

Phasing Out Supply Management

Lessons from Australia's Dairy Industry

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Executive Summary

Australia's dairy industry has a long history of government support and control. From the 1920s to the end of the twentieth century, a succession of state and federal governments sought to stabilize the supply and price of milk, butter, and cheese and, as a result, encouraged the production of drinking milk over milk for further processing. This resulted in higher prices for consumers. After deregulation of the industry in 2000, prices for fresh milk fell and producers are now able to interpret global price signals and adjust their investment and planned output based on real-world demand, rather than face the inefficiencies, rigidity, and perverse incentives associated with government control.

A succession of agricultural policy reforms throughout the 1980s and 1990s addressed some of the issues arising from government control and subsidization, and were bolstered by Australia's commitments to end export subsidies on accession to the World Trade Organisation in 1995. In 2000, the industry was deregulated. State Marketing Authorities, which had been responsible for setting prices and managing supply, were abolished, as was the premium paid for "market milk" produced for consumption as fresh milk. Alongside these reforms, from 2000 to 2008 the Federal Government instituted a package of measures to help producers adjust or transition out of the industry. A number of smaller farms were either consolidated or put to other productive uses.

The results of these reforms have been unambiguously positive. Consumers have benefited from lower prices for fresh milk, with prices falling by 12¢ per litre immediately following deregulation. Farmers have received consistently rising farm-gate prices, which have risen by 56% since deregulation in 2000. Fewer, larger, farms are driving greater productivity, the national milk supply has been maintained, and the size of the national dairy herd has stabilized in what is an ongoing consolidation, rather than shrinking, of an ever-more productive industry.

Dairy deregulation has enabled the Australian dairy industry to be reconfigured so producers can respond in an efficient way to supply and demand. The Australian dairy industry now exports almost half of its output, making dairy the third most important agricultural export after beef and wheat, and bringing in export earnings of about

\$3 billion per year. The flexibility and market orientation of the industry has positioned Australian dairy producers to take advantage of the falling tariffs in the Asia-Pacific region driven by the Comprehensive Progressive Trans-Pacific Partnership (CPTPP), and potential liberalization of UK trade policy following Brexit.

The Australian example is instructive for Canada and other major dairy-producing nations.

Australia's Journey to the Reform of Its Dairy Industry

The Australian dairy industry was, until the final decade of the twentieth century, subject to supply management and the recipient of substantial government support. Farmers received different prices for their milk depending on its end use: “market milk”—sold in the domestic market as milk for drinking—attracted a price premium that was set and administered by Marketing Authorities in each state and territory; “manufacturing milk”—used to make milk powder, butter, cheese, and other processed products—received prices largely determined by the global market (South Australian Centre for Economic Research, 2000: 2).

According to the Australian Bureau of Agricultural and Resource Economics and Sciences:

Historically, the dairy industry in Australia was highly assisted and regulated by both state and Commonwealth governments. According to the Productivity Commission (2001) the effective rate of industry assistance in 2000 was 51 per cent, 8 and half times greater than the rate of assistance for the agriculture industry as a whole (6 per cent). This high rate of assistance was largely achieved through two policy instruments: statutory marketing authorities (SMAs) and the domestic market support (DMS) scheme. SMAs were created by state governments to regulate marketing of milk between states, while the DMS was administered by the Commonwealth government to subsidise the export of manufacturing milk. (ABARES, 2016: 4)

During the 1980s and 1990s, deregulation of the dairy industry occurred in stages. In 1991, the Industry Commission (now known as the Productivity Commission) released a scathing report, finding that government regulation “caused Australian consumers to pay around \$280 million more for fresh milk and dairy products in 1989-90” (Industry Commission, 1991: xvi). [1] Benefits were captured by producers in the form of higher than normal profits.

[1] All prices in this publication are in Australian dollars or cents.

During the early 1990s, export subsidies (payments based on a set percentage of the export market price, paid to exporters of manufactured dairy products) were wound down, then eliminated in 1995. That year, the Domestic Market Support Scheme (DMSS) replaced the benefits that had been conferred by export subsidies to producers of manufacturing milk bound for export. The support scheme imposed two levies: one on producers of market milk (farmers); and the other on producers of manufactured milk products (processors, who passed this cost on to consumers). Revenue from the two levies was pooled. Payments were distributed to farmers based on the quantity of manufacturing milk (not market milk) produced. In this way, some of the surplus received in the form of higher prices paid to farmers producing market milk made its way to farmers producing manufacturing milk (South Australian Centre for Economic Research, 2000: 3). The DMSS expired on June 30, 2000.

The final and most comprehensive stage of deregulation came in July 2000. Over 80% of dairy producers in the state of Victoria—who produced over 60% of the national total—had already voted in a public interest review conducted in 1998 to deregulate the industry in the hope of attracting higher farm-gate prices (prices paid by processors and manufacturers to farmers) for producers of manufacturing milk (Margetts, 2007: 107). Key features of the reforms were as follows:

- ❖ State Marketing Authorities abolished and farm-gate price controls scrapped;
- ❖ distinction between “market milk” and “manufacturing milk” discontinued, and Domestic Market Support Scheme ended;
- ❖ farm-gate prices for milk equalized regardless of end use (whether milk is bound for consumption fresh or for further processing, whether domestically or abroad); and
- ❖ a temporary levy of 11¢ per litre, to be charged at the wholesale level, instituted from 2000 to 2008, in order to provide funds to help eligible dairy farmers adjust to deregulation by consolidating, changing practices, or exiting the industry. These funds were administered by federal statutory body the Dairy Adjustment Authority. (South Australian Centre for Economic Research, 2000: 4)

This final point—the consumer levy of 11¢ per litre—was the key to helping Australia’s dairy farmers adjust to the new policy environment. The levy funded two assistance programs that delivered a total of AU\$1.74 billion: the Dairy Structural Adjustment

Program (DSAP), which made transition payments to all dairy farmers based on their previous reliance on subsidy support; and the Supplementary Dairy Assistance (SDA) scheme, which provided additional, targeted support to producers facing the greatest adjustment challenges (Harris, 2005: x). The levy also funded a scheme that provided cash assistance and retraining support to farmers who wished to exit the dairy industry (Dairy Exit Program [DEP]) and the Dairy Regional Adjustment Program (DRAP), which funded employment projects for dairy-dependent communities.

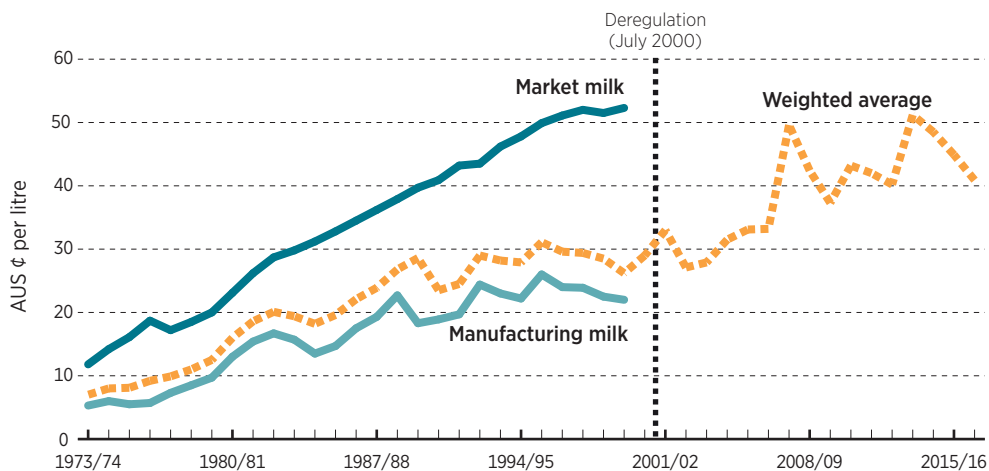
Temporarily exchanging the previous system, which provided implicit and opaque support to dairy producers at the expense of consumers, for an explicit consumer levy to support farmers in transition was considered preferable to a drawn-out reform process. Australian agricultural policy reforms are more commonly phased in over an extended period, giving industries time to adjust. In the case of the dairy reforms, a “full impact” approach was preferred, whereby wholesale policy changes were made with little warning, but were counterbalanced by additional (explicit) transitional support measures. [2] As will be presented later in this paper, the transitional consumer levy did not seem to result in higher consumer prices; in fact, retail milk prices fell significantly following July 1, 2000.

[2] See Harris, 2005 for a comprehensive discussion of the relative strengths of phased and “full impact” regulatory reform in the context of Australia’s dairy industry.

Key Outcomes of Deregulating the Dairy Industry in Australia

The most visible effect of the reforms of 2000 was the elimination of the market-milk price premium. This resulted in a single price paid to dairy producers at the farm gate, which now closely tracks the global milk price. As **figure 1** shows, after 2000, producers of market milk witnessed a drop in farm-gate prices, while manufacturing milk producers received higher prices. Since 2000, all producers, regardless of the end use for their output, have commanded steadily rising farm gate prices. As figure 1 demonstrates, one of the main fears of deregulation, a collapse in farm-gate prices, did not materialize. In fact, average prices have continued to trend upwards, and at a steeper rate, thanks to growth in domestic and global demand for quality dairy products. Note that since deregulation, a single price is paid to producers for milk; therefore, the separate lines for market and manufacturing milk end in July 2000.

Figure 1: Farm-gate milk price (AUS ¢ per litre), 1973/74-2016/17



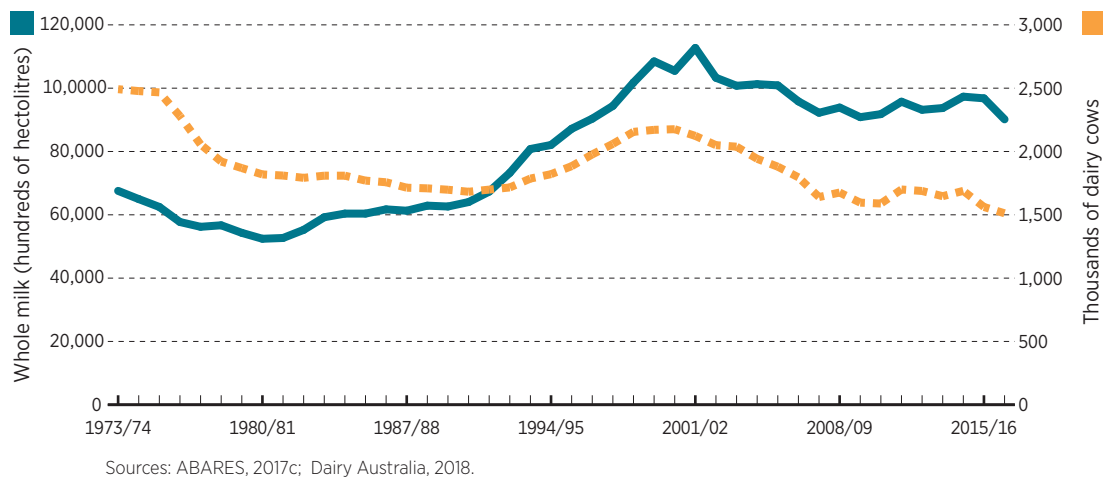
Sources: ABARES, 2017a.

Figure 2 shows total Australian milk production and the size of the national dairy cow herd between 1973/74 and 2015/16. Production increased rapidly throughout the 1990s, before levelling off after deregulation in 2000. During the period 2000/01 to 2015/16, total production has trended slightly downwards, fluctuating around 10

million hectolitres per year. Deregulation has coincided with relatively stable production totals, and an end to the rapid increases that were observed during the 1990s. It is likely that these increases would have become unsustainable had they continued, as domestic demand for milk is relatively inelastic (Margetts, 2007: 99).

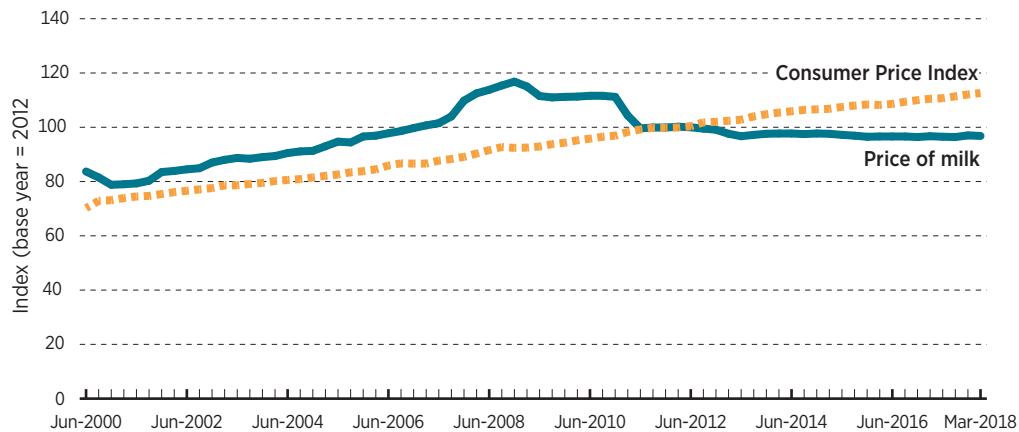
Figure 2 also demonstrates that relatively stable total production has been achieved even as the size of the national herd has steadily declined. This reflects continuing improvements in total milk produced per animal. According to the data in figure 2, in 2000/01, Australian dairy cows produced on average 4,800 litres per animal. By 2015/16, this figure had increased to almost 6,000 litres per animal. In other words, the milk-producing industry in Australia has become much more productive compared to the prereform period.

Figure 2: Australian production of whole milk (hundreds of hectolitres) compared to number of dairy cows, 1973/74–2016/17



Retail prices for milk decreased following deregulation, delivering an unambiguous benefit to consumers. The average price for whole milk stocked by Australian supermarkets decreased by 24¢ per litre (16%) between the March and December quarters in 2000 (ACCC, 2001: 65). From 2000 to 2009, retail milk prices trended upwards. Since 2009, prices have fallen and then flattened out (**figure 3**). It is interesting to note that the Dairy Adjustment Levy of 11¢ per litre expired in June 2008. This may be one factor behind the price declines that can be observed. Another factor has been the fierce discounting competition between major supermarket chains that has taken place during the same period. It is important to note that, notwithstanding the falling and flat retail prices for milk since 2009, the farm gate price has continued to climb (**figure 1**).

Figure 3: Average retail milk price compared to overall Consumer Price Index (index, base year = 2012), 2000–2018



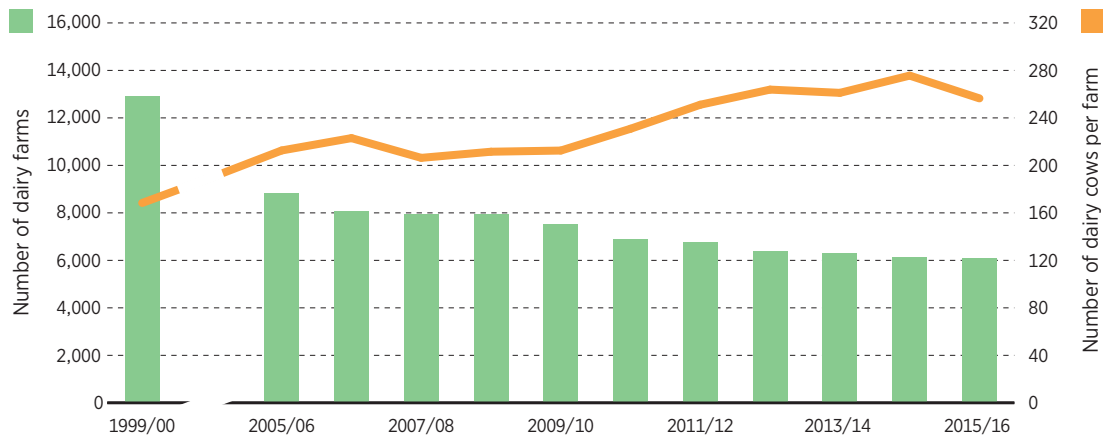
Source: ABS, 2018.

Productivity improvements at an industry level

Dairy deregulation in Australia has coincided with accelerating productivity growth in the industry. As observed in figure 2, average milk production per dairy cow has almost doubled since 2000. One reason behind this rapid growth that was identified by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES, 2016) has been the reallocation of resources from less productive to more productive dairy farms. This process of reallocation has been greatly aided by deregulation, as farmers are no longer artificially rewarded for producing market milk year-round. Before deregulation, price premiums were paid to farmers to produce milk year-round, despite efficiency losses in the winter months. Year-round production is important to processors and retailers of fresh (“market”) milk, but far less important to manufacturing milk applications. By effectively equalizing the price farmers receive for their milk, regardless of its end use, deregulation motivated producers to reallocate both physical and financial resources. The ABARES report found that resource misallocation in the Australian dairy industry was greatest in the decade leading up to 2000, when the dairy industry was highly regulated, and that: “The deregulation reforms introduced market competition and abolished long-standing institutional barriers. In turn, this facilitated structural adjustment and significantly improved the efficiency of resource reallocation within the industry” (ABARES, 2016: 17). This improved resource allocation contributed 0.2% per year to total factor productivity in the industry from 2000 to 2013 (ABARES, 2016: 17).

A related factor driving productivity improvements in the industry has been the consolidation and rationalization of dairy farms that has taken place since 2000. **Figure 4** illustrates the steady decreases in the total number of dairy farms since 2000. Over the

Figure 4: Total number of dairy farms in Australia and average number of dairy cows per farm, 1999/00–2015/16



Sources: ABARES, 2017a; Dairy Australia, 2018.

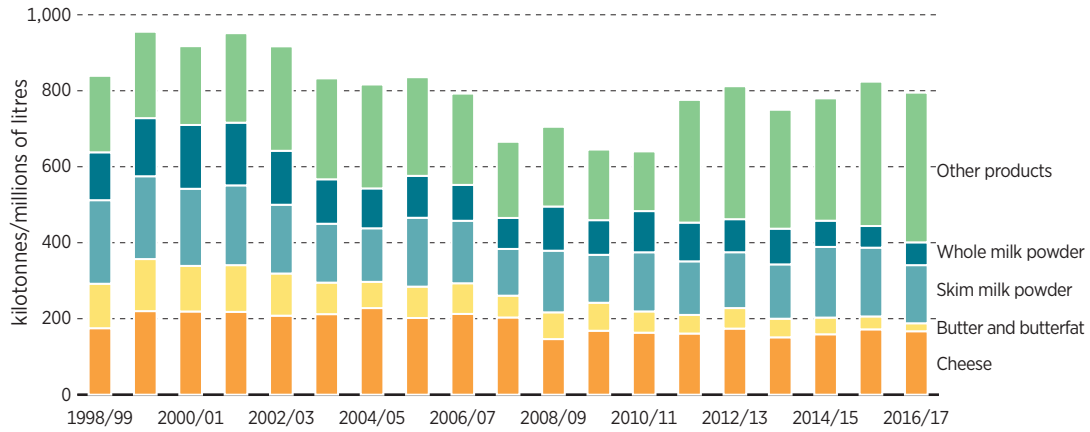
period from 1999/2000 to 2015/2016, the number of dairy farms shrank from 13,000 to 6,000. During the same period, the average herd size per farm rose by 62% from 168 cows to 256. This process whereby smaller and less efficient farms closed or were acquired by larger operations was facilitated by deregulation in two main ways. First, the removal of market-milk subsidies made some borderline dairy farms uneconomic to operate. Second, the exit incentives offered as part of the reform package likely helped convince some operators to transition out of the dairy industry. Importantly, Australia's total milk production has held up, and the national dairy herd has stabilized at around 1.6 million cows (figure 2), even as farm exits have continued. This suggests an ongoing consolidation, rather than shrinking, of an ever-more productive industry.

Exports

Australia exports approximately half of the dairy products it produces (PwC, 2011: 4), and accounts for about 6% of global dairy exports. Australia is the fourth largest dairy exporter after New Zealand, the European Union, and the United States (ACCC, 2017: 50). The first ten years of deregulation coincided with a downward trend in Australian dairy exports (figure 5, figure 6), as a result of periods of drought and weak global prices driven by high levels of supply and EU subsidy support.

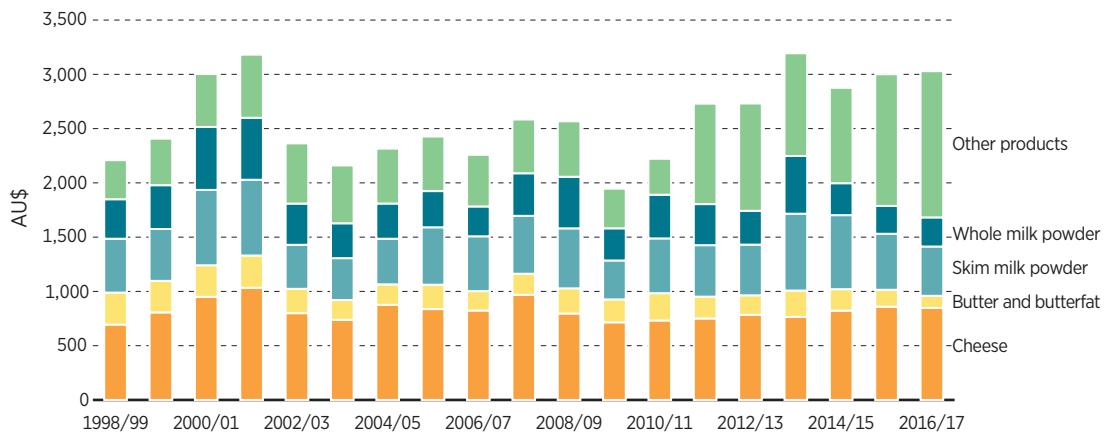
Since 2011, the trend has reversed, as Australian exports of cheese, butter, skim- and whole-milk powder, and other products have increased, driven by growing demand in Asia. It is highly likely that the reallocation of resources from producers of market milk to operations producing manufacturing milk that was discussed earlier has helped farmers take advantage of the growing opportunities for exporting manufactured milk products to Asia.

Figure 5: Australia's dairy exports (by weight in kilotonnes or volume in millions of litres), 1998/99–2016/17



Sources: ABARES, 2011 (2004/5–2009/10); ABARES, 2017b (2010/11–2016/17); Australia, Department of Agriculture, Fisheries and Forestry, 2004 (1999/2000–2003/04).

Figure 6: Australia's dairy exports (value in AU\$), 1998/99–2016/17



Sources: ABARES, 2011 (2004/5–2009/10); ABARES, 2017b (2010/11–2016/17); Australia, Department of Agriculture, Fisheries and Forestry, 2004 (1999/2000–2003/04).

Conclusions

Deregulation of Australia's dairy industry has resulted in lower prices for consumers and consistently rising farm-gate prices for milk. National milk supply has been maintained at or near pre-deregulation levels and fewer, larger, farms are driving greater productivity. The sector is responsive to movements in global prices, and producers have been able to read global market signals and adjust their investment and planned output based on real-world demand, rather than face the inefficiencies, rigidity, and perverse incentives associated with government control.

Ending the price premium for market milk has brought greater market discipline to the Australian dairy industry, and the package of adjustment measures that were in place between 2000 and 2008 helped farmers either adjust to the deregulated environment, or transition out of dairy farming.

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About the Authors

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Jon Berry is Principal Consultant with ITS Global and an expert in international trade, aid and development, specializing in economic research and policy analysis, capacity development, public-private partnerships, and results-based management. He has worked for the UN World Food Programme, based in Rome and various locations in Africa, managing capacity development and food logistics. Mr. Berry consults regularly to government departments, and represents the interests of Australian industry associations in government inquiries and stakeholder consultations. He is an experienced agricultural and resources policy analyst. He has significant experience in economic analysis and modelling, presenting at international fora, and building and managing high-performing teams. Mr. Berry has an MBA specializing in the management of international organisations from the University of Geneva, and will shortly complete a Master of Public Policy at the University of Melbourne. He also holds BA (Honours) from the University of Melbourne, majoring in French Studies, including studies undertaken at La Sorbonne and Lyon III.



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