Dairy's Challenging Horizon

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The Australian dairy industry sits at crossroads. It hasn't grown, as an industry, over the past decade and has a diminished global standing and reputation. In the Australian domestic market, the dairy news has been dominated by stories of the demise of fresh milk regions due to the 'deep discounting' of private label milk products. As analysed in this article, that situation's influences are more complex. This paper intends to provide elements to understand the factors behind the current challenges and proposes priorities for its future – if it is to get its act together.

Introduction

The dairy industry is one of Australia's big farm export earners, with the value of exports close to $2.7 billion in the 2012 calendar year. But the industry has endured a bumpy ride in the past decade, with a host of challenges thrown at it – climatic extremes, volatile world markets, tight retail competition in its home market, and a strong Australian dollar that has eroded the gains from export markets.

The industry is essentially made up of two vastly different components:

- Manufacturing regions, where the majority of milk is used in the production of dairy commodity and ingredient products, where prices for finished goods and returns driven by world markets, which are relatively volatile.
- Fresh milk regions of Queensland, New South Wales (NSW) and Western Australia, where the majority of milk is used in the processing of packaged milk products and small volumes of fresh dairy goods, where returns are highly dependent on retail market forces.

The returns to producers in these sectors are linked, as the value of milk over time as set by the world market influences the input cost of milk to fresh processors.

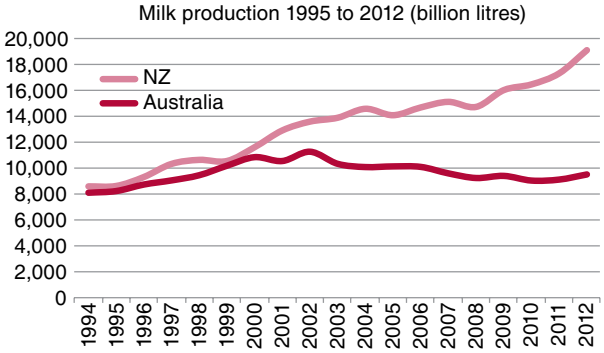


Figure 1: Australian and New Zealand milk production (billion litres) from 2005 to 2012.

Source: Author (2012).

The Australian dairy industry sits at crossroads. It hasn't grown as an industry over the past decade and has a diminished global standing and reputation. Poor seasons cut capacity, but the uncertainty has been worsened by the sector's own capabilities and attitudes. The dairy sector manages to keep itself in the news, mostly for bad news which is at times based on a naïve interpretation of facts and the shedding of responsibility for on-farm performance.

Meanwhile the New Zealand industry (which operates with the advantage of far less complex climatic conditions) has grown to more than twice the size of the Australian industry. Australia's

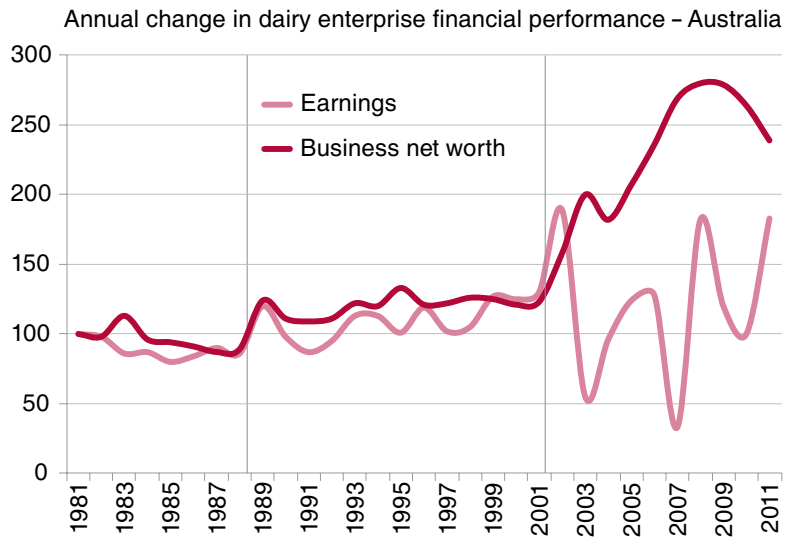


Figure 2: Annual change in dairy enterprise performance, Australia 1991=100.

Source: ABARES (2012).

share of the world trade in dairy products has slipped from 14% in 2002 to about 8% in 2012.

In the Australian domestic market, the dairy news has been dominated by stories of the demise of fresh milk regions due to the 'deep discounting' of private label milk products. As analysed below, that situation has more complex influences.

Due to climate and market volatility, milk producers have been faced with an increasingly complex set of management and technical issues on-farm. While focused on specific issues, in general the production sector has lost the ability to successfully manage and grow dairy farm wealth over time through inevitable commodity cycles. The industry has worked well together to highlight the challenges on-farm, but not created effective whole-of-business solutions that have focused on the rising complexity of farm business management. Dairy is not renowned for celebrating success, which contributes to limit dairy's attractiveness as a place to work and invest.

Rather than seeing opportunity from volatility, as is the case for successful operators in competitor countries – to harvest the highs and manage the lows – a short-term preoccupation with risk has hampered the ability to respond to a growing dairy market.

Milk supply constraints have resulted in under-investment in technology and scale in dairy factories – as a result the supply chain is not cost competitive. The industry operates as a fragmented, competitive model, with small, high-cost plants by world standards, and limited integration into customers' businesses.

In addition Australian dairy sector advocacy models, as with those employed in several agrifood sectors, are outdated and under-resourced to positively influence these agendas on terms that address community interests, and therefore dairy industry needs and circumstances. Contrast this to the way the mining industry positions itself and advocates the interests of its members.

Facing Up to the Future

Given this sobering assessment of its plight, the industry's key investor bodies (Dairy Australia and Gardiner Foundation) recently commissioned a study into the future of the industry to allow an identification of future priorities, which would drive future investment programs but also direct future industry policy. The aim of this work is to also 'raise the sights' above short-term preoccupations which have affected industry priorities in recent years.

The key questions

The Horizon 2020 project sought to answer the following questions:

1. What does the future dairy market look like for Australian milk producers and processors?
2. The world food market is increasingly affected by volatility – what is causing it, how will it affect dairy, and what can be done about it?
3. What are competitors doing and planning to and what can be learnt from them?
4. What do customers and rivals think of the industry?
5. Sustainability is everywhere – what is it all about; does an Australian agrifood sector need to address it and why?

The Headline Messages

The research looked across a number of long-term changes affecting the future of the world food market, the role that dairy might play in that, and the variables impacting the agrifood producer. Seven agendas were explored in the work – as listed in Box 1.

Box 1: Agendas affecting the medium to long term.

- The future world economic and political order
- Factors reshaping the global dairy landscape
- Challenges in feeding the world's population
- The requirements of consumers, customers and community
- The sustainability agenda
- Success factors for those growing farm enterprise wealth
- Drivers of innovation relevant to process, product and proposition

Some important high-level conclusions are highly relevant to the dairy industry's future:

1. The Australian industry has an opportunity to be part of a growing global dairy market.
2. The Australian industry has lost relevance – the supply chain slipped in cost-competitiveness due to the small scale of many operators, but also the lack of connectedness to customers and consumers in the developing markets.
3. The Australian dairy industry have a window of time to get its act together – competitors are more agile and better connected, but the expanding and more complex market presents plenty of scope for a significant role.
4. The industry needs to grow if it is to remain relevant and meet growing customers' requirements.
5. Sustained growth can only come from farms adopting a long-term plan to 'get fit' – to create wealth by riding the inevitable volatility that will come.
6. The project has therefore focused on the ingredients to meet that challenge over the medium to long term.

So Where are the Gains?

The changing world order is driving rising demand for food commodities in the developing world. The issue is not whether there is enough production to meet future demand, but whether dairy nutrition will be affordable to consumers.

The expanding world market for dairy products and ingredients provides huge opportunity for the Australian industry. Over time, while the market for dairy products will continue to grow, greater volatility of incomes and input costs is a certainty. The global dairy industry has a massive challenge in keeping pace with demand over the next decade. Global trade has grown since 2006 at 8% per annum. Trade in 2011 and 2012 year each grew at 10% per annum.

The demand for imports by developing markets will continue to increase much faster than the capacity of exporters to supply. Analysis done as part of the project attempted to plot a projection of import demand and exporter supply over the decade to the end of 2021.

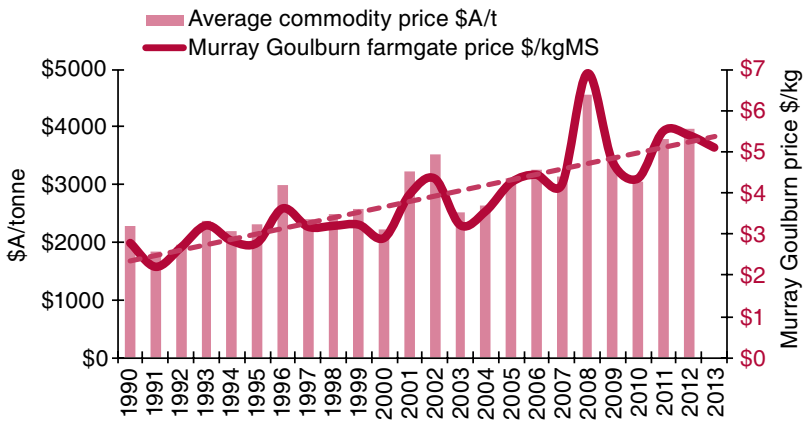


Figure 3: Average export returns and Murray Goulburn milk prices (1990 to 2013).

Source: Dairy Australia (2012).

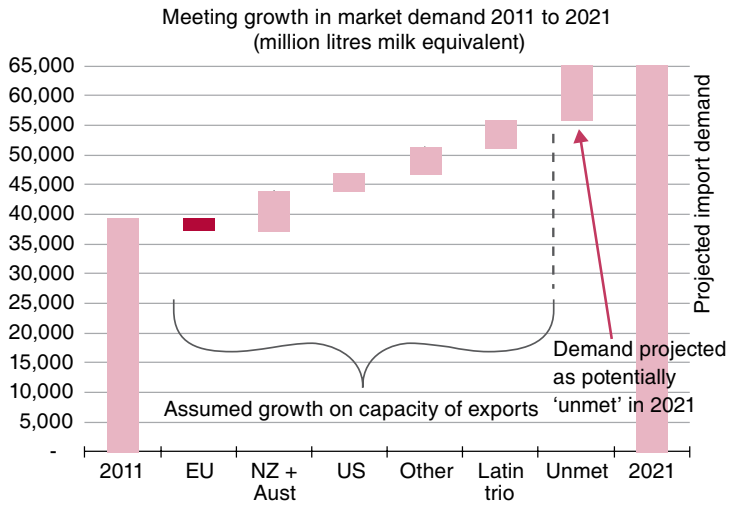


Figure 4: How future growth in milk demand will be met by supply.

Source: Author (2012).

One of the significant challenges faced by the industry – especially export manufacturers who can't keep up with customer demand – is that too few of their milk suppliers have bought into the story that the future holds great opportunity.

Dairy farmers indicate that they've been hearing this story from exporters and industry bodies for the past decade, yet for many, the gains haven't been realised. In revenue terms at least, the story has been a good one. The long-term history of farmgate prices for southern milk producers is shown in Figure 3, which tracks average prices paid by the biggest processor (Murray Goulburn) over the past 23 years. That upward sloping trend line in milk prices has been increasing by the equivalent of about 3.5% per annum in nominal terms.

That steady growth occurred despite significant distortion of world markets by the use of export subsidies by the European Union (EU) and the United States (US), high tariffs in many markets and other market intervention and production controls in the EU – all of which have or will be shortly removed.

Milk producers have faced costs increases which have been much faster than this growth in unit revenue. Hence industry efforts have been faced on improving productivity over time – increasing the production of grass, milk yields from cows, and labour efficiency.

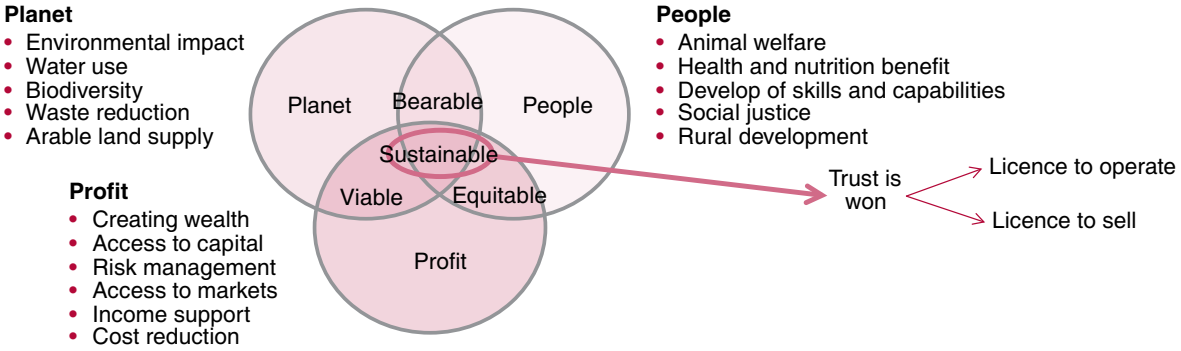


Figure 5: The elements of sustainability based on profit, planet and people.

Source: Sustainable Agriculture Initiative.

Volatility is a fact of life

What is also apparent from the history of milk prices is that the marketplace is volatile. While volatility in milk prices in the past – prior to 2007 – has largely been due to the intervention in the market by the EU, the global dairy market in future will continue to experience rising but fluctuating returns, driven by a range of factors.

The combination and intensity of these will vary over time, affecting dairy markets, competing foods and input costs. The interdependence between dairy and feed markets will get more important, but the randomness of impacts will also increase due to climate and political forces.

What is Driving Sustainability?

Dairy's licenses to operate and sell are being rapidly shaped by rising community expectations for sustainable outcomes. Building trust with communities, customers and consumers will be more important in the future, backed with credible evidence. Industry leadership in agricultural sectors worldwide is struggling to keep ahead of rapidly changing agendas and influencers.

The challenge for an industry such as dairy, which has a significant stake in export returns, is that it operates in a community with stringent first world expectations, while a significant driver of future returns is set by the requirements of consumers in third world countries where the demands are perceived to be far less onerous.

In future, the community will demand more accountability for farm practices and impacts in future. There is generally a negative perception that addressing these requirements will add cost and deliver few benefits to agricultural producers – dairy farmers think no differently.

The onus on food industries and their participants to account for their sustainable practices is due to commercial pressure from the wider community (influenced by a number of global non-governmental organisations), major food corporations and food retailers.

Sustainability is now mainstream for major international food companies (also the dairy industry's customers) that have embraced its principles as a core part of strategy. It is no longer just a marketing proposition for these groups but a way of doing business. It has become a strategic approach to extract higher business value by changing their own business culture to improve risk management and resource efficiency.

The Australian dairy industry in 2012 developed a sustainability framework to take up the challenge and proactively embrace these expectations.

Different Views of the Future

The Horizon 2020 project developed and tested scenarios of the future to help identify industry priorities. The project developed four distinctly different views of the future to challenge thinking

and help develop a desired future that industry should strive to achieve.

A most likely scenario emerged from the analysis which characterises an Australian industry of the future based on aggressively competing supply chains servicing expanding markets of choice. It also corresponds to how the industry might develop should it pursue a growth agenda and respond to stronger export demand.

The Way Forward

These opportunities might beckon, but how well placed is the Australian industry?

The major thrust of the imperatives are directed at improving the capacity of the industry to sustainably increase its milk output to meet the available opportunities that are apparent in the global dairy market.

The dairy industry is missing many of the key ingredients around the outside of Figure 6 – building confidence, showcasing success, creating positive esteem, widely using 'whole of farm' decision tools to ensure dairy businesses are 'fit' over time.

- Bringing greater confidence, capital and capability are critical to a more successful industry. Improving those ingredients for success must largely come from within.

A critical question for all parts of the industry: How to motivate people to 'look long' adjusting their businesses and attitudes to accept the cycles of the market and cashflow as inevitable?

Progressive dairy farmers that seek solutions and focus on what they can control, demonstrate that ongoing productivity gains and long-term wealth creation can come from a strong enterprise culture.

A strong and concerted effort to improve the business culture is needed to meet the increasing complexity, and external demands – or the industry will continue to drift and reduce its relevance to customers and the community.

There is a cautious, almost apologetic use of the word 'productivity' within the industry in fear it will disengage farmers who consider they already 'work very hard'. The fundamentals facing the dairy industry, with a rising fixed cost base and weakening terms of trade, mean that getting better output from assets and inputs, and achieving better returns from investments are 'no-brainers' when it comes to protecting and building wealth.

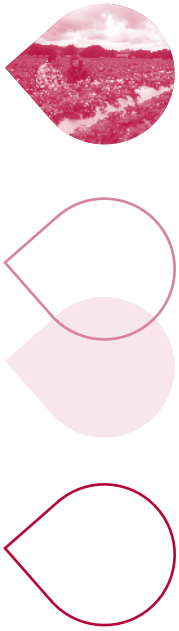


Table 1: Horizon 2020 findings: future imperatives for the industry.

Horizon 2020 findings: future imperatives for the industry	
What to achieve	What the industry must do differently
Wealthy dairy farmers	Develop a strong focus on farm business management skills to improve whole of farm performance and scope for wealth creation over time. Understand what drives behaviour change and improve long-term decision-making capacity.
Attract investment and good people	Get behind a market-led, profitable growth agenda for industry and farm businesses. Change the language – celebrate and share success on-farm in profitability, sustainable practices and innovation. Understand how to better present to and connect with equity investors.
Writing dairy's license to operate	Embrace a front-foot approach to sustainability, supporting adoption of the industry's own framework developed in 2012. Strengthen industry advocacy to effectively influence critical future community and policy agendas.
A competitive and agile supply chain servicing markets of choice	Improve our capacity for innovation in sustainability and in agility to meet customer needs. Improve the clarity of market signals, and mutual understanding along the supply chain. Effectively engage government in industry's agendas based on a compelling business case.

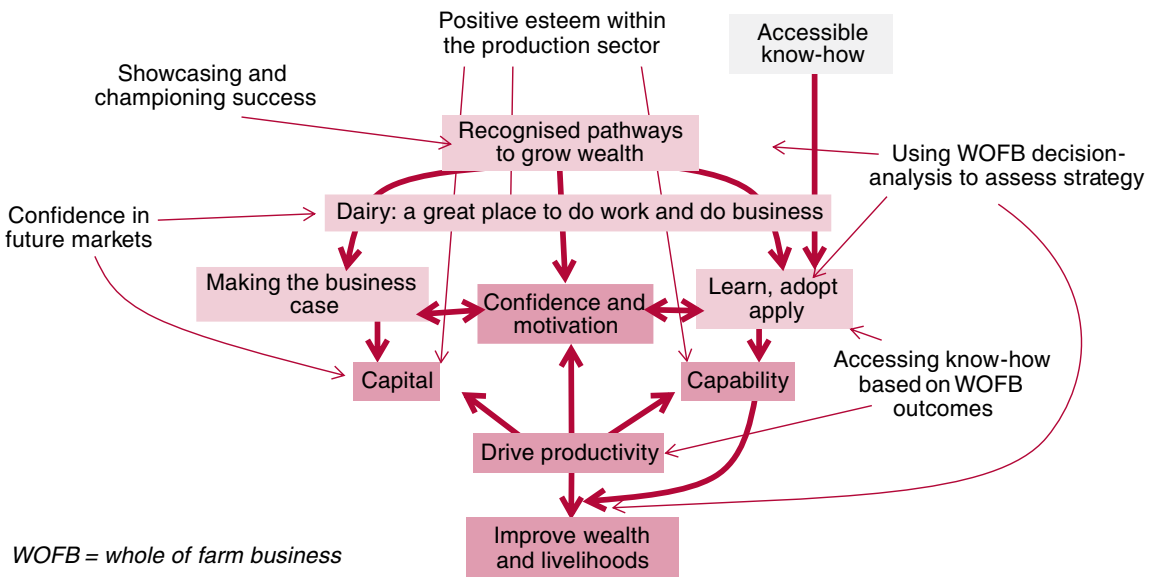


Figure 6: Ingredients to improve farm wealth.

Source: Horizon 2020 project team.

The Domestic Market for Dairy

Export glory may beckon for the national industry, but at home the domestic market for dairy products is a tough place and is set to remain so.

About 58% of milk produced in Australia remained in domestic markets in 2011/12, a proportion which has steadily increased over the past decade from a low of close to 40% as total production remained flat and domestic demand steadily lifted. Packaged drinking milk products used just 25% of milk output last year, while about 75% of milk is used in manufactured dairy products (cheese, milk powders, butter and other ingredients), the value of which is set by world prices. Cheese is the most important product group, consuming 34% of milk.

While a significant volume of manufactured product is consumed in domestic markets, imported cheese and butter (much of it from production powerhouse New Zealand, with whom Australia has a free-trade, zero-tariff agreement) directly affect local wholesale values.

The value of milk is therefore set by returns from the world market. Even milk prices received over time by producers in fresh milk regions face this reality, even though distance may offer some form of buffer.

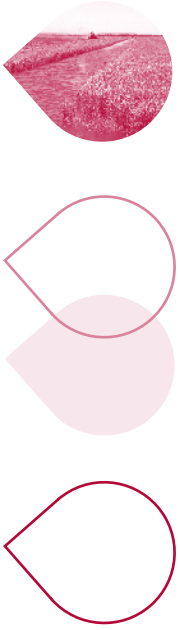
Price competition in milk

A downturn in household spending commenced in late 2008 as higher fuel prices and worsening economic news undermined confidence. Since that time the average household has reined in spending in the interests of rebuilding household savings and become more sensitive to the cost of food, especially on meals eaten out of home.

Grocery retailers aggressively compete for shopper loyalty and trust, using a range of strategies that support the perception of the store parent brand, including the use of private label lines.

A variety of promotional tactics have been used by major grocery retailers to reinforce the perception that they are a trusted source of good value in food shopping, with the aim of increasing their share of household spending.

In late 2010 commencing with meat products, major grocery chains and the 'bannered' independents intensified price-based competition with deep discount campaigns focused on a range of household staples. Milk has long been an important category to a grocery retailer as a nutritional staple food item; a key driver of shopper traffic especially around daily shopping peaks where convenience is a priority; and a determinant of the frequency of shopping visits.



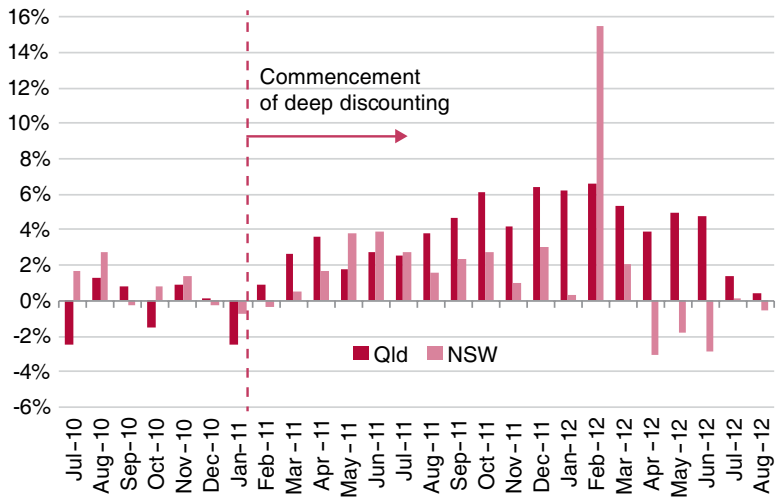


Figure 7: Monthly milk sales increases on same month a year earlier.

Source: Dairy Australia, 2012.

Grocery chains had introduced private label products in milk prior to deregulation in 2000, yet after steady rises in shares of sales, for several years retailers had seen little or no increase in private label shares. The chains have also claimed to have seen limited differentiation and innovation across the category.

In an attempt to redress this, and to counter the increasing presence of discount retailer Aldi (which had priced milk at close to $1/litre for several years), private label milk products became a key component of supermarket deep discounting campaigns to drive an increased share of sales through their own brands and over time increase category performance.

This came with uniform national pricing (across all stores regardless of location and distribution costs) averaging $1/litre for 2 and 3-litre pack sizes, as well as removing the historical differential between full-cream and low-fat products.

The effect of this has been significant on the fresh milk market. In simple terms:

- A higher share of sales has been won by lower-priced private label products (chiefly in modified milk products), at the expense of company brands, weakening overall wholesale returns to processors.
- Reduced prices for branded fresh milk products in grocery, as well as in non-grocery outlets (convenience stores, greengrocers etc) as processors sought to stem volume losses.
- A shift in sales from independent food and grocery stores ('route trade') to major supermarkets.

The impact on retail sales and wholesale returns has varied state to state, due to the differences in retail prices, distribution patterns and historical sales mix. Gradually lowered, the average retail/wholesale mix changed. Processors lost out mostly on the drop in sales of modified milk products, where higher price low-fat products had previously enjoyed premiums over plain full-cream milk products.

The impacts on supply chain returns were potentially greatest in Queensland, where retail prices of branded lines were historically lower and over 95% of milk is produced for the domestic fresh milk market, without the availability of an alternative market.

In the process, the advent of lower prices also shattered a long-standing myth that demand for milk products was inelastic. Data published by Dairy Australia (per Figure 7) shows that since the advent of lower pricing consumers bought a little more milk.

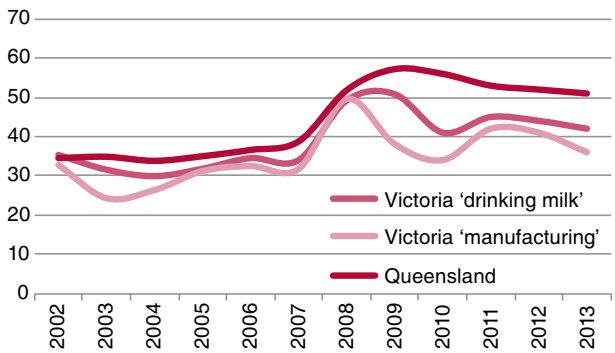


Figure 8: Queensland versus Victorian milk prices (cpl) from 2002 to 2012.

Other change was occurring

The lowering of retail milk pricing happened as other major change was affecting the industry in fresh milk regions.

The steady decline in milk production in NSW and Queensland since deregulation in 2000, and the consequential poor profitability of processing assets has led to significant consolidation in processing ownership and capacity. Parmalat and Lion have each moved commodity and fresh product manufacturing (ie non-packaged milk products) capacity to Victorian plants which offered them better economies of scale and cheaper milk sources, as southern dairy farmers operate with lower feed costs.

The changes in Lion's business have been more profound. Lion was created from the merger of the former National Foods and farmer co-operative Dairy Farmers. Dairy Farmers, at the time of its sale in 2008, had a number of commodity and fresh product manufacturing plants in NSW to cater for the milk supplied by farmer shareholders.

Lion has steadily rationalised its dairy business since the merger, closing facilities in NSW, and has also for a number of years sold significant volumes of milk which were surplus to fresh milk demand of its NSW plants to southern manufacturers located in Victoria. The business had not performed to expectation of its parent – Japan's Kirin Brewing group – which seemingly paid over the odds for the dairy businesses and has since acquisition written-off large amounts of the business value from its books.

These changes occurred as there was a strong rise in farmgate milk prices in Queensland and NSW in 2008, in response to a decade of harsh drought and dwindling volumes of milk that was surplus to processing demand, but also in line with increases in export market returns.

Prices rose steepest in Queensland, as shown in Figure 8, and were locked into long-term contracts to provide better certainty to producers and to stabilise production. At the time of entering those agreements in 2008, feed input costs were high. By the time those agreements expired and prices were up for renegotiation, feed costs had lowered appreciably.

In the meantime, grocery retailers changed the way in which they contract with processors for the supply of private label lines. Woolworths shifted from national supply arrangements to state-based private label supply (to match Coles), switching from Lion to Parmalat in Queensland, then in NSW. The loss of these contracts for Lion meant the company required far less milk from its existing farmer supply base.

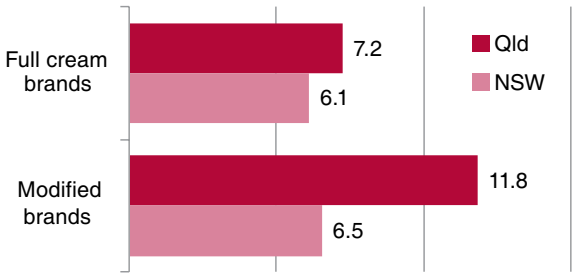


Figure 9: The volume of annualised sales lost by processor brands in Queensland and NSW to June 2012.

Source: Author based on Dairy Australia data.

Cheaper milk a 'tipping point'

In effect, the actual impact of the lower retail pricing has not been as great as the industry feared, with the largest impact on wholesale prices for processors which have seen a migration of sales away from premium modified milk lines.

The annual volume shifts calculated in Figure 9 amount to 8% of brand sales in Queensland and 4% in NSW.

The industry in fresh milk regions has however been profoundly affected by the negative stigma of seeing a product marketed at just $1 a litre, when they themselves face rising complexity in their businesses.

The intensification of retail competition since early 2011 however served as a tipping point for Lion to quickly redress its exposure to high-cost milk processing supply chains in NSW and Queensland.

These combined factors significantly reduced Lion's requirement for fresh milk in NSW and Queensland. The company reduced its contracted supply volumes known as 'Tier 1' and sharply lowered its surplus or 'Tier 2' prices to reflect the costs of disposing of that milk – which was sold to other companies including being hauled to Victorian plants of manufacturers.

The net effect of the changes in Lion's requirements has meant significant price reductions for many suppliers in NSW and to a lesser extent for some in Queensland, where the majority of milk supply is packed in milk cartons.

The difficulty for many milk producers – most significantly those exposed to the reduced demand in Queensland and NSW – has been the abrupt scale of the changes in market access and farmgate prices. In the absence of other milk buyers with the interest, capacity and mechanism to buy this unwanted milk, the supply response to this measure will risk causing a permanent reduction in regional industry milk output, leaving the region with seasonal milk shortages that in future may only be satisfied by large southern milk supplies.

The acute pressure on the Lion business came after the advent of $1/litre milk pricing. Rather than communicate the need for producers to adjust to market realities, agri-political blame has been centred on the act of discounting of milk prices as the one and only cause for changes in farmgate prices in Queensland and NSW.

Slow productivity gains

Farms in Queensland and NSW are committed to production systems matched to fresh milk demand throughout the year. These systems incur higher production costs compared to seasonal production systems, which dominate southern Australia, and manage different pasture types.

There has been slow change in farm yield according to indicators available from Dairy Australia and Queensland Dairy Accounting Scheme (QDAS). Average farm sizes have increased, more so through the exit of small operations to improve the averages.

Change has been a challenge for many of the current producers who were nurtured through a history in a regulated environment. Post-deregulation market access and cooperative principles have essentially lengthened the transition from that environment and shielded many from market realities which have arrived in pricing and access regimes.

The challenge on-farm – as it is in southern regions – is to achieve a focus on how to improve farm business performance given these new market settings.

Will the Situation Change?

Grocery competition within Australia has for the past five years been an intense contest for 'parent brand' trust by consumers across a range of propositions. This will continue for the foreseeable future and continue as a major influence on retail food markets.

There are several reasons why the private label pricing approach is unlikely to change:

- The entrenched desire for 'value' from a cautious shopping public.
- The expansion of the Aldi and Costco chains into the future, which chip away at the scope for growth by the major chains.
- The desire for Wesfarmers to improve the return on investment provided by Coles.

Value is likely to remain a key plank of retailer propositions to shoppers, unless there is a huge lift in consumer sentiment and discretionary spending on food, which is not foreseen by grocers for several years.

Grocers don't like their brand being blamed for upheaval when it isn't their making. It is reasonable to expect that we'll see much closer alignment between retailer and farmer, most likely with the advent of direct retailer contracts, which are a convention in the United Kingdom dairy industry – implemented by the same retailers from which the local groups draw many of their innovations.

But the future is not at all limited to a sustained push behind 'value' lines in undifferentiated commodities such as milk, cheese and spreads. There is scope to lift value through providing 'provenance' in product, linking back to farm and playing on 'local' themes which are a world-wide phenomenon.

Value gains can be won!

Functionality and convenience of product will also be critical, but the best value in future will come from the creation of strong, simple and emotional propositions that cut-through to consumers. The A2 Milk brand is an example. This brand has enjoyed double digit growth alongside $1/litre products on shelves due to the effectiveness of its promotional message.

The experience of the permeate-free products in milk is another, more significant lesson. Lion and Parmalat introduced permeate-free branded milk products in June 2012, which they claimed was in response to consumer preference for natural dairy products. Despite the apparent confusion around the nature and role of permeate in milk processing, the promotion of 'permeate-free' milk has swung market share of sales back towards brands. The volumes of brand sales lost on the eastern seaboard due to the advent of $1/litre pricing over 16 months were reversed in the space of five months due to the support given to the higher priced permeate-free product.

Now that retailers have permeate-free private label lines, this effect is likely to change and the share of sales won back by processor brands will be curbed.

Points of difference are the key to category growth for grocery retailers. In this regard they will seek ways to raise the bar in sustainability elements – environmental impacts, animal welfare practices, local community support and regional supply relationships. In time retailers hope this will build to a sustainable sourcing proposition that resonates with and is trusted by consumers.

The trick for the dairy industry is to ensure that economic viability is understood and recognised by their domestic customers in those sustainability agendas.

About the Author

Steve Spencer is a Director of Freshagenda, a Melbourne-based consulting and analysis business, and has significant experience in the analysis of agrifood markets and supply chains, and in the delivery of information to supply chain participants. He has worked across the Australian food industry for a wide range of clients in dairy, fresh produce, livestock, and poultry industries, as well as areas of tracking consumer preferences and behaviour affecting food supply chains, food price drivers, trade and competition. He has a strong specialism in the dairy industry, from farm through to consumer, including the analysis of international market conditions and developments.