



Australian Government
Department of Agriculture

Submission to Rural and Regional Affairs and Transport Committee's Inquiry:

**Performance of Australia's dairy industry and the profitability of
Australian dairy farmers since deregulation in 2000**

OVERVIEW

The Australian dairy industry has gone through a significant period of adjustment since deregulation and in doing so, has remained a viable and important part of the agricultural sector, as well as a globally competitive industry. Industry productivity has increased, and evidence indicates that many of Australia's dairy farms are successful businesses which record positive rates of return on the investment made by their owners.

There are however differences across states and regions, with many experiencing challenges over the last decade, such as the impact of poor seasonal conditions and international competition. These challenges have put pressure on the viability of some dairy businesses. The pressure of seasonal conditions has been particularly felt in 2018-19 and has increased the cost of dairy production in a number of regions.

The challenges presented by highly competitive global markets and variable seasonal conditions are likely to remain, and are best addressed through a continuing focus on risk management and innovations that allow the industry to remain competitive.

Dairy was the most heavily supported agricultural industry in Australia prior to deregulation, with subsidy levels similar to those in other countries with highly distorted dairy markets at that time. Removing these distortions improved food affordability for Australians, and ended a situation where Australian consumers effectively subsidised exports. Most importantly, deregulation created a more favourable environment for growth and innovation in the dairy industry and Australia's agricultural sector more broadly. Deregulation did however create pressures which were addressed through an adjustment scheme between 2000 and 2008.

The Committee's Term of Reference refer to the possibility of imposing a floor on the price processors pay dairy farmers for milk. This type of intervention would run counter to the progress made under Australia's past National Competition Policy reforms and would have negative outcomes for the dairy industry, the agricultural sector overall and consumers. The Australian wool industry offers a case study (details in Box 1) of the damage that floor price schemes can have.

Depending on implementation, domestic retail dairy prices could rise, disproportionately impacting consumers, particularly pensioners and low income earners. At the same time, higher prices would likely reduce demand for Australian dairy products, either directly or through increased competition from imported products. A floor price is also likely to limit global market opportunities for dairy products as Australia would likely face a response from trading partners in the World Trade Organization, putting at risk export markets and future market access negotiations. This would reduce demand for Australian dairy products and the size of the industry, compounding the effect of demand changes in the domestic market. A floor price would also violate the commitments Australia has made under the Cairns Group process, putting at risk Australia's position to negotiate for lower trade barriers on other agricultural goods.

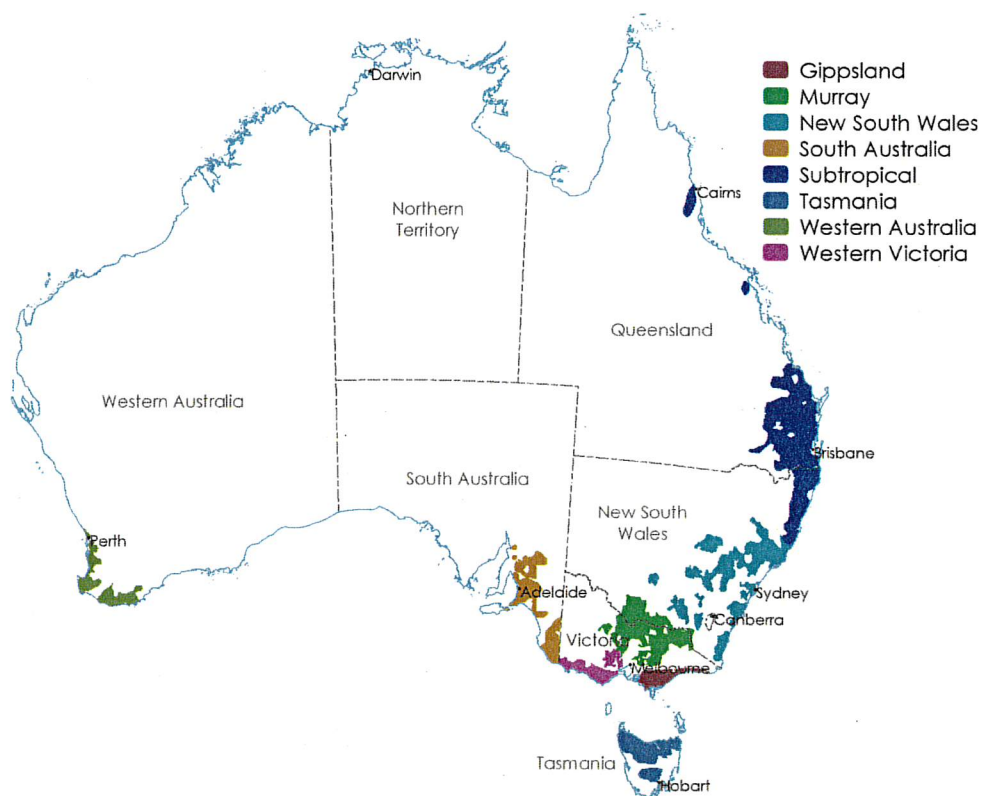
In the longer term, incentives for innovation and productivity growth in the dairy sector would diminish, and other agricultural businesses would be disadvantaged relative to subsidised dairy businesses. This effect would have significant implications for the agriculture sector's ambition of reaching \$100 billion in the value of agricultural production by 2030.

SECTION 1: AUSTRALIAN DAIRY

The Australian dairy industry is a significant contributor to the value of agricultural production. Of the current \$59 billion in agricultural gross value of production (2017-18), dairy contributed 7%, third behind cattle (16%) and wheat production (9%). Dairy sales at the farm gate in 2018-19 were \$4.4 billion, and more than \$3.2 billion of dairy product was exported in 2018-19 (Dairy Australia, 2019).

The industry is located in a number of different regions across Australia. Some of those regions are inland and rely on irrigation, but most are in areas with relatively high rainfall. The use of supplementary feeding has increased over the last decade (Dairy Australia, 2019). Production systems which rely on irrigated pasture or significant amounts of purchased feed are currently under increased pressure as a result of the increased prices for grain, fodder and water due to drought. These areas are predominately in New South Wales, Queensland and northern Victoria. Southern Victoria, Tasmania and South Australia tend to have lower costs of production due to their access to year round pasture growth.

Figure 1: Dairying regions in Australia



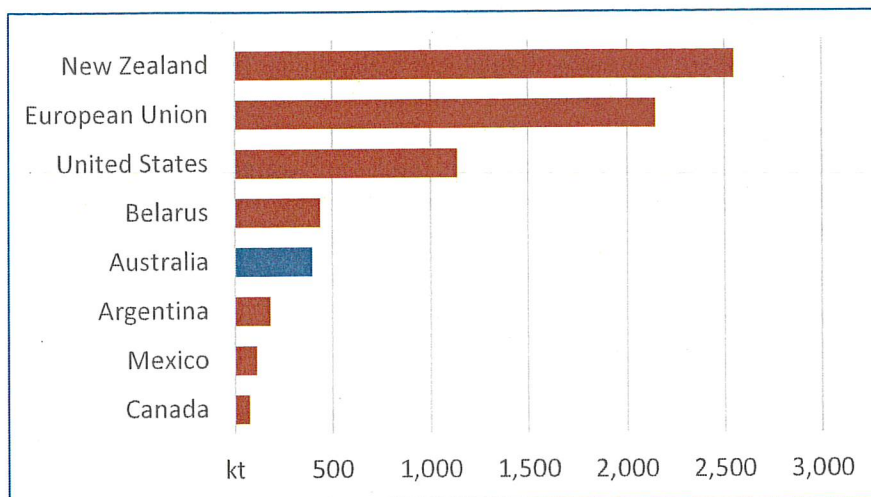
Source: ABARES

Most dairy production occurs in Victoria, which accounts for around 64% of total production (2017-18). New South Wales (12%) and Tasmania (10%) are the next largest dairy production states.

Of the 9.3 billion litres of milk that was produced nationally in 2018, about 25% was consumed as fresh drinking milk in Australia—around 8% is sold in supermarkets as own-branded milk. The remainder goes into manufactured dairy products like cheese, butter, milk powder and yogurt. Around one third of total milk production is exported, mostly as manufactured product. China is the industry's largest export market, followed by Japan and Singapore.

Australia is a small, open economy, and the dairy industry, both farmers and processors, are competing in those international markets against production from around the world. Whilst Australia is the 5th largest dairy exporter, it still sits well behind countries like New Zealand, the United States and the European Union (Figure 2). As a result, Australian producers have very little influence over global prices, which is ultimately what drives farm-gate prices in most regions.

Figure 2: Exports of dairy products, 2018



Source: USDA 2019

Australia's openness to trade also means that dairy products are imported. In 2018-19 dairy product imports totalled \$1.4 billion. The most important sources of imports (by value) are New Zealand, the European Union and the United States, and butter and cheese account for most of this value. Imports provide Australian consumers with a choice and variety of dairy products, and expose some of the domestically focussed industry to global prices. Imports also form an important part of Australia's dairy exports—around 12% of dairy export value comes from imported ingredients—helping the Australian dairy processors remain internationally competitive.

SECTION 2: THE REGULATED SYSTEM

Deregulation of the Australian dairy industry concluded in July 2000. Before that, the industry was supported by a range of complex interventions at the state and Commonwealth level, developed over time from the early 1900s.

State arrangements focussed on regulating the fresh milk sector. Amongst other things, state governments set farm prices for fresh milk within each jurisdiction. The levels were set above export parity, with that cost passed to domestic consumers in the price paid for milk. The states also controlled the level of access farmers had to the market, via quotas and other methods of equalisation. Restrictions were imposed on interstate trade to ensure that premiums were not undermined by movement between states (Edwards 2003).

The Commonwealth ran the Domestic Market Support (DMS) mechanism, which supported the export of manufactured dairy products by creating a mechanism to reduce the price gap between domestic and international markets. The DMS imposed a levy on all milk production which was passed on to domestic consumers. The proceeds of the levy were used to subsidise manufactured dairy products allowing them to be sold on international markets at global prices.

The Productivity Commission (2001) estimated that the effect of state and Commonwealth protection amounted to an annual subsidy to dairy farms equivalent to \$463 million in 1999-00 (\$761 million in today's terms).

At the height of regulatory arrangements, 61% of the income received by dairy farmers came from subsidies (OECD, 2019: data, for 1986). This level of assistance was on par with subsidies provided to dairy farmers in Canada, the European Union and the United States prior to deregulation of their industries (Canada remains highly regulated, with some market intervention remaining in the United States). It was also well above the level of assistance provided to other Australian agriculture sectors at that time.

The combination of state and Commonwealth systems created a fragmented domestic milk market, with milk production not occurring where it was most economical. This led to a higher cost industry.

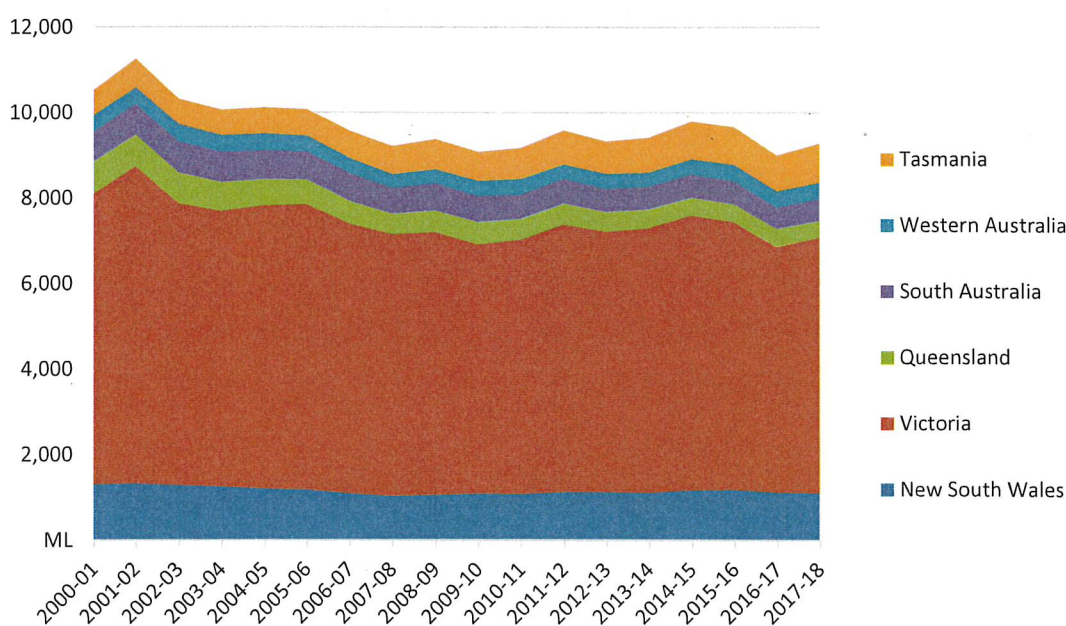
SECTION 3: THE INDUSTRY SINCE DEREGULATION

Structural change

Following deregulation, the price of plain milk at supermarkets fell by 22 cents a litre. The average price decrease across all milk categories was 12 cents a litre as prices converged with global market prices. The ACCC (2001) estimated that as a result, consumers saved \$118 million per year on supermarket drinking milk alone (\$180 million in today's dollars). This is a conservative estimate which does not include other sales channels (e.g. convenience stores), or other dairy products.

There was also a decline in the volume of milk produced post-deregulation, at least initially, before production stabilised at around 9 billion litres per year over the last decade. The initial decline reflected a level of production that was unsustainable without government support. The share of production between the states remained relatively consistent, aside from growth in Tasmania and declines in Queensland (Figure 3). Further details on milk production is provided in Annex A.

Figure 3: Milk production by state, 2000-01 to 2017-18



Source: Dairy Australia

The number of dairy farms had been declining before deregulation and continued to decline afterwards (Annex A for more detail). During the decade following deregulation, the number of dairy farms decreased from over 12,000 to just over 7,500 by 2010 (Dairy Australia, 2019). At the same time the average farm size more than doubled (measured in terms of real output value). The adjustment process was felt most strongly by those using the 'year round' production system.

Variability in average farm incomes increased significantly, which is not surprising given the sector had previously been highly subsidised.

The ACCC has noted that the agriculture sectors of Canada, the USA and some areas of Europe have experienced the same trends as Australia in both farm numbers and agribusiness consolidation. This is despite relatively high levels of historical (and in some cases ongoing) regulation and government intervention in those agriculture sectors.

A positive impact on productivity

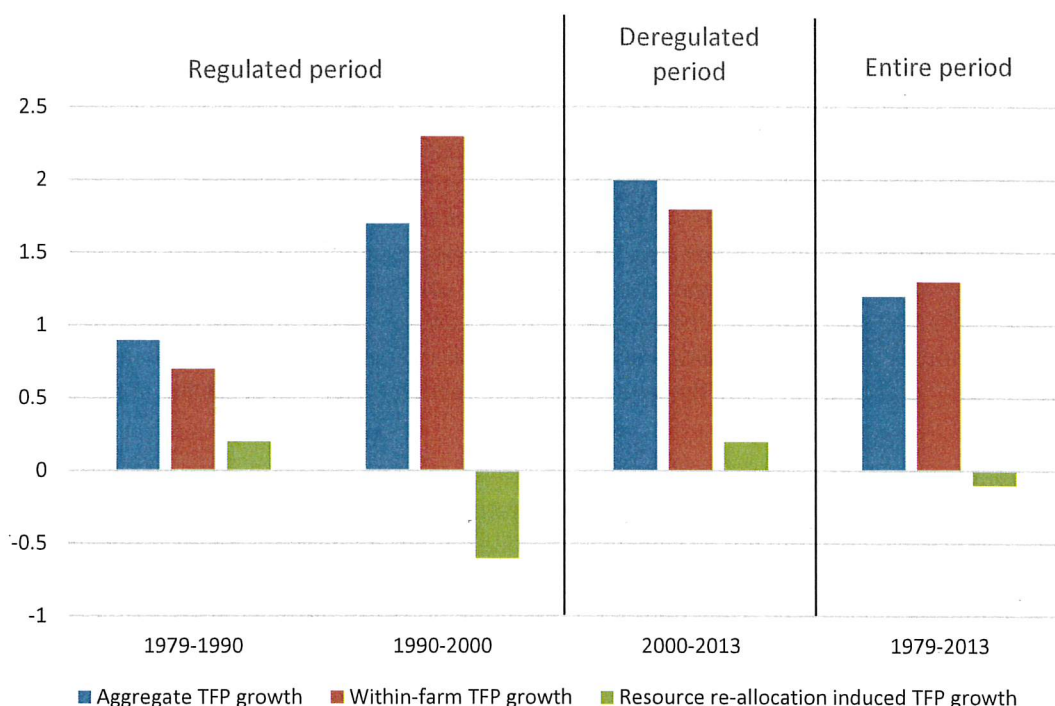
Work by ABARES shows that the adjustment process supported productivity growth in the Australian dairy industry.

Productivity growth can be attributed to two sources: growth on individual farms (practice change, new technologies, more efficient use of resources etc); and growth from resource re-allocation between farms (where resources move to more productive farms, boosting growth overall).

As shown in Figure 4, in the decade prior to deregulation, resource re-allocation between farms within the dairy industry was detracting from productivity gains that were being made on individual dairy farms. Increased resource use by less productive farms was offsetting the benefit of growth that was occurring on individual farms from practice change and technological progress. Subsidies were helping to support higher cost structures of less productive farms and taking resources and market share away from more productive farms. After deregulation, that changed. Resource re-allocation between farms began contributing to, rather than detracting from, the productivity growth that was occurring within farms.

The discussion above relates to productivity growth within the dairy industry. Resources would also have been re-allocated out of the dairy industry, contributing to the productivity and output growth of the agriculture sector overall. This contribution is likely to be significant as resources (such as land and water) did not become idle, but instead went to higher net value uses within agriculture and the broader economy.

Figure 4: Total factor productivity (TFP) growth in the dairy industry, within farms and due to resource re-allocation, 1979 to 2013



Source: ABARES forthcoming

Profitability of dairy farms

The dairy industry has been viable and profitable in Australia since deregulation. Rates of return over the 5 years to 2017-18 were positive for all but the smallest dairy farms (which is true of all agricultural industries surveyed by ABARES). With capital appreciation included, rates of return were positive for all dairy business sizes (Table 1). Many dairy farms operate on high value land in the high-rainfall zone, near coastal and urban areas with high amenity value. Rates of return to dairy farms are comparable to other broadacre agricultural sectors (refer Annex B). The industry has continued to attract investment and many producers continue to expand scale.

Table 1: Rate of return to total capital, dairy industry by farm size, average for the 5 years ending 2017-18

Business size	Excluding capital appreciation	Including capital appreciation
Small	-0.7%	3.8%
Medium	2.4%	4.6%
Large	4.1%	6.3%
Very large	5.3%	6.3%

Notes: Small farms: farms with a total value of sales of less than \$500,000. Medium farms: farms with a total value of sales of between \$500,000 and \$1 million. Large farms: farms with a total value of sales of between \$1 million and \$5 million. Very large farms: farms with a total value of sales exceeding \$5 million.

Source: ABARES Farm surveys

The regional results are more diverse, both in terms of the level of returns and their variability from year to year (refer Annex A). The diversity reflects the different circumstances of different groups of producers, including resource availability, climate conditions and market circumstances (for both inputs and outputs). The strongest performers in terms of average rates of return over the last two

decades were Tasmania (3.7%), Western Victoria (3%) and South Australia (2.4%). In comparison, farms in the subtropical dairy regions of Queensland and North Eastern New South Wales delivered an average rate of return of less than 1% over the last two decades. Those regions experienced the largest percentage decline in dairy farm numbers of all regions following deregulation. They have higher milk production costs due to lower production per cow and higher expenditure on fodder.

All regions, except Tasmania, are projected to have very low to negative rates of return for 2018-19. That year was a particularly difficult one for producers in most dairying regions as climate conditions and costs in input markets (related to both tight supplies due to drought and strong domestic demand for grains) significantly influenced the cost of production offsetting increases in the farmgate milk price. As shown in Annex A (refer figure showing milk prices), farmgate milk prices had fallen in 2015-16 and 2016-17, in response to world market conditions. They subsequently rebounded in 2017-18 and 2018-19. Opening prices in the current season are also higher due to competition amongst processors for limited milk supply. This indicates that, rather than milk prices, it has been input costs that have had the most significant bearing on farm profitability in the last two seasons.

It is important to note that while regional figures are useful, they do not present the significant variation that exists across individual farms. Industry statistics show that there is no single approach to being a successful dairy farm, nor a single market price for milk in Australia. Farms produce different qualities of milk, at different times of the year, according to complex sets of incentives operating within their contracts. Some producers target the drinking milk market while others target the processing sector. Some producers adopt 'seasonal production' while others adopt 'year-round production' models. Some rely primarily on rainfed pasture growth while others rely on irrigated pastures or supplementary feeding. Some producers use organic production methods or market their own manufactured goods. Some producers focus on producing dairy genetics rather than milk. All these factors mean that there is no single milk price, but rather a range of prices for different producers.

An example processor price handbook (Saputo Southern Market Handbook) shows that a wide range of milk characteristics are priced by processors. The Handbook shows that the volume of milk, timing of supply, protein and fat content and milk quality all matter for the final price received. It outlines 7 distinct quality parameters across 4 grades, based on scientific testing of milk on a regular basis. Each dairy business tailors their production systems according to the price incentives offered by processors, their productive abilities and input costs.

ABARES data shows that there are profitable farms operating across the different milk price points.

SECTION 4: RISKS ASSOCIATED WITH RE-REGULATING THE INDUSTRY

The Committee's Terms of Reference mention the possibility of regulating the per litre price of milk that processors pay to dairy farmers. Re-regulating the milk price would likely slow the gains in innovation and productivity that have been made in the industry since deregulation. It would also undermine the growth agenda of the broader agriculture sector. Further, that type of policy approach may put at risk sales to domestic and international markets; to the significant detriment of dairy farmers and the industry.

For the purposes of the discussion below, it is assumed that any mandated higher prices paid to dairy farmers by processors would be funded through higher prices charged by processors. An alternative would be for governments to make direct payments to processors to compensate for the higher costs. Those payments could be funded by Australian taxpayers and delivered through direct government expenditures. Such a form of direct government output subsidy toward an industry is uncommon and would require new and ongoing government funding. This approach seems unlikely

and therefore has not been considered in detail below. However, regardless of the arrangement, the risks to international markets and innovation and productivity would be similar.

Price regulation would place domestic and export sales at risk

Australian farm-gate milk and consumer dairy prices are largely set by world markets. Australia currently exports around one-third of total production with around another third sold on the domestic market, but subject to foreign competition.

If a floor price were imposed above export parity, Australian dairy exporters would be unable to pass on the additional cost in export markets. They would find it increasingly difficult to maintain their international competitiveness. As noted in the ACCC Dairy Inquiry, the relatively low cost of raw milk production is an important part of our competitiveness (ACCC, 2018). Producers of manufactured dairy products would also be less competitive with imported product in the domestic market, likely resulting in Australian production losing market share to international suppliers.

Only domestic fresh milk sales do not directly face significant levels of import competition, but do indirectly compete with some substitutes (such as UHT milk). As a result, dairy producers would be forced to recover as much of their higher production costs through this market channel as possible. Milk prices would increase for all Australian consumers, disproportionately impacting pensioners and low income earners. Milk is a food staple and represents a larger share of expenditure than most food products for aged pensioners and low income earners (ABS 2017).

On international markets, an administered floor price could put Australia in violation of its commitments under WTO rules including a recently agreed ban on export subsidies (MC10 Nairobi decisions). This may put Australia's export markets at risk from the threat of countervailing measures sanctioned by the WTO, and undermine Australia's broader efforts to secure market access for other agricultural products. Further, even if Australia was able to maintain its market access for dairy products, in order to remain competitive Australian dairy manufacturers would need to cross subsidise the cost of export production with higher prices for fresh milk sales domestically. In this situation, domestic consumers would effectively end up subsidising production for export markets. This is similar to the situation that existed prior to deregulation.

The combined effect of lost competitiveness and potentially lost market access would likely be reduced demand for milk from dairy farmers.

Reduced productivity and profitability

The agriculture sector has set itself an ambitious target of reaching \$100 billion in the gross value of agricultural production by 2030. Introducing a floor price for fresh milk would make the sector's growth task more challenging.

A floor price would suppress incentives to innovate and improve productivity. As discussed earlier, dairy industry productivity has increased since deregulation, with resource re-allocation making a positive rather than a negative contribution to that growth (ABARES forthcoming).

ABARES research has also shown that across Australian broadacre agriculture, the re-allocation of resources from smaller, less efficient farms to larger more efficient farms accounted for a third of agricultural productivity growth during the 1990s, and two-thirds over the following decade (Gray et al. 2014). An important element of that growth was allowing resources to shift between industries – a growth strategy that would be impeded by a floor price on milk. For example, regionally-based floor prices would increase competition for resources such as land, water and feed. The subsidised purchasing power of dairy farmers would make it easier for them to outcompete other sectors for resources, rather than having those resources shift to unsubsidised higher value uses. This would disadvantage other agricultural industries and reduce productivity growth. An example outcome of a floor price for fresh milk would be higher water prices for high value horticulture industries. These

type of market distortions may discourage potential investors, who currently regard Australia as an investment environment with low levels of sovereign risk.

Administrative cost

Implementing a floor price would likely be complicated, with significant administrative costs. Mandating higher prices for raw milk would encourage more production, at the same time as it was likely reducing demand. Governments would need to administer quotas to limit production, or buy surplus stocks. Infrastructure to store and transport those stocks would need to be built or rented from the private sector. Fresh milk purchased at high floor prices would inevitably be sold at a loss in lower value processed or export markets. The costs of administering such a scheme, along with the impacts on sector performance overall, were one of the reasons the European Union abandoned its dairy regulatory regime (Hogan 2015).

Australia's experience with the Wool Price Reserve Scheme (Box 1) illustrates the cost and complexity of such schemes, along with the ultimately negative outcome for producers.

Box 1: Wool Price Reserve Scheme

The Wool Price Reserve Scheme (RPS) was a form of floor price implemented through government-backed purchase of intervention stocks. It operated from 1970 to 1991. The aim was to insulate Australian wool growers from short term volatility and long term declines in world wool prices.

The RPS was initially designed to 'stabilise' wool prices, not inflate them. The Australian Wool Corporation (AWC) bought and stored wool when world prices were low, and sold it into world markets when prices were high. The AWC could buy wool using revenue accumulated when prices were high, or by borrowing. A government guarantee of the AWC's debts meant that the risks associated with wool marketing were borne by Australian taxpayers.

With careful government oversight, the RPS initially worked reasonably well as a price stabilisation scheme, with small market interventions and a balanced budget. However oversight was reduced in 1987 by changes to the *Wool Marketing Act 1987* (Cwlth) which corporatised the AWC and removed the veto power of the Minister over management of the RPS. A disconnect between risk and responsibility was created, with the AWC managing the RPS while the government remained guarantor of its debts (Abbott and Merrett 2019).

During the 1980s, the goals of the RPS shifted from stabilising prices to preventing long term declines as changing consumer preferences reduced global demand. The reserve price doubled between 1984-85 and 1988-89 and there were dramatic increases in the production of wool as producers responded to the higher prices.

Surging supply and falling demand led to a rapid collapse of world wool markets during late 1989 and early 1990. By December 1989, the AWC had exhausted its \$1.8 billion (1991 dollars) reserves and was in debt by \$500 million to support a stockpile of 1.8 million bales. By January 1990 the AWC was \$1.5 billion in debt with a stockpile of 2.4 million bales. And by December 1990, the AWC projected that the stockpile would exceed 8 million bales by mid-1992, and up to 9.6 million bales by mid-1993-94, with a projected debt of greater than \$5 billion.

The government intervened to terminate the RPS in February 1991, at which point the AWC debt had reached \$3.1 billion and the stockpile 4.7 million bales.

The direct cost of the RPS has been estimated at between \$1 billion to \$9 billion (in 1991 dollars), with the most recent estimate at \$4.5 billion. The accumulated stockpile of wool suppressed world wool prices and was not sold off until 2001. Over the 20 years following the collapse of the

RPS, the Australian sheep flock declined from 170 million to 68 million, and shorn wool production fell from more than 1 million tonnes to 350,000 tonnes per year. The reduction in the sheep flock also allowed an expansion of broadacre cropping, contributing to increased agricultural productivity.

SECTION 5: OTHER MATTERS

The role of Dairy Australia

The research and development corporation (RDC) system was introduced in 1989, towards the end of a period where the range of government assistance measures (e.g. preferential trade arrangements, tariffs and quotas) were being systemically reduced. The importance of technical change and adoption of best practice was recognised, as this increases the productivity and competitiveness of primary producers. RDCs have helped drive agricultural innovation since this time and they allow the Australian government and primary producers to co-invest in research and development that benefits themselves and the sector. There are currently 15 RDCs in Australia – five statutory and ten industry owned.

Dairy Australia is an industry owned RDC. Industry-owned RDCs are not-for-profit public companies incorporated under the *Corporations Act 2001*. They are governed by their constitution, a skills-based board of directors, and the statutory funding agreement they have with the Commonwealth. The constitution dictates that the members of an industry owned company are the levy payers in that respective industry. As such, dairy farmers are the members of Dairy Australia who vote and make decisions.

All RDCs are led by their elected board of directors to ensure the portfolio of investments and activities is balanced between short, medium and long-term needs of industry and government, and that proper governance and accountability frameworks are in place and operate effectively. RDCs are required to communicate with their members, and offer opportunities for engagement. Levy payers have the opportunity to become members or shareholders and participate in decisions by attending annual general meetings and electing directors (Rural RD&C Corporations). As there are eight dairying regions in Australia, each with their own conditions and requirements, Dairy Australia has regional development programs in each region to help facilitate engagement and information transfer.

Industry owned RDCs have been formed in response to government's deregulation agenda and a desire from industry to have greater control over its investment decisions. They are declared by the Minister for Agriculture under industry-specific enabling legislation, which, in the case of Dairy Australia, is the *Dairy Produce Act 1986*. Industry-owned RDCs enter into funding agreements with the Commonwealth to deliver research and development and industry services, such as promotion and marketing, for the benefit of their respective industry.

Due to this co-funded approach between industry and government, RDCs are prohibited from engaging in certain activities. Dairy Australia must not use funds to engage in agri-political activity; or act, or imply that it is, an industry representative body. Dairy Australia may not engage in political campaigning for the adoption of particular public policy, such a regulated milk price, and cannot represent the views of industry on such matters. Its legislated role is to apolitically deliver research and development for the benefit of industry, and promote and market dairy to consumers. There are industry representative bodies in the dairy industry who do not receive government funding and have as a core function to politically campaign on behalf of industry on a range of policy matters.

The funding of Research and Development Corporations, including Dairy Australia

The co-funded arrangement between Dairy Australia and the government is through a levy, paid by dairy farmers on the number of kilograms of fat and protein in the milk they produce. As such, it varies slightly between producers but is, on average, 10.0562 cents per kilogram. There are variations in farm gate prices paid to dairy farmers, but in 2017-18, the average price in Australia was \$6.14 per kilogram of milk solids (which includes fat and protein).

Australia has applied a levy on the production of dairy products since 1958. The levy was originally collected to provide funds for research into matters related to the dairy industry (such as pasture improvements, diseases of dairy cattle and improving quality of produce). The levy was also used for sales promotion on the domestic market and, later on, given to processors as an export subsidy.

Processors collect the levy from dairy farmers and remit it to the Department of Agriculture (the department). Dairy Australia and Animal Health Australia manage the expenditure of the levy, to fund research and development, marketing and biosecurity activities for the benefit of the dairy industry. Levy money spent by Dairy Australia on research and development for the industry is matched dollar for dollar by the government, up to a cap. In 2018-19, the Commonwealth provided just over \$20 million of funds to match the same amount contributed by levies.

Receivers and/or processors of milk are required to submit information to the department on a monthly basis. This information allows for the calculation of levies by the department. Each year, every processor must submit an annual return, which is an expansion of the monthly return(s) to include information about the people that the processor collected the levy from. Both of these requirements are authorised through Schedule 10 of the *Primary Industries Levies and Charges Collection Regulations 1991*. The monthly submission of data allows the department and Dairy Australia to collect statistical information from industry.

A mandatory industry code of practice

The dairy industry supply chain between farmer and consumer is concentrated. While there are 87 dairy processing businesses in Australia, around 90% of raw milk is sold to just 16 dairy processing businesses. As a result, dairy farmers consider they have limited market power relative to other parts of the supply chain.

Tensions between farmers and processors reached a critical point in 2016 when, partly in response to a fall in the international price for milk, Australia's two largest dairy processors imposed large reductions in the prices they had agreed to pay (step downs), imposing debt on farmers. This resulted in unexpected and unplanned reductions in incomes to more than 2,000 businesses, negatively impacted relationships within the industry and was the catalyst for the Government initiating an ACCC inquiry into the dairy industry.

The ACCC Dairy Inquiry analysed the performance of the dairy industry and the structural and behavioural features which contribute to this performance. The main finding in the ACCC Dairy Inquiry was that existing industry practices are weighted heavily in favour of processors, making it harder for farmers to make efficient investment decisions, such as to compare rival offers and to switch processors if it is in their interests to do so. These practices reduce the effectiveness of competition between processors and prevent farmers from responding to market signals. The report included a key recommendation to introduce a mandatory code of conduct for the dairy industry.

On 15 March 2019, the Government announced its commitment to move forward with a mandatory code of conduct for the dairy industry based on nine principles. The decision to progress with a mandatory code followed extensive consultation with dairy farmers, processors, peak industry bodies and other government agencies. To date, there has been three rounds of consultation including 18 face-to-face public meetings across Australia's eight dairy regions, three tele-town hall meetings, a website with contact options and details, a hotline and ongoing, proactive engagement

with the dairy industry. The third round of consultation, this time on an exposure draft of the code, closed on 22 November. The code will take effect from January 2020.

The draft dairy code of conduct is designed to make agreements between dairy farmers and processors fairer and more transparent. However, it will not regulate the farm gate price. The code has been designed to prohibit egregious conduct, improve market transparency and help to rebalance the level of commercial risk that farmers face. It will address the significant advantage processors have when negotiating contract terms with farmers—highlighted in the ACCC's Dairy Inquiry.

As a consequence, the code will assist dairy farmers by providing greater transparency of market information. This is a long term measure which addresses the issues impacting the industry that were identified by the ACCC inquiry. The code will:

- Address a range of contractual and business relationship issues by aligning the dairy industry code of conduct with other industry codes managed by the ACCC.
- Increase farmers' knowledge of other offers available, increasing their bargaining power for better prices and conditions, as well as the possibility of responding to market signals, such as by switching to another processor that better suits that farmer.
- Ensure that farmers get a fair price for additional milk they produce when exclusively supplying one processor, possibly leading to pricing and supply innovations for farmers.
- Free farmers from forward-binding loyalty payments, ensuring promised income on milk is provided and allowing them to seek a different processor without disadvantage.
- Give farmers and processors an enforceable mechanism to bring complaints and issues forward to be addressed.

The remaining milestones required before implementation of the code are identified below:

- December 2019 Regulations will be finalised and submitted for consideration to the Governor-General in the Federal Executive Council
- 1 January 2020 The code will be implemented
- January–April 2020 A transition and education campaign will be conducted

Statistical data collected by Dairy Australia and the ABS

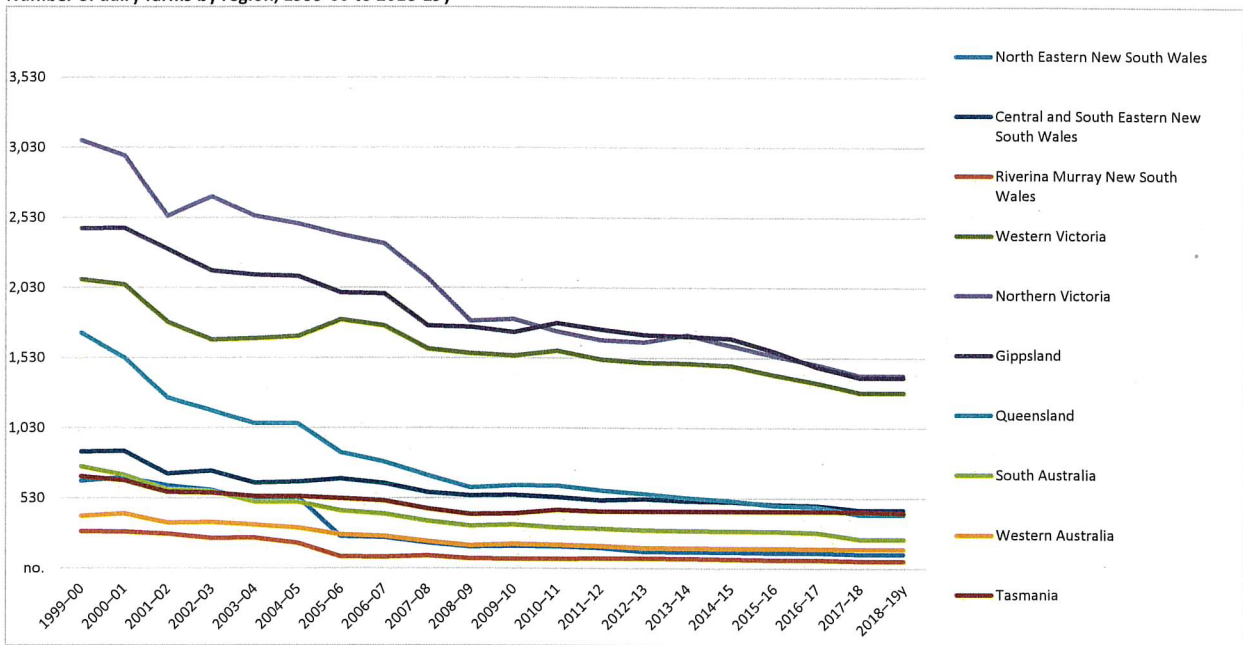
The Department of Agriculture, and particularly ABARES, relies extensively on data collected and reported by both the Australian Bureau of Statistics (ABS) and Dairy Australia (DA). ABARES has strong working relationships with both organisations and holds a high degree of confidence in the data they collect and release. We consider ABS and DA data to be the most accurate and comprehensive available on the dairy sector. Data from ABS catalogue numbers 7121.0 (Area, production and number of businesses), 7503.0 (value of production) and 5368.0 (volume and value of exports) are the foundational datasets on Australian agriculture, and represent the largest and most comprehensive resource on the entire agricultural sector, including the dairy sector. DA produce regular and timely statistics tracking Australian milk production and sales, and manufactured products production, as well as the Dairy Farm Monitor Project results. Without the data provided by ABS and DA, ABARES ability to understand, monitor and forecast the performance of the dairy sector would be severely inhibited. The independence particularly of the ABS data is vital for resolving contested views about the changing circumstances of the dairy industry.

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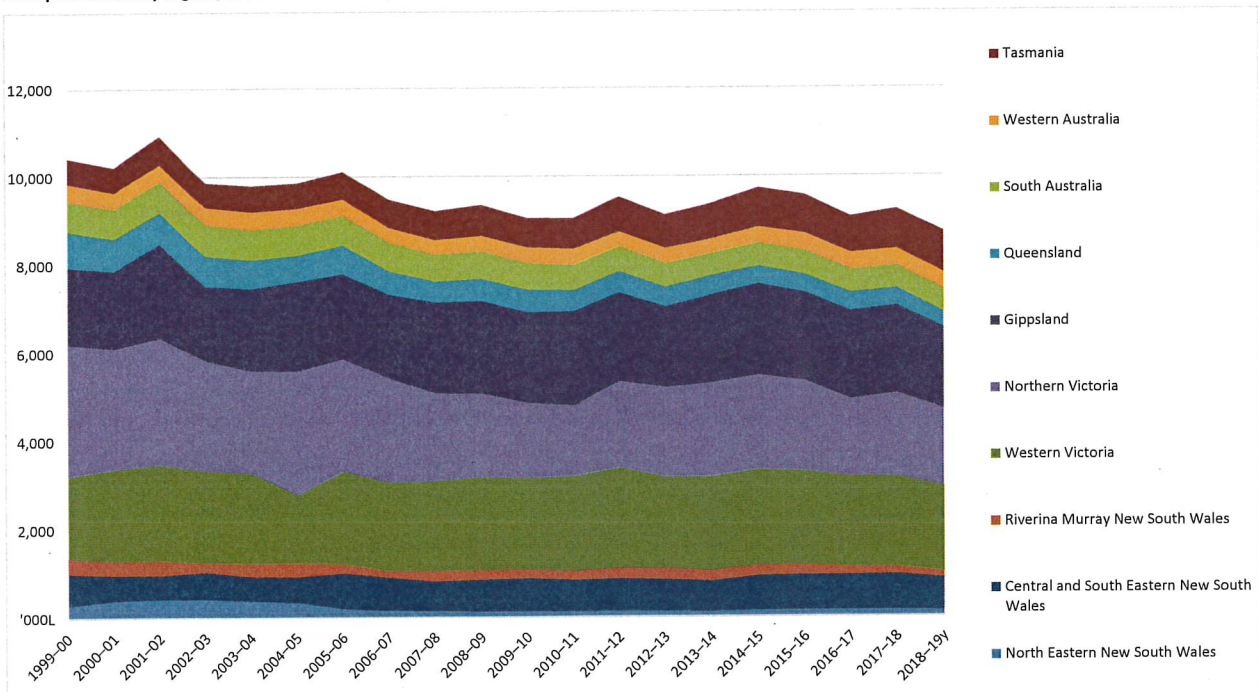
ANNEX A

Number of dairy farms by region, 1999-00 to 2018-19y



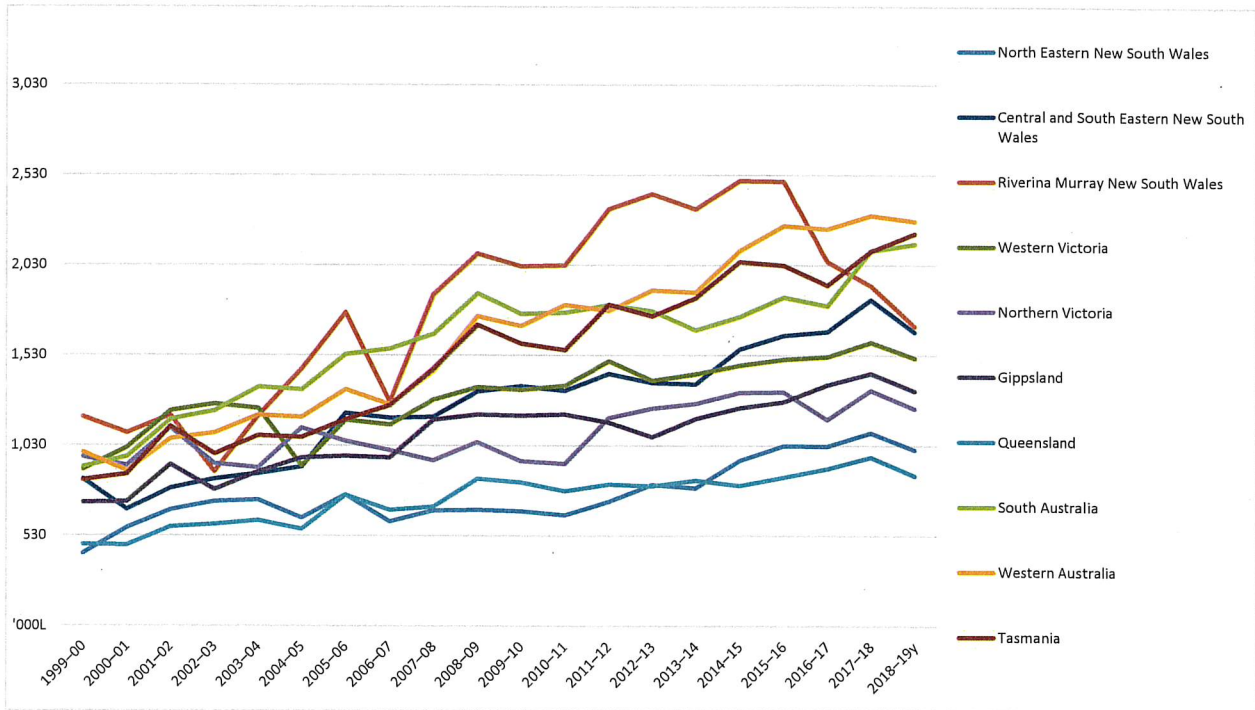
y Provisional estimate. Source: ABARES Farm Surveys

Milk production by region, 1999-00 to 2018-19y



y Provisional estimate. Source: ABARES Farm Surveys

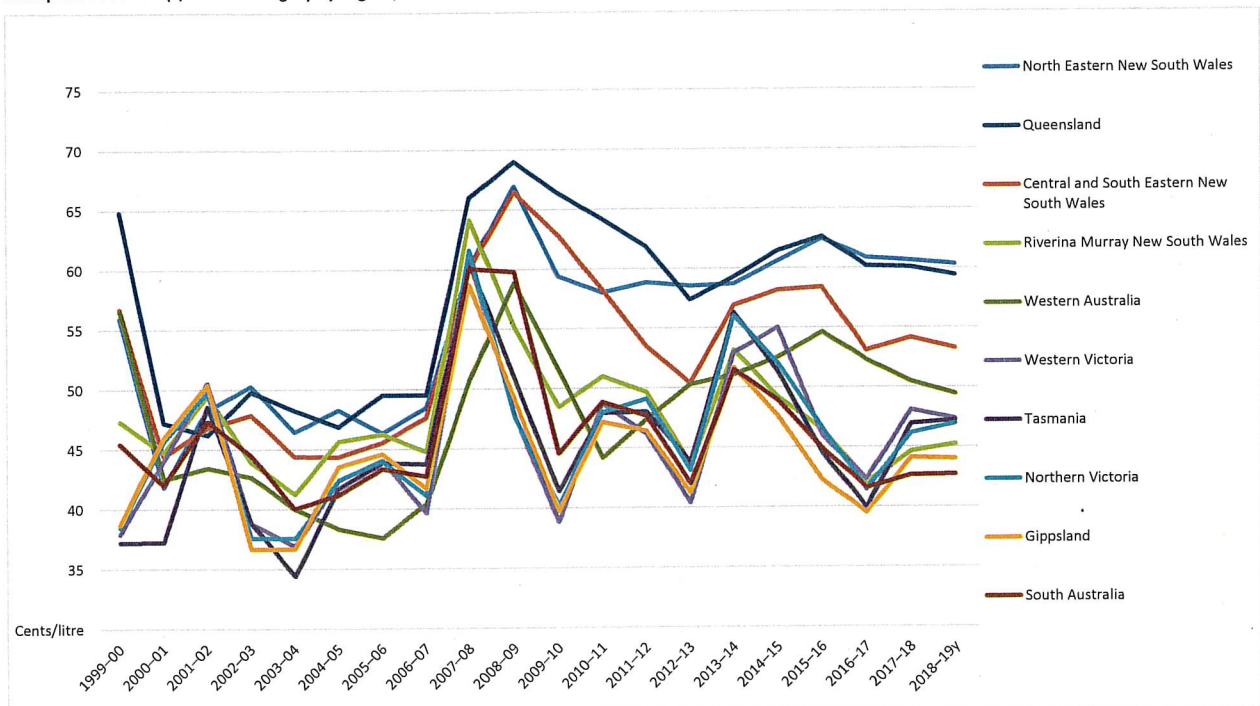
Milk production per farm ('000 litres) by region, 1999-00 to 2018-19y



y Provisional estimate. Source: ABARES Farm Surveys

Department of Agriculture

Milk price received (c/litre ex-freight) by region, 1999-00 to 2017-18



Source: ABARES Farm Survey

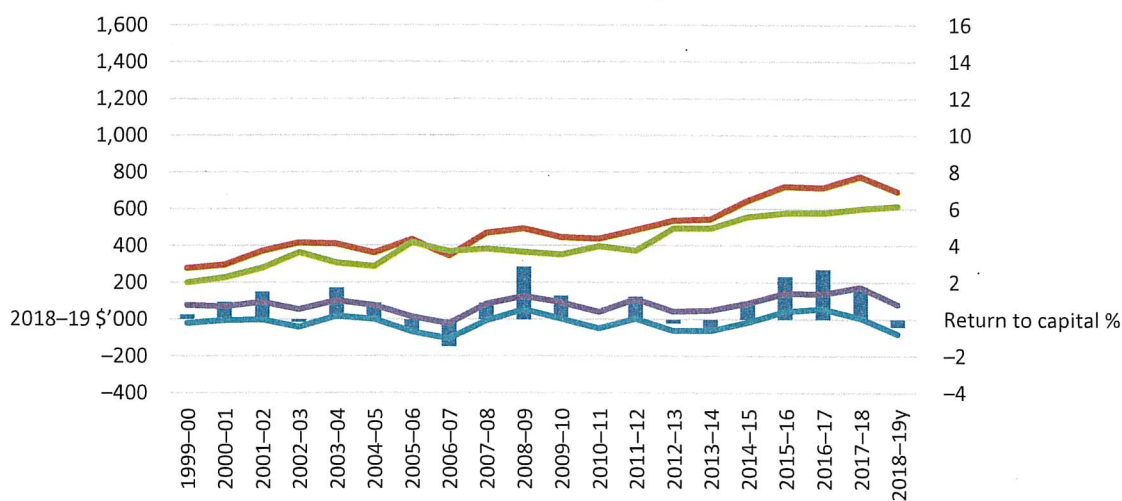
Department of Agriculture



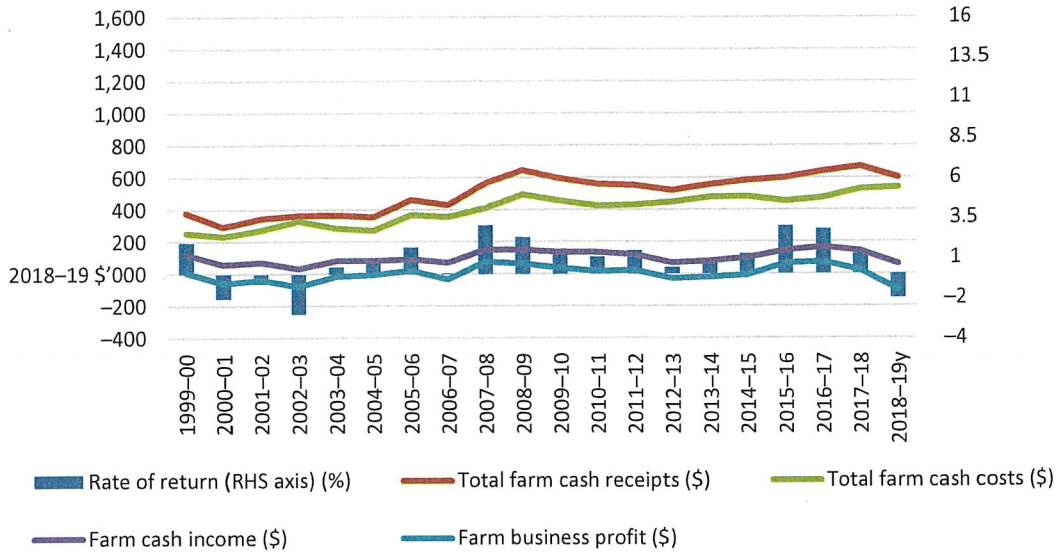
1.1 Queensland and North Eastern New South Wales (Sub-Tropical Dairy)

- Strong focus on production for fluid milk market pre-deregulation.
- Largest percentage decline in dairy farm numbers of all regions in Australia in period since 2000.
- High milk production cost due to low production per cow and high fodder expenditure to maintain year-round production.
- Sharp decline in milk prices received in first 7 years after deregulation as milk prices moved toward world price. Prices increased after 2007-08 as processors sought to retain supply.
- Competition for land near coastal locations for urban development increases incentives to exit. Also results in high capital values relative to earnings per hectare and low rates of return to total capital.
- Low average rates of return with frequent years of negative returns.

North Eastern New South Wales, average per farm



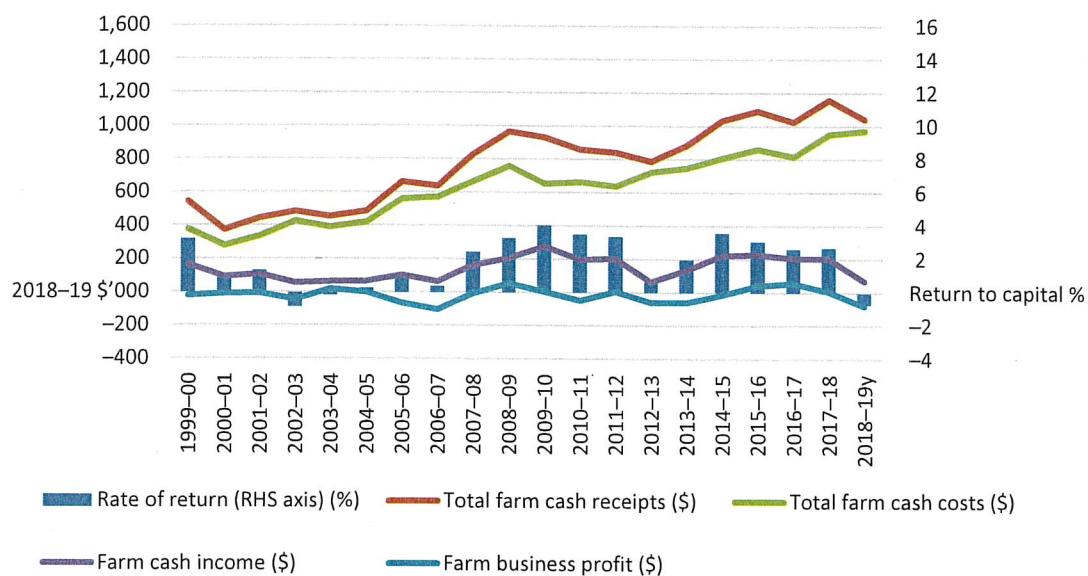
Queensland, average per farm



1.2 Central and South Eastern New South Wales

- Mid-range percentage decline in farm numbers since 2000 and relocation of farms to areas with irrigation.
- Sharp decline in milk prices received in first 7 years after deregulation as milk prices moved toward world price. Prices increased after 2007-08 as processors sought to retain supply.
- Moderate average rates of return with some years of negative returns.

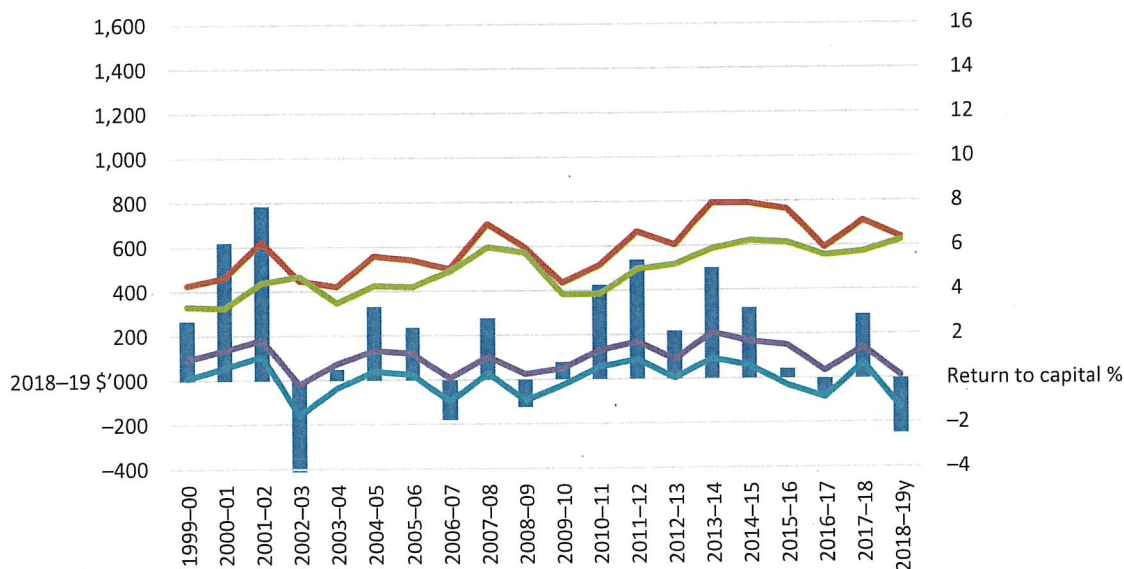
Central and South Eastern New South Wales, average per farm



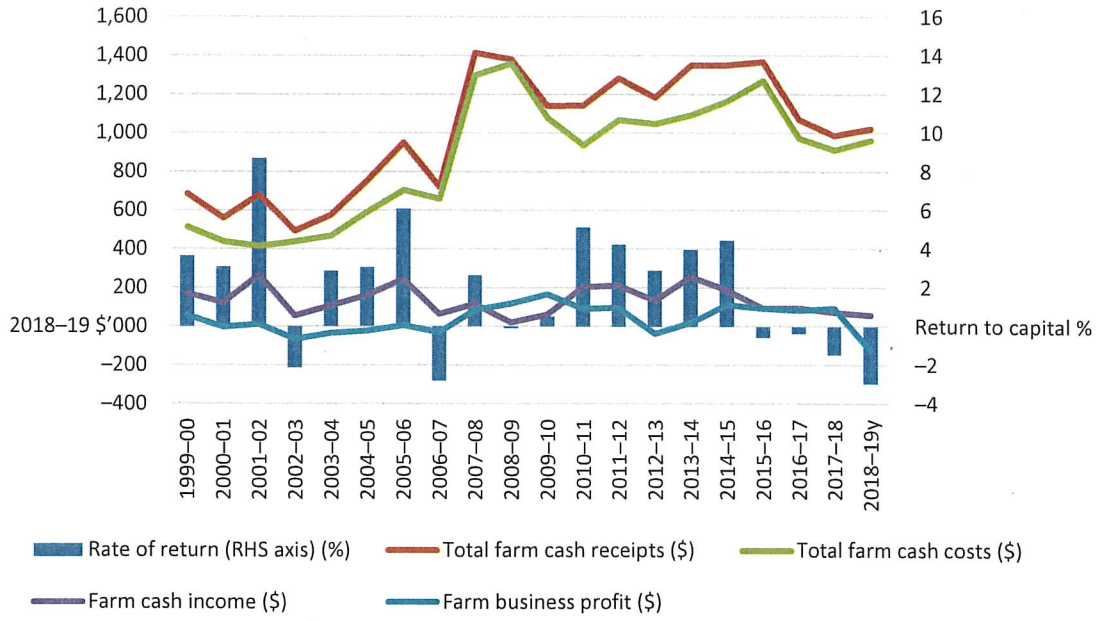
1.3 Northern Victoria and Riverina Murray New South Wales

- Mainly focused on production of milk for manufacturing pre-deregulation.
- Relatively little change in milk prices received after deregulation as milk prices moved toward world price.
- Mid-range percentage decline in dairy farm numbers since 2000 in Northern Victoria with large percentage decline in Riverina Murray New South Wales.
- Northern Victoria has the smallest increase in average milk production per farm amongst Australian dairy regions.
- Frequent low profitability in years of higher fodder prices and reduced irrigation water availability.
- Moderate to low average rates of return with frequent years of negative returns.

Northern Victoria, average per farm



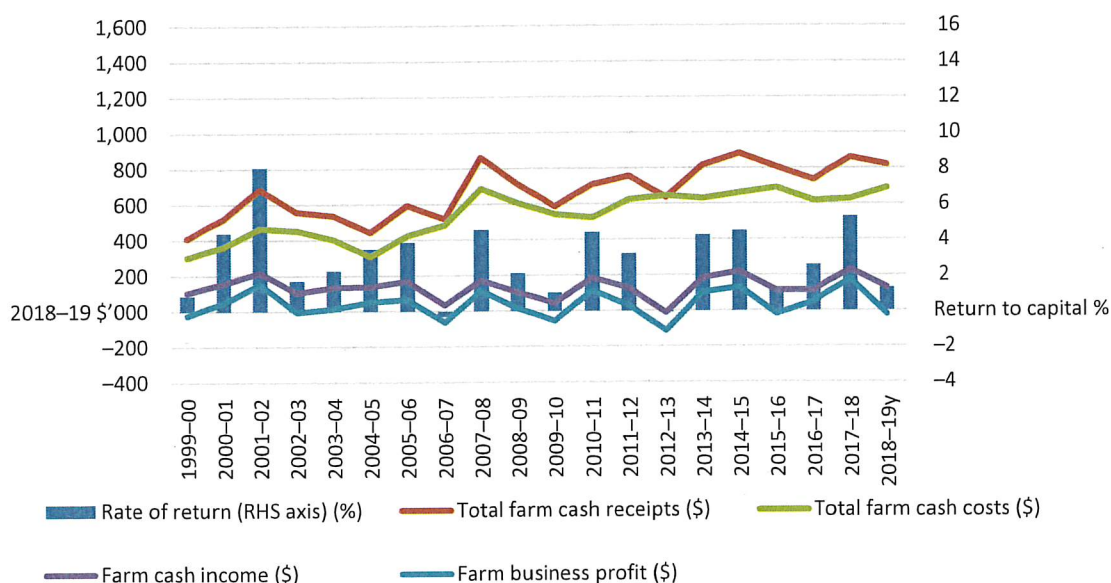
Riverina Murray New South Wales (Region 13)



1.4 Western Victoria

- Mainly focused on production of milk for manufacturing pre-deregulation.
- Relatively little change in milk prices received after deregulation as milk prices moved toward world price.
- Equal smallest decline in dairy farm numbers since 2000 together with Tasmania.
- Moderate rates of return with some years of negative returns.
- Low profitability years mainly resulted from limited ability to reduce costs in the face of lower milk prices and years when dry seasonal conditions resulted in higher fodder expenditure.

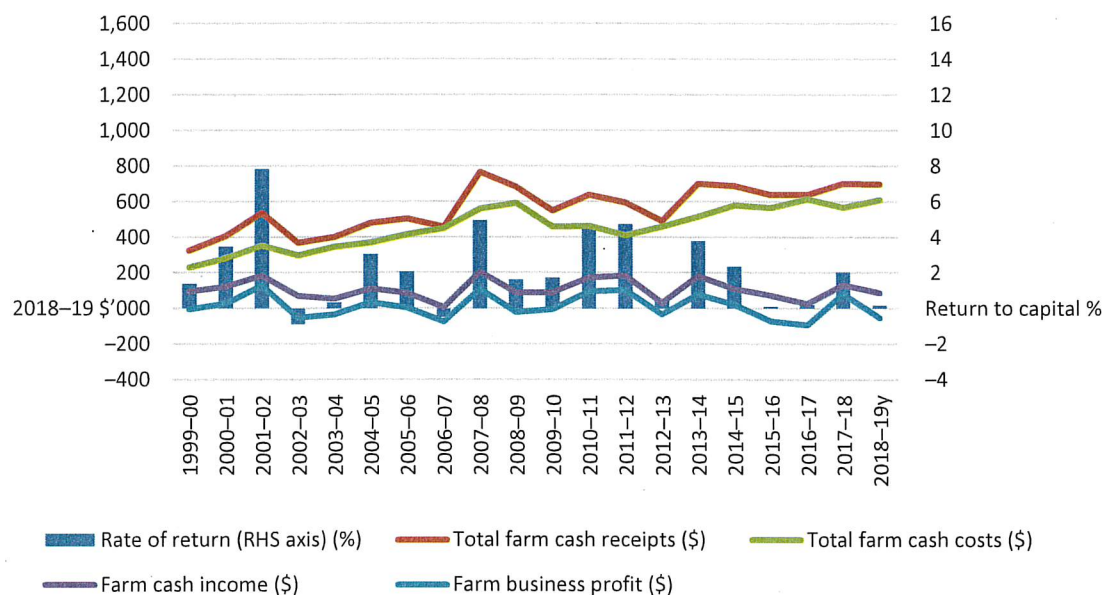
Western Victoria, average per farm



1.5 Gippsland

- Mainly focused on production of milk for manufacturing pre-deregulation.
- Relatively little change in milk prices received after deregulation as milk prices moved toward world price.
- Mid-range percentage decline in dairy farm numbers since 2000 and mid-range increase in milk production per farm.
- Moderate rates of return with frequent years of low returns.
- Low profitability years mainly resulted from limited ability to reduce costs in the face of lower milk prices and dry seasonal conditions resulting in higher fodder expenditure.

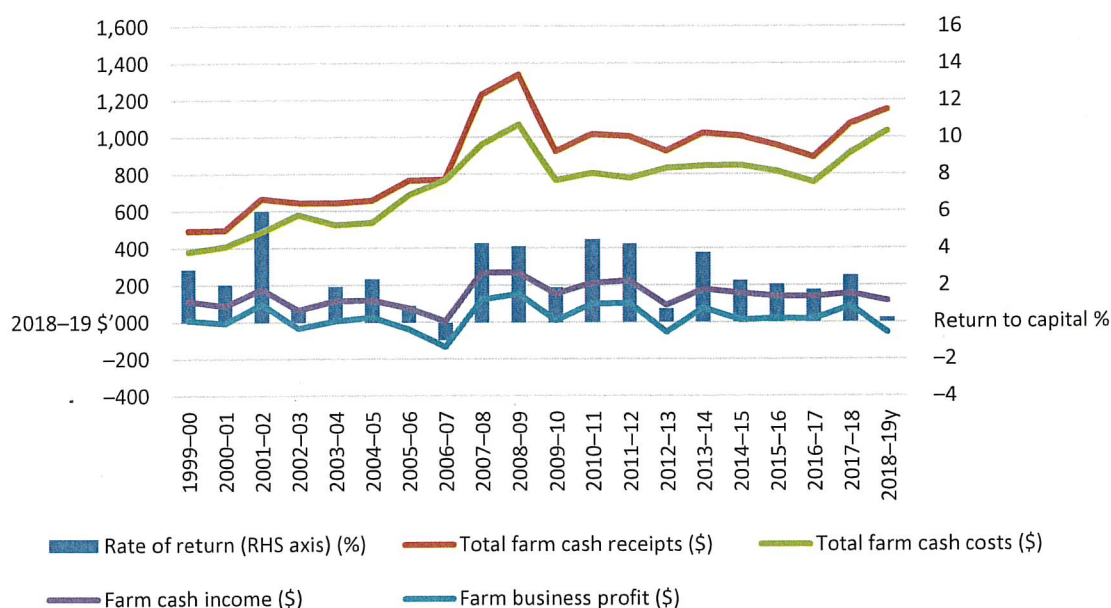
Gippsland, average per farm



1.6 South Australia

- Mid-range percentage decline in dairy farm numbers since 2000 and mid-range increase in milk production per farm.
- Small reduction in milk prices received in first 7 years after deregulation as milk prices moved toward world price.
- Moderate rates of return with some years of low returns.
- Low profitability years mainly result of limited ability to reduce costs in the face of lower milk prices and dry seasonal conditions resulting in higher fodder expenditure.

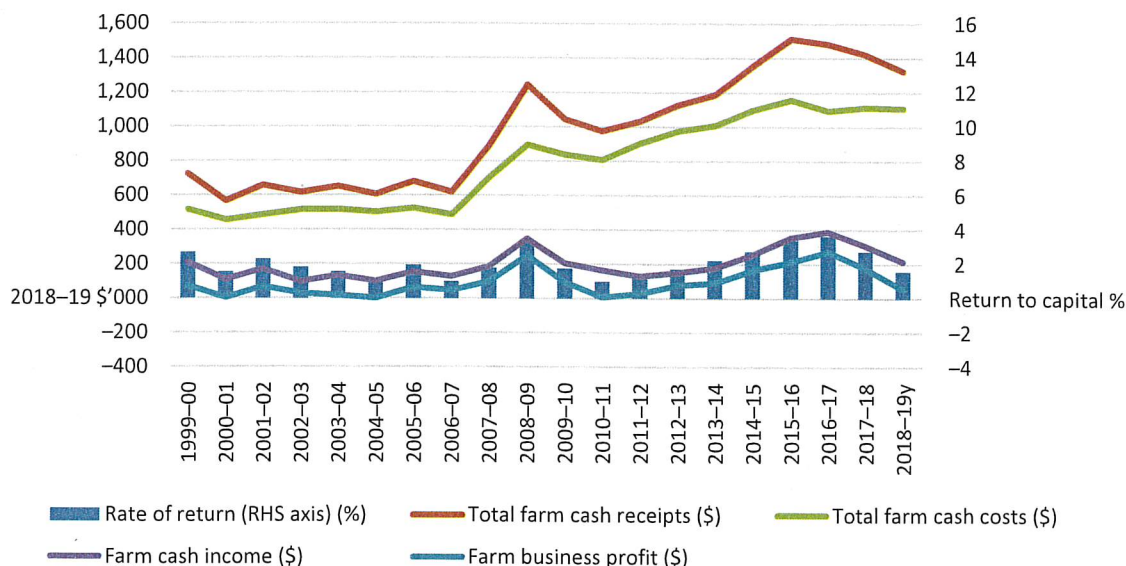
South Australia, average per farm



1.7 Western Australia

- Largest average dairy farm size in terms of cow numbers and milk production prior to deregulation in 2000.
- Decline in milk prices received in first 7 years after deregulation as milk prices moved toward world price. Prices increased after 2006-07 as processors sought to retain supply.
- Mid-range percentage decline in dairy farm numbers since 2000 and a relatively large increase in milk production per farm.
- Moderate rates of return with some years of low returns, but no years of negative returns.
- Relatively high land values as a result of competition for land for urban development and from other agricultural uses constrain rates of return.
- Fewer years of low profitability, compared to other regions.

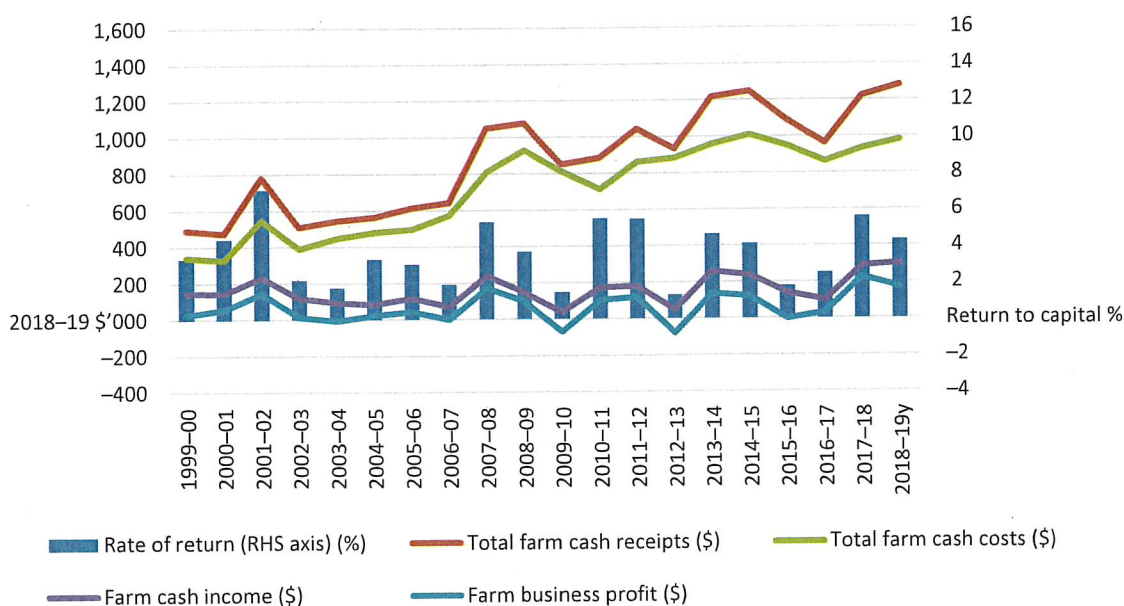
Western Australia, average per farm



1.8 Tasmania

- High reliance on seasonal production of milk for manufacturing pre-deregulation in 2000.
- Relatively little change in milk prices received after deregulation as milk prices moved toward world price.
- Smallest percentage decline in dairy farm numbers since 2000 of any region and largest increase in milk production per farm.
- Highest average rates of return of any Australian region with low rates of return in some years, but no years of negative average returns.
- Lowest average cost of production of any Australian region.
- Use of purchased fodder and irrigation has increased post-deregulation but industry remains predominantly pasture based seasonal production.
- Years of low profitability have mainly resulted from low milk prices and dry seasonal conditions resulting in higher fodder expenditure

Tasmania, average per farm



ANNEX B

Rate of return to total capital, by industry and farm size, average for the 5 years ending 2017–18 average per farm

Industry	Business size	Excluding capital appreciation		Including capital appreciation	
		%	RSE	%	RSE
Wheat and other crops	Small	-0.3	(95)	2.3	(29)
	Medium	2.5	(10)	7.5	(11)
	Large	5.4	(4)	8.8	(4)
	Very large	8.1	(7)	12.6	(12)
Mixed livestock–crops	Small	-0.2	(92)	2.2	(24)
	Medium	3.0	(7)	7.0	(9)
	Large	4.4	(4)	9.3	(6)
	Very large	6.7	(20)	6.9	(19)
Sheep	Small	-0.1	(95)	3.9	(15)
	Medium	2.6	(10)	6.5	(10)
	Large	4.0	(8)	8.6	(10)
	Very large	ns	–	ns	–
Beef	Small	-0.6	(17)	2.6	(53)
	Medium	1.8	(10)	4.6	(11)
	Large	2.5	(7)	5.6	(10)
	Very large	4.5	(9)	9.2	(12)
Sheep–beef	Small	0.0	(99)	3.9	(16)
	Medium	2.3	(8)	8.8	(13)
	Large	3.1	(7)	8.5	(13)
	Very large	3.2	(25)	5.1	(12)
Dairy	Small	-0.7	(86)	3.8	(42)
	Medium	2.4	(10)	4.6	(12)
	Large	4.1	(4)	6.3	(5)
	Very large	5.3	(9)	6.3	(13)

ns Not supplied. Sample too small to provide reliable estimates. RSE Figures in parentheses are standard errors expressed as a percentage of the estimate provided.

Notes: Small farms: farms with a total value of sales of less than \$500,000. Medium farms: farms with a total value of sales of between \$500,000 and \$1 million. Large farms: farms with a total value of sales of between \$1 million and \$5 million. Very large farms: farms with a total value of sales exceeding \$5 million.

Source: ABARES Australian Agricultural and Grazing Industries Survey and Australian Dairy Industry Survey

