IN THE AUSTRALIAN COMPETITION TRIBUNAL

of 2013

MURRAY GOULBURN CO-OPERATIVE CO LIMITED

RE: PROPOSED ACQUISITION OF WARRNAMBOOL CHEESE AND BUTTER FACTORY COMPANY HOLDINGS LIMITED

Certificate identifying annexure

This is the annexure marked **MB13** now produced and shown to Maldwyn Beniston at the time of signing his statement on 28 November 2013.

Annexure MB13

Dairy Australia – Australian Dairy Industry in Focus 2012

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Dairy Australia

Australian Dairy Industry In Focus 2012

Table 1. Australian dairy at a glance

National dairy herd	1.63 million cows	
Average herd size	240 cows	
Milk production	9,480 million litres	
Average annual milk production per cow	5,926 litres	
Dairy—Australia's 3rd largest rural industry	$4 billion value at farmgate	
Milk utilisation	Cheese	34%
	SMP/BMP	28%
	Drinking milk	25%
	WMP	11%
	Casein/butter	1%
	Other	1%
Production of main commodities (tonnes)	Milk powders	371,000
	Cheese	340,000
	Butter (CBE)	120,000
Dairy—major export industry	$2.76 billion	
	7% of world dairy trade	
Percentage of Aust milk production—exported	38%	
Major markets for Australian dairy products (tonnes)	Australia (including 2,385,000 of drinking milk)	2,825,700
	Japan	115,000
	Greater China	109,000
	Singapore	90,000
	Indonesia	48,000
	Malaysia	47,000
Per capita consumption	Drinking milk	106 lts
	Cheese	13 kgs
Dairy industry workforce	Direct employment of approximately 50,000	

Abbreviations

ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
ABS	Australian Bureau of Statistics
ADC	Australian Dairy Corporation
AMF	Anhydrous milk fat
AUST	Australia
BMP	Buttermilk powder
CAGR	Compound annual growth rate
CBE	Commercial butter equivalent, a unit of conversion of AMF to butter (1kg butter = 0.805kg AMF)
cpl	Cents per litre
(e)	Estimated data
DA	Dairy Australia
EU	European Union
FNQ	Far north Queensland
Gipps	Gippsland
MD	Murray Dairy (including northern Victoria and NSW Riverina)
n.a.	Data not available
NCE	Natural cheddar equivalent—unit of conversion of processed cheddar, pastes and spreads to natural cheddar (1kg processed product weight = 0.806kg natural cheddar)
NDFS	National Dairy Farmers' Survey 2012
(p)	Provisional data
(r)	Revised data
SEQ	South-east Queensland/north-east New South Wales
SMP	Skim milk powder
SNF	Solids non fat
UHT	Milk subjected to ultra high temperature treatment to extend shelf life
USD	US dollar
WMP	Wholemilk powder
WPC	Whey protein concentrate
WV	Western Victoria

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Contents

Dairy Australia has collected the statistics in this publication from Australian dairy companies and other Australian dairy organisations (except where other sources are indicated).

Foreword

Australia's dairy industry is one of the three most important local rural industries, with a farmgate value approaching $4.0 billion in 2011/12. A 4% growth in milk production volumes—the strongest growth rate in a decade—saw 9.48 billion litres of milk processed and helped offset an average fall in farmgate milk prices paid to farmers of around 2% over the season. Dairy ranks fourth in agricultural exports—valued at $2.76 billion—with little change in export volumes or values over the year. Value-added processing activities delivered an agricultural industry with a wholesale value of dairy products in excess of $10 billion last year. In the local market, estimated total per capita consumption of the major dairy products of milk, cheese, butter / blends and yogurt remained at around 300 litres per person [in milk equivalent terms].

Significant regional variation remained a feature of the Australian dairy industry in the 2011/12 season.

Milk production generally expanded across the south-east corner of the country with broadly favourable seasonal conditions, plentiful irrigation water supplies, and the impact of slightly lower farmgate prices offset by lower feed costs. Consequently, most farmers in the key exporting regions saw the season as an opportunity for financial consolidation.

However, the drinking milk regions of Queensland, New South Wales, Western Australia and parts of South Australia saw continued intense retail competition, shifts in private label supply contracts and processor rationalisation, all of which served to undermine farmer confidence and supply stability.

Dairy commodity export prices eased through most of the season and, together with domestic market price discounting, lead to a large proportion of farmers surveyed in 2012's National Dairy Farmer Survey once again citing milk price as their main challenge in coming months.

Consequently, overall farmer confidence in the medium to long-term prospects for the industry has eased back from the relatively strong levels of last year. The feature article follows the trend set in recent years and provides a *September Update* to the annual *Dairy 2012: Situation & Outlook* report. This highly regarded industry report is now in its ninth year and provides a comprehensive overview of the Australian and global dairy scene.

Dairy Australia is the industry's farmer-owned service organisation. Funded by farmer levies, with matching research and development funds from the Australian Government, Dairy Australia's role is to boost the long-term sustainability and viability of local farm businesses and the regional communities that depend on the dairy industry. The organisation works across the dairy supply chain in areas that benefit the entire industry—from farming through manufacturing, to domestic and export markets. The company's 2011/12 investment budget for research and development projects and in industry services totaled nearly $53 million. More detail on the strategic priorities and the way Dairy Australia interacts with the other industry organisations is available in the Industry organisations and structure section on page 33.

I would like to extend Dairy Australia's thanks to the dairy processors that contribute to our regular data collections. Without their participation, Australian Dairy Industry In Focus could not maintain its reputation as the most comprehensive and credible collection of Australian dairy industry statistics available. Regular monthly updates of much of the industry production data included in this publication are available from **www.dairyaustralia.com.au**

The website also features *Dairy 2012: Situation & Outlook*, together with the September 2012 Update.

I trust you will find that this latest issue of Australian Dairy Industry In Focus remains a valuable source of knowledge and information on this important industry.

Ian Halliday, *Managing Director*

Dairy 2012: Situation & Outlook

Background

The *Situation & Outlook* report is prepared each year to provide a clear and timely picture of what is happening in the Australian dairy industry, key drivers of the industry and expectations for the future. It draws on the National Dairy Farmer Survey results, plus the views and opinions of global dairy market analysts, retail analysts, dairy company management, farm consultants and farm leaders.

As well as informing farmers, the report aims to provide factual insights into dairy for banks, governments, regional communities and suppliers of products and services to the dairy industry.

The full *Situation & Outlook* report was published in May, with an *Update* released in September.

The industry in September 2012

National milk production growth in 2011/12 was the highest for a decade; yet significant regional variation remains a feature of the Australian dairy industry.

For most farmers in south-eastern Australia, the 2011/12 season was one of consolidation. Slightly lower farmgate prices were offset by lower feed costs. Generally favourable seasonal conditions and the return of plentiful irrigation water supplies to the northern Victoria and Riverina production region underpinned strong expansion.

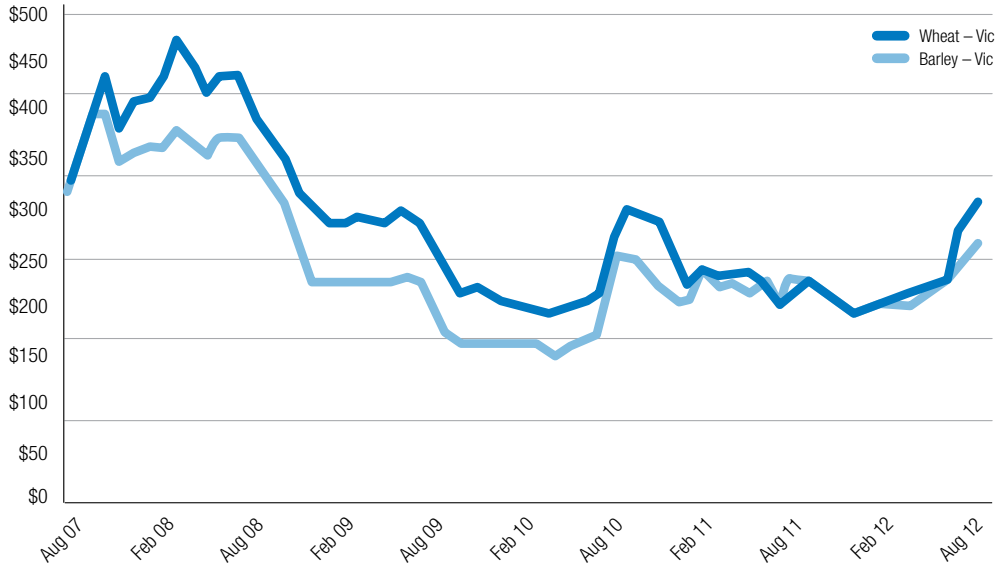
In drinking milk regions—Queensland, New South Wales, Western Australia and parts of South Australia—intense retail competition, shifts in private label supply contracts and processor rationalisation have undermined farmer confidence and supply stability.

With southern export region farmers facing an 8–10% drop in farmgate milk prices and northern domestic producers facing similarly negative price signals, lower milk prices have dominated the start of the 2012/13 season.

At the same time, significantly firmer grain prices and increases in other key input costs such as electricity have many farmers bracing for a tight year.

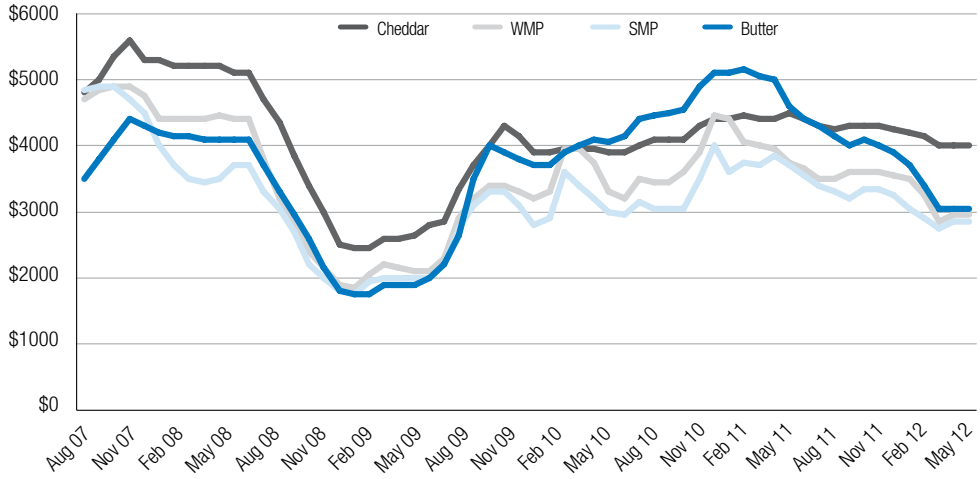
Despite challenges around farmgate pricing across most dairying regions and the impact of prolonged wet weather in parts of Gippsland in particular, the season has started reasonably strongly in volume terms. Early growth in production has been driven by the southern states where warmer, drier weather has represented an improvement on recent winter conditions. Overall, the prevailing weather pattern has to date been a favourable one for pasture production and livestock wellbeing.

Figure 1. Grain Prices (AUD/tonne)



Source: Dairy Australia

Figure 2. Surveyed spot prices of Australian exporters (USD/tonne)



Source: Dairy Australia

As the new season progresses, despite milk price and input cost pressures there is scope for cautious optimism given the outlook for the international dairy market looks distinctly more positive than it did earlier in the year. The US drought has accelerated a supply correction, driving commodity prices higher in recent months.

Globally, demand for dairy products has remained solid, and has absorbed much of the increased supply over the past 12 months. China and Russia remain key demand regions in balancing the international market. South-east Asia and other growth regions have maintained demand in the face of global economic uncertainty, and imports continue to grow in value.

While global economic uncertainty remains an important factor determining the demand for dairy products in the short to medium term, the past 12 months show that key emerging markets have been relatively unaffected by the global economic slowdown up to this point in time. With a slightly improved economic outlook, demand from these regions is expected to remain strong into the foreseeable future.

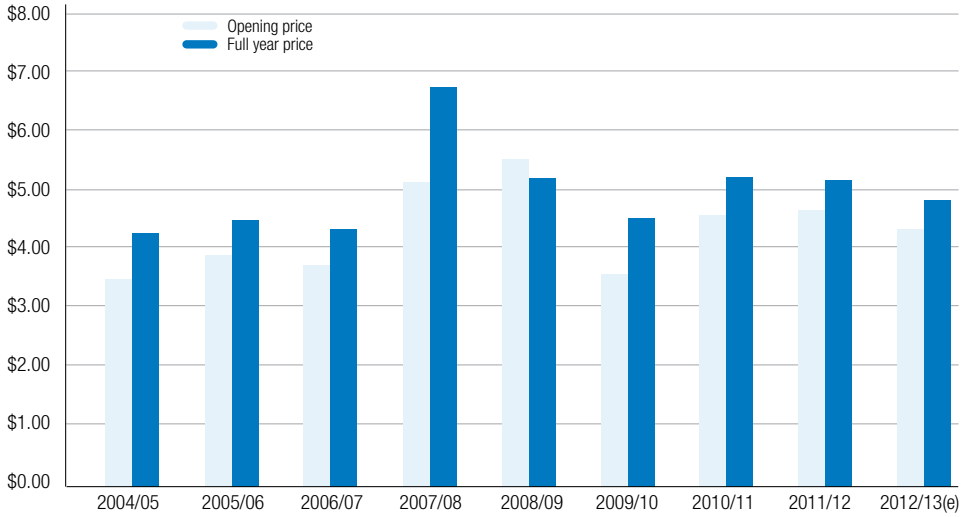
Spot prices for cheese have remained stable, reflecting the increased proportion of contract based trade and the longer term nature of business. Cheese manufacturer returns have also received a boost from strong global demand for lactose.

A supply correction accelerated by the US drought suggests some upside potential as dairy commodity prices have begun to rise and market sentiment favours a further recovery in prices. Nevertheless, Australian farm gate prices are currently expected to finish the 2012/13 season around 8–10% down on the previous season to around $4.70–$5.00 per kg of milk solids.

A focus by exporting manufacturers on increasing factory throughput has seen competition for supply remain a feature of the farmgate market, and there have been encouraging signals about expansion of export plans despite the high Australian dollar continuing to constrain exporters' returns. In irrigation regions, the potential threat associated with an El Niño weather event is at least partially offset by water storages remaining over 90% full.

The balancing act between supply and demand in fresh drinking milk regions continues as processors adjust their intake requirements and pricing to meet the demands of a competitive retail marketplace. While Western Australian farmers have seen price increases, farmers in other states have received lower prices under the new supply contracts which reflect the continued pressure on processor margins and the changing requirements for milk supply. Farmer confidence and milk production in NSW and Queensland in particular have struggled with reduced processor intake requirements, and devaluation of the category at the retail level.

Figure 3. Estimated milk prices paid to VIC/SA/TAS dairy farmers (AUD/kg MS)



Source: Dairy Australia

What did farmers say in August 2012?

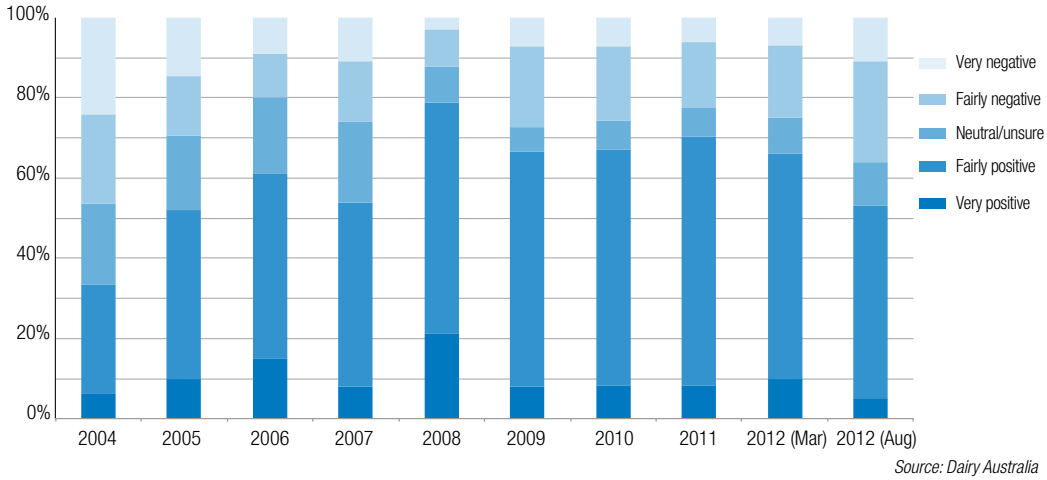
Confidence in the future of the industry

Responses to the August update of the 2012 National Dairy Farmer Survey suggested that confidence in the industry had declined since the February survey among farmers in all regions except for those in Northern Victoria and Western Australia, with 53% of surveyed farmers fairly-to-very positive about the future of the national industry—down from 66% in February. Farmer sentiment in Northern Victoria remains buoyant given the continuation of much improved conditions following long years of drought; while many in Western Australia have seen some positive price signals since the survey earlier in the year.

Lower milk prices, very high grain prices and the possibility of El Nino creating difficult seasonal conditions are the factors that are most affecting farmer confidence over the next 6 months. However, farmgate milk prices continue to represent the greatest challenge for all farmers except those in WA, where the cost of grain is considered the greatest challenge.

Seasonal conditions were generally favourable, with 54% of farmers reporting their current situation as just about where they would like it. The majority of those farmers enjoying favourable conditions were working on growing fodder and crops to minimize the impact of higher feed and grain prices. However, as is invariably the case

Figure 4. Farmers' attitude to industry future—% of respondents



Source: Dairy Australia

given the climatic diversity across Australia's dairying regions, extreme conditions hampered some farmers' progress into the 2012/13 season: 28% of farmers indicated that the season has been wetter than they would like, while for 18% it has been drier.

Victorian regions experienced highly varied conditions, which were broadly reflected in the survey responses: 81% of Northern Victoria and 77% of Western Victorian farmers described conditions as just where they would like them to be, reflecting the improved conditions in those areas. On the other hand, having endured prolonged wet conditions over several months, Gippsland respondents were the most negative of all dairying regions with just 24% of farmers describing conditions as favourable. Farmers in Western Australian and New South Wales were more likely to be experiencing drier conditions, given below average rainfall over the winter months.

Expectations of growth in production

Consistent with the decline in overall confidence since February, surveyed farmers predicted their herds would average slightly smaller sizes. Respondents in August predicted their herds would average 282 milking cows, down from the 285 milking cows that they predicted earlier in the year predicted they would be milking.

For the 2012/13 season, 58% of respondents anticipated their herd numbers would remain the same as they predicted in February, 28% expect a smaller herd and 13% a larger herd.

Farmers with large herds anticipated a 1.5% increase in herd size despite their reduced confidence. The three main reasons for milking fewer cows than was planned in February were: lower in calf rates (26%), lower milk prices (24%) and cow losses (18%).

When compared to the February results, a significantly lower proportion of farmers across all dairying regions are now expecting an increase in their herd's production over the next three years. The two main reasons given for anticipating lower or maintained production levels in future are unstable/low milk prices and the perception that they are unable to grow their businesses under the prevailing conditions.

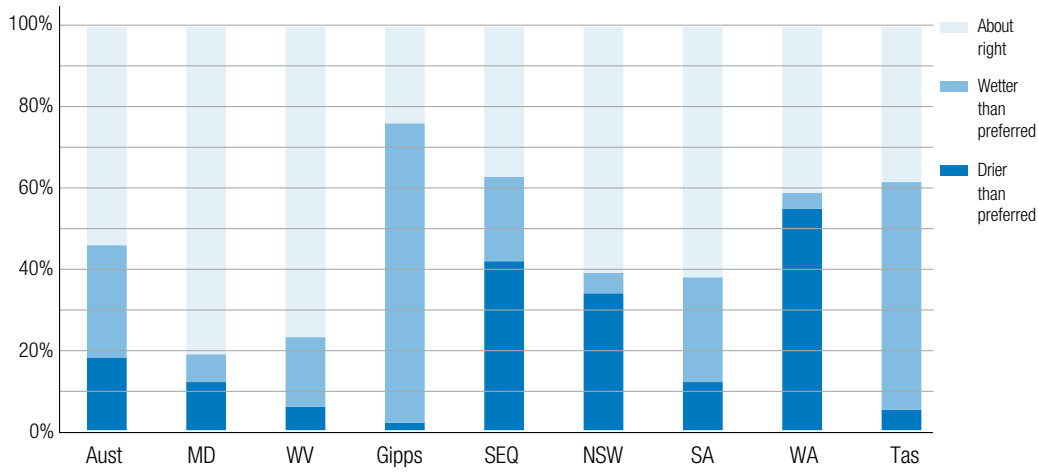
The greatest challenges farmers were contemplating over the coming six months were the price received for milk (39%, up from 18% in August 2011), the cost of grain (16%) and climate (15% down from 20% last year).

International market outlook improving

The slow global economic recovery has faltered with renewed concerns about an economic collapse in Europe, given southern European countries in recession and still relatively sluggish growth in the US. Continuing weaknesses in economic activity across advanced economies has affected emerging market economies as developed markets purchase less export products.

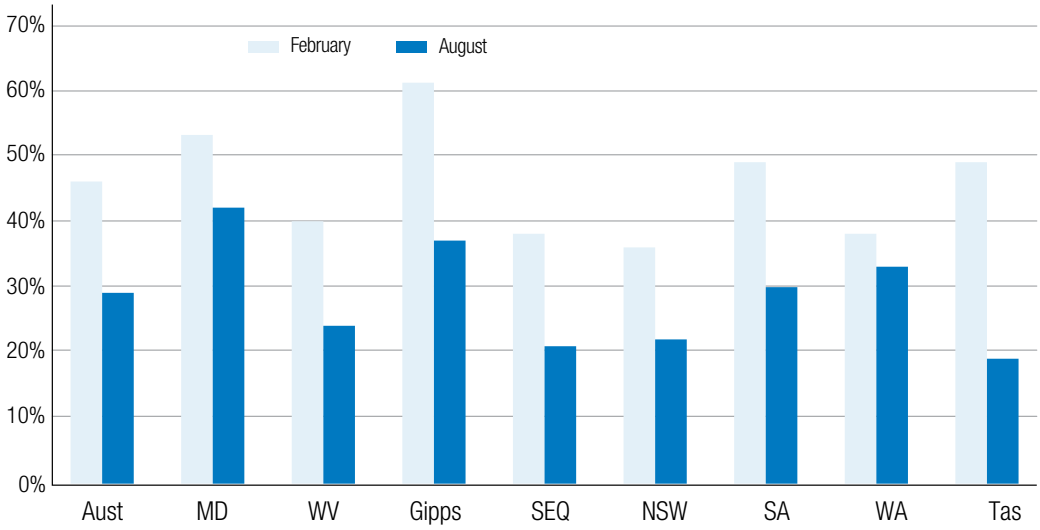
Nevertheless, the outlook for the international dairy market has improved over the calendar year to date. Market sentiment appeared to take

Figure 5. Seasonal conditions currently experienced—August 2012



Source: Dairy Australia

Figure 6. Expected production growth in 3 years time—% of farms expecting greater production



Source: Dairy Australia

on a more distinctly bullish shade around August despite a lingering undertone of caution. The US drought has accelerated a supply correction and driven dairy commodity prices higher.

China remains crucial as a driver of trade and investment and as the largest single dairy importing country in the world, global dairy exports to China continue to grow. Chinese demand for imported dairy ingredients and finished goods will continue due to lack of confidence in local standards. Whilst some indications of a slowdown in China's economy have emerged, growth slowing to more sustainable levels is not expected to significantly constrain continued demand for imported dairy products.

Demand in key markets across south-east Asia has been maintained in the face of global economic uncertainty, and imports continue to grow in value. Australian exports to North Asia have remained steady, while demand and exports to key markets in the Middle East and North Africa has varied by product but is resilient overall.

However downside risks remain: commodity prices will fall again if there is a widespread European economic meltdown and financial crisis, or if New Zealand has another very strong milk production year.

Australian market situation & outlook

Slowing mining investment and easing economic growth have compounded concerns about the direction of the Australian economy. Yet employment has remained relatively stable and retail sales trended upwards for the June quarter, most likely boosted by heavy discounting and government payments to compensate for the carbon tax implementation.

However consumer confidence fell 2.5% in August, reflecting continuing concerns about the global economy and uncertainty over interest rates, housing values, carbon tax and job losses.

CPI-measured food inflation fell 3.2% for 2011/12, which reflects the recovery from the flood and cyclone impacts on food production since 2011: fruit and vegetable prices were down 21.9% with dairy prices down 0.8%.

Compared to annual trends, the Australian dairy market weakened in the quarter to June. Domestic sales volumes declined for all categories during the June quarter. Over the same period, wholesale prices slipped across all product categories—with the exception of cream, custard and yoghurt.

Nevertheless, drinking milk sales through the non-grocery channel rose slightly in the June quarter—up 0.9%—and both flavoured and

modified milks continue to exhibit reasonable growth. Branded fresh regular milk sales clawed back just under 1% of volume share on the shelves of the major supermarkets over the last quarter, which was possibly attributable to some major processors changing market strategy to emphasise 'permeate-free' milks.

Following the processors' moves, the supermarket majors have announced that they are looking at adopting similar 'permeate free' strategies for their private label milks. With $1 per litre milk an established fixture in supermarkets for the foreseeable future, discounting campaigns have been expanded to include both company-branded and private label cheese.

With discounting now such an entrenched element in the supermarket majors' strategies, margin pressures are expected to continue flowing through the supply chain.

World supply

US milk production growth has slowed appreciably in recent months, after a strong start to 2012. Much of the US is in drought, which has hastened a decline in production growth that began as milk prices fell in line with commodity prices. Spiralling feed grain prices and heat stress amongst cows have also curtailed US production, which in calendar year 2012 is expected to be zero or negative.

EU milk deliveries in the first half of 2012 increased more than 1% on the same period in 2011. Combined with rising feed costs, lower milk prices have seen the expansion in EU supply also begin to slow from last season. Full year output growth for 2012 is now expected to be around 1–1.5%.

Argentine milk production continues to grow, expanding 8.5% year to date. A combination of milk price and input cost pressures are restricting farmers' incentives to invest. Brazilian milk production is forecast to grow by a comparatively modest 3%, while production in Uruguay is up significantly, 17% year to date, although expected to grow at a much slower rate over the remainder of calendar 2012.

China's Twelfth Five-Year Dairy Development Plan has been released, against a backdrop of product recalls and contamination issues that undermine industry efforts to rebuild consumer trust. The Chinese dairy industry's plan focuses on improving raw milk quality through vertical integration and enhanced regulation. A target of 50 billion litres of raw milk production by 2015 has been set; yet resource and regulatory limitations together with higher costs will make achieving this target difficult. Chinese milk production is expected to grow 5% in 2012 to 32 billion litres.

New Zealand Milk production for the 2011/12 season was 10% above last year's levels. Excellent seasonal conditions and attractive farmgate prices saw a significant jump in New Zealand milk production. Current estimates for the 2012/13 season suggest NZ milk production will grow at a more measured pace, with a 4–5% increase expected.

Improving commodity prices in international markets provide Australian dairy farmers with some upside as there should be a recovery in the farmgate price as dairy commodity markets adjust to slowing supply growth. However, many farmers will find margins under pressure from increased feed costs and lower milk prices before that recovery eventuates. Australia's milk production is forecast to grow over the 2012/13 season at around 2% to 9.65 billion litres.

The Australian dairy industry

An important rural industry

The dairy industry continues to be one of Australia's major rural industries. Based on a farmgate value of production approaching $4.0 billion in 2011/12, it ranks third behind the beef and wheat industries. It is estimated that approximately 50,000 people are directly employed on dairy farms and by dairy companies within Australia. Related transport and distribution activities, and research and development projects, represent further employment associated with the industry.

Dairy is also one of Australia's leading rural industries in terms of adding value through further downstream processing. Much of this processing occurs close to farming areas, thereby generating significant economic activity and employment in country regions.

Dairying is a well-established industry across temperate and some subtropical areas of Australia. While the bulk of milk production occurs in south-east seaboard states, all states have dairy industries that supply fresh drinking milk to nearby cities and towns. A range of high-quality consumer products, including fresh milks, custards, yogurts and a wide variety of specialty cheeses, are produced in most Australian states. Nevertheless, the manufacturing of longer shelf life products, such as cheese and specialised milk powders, is steadily becoming more concentrated in the south-east region of Australia.

Strong growth characterised the dairy industry through the 1990s, but that growth has stalled in the last decade. The industry has experienced a slow recovery from the severe widespread drought of 2002/03, only to experience on-going dry conditions; with the resulting low water storage levels significantly limiting water allocations in irrigated dairying regions over a number of years. Nevertheless, the rains have returned in recent years and water storages have been replenished and irrigation allocations restored. In fact, milk production growth in 2011/12 of over 4% was the strongest in a decade. Nevertheless, the increasing level of market and margin volatility of the industry in the last five to six years has served to undermine confidence in the outlook for many farmers who are seeking reliable returns on which to build a longer term future.

Table 2 details the long-term trends for a number of key industry measures.

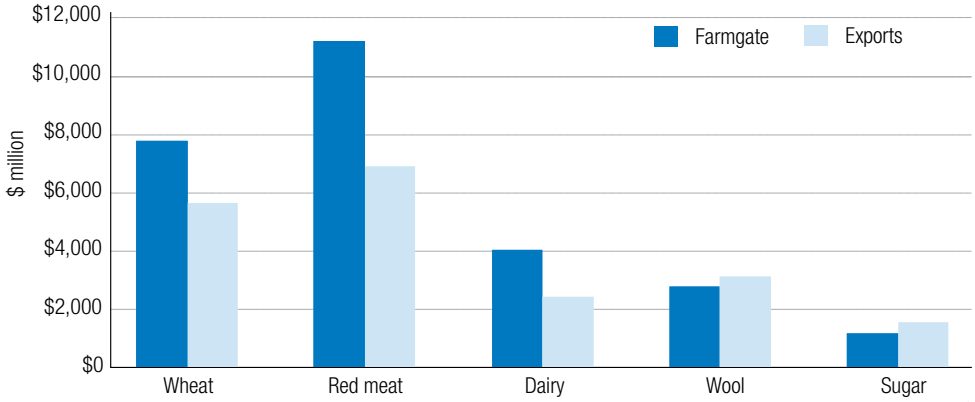
Figure 7 provides a comparison across the five major agricultural industries in Australia—comparing farmgate and export sales values—and shows the relative importance of the dairy industry within the agricultural sector.

Table 2. Australian dairy industry—long term trends

At June 30	1980	1990	CAGR 1980s	2000	CAGR 1990s	2012(p)	CAGR 2000s	CAGR 32 yrs
Milk production (m. lts)	5,432	6,262	1.4%	10,847	5.6%	9,480	-1.1%	1.8%
Dairy cows ('000)	1,880	1,654	-1.3%	2,171	2.8%	1,630	-2.4%	-0.5%
Farm numbers	21,994	15,396	-3.5%	12,896	-1.8%	6,770	-5.2%	-3.6%
Value of Farm Production*($m.)	$3,325	$3,099	-0.7%	$3,788	2.4%	$3,981	0.0%	0.5%
Per capita consumption (milk equiv)	239	244	0.2%	274	1.2%	301	0.8%	0.7%
Export Value*($m.)	$1,004	$561	-5.7%	$3,454	20.4%	$2,757	-2.2%	3.2%
Export Share of Production	22%	31%		54%		38%		

Sources: ABS, ADC, DA, State Authorities
CAGR = Compound Annual Growth Rate
**Expressed in 2011/12 dollars*

Figure 7. Farmgate value vs Export sales value—2010/11



Source: ABS

A world-competitive industry

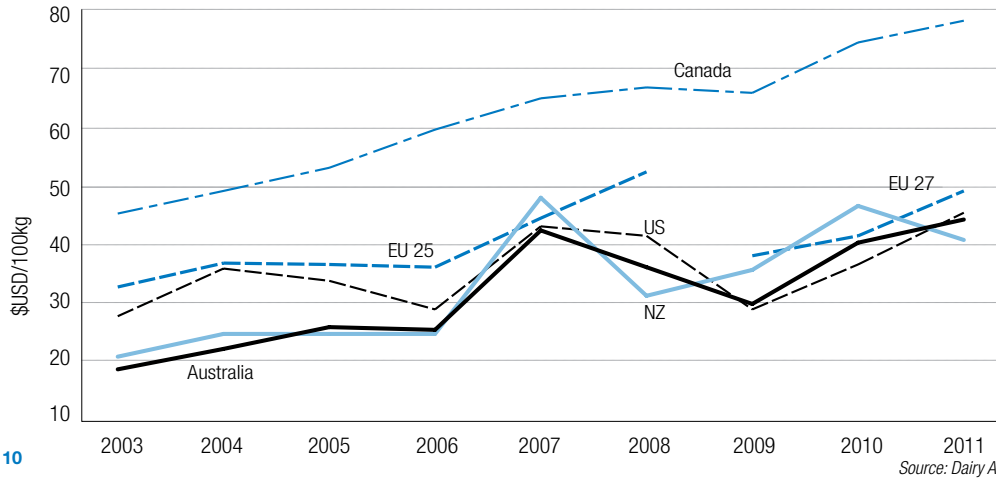
Australian dairy farmers operate in a deregulated and open market and have done so for over a decade; the only government involvement being in the administration of food standards and food safety assurance systems. Consequently, international markets and prices are the major factors determining the price received by farmers for their milk.

At an average of just over US$40 per 100kg of milk last year, Australian dairy farmers generally received a price comparable to many of the major producing countries. This represents quite a change in the trend apparent earlier in the decade where local prices received were among the lowest in the world; with the resultant imperative to operate highly cost-efficient production systems. Nevertheless, this was regularly borne out by international comparisons; where Australian farms consistently had costs of production in the lower cost category of all farms in such surveys. The fact that around half of Australia's milk production has been exported over the last decade reflects this high level of competitiveness.

However, this has become increasingly difficult in recent years. Farm cost structures have increased in response to the need to adapt to drier conditions where rain fed pastures were regularly contributing a lower proportion of the total feed available to the national herd. Despite the increased rainfall in the last couple of seasons, farm cost structures have not returned to those of a decade ago for many reasons. Consequently, Australia's share of international trade has trended lower as local milk production has contracted over the past decade.

As shown in figure 8, the convergence of prices received by farmers around the world during the commodity price boom in 2007 has continued, as prices appear to be more closely reflecting dairy commodity price trends in most of the major producing countries.

Figure 8. International Farmgate milk prices (USD/100kg)



Source: Dairy Australia

Farm Facts

South-east Australia's climate and natural resources are generally favourable to dairying and allow the industry to be predominantly pasture-based, with approximately 70–75% of cattle feed requirements coming from grazing in a year of 'normal' seasonal conditions. This results in efficient, high-quality milk production.

Most dairy production is located in coastal areas where pasture growth generally depends on natural rainfall. Nevertheless, there are several inland irrigation schemes—most notably in northern Victoria and southern New South Wales.

Feedlot-based dairying remains the exception in Australia, although the use of supplementary feed—grains, hay and silage—is widespread and has increased significantly in recent seasons as farmers have had to adapt to drier conditions in many dairying regions. Prices for these inputs have remained relatively low over the last couple of seasons and so their usage levels have remained up on historical levels as farmers have varied their milk production systems in response to seasonal and market conditions.

According to the 2012 National Dairy Farmer Survey, 95% of dairy farms fed an average of 1.74 tonnes of grain, grain mixes or feed concentrates per cow during the 2011/12 season—marginally up from an average of 1.66 tonnes in the previous season. Feeding rates have increased steadily in most dairying regions around Australia despite much improved conditions for pasture growth.

Owner-operated farms dominate the Australian dairy industry. Share farming was employed on 16% of farms in 2011/12. Corporate farms make up just 2% of the total.

The number of farms has fallen by two-thirds over the last three decades from 20,300 in 1982 to 6,770 in mid-2012. The trend in farm numbers will often follow the trend in farmgate milk prices from season to season; with strong prices either slowing the rate of attrition or even reversing the long-term trend. At times of low milk prices farmers do choose to leave the industry or else cease dairying operations until market conditions improve.

Table 3. Number of registered dairy farms

	NSW	VIC	QLD	SA	WA	TAS	AUST
1979/80	3,601	11,467	3,052	1,730	622	1,522	21,994
1989/90	2,220	8,840	1,970	969	496	901	15,396
1999/00	1,725	7,806	1,545	667	419	734	12,896
2000/01	1,391	7,559	1,305	587	359	638	11,839
2001/02	1,323	7,079	1,152	538	344	612	11,048
2002/03	1,290	6,801	1,125	516	325	597	10,654
2003/04	1,096	6,242	967	458	305	543	9,611
2004/05	1,063	6,108	885	402	278	507	9,243
2005/06	1,024	5,892	802	383	245	498	8,844
2006/07	924	5,346	734	354	222	475	8,055
2007/08	886	5,422	664	332	186	463	7,953
2008/09	860	5,462	648	320	183	451	7,924
2009/10	820	5,159	621	306	165	440	7,511
2010/11	807	4,588	595	286	170	437	6,883
2011/12 (p)	778	4,556	555	275	162	444	6,770

Source: State Milk Authorities

Nevertheless falling farm numbers do reflect a long-term trend observed in agriculture around the world, as reduced price support and changing business practices have encouraged a shift to larger, more efficient operating systems.

Average herd size has increased from 90 cows in 1982 to an estimated 240 currently. There is also a trend emerging to very large farm operations of more than 1,000 head of dairy cattle.

Detailed analysis of the 2012 National Dairy Farmer Survey indicated that 11% of dairy farms had herd sizes of more than 500 cows and produced 33% of the total milk produced in Australia. At the other end of the spectrum, 26% of farms had fewer than 150 cows and produced just 8% of the milk.

The dominant breed in Australia is the Holstein Friesian, accounting for some 70% of all dairy cattle. Other important breeds include the Jersey, and Australia's own breed, the Illawarra.

Most breeding is by artificial insemination and so Australian farmers have access to some of the best genetic material in the world. Herd recording is widely practiced, with around half of all dairy farms regularly recording herd performance.

The genetic evaluation of dairy cattle is conducted by the Australian Dairy Herd Improvement Service (ADHIS), using one of the most sophisticated evaluation systems available.

Improved herd genetics, as well as advances in pasture management and supplementary feeding regimes, have seen average annual yield per cow double from 2,900 litres to around 5,950 litres over the past three decades.

Combining this increase in yields per cow with average herd sizes that are over two and a half times larger, the average milk production per farm has increased from 260,000 litres to 1,400,000 litres per year over the same period.

Table 4. Number of dairy cows (000 head)

	NSW	VIC	QLD *	SA	WA	TAS	AUST
At March 31							
1979/80	311	1,047	247	103	71	103	1,880
1989/90	238	968	201	89	64	92	1,654
1999/00	289	1,377	195	105	65	139	2,171
At June 30							
2000/01**	268	1,377	186	124	72	148	2,176
2001/02	264	1,363	174	110	75	134	2,123
2002/03	250	1,303	159	117	77	142	2,050
2003/04	248	1,297	171	116	74	133	2,038
2004/05 (e)	245	1,295	150	115	70	135	2,010
New Series* **							
2005/06	222	1,217	127	104	67	143	1,880
2006/07	210	1,150	121	114	60	140	1,796
2007/08	195	1,055	100	103	54	134	1,641
2008/09	201	1,061	107	106	52	149	1,676
2009/10	203	1,014	98	92	55	134	1,596
2010/11 (r)	195	1,010	97	90	59	138	1,589
2011/12 (e)	198	1,059	96	77	55	146	1,630

* *For 1999 and 2000, Qld state figure includes Northern Territory cow numbers.*

** *From 2001 census date is June 30, NT and ACT numbers are included in national total*

*** *Change in ABS data collection*

Source: ABS and Dairy Australia

Table 5. Average annual milk production per cow

	NSW	VIC	QLD	SA	WA	TAS	AUST
1979/80	2,870	3,012	1,984	3,163	3,105	2,958	2,848
1989/90	3,602	3,920	3,122	3,934	4,205	3,791	3,781
1999/00	4,827	4,989	4,349	6,790	6,338	4,381	4,996
2000/01	4,687	4,977	3,943	6,369	5,903	4,177	4,859
2001/02	5,030	5,391	4,067	5,933	5,402	4,646	5,215
2002/03	4,996	4,885	4,230	6,556	5,348	4,304	4,913
2003/04	5,093	4,944	4,162	6,021	5,285	4,219	4,925
2004/05	4,925	5,101	3,735	5,862	5,418	4,497	4,983
2005/06	5,039	5,221	4,076	5,791	5,369	4,581	5,108
2006/07	5,151	5,261	4,033	6,417	5,235	4,696	5,182
2007/08	5,031	5,393	4,163	5,799	5,907	4,961	5,275
2008/09	5,420	5,807	5,032	6,053	6,355	5,140	5,691
2009/10	5,329	5,518	5,052	5,907	6,641	4,640	5,448
2010/11 (r)	5,203	5,836	4,966	6,257	6,466	5,349	5,708
2011/12 (e)	5,549	6,212	5,009	6,566	5,823	5,629	5,926

Source: Dairy manufacturers, ABS and Dairy Australia

Unlike many countries around the world, there is no legislative control over the price milk processing companies pay farmers for their milk. Farmgate prices vary between manufacturers, with individual company returns being affected by factors such as product and market mix, marketing strategies and processing efficiencies. Australian milk prices are based on the milkfat and protein solids content of the milk. Payments from processors to individual farmers can also vary significantly, as firms operate a range of incentive/ penalty payments related to milk quality, productivity and out-of-season supplies. There are also volume incentives in place to encourage milk supply to particular processing plants to improve operating efficiencies.

The price farmers receive also varies across states, reflecting how milk is used in the marketplace. For example, many farmers in the southern regions receive a 'blended' price, incorporating returns from both drinking and manufacturing milk. However, higher prices are generally received for year-round supply of milk under commercial contract arrangements in the northern dairy regions, where fresh drinking milk makes up a much larger proportion of the production mix.

Farmgate milk prices in southern regions are primarily driven by international commodity prices and competition for milk supply.

The 2011/12 season saw milk prices follow international dairy commodity prices back down from the highs of the previous season.

As well as from the many factors affecting the milk prices received by individual farmers outlined above, the value of the Australian dollar in foreign exchange markets against the US dollar and the Euro is also critical in determining company returns. In the past decade, the Australian dollar has ranged in value against the US dollar from US$ 0.52 to over US$1.10.

The impact of currency changes on local returns is clearly shown in Figure 9. The Australian Export Index represents the weighted average value of a 'basket' of Australia's major dairy exports compared to a baseline set at January 2000.

The products included in the Index are butter, cheese, skim milk powder and wholemilk powder, and they are weighted by their contribution to Australia's dairy export volumes. The Index takes into consideration individual dairy product export price fluctuations and movements in the Australian/US dollar exchange rate.

The Index shows that early in the decade Australian industry returns benefited from a low Australian dollar compared to the US dollar. However export returns were relatively weaker in Australian dollar terms during 2007/08, where the Australian dollar was 'stronger' and averaged US$0.90 over the season. In more recent times, an even stronger Australian dollar—well over parity with the US dollar for many months—has once again significantly lowered local currency returns from strong export markets.

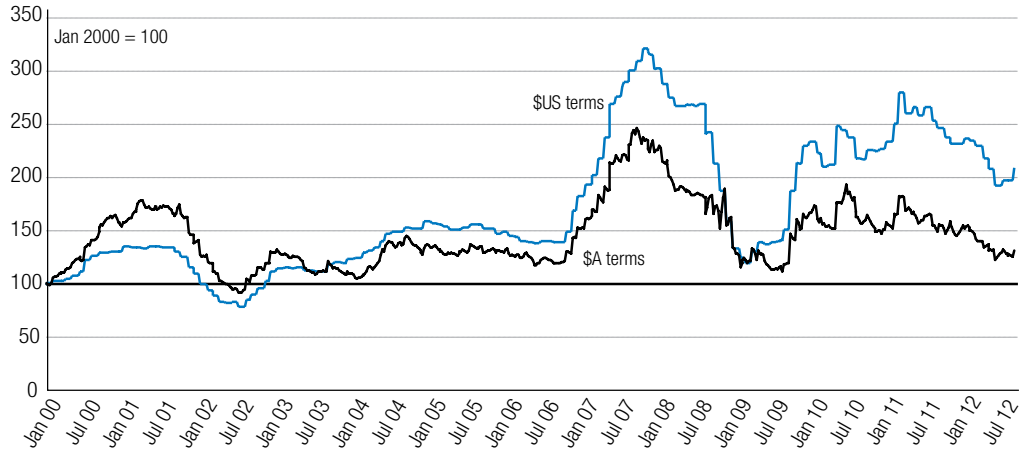
The long-term downward trend in inflation-adjusted farmgate prices (Figure 10) is in line with returns from other agricultural industries over the past two decades. Despite the occasional peaks—in 1992/93, 2001/02, 2007/08 and 2010/11—the line has traditionally returned

Table 6. Typical factory paid prices by state

		2006/07	2007/08	2008/09	2009/10	2010/11	2011/12 (p)
NSW	cents/litre	35.7	48.6	52.4	48.7	48.3	47.4
	$/kg milk solids	5.02	6.73	7.29	6.72	6.74	6.60
VIC	cents/litre	32.0	50.0	39.1	33.9	42.0	40.6
	$/kg milk solids	4.32	6.68	5.14	4.49	5.58	5.46
QLD	cents/litre	38.8	51.8	57.2	55.8	53.1	53.6
	$/kg milk solids	5.38	7.14	7.89	7.57	7.26	7.33
SA	cents/litre	32.6	48.6	44.6	34.6	38.0	41.0
	$/kg milk solids	4.57	6.75	6.19	4.73	5.36	5.76
WA	cents/litre	32.4	41.4	49.0	42.4	43.4	41.9
	$/kg milk solids	4.55	5.80	6.77	5.96	6.03	5.97
TAS	cents/litre	36.5	50.2	41.3	34.6	43.2	39.9
	$/kg milk solids	4.79	6.63	5.40	4.46	5.59	5.19
AUST	cents/litre	33.2	49.6	42.4	37.3	43.2	42.0
	$/kg milk solids	4.51	6.68	5.66	4.98	5.80	5.69

Source: Dairy manufacturers

Figure 9. Australian Export Index

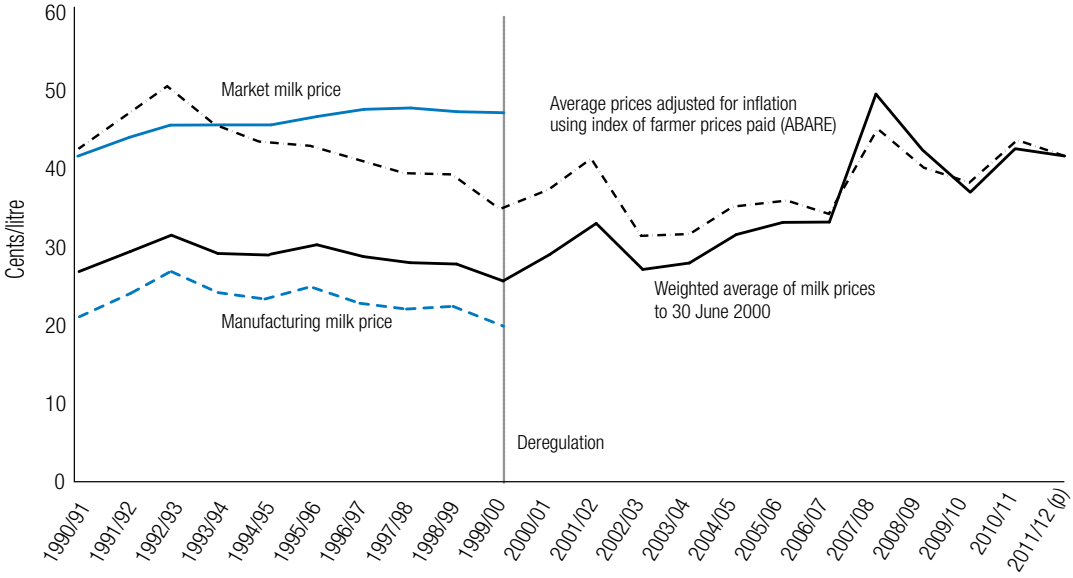


Source: Dairy Australia and ABS

to trend and clearly illustrates the imperative to continually improve productivity throughout the industry. While it does appear that the international dairy market might be under-going a structural realignment in recent years to support stronger milk prices, the level of volatility has also increased significantly over this time.

The average milk price in the dominant southern Australian dairying regions opened slightly down at the beginning of the 2011/12 season in response to the lower world dairy prices that had come about due to strong growth in milk production from all the major milk producing regions around the world. Australian milk production costs remained fairly steady in the latest season; with better seasonal conditions again reducing bought-in fodder costs, but being offset by increasing fertiliser, fuel and electricity costs.

Figure 10. Factory Paid Prices



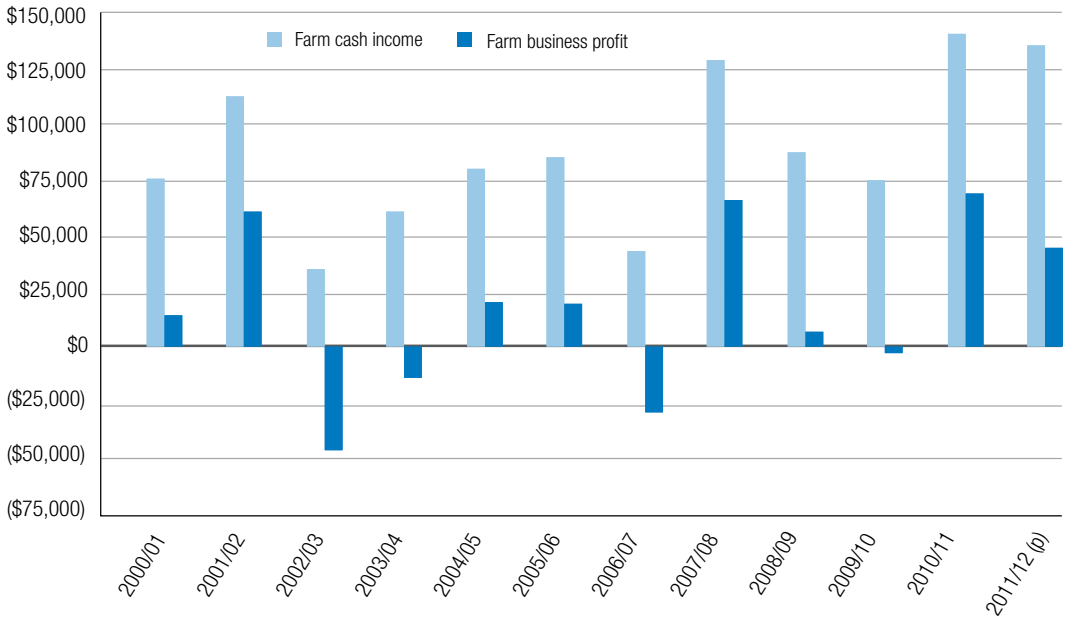
Source: Dairy manufacturers and ABARES

The annual ABARES Farm Survey estimates the financial performance of Australian dairy farms. The two main measures are farm cash income (defined as total cash receipts less total cash costs) and farm business profit (which takes into account any build-up in trading stocks, less depreciation and the value of farm labour). Trends in farm cash income and farm business profit have shown significant variability over the past decade. Figure 11 illustrates how they were strong in the year of record high milk production volumes in 2001/02—encouraged by a combination of favourable climatic and market conditions; fell due to the dramatic impact of the drought in the 2002/03 season; slowly recovered and consolidated over the following three years, before another financially crippling drought in 2006/07. Significant financial recovery occurred in 2007/08 driven by high farmgate milk prices; only to be reversed again in 2009/10 by sharply falling milk prices. Despite strong improvement in farm cash incomes in 2010/11 and 2011/12, this did not necessarily flow through to the farm business profit 'bottom line'.

ABARES estimates that the average farm cash income slipped 3.5% to $136,000 in 2011/12—but remains nearly 50% above the ten-year average of $91,000. The range of financial performance is very wide across Australia's dairying regions—from a low of $86,000 in the north-east NSW/south-east Queensland region to a high of $211,000 in Tasmania. It should be noted that while all regions had positive average farm cash incomes last season, there are always wide variations within regions.

The national average farm business profit was estimated at $44,000 in 2011/12; compared to a relatively strong profit of $69,200 in 2010/11.

Figure 11. Australian dairy farm financial performance



Source: ABARES

Once again, the figures varied across regions, ranging from a farm business loss of $22,000 in north-east NSW / south-east Queensland to a farm business profit of $123,000 in Tasmania.

Average debt levels are estimated to have eased slightly last year—down by $4,000 to an average of $660,000. While debt for land purchase continues to account for the largest share of total farm debt, borrowings to provide working capital have increased their share of total farm debt over the past decade.

Nevertheless, the average level of farm business equity, as estimated by ABARES, remained around the long-term average of 80%. Once again, the range is very wide across dairying regions and within regions. The same two regions mentioned above again account for the ends of the range; from an average farm debt of $250,000 and an estimated equity level of 92% in north-east NSW/south-east Queensland, to an average farm debt of $1,822,000 and an estimated equity level of 63% in Tasmania.

Farm equity levels tend to be strongly correlated with income levels. The latest estimates for the 2010/11 season indicate that where farms had an equity ratio above 70%, some 97% had a positive income; whereas for those farms with an equity ratio below 70%, the proportion with a positive income dropped to 71%. Perhaps even more graphic is the reverse situation, where the proportion of farms with a negative income falls from 29% with an equity ratio below 70% to just 3% when the equity ratio lifts above 70%.

Milk production

While farm numbers have steadily decreased over the past three decades, milk output generally increased, due to increasing cow numbers and improved cow yields—up until the major drought of 2002/03. The following decade has been a period of consolidation for the industry, with falling cow numbers and dry seasonal conditions constraining production. While the last couple of seasons have seen a marked improvement in seasonal conditions across many dairying and grain growing regions, volatility in milk prices and lower cow numbers have limited growth in milk production.

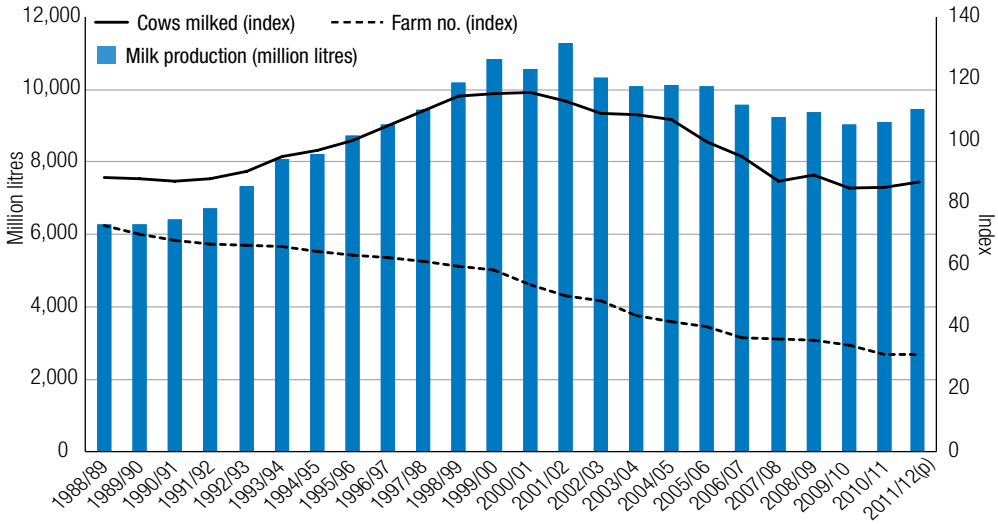
There have been significant on-farm adaptation strategies employed to manage the highly variable conditions of recent years, particularly in the inland irrigation regions of northern Victoria, and central and southern inland New South Wales where water allocations were very low for a number of years. Interestingly, with much improved water supplies in the last three years, many farmers have re-adjusted their production systems back towards the more traditional pasture-based systems they used over a decade ago.

As Figure 12 indicates, the underlying trend has continued towards fewer farms, larger herds and increasing levels of milk production per farm. Farmers have made many changes to their general farm management practices and adopted a range of improved technologies, including soil testing, fodder conservation, supplementary feeding and the use of animal nutritionists to balance cow diets, improved animal genetics, artificial insemination programs, the use of new milking equipment and techniques, and the widespread use of computers to record and monitor herd and individual cow performance.

Milk production is concentrated in the temperate zone of Australia; as can be seen in Table 7 and the map of dairying regions in Appendix 1. Australian milk production remains strongly seasonal in the key south-eastern dairying regions, reflecting the predominantly pasture-based nature of the industry. Milk production peaks in October, tapers off until late-summer, and then flattens out into the cooler winter months (refer to Figure 13). The production of long shelf-life manufactured products in these parts of the country has enabled maximum milk utilisation within the seasonal cycle. However, the seasonality of milk output in Queensland, New South Wales and Western Australia is much less pronounced, due to a greater focus on drinking milk and fresh products in these states. Farmers in these states manage calving and feed systems to ensure more even year-round milk production.

See Appendix 2 for more details on the seasonality of milk production by state dairying regions.

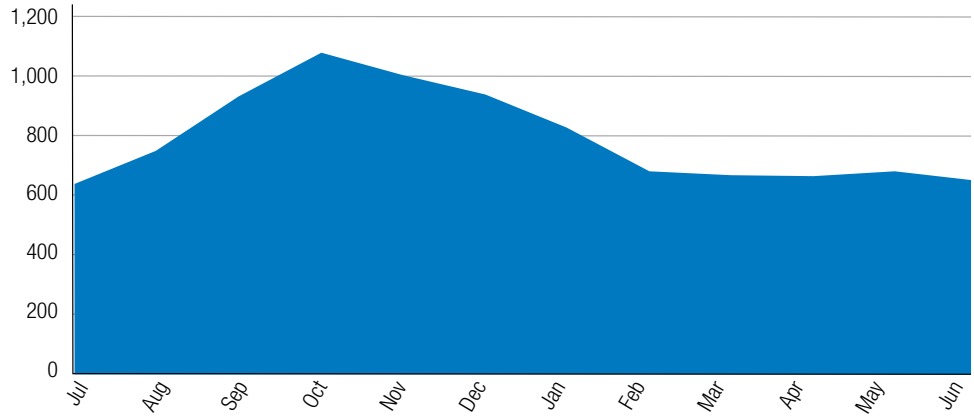
Figure 12. Australian milk production vs indices of farms and cows milked



Source: Dairy manufacturers, ABS, State Authorities and Dairy Australia

Australian milk production increased by 380 million litres, or 4.2%, to 9,480 million litres in 2011/12—the strongest growth rate in a decade. This reflected a third consecutive season of improved conditions with plentiful water, lower input costs and reasonably strong milk prices. However, conditions always vary significantly around the country; from very dry conditions in south-west Western Australia over some of the season, to a repeat of flooding across northern Victoria and parts of the New South Wales coast. Wet winter conditions in eastern Victoria in particular also made dairying farming difficult for this period of the year.

Figure 13. Seasonality of milk production in Australia, 2011/12 (million litres)



Source: Dairy manufacturers

Table 7. Milk Production by state (million litres)

	NSW	VIC	QLD	SA	WA	TAS	AUST
1979/80	907	3,151	508	329	222	315	5,432
1989/90	879	3,787	629	356	267	344	6,262
1999/00	1,395	6,870	848	713	412	609	10,847
2000/01	1,326	6,784	760	699	388	590	10,546
2001/02	1,343	7,405	744	715	393	671	11,271
2002/03	1,302	6,584	720	733	404	585	10,328
2003/04	1,271	6,434	674	703	404	590	10,076
2004/05	1,218	6,613	619	679	398	600	10,127
New series*							
2005/06	1,197	6,651	597	646	377	622	10,089
2006/07	1,105	6,297	537	655	350	642	9,583
2007/08	1,049	6,102	486	606	319	662	9,223
2008/09	1,065	6,135	513	628	340	708	9,388
2009/10	1,074	5,790	529	605	350	673	9,023
2010/11 (r)	1,046	5,912	485	572	362	722	9,100
2011/12 (p)	1,086	6,213	485	570	338	788	9,480

** From July 2005, data collection is based on farm location*

Source: Dairy manufacturers

Cows' milk consists of solids (milkfat, protein, lactose and minerals) in water, with water making up about 87% of the volume. The milkfat and protein components are those on which companies base their farmgate milk prices. Milk composition varies between regions due to a number of factors, such as cow breed and age, nutrition and feed quality, as shown in Table 8.

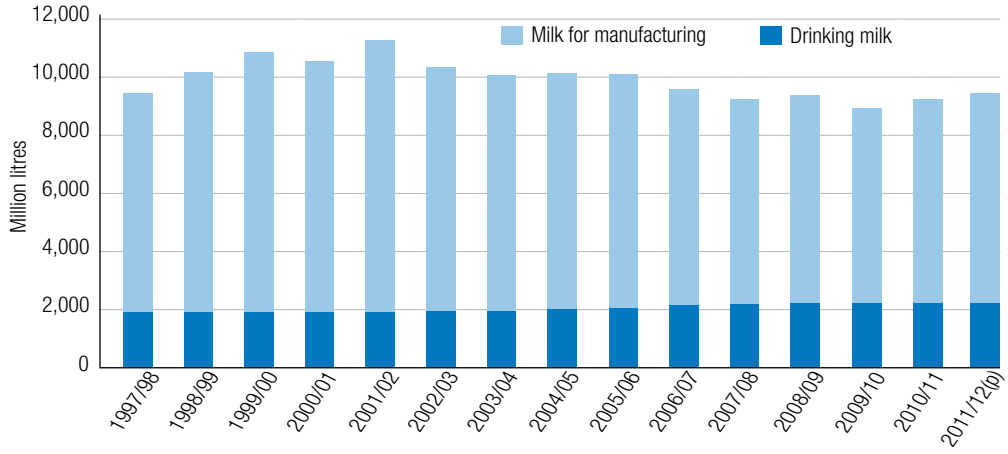
While total milk output has expanded in the last couple of years, strong growth in the volumes of milk going into the drinking milk sector has seen its share of total milk production increase from a low point of 17% in 2001/02—the year of peak milk production—to over 25% in the 2011/12 season. Conversely, the proportion of milk used for manufacturing dairy products, and hence available for export, has been steadily declining over the decade, as shown in Figure 14.

Table 8. Average protein/fat composition by state (%)

	NSW	VIC	QLD	SA	WA	TAS	AUST
Milkfat							
2005/06	3.91	4.08	4.00	3.88	3.91	4.29	4.05
2006/07	3.88	4.09	3.98	3.90	3.92	4.25	4.05
2007/08	3.97	4.14	4.01	3.95	3.95	4.20	4.10
2008/09	3.93	4.22	3.97	3.93	3.99	4.25	4.15
2009/10	3.97	4.20	4.05	4.05	3.91	4.34	4.15
2010/11	3.92	4.15	4.00	3.82	3.96	4.28	4.10
2011/12 (p)	3.90	4.08	4.00	3.85	3.86	4.25	4.05
Protein							
2005/06	3.25	3.33	3.33	3.25	3.15	3.37	3.31
2006/07	3.24	3.33	3.22	3.25	3.19	3.37	3.30
2007/08	3.25	3.34	3.25	3.25	3.19	3.39	3.32
2008/09	3.26	3.38	3.28	3.28	3.24	3.39	3.35
2009/10	3.27	3.35	3.33	3.27	3.20	3.41	3.34
2010/11	3.26	3.38	3.31	3.28	3.23	3.44	3.35
2011/12 (p)	3.28	3.36	3.31	3.27	3.16	3.44	3.34

Source: Dairy manufacturers

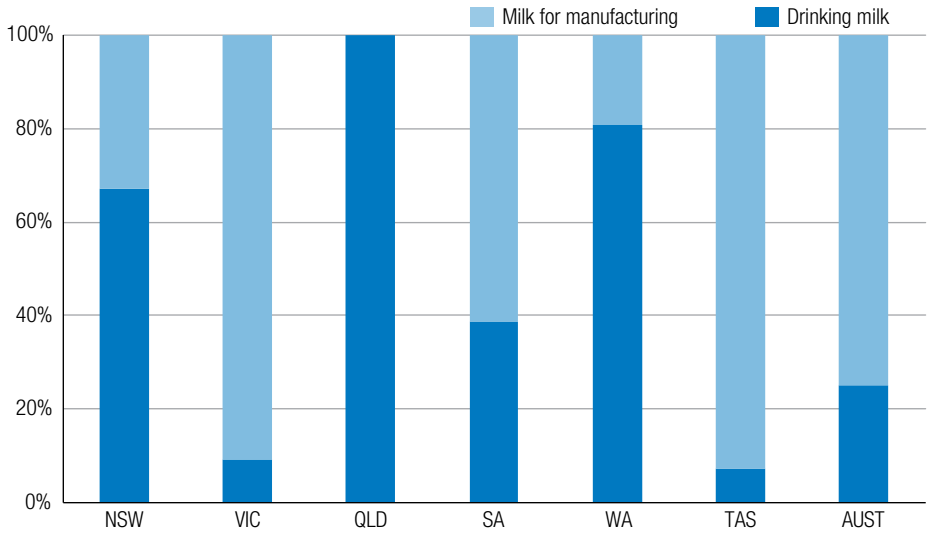
Figure 14. Drinking and manufacturing milk production (million litres)



Source: Dairy manufacturers

The differential in the proportion of drinking milk to manufacturing milk by state is shown in Figure 15. It graphically illustrates the much greater focus on drinking milk in the product mix of the dairying industries within Queensland, New South Wales and Western Australia.

Figure 15. Milk Production—shares by state, 2011/12



Source: Dairy manufacturers

Dairy manufacturing

As in the farm sector, the milk processing sector is undergoing continuing rationalisation. This has resulted in improved factory capacity, as larger operations have improved their efficiency and economies of scale. The lack of growth in milk production over the past decade has relieved the pressure on Australian dairy companies to continue to invest in increasing processing capacity—at least in the short to medium term. Instead, the challenge has been to remove surplus capacity and to utilise the existing capacity as profitably as possible.

The Australian dairy manufacturing sector is diverse and includes farmer-owned co-operatives, public, private and multinational companies.

Famer-owned co-operatives no longer dominate the industry and now account for 33% of Australia's milk production. The largest co-operative is Murray Goulburn accounting for over 30% of national milk output.

Other Australian dairy companies cover a diverse range of markets and products, from the publicly listed Warrnambool Cheese & Butter and Bega Cheese Limited (who now own both Tatura Milk Industries and De Cicco); to the privately owned Regal Cream (Bulla Dairy Foods), Burra Foods and Longwarry Food Park to name just a few; together with many highly specialised cheese manufacturers.

Large multi-national dairy companies have operated in the Australian dairy industry for many years and currently include Fonterra (New Zealand), Kirin (Japan) and Lactalis (France)—who took over Italy's Parmalat in mid-2011.

There were a number of changes in the ownership of dairy companies in the Australian industry during the 2011/12 season.

- Bega Cheese obtained shareholder approval and listed on the Australian stock exchange in August 2011 and acquired the remaining 30% of Tatura Milk Industries that they didn't previously own.
- Hastings Co-operative sold its Hastings Valley Dairy factory (in Wauchope) to Indian company Sungrow.
- Tasmanian Dairy Products (TDP) purchased the Gunns Ltd sawmill plant in Smithton in the north-west Tasmanian dairying region to develop into a milk processing plant to produce a range of milk powders for export. TDP is owned by a consortium of investors including Murray Goulburn (55%), Mitsubishi Japan (25%) and the original local dairy farmer investors (20%).
- Chinese company Bright Food purchased a 75% stake in Australian distributor Manassen Foods, owned by the Champ private equity group since 2006. Manassen distributes a range of local and imported cheese brands.
- United Dairy Power [UDP] acquired Lion—Dairy's Murray Bridge and Jervois cheese factories in South Australia.
- US yogurt company, Chobani, purchased Dandenong-based Bead Foods (Gippsland brand yogurt).
- Private equity group, Pacific Equity Partners, purchased the Peters ice cream business from Nestlé.

The major manufactured product streams are:

- drinking milk—fresh and UHT long-life;
- skim milk powder (SMP)/buttermilk powder (BMP)/butter;
- butter/casein;
- cheese;
- wholemilk powder (WMP);
- other consumer products, such as yogurts, custards and dairy desserts; and
- specialised ingredients, such as whey proteins, nutraceuticals, etc.

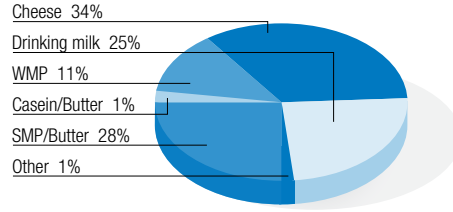
Cheese is consistently the major product stream; utilising around one third of Australia's milk production in 2011/12 and has remained around this level for a number of years.

Skim milk powder / butter and drinking milk production were the two next largest users of milk; each taking about a quarter of the total milk produced in Australia.

Around 60% of manufactured product (in milk equivalent terms) is exported and the remaining 40% is sold on the Australian market. This contrasts with drinking milk, where some 97% is consumed in the domestic market.

See Appendix 3 for more details on the manufacturing processes.

Figure 16. The utilisation of Australian milk in 2011/12



Source: Dairy Australia

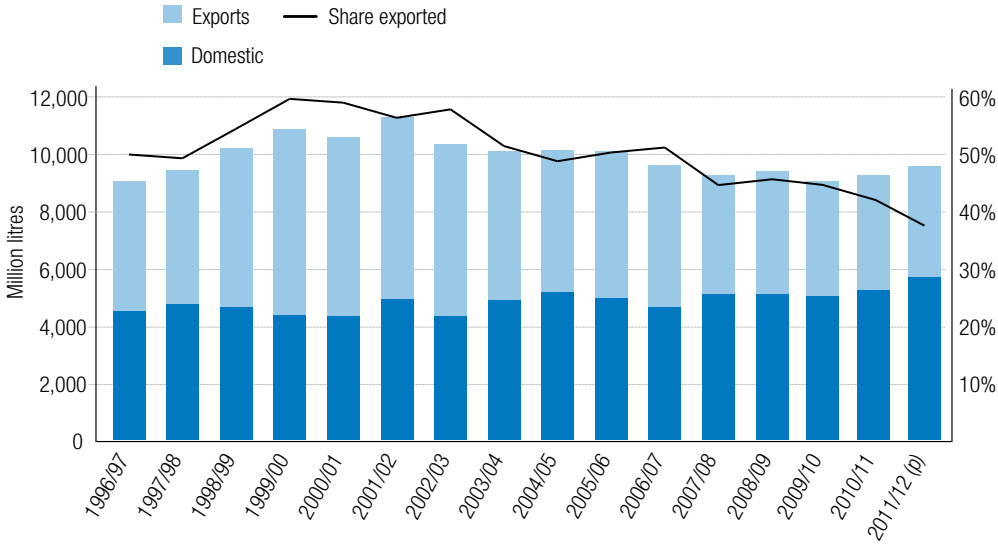
Dairy markets

Over the past two decades Australian milk production has been well above the volume required for domestic consumption, so that a significant proportion is destined for export markets. The share of total production exported has ranged from 40–60% over the period shown in Figure 17. Over recent years Australia has exported around 45% of its milk production—the lowest proportion since the mid-1990s, due to the reduced availability of product over these years—and this estimate dropped below 40% in 2011/12.

While Australia accounts for an estimated 2% of the world's milk production, it is a significant exporter of dairy products. Australia currently ranks fourth in terms of world dairy trade—with an 7% share—behind New Zealand, the European Union as a bloc and the United States.

Japan is the single most important export market for Australia, accounting for 19% of exports by value. Australian exports are concentrated in Asia, which represented 74% of the total dairy export value of A$2.76 billion in 2011/12.

Figure 17. Australian composition and exports (milk equivalents)



Source: Dairy manufacturers and ABS

Table 9. Australian dairy markets by product, 2011/12 (A$ million)

	Sth East Asia	Other Asia	Europe	Middle East	Africa	Americas	Other	Total
Butter/AMF	71	47	23	29	10	15	5	201
Cheese	104	534	11	54	18	9	18	749
Milk	42	48	0	5	1	0	17	113
SMP	238	137	3	77	7	3	9	474
WMP*	133	154	2	109	16	39	9	461
Other	228	296	18	72	2	38	104	758
Total	**816**	**1,216**	**57**	**347**	**54**	**105**	**162**	**2,757**

Source: Dairy Australia estimates and ABS

**Also includes infant powder*

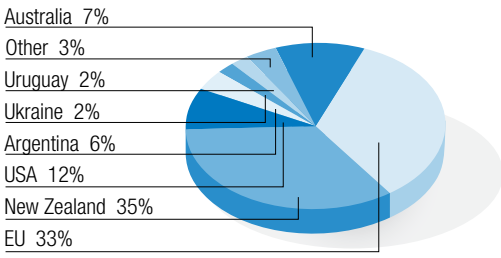
This concentration of exports in Asia/East Asia reflects both Australia's geographic proximity to these markets and the extent to which Australia has been excluded from other major markets by direct restrictions (as in the case of the European Union) or the impact of the export subsidy programs of major competitor countries.

Asian markets have considerable potential for consumption growth as incomes rise and diets become more 'westernised'. Australian dairy companies have proven track records in supplying these markets over a number of decades. The Middle East and the Americas are also becoming increasingly important markets for many Australian exporters.

Australia's top five export markets by both volume and value in 2011/12 were Japan, Greater China, Singapore, Indonesia and Malaysia. The fastest growing export market for Australia in recent years has been Greater China; which is made up of mainland China, Hong Kong and Macau.

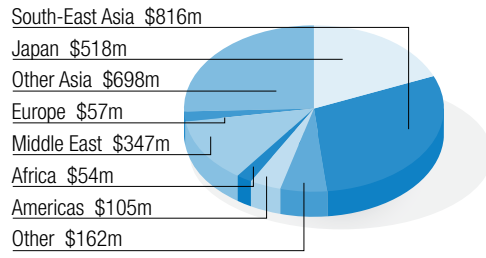
See Appendix 5 for detailed tables of Australia's export markets.

Figure 18. Exporters' share of world trade in 2011 (milk equivalents)



Source: Dairy Australia and ABS

Figure 19. Australian exports by region, 2011/12 (A$ million)



Source: ABS

Table 10. Top 10 Australian export destinations, 2011/12

Country	Volume—Tonnes	% of Total	Country	Value—A$ million	% of Total
Japan	114,709	15%	Japan	518	19%
Greater China*	108,895	14%	Greater China*	389	14%
Singapore	89,710	12%	Singapore	241	9%
Indonesia	47,849	6%	Indonesia	176	6%
Malaysia	46,787	6%	Malaysia	163	6%
Thailand	34,307	4%	New Zealand	127	5%
New Zealand	33,197	4%	Thailand	124	4%
Philippines	32,552	4%	South Korea	116	4%
South Korea	27,349	4%	United Arab Emirates	102	4%
United Arab Emirates	26,763	3%	Philippines	96	3%

Source: Dairy Australia and ABS

** includes China, Hong Kong and Macau*

Australian consumption of dairy products

The major Australian consumer dairy products are drinking milk, cheese, butter and butter blends, and yogurt.

Per capita consumption trends over the past two decades have varied quite significantly by individual product. These trends reflect changes in consumer tastes and preferences in response to a multitude of variables, such as multicultural influences on food trends, health perceptions around dairy products and manufacturers' responses (with low-fat variants), new product development, flavour and packaging innovations, competitive category offerings, and the distribution and hence availability of products.

Per capita consumption of drinking milk is currently estimated at around 106 litres, growing strongly over the last two years, and at very high levels compared to many countries—thanks in no small part to the expansion of the 'coffee culture' in Australia during the last decade.

Cheese consumption has stabilised in recent years at just over 13kg per person; as has the split between cheddar to non-cheddar varieties— with approximately 60% being cheddar types and the remaining 40% spread across the wide range of non-cheddar cheese varieties available in Australia.

Annual per capita consumption of butter in Australia is marginally below 4 kgs. The introduction of butter and vegetable oil based dairy blends in the early-1990's—which are easier to spread and lower in saturated fats—helped stabilise a long-term decline in butter sales. Consumers are also interested in the 'naturalness' of butter, together with its superior taste and cooking functionality.

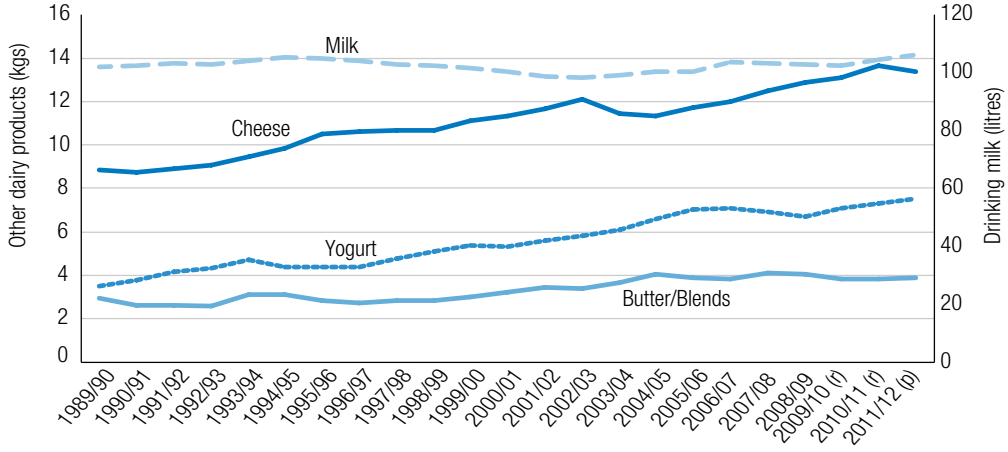
Yogurt is the ultimate 'healthy snack' for time-pressed consumers, combining both convenience and health attributes; with per capita consumption at over 7kg per year.

Table 11. Per capita consumption of major dairy products (litres/kg)

	Milk (lts)	Cheese (kgs)	Butter / Blends (kgs)	Yogurt (kgs)
2007/08	103.0	12.5	4.1	6.9
2008/09	102.6	12.9	4.0	6.7
2009/10 (r)	102.4	13.1	3.8	7.1
2010/11 (r)	104.4	13.7	3.9	7.3
2011/12 (p)	106.2	13.4	3.9	7.5

Source: Dairy manufacturers and Dairy Australia

Figure 20. Per capita consumption (litres/kg)



Source: Dairy manufacturers and Dairy Australia

Drinking Milk

Regular or full cream milk is standardised to a milkfat content of around 3.4 to 3.6%.

Modified, reduced and low-fat milks are standardised to other specifications, with varying milkfat and solids non-fat levels. The cream removed during standardisation can be bottled as table cream or manufactured into butter or other dairy products.

Australian milk consumption has been steadily shifting from regular milk to modified milks, such as reduced and low-fat milks, over many years. This trend reversed for a period during 2008, as consumers responded to rapidly increasing retail prices by switching to the relatively lower-priced regular full cream milks. Nevertheless, the long-term trend in this category resumed the following year with full cream white milk volumes again losing share in a growing market to settle marginally below 49% share of total drinking milk in 2011/12. The trends across the other segments were mixed; with total modified milks up 6% and fresh flavoured milks up 3% for the year; while UHT milk volumes were flat. The recent absence of growth in UHT milk, after a couple of years of strong growth, is thought to be due to the aggressive pricing of private label fresh milk products by the major supermarket chains down to the $1 per litre seen for UHT milk when on promotion.

There are now just two major players in the Australian drinking milk market: the enlarged Lion—Dairy & Drinks (formerly National Foods)—after their takeover of the Dairy Farmers Group in late-2008—(with the Pura and Dairy Farmers brands) and Parmalat (with the Pauls brand). Nevertheless, there are also a number of smaller players in the marketplace with strong regional brands and showing significant growth in recent years.

The supermarket channel's share of Australian drinking milk sales has continued to trend steadily up over recent years—to 52.7% in 2011/12. In late-January 2011 the supermarket channel saw an outbreak of 'milk price wars' as one of the major chains reduced its private label milk price to just $1 per litre. This was immediately followed by all major supermarket competitors and has led to further shifting of sales from convenience and other outlets to supermarkets.

Supermarket sales volumes grew by 3.5% in 2011/12; with the comparative sales performance between branded milks (-1.0%) and private label milks (+7.9%) delivering share growth to private label milks of 2.2% share points to 53.5%.

Table 12. Drinking milk sales by type (million litres)

	Regular	Reduced	No Fat	Flavoured	UHT	Total
1989/90	1,257	322		111	40	1,730
1999/00	1,099	498		173	164	1,933
2000/01	1,094	415	95	165	165	1,934
2001/02	1,074	435	105	170	140	1,924
2002/03	1,055	440	120	174	153	1,942
2003/04	1,057	462	118	190	154	1,981
2004/05	1,063	492	116	199	154	2,024
2005/06	1,093	488	124	201	155	2,061
2006/07	1,107	530	125	213	181	2,156
2007/08	1,119	551	123	213	183	2,188
2008/09	1,136	569	118	210	196	2,229
2009/10	1,133	590	119	215	211	2,269
2010/11	1,140	630	110	228	208	2,316
2011/12 (p)	1,163	675	108	235	208	2,389

Source: Milk processors and State Milk Authorities

While private label brands account now for 53.5% of total supermarket milk volumes, up from around 25% back in 1999/2000, market value is little changed over the last year. The average price of private label products is significantly less than company branded products; due to a combination of product and pack size mix—with a greater proportion of private label purchases being larger plastic bottles of regular full cream milk.

On the packaging front, plastic bottles now account for around 80% of all milk sales in supermarkets, with the balance split evenly between gable-top cartons and UHT packs.

There have been significant movements within the pack sizes bought by consumers in supermarkets over the last decade. While the 2-litre plastic bottle remains the most popular size, with 43% share, this is down from close to 50% nine years ago. Similarly, the combined share of 1-litre cartons and plastic bottles has slipped from 33% to 18%. The major change has been in the rapid growth of the 3-litre plastic bottle, increasing its share of all supermarket milk sales from 13% when it first appeared in June 1998, to around 33% currently.

In 2011/12, the average price of branded milk increased marginally from $2.11 to $2.13 per litre. When combined with a further 6% decrease (after a 9% decrease last year) in the average private label price down to $1.04 per litre, these developments delivered another fall in the average supermarket price of 5 cents per litre down to $1.55 per litre.

This has been due to the impact of price reductions since late-January 2011.

See Appendix 5 for more details of supermarket milk sales.

Australia exports relatively small volumes of milk—predominantly as UHT product—with over 85% of the total going into the Asian region and most of the balance into the island countries of the Pacific region.

See Appendix 6 for more details of drinking milk exports.

Table 13. Drinking milk sales by state (million litres)

	NSW	VIC	QLD	SA	WA	TAS	AUST
1979/80	531	437	249	127	119	41	1,504
1989/90	582	449	316	150	164	47	1,730
1999/00	597	440	383	185	190	48	1,933
2000/01	633	456	393	201	201	50	1,934
2001/02	625	460	403	186	200	50	1,924
2002/03	620	475	404	183	208	52	1,942
2003/04	627	476	418	196	212	52	1,981
2004/05	641	486	429	200	215	53	2,024
2005/06	660	499	444	192	216	50	2,061
2006/07	692	510	474	201	226	53	2,156
2007/08	682	524	485	205	237	55	2,188
2008/09	696	533	495	208	241	56	2,229
2009/10	709	545	499	213	247	57	2,269
2010/11	716	566	502	213	262	57	2,316
2011/12 (p)	729	581	528	220	273	58	2,389

State figures exclude interstate traded milk prior to 2001, NSW includes ACT after June 2000.

Source: Milk processors and State Milk Authorities

Cheese

Australia produced 340,300 tonnes of cheese in 2011/12—a marginal increase of 0.5% on the previous year. Production volumes are significantly less than earlier in the decade as the availability of milk trended downward since that time. Another factor in more recent years, as milk production has stabilised, has been the impact of dairy companies opportunistically changing their export product mixes to take advantage of favourable movements in international dairy commodity prices.

In the latest 2011/12 season, production of cheddar cheeses increased for the first time in four years; with little change in the non-cheddar varieties.

There has been a long term trend in production away from cheddar cheeses and toward non-cheddar cheese types. The non-cheddar share of total production volumes has steadily increased from 30% three decades ago, to 45% a decade ago, to around 55% in recent years.

Cheese is a major product for the Australian dairy industry; with sales of around 224,500 tonnes of domestic product within Australia, valued at an estimated A$1.7 billion; and export sales of a further 161,000 tonnes, worth A$761 million in 2011/12.

It is estimated that around 53% of the domestic sales of Australian cheese are through the major supermarket chains. Consequently, a significant proportion—of predominantly specialty cheeses— are sold through the smaller independent retail trade made up of delicatessens and specialty food stores; with the remainder used in the foodservice sector and in food processing applications.

Sales volumes through the supermarket channel decreased marginally in 2011/12 by around 0.5%.

However, retail sales values did increase by 1.5%, implying that average retail prices increased around 2% over the year.

Imports accounted for an estimated 25% of the Australian cheese market. In 2011/12, 61% of the 76,250 tonnes of cheese imported into Australia was sourced from New Zealand. The bulk of the remaining cheese imports came from the United States and Europe.

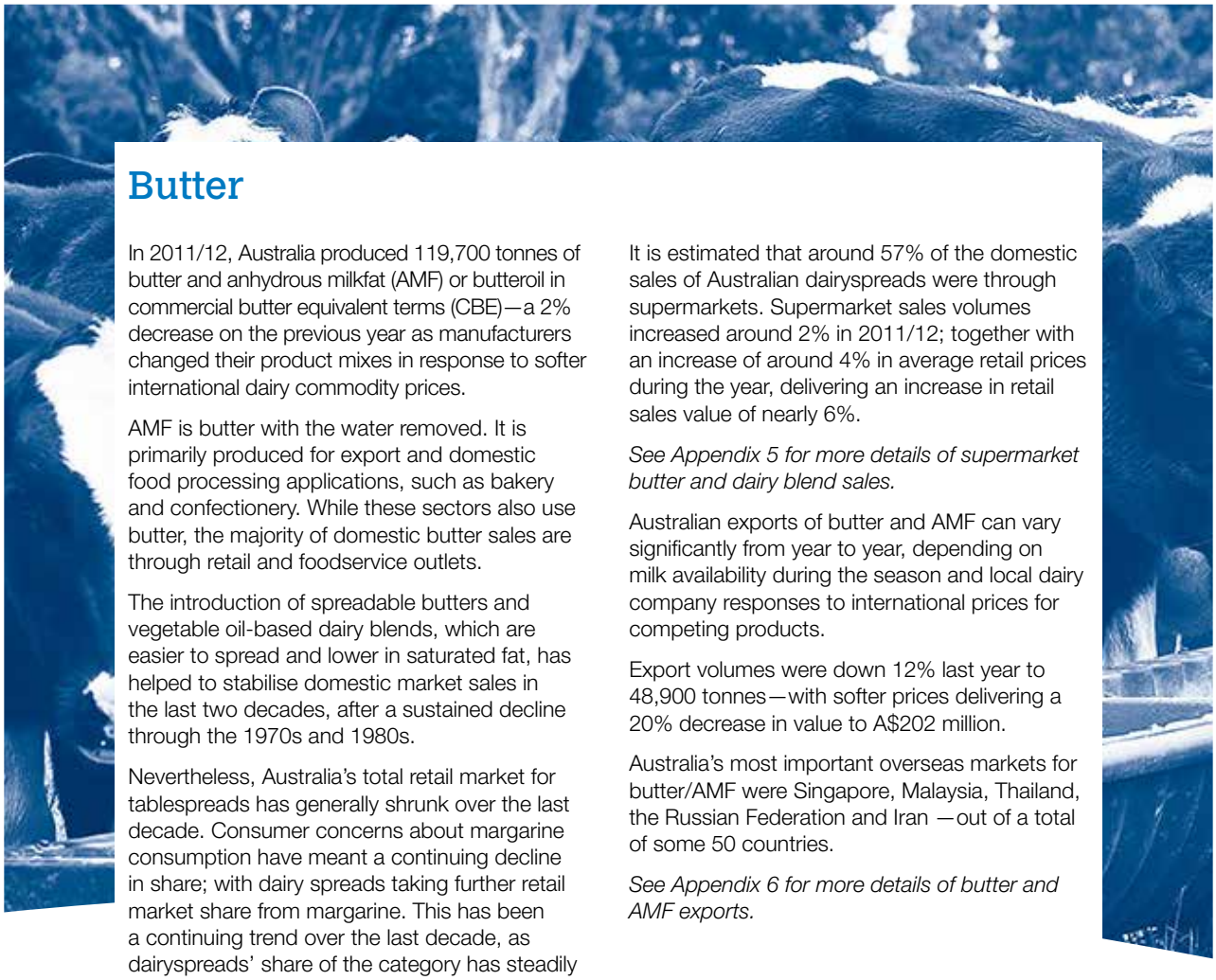
Japan remained Australia's most important overseas cheese market in 2011/12 and accounted for nearly 60% of product exports—lifting from 50% last year; followed by China, South Korea, Malaysia and Singapore. Australian cheeses were exported to nearly 60 countries around the world last year.

The long-term trend away from cheddar cheeses and toward non-cheddar cheese types is also evident in Australia's cheese exports; with the non-cheddar share of total export sales steadily increasing from around 60% two decades ago, to just over 70% in recent years.

Table 14. Australian cheese production by type of cheese

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12 (p)
Cheddar	179,159	171,260	178,360	164,218	154,720	160,568
Semi hard	75,529	73,854	61,659	82,494	68,176	66,898
Hard grating	18,477	16,908	17,924	12,215	13,590	13,866
Fresh	84,443	90,934	75,430	81,682	95,418	93,966
Mould	6,030	7,966	8,915	8,663	6,736	5,042
Total cheese	**363,638**	**360,922**	**342,288**	**349,271**	**338,640**	**340,340**

Source: Dairy manufacturers



Butter

In 2011/12, Australia produced 119,700 tonnes of butter and anhydrous milkfat (AMF) or butteroil in commercial butter equivalent terms (CBE)—a 2% decrease on the previous year as manufacturers changed their product mixes in response to softer international dairy commodity prices.

AMF is butter with the water removed. It is primarily produced for export and domestic food processing applications, such as bakery and confectionery. While these sectors also use butter, the majority of domestic butter sales are through retail and foodservice outlets.

The introduction of spreadable butters and vegetable oil-based dairy blends, which are easier to spread and lower in saturated fat, has helped to stabilise domestic market sales in the last two decades, after a sustained decline through the 1970s and 1980s.

Nevertheless, Australia's total retail market for tablespreads has generally shrunk over the last decade. Consumer concerns about margarine consumption have meant a continuing decline in share; with dairy spreads taking further retail market share from margarine. This has been a continuing trend over the last decade, as dairyspreads' share of the category has steadily increased from 30% in 2000/01 to approach 45% in recent years.

It is estimated that around 57% of the domestic sales of Australian dairyspreads were through supermarkets. Supermarket sales volumes increased around 2% in 2011/12; together with an increase of around 4% in average retail prices during the year, delivering an increase in retail sales value of nearly 6%.

See Appendix 5 for more details of supermarket butter and dairy blend sales.

Australian exports of butter and AMF can vary significantly from year to year, depending on milk availability during the season and local dairy company responses to international prices for competing products.

Export volumes were down 12% last year to 48,900 tonnes—with softer prices delivering a 20% decrease in value to A$202 million.

Australia's most important overseas markets for butter/AMF were Singapore, Malaysia, Thailand, the Russian Federation and Iran —out of a total of some 50 countries.

See Appendix 6 for more details of butter and AMF exports.

Table 15. Butter and AMF production (tonnes)

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12 (p)
Butter/Butter Blends (CBE)	101,666	99,202	109,753	100,134	96,326	100,551
AMF (CBE)	31,434	28,416	38,742	28,245	26,160	19,164

Source: Dairy manufacturers

Table 16. Australian exports of butter and AMF (tonnes)

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12 (p)
Butter	44,279	34,636	43,968	41,691	33,403	33,844
AMF (CBE)	36,689	22,516	26,529	31,995	22,440	15,040

Source: Dairy Australia & ABS

Other fresh and frozen dairy products

Australian manufacturers produce a range of fresh dairy products, including yogurts, dairy desserts, chilled custards and creams, dairy dips and frozen products such as ice-cream. To cater for the health concerns of modern consumers—a major driver in food choices—the majority of dairy products are available in low fat formulations.

Yogurts have been a category of considerable growth for the dairy industry over the past two decades, due to their ability to meet consumer requirements for convenient, healthy snacks in an environment of time-poor lifestyles. The segment is dominated by strong international brands, such as Ski, Yoplait and Nestlé. The French Danone brand re-entered the local market in 2010/11 and the US Chobani brand in 2011/12.

Growth in yogurt sales has been underpinned by regular product innovation in the areas of packaging, flavour combinations and the use of probiotic cultures, as well as new products, such as drinking yogurts.

Marketing support in terms of advertising new product ranges and flavour innovations is important in encouraging consumer trial and subsequent category growth.

Dairy desserts are a low volume/high value dairy category with slowly declining volumes in recent years. Marketed as an indulgence or treat item, these products are generally targeted to adult consumers and include mousses, crème caramels and fromage frais. Children's products include fromage frais and flavoured custards that often feature popular cartoon characters on-pack.

Chilled custards, a traditional favourite, have shown marginal growth in recent years as manufacturers have expanded their product offerings into small, snack-sized single-serve plastic cups sold in multi-packs.

The overall market for cream has declined in recent years—although recent economic uncertainty has seen more people preparing meals at home and hence supporting sales. Regular and sour creams are both used extensively as accompaniments or ingredients, but are facing significant competition on the health front, often from other dairy products, such as natural yogurt.

See Appendix 4 for more details on cream, custard and dairy dessert sales.

Dairy dips are another low volume / high value dairy category; this one showing steady volume growth in recent years. Flavour innovations have been particularly successful in maintaining the consumer appeal of another traditional favourite in the dairy case.

Australia's consumption of ice-cream is relatively high by world standards—around 18 litres per head and third only to New Zealand and the United States. The market is stable in volume terms, if highly seasonal in certain stick line, or single serve, segments.

The major market development in recent years has been in premium indulgent treats, in both stick lines and smaller-sized take-home tubs. Refreshing fruit-based products are also popular with consumers seeking a healthy option within the category.

Nevertheless, sales of larger tubs (2-litre or greater) and multi-packs of stick lines continue to make up the majority of sales in supermarkets, while mid-range stick lines and ice-cream cones are the major volume products in the route trade.

Once again, strong international brands, such as Streets (from Unilever), Peters (from Nestlé—now Pacific Equity Partners) and Cadbury (from Kraft) dominate the category.

Milk powders

Australian manufacturers produce a range of milk powders. The technology used in both the production and use of powders has seen the range of specifications available from Australian manufacturers expand in line with customers' needs.

In the years up until the peak milk production season of 2001/02, the most obvious trend in milk powder production was a steady increase in the share of wholemilk powder (WMP) output—from a low of 25% in the early-to-mid 1980s to a peak of 50% share of all milk powders produced in Australia in 2001/02. Thereafter the trend has reversed again, with skim milk powder (SMP) production regaining share to make up some 60% of total milk powder production in the last few seasons.

As has been mentioned elsewhere, the limited availability of milk during the first half of the last decade and a stabilisation of milk production volumes in recent years has seen local dairy companies opportunistically changing their product mixes to take advantage of the relative movements in international dairy commodity prices. This happens because the bulk of Australia's milk powder production volumes are sold into export markets.

Table 17. Australian production of milk powders (tonnes)

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12 (p)
Skim milk powder	191,475	164,315	212,030	190,233	222,484	230,286
Wholemilk powder*	135,364	141,974	147,544	126,024	151,269	140,424

** includes infant powders*
Source: Dairy manufacturers

Table 18. Australian exports of skim milk powder by region (tonnes)

	2006/07	2007/08	2008/09	2009/10	2010/11 (r)	2011/12 (p)
Asia	126,793	92,590	127,699	100,669	124,176	111,486
Middle East	19,878	22,010	20,906	17,829	21,496	23,529
Africa	6,023	2,353	6,180	1,462	2,307	2,083
Pacific	1,258	509	514	3,957	4,385	2,612
Americas	5,266	1,983	6,257	1,462	1,461	889
Europe	1,111	313	525	244	1,510	810
Others	0	0	0	0	0	0
Total	**160,329**	**119,758**	**162,081**	**125,623**	**155,335**	**141,409**

Source: Dairy Australia & ABS

Table 19. Australian exports of wholemilk powder by region (tonnes)*

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12 (p)
Asia	99,840	90,208	102,025	80,271	84,468	68,067
Middle East	18,499	12,151	30,889	17,180	21,329	31,619
Africa	10,069	9,504	13,221	6,867	9,344	4,629
Pacific	3,474	2,759	2,330	2,226	1,447	1,617
Americas	11,111	10,327	9,548	10,001	8,458	9,782
Europe	450	198	20	204	807	429
Others	0	0	0	0	0	0
Total	**143,443**	**125,147**	**158,033**	**116,749**	**125,855**	**116,143**

**Includes infant powders*
Source: Dairy Australia & ABS

Only about 25% of Australia's powder production is sold domestically; with local usage mainly as a food ingredient and retail outlets accounting for only a small percentage of domestic sales.

Differential changes in international prices saw a production mix change in 2011/12 as skim milk powder production increased by 4%, while wholemilk powder volumes decreased by 7%.

Exported milk powder is often recombined into liquid milk products, particularly in tropical climates where fresh milk supplies are not available. It is also used in bakery products (improving the volume and binding capacity of bread, and ensuring crisper pastry and biscuits), confectionery and milk chocolates, processed meats, ready-to-cook meals, baby foods, ice-cream, yogurt, health foods and reduced-fat milks. Industrial-grade powder is used for animal fodder.

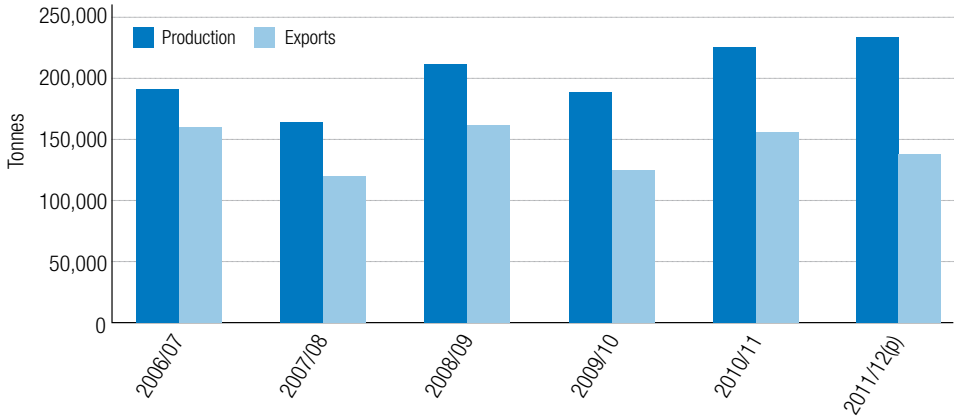
The major export markets for Australian milk powders are concentrated in Asia; with nearly 80% of SMP export volumes and almost 60% of WMP destined for the region in 2011/12. The Middle East is a growing market; now taking over 20% of Australia's milk powder exports.

See Appendix 6 for more details on milk powder exports.

Indonesia was the largest single export market for Australian-produced SMP in 2011/12, followed by Singapore, China, Malaysia and the Philippines— out of some 45 export destinations.

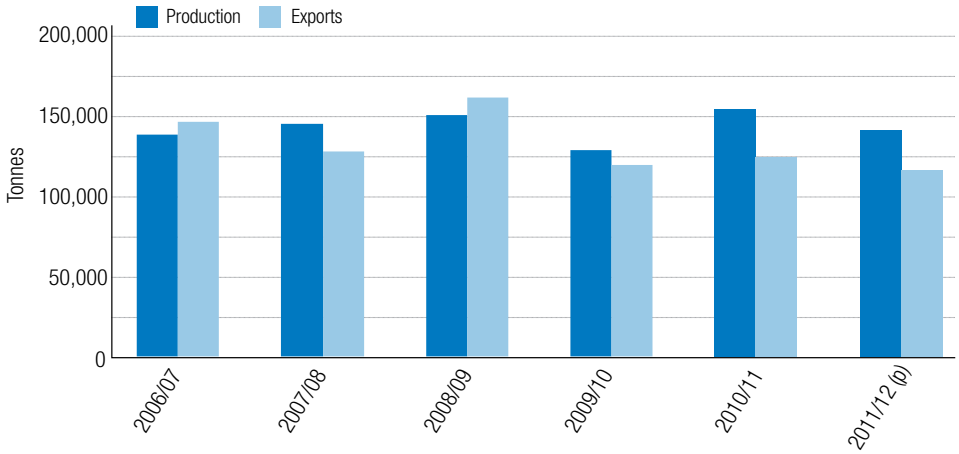
Singapore was the largest single export market for Australian-produced WMP, followed by Oman, Sri Lanka, Indonesia and Saudi Arabia— out of a total of 70 export destinations.

Figure 21. Australian production and exports of skim milk powder (tonnes)



Source: Dairy manufacturers and ABS

Figure 22. Australian production and exports of wholemilk powder (tonnes)



Source: Dairy manufacturers and ABS

Whey products and casein

Whey is a by-product of the cheese making process. Traditionally this product was disposed of in liquid form. However, recognition of the value of whey's components has seen the production and utilisation of whey powders and protein concentrates increase significantly in recent years.

Food-grade whey powder is used in the manufacture of ice-cream, bakery products (cakes, biscuits), chocolate flavouring, infant formula, yogurt, beverages and processed meat. Industrial uses include animal feed (for pigs, horses and poultry), calf milk replacer and even as a carrier for herbicides.

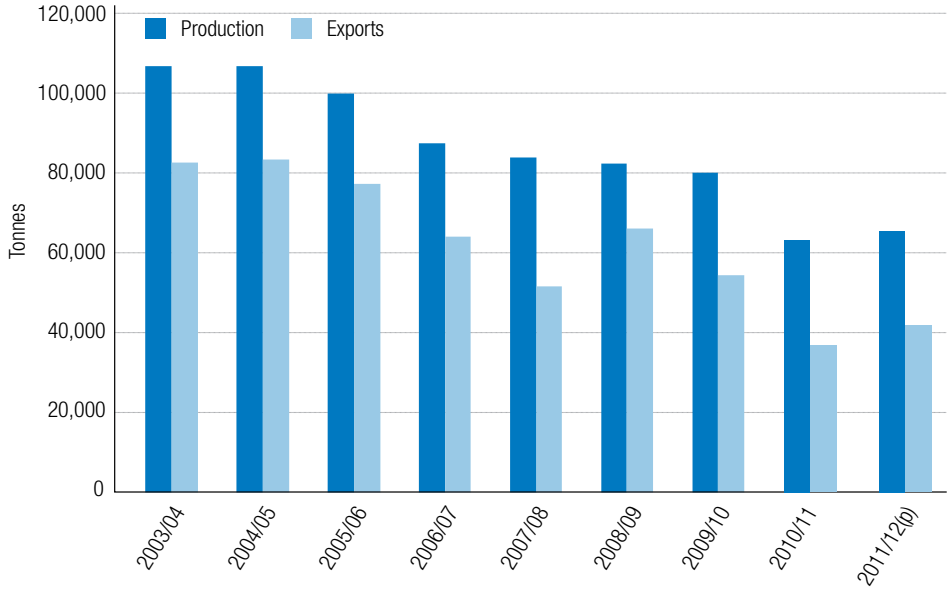
Whey protein concentrates are used in snack foods, juices, confectionery, ice-cream, biscuits, processed meats, (milk) protein drinks, desserts, infant foods and dietetic products. Products such as cosmetics, skin creams, bath salts and detergents also contain protein concentrates.

Nearly 40% of Australia's whey production is used domestically in the manufacture of infant formula, biscuits and ice-cream. The remainder is exported; with China, Indonesia, Thailand, Malaysia and Japan being the largest export markets for Australian whey powders in 2011/12.

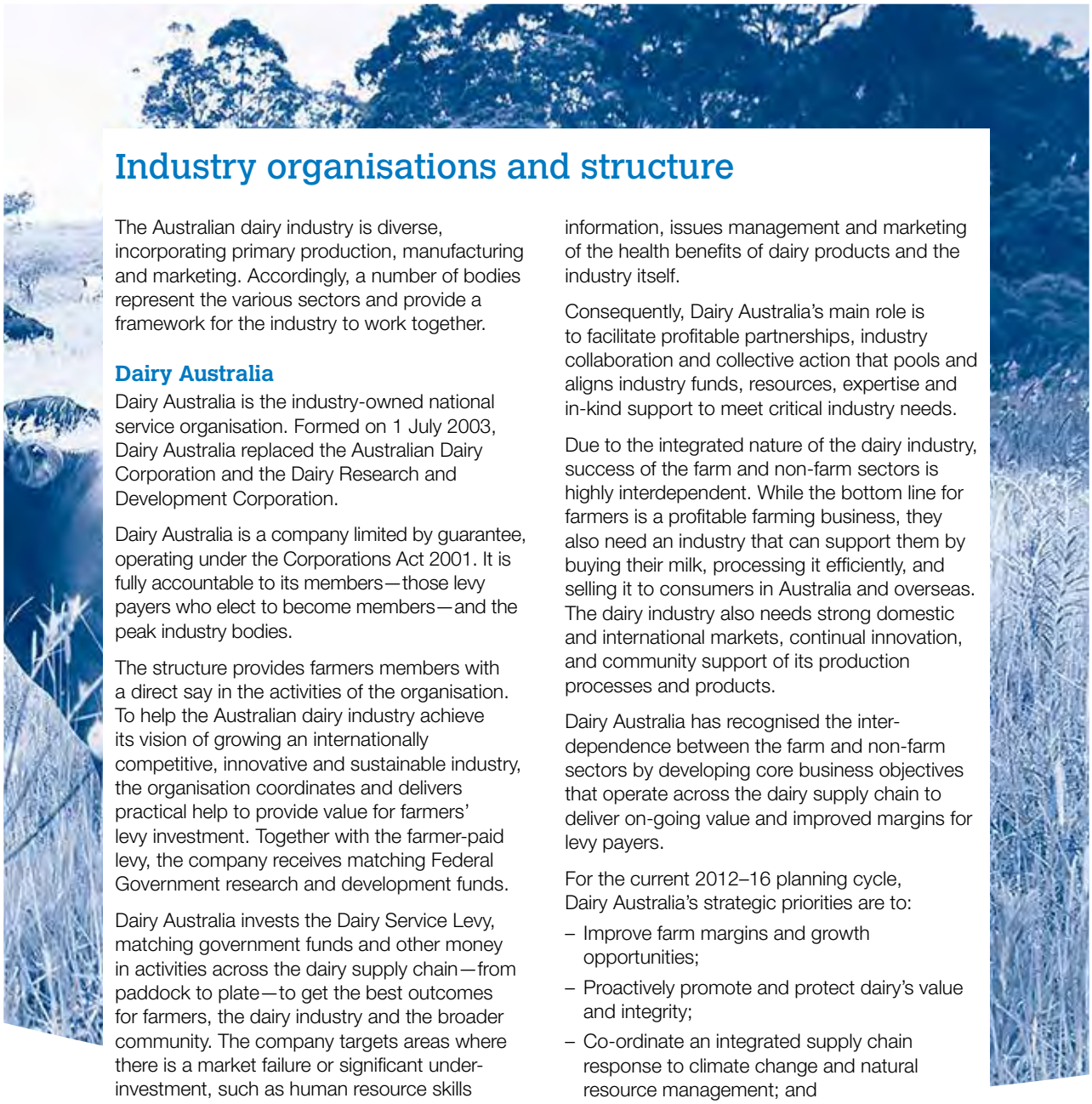
Casein and caseinates are ingredients in noodles, chocolate, sweets, mayonnaise, ice-cream and cheese manufacture. They are used as binding ingredients, emulsifiers and milk substitutes in processed foods. Industrial uses of casein and caseinates include: plastics (buttons, knitting needles); the manufacture of synthetic fibres and chemicals (plants, glues, glazed paper, putty and cosmetics); as a reinforcing agent and stabiliser for rubber in automobile tyres; a nutritional supplement and binder in calf milk replacers; and a range of other technical applications.

The majority of Australia's production of casein and caseinates is for export markets. Japan and the United States have been the largest export markets in recent years.

Figure 23. Production and exports of whey products (tonnes)



Source: Dairy manufacturers and ABS



Industry organisations and structure

The Australian dairy industry is diverse, incorporating primary production, manufacturing and marketing. Accordingly, a number of bodies represent the various sectors and provide a framework for the industry to work together.

Dairy Australia

Dairy Australia is the industry-owned national service organisation. Formed on 1 July 2003, Dairy Australia replaced the Australian Dairy Corporation and the Dairy Research and Development Corporation.

Dairy Australia is a company limited by guarantee, operating under the Corporations Act 2001. It is fully accountable to its members—those levy payers who elect to become members—and the peak industry bodies.

The structure provides farmers members with a direct say in the activities of the organisation. To help the Australian dairy industry achieve its vision of growing an internationally competitive, innovative and sustainable industry, the organisation coordinates and delivers practical help to provide value for farmers' levy investment. Together with the farmer-paid levy, the company receives matching Federal Government research and development funds.

Dairy Australia invests the Dairy Service Levy, matching government funds and other money in activities across the dairy supply chain—from paddock to plate—to get the best outcomes for farmers, the dairy industry and the broader community. The company targets areas where there is a market failure or significant under-investment, such as human resource skills for retaining and developing staff, research, development and extension, trade policy, information, issues management and marketing of the health benefits of dairy products and the industry itself.

Consequently, Dairy Australia's main role is to facilitate profitable partnerships, industry collaboration and collective action that pools and aligns industry funds, resources, expertise and in-kind support to meet critical industry needs.

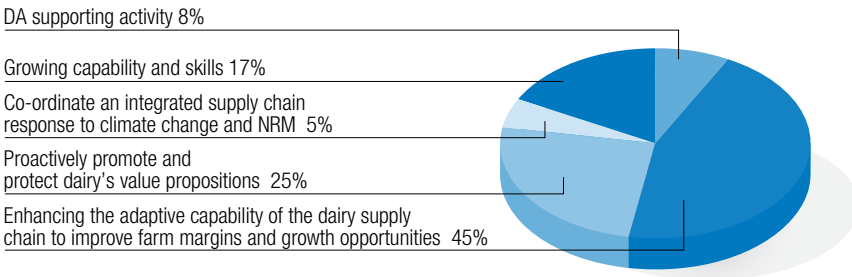
Due to the integrated nature of the dairy industry, success of the farm and non-farm sectors is highly interdependent. While the bottom line for farmers is a profitable farming business, they also need an industry that can support them by buying their milk, processing it efficiently, and selling it to consumers in Australia and overseas. The dairy industry also needs strong domestic and international markets, continual innovation, and community support of its production processes and products.

Dairy Australia has recognised the inter-dependence between the farm and non-farm sectors by developing core business objectives that operate across the dairy supply chain to deliver on-going value and improved margins for levy payers.

For the current 2012–16 planning cycle, Dairy Australia's strategic priorities are to:

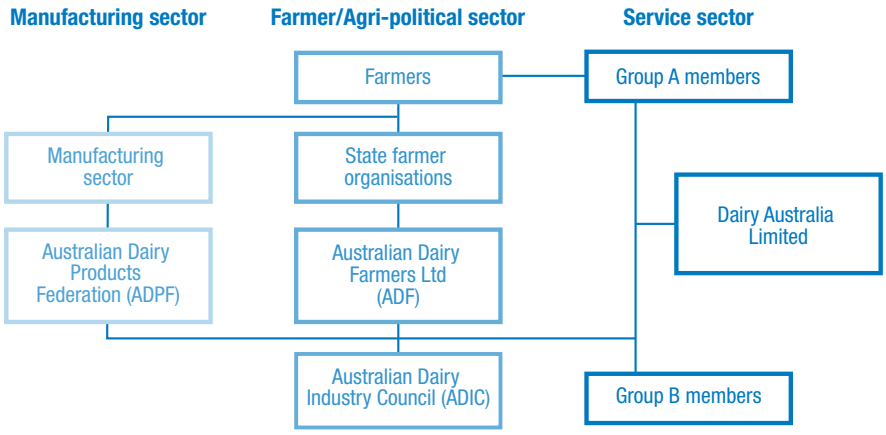
- Improve farm margins and growth opportunities;
- Proactively promote and protect dairy's value and integrity;
- Co-ordinate an integrated supply chain response to climate change and natural resource management; and
- Grow skills and capability.

Figure 24. Dairy Australia's planned expenditure by strategic priorities for 2012 to 2016



Source: Dairy Australia Strategic Plan 2012–16

Figure 25. Australian dairy industry organisations



The organisation prepares an annual rolling five-year Strategic Plan. The current plan can be downloaded from www.dairyaustralia.com.au.

Australian Dairy Industry Council

The Australian Dairy Industry Council (ADIC) is the dairy industry's peak policy body. It coordinates industry policy and represents all sectors of the industry on national and international issues.

The ADIC represents farmers, dairy product manufacturers and milk processors through its constituent organisations:

- Australian Dairy Farmers Limited; and
- Australian Dairy Products Federation.

The ADIC has the task of bringing these bodies together to form a united view on issues affecting the dairy industry.

Australian Dairy Farmers Limited

Australian Dairy Farmers Limited (ADF) provides national representation for dairy farmers and forms the dairy commodity council of the National Farmers' Federation.

The organisation has recently undergone a significant restructure, delivering the opportunity for individual farmers to become members of the ADF. More information on this aspect, together with details of a smaller governing board of directors focused on strategy and oversight of ADF operations through a set of Policy Advisory Groups is available from www.australiandairyfarmers.com.au

Its members include the state dairy farmer organisations of:

- Queensland Dairyfarmers' Organisation (QDO);
- New South Wales Farmers Association (NSWFA) Dairy Committee;
- Victorian Farmers Federation (VFF) through the United Dairyfarmers of Victoria (UDV);
- Western Australian Farmers' Federation's Dairy Council (WAFF); and
- Tasmanian Farmers and Graziers Association's Dairy Council (TFGA).

Other state industry organisations include the South Australian Dairyfarmers' Association (SADA) and Dairy Connect NSW.

Australian Dairy Products Federation

The Australian Dairy Products Federation (ADPF) is the national organisation representing the interests of dairy product manufacturers and traders. The ADPF's primary purpose is to promote the interests of its members, and the dairy industry in general, to the Australian and State Governments and other sectors of the community.

State dairy regulatory authorities

State dairy regulatory authorities are statutory authorities established under State legislation.

They are responsible for all regulatory matters relating to the safety of milk and dairy foods produced and manufactured in their state.

The relevant State dairy and food regulatory authorities are:

- New South Wales Food Authority;
- Safe Food Production Queensland;
- Dairy Authority of South Australia;
- Tasmanian Dairy Industry Authority;
- Dairy Food Safety Victoria;
- Health Department of Western Australia; and
- Territory Health Services.

The Australia New Zealand Dairy Authorities Committee (ANZDAC), with representatives from each state food safety organisation, AQIS, FSANZ and the New Zealand Food Safety Authority, aims to achieve greater uniformity and consistency in the application of dairy legislation, standards and management practices across Australia and with New Zealand.

Industry levies

Dairy Services

Dairy Australia is funded by farmer-paid levies that are imposed on the fat and protein content of all milk produced in Australia.

The Australian Government matches expenditure on the industry's research and development activities that meet established criteria.

All Australian dairy farmers had the opportunity to participate, by mail, in the Dairy Services Poll 2012 conducted during February and March 2012. There was a valid return of 51% of the available number of votes which was an encouraging voter turnout that compared favourably to voter numbers in similar polls carried out by other Rural Development Corporations. Some 60% of votes were cast in favour of increasing the Dairy Service Levy by 10%—with the remaining 40% voting for the 'no levy' option. While the 'no levy' vote was high, many of these votes were protest votes at there being no 'maintain the existing levy' option on the ballot paper.

Animal Health Australia

Australian dairy farmers also contribute to the funding of Animal Health Australia (AHA), as do farmers in all other livestock industries. AHA is a non-profit public company limited by guarantee. Members include the Australian, state and territory governments, and key commodity and interest groups. AHA's task is to facilitate partnerships between governments and livestock industries, and provide a national approach to animal health systems. The Animal Health Levy is the dairy industry's contribution to AHA programs.

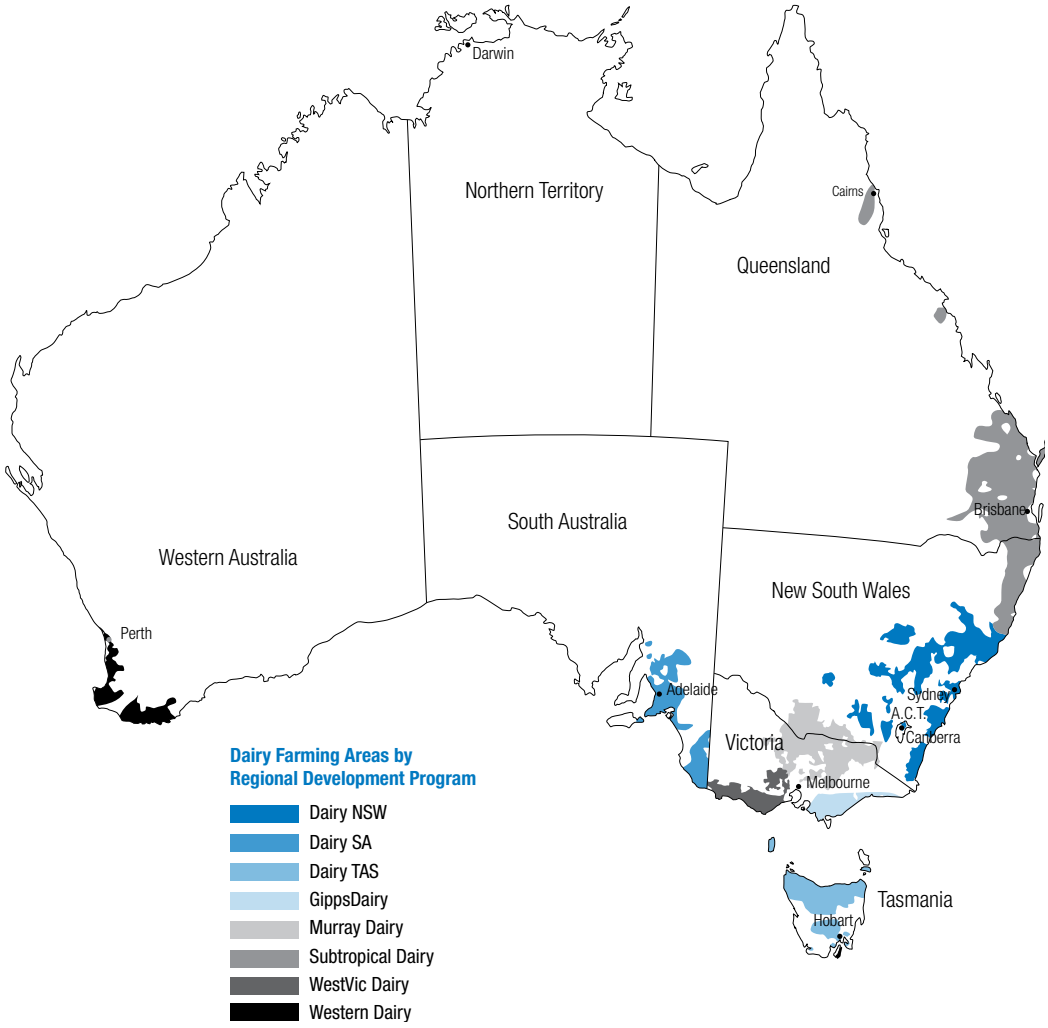
Table 20. Average rate of milk levies for 2012/13

	Milkfat (cents/kg)	**Protein** (cents/kg)	**Milk*** (cents/litre)	**Milksolids** (cents/kg)
Animal Health	0.0373	0.0880	0.004	0.06
Dairy Services	2.8683	6.9914	0.350	4.73

** Based on average 2011/12 Australian milk composition of 4.05% milkfat and 3.34% protein*

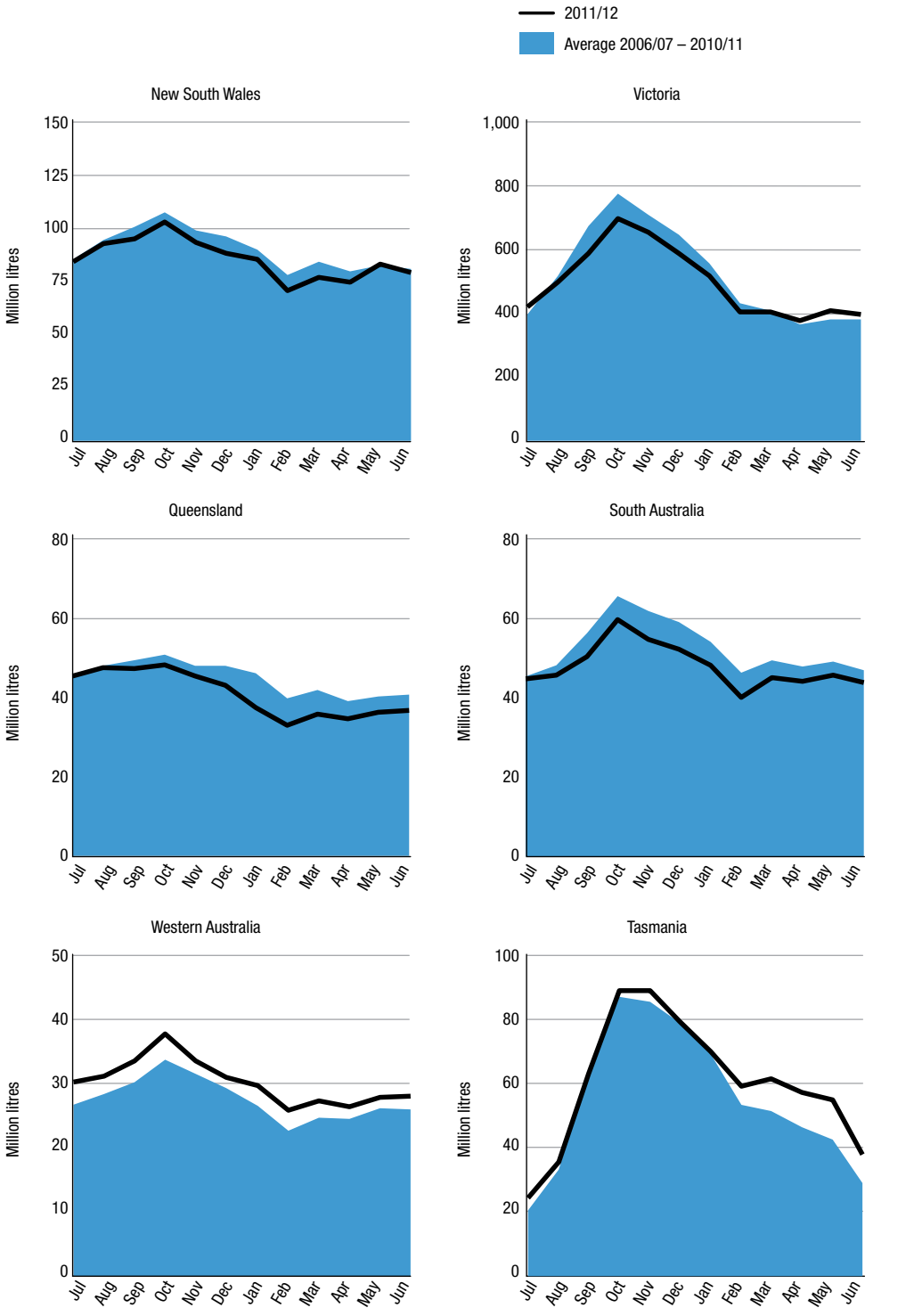
Appendices

Appendix 1. Dairying regions



Appendix 2. Milk production

Figure A1. Seasonality of milk production (million litres)



Source: Dairy manufacturers

Appendix 3. Manufacturing processes

The milkfat and solids contained in manufacturing milk can be used to produce a wide variety of dairy products. There are four major production processes. The first two are for butter / skim milk powder production and butter / casein production which are joint product processes. The other two are whole milk powder production and cheese production. Furthermore, for each of these separate product lines, other dairy products can be made from the residual milk components.

The first step in making butter is to separate whole milk into cream and skim milk. The liquid skim milk is evaporated and spray dried to produce skim milk powder (SMP). The cream is churned until the fat globules form into solid butter, and leaving a liquid by-product, buttermilk. This liquid can be dried to make buttermilk powder (BMP).

There are various ways of making casein. A common method is to set the skim milk by mixing with acid to produce curd. The curd is shaken to remove large clumps. The remaining liquid whey by-product is removed and the curd is repeatedly rinsed in water and then drained. Excess moisture is extracted by pressing the curd. It is then milled and dried. The curd is broken down to particle size by grinding it and passing it through a sieve.

Whole milk powder (WMP) is made by evaporating milk that has had some of the cream removed. The evaporated milk is concentrated and dried either by roller or spray process to form a powder. Spray drying is more commonly used and involves spraying a fine mist of concentrated milk into a current of hot air to form granules of powder. The granules can be treated with steam to “instantise” the powder and make it easier to reconstitute into milk.

Cheese production techniques vary substantially. To make cheddar cheese, some of the cream is removed from the pasteurised milk. Starter culture is added to the milk to produce both acid and flavour. Then rennet is added to form curd and whey. The curd is cut, heated and stirred to allow the whey to drain. A process called cheddaring then takes place, and involves the curd being allowed to mat together, before it is milled, salted, pressed and packed. The cheese is stored to develop the desired maturity and flavour. The longer it is stored, the stronger the flavour. Mild cheddar is matured for about three months, semi-matured cheddar for three to six months and mature or tasty cheddar for up to a year.

The liquid whey extracted during cheese manufacture contains protein, lactose and a little fat. It can be dried to make products for pharmaceutical purposes, as a useful supplement in stock feed, and in the manufacture of ice-cream.

The cream from standardisation of milk for wholemilk powder, casein and cheddar production can be used to make butter and BMP.

Table A1. Product composition

	% fat	%SNF
Skim milk powder	1.0	94.5
Butter	80.5	2.0
Ghee	99.6	0.1
Casein	1.5	88.5
Wholemilk powder	26.0	70.4
Cheddar cheese	33.0	31.0
Gouda	31.5	23.5
Edam	21.2	31.8
Parmesan	21.8	46.2
Cottage cheese	4.0	16.0
Brie	25.0	25.0
Mozzarella	23.1	30.9

Figure A2. Product yield from 10,000 litres of milk 2011/12

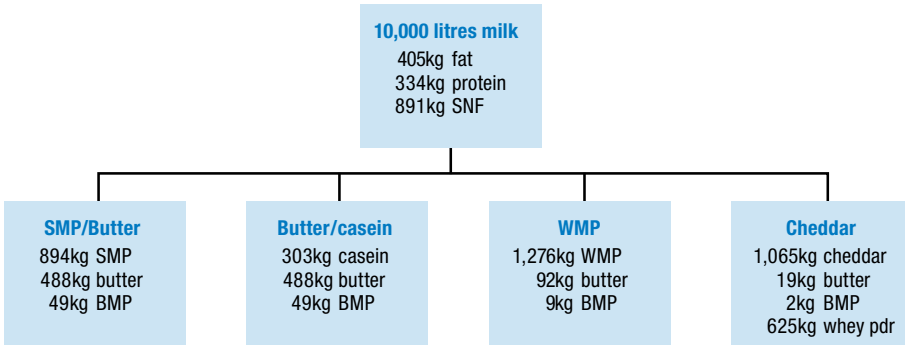


Table A2. Australian cheese production by state (tonnes)

	NSW	VIC	QLD	SA	WA	TAS	AUST
1989/90	14,198	103,216	12,842	22,774	4,129	18,172	175,331
1999/00	26,441	239,029	26,011	40,782	7,680	33,399	373,342
2000/01	23,443	257,006	22,672	33,541	7,305	32,510	376,477
2001/02	24,836	285,239	24,618	36,120	8,473	32,776	412,063
2002/03	22,686	259,399	22,569	28,364	8,411	37,538	378,966
2003/04	19,748	268,433	23,520	26,463	8,481	37,117	383,762
2004/05	22,453	270,651	18,447	33,562	7,357	35,880	388,350
2005/06	21,140	268,925	7,308	31,394	6,411	37,638	372,816
2006/07	22,690	266,102	4,542	29,503	2,618	38,183	363,638
2007/08	24,591	268,206	2,888	18,350	2,547	44,340	360,922
2008/09 (r)	26,584	245,028	1,958	16,774	3,985	47,959	342,288
2009/10 (r)	26,129	259,751	1,092	14,705	4,240	43,354	349,271
2010/11 (r)	28,285	247,806	1,467	15,299	3,638	42,144	338,640
2011/12 (p)	22,071	257,559	615	12,185	1,654	46,256	340,340

Source: Dairy manufacturers

Table A3. Australian production of dairy products (tonnes)

	Butter*	AMF (CBE)	SMP	WMP**	Whey Products
1989/90	78,053	26,105	130,976	56,476	19,895
1999/00	110,325	71,295	236,322	186,653	66,258
2000/01	103,145	69,175	244,442	205,449	61,452
2001/02	108,308	70,045	239,489	238,684	88,785
2002/03	103,377	60,343	196,608	198,306	99,384
2003/04	104,143	44,754	182,056	186,860	105,390
2004/05	105,131	41,528	189,113	189,220	105,225
2005/06	92,850	52,904	205,495	158,250	98,436
2006/07	101,666	31,434	191,475	135,364	86,198
2007/08	99,202	28,416	164,315	141,974	82,652
2008/09	109,753	38,742	212,030	147,544	81,136
2009/10	100,134	28,245	190,233	126,024	79,094
2010/11	96,326	26,160	222,484	151,269	61,488
2011/12 (p)	100,551	19,164	230,286	140,424	64,645

Source: Dairy manufacturers
**includes butter blends as CBE*
*** includes infant powders*

Table A4. Australian cheese production by variety (tonnes)

	2006/07	2007/08	2008/09 (r)	2009/10 (r)	2010/11 (r)	2011/12 (p)
Cheddar & Cheddar Types						
Cheddar (1)	148,845	135,929	149,267	138,097	126,887	135,534
Reduced fat cheddar	22,287	26,754	23,689	21,414	22,799	18,885
Cheedam	541	28	260	447	389	438
Other cheddar type cheese (2)	7,486	8,549	5,144	4,258	4,645	5,711
Total Cheddar	**179,159**	**171,260**	**178,360**	**164,217**	**154,720**	**160,568**
Semi Hard Cheese						
Mozzarella	54,117	55,208	42,167	54,343	50,028	44,856
Pizza	4,573	4,957	5,017	6,905	5,402	5,502
Other stretch curd and shredding	2,835	1,970	1,359	3,285	1,585	1816
Edam	158	709	305	207	621	347
Gouda	6,818	8,040	8,909	13,111	8,963	12,757
Other eye type cheese (3)	3,552	2,344	2,145	2,047	1,154	1319
Other Semi Hard Cheese (4)	3,476	626	1,757	2,596	424	301
Total Semi Hard Cheese	**75,529**	**73,854**	**61,659**	**82,494**	**68,176**	**66,898**
Hard Grating Types						
Parmesan	8,631	9,981	10,633	7,344	9,225	8,906
Pecorino	1,536	2,039	946	1,437	1,315	1,066
Romano	2,028	1,637	1,957	2,014	1,219	1,460
Other (5)	6,282	3,251	4,388	1,419	1,831	2,434
Total	**18,477**	**16,908**	**17,924**	**12,215**	**13,590**	**13,866**
Fresh Types						
Cottage	2,488	2,582	2,529	2,507	4,600	33
Cream cheese	58,161	62,267	47,399	53,702	66,631	74,790
Fetta	5,668	5,875	6,068	6,487	6,674	5,258
Neufchatel	9,270	9,521	8,730	7,844	4,489	4,820
Ricotta	5,376	6,892	7,276	7,854	9,130	5,882
Other fresh types (6)	3,480	3,797	3,428	3,288	3,893	3,183
Total	**84,443**	**90,934**	**75,430**	**81,682**	**95,418**	**93,966**
Mould Ripened						
Blue Vein	1,025	1,434	1,707	1,749	790	677
Brie and Camembert	4,602	5,971	6,489	6,142	5,455	4,049
Other mould ripened	403	561	719	773	491	316
Total	**6,030**	**7,966**	**8,915**	**8,664**	**6,736**	**5,042**
Total Cheese	**363,638**	**360,922**	**342,288**	**349,271**	**338,640**	**340,340**

(1) Includes: Vintage (2) Includes: Colby, Cheshire, Gloucester, Lancashire, Leicester, Nimbin and semi processed cheddar
(3) Includes: Swiss, Emmenthal, Fontina, Havarti, Samsoe, Tilsit, Buetten, Vacherin. (4) Includes: Bakers, Casalinga, Goya.
(5) Includes: Fresh Pecorino, Melbourno, Pepato, Parmagiano. (6) Includes: Quark, Stracchino, Mascarpone.
Revisions due to reclassification of cheeses and revisions of specialty cheese production Source: Dairy manufacturers

Appendix 4. Domestic sales

Table A5. Dairy company domestic sales (tonnes)*

Major dairy products—excl drinking milk	Sales channel	2009/10 (r)	2010/11 (r)	2011/12 (p)
Butter	Grocery	40,475	41,358	42,828
	Non-Grocery	13,155	13,308	12,664
Butter total		**53,630**	**54,666**	**55,492**
Cheese	Grocery	126,710	126,134	116,969
	Non-Grocery	126,986	127,974	131,772
Cheese total		**253,696**	**254,108**	**248,741**
Cream	Grocery	52,196	53,975	55,085
	Non-Grocery	56,907	50,018	48,088
Cream total		**109,104**	**103,994**	**103,173**
Custard	Grocery	22,617	22,931	21,666
	Non-Grocery	2,365	2,332	2,612
Custard total		**24,983**	**25,263**	**24,278**
Dairy desserts	Grocery	19,386	18,931	17,991
	Non-Grocery	397	357	512
Dairy desserts total		**19,783**	**19,288**	**18,504**
Milk powder	Grocery	4,655	5,393	6,328
	Non-Grocery	5,770	3,614	6,294
Milk powder total		**10,425**	**9,007**	**12,622**
Yogurt	Grocery	135,398	135,681	134,405
	Non-Grocery	14,489	14,188	16,223
Yogurt total		**149,887**	**149,870**	**150,629**

** This data is dairy company wholesale sales to distributors / warehouses / retailers.*
Grocery refers to major supermarket chains.
Non-Grocery refers to other retailers including convenience stores, the foodservice and industrial channels.

Source: Dairy manufacturers

Appendix 5. Supermarket sales

Milk

Table A6. Supermarket milk sales by state (million litres)

	NSW	VIC	QLD	SA	WA	TAS	AUST
2009/10	340	297	280	108	109	29	1,162
2010/11	355	310	292	113	115	31	1,216
2011/12 (p)	364	321	301	116	125	33	1,259

Source: Synovate Aztec

Table A7. Supermarket milk sales by type (million litres)

	Regular	Reduced Fat	No Fat	Flavoured	UHT	AUST
2009/10	507	363	63	78	152	1,162
2010/11	521	388	59	88	161	1,216
2011/12 (p)	536	416	56	91	161	1,259

Source: Synovate Aztec

Table A8. Supermarket milk sales—branded vs private label (million litres)

	2009/10		2010/11		2011/12 (p)	
	Million litres	Price/Litre	Million litres	Price/Litre	Million litres	Price/Litre
Branded Milk						
Regular Whole	148	$1.83	152	$1.82	152	$1.83
Reduced Fat	185	$2.03	183	$2.04	175	$2.02
No Fat	59	$2.07	54	$2.05	50	$1.99
Flavoured	74	$3.71	83	$3.64	86	$3.81
UHT	112	$1.61	120	$1.56	122	$1.56
Total Branded Milk	**578**	**$2.11**	**591**	**$2.11**	**585**	**$2.13**
Private Label						
Regular Whole	359	$1.12	369	$1.07	383	$1.03
Reduced Fat	177	$1.30	205	$1.14	241	$1.01
Low Fat	4	$1.63	5	$1.42	6	$1.25
Flavoured	5	$2.01	5	$1.98	5	$1.98
UHT	40	$1.15	41	$1.13	39	$1.14
Total Private Label Milk	**584**	**$1.19**	**625**	**$1.11**	**674**	**$1.04**
Total Milk	**1,162**	**$1.65**	**1,216**	**$1.60**	**1,259**	**$1.55**

Source: Synovate Aztec

Dairy spreads

Table A9. Supermarket dairy spreads sales by type (tonnes)

	2009/10		2010/11		2011/12 (p)	
	Tonnes	Price per kg	Tonnes	Price per kg	Tonnes	Price per kg
Dairy						
Butter	19,545	$8.18	19,789	$8.21	20,621	$8.50
Blends	19,508	$8.15	19,010	$8.74	18,912	$9.10
Ghee	27	$12.51	28	$13.65	49	$13.74
Total Dairy Spreads	**39,080**	**$8.17**	**38,827**	**$8.48**	**39,582**	**$8.80**

Source: Synovate Aztec

Table A10. Supermarket dairy spreads sales by pack size (tonnes)

	2009/10		2010/11		2011/12 (p)	
	Tonnes	Price per kg	Tonnes	Price per kg	Tonnes	Price per kg
250 gram	9,689	$8.62	10,220	$8.93	10,538	$9.13
375 gram	5,432	$11.20	5,361	$11.66	5,085	$12.30
500 gram	23,252	$7.22	22,698	$7.46	23,500	$7.82
Other sizes	706	$10.04	547	$11.09	460	$12.34
Total Dairy Spreads	**39,080**	**$8.17**	**38,827**	**$8.48**	**39,582**	**$8.80**

Source: Synovate Aztec

Table A11. Supermarket dairy spreads sales by form (tonnes)

	2009/10		2010/11		2011/12 (p)	
	Tonnes	Price per kg	Tonnes	Price per kg	Tonnes	Price per kg
Pats	15,687	$7.09	16,667	$7.20	17,606	$7.51
Tubs	23,371	$8.88	22,148	$9.43	21,976	$9.83
Others	21	$26.38	12	$26.28	0	$0.00
Total Dairy Spreads	**39,080**	**$8.17**	**38,827**	**$8.48**	**39,582**	**$8.80**

Source: Synovate Aztec

Appendix 6. Australian exports

Table A12. Australian exports of cheese (tonnes)

	2006/07	2007/08	2008/09	2009/10	2010/11 (r)	2011/12 (p)
Asia						
China, Hong Kong	10,123	11,079	7,410	10,851	9,708	11,482
Indonesia	7,678	4,028	2,547	4,197	3,708	3,256
Japan	95,879	96,846	74,140	89,810	84,450	95,561
Korea, South	8,327	6,859	7,045	7,204	8,845	7,302
Malaysia	3,465	3,877	3,858	4,462	7,103	6,762
Philippines	3,316	4,390	3,174	4,067	3,792	2,344
Singapore	3,667	3,814	4,098	4,135	5,789	5,773
Taiwan	5,464	5,842	3,778	5,158	5,302	3,759
Thailand	1,587	1,958	1,993	1,859	2,276	2,700
Other Asia	1,144	1,040	630	763	1,656	1,337
Total Asia	**140,650**	**139,733**	**108,673**	**132,506**	**132,629**	**140,276**
Middle East						
Saudi Arabia	18,066	16,355	5,359	6,705	6,870	3,917
U.A.E.	4,057	3,619	1,735	1,712	2,177	1,284
Other Middle East	10,468	8,877	4,051	6,433	4,029	5,241
Total Middle East	**32,591**	**28,851**	**11,145**	**14,850**	**13,076**	**10,442**
Africa						
Algeria	2,342	1,460	935	340	1,580	0
Egypt	2,784	1,948	2,135	1,730	1,915	675
Other Africa	2,794	2,510	1,430	3,555	2,529	2,747
Total Africa	**7,920**	**5,918**	**4,500**	**5,625**	**6,024**	**3,422**
Pacific						
New Zealand	2,665	4,352	2,652	3,337	2,892	2,035
Others	604	660	506	457	388	555
Total Pacific	**3,269**	**5,012**	**3,158**	**3,794**	**3,280**	**2,590**
Americas						
Caribbean	540	201	953	1,089	1,252	1,171
United States	14,044	8,719	9,327	4,132	2,325	572
Others	1,820	1,066	831	683	507	329
Total Americas	**16,404**	**9,986**	**11,111**	**5,904**	**4,084**	**2,072**
Europe						
Eastern Europe	424	831	386	381	828	550
EU 27	11,056	12,073	5,691	5,053	3,076	1,671
Other Europe	0	0	0	0	0	0.0
Total Europe	**11,480**	**12,904**	**6,077**	**5,434**	**3,904**	**2,221**
Total	**212,314**	**202,404**	**144,664**	**168,113**	**162,997**	**161,023**

Source: Dairy Australia and ABS

Table A13. Australian exports of wholemilk powder by region* (tonnes)

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12 (p)
Asia	99,838	90,208	102,025	80,270	84,468	68,067
Africa	10,070	9,504	13,221	6,867	9,344	4,629
Americas	11,111	10,327	9,548	10,001	8,458	9,782
Europe	450	198	20	204	807	429
Middle East	18,500	12,151	30,889	17,180	21,329	31,619
Pacific	3,474	2,759	2,330	2,227	1,447	1,617
Total	**143,443**	**125,147**	**158,033**	**116,749**	**125,853**	**116,143**

**Also includes infant powder*
Source: Dairy Australia and ABS

Table A14. Australian exports of SMP (tonnes)

	2006/07	2007/08	2008/09	2009/10	2010/11 (r)	2011/12 (p)
Asia						
China, Hong Kong	8,754	9,737	12,470	8,587	13,165	16,632
Indonesia	15,394	15,500	12,924	16,439	24,689	20,919
Japan	1,329	610	6,985	1,071	454	579
Malaysia	24,265	14,223	14,912	8,311	8,268	10,830
Philippines	15,828	13,345	25,426	18,932	9,817	10,348
Singapore	22,961	15,859	17,134	17,228	15,709	18,772
Taiwan	9,580	5,827	6,264	7,422	7,824	6,564
Thailand	17,897	11,642	9,511	9,888	11,462	9,552
Others	10,785	5,848	22,073	12,791	32,788	17,290
Total Asia	**126,793**	**92,590**	**127,699**	**100,669**	**124,176**	**111,486**
Africa	6,023	2,353	6,180	1,462	2,307	2,083
Americas	5,266	1,983	6,257	1,462	1,461	889
Europe	1,111	313	525	244	1,510	810
Middle East	19,878	22,010	20,906	17,829	21,496	23,529
Pacific	1,258	509	514	3,957	4,385	2,612
TOTAL	**160,329**	**119,758**	**162,081**	**125,623**	**155,335**	**141,409**

Source: Dairy Australia and ABS

Table A15. Australian exports of butter* (tonnes)

	2006/07	2007/08	2008/09	2009/10	2010/11 (r)	2011/12 (p)
Asia						
China, Hong Kong	3,393	3,692	3,236	4,114	3,024	4,099
Japan	2,279	4,389	2,374	392	876	1,960
Korea, South	4,810	3,955	2,623	2,364	2,073	1,578
Malaysia	1,470	1,640	1,828	2,042	1,717	2,303
Singapore	4,142	4,918	3,901	4,651	4,575	4,048
Taiwan	1,178	1,211	1,119	1,199	1,204	1,758
Others	1,905	1,176	1,705	2,690	1,612	1,823
Total Asia	**19,177**	**20,980**	**16,786**	**17,452**	**15,081**	**17,569**
Middle East						
Saudi Arabia	1,742	1,357	679	1,626	1,953	819
U.A.E.	2,494	1,355	1,881	1,174	617	517
Others	1,488	1,043	4,585	5,565	4,531	5,203
Total Middle East	**5,724**	**3,755**	**7,145**	**8,365**	**7,101**	**6,539**
Africa						
Mauritius	219	227	149	198	171	142
North Africa	6,273	1550	10,674	9,552	1,948	2,500
Others	156	60	306	720	175	20
Total Africa	**6,648**	**1,837**	**11,129**	**10,470**	**2,294**	**2,662**
Pacific	999	462	855	871	339	848
Americas	1,952	423	1,207	619	144	20
Europe	9,779	7,179	6,847	3,915	8,444	6,206
Total	**44,279**	**34,636**	**43,969**	**41,691**	**33,403**	**33,844**

** Includes butter blends converted at the rate of 1kg butter blend = 0.7kg butter*

Source: Dairy Australia and ABS

Table A16. Australian exports of AMF (tonnes)

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12 (p)
Asia						
Bangladesh	119	85	252	168	70	202
Indonesia	1,025	571	1,444	934	756	72
Malaysia	2,385	2,621	1,521	2,656	1,645	1,210
Philippines	885	294	1,446	1,970	4,914	1,150
Singapore	2,181	1,623	969	1,075	925	332
Others	7,389	4,735	4,172	7,908	4,389	4,723
Total Asia	**13,984**	**9,929**	**9,804**	**14,711**	**12,699**	**7,689**
Middle East						
Kuwait	0	14	202	101	0	588
United Arab Emirates	2,029	1,958	321	69	0	14
Others	1,515	678	1,244	1,763	1,147	118
Total Middle East	**3,544**	**2,650**	**1,767**	**1,933**	**1,147**	**720**
Africa	1,979	69	1,344	601	1,005	198
Americas	9,061	4,329	7,823	6,906	3,171	3,152
Europe	838	972	450	1,460	19	304
Pacific	129	176	168	145	23	44
Total	**29,535**	**18,125**	**21,356**	**25,756**	**18,064**	**12,107**

Actual product weight (not CBE)

Source: Dairy Australia and ABS

Table A17. Australian exports of liquid milk (tonnes)

	2006/07 (r)	2007/08 (r)	2008/09 (r)	2009/10 (r)	2010/11 (r)	2011/12 (p)
Asia						
Singapore	18,281	17,277	19,036	20,970	24,620	30,919
Philippines	9,763	5,809	2,722	3,653	4,134	4,423
Malaysia	4,531	3,246	3,346	3,902	3,406	3,977
Indonesia	1,635	1,544	635	516	366	342
Hong Kong	17,326	15,600	17,325	15,333	14,459	15,137
China	344	384	1,924	1,284	2,402	7,180
Other Asia	6,823	4,842	4,120	6,761	10,856	13,234
Total Asia	**58,701**	**48,702**	**49,108**	**52,419**	**60,243**	**75,212**
Africa	928	792	538	386	347	732
Pacific	9,305	10,308	9,710	10,491	9,325	10,732
Others	257	129	593	907	1,002	1,238
Total	**69,192**	**59,931**	**59,949**	**64,203**	**70,917**	**87,914**

Source: Dairy Australia and ABS

Table A18. Whey product exports (tonnes)*

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12 (p)
Asia						
Malaysia	4,281	3,594	5,166	4,257	2,973	3,869
Indonesia	12,486	8,024	5,040	4,675	5,237	5,565
Philippines	5,419	4,878	7,796	5,315	2,819	2,219
Japan	2,251	2,257	3,483	4,281	2,995	3,258
China	8,108	6,630	12,240	10,526	6,918	10,154
Hong Kong	596	361	363	317	148	134
Singapore	7,470	5,279	8,052	7,197	5,276	2,442
Taiwan	1,595	1,117	1,366	1,518	540	732
Thailand	7,369	5,885	6,125	3,937	2,912	4,652
Other Asia	3,065	3,340	4,286	2,198	1,073	872
Total Asia	**52,641**	**41,364**	**53,917**	**44,221**	**30,891**	**33,897**
Europe	1,407	467	436	436	593	1,793
Other	9,169	9,099	10,808	9,064	6,331	6,181
Total	**63,217**	**50,930**	**65,161**	**53,721**	**37,815**	**41,871**

** Includes whey protein concentrate*
Source: Dairy Australia and ABS

Table A19. Australian exports of other milk products (tonnes)*

	2006/07	2007/08	2008/09	2009/10	2010/11 (r)	2011/12 (p)
Asia						
China	1,134	7,608	852	6,045	3,562	6,383
Japan	4,842	4,132	2,659	3,035	2,281	1,870
Indonesia	3,140	2,194	2,403	3,491	2,945	2,357
Malaysia	1,295	1,214	584	846	178	232
Philippines	4,206	3,116	4,012	4,525	6,769	5,715
Singapore	3,748	3,566	2,400	4,963	4,762	3,744
Thailand	3,070	1,416	1,099	1,401	800	752
Other Asia	4,278	5,539	2,527	2,143	1,258	1,296
Total Asia	**25,713**	**28,784**	**16,536**	**26,449**	**22,555**	**22,349**
Americas	7,228	5,285	2,933	7,107	7,230	7,152
Europe	5,345	2,045	700	1,009	164	1,132
Other	2,701	2,764	4,494	6,045	7,371	6,908
Total	**40,988**	**38,879**	**24,663**	**40,610**	**37,320**	**37,541**

** Includes buttermilk powder, casein, milk protein concentrate, lactose and milk powder combinations*
Source: Dairy Australia and ABS

Appendix 7. Australian imports

Table A20. Australian imports of dairy products from New Zealand and other countries (tonnes)

	New Zealand	Other	Total 2010/11	New Zealand	Other	Total 2011/12
Skim milk powder	3,527	293	3,820	4,564	399	4,963
Buttermilk powder	372	951	1,323	803	1,277	2,080
Wholemilk powder*	11,436	6,755	18,191	9,430	7,215	16,645
Whey powder & concentrates	3,101	10,842	13,943	3,165	11,891	15,056
Condensed milk	31	1,531	1,562	59	1,591	1,650
Milk	8,485	0	8,485	5,652	329	5,981
Cream	1,553	41	1,594	1,931	39	1,970
Yogurt	565	54	619	600	663	1,263
Butter**	14,892	1,317	16,209	19,594	1,023	20,617
Butter oil	1,090	495	1,585	1,628	435	2,063
Cheese	49,674	23,199	72,873	46,741	29,503	76,244
Casein	749	106	855	684	171	855
Caseinates	252	7	259	203	7	210
Lactose	1,475	13,810	15,285	2,000	14,584	16,584
Ice cream ('000 lts)	3,730	16,360	20,090	3,370	16,997	20,367

** Includes infant powder*

*** Includes butter blends converted at the rate of 1kg butter blend = 0.7kg butter*

Source: ABS

Table A21. Australian cheese imports by country (tonnes)

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12 (p)
Austria	315	330	359	405	486	812
Bulgaria	1,655	1,700	1,345	1,340	1,392	1,246
Denmark	2,163	2,068	2,072	2,186	2,076	1,924
France	884	933	799	688	886	1,076
Germany	463	194	251	369	693	1,034
Greece	1,296	1,298	1,504	1,201	1,380	1,513
Italy	2,401	2,803	2,756	2,972	3,170	3,557
Netherlands	1,291	1,157	1,227	1,353	1,568	2,164
Poland	463	412	452	464	466	506
United Kingdom	222	153	185	234	296	233
Other	272	589	611	627	731	814
Total EU	**11,425**	**11,637**	**11,561**	**11,839**	**13,144**	**14,879**
New Zealand	50,529	49,230	42,758	55,596	49,674	46,741
United States	51	6,718	2,358	2,157	7,523	12,079
Norway	1,831	1,857	1,770	1,472	2,014	1,990
Switzerland	104	128	115	150	126	170
Other	330	175	279	311	391	385
Total cheese imports	**64,270**	**69,745**	**58,841**	**71,525**	**72,873**	**76,244**

Source: ABS (Excludes goats cheese)

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