



The significance of Asia's dairy consumption growth cannot be overstated. Chart 1 shows how Asia's projected imports (in milk equivalent volumes) will expand far beyond the total current milk production in Australia and New Zealand.

South East Asia's consumption will grow by 3 billion litres p.a. by 2020, while local supply in those countries will not keep pace with consumption growth, according to Rabobank<sup>1</sup>.

Investors may not be so familiar with the fact that Australia's dairy consumption continues to grow in volume and value, accounting for about half of all milk production. Australia's 23 million people enjoy a high standard of living, with average annual incomes approaching US\$60,000 per person. Per capita dairy consumption is now more than 300 litres per annum in milk equivalents.

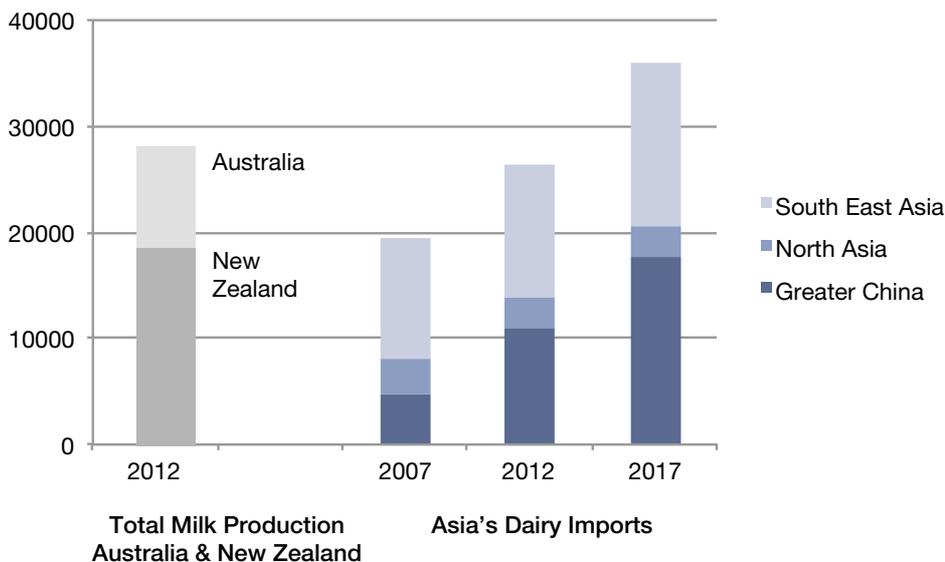
### Four strategic themes for Investors

From the perspective of Strategis Partners, the Australian dairy industry offers four strategic themes for Investors, based on the comparative advantages of four selected dairy regions:

1. Expand in Tasmania – the 'new New Zealand'
2. Build large-scale "US style" dairy production platforms in south-west New South Wales through cropping and livestock land conversion
3. Go for consolidation in traditional dairy regions of Victoria, South Australia and southern NSW
4. Establish a position in Western Australia's fresh dairy future and the State's growing connection with South East Asia.

Chart 1 – Asia's dairy imports set to outstrip total ANZ milk supply

### Milk Equivalent Volumes (billion litres p.a.)



Source: Strategis Partners' projections, Dairy Australia 2007 and 2012 statistics.

<sup>1</sup> Source: Rabobank *International*, *ASEAN 6 Dairy Makers*, Rabobank Industry Note # 385, July 2013

The map of Australia in Chart 2 below shows these four regions and their comparative investment opportunities. In each of these regions, there are opportunities for investors to form joint ventures with progressive dairy farmers to build operations with scale, produce value-added dairy products, and exploit new technologies and systems.

Table 1 on the following page explains the key market and production drivers and the types of investments in each of these four investment themes.

### 1. Expand in Tasmania: the 'new New Zealand'

Tasmania is becoming an innovative dairy exporter – like New Zealand did 30 years ago – with an emphasis on producing premium dairy products such as speciality cheeses. Like Kiwi dairy farmers, Tasmanian dairy farmers benefit from a low-cost, pasture-based production system, underpinned by a temperate marine climate, reliable rainfall and expanding irrigation infrastructure.

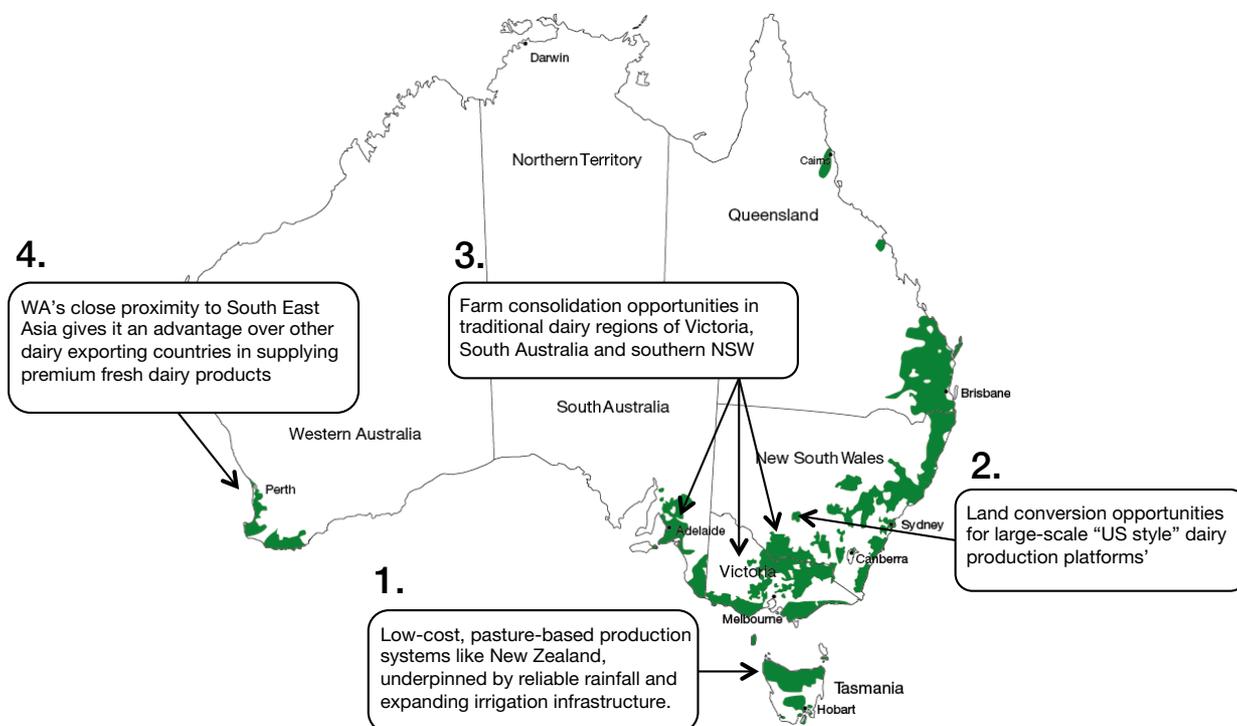
New Zealand's dairy industry is facing stronger headwinds, with its production flattening out in the next decade, according to a recent Rabobank report<sup>2</sup>. This is now opening up opportunities for Tasmania.

The returns to capital invested in Tasmanian dairy farms are amongst the best in Australia and New Zealand. When capital appreciation is included, the returns from Tasmanian dairy farms over the last decade have average 9.7% per annum, and in 2010-11 the top farms achieved return on assets of 15%<sup>3</sup>.

With these levels of profitability, Tasmania's milk output is poised to double to 1.5 billion litres per year over the next decade. For investors contemplating Tasmania, there are multiple opportunities including large-scale pasture-based milk production, speciality cheese manufacture and large-scale dairy commodity processing.

As a general guide, the initial investment for each farm, based on optimal size of 1,000 cows, is around \$10 million. There is an opportunity for further investment in processing by establishing a network of dairy farms.

Chart 2 – Four dairy regions and their comparative investment opportunities



<sup>2</sup> Source: Rabobank, NZ Dairy – From a torrent to a trickle, Rabobank Global Focus newsletter, August 2012. NZ's limits to growth are multifold: regulatory measures to address the environmental impact of milk production; rising costs, complexities and greater exposure to volatility with larger-scale production systems; less available land conversion opportunities; and higher technical barriers to entry for new start-ups.

<sup>3</sup> The website, <http://www.intodairy.com.au> contains financial and other relevant information on the Tasmanian Dairy Industry.

Table 1 - The four investment themes

Investment theme	Key drivers	Types of Investments
<b>1. Expand in Tasmania – the ‘new New Zealand’</b>	<ul style="list-style-type: none"> <li>• Growing Asian demand for powder and cheese</li> <li>• Plenty of land for profitable expansion of low-cost milk production through conversion of cropping &amp; grazing farms</li> <li>• New irrigation schemes support low cost, pasture-based dairy systems</li> <li>• Tasmanian dairy is generating high returns</li> <li>• New Zealand’s dairy industry is facing limits to growth over the next decade</li> </ul>	<ul style="list-style-type: none"> <li>• In established dairy areas, scale up farms based around low production cost model through pasture-based farming –aim for optimal farm size of 1,000 cows</li> <li>• In developing dairy areas, convert cropping and grazing farms to dairy farms – aim for optimal farm size of 1,000 cows</li> <li>• Expand powder and cheese production capacity</li> <li>• Establish partnerships with Asian food &amp; dairy companies</li> </ul>
<b>2. Build large-scale “US style” dairy production platforms in south-west New South Wales through cropping and livestock land conversion</b>	<ul style="list-style-type: none"> <li>• Growing Asian demand for stored dairy products</li> <li>• Secure access to water, in remote areas, supports establishment of large-scale dairy operations</li> <li>• Diversify farm income streams by introducing dairy into traditional cropping and sheep farms</li> </ul>	<ul style="list-style-type: none"> <li>• In remote areas convert parts of cropping farms, with access to secure water supply</li> <li>• Implement new large scale “US style” dairy production systems via new farms with 10,000 cows or more</li> <li>• Expand over time into an integrated farm and processing enterprise</li> <li>• Invest in water rights in the Murray-Darling Basin</li> <li>• Establish partnerships with Asian food &amp; dairy companies to supply export markets</li> </ul>
<b>3. Go for consolidation in traditional dairy regions of Victoria, South Australia and southern NSW</b>	<ul style="list-style-type: none"> <li>• Growing Asian demand for premium dairy products</li> <li>• Lower unit costs of existing manufacturing plants by increasing throughput</li> <li>• In many areas dairy farming is the most financially attractive farming enterprise</li> </ul>	<ul style="list-style-type: none"> <li>• In established dairy areas, scale up by merging existing farms –aim for optimal farm size of 1,000 cows</li> <li>• Convert cropping and grazing farms to dairy farms – aim for optimal farm size of 1,000 cows</li> <li>• Establish a network of large dairy farms</li> <li>• Establish partnerships with Asian food &amp; dairy companies to expand powder &amp; cheese production</li> </ul>
<b>4. Establish a position in Western Australia’s dairy future and its growing connection with S.E. Asia</b>	<ul style="list-style-type: none"> <li>• Growing demand for fresh dairy products in WA and S.E. Asia will outstrip local supply in the coming decade</li> <li>• “Horizon 1” market: strong domestic growth in WA</li> <li>• “Horizon 2” market: S.E. Asian markets of Singapore, Malaysia, Hong Kong</li> <li>• “Horizon 3” markets: Indonesia, India and The Philippines</li> <li>• Converting cropping &amp; grazing farms to dairy could increase value of new operations</li> </ul>	<ul style="list-style-type: none"> <li>• Capture supply chain efficiencies by establishing an integrated dairy business including on-farm production, processing &amp; export</li> <li>• Invest in farmland and convert from cropping and grazing farms to dairy</li> <li>• Scale up existing on-farm production in south-west W.A. and / or establish new farms with large scale (10,000 cows plus) “US style” dairy production systems with feed supplied by WA’s large wheat industry</li> <li>• Build value-added processing plant, form J.V. or acquire existing processor</li> <li>• Establish partnerships with Asian food &amp; dairy companies, and invest in supply chain infrastructure for fresh produce into Asia</li> </ul>

## 2. Build low-cost dairy production platforms in south-west NSW

In the southwest of New South Wales, large scale dairy operations can be established by converting farmland from cropping and sheep. These could be based on new “US style” dairy production systems with 10,000 cows or more, via Joint Ventures between existing farm owners and long-term investors or American dairy operators. This conversion model suits very large cropping operations with access to secure water supply.

As a general guide, the initial investment would be some \$50 million to \$100 million for the farm assets, and increasing to \$250 million over 5 years to fund herd expansion, on-farm dairy processing and manure-to-methane energy supply.

## 3. Go for consolidation in traditional dairy regions

In the traditional dairy areas of Victoria and southern New South Wales (Gippsland, Murray Valley and Western Victoria), and South Australia the opportunities are: (1) to scale up by merging existing farms, to achieve more cost-efficient herd sizes of 1,000 cows, up from current average herd sizes of 250 to 300 cows<sup>4</sup>; (2) convert cropping and grazing farms to efficient-size dairy farms; and (3) establish a network of large dairy farms and integrate into processing.

These regions are at the centre of the mainland dairy processing industry, providing opportunities to establish partnerships with Asian food & dairy companies to expand powder & cheese production. Local Governments actively support investment such as dairy processing plants. For example, the Wodonga City Council plans to establish an agribusiness precinct as part of its strategically located ‘Logic’ distribution, transport and manufacturing centre<sup>5</sup>.

In the past year, major dairy manufacturers including Devondale (the Murray Goulburn Co-operative Co. Limited), Fonterra, Bega Cheese, Warrnambool Cheese & Butter (WCB) have committed to investments totaling

over US\$300 million in new factories and upgraded plant and equipment.

In late-2012, leading US yogurt manufacturer Chobani opened its \$30-million manufacturing facility in Melbourne’s south-east, with a capacity to produce 30,000 tonnes of yogurt per annum. The plant serves as an export hub to drive further growth of the Chobani and Gippsland Dairy brands into Asia.

## 4. Establish a position in Western Australia

The WA dairy industry gives investors an opportunity to benefit from consumption growth in fresh milk, yogurt and dairy spreads in the WA and South East Asian markets.

Historically, Australasian dairy exports to Asia have been mainly milk powders, butter and cheeses. However a 2012 Strategis Partners’ Study<sup>6</sup> found that WA could become an innovative dairy exporter – with an emphasis on “fresh” exports.

WA dairy has two sustainable competitive advantages: (1) its proximity to Singapore, Jakarta and Kuala Lumpur which are just four to six days of sailing from the port of Fremantle at Perth; and (2), its potential to expand its dairy farming in the south west of WA.

To realise this fresh dairy export opportunity, new supply chain investments can improve overall project economics. For example, logistics solutions such as ‘MilkyWays’ designed by Dutch engineering firm, Trilobes, point the way to cost-effective, aseptic containerized transport of bulk liquid milk<sup>7</sup>.

One of the key investment opportunities in WA is to establish an integrated dairy business. One strategy is to acquire existing farms, develop new dairy farms and secure access to processing plants. As a general guide, the initial investment in establishing the integrated business would be around \$125 million, progressively increasing to around \$300 million over 5 years.

<sup>4</sup> For a discussion of herd size trend, see Dairy Australia Report, Situation and Outlook May 2013, p. 59, < <http://www.dairyaustralia.com.au/~media/Documents/Stats%20and%20markets/S%20and%20O/May%202013/Dairy%20Situation%20and%20Outlook%20May%202013%20-%20Full%20Report.pdf>>.

<sup>5</sup> For more information on Wodonga’s Logic manufacturing, transport and logistics precinct, visit <http://www.wodonga.vic.gov.au/business-investment/logic/what-is-logic.asp>.

<sup>6</sup> This Report, prepared for Wesfarmers Limited, examines the strategic options to build a sustainable dairy industry in Western Australia. Download a copy at < <http://www.strategispartners.com.au/report-on-wa-dairy-industry/>>

<sup>7</sup> For more information on Trilobes, visit their website: <http://www.trilobes.com>.

## Conclusion: Developing a sound investment strategy

In summary, these four regional examples show the wide range of investment opportunities to share in the growth of the Australian dairy industry. To optimise the long-term value from such investments, here are three key issues for Investors to consider in developing a sound investment strategy:

### 1. Scale of investment drives returns on capital

The following Table 2 shows for Tasmanian dairy farms how the projected return on total capital invested (farm operating profits excluding capital gains on land), increase with scale.

### 2. Investment in large scale “US style” production systems

These large-scale operations mainly represent an investment in infrastructure and dairy cows, whereas the farmland only represents a small part of the total investment. Therefore the ROC tends to be higher than investing in a traditional dairy farm but the investment does not have the same exposure to capital gain from agricultural land.

### 3. Investment in processing

The economics for investing in dairy processing need to be clearly understood prior to making any investments. For example, to be competitive in manufacturing commodity milk powders for the Chinese market a plant would need to have a minimum capacity of 1.5 million litres per year to compete with existing plants in Victoria and New Zealand. However if a plant is part of an integrated dairy farming and processing model producing high quality value added dairy products, the minimum economic scale would be substantially smaller.

In conclusion, there are compelling reasons for making investments to capitalise on the next phase of growth in the Australian dairy industry. Australia’s growth and Asia’s growth in dairy consumption will underpin expanded production. These expansion opportunities exist in developing dairy regions such as Tasmania and the Great Southern region of Western Australia.

Recent falls in land prices for dairy farms, in some regions, makes acquiring farms in Australia attractive compared to other countries, while the sustained fall in the Australian dollar during 2013 is making dairy exports competitive once again.

Table 2 – Returns from dairy farms in Tasmania improve with farm scale

	Cows Milked		
	250	750	1,000
Capital (\$000's)	\$3,230	\$9,210	\$12,100
EBIT (\$000's)	\$132	\$546	\$821
Return on Capital Invested	4.1%	5.9%	6.8%

Source: Tasmanian Government Report, *The Dairy Industry in Tasmania – A Guide for Investors*, 2012. [www.investtasmania.com.au](http://www.investtasmania.com.au).