iii. Products such as bulk cheddar and butter are generally stored for longer periods, as part of the production process: for example, cheddar is aged over 3-18 months; the majority of butter is produced during the spring peak and subsequently sold over several months.

### Table 4: Weighted average amount of energy, fuels and refrigerants used during storage

<table>
<thead>
<tr>
<th></th>
<th>Bulk Cheddar</th>
<th>Bulk Butter</th>
<th>Full Cream Milk</th>
<th>Fresh Yoghurt</th>
<th>Chocolate Milk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel (kg/tonne)</td>
<td>0.2</td>
<td>0.0</td>
<td>0.2</td>
<td>0.0</td>
<td>2.6</td>
</tr>
<tr>
<td>Electricity (kWh/tonne)</td>
<td>1.4</td>
<td>5.3</td>
<td>0.2</td>
<td>0.1</td>
<td>2.2</td>
</tr>
<tr>
<td>LPG (kg/tonne)</td>
<td>0.3</td>
<td>0.4</td>
<td>0.0</td>
<td>2.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Ammonia (mg/tonne)</td>
<td>99.0</td>
<td>45.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>R134 (mg/tonne)</td>
<td>1.1</td>
<td>1.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>R22 (mg/tonne)</td>
<td>1.0</td>
<td>0.0</td>
<td>0.6</td>
<td>0.0</td>
<td>0.7</td>
</tr>
<tr>
<td>R404 (mg/tonne)</td>
<td>7.9</td>
<td>9.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>


### Table 5: Average storage time

<table>
<thead>
<tr>
<th></th>
<th>Full cream milk</th>
<th>Chocolate milk</th>
<th>Fruit yogurt</th>
<th>Cheddar</th>
<th>Butter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days (range)</td>
<td>~1</td>
<td>~1</td>
<td>~1</td>
<td>120-180</td>
<td>21-180</td>
</tr>
</tbody>
</table>


iv. Natural gas is currently the most efficient and economic fuel for the production of steam, other fuels used where gas is not available include:

- Butane
o Wood chips

o Coal – brown and black

o Electricity

v. The following indicates fuel sources for selected manufactured products:

Table 6: Number of sites producing analysed products per fuel source. Thermal energy required to produce each product

<table>
<thead>
<tr>
<th>Fuel</th>
<th>Natural gas</th>
<th>Briquettes</th>
<th>Black coal</th>
<th>Lignite</th>
<th>LPG</th>
<th>Saw dust</th>
<th>Bio gas</th>
<th>Thermal energy required, weighted average (MJ/tonne)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butter</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1,174</td>
</tr>
<tr>
<td>Cheddar</td>
<td>3</td>
<td>1</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1,397</td>
</tr>
<tr>
<td>Chocolate milk</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>133</td>
</tr>
<tr>
<td>Fruit yogurt</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>746</td>
</tr>
<tr>
<td>Full cream milk</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>220</td>
</tr>
<tr>
<td>Milk powder FCMP/SMP</td>
<td>6</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>8,332</td>
</tr>
<tr>
<td>Whey protein concentrate</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>11,916</td>
</tr>
</tbody>
</table>


vi. Dairy manufacturers’ energy-related investment continues, although there are challenges in meeting the costs that must be incurred to achieve greater efficiencies. As noted in the recent Australian Dairy Industry Council (ADIC) response to The Agricultural Competitiveness Issues Paper (See Appendix A, attached):

‘…dairy manufacturing projects that were part of the Clean Technology Food and Foundries Investment Program in the 2012-13 year included more than $25 million investment in equipment upgrades including installing heat exchange, solar PV and/or gas alternatives for water heating and power, and equipment upgrades for refrigeration and lighting. Investment in clean technology is expected to reduce emissions intensity at some dairy plants by up to 50%. Unfortunately, this Clean Technology program is now closed and comparable investment in these types of projects is unlikely to continue…… for a dairy manufacturer to upgrade to new energy efficient refrigeration or to switch to solar power could require a capital cost of several hundred thousand dollars with a payback period of 3 – 20 years.’

(Source: Australian Dairy Industry response to the Agricultural Competitiveness Issues Paper, Appendix A)
3. Labour

i. There is a trend towards lean manufacturing and increasing the extent of automation in dairy manufacturing in order to achieve greater efficiencies. This ongoing trend is expected to remove some component of labour cost.

ii. However, there are also challenges for manufacturers in attracting skilled workers to what are invariably small rural towns; this challenge becomes even more acute when there is significant competition from large corporations in sectors such as mining.

4. Water

i. Water is vital to dairy manufacturing as it is used in cooling and heating, production of steam, cleaning, and other operational activities required in the manufacturing all dairy products.

ii. Water supply must be reliable and large: a rule of thumb is that a plant with an intake of 1 million litres of milk requires approximately 1.5 million litres of water.

iii. More than 80% of water supply for dairy manufacturing comes from mains water (town supply), the remainder comes from onsite recycling at dairy manufacturing facilities.

Effluent and waste disposal

i. Dairy manufacturing generally creates significant liquid waste: a rule of thumb is that a plant with an intake of 1 million litres of milk generates approximately 1.7 million litres of waste water. Consequently, treating the waste necessitates significant investment by manufactures and local water authorities. This investment generally goes into waste water treatment plants.

---

Which international competitors should the study focus on? What factors need to be accounted for in making cross-country comparisons?

i. **New Zealand**: One dominant company (co-op structure), Fonterra, but also several smaller agile competitive players; a larger scale of raw milk production on a similar generally pasture-based platform (18.8 billion litres in 2012-13) has enabled the NZ industry to establish larger plants with greater economies of scale; also greater economies of learning with longstanding market development, product and processing research and development. NZ is the largest dairy trading nation; supported by industry policy and regulatory framework; compared to Australia, the NZ dairy industry has greater influence on government policy by virtue of the sector’s contribution to NZ GDP (around 8%). NZ exports over 95% of milk production (in milk equivalent terms). NZ exports are primarily in whole milk powder (WMP) (43%), skim milk powder (SMP) (14%) and cheese (11%) [Aforementioned percentages and those below are
based on available GTIS country level export volume data for calendar year 2013 (omitting dairy mixtures)],

ii. **Ireland**: Aggressive overseas expansion by Irish dairy manufacturers; smaller raw milk production base (around 5-6 billion litres) with six companies processing 80% of the milk, Glandia, Kerry Group, Dairygold, Carberry foods, Lakeland dairy and Tipparry Coop. Ireland has a similar scale of processing and are developing a strong market presence in value added products and export markets; recent industry policy and regulatory changes in the EU (especially, removal of quotas in 2015) are encouraging significant investment from farm to factory; according to Irish industry sources, Ireland exports over 80% of milk production and accounts for 15% of the global supply of infant formula (source: http://www.fdi.ie). The largest share of Irish exports is in infant powder, 32% in 2013, followed by whey powder (15%), cheese (14%) and SMP (12%).

iii. **The Netherlands**: With one dominant company (co-op structure), Friesland Campina, but 20 significant companies in total; aggressive overseas expansion by Dutch dairy manufacturers, draws on a milk pool of 10 billion litres; recent industry policy and regulatory changes in the EU are encouraging significant investment from farm to factory; The Netherlands exports around 60% of its milk production, making it the EU’s biggest exporter with 25% of total EU exports (source: http:/ http://www.nzo.nl). The Netherlands' exports are spread across cheese (19%), Infant powder (15%) and WMP (14%). Over the 2009-13 period, total Netherlands dairy export volumes have grown at a CAGR of 2% [based on available GTIS country level export volume data omitting dairy mixtures].

iv. **USA**: A large, fragmented industry with around 90 billion litre production base; greater reliance on non-pasture based production platforms, historically domestically focused but more recently displaying more aggressive interest in exports with companies and industry bodies (DEC, CWT) cooperating in expanding export oriented activity beyond its traditional focus (Mexico), growing market share in Asian markets such as China, Korea and Japan; growing manufacturing capabilities outside of fresh dairy into ingredients such as milk powders and whey and significant investment in new plant (see http://www.usdec.org). US exports are focused on SMP (26%), Whey Powder (23%), Lactose (16%) and Cheese (15%). Total US dairy export volumes have grown at a very high CAGR of 18% (2009-13).

As noted in the ADIC submission to the Agricultural Competitiveness Issues Paper:

The US industry is seeking to increase its export presence and has delivered a fourth consecutive year of record exports by volume. New investments in milk powder production capacity and ongoing programs to better meet international specifications and gain market share by US processors are likely to see further inroads made in coming years.

The Australian dairy industry is also facing subsidised competition from the US industry-funded Cooperatives Working Together (CWT) program.
The CWT program is subsidising American export products such as cheese and butterfat and displacing Australian origin product in key dairy markets in Asia. This is having the additional affect of undermining those commodity prices.

(Source: Australian Dairy Industry response to the Agricultural Competitiveness Issues Paper, Appendix A)

v. Uruguay: Aggressive growth ambitions, although the raw milk production base is just over 2 billion litres, utilising mainly pasture-based systems with one major exporter, Conaprole, but around 15-20 companies in total engaged in export trade; like NZ a small domestic population long focused on exports to Latin American markets, Uruguay has been expanding exports significantly, and exports around 70% of milk production to around 65 countries (source: Dairy Investment Opportunities in Uruguay, Government of Uruguay, 2012): total Uruguayan dairy export volumes have grown at a CAGR of 10% (2009-13).

vi. Argentina: Aggressive growth ambitions; growing manufacturing capabilities in ingredients such as cheese and whey; also generally built on pasture-based systems, a raw milk production base of just over 10 billion litres. OECD/FAO suggest farm base growth is constrained by high land prices and potential competition for land from soy farmers (sources: Dairy Development in Argentina, Cappellini, 2011; OECD/FAO Agricultural Outlook 2011-2020). Like NZ, Argentine export product mix by volume is weighted towards WMP: over the last 5 years, 45-50% of Argentine dairy exports have been in WMP; recently there has been an increased proportion in whey powder (20% in 2013 up from 13% in 2009); cheese accounts for the next greatest share (around 13%). Total Argentine dairy export volumes have grown at a CAGR of 5% (2009-13).
What cost variables lend themselves to international comparisons?

1. Farmgate milk prices
   
   Table 7: Estimated indicative average farmgate milk prices for selected supply regions (US cents per litre)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-25</td>
<td>31</td>
<td>35</td>
<td>35</td>
<td>34</td>
<td>42</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU-27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>36</td>
<td>40</td>
<td>47</td>
<td>42</td>
</tr>
<tr>
<td>US</td>
<td>26</td>
<td>34</td>
<td>32</td>
<td>27</td>
<td>41</td>
<td>39</td>
<td>27</td>
<td>35</td>
<td>43</td>
<td>40</td>
</tr>
<tr>
<td>Canada</td>
<td>43</td>
<td>47</td>
<td>51</td>
<td>57</td>
<td>62</td>
<td>64</td>
<td>63</td>
<td>71</td>
<td>75</td>
<td>74</td>
</tr>
<tr>
<td>NZ</td>
<td>20</td>
<td>23</td>
<td>22</td>
<td>21</td>
<td>45</td>
<td>27</td>
<td>31</td>
<td>45</td>
<td>40</td>
<td>38</td>
</tr>
<tr>
<td>Australia</td>
<td>18</td>
<td>21</td>
<td>25</td>
<td>24</td>
<td>40</td>
<td>34</td>
<td>28</td>
<td>38</td>
<td>42</td>
<td>40</td>
</tr>
</tbody>
</table>

(Source: Dairy Australia)

2. Energy
   
   i. More energy is required in the manufacture of ingredients such as whey and milk powder products; available data to hand from industry sources comparing total energy requirements:

   Table 8: Indicative average energy in production—Ireland vs Australia

<table>
<thead>
<tr>
<th>KWh/tonne</th>
<th>Ireland</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butter</td>
<td>363</td>
<td>511</td>
</tr>
<tr>
<td>Cheese</td>
<td>814</td>
<td>607</td>
</tr>
<tr>
<td>Milk powder</td>
<td>4012</td>
<td>2694</td>
</tr>
<tr>
<td>Whey</td>
<td>4613</td>
<td>4456</td>
</tr>
</tbody>
</table>

   (Source: Dairy Australia and Benchmarking Resource Efficiency in Irish Dairy Processing, Environment & Green Technologies Department, Enterprise Ireland – Dr Robert Geraghty)

   ii. Variation in the above implies that there are differences in the environments (eg. Climate, humidity and ambient temperature) and efficiencies (eg. plant design including energy recovery capability) which impact on relative costs.
3. Labour

i. Dairy farm workers

Table 9: Australia: indicative labour rates for dairy farm workers

<table>
<thead>
<tr>
<th>Job category</th>
<th>Pastoral Award 2010 classification</th>
<th>Remuneration range (55 hour week)</th>
<th>Hourly rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant farm hand</td>
<td>FLH1</td>
<td>$33 - 45,000</td>
<td>$16.50 - 18</td>
</tr>
<tr>
<td>Farm hand</td>
<td>FLH3</td>
<td>$38 - 50,000</td>
<td>$18 - 22</td>
</tr>
<tr>
<td>Senior farm hand</td>
<td>FLH5</td>
<td>$40 - 60,000</td>
<td>$20 - 22</td>
</tr>
<tr>
<td>Production manager</td>
<td>FLH7</td>
<td>$60 - 80,000</td>
<td>$22 - 25</td>
</tr>
<tr>
<td>Senior production manager</td>
<td>FLH8</td>
<td>$80 - 100,000</td>
<td>$25 - 30</td>
</tr>
<tr>
<td>Business manager</td>
<td>No award</td>
<td>$100 - 130,000</td>
<td>$30 - 40</td>
</tr>
</tbody>
</table>

(Source: http://www.thepeopleindairy.org.au/engagement-reward/pay-rates.htm#Managers)

Table 10: New Zealand: indicative labour rates for dairy farm workers

<table>
<thead>
<tr>
<th>Position</th>
<th>Mean TPV*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy Assistant</td>
<td>$39,803</td>
</tr>
<tr>
<td>Dairy Assistant Herd Manager</td>
<td>$46,256</td>
</tr>
<tr>
<td>Dairy Herd Manager</td>
<td>$56,061</td>
</tr>
<tr>
<td>Dairy Farm Manager</td>
<td>$70,336</td>
</tr>
</tbody>
</table>

*An employee's salary plus any other benefits equals their total package value.

ii. Dairy factory workers

New Zealand: indicative labour rates for food and beverage factory workers

- Food and beverage factory workers without experience usually earn $14 per hour
- Food and beverage factory workers with some experience usually earn $16-$24 per hour


Table 11: Australia: indicative labour rates for dairy factory workers

[Extracted from Annual Wage Review 2012–13]

<table>
<thead>
<tr>
<th>Classification level</th>
<th>Minimum weekly wage</th>
<th>Minimum hourly wage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Level 1</td>
<td>622.20</td>
<td>16.37</td>
</tr>
<tr>
<td>Level 2</td>
<td>640.20</td>
<td>16.85</td>
</tr>
<tr>
<td>Level 3</td>
<td>664.80</td>
<td>17.49</td>
</tr>
<tr>
<td>Level 4</td>
<td>687.60</td>
<td>18.09</td>
</tr>
<tr>
<td>Level 5</td>
<td>724.50</td>
<td>19.07</td>
</tr>
<tr>
<td>Level 6</td>
<td>747.20</td>
<td>19.66</td>
</tr>
</tbody>
</table>

Note: Levels 1 and 2 are basically no prior experience, and a little on the job training.  
4. **Capital**
   
i. Anecdotal evidence suggests that access to capital is a more significant issue for smaller to medium scale manufacturers;
   
ii. Farmers also face challenges in accessing capital; manufacturing sector growth is predicated on farm production growth.
   
iii. According to some industry observers, industry-wide the farm production base reportedly requires five times the dollar amount of total capital investment to grow milk supply.

5. **Land**
   
i. In Australia, land with suitable infrastructure in close proximity to raw milk production as well as markets (ports and urban areas) is relatively scarce, compared to, say, parts of the United States (Southwest), Europe (Eastern regions) and South America (Uruguay and Argentina).

6. **Market access – International**
   
   *Further time and research is required to provide information on this point.*

7. **New Zealand’s trade agreement with China; see Australia’s with others.**
   
   *Further time and research is required to provide information on this point.*
What cost factors are relevant to public policy? Why?

i. Energy: Infrastructure cost (investment and maintenance)

As noted in the ADIC submission to the Agricultural Competitiveness Issues Paper:

‘The industry is also a large user of both electricity and gas in manufacturing. Dairy processing companies are among the top 300 energy users in Australia, and were therefore liable for the carbon tax. Their international competitiveness is highly sensitive to changes in energy costs, but also inadequate reliability of supply in regional areas where most factories are located. In particular, dairy’s manufacturing sector in particular, many of which have no viable alternatives to gas power, are concerned about long term domestic gas supplies and prices as the momentum to export gas builds.

Power interruptions can cost companies dearly when they affect the processing of this perishable product. Power interruptions can cause product to be wasted during processing, and reduce output…

With many dairy manufacturers now moving further down the path of plant automation and control systems, even a small disruption to power, in the milliseconds, can cause considerable down time, downgraded product as well as potential damage to electronics.

The cost of increased investment in network infrastructure is passed onto farm businesses, but the reliability of power supply in many regional areas remains inadequate. The dairy industry is seeking policy reform to ensure that infrastructure upgrades are undertaken so that regional areas enjoy the same reliability of electricity supply as urban areas, without a price premium for a service that urban Australians take for granted.

The dairy industry wants to see a more competitive market in regional areas, where farmers and manufacturers frequently have less choice in electricity suppliers than in urban areas, and are therefore limited in their capacity to switch supplies and negotiate better deals.

Government has a critical role to play in regulating the energy sector to ensure that Australian regional industries can access reliable, secure energy supplies at prices that enable them to remain internationally competitive.’

(Source: Australian Dairy Industry response to the Agricultural Competitiveness Issues Paper, Appendix A)
ii. **Infrastructure: water, internet, suitable road and rail networks**

As noted in the ADIC submission to the Agricultural Competitiveness Issues Paper:

‘“...periods of drought or low water availability put pressure on production options, and milk production levels, and this has a flow-on impact on milk companies and regional economies. Regulation of water resources needs to be achievable, practical and cost-effective, while optimising social, economic and environmental outcomes. The Government needs to work with the dairy industry as part of adapting the wider community to reduced water availability.’”

(Source: Australian Dairy Industry response to the Agricultural Competitiveness Issues Paper, Appendix A)

iii. **Investment:**

- tax policy (R&D, LAFHA, depreciation, primary production incentives);
- competition policy;
- research/science policy (support for CRCs, CSIRO, RDCs, universities)

iv. **Market access:**

- tariff/quota reduction through trade agreements;

As noted in the ADIC submission to the Agricultural Competitiveness Issues Paper:

‘Internationally, with no multilateral agreement on trade reform in sight, Australia’s ability to negotiate significant FTAs with commercially meaningful outcomes will be critical to maximising returns for the industry. The bilateral agreements negotiated by competitor countries will also have an important bearing on trade flows, access to, and profitability in markets of choice.

It has been well reported that the NZ-China FTA has given New Zealand, one of Australia’s largest competitors in dairy products trade, preferential market access in China. The estimated trade and financial benefits for the New Zealand dairy industry have grown rapidly since implementation of the China - New Zealand FTA on 1st January 2008. The six year period (2008-2013) has witnessed a:

- Four and a half fold increase in WMP imports to 562,604 tonnes
- Almost eight fold increase in SMP imports to 123,919 tonnes

The financial benefits to New Zealand origin milk powders from lower tariffs versus those paid by competitors are estimated to have risen to between $40 and $50 million in 2014. This advantage grows annually as the NZ-China FTA tariff reduction schedule matures each year.
support for export business development (e.g. Agricultural counsellors; Austrade)

As noted in the ADIC submission to the Agricultural Competitiveness Issues Paper:

'Agricultural counsellors

The Department of Agriculture, Agricultural Counsellor program needs to increase regional coverage in South East Asia and the Middle East. In addition to existing posts, the program should be expanded into the following three key emerging markets: Vietnam, the Philippines, and Saudi Arabia. These countries are high potential growth markets whose needs can't be adequately met through existing posts (for example, the Thailand post’s coverage of key growth areas in South East Asia).

Agricultural Counsellor posts play a major role in Australia’s efforts to: remove or lower market access barriers for agricultural products; facilitate trade; monitor emerging international issues; help resolve quarantine issues; and, provide briefings and assist with visiting delegations.

Where Department of Agriculture, Agricultural Counsellors are located in markets, they can more effectively engage directly with local officials/government representatives to address access issues as they arise, and work proactively to identify and prevent non-tariff barriers affecting dairy imports.

As well as representation in key markets, representation in key competitor countries is also beneficial. Given the role of the EU and the US as agricultural policy setters, on-the-ground representation for Australia means issues can be addressed before they develop. Moreover, in the case of the EU, the Commission is reluctant to engage directly with industry so government representatives are needed as facilitators. A case in point has been consultations on Geographical Indications (such as those on Danbo and Gouda Holland). Expansion of Agricultural Counsellor positions in emerging markets should not be at the cost of existing posts.

International trade support structures

The structures that protect Australian exporters’ ability to defend against technical and regulatory barriers also rely on a capability to operate effectively in:

- World Trade Organisation (WTO) dispute settlement processes
- International standard setting forums (Codex, OIE, WCO)
- Monitoring and responding to WTO Sanitary and Phytosanitary (SPS) and Technical Barriers to Trade (TBT) notifications
FTA and bilateral review committees

The effectiveness of Agricultural Counsellors also relies on being able to draw quickly on expertise back home, in the Department of Agriculture, as well as agencies like Food Standards Australia New Zealand and Australian Pesticides and Veterinary Medicines Authority. These resources are also critical to responding to technical barriers and need to be maintained as a priority.

As an export-oriented industry, international regulatory frameworks are important to Australian dairy.

The dairy industry invests significant resources in monitoring and contributing to international standard setting, but much of this can only happen at a government-to-government level. It is a critical role for the Australian Government to continue to actively contribute to and take a lead in these international processes to support exports.

Government also needs to continue close collaboration with industry to ensure its efforts are focused on priority issues and achieve practical outcomes that can be implemented by industry.

Consistency of approach

Like other food industries in Australia, the dairy industry needs protection from exotic diseases. A strong, science-based biosecurity and quarantine system is non-negotiable. However, another element of maintaining our livelihood is access to overseas markets. To maintain this access, we need to ensure Australia does not leave itself open to criticism, complaint, challenge and ultimately trade sanctions because of an unnecessarily harsh quarantine regime.

Australia’s leadership in international forums also means maintaining a commitment to both the spirit and the letter of WTO agreements in biosecurity and quarantine systems, and to international standards such as Codex Alimentarius.

The dairy industry has consistently argued for regulatory harmonisation at national and international levels, whenever possible. To facilitate exports, Australia regularly asks other countries to adopt Codex standards as a matter of course, and to adopt standards that allow for good agricultural or veterinary practice in Australia, where this is not already covered in Codex. In the interest of facilitating trade, the internationally accepted standards (Codex) should be adopted as a matter of principle wherever possible. Australia’s credibility in negotiating access relies on a consistent and science-based approach.

(Source: Australian Dairy Industry response to the Agricultural Competitiveness Issues Paper, Appendix A)
v. **Food security and food safety:**

- support for Biosecurity Australia, DAg on technical trade barriers and related matters

As noted in the ADIC submission to the Agricultural Competitiveness Issues Paper:

**Promoting the Australian food safety system**

Government should more actively and consistently promote the Australian food safety system, seeking greater acceptance of our system as meeting importing country requirements, and reducing costly additional requirements (for example audits, port of entry testing).

The Department of Agriculture also needs to actively promote the Australian food safety system and seek acceptance by importing countries. The Codex framework offers opportunities to support these principles with importing country governments and seek to streamline overseas requirements. This would reduce the regulatory impost on food exports from Australia.

Equally as important, the Australian dairy industry has sought to have a streamlined approval to domestic and international food safety regulations. The Department of Agriculture, as the competent authority for approving dairy exports, has accepted the national dairy food safety system where national food safety standards are implemented by state food authorities and the Department recognises the state systems. Dairy businesses, while still having multiple commercial audits, are now subject to a single food safety audit for domestic and export requirements. This is a good model that needs to be actively promoted.

A robust biosecurity regime is fundamental to a dairy industry that is safe, productive and competitive in the international market. Protecting the dairy industry, agriculture, and the wider community from biosecurity incidents, and being prepared for a robust and efficient response to biosecurity issues requires ongoing commitment to investment in biosecurity.

For the dairy industry, preparedness for foot and mouth disease is a particular priority. Foot-and-mouth disease (FMD) has been described as the single greatest threat of any disease to Australia’s livestock industries. A large outbreak of FMD has the potential to reduce Australian Gross Domestic Product by $10.3 to $16.7 billion, having significant repercussions on our economy. The Australian dairy industry seeks specific funding for FMD preparedness.

...Australia’s enviable reputation for safe quality food relies on robust systems that manage potential risks.

(Source: Australian Dairy Industry response to the Agricultural Competitiveness Issues Paper, Appendix A)
Cost and competitiveness of dairy product manufacturing in Australia

The Commission is seeking information on the key costs of dairy product manufacturers in Australia, the relative shares of these costs and any changes in cost structures that have occurred in recent years.

What are the key costs facing dairy product manufacturing businesses in Australia (for example, raw milk costs, physical capital costs, labour costs, intermediate input costs (such as energy), regulatory compliance costs and so on)?

i. Energy costs associated with milk powder

ii. Unavailability of natural gas in rural regions increases the costs associated with alternative energy, such as butane, wood chips and electricity to produce steam.

i. Availability of labour in rural regions, especially in management/ specialist technical roles (engineering, food technology, science, and maintenance)

ii. Costs of capital and risks associated with milk supply and international market prices.

iii. Cost of transport from farm to factory and factory to market including ports

iv. Front of labelling requirements

v. Nutrition

vi. Country of origin

To what extent are these costs amenable to policy action?

i. Labelling requirement

As noted in the ADIC submission to the Agricultural Competitiveness Issues Paper:

Most Australians are failing to meet the recommended minimum consumption of dairy products in the ‘core’ food group each day. To empower consumers and minimise their confusion on healthier food choices, it is important that any regulatory approaches such as the Front-of-Pack Labelling (FOPL) scheme are aligned to the Australian Dietary Guidelines, conveying clear and consistent evidence-based ratings.

FOPL is also an example of a regulatory approach where the costs to industry and the government are high, and yet the public benefits are not so clear. As noted above, the dairy industry endorses a commitment by Government to best practice regulation processes and considers these processes should be applied to the proposed FOPL scheme.

(Source: Australian Dairy Industry response to the Agricultural Competitiveness Issues Paper, Appendix A)
ii. Nutrition guidelines

iii. Container deposit scheme

iv. Infrastructure upgrades and maintenance for the supply of electricity, gas and high speed data communication.

v. Road and rail infrastructure to improve efficiency for the transport of milk from farms (e.g. use of B double tankers to pick farm milk) and efficient transport of finish product from factory to market. Most factories are in rural regions and require long distance transport to market.

vi. Due to the geographical spread of dairy farms in specific regions the building of efficient high throughput factories will require milk to be transport longer distance to more centralised factories. (refer study conducted by Cornell University)

What is the relative significance and rate of change of these costs?

Further time and research is required to provide information on this point.

What are the main risks facing dairy product manufacturers (for example, the volume and variability of raw milk supply, cost variability and so on) and how are these managed? At what cost?

i. Reliability of milk supply volume will partially mitigate risks of investment in technology and new processing capacity.

ii. International dairy commodity prices cannot be effectively hedged; long-term supply arrangements are used in some cases by major manufacturers; forward selling of commodities volumes is often vulnerable to price risk as agreements incorporate price rise and fall clauses reflecting changes in commodity prices.

iii. Foreign exchange rates: Australian export dairy trade is conducted in USD and so manufacturers are exposed to foreign exchange rate risk. Companies determine their own hedging policies to manage such risks, for example, through the use of derivatives.

How do dairy product manufacturing costs differ across states (or regions) and product categories?

i. Domestic fresh dairy - reduction in margins due to supermarket pricing, especially in QLD and NSW

ii. Export products – cheese and milk powder require high milk throughput and reliable supply to maintain production levels

iii. High dollar value investments in milk powder dryers require full utilisation of plant and equipment to cover fixed costs incurred.
How does production scale or scope (that is, producing a range of products versus a single output) affect unit costs of output?

Table 12: Raw milk intake in Australian dairy industry

<table>
<thead>
<tr>
<th>Category - Size</th>
<th>Number of Companies</th>
<th>Total Litres</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>More 1 BL</td>
<td>3</td>
<td>5,707,561,767</td>
<td>61%</td>
</tr>
<tr>
<td>More 100ML</td>
<td>11</td>
<td>3,321,998,901</td>
<td>36%</td>
</tr>
<tr>
<td>More than 10ML</td>
<td>6</td>
<td>180,833,950</td>
<td>1.9%</td>
</tr>
<tr>
<td>More than 1ML</td>
<td>24</td>
<td>78,068,346</td>
<td>0.8%</td>
</tr>
<tr>
<td>more than 100,000 L</td>
<td>14</td>
<td>4,335,357</td>
<td>0.05%</td>
</tr>
<tr>
<td>less than 100,000L</td>
<td>8</td>
<td>361,385</td>
<td>0.004%</td>
</tr>
</tbody>
</table>

| Total             | 66                  | 9,293,159,706        | 100.0%|

(Source: Dairy Australia)

i. High risks are associated with manufacturing a single product; dairy processing does not generally produce a single product each products have by-products; even liquid milk and yoghurt factories invariably produce some by-products, such as cream, as the below illustrates:

ii. Consequently, large dairy factories are not single product factories, and most likely have minimum raw milk volume requirements of 150ML per year. The nature and composition of dairy products mean that there are always by-products, e.g. Cheese and whey, SMP and butter, butter and BMP etc, as the below illustrates in more detail:
What other factors (for example, the value of the Australian dollar, access to investment capital, labour supply and capability) affect dairy product manufacturing costs?

Refer to earlier references

To what extent have recent developments in technology, productivity improvements and changes in consumer preferences affected dairy product manufacturing costs in Australia?

- Recent developments in dryer technology and energy efficient production have been vital to maintain productivity improvements and remaining internationally competitive.
- Consumer changes- high value whey products (sports and functional products).
What are the long-term opportunities for innovation in Australian dairy product manufacturing?

i. Increase in research and development funding especially in accelerating technology transfer from research done outside Australia.

Areas that require attention (not in order of importance)

Computer aided process control, Artificial Intelligence and high speed data communication

Dairy processing is highly computerised process and the transfer of data throughout the factory and from factory to corporate offices is vitally important in:

- improving process control
- utilising real time process monitoring and control
- diagnosing and rectifying problems remotely
- managing the flow of raw materials from source to the end user
- rapid detection of quality issues

Improve management of factories from centralised management centres

Robotics

- The use of robotics in dairy processing factories is increasing. Currently robots are used in packaging systems, palletising and the movement of materials including driverless forklifts. This work needs to continue to make sure that the factory stays at the forefront of new technologies as they develop to maintain and improve process efficiency.

Energy and water efficient processors and lighting

- This is a key and growing issue as energy costs increase and water becomes a scarce resource in some regions.

Technologies to support the transport of raw milk over longer distances

- To improve processing efficiency factories have to become larger and process higher volumes of milk this requires milk to be transported longer distances from farm to factory. This requires new knowledge and technology to ensure product quality and food safety.

Extension of shelf life for fresh and raw milk

- Markets in SE Asia are now increasing the demand for fresh milk and new technologies are required to transport fresh farm milk to these regions.
- Ability to supply domestic markets from larger more centralised factories.
- Supply fresh milk to rural regions that don’t have dairy farming.

Development of renewable energy supply
Better integration of waste management in rural towns with centralised waste water treatment and treatment of high saline waste streams

- All dairy factories face an increasing requirement to better manage their waste streams. In some rural towns there can be up to 3 waste water treatment plants, domestic, dairy, and meat processing. A better integration and use of new technology to recover energy and reuse the water would be a much better economic and sustainable outcome for the community.
- The production of high value dairy products sometimes produces an high saline waste stream, these products streams could grow in capacity if these waste streams are better managed

Utilisation of whey from small and medium size cheese factories

- The growth in small to medium sized cheese factories have resulted in waste disposal issue. The whey from these factories becomes a waste issue. Due to volume of whey is uneconomic to process this valuable source of protein and carbohydrate.

Integrating dairy research in universities with science and engineering courses.

- In the past dairy research was a separate department in some universities. Currently food science, dairy and nutrition are all amalgamated into one department. It would be beneficial to could dairy research through cross functional

Support for commercialisation and technology of research in Australia and around the world

- The relative small size off the dairy industry in Australia means that it cannot sustain a completely separate research base in Australia. The most cost efficient option is to collaborate with large research institutes around the world. Especially in the Netherlands, Ireland, France and USA.

What changes in cost structures (if any) have occurred in recent years, and what changes are anticipated in the medium term? How has deregulation affected dairy product manufacturing costs?

i. Increases in electricity prices over and above inflation

ii. Predicted increases in gas prices: some observers suggest prices will double in the short-term

iii. Increases in diesel prices

iv. Exchange rate volatility: imported inputs including European plant and equipment have been cheaper in recent years, supporting capital investment; yet, adverse movements in exchange rates will make inputs more costly.
Dairy product manufacturing in a global context

International cost structure comparisons can provide insights into the relative cost of doing business for Australian dairy product manufacturers.

What are the key costs facing dairy product manufacturers in competitor countries? What are the relative shares of these costs?

i. Farmgate milk price
ii. Energy
iii. Investment
iv. Skilled labour - costs may be lower in South America however the availability of skilled staff is similar around the world especially engineering and science
v. Research, development and innovation
vi. Transport both land and sea
vii. Labour.

What are the main areas of cost advantage or disadvantage for Australian dairy product manufacturers relative to international competitors? What are the key determinants of these cost differences, and how can public policy in Australia affect them?

i. Scale of production
ii. NZ v Australia – Two factories (each) produce more milk powder than Australia
iii. Ireland v Australia – similar scale with Ireland investing heavily in milk powder to take advantage of the removal of EU quotas 2015. This also applies to The Netherlands.
iv. New emerging markets for exports are Brazil, Chile and Uruguay

Are there non-cost factors that advantage (or disadvantage) Australian dairy product manufacturers relative to international competitors?

i. Manufacturers have long-established relationships with major customers and reach into all corners of the world.
ii. Australia has enjoyed good, long-term trading relationships with key Asian markets such as Japan and ASEAN members.
iii. Australian origin product enjoys an image of ‘safe, clean and green.’
iv. Geographical proximity to growth markets in Asia is an advantage to some extent, although a short term one as international logistics and manufacturing networks develop.
v. Lack of supply growth is a disadvantage as customers observe declining export volumes and are concerned about the industry’s long-term ability to supply.
vi. Industry structure represents both disadvantage and advantage: namely, the majority of the milk pool is now processed by large multinational companies (Fonterra, Lion [Kirin], Parmalat [Lactalis], WCB [Saputo]); hence, while this pattern of ownership exists, there is no incentive for collaboration or co-operation to build a single dominant national manufacturer (like Denmark’s Arla, New Zealand’s Fonterra or The Netherlands’ Royal Friesland Campina). However, the presence of these companies brings stability, processing and R&D capabilities which benefit the industry.

vii. However, as noted in the ADIC submission to the Agricultural Competitiveness Issues Paper:

Unlike New Zealand, where the one company (in this case Fonterra) dominates the competitive landscape, Australia’s dairy industry has well over 100 registered dairy processors, who each compete for milk as well as domestic and international supply contracts. No single milk manufacturer has a dominant position across the complete national Australian dairy industry. This can influence the negotiating position of Australian processors with domestic retailers, particularly in areas that are limited to domestic fresh milk supplies.

(Source: Australian Dairy Industry response to the Agricultural Competitiveness Issues Paper, Appendix A)
Policy influences

The policy, regulatory and institutional environment in which the Australian dairy product manufacturing industry operates will influence the productivity and competitiveness of manufacturers and their suppliers.

Do Australia’s policy, regulatory or institutional arrangements impose unnecessary costs on Australian dairy product manufacturers? If so, how and to what extent?

- Tariff barriers and FTAs that do not go far enough or cement in high tariffs for a longer period of time.

As noted in the ADIC submission to the Agricultural Competitiveness Issues Paper:

‘Australia sells almost half its annual milk production directly into export markets as manufactured food products and ingredients. At the same time, Australia applies minimal barriers to commercial dairy imports. The dairy industry therefore recognises the importance of remaining competitive in a global market. Regulatory burdens and high costs in areas such as labour, energy and infrastructure all affect the competitiveness of the industry.

There are opportunities to streamline current regulations, and reduce their burden through: harmonisation across commodities, nationally and internationally; reducing reporting requirements; reducing overlapping or duplicative regulations; and improving poor or inconsistent enforcement resulting in patchy compliance and a playing field that is not level.

The overview of ‘Government interactions with the food industry in food safety regulation’ on page 162 of the green paper is useful and shows the complexity and breadth of regulation in this area. However, the pressure to increase the food industry’s regulatory burden is mainly coming from interests outside traditional areas of food regulation, such as environment and public health.

For example: A trend to regulated programs requiring actions to ‘save’ energy, water or waste instead of using market place mechanisms (for example, Container Deposit Schemes being considered by COAG’s Standing Committee on Environment and Water).

An apparent disconnect between the drive to achieve public health objectives through food regulation, and the efforts to reduce the regulatory burden and pursue evidence-based policy (for example, health claims; front of pack labelling).

The potential for regulatory burden also comes from the combined impact of many small regulatory changes that, when considered by themselves, are not overly burdensome, but in the context of the range of existing regulations and other requirements add unnecessary complexity and cost. All proposed regulations should look at the context and existing regulations first.

(Source: Australian Dairy Industry response to the Agricultural Competitiveness Issues Paper, Appendix A)
Productivity Commission

SUBMISSION COVER SHEET
(not for publication)

Please complete and submit this form with your submission:
By email (preferred): dairy.manufacturing@pc.gov.au OR
Mail: Dairy Product Manufacturing Study
Productivity Commission
LB2 Collins Street East
MELBOURNE VIC 8003

<table>
<thead>
<tr>
<th>Name (first name and surname):</th>
<th>Dr Peter Stahle</th>
</tr>
</thead>
<tbody>
<tr>
<td>If submitting on behalf of a company or organisation:</td>
<td></td>
</tr>
<tr>
<td>Name of organisation:</td>
<td>Australian Dairy Industry Council</td>
</tr>
<tr>
<td>Position in organisation:</td>
<td>Executive Director</td>
</tr>
<tr>
<td>Phone:</td>
<td>(03) 8621 4250</td>
</tr>
<tr>
<td>Mobile:</td>
<td></td>
</tr>
<tr>
<td>Email address:</td>
<td><a href="mailto:p.stahle@adpf.org.au">p.stahle@adpf.org.au</a></td>
</tr>
<tr>
<td>Address:</td>
<td>Level 2, 22 William Street</td>
</tr>
<tr>
<td>Suburb/City:</td>
<td>Melbourne</td>
</tr>
<tr>
<td>State:</td>
<td>VIC</td>
</tr>
<tr>
<td>P’code:</td>
<td>3000</td>
</tr>
</tbody>
</table>

Please note:

- Copyright in submissions resides with the author(s), not with the Productivity Commission.
- Following processing, public submissions will be placed on the Commission’s website. Submitting will remain on the Commission’s website as public documents indefinitely.
- As this is a public study, ‘in confidence’ material can be accepted only under special circumstances. Please contact the Commission before submitting this material.
- For submissions made by individuals, only your name and the state or territory in which you reside will be published on the Commission’s website. All other contact details will be removed from your submission.

Please indicate if your submission:

☑ Is a public submission, it does NOT contain ‘in confidence’ material and can be placed on the Commission’s website.
☐ Contains SOME material supplied ‘in confidence’ (provided under separate cover and clearly marked IN CONFIDENCE).