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NCC Occasional Series

Dairy - Now and Then: The Australian Dairy Industry Since Deregulation

RidgePartners
consultants and advisers

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National Competition Council

Dairy: Now and then

The Australian dairy industry since deregulation

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Prepared by:

RidgePartners
consultants and advisers

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Inquiries or comments on this report should be directed to:

Media and Communications Manager
National Competition Council
Level 9/128 Exhibition Street
MELBOURNE VIC 3000

Ph: (03) 9285 7474
Fax: (03) 9285 7477
Email: info@ncc.gov.au

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The National Competition Council
The National Competition Council was established on 6 November 1995 by the *Competition Policy Reform Act 1995* following agreement by the Commonwealth, State and Territory governments.

It is a federal statutory authority which functions as an independent advisory body for all governments on the implementation of the National Competition Policy reforms. The Council's aim is to 'improve the well being of all Australians through growth, innovation and rising productivity, and by promoting competition that is in the public interest'.

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Foreword

In April 2004 the Australian Government Treasurer referred to the Productivity Commission (PC) a review of National Competition Policy (NCP). The objects of the review are to identify the impacts of NCP on the Australian economy and community and to examine further opportunities for reform that will be likely to produce significant gains for Australia.

Over the last ten years the National Competition Council (Council) has had a central role in promoting NCP reforms and assessing reform activity undertaken by the Federal, State and Territory Governments. As such it has a keen interest in the PC's review.

At an early stage in considering how it could contribute positively to the PC's review, the Council sought to identify areas of research that would complement and inform the PC's analysis. Three research topics emerged from that consideration.

One sought to assist in identifying possible areas of future reform activity by sketching the range of sectoral reforms that had been undertaken in a range of other economies. The aim of this research was to broaden the horizon against which future reform activities might be considered.

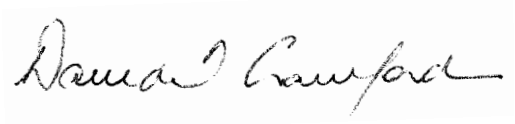
The other two projects sought to undertake an ex post examination of aspects of NCP reform in the dairying and grain production sectors. These were two sectors where claims of adverse results from reform were being made by some groups but where the Council was unable to find any independent or objective analysis to support or reject such views.

In commissioning this research the Council sought to sponsor high quality analysis that would genuinely contribute to the PC's review activity in this area. For each research area identified broad research briefs were prepared and proposals were sought from a number of experienced and professional consultancy organisations.

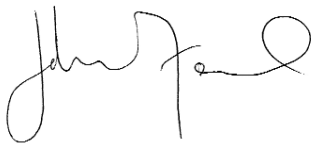
The commissioned research was conducted between June and September 2004.

This report and two others represent the output of this research activity. The reports present the analysis, judgements and conclusions of the various authors, the details of which may or may not be shared by the Council. Nevertheless the Council is very appreciative of the efforts of each consultancy in undertaking this work and of the contribution these reports can make to understanding of NCP reform activity to date and the scope for gains from similar reform going forward.

These reports have been provided to the PC as part of the Council's response to its draft report on NCP and are being published by the Council as the first three reports in an Occasional Papers series in order to further understanding of NCP and related microeconomic reform issues in Australia.



David Crawford
Acting President



John Feil
Executive Director

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The report has been written by Steve Spencer, Director of Ridge Partners, who wishes to acknowledge the valuable assistance and co-operation of industry contributors to the information that has been used in the analysis contained in the paper, including a number of dairy companies and the industry information and market intelligence resources of Dairy Australia.

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Glossary of terms

ABARE	Australian Bureau of Agricultural and Resource Economics
ABS	Australian Bureau of Statistics
ADF	Australian Dairy Farmers Limited
AFH	Australasian Food Holdings, a unit of Fonterra Cooperative
Bonlac SC	Bonlac Supply Company
Butter fat equivalent	Farmgate milk price expressed in terms of the kilograms of butterfat, assuming a standard milk composition factor
CAP	EU's Common Agricultural Policy
DF	Dairy Farmers
Doha Round	The round of negotiations of the WTO commenced in 2001 and due to culminate in 2005.
DPI	Department of Primary Industries
DSAP	Dairy Structural Adjustment Package
EU	European Union
Intervention	a process whereby a government buys products from the market to reduce commercial availability
MG	Murray Goulburn
NatFoods	National Foods
NCP	National Competition Policy
OECD	Organisation for Economic Cooperation and Development
PDA	Pauls Daily Access, a supply management scheme
Private label	Products sold in supermarket own-brand or generic brand packaging
SMP	Skimmed milk powder
WCBF	Warrnambool Cheese & Butter Factory
WMP	Whole milk powder

Summary

The purpose of this paper

A number of early studies and inquiries have sought to assess the impact of change on the national dairy industry from deregulation of the farmgate milk pricing and supply arrangements.

In April 2001, early in the period after deregulation of farmgate arrangements in the dairy industry, the ACCC reported that, in the first year after deregulation of fresh milk supply:

- Savings to consumers were estimated at over $118 million from supermarket sales alone;
- Farmgate prices fell by around 19 cents per litre in respect of the supply of milk for market milk usage;
- Retail prices fell by 22 cents per litre, taking account of the 11 cents per litre levy to fund the DSAP; and
- Supermarket margins fell 18% in the first six months and processor margins by 19%.

Four years since change occurred, this paper has been prepared to take account of the changes that have affected the dairy industry. These include:

1. Assess the longer term outcomes from the deregulation of the dairy industry, including the national impacts of the reforms on the sector as a whole on output, scale, employment, productivity and efficiency.
2. Assess the distributional impacts of the reforms on farmgate, processor and retail margins.
3. View a snapshot of the regional effects of the reforms highlighting a region experiencing an expansion of activity and a region undergoing a contraction of activity.
4. Comment on the relative contribution of domestic deregulation and international market forces on the structure and competitiveness of the dairy industry.
5. Identify the effects of the adjustment package linked to the reform measures.

Approach

The paper has been structured to provide an assessment of the major impacts of deregulation on the dairy industry.

Section 1 sets the scene in terms of **the market in which the industry operates**, and factors that determine the overall returns to the Australian dairy industry.

Section 2 outlines the **impact that has been experienced** in the period since deregulation – including:

- What was deregulated
- How it has affected the respective sectors of the dairy industry value chain from farmer through to consumer
- Further change that may occur in the foreseeable future

Section 3 outlines **changes in industry practices** that have been seen in the past 4 years since full commercialization of the dairy industry took place.

Section 4 overviews some of the **flow-on effects of change** on the performance of the industry at farm and factory level

Section 5 provides a summary of the **impact of change on 3 dairying regions** of change which have been subject to change in varying degrees and have since seen a range of different impacts. This covers:

- The subtropical region of South East Queensland & Northern NSW
- Western Victoria
- Western Australia

The key impacts at farm level are blurred

The discernable impacts of deregulation of the farmgate sector of the industry have been complicated by the simultaneous effects of:

- Significant changes in the world market for dairy products which have seen major cyclical change since June 2000.
- The impact of drought which has severely affected most major dairying regions directly or indirectly over the period from late 2001 through to the present time.

Given these events, to conclude that the significant changes that have been seen in farm numbers, farm incomes and employment in the industry are the direct product of deregulation would be a gross simplification, as these forces have worked in combination to create considerable change in the level and structure of farmgate returns in the industry since June 2000.

The change in incomes

To add to the complexity of changes in the industry since 2000, significant changes in the practices within the retail sector continue to affect the role that packaged milk and other fresh dairy products play in the dairy category and, as a consequence, the returns available to processors and farmers from the category. Dairy is not alone in experiencing the effects of increased competition and cost pressure in servicing the retail sector.

At a national level, taking account of the effects of the change in farmgate income from the loss of market milk premiums, better returns from manufactured products and the industry's adjustment package, gross farm income is about **$300m per annum better off** (including an element of DSAP payments) across the national industry compared to the year prior to deregulation. That is based on total output which, in 2003-4, was smaller than that in 1999-2000.

Those effects however vary markedly and are uneven across major dairying regions. Our analysis aims to break apart those effects to assess their impact.

Consumer is the winner

The consumer has been the big winner from the process of change in the dairy industry, with retail milk prices on average - across the milk category and across the different market segments – remaining below the average prior to deregulation. The consumer has also benefited through increased choice of product and increased access to innovative products which are aimed at various dietary and convenience needs.

Major changes in the industry

The major effects of change in the farmgate arrangements which are considered in determining the lasting effect of change have included the following:

Domestic market

- Encouraged greater competition in the packaged milk sector at retail and at wholesale level by enabling retailers to create a truly national milk supply market, an effect which has contained prices to the consumer
- Enhanced the scope for better performance of the product category for major retailers
- Significantly reduced the income from the packaged milk category to processors and dairy farmers
- Created strong incentive for innovation in product development and marketing across the dairy cabinet by dairy companies
- Created strong incentive for better processing and manufacturing efficiencies – especially in regions where there is a higher than average end-use of milk in packaged milk products
- Created greater incentive for dairy companies to manage and value their milk flow requirements according to market requirement
- Increased the awareness (to the farm sector) of the relative value of the milk components and attributes of milk supply

Export market

- Exposed dairy farmers across the national industry to the full effects of the complexity of world market conditions (previously buffered to some extent by domestic market support arrangements)

Changes in practices

There have been substantial changes over the past 4 years in how the industry operates.

The dairy industry has evolved – as with industries in all major production countries – as a production driven agribusiness sector, dominated by farmer-owned cooperatives which had the major mission of optimising the proceeds of disposing of farmers' milk. The industry has moved somewhat away from a totally production driven sector, which it largely remains, to one which now feels significant influence from the marketplace – both export and domestic.

The industry retains a high level of influence from the cooperative sector which remains geared to profitable processing of milk collected from supplier members. However, in major production fields , market-led domestic product processors and manufacturers are now sourcing milk to precisely meet their market needs.

The supply led manufacturing sector in the major Victorian regions "takes a net price" from the world market - this effectively sets the price off which the domestic market companies buy milk for the fresh market, and which has strongly influenced the price offered to retailers at the wholesale level.

The study analyses changes that have occurred in:

- The way that companies manage major milk production pools;
- How farmgate milk prices are set and influenced;
- How companies buy milk at the farmgate;
- How milk products are priced at the wholesale level;
- How competition has evolved in the market; and
- How milk products are marketed to the consumer.

Theory v outcome

It is useful to contrast the purported outcomes from deregulation which were understood in the lead-up to change, with actual outcomes that have been seen in the industry since that time and which continue to develop.

Theory/prediction	*Outcome*
☐ Milk would flood across state borders from Victoria and attack the Sydney milk market (popular conjecture in 1998-99)	Little milk moves across state borders to affect pricing in different regions – a uniform national retail/wholesale market, and the opportunity to service markets at a Victorian benchmark supply cost have influenced this outcome
☐ Milk prices at the farmgate in NSW and Qld would be cut by an average of 4-6 cents (farm sector submissions to NCP)	This has been met – prices currently paid have seen this reduction
☐ Farm exits in Qld and NSW would exceed 25% in 5 years	This has been experienced – but with drought as a key influencer of this outcome
☐ There would be rapid consolidation of the processing sector	There has been significant re-alignment of the business models of the major processors, yet further consolidation of ownership has yet to develop. The industry has actually seen greater numbers of processors rather than fewer.
☐ The retail sector will benefit from the reduction in farmgate prices (farm sector position in NCP reviews)	The consumer has benefited from the competition at the retail level that has developed as a result from the removal of impediments through the dairy chain. This has seen prices remain broadly at or lower than pre-deregulated levels Retailers have gained $300m in margin gains from fresh milk products

Future challenges for the industry

The dairy industry faces a number of significant opportunities and challenges at a national level.

The most immediate of these is to achieve a sustainable recovery from the effects of drought on the national industry's productive capacity. Drought has adversely affected the milk production, farm profitability and the financial position of dairy farmers across all major production regions, and at the time of this report remains a serious ongoing threat in several of those regions. The drought has, for many farm enterprises, resulted in lower gross incomes due to falls in the capacity to produce milk, and resulted in higher costs of milk production due to pasture feed and water supply shortages.

A diverse set of ongoing effects of change brought about by the removal of farmgate regulation of the dairy industry are being seen in regions that were more highly dependent on farmgate market milk prices, and where – as a consequence – adjustment to change has been slowest. It is important to recognise that the effects of changes in incomes have been harshest at the same time as a rising operating cost base, and climatic uncertainty from extended drought. The commercial changes in the dairy value chain will continue to put pressure on farmgate incomes in the subtropical region and other parts of NSW at a time when costs of feed are significantly higher than prior to deregulation. The ability of those production regions to cope with prolonged drought at commercial milk prices will be an ongoing challenge to the industry value chain in such areas.

These effects may include further potential farm exits and production losses, threatening volumes of milk used in dairy product manufacture; plant throughput; and certain economics of fresh milk processing at a regional level. Industry management of these challenges in the future will determine the eventual shape of the regional dairy industry outside of the major production clusters in Victoria.

Where further work might be required

There is little data available from within the dairy industry and wider government resources to measure important flow-on effects of the change in the industry over the past 5 years since the inevitability of removal of regulation became apparent.

The gaps in data include:

- Readily available current information on dairy employment at a regional and sub-regional level in farming and factory occupations.
- Changes in farm performance and productivity across dairying regions across different production systems and different farm sizes. New ABARE data and analysis has developed an approach in this area which is able to discern different effects based on size and system variation, but deeper investment is likely to be required.

  At a regional level, that information is available in a consistent time series for the Sub-tropical region only, whereas detailed farm performance monitoring in other regions has lapsed.

  This matter is being addressed by the collective industry bodies as part of a national initiative to follow-on from Dairy Moving Forward to measure change in farm performance into the future.
- An analysis in the changes in farming practices and the uptake of technology in regions most affected by change.
- A comprehensive understanding of the use of DSAP and SDA in the years since their availability, including the impact that drought had on their application in dairy enterprises.

Chapter 1
The current industry situation

1.1 The market for Australian dairy products

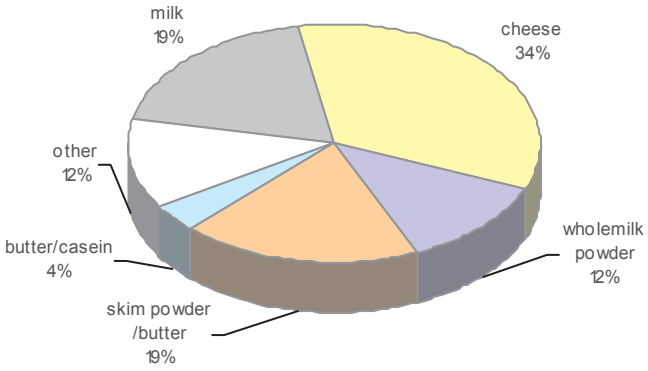
An industry working in a global market

Whole milk collected from Australian dairy farms is processed into a large range of dairy products. There are a number of major manufacturing & product processes in use across the industry.

In recent years, the growth in total industry production has meant that less than half of the milk produced on farms is supplied to the domestic dairy products market, while the remainder is exported. The share of milk used in exports increased from 38% from 1992-3 to 59% in 2002-3. The share has fallen slightly in 2003-4 due to the reduction in total industry output as a consequence of the drought, which curtailed export sales volumes.

Cheese is the most significant product group to the industry, in terms of total sales value and volume of milk used in all markets, but milk powders and fresh milk play significant roles.

Total industry product mix 2003-4

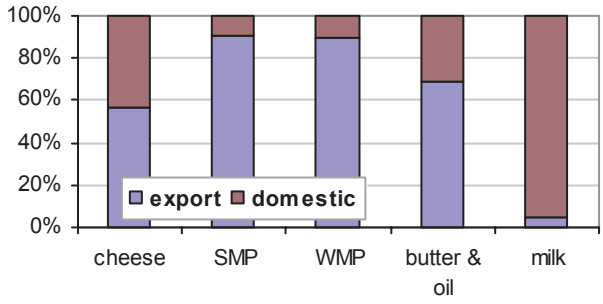


World market sets the returns

Overall returns to the Australian dairy industry are driven by the fortunes of the world dairy products market, which includes the effect of imports of dairy products from New Zealand which exports more than 90% of its dairy product output, and regards Australia as a key part of its "domestic" market.

Given the influence of world market conditions on the domestic market for internationally-tradable dairy products such as cheese butter and milk powders, the end result is that about 80% of milk produced by the Australian industry is used in products that are directly affected by export returns.

Portions of product exported 2002-3



Source: Dairy Australia

While 80% is a national industry average, with about 18% of milk used in packaged milk products, the extent of influence from world markets varies significantly across major production regions, as this report will later discuss.

Regardless of that variation in direct exposure to world market conditions and pricing influences, farmgate milk pricing for all producers across Australia will be shown to be inextricably linked to world market conditions.

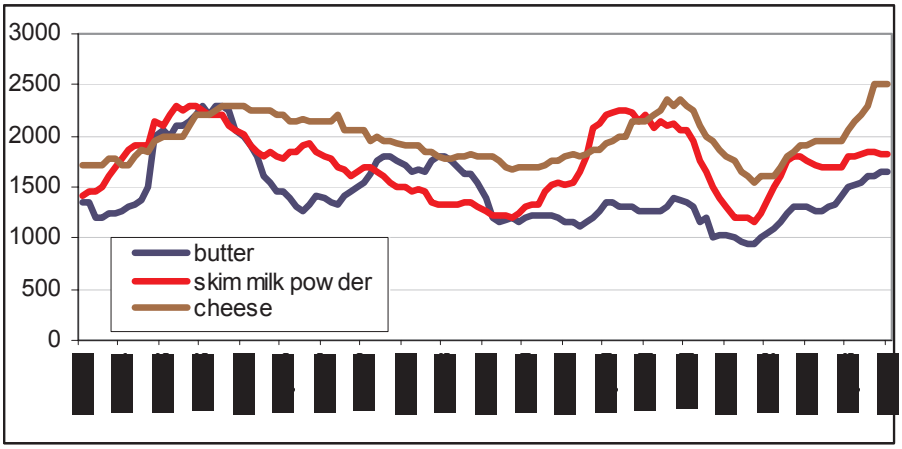
1.2 The export marketplace

Export market returns

Milk powders, butter and cheddar cheese are the core product groups derived from the major manufacturing processes used in dairy factories.

Only about 7% of world output of dairy products is traded internationally. Commodity prices for dairy products on the world market are strongly influenced by the net export returns achieved by the EU, which in 2003 had 31% of the world trade, and pays significant subsidies to its exporters. Australia and New Zealand are largely price takers in the market, with net exports over time volatile with a host of demand, supply and currency influences. Market access in the world market is limited by tariff barriers, which in some importing countries provide high levels of protection to domestic production of milk. Unilateral moves to reduce the intervention of governments in the fair trade of dairy commodities (through subsidies and tariff protection) are managed by the WTO's reform process, alongside numerous bilateral trade arrangements.

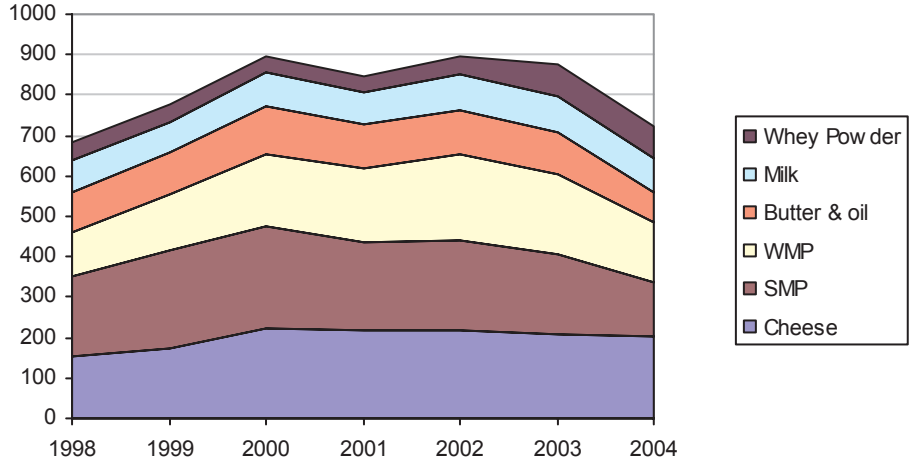
Average export FOB returns ($US/tonne for each overall product group)



Source: Dairy Australia

The product mix of sales volumes into export markets has not changed significantly in overall terms in recent years. The diversity of the products and ingredients has increased however, including increased use of functional derivatives from milk, which increases overall returns from each litre processed.

Export sales by product group ('000 tonnes of product)



exp *Source: Dairy Australia*

The nature of the export product consignments varies according to the destination markets and customer requirements. The majority of sales of milk powders go to developing consumer

markets where powder products are used in formulation milk drinks, either in processing factories or at the table. Cheese products are typically sold in the form of bulk to more sophisticated markets, for cutting and packing or use as ingredients in further processing, however small volumes of consumer packs are also exported.

The market destinations for the key product groups are diverse depending on the level of development in disposable household incomes and regional trends in the consumer taste. South-East Asia is the most significant region (31% in 2002-3), but Japan is the most important individual country by value (15%). The combined Asian region however accounts for two-thirds of export values.

Due to the increasing commoditization of dairy products, the need for scale efficiencies in modern dairy plants is paramount, but plant viability depends not only on an optimal volume of whole milk throughput, but also on the access to markets for co-products from each of the processes. As the uses of milk have become more sophisticated, and extraction technologies more readily available, the range of co-product applications for milk components has increased substantially.

1.3 Domestic market conditions

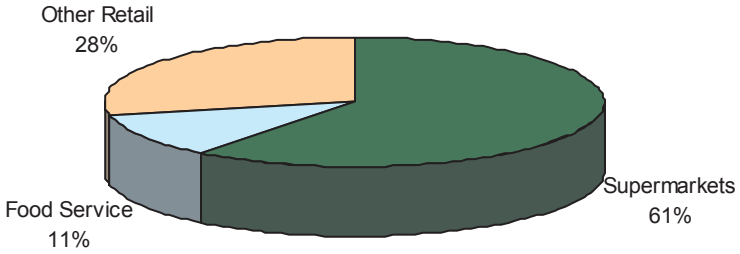
The structure of the domestic market

The domestic dairy market consumed about 45% of Australia's milk in 2003-4. This share has been steadily falling over time due to the growth in production and export volumes, and as the domestic market in total grows at a much slower rate in total value and volume.

The channels for the marketing of dairy products to consumers in the form of consumer products or via food manufacturing channels are dominated by the supermarket sector with 61% of the product market share.

Fresh milk products (whole and modified milks) are the largest category in terms of value and volume of milk consumed in the domestic sector.

Market channels for domestic dairy consumer products (share of sales 2002-3)



Per capita consumption of dairy products

	Milk	Cheese	Butter	Yoghurt
1998	103	10.7	2.8	4.8
2004	97.1	12.0	3.2	5.4

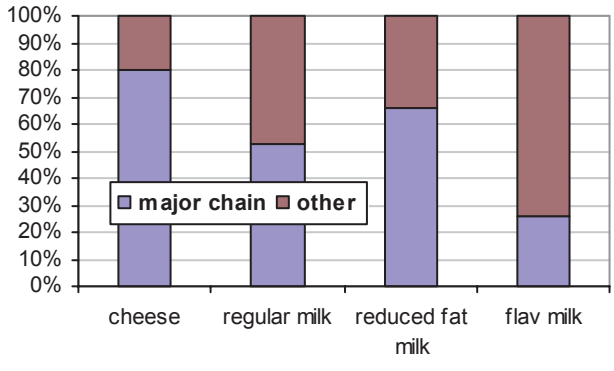
Source: Dairy Australia

Growth in the market

Most major domestic market categories have shown growth in total volume and value in the past year as shown on the table on the right. Growth has been achieved through innovation in packaging, product offering and the overall promotion of the role of dairy foods to respond to the trends in the consumer diet.

Packaged milk consumption per capita has been falling but overall sales volumes have risen slightly with population growth. Growth in liquid milk sales has returned through 2003-4 with a 2% increase in consumption reported in the early part of 2004.

Retail channels for domestic dairy consumer products (share of sales 2002-3)



Source: Dairy Australia

Import competition for the industry

The domestic dairy market is influenced by trade from New Zealand – especially in cheese products where NZ-sourced cheese products hold about 15% of the national market. Butter and blended table spreads are also influenced by smaller volumes of trade from New Zealand. There is no barrier to trade with New Zealand with the adoption of Closer Economic Relations (CER) with that country.

Sales channel

The domestic retail market for dairy products is intensely competitive in key categories of milk, cheese, dairy spreads and chilled desserts. At the same time, the market is diverse with a wide range of end-use product applications, pack sizes and marketing innovations.

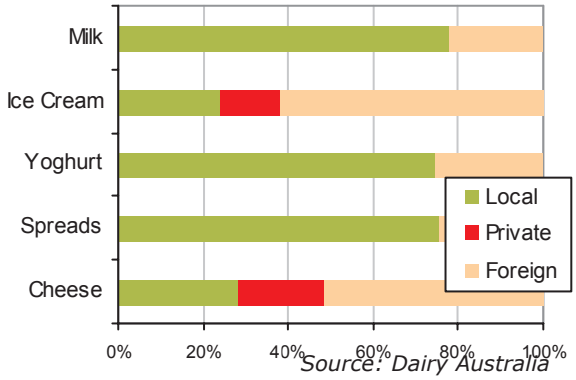
The share of dairy business held by the supermarket sector varies across product categories and has increased in recent years due to greater involvement in the packaged milk market.

Supermarkets have increased their share of the packaged milk business from 45% to 56% in the past 5 years.

Despite strong competitive pressure from major chain stores, the "route" sales channel (through convenience stores, small corner stores and other outlets) retains a strong outlet for branded packaged milk. Across the products in the milk category though, this varies with stronger sales in "impulse" product lines including flavored and diet milks.

The share of supermarket business in other products is much higher, as the major or independent supermarket is the primary destination for consumers.

Ownership of consumer brands in dairy product categories (share of sales 2002)



Source: Dairy Australia

Ownership

There has been considerable rationalisation of the ownership of dairy processors and marketers in the past 10 years.

1.4 The market at farmgate

What determines farmgate milk prices

Pricing of raw milk at the farmgate is driven by the returns that are achieved by the cooperative sector which collects more than 69% of all milk from farms.

In simplistic terms, farmgate prices are derived by major cooperatives based on the following equation which sees the milk return derived as a residual value:

Gross income

- ⇨ The returns from sales into a mix of export and domestic markets

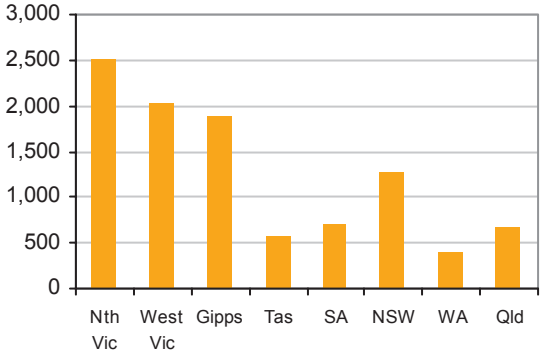
Less:

- ⇨ Costs of milk collection and cartage to factory
- ⇨ Costs of processing and manufacturing
- ⇨ Costs of marketing and distribution
- ⇨ A retention for business profit, working capital and capital investment

Typically, fresh dairy products sold in the domestic market yield a far better return in simple milk equivalent terms than the sale of bulk commodities in export markets.

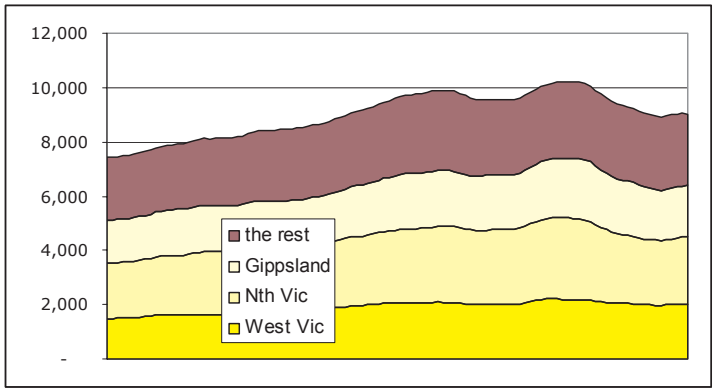
Whilst cooperatives tend to set base prices in regions, public-listed and privately-owned companies – which are driven by different performance accountabilities to cooperatives – will pay "what they have to" in order to get a suitable milk flow to match their business needs.

Milk production per state 2003-4 (million litres)



Source: Dairy Australia

Victorian production compared to remaining mainland south east Australian production (1995-2004)



Source: Dairy Australia

Victorian production dominates the Australian industry with 64% of output. The value of the milk to dairy companies from the three Victorian production regions has a strong influence on the farmgate milk prices that are paid in all other regions of the dairy industry.

Regional variations in milk usage

There is significant variation in the end use of milk in different regions of the industry. The chart below shows the proportions of the end-use of milk between:

- Drinking milk
- Domestic manufactured products
- Exported manufactured products

Processing of packaged milk requires a reliable flow of milk on a year round basis as there is little if any seasonality to market demand. Packaged liquid milk products represented only 18% of national milk volumes in 2003-4, but in several regions, the proportion is much higher.

Processors of packaged milk collect a large portion of the milk in Queensland, NSW, central South Australia and Western Australia, and therefore have arranged direct sources of a significant portion of their milk requirements on a year-round basis in order to meet the demands of the fresh dairy milk and associated products markets.

Destination usage of milk per state (2003-4) based on milk equivalents usage

Source: Dairy Australia

Despite the requirement for milk used in packaged milk products, a significant portion of milk in each of the milk production regions is used in the manufacture of longer shelf-life dairy products and commodities such as cheese, butter and milk powders.

One of the key requirements of companies operating in these regions is the need to "balance" their milk supplies from time to time when supply exceeds demand. Dairy products so produced must compete in domestic and export markets with products manufactured in Victoria – and are accordingly influenced by world market returns. Exposure varies according to company.

Farmgate prices in these regions tend to be higher to reflect the higher cost of producing a year-round supply of milk to processing plants. This is due to the need to provide supplementary feeding of grains, concentrates and stored fodder, which has a higher cost than pasture grazing.

Regional variations in pricing

The value of each regional milk "pool" to a dairy company will be based on the product use it can make from the milk it collects. For a milk processor, this value will be based on their assessment of a "blended return" from the use of milk in:

- Fresh dairy products; and
- Manufactured products, which must compete with output from Victoria (larger scale, bigger through put etc)

Much of this milk is supplied directly by farmers under contracts offered by the three major processors supplying the domestic drinking milk market (National Foods, Dairy Farmers and Parmalat). In Victoria, only an estimated 6% of total milk delivered to dairy companies went into packaged milk products in 2004 – a proportion that has not varied greatly over the past 5 years.

1.5 The processing and manufacturing sector

Majority of capital is on-farm

Milk conversion to dairy products requires significant processing and manufacturing investments. The investment beyond the farmgate however represents about 20% of the total investments in assets and infrastructure required to process dairy products to the point of wholesale and export sale.

Major dairy product manufacturing processes (commodity product groups)

	Butter/SMP	Butter/casein	WMP	Cheddar Cheese
Primary product	Skim milk powder	Butter	Whole milk powder	Cheese
Secondary products	Butter Butter milk powder	Casein	Butter Butter milk powder	Butter
Co-products				Whey powder

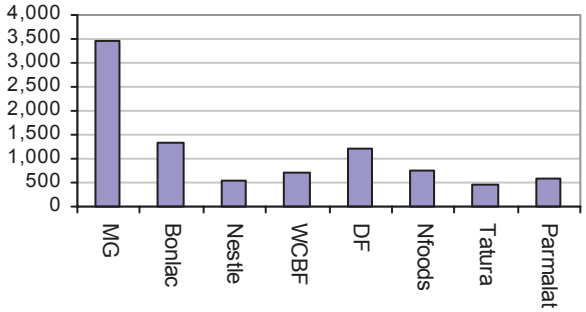
Major processes

Whole milk contains milk fat and solids which are used to produce a variety of dairy products. There are four major manufacturing product processes for the manufacture of dairy products using milk fat, protein and other solids. The aim of these processes is to maximize the return from each litre of milk.

In the past, manufacturers had to only focus on extraction of the primary products, however with the increasing commoditization of products and the strict accountability for environmental impacts of milk conversion, the emphasis for dairy companies is to must enhance all streams of product, co-product and waste to optimise the return from the market.

Co-products have been developed from each major manufacturing process which use milk components and/or waste streams to enhance the overall return from each litre of milk used in the production process.

Estimated milk collections in 2003-4 by major dairy companies



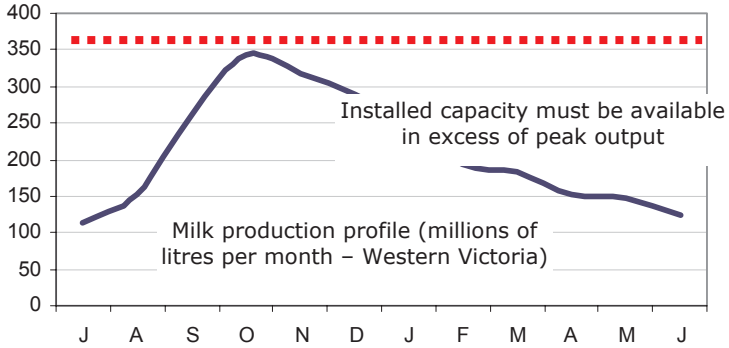
Source: Dairy Companies

Seasonality

With majority of manufacture in the highly seasonal Victorian production regions, manufacturing operations of the major companies must invest sufficient processing capacity to cope with the seasonality of milk production. Installed capacity has to handle the seasonal peak.

There has been a long-standing philosophical debate as to whether the industry should apply increased effort to optimise factory efficiency by flattening the milk supply curve or sustain the environment to optimise farm performance. At this stage, the industry preference is unchanged – the size of the advantage to the total industry from low-cost milk production outweighs the potential gains that might be achieved from a lowering of factory costs.

Seasonality of milk production and major plant capacity



Major manufacturers

The table below provides an overview of the product focus of major dairy product manufacturers operating in the industry:

	Cheese	Butter & spreads	Powders	Fresh dairy lines
Murray Goulburn				
Bonlac – Fonterra*				
WCBF				
Nestle				
Tatura				
Dairy Farmers				
National Foods				
Parmalat				

* this includes Bega Cheese which contract packs for Fonterra

Participants in the packaged milk market

The table below shows the market involvement by major milk processors in the packaged milk market, identifying regional markets, where processing is undertaken, and their involvement in branded and private label products.

	NSW	Vic	Qld	SA	WA	Tas		PL*	Brand#
National Foods								W	WMFU
Dairy Farmers								C I	WMFU
Parmalat								C	WMFU
Bega Cheese									
Hastings									W
Norco									
Peters & Brownes								C	WMFU
Perfection									WM
Murray Goulburn								A	WU
Bonland									FU
* PL = Private label packing arrangements: W=Woolworths, C=Coles, A=Aldi, I=Independent retailers									
# Brand lines: W=whole milk, M=modified milk products, F=flavoured milks U=UHT milk									

Chapter 2
Outcomes from deregulation

2.1 The full deregulation timeline

A staged process over time

Deregulation of the support and assistance regimes provided to the dairy industry was managed over a lengthy period by the industry and the State and Federal governments.

From the mid 1980's, there was a progression of steps to remove the support provided to the production sector. Whilst much of the recent analysis has been about the merits and effects of the removal of farmgate regulation, there were three components of the industry's deregulation over time:

- Marketplace regulation
- Domestic market support
- Farmgate pricing and supply management

Nature	*What it featured*	*Progressive change*	*Major steps*		*Removal*
Marketplace regulation	Regulated wholesale and retail prices for packaged milk products, with zonal distribution franchises	State-by-state removal of price-setting and distribution controls	1995 – Victoria deregulated 1998 – NSW removed regulation 1999 – Qld removed all regulation		All states deregulated by 30 June 1999
Farmgate price and supply management	Price setting and supply management	☐ Certain states converted market milk supply rights into pooled systems; other allowed trading of supply rights. ☐ Prices set at farmgate were based on cost factors but in latter years with an eye to market forces			30 June 2000
Domestic market support (DMS)	Collection of a levy on all milk production, paid to support returns from exports	Size of product support payments were stepped down over time	1995 – changed to domestic market support scheme which saw 2cpl levy on market milk and a levy on all "manufacturing" output	Overall levels of support scaled down to 10% by year 2000	30 June 2000

The timelines for the removal of each of the three aspects of regulation were independently determined, however become closely linked as the year 2000 drew nearer.

The phased removal of domestic market support through various revisions by successive Federal Agriculture Ministers was – from the mid-1980s - programmed to be complete by mid-2000.

Pressures on farmgate regulation

Whilst the negotiation of the DSAP provided an ultimate compromise for the orderly removal of farmgate regulation of milk prices, there had been mounting commercial pressure to force removal or collapse of state-based pricing regimes throughout the late 1990s. Staggered removal of the marketplace regulation of packaged milk pricing between factory and consumer created pressure on the levels of farmgate prices set by states – especially following Victorian removal in 1995.

Deregulation of farmgate milk pricing and supply arrangements on 30 June 2000 was considered within the industry as being inevitable for the following reasons:

- ☐ The long-planned removal of DMS regulation which had been programmed to occur at that date, and the lack of any concerted support within the manufacturing sector to replace that system
- ☐ The lack of support in the Victorian dairy industry to prolong farmgate regulation of market milk prices

- The commercial intentions of major manufacturers to supply milk to retailers and/or processors at prices that would render farmgate pricing systems (chiefly in NSW) redundant and ineffective

The commercial incentives for major Victorian manufacturers to lead change was two-fold:

1. to reduce the differential in farmgate prices being achieved by farmers, and
2. to reduce farmgate incomes and the flows of milk available to dairy product manufacturing plants (i.e. for products other than packaged milk) in NSW and Queensland.

It was reasoned that milk being sourced by these plants was supplied with the benefit of a cross-subsidy, allowing "assisted" competition with Victorian-manufactured products. The constraints of distance and transport costs aided some further protection.

NCP provided a measurement framework

The state-by-state application of the NCP review process saw the consistent development of the concepts of "value" of farmgate pricing and supply management arrangements to the dairy farm sector. Such values were driven by the forecast quantum loss of farm incomes as a result of change.

These values were used to support the rationale for an industry adjustment package that became the DSAP.

2.2 Changes in farmgate returns

In simple terms, the impact of the change in milk prices achieved by farmers before and after deregulation can be measured by the change in gross milk prices earned by producers on a state by state basis.

The comparison on the following page sets out a comparison between farmgate prices in the milk production year from July 1999 to June 2000 and the levels achieved in the corresponding period for 2003-4.

The table over the page helps explain the basis for the figures provided on a state-by-state basis. It shows the "before and after" comparison of how individual farmers have been treated in the change.

Pooling v quotas

In states where pooling arrangements operated, a gazetted farmgate "market milk" price was pooled and allocated to all farmers on the basis of their respective total milk production in each period. This was a system that applied in states where the percentage of milk used in market milk was relatively low.

"Quota" access arrangements allocated individual farmers access to the rights to supply a specified volume of milk for market milk usage, enabling that supplied volume to earn the regulated price, whilst processors set "manufacturing" prices for the remainder of milk production. In these states, regulators established trading systems to allow farmers to buy and sell these quota access rights, allowing a market to determine the value of the return differential inherent in that access right.

Contracts determine access

In the current industry, access to different end uses of milk is not provided in such transparent fashion, whereas producers now have (in most regions) the option of determining their choice of processor or manufacturer based on a variety of factors which include that company's product mix. Contracts nowadays reflect the required milk flow patterns, components and quality levels to suit that product mix.

Changes in access arrangements

The table outlines the changes in the distribution of returns from packaged "market milk" to individual milk producers.

State	Pre-deregulation	Now
Vic	Returns from total market milk sales were pooled and allocated to all farmers.	☐ Individual farmers hold supply contracts to supply packaged milk processors on a year-round basis ☐ Co-operatives and certain dairy companies with a mix of fresh milk and manufactured products "pool" returns into a single milk price which is offered in contracts or supply agreements ☐ In Qld and Nth NSW, Parmalat has preserved a two-tiered access regime for most of its contracted suppliers, inheriting the accountability for liquid milk use and a trading of access to a "market milk" return
Tas		
SA	Returns pooled, with regional differentials between central and southern SA	
NSW	Individual farmers able to invest in market milk quotas.	
WA	Individual farmers able to invest in market milk quotas.	
Qld	Individual farmers able to invest in market milk quotas.	

Milk price comparisons between 2000 and 2004

The table below compares milk prices prevailing in each of the major production regions, with those prices that existed prior to the removal of market milk regulation.

In the case of the 1999-2000 prices, both manufacturing and market milk prices are provided. The average prices are based on a weighted average price applying the regional % of market milk use. Individual producer prices may have varied from these averages depending on the individual holding of market milk entitlements, which applied in Queensland, NSW and Western Australia, and the levels of "manufacturing milk" prices paid by companies at the time. The 1999-2000 manufacturing milk prices were adversely affected by poor export returns in that season.

Sharp changes in farmgate prices occurred shortly after July 2000 in Queensland, NSW and WA, as a result of the changes in wholesale prices for packaged milk products (discussed at page 23). A variety of different pricing strategies were developed to deal with the prompt change in farmgate arrangements and the respective "values" of milk in processing and manufacturing operations.

Comparison of milk prices 2004 and 2000

	2003-4 paid prices		Pre-deregulation		
			Average	Market milk	Manufacturing milk
Far North Qld	Dairy Farmers	29-31	36.7	54.9	21.9
Central Qld	Parmalat	38-41			
South east Qld	Parmalat/Nat Foods	33-36			
	Dairy Farmers	29-32			
	Norco	32-34			
North Central and Southern NSW	NatFoods	29-31	32.6	47.7	21.8
	Dairy Farmers	29-31			
	Bega	32-34			
Victorian production regions	Major cooperatives	25-27	22.2	42.7	22.2
	Fresh milk processors*	29-30			
South Australia	Nat Foods/Dairy Farmers	28-30	28.0	44.6	22.2
	Major cooperatives (Sth East)	25-27			
Tasmania	Bonlac	25-27	20.9	44.3	18.9
Western Australia	NatFoods/Peters	26-27	34.3	45.5	24.6
	Challenge	24-25			
* for limited numbers of farmers on direct supply contracts					

Source: Ridge Partners and Australian Dairy Farmers Ltd

2.3 The impact on milk production

A mix of influences

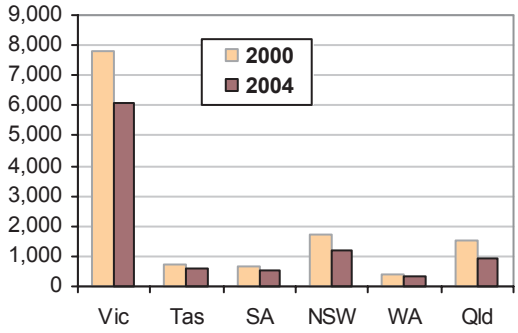
It is highly likely that total milk production has been more directly affected by deregulation in regions of the industry where milk producers were more exposed to the packaged milk market prior to deregulation.

The charts on the right show the comparisons in milk production and farm numbers between the 2000 and 2004 seasons in each of the states. Falls in production in all regions can be mostly explained by the loss of production through farm exits, with a portion of the impact due to reduced output by farms facing higher feed costs in 2003-4.

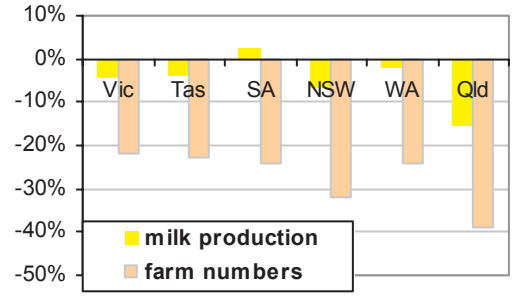
The difficulty – for the purposes of this study - is discerning how much of that change is due to reduced farmgate milk prices and how much is due to other pressures on production including the impact of an extended drought across most of the industry. This effect may have been offset to some extent by the cyclical returns from the world market in dairy products.

In reality, for many producers in Queensland and NSW, it has been the margin squeeze caused by reduced farmgate incomes coupled with higher costs of production that has led to an exit decision.

Farm numbers by state (2000 and 2004)

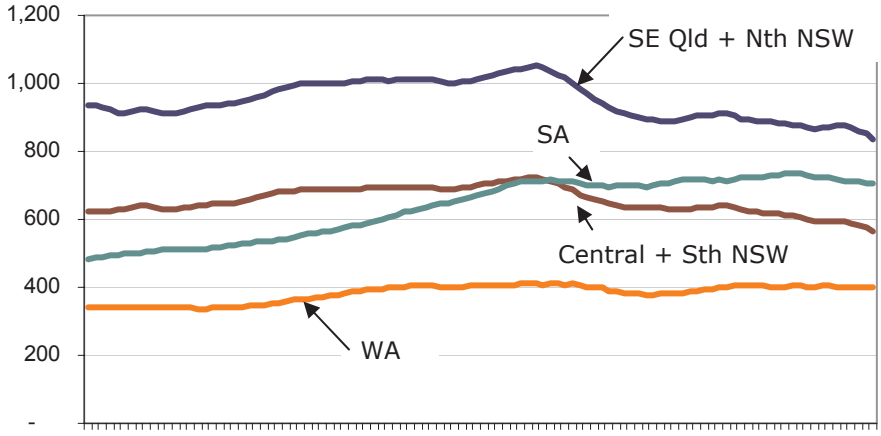


% change in farm numbers & milk production 2000-2004



Source: Dairy Australia

Moving annual production July 96 to June 04 for selected regions



Source: Dairy Australia

2.4 Changing economics of fresh milk processing

The impact at wholesale point of sale

The biggest impact from deregulation through the fresh milk product chain has been the reduction in total income available to the milk processing sector at a wholesale level.

The first direct effects of a change in farmgate regulation came about as a result of the first rounds of supermarket tenders for the supply of packaged milk in private (supermarket) label. The accepted wholesale price offered to the major chains was at a significant reduction to prices operating prior to June 2000.

The effect of the reduced wholesale value flowed across the packaged milk sector and reduced the industry's gross income from the sector. It is estimated this to be a loss of somewhere between 12-15cpl in wholesale selling value, which amounts to a loss of about $230-300m per annum in today's terms. For some this loss has been greater due to the higher exposure to the packaged milk business.

Processors passed this loss onto farmers in the net milk prices offered in milk supply contracts in the 2002-1 production season. In aggregate terms in the 2003-4 year, processors are paying slightly less for milk at the farmgate by at least the amount of the loss in wholesale number – by as much as $315m per annum given the comparison in the farmgate value.

The impact on the wholesale returns for a processor has however not been as simple as the change in margin on the key fresh lines. Over time, the impact of lower farmgate prices has reduced regional milk production and thereby affected the way in which processors can then best utilise milk in each of the regions.

Processors have also faced higher operating costs in compensating for the reduced margins in the supermarket segment of the market; but are increasing their focus on product innovation in drinks, support given to branded drink products and the distribution through other sales channels.

The impact on farmgate prices

Prices for milk used in the requirements of packaged milk processing are based on a balancing of the need to pay a sufficient price to encourage sufficient year-round production, and recognition of "next-best" supply alternatives available to processors.

The value of milk used in fresh dairy products is determined with strong regard to the corresponding alternative source of supply of milk components and the "year-round" milk prices that prevail in Victorian regions.

The true value of milk to a processor varies depending upon how the full litre of milk can be used in their business, and how the processor deals with the fluctuations in supply available to a plant, compared with their daily processing demands.

Processors face the demands of "balancing milk" – handling the differences in milk flow as collected on a daily basis and used in the weekly processing cycle, contrasted with periods of peak consumer buying (ie. Late in the week and weekends). For these purposes, all processors need access to dairy product plants that enable balancing to occur through manufacture of "storable" commodity products from time to time.

The approach to the ownership of such facilities varies between cooperatives (which accept all their members' milk, and have a stronger accountability to milk suppliers) and private/public companies which are accountable to shareholders for their financial performance, and less inclined therefore to retain "balancing assets". They also face the challenge of disposing of excess fat with the growing portion of low-fat milk drinks – fat is a commodity and must be converted to product for sale.

As a result of these factors, milk prices (as shown on page 20) vary across regions and by dairy company, largely according to differences in company product mix. Each of the major processors has a different product mix, and reflect varying importance of manufactured products in their regional milk usage.

2.5 The impact on the consumer

Intense competition in milk products

Deregulation of both the wholesale milk marketplace and the farmgate arrangements have created a climate which has aided a significant increase in the competition between processors in the packaged milk market.

As will be outlined in section 3, the change in the structure of the milk supply chain has allowed major retail chains to use private label products to capture greater market share in retail business by offering the consumer a cheaper product.

With the increased market share sought by major chain retailers, independent food stores and specialist retailers (such as Aldi) have discounted packaged milk lines (taking the per litre price consistently under $1 a litre) as part of their strategies to loss-lead the consumer into the store.

Retailers have increased the use of the private label range over time and used it to combat the independent retail competition. This has been a strategy adopted in several areas including eggs, bread and lines which lend themselves to generic labeling. Major processors have also added "fighting brands" to their portfolio in certain regions to meet competition. Despite this, the share of the market held by retailer private label lines has increased over the past 4 years.

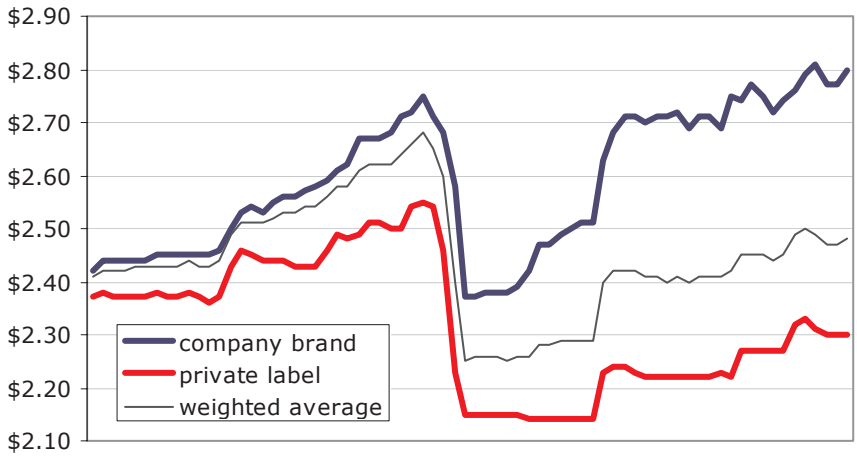
The consumer has benefited through lower prices

The effect over time of the increased retail competition has seen the consumer benefit through no effective increase in prices across the full milk category – across major retail and convenience.

ABS-monitored retail prices for milk products **do not reveal the reality of the marketplace**, as one-litre pack sizes (which is the only product publicly monitored by the ABS) are no longer a significant component of the overall market, and not subject to the private label strategies of retailers. ABS data suggests that 1 litre milk prices rose 16% in Sydney and 10% in Brisbane in the period between June 2000 and June 2003.

The chart below however reveals the significant change in prices of packaged milk in major supermarkets.

Supermarket prices for 2 litre regular milk 1998 to 2003



Source: Dairy Australia

Retail prices for packaged milk in supermarkets initially fell at the time of deregulation of farmgate arrangements, however price levels have steadily been restored over time, although there has been a widening separation of price between private label and branded lines. The effect of the change in mix between private label and branded product (outlined in section 3) has resulted in a total industry weighted average price to the consumer **which has yet to recover to pre-2000 levels**.

Despite these lower prices, overall milk sales remain broadly stable – the consumer has not been induced to consume more milk at lower prices, confirming a long-held research belief that milk products have low demand elasticity.

2.6 Changing economics of regional product manufacture

Less regional milk available for manufacturing

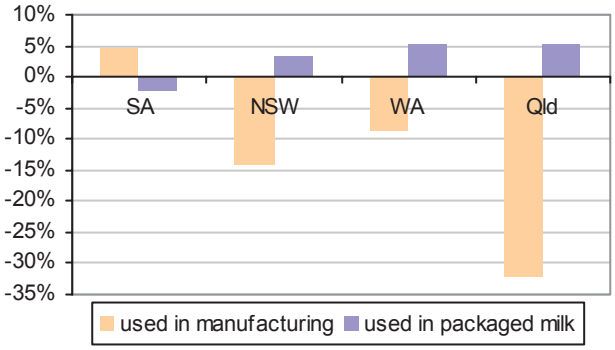
One of the declared outcomes of the proponents of a deregulation was to produce a decline in the volumes of milk available to manufacturing plants in "market milk" states.

Changes in farmgate arrangements, coupled with the changes at wholesale level in the way that supermarket customers have sourced supplies, have resulted in some significant changes in the way that milk is used in some regions.

There have been small increases in the overall volumes of milk used in packaged milk processing. The fall in total milk production has however weakened the supply of milk into the manufacturing sector in 3 states, though some regions have been affected worse than others:

Changes in the % of milk used in packaged milk

Changes in milk available for manufactured dairy products



The chart on the left shows the change in percentage of state milk production which has been used in packaged milk between 2000 and 2003, showing a greater exposure to the fresh market in the traditional "market milk" states.

With the declines in available milk for manufacturing, the chart on the right shows the declines in milk available for manufactured products. The regions most adversely impacted by the declines in volumes are, Coastal NSW (especially the mid-north coast), and South East Queensland.

2.7 Changes in margins through the chain

Source: Dairy Australia

Gross changes in margin

Changes in the distribution of gross incomes from the packaged milk sector have been significant.

We have analysed the changes through the chain in terms of their estimated gross impact on each sector.

These gross changes can be summarised as follows:

- The increase in retail gross margin.

  Meanwhile, the average wholesale value – after taking account of the DSAP levy of 11c per litre – has fallen.

- A small increase in the processing gross margin (before additional costs of servicing the non-supermarket sector), including
  - a reduction in wholesale returns,

  <u>offset by</u>

  - the lower cost of milk at the farmgate (see below)

- The impacts on the farm sector need to be put into context with other changes that have affected the sector. The aggregate returns to the dairy farm sector between the 1999-00 and 2003-4 years have increased significantly (at a national level) with the improvement in world market conditions, and the availability of DSAP to producers for a period of time.

  The net change reflects:

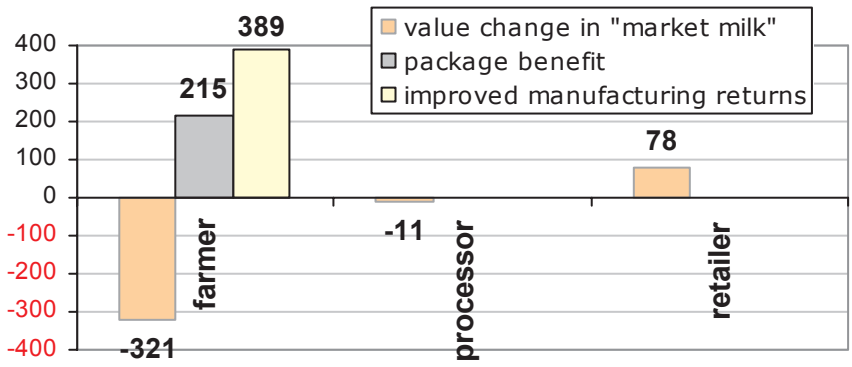
  - A reduction in farmgate incomes on market milk estimated at $321m

  <u>offset by</u>

  - the benefit of the package which is valued per annum at 11cpl per annum for a limited period of time

- An increase in underlying returns from manufactured products of almost $400m due to an improvement in the world market prices for dairy products.

Changes in margins for each sector between 2000 and 2004 ($M)



Source: Ridge Partners

These figures should be read in accordance with the comments provided below.

Notes on the analysis of change

The following points should be noted from the analysis provided on the previous page:

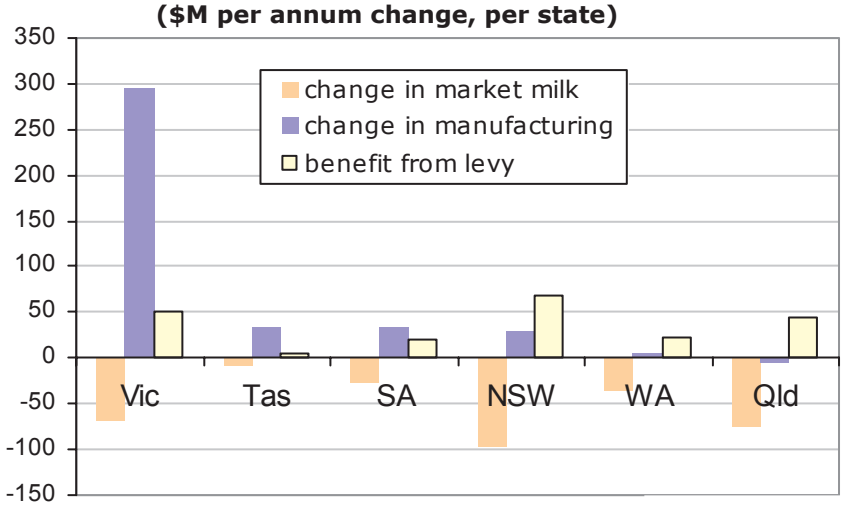
- A fall has been experienced in the industry average retail prices per litre for packaged milk from an estimated average of $1.30 a litre to an estimated $1.25 per litre due to significant changes in pack sizes and mix of product sales. These factors are explained on pages 37 and 38
- The change in processor gross margins is estimated based on the change in the overall mix of packaged milk business.

  The change in margins was analysed by the ACCC report into deregulation in 2001, which noted sharp declines in the wholesale price of packaged milk products in the months following farmgate deregulation.

  Some price improvements would have been achieved since that time on a per-product basis, but as noted on pages 37 and 38, the product mix changes have negated those overall.
- Processor costs have risen since change in 2000 due to the increased efforts required to retain significant business volumes in non-grocery retail segments. These involve higher distribution costs and brand support expenditures. Such cost changes are not reflected in the chart at the right.
- The package benefit has been "valued" in this analysis at the annual levy rate, which has been capitalized into the DSAP, taken by producers either through an "up front" payment facility, or over an extended time period.

The above changes are based on estimates from our analysis and are generalised across the total industry.

Changes in margins for each sector between 2000 and 2004 ($M per annum change, per state)



Source: Ridge Partners

Net effect ($M)	229	25	6	-65	-3i	-8û
Net % change from gross year 2000 incomes	+15.1%	+19.7%	+3%	-14.1%	-22.1%	-25.6%

At a state level the changes in farmgate effects of change have been diverse compared to the overall picture that is painted at a national level, as shown in the above chart and table.

2.8 How major processors are performing

The major processors and marketers of packaged milk in the industry are Dairy Farmers, National Foods and Parmalat.

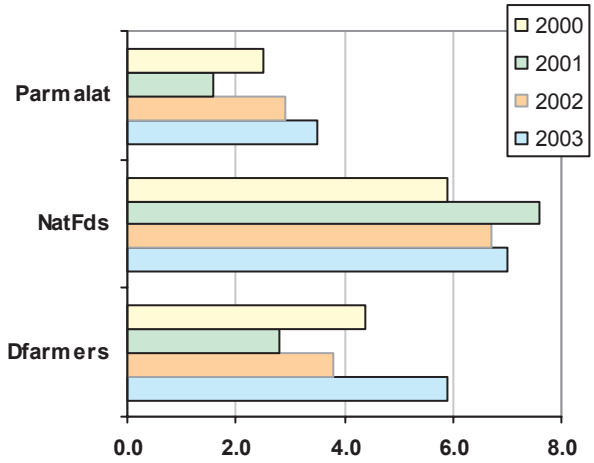
Whilst Dairy Farmers is a traditional cooperative structure accountable to its farmer-shareholders, it is comparable with other public company processors for reason only that it has been attempting a corporate restructure since 2000. Private and public listed companies have entirely different disciplines, acting in the interests of shareholders and paying for milk as a competitively sourced input.

These three processors have adopted radically different approaches to the deregulation of the market place.

- ***National Foods*** has completely restructured its business since the effects of deregulation became apparent, investing more than $300m between 1998 and 2002 in processing capacity. The company established itself as the only truly national processor, with new or extensively upgraded processing facilities located in each major capital city market, to ensure it became the lowest-cost operator. From 2002, it became the national supplier to Woolworths of private label packaged milk.

  The National Foods business model is to develop a premium consumer foods business alongside the base commodity marketing activity which has been built in packaged milk. It has built strong presence in yoghurts, specialty cheeses and other premium lines.

Profitability of major processors 2000-3 (EBIT as a % of sales)



Note: The 2003 results for Dairy Farmers were stated in the published financial statements of the group after adjustment for abnormal payments in milk price to support farmers through drought.

- ***Dairy Farmers*** have maintained their presence as a processor with a large share of the metropolitan Qld, NSW and SA markets. Dairy Farmers is a major participant in products across the dairy cabinet including packaged milk, other fresh dairy lines and cheese. Over time the company has reduced its emphasis on the packaged milk business, developing a stronger business in other fresh dairy lines and cheese.

  The business has been adversely affected by falling milk intake volumes in regions of NSW and Qld, which has placed pressure on plant use and throughput, and caused increased milk movements to better utilise capacity. The company has restructured its operations to rationalize regional manufacturing plants in order to reduce overall milk conversion costs.

- ***Parmalat Australia*** is a subsidiary of the troubled Italian group which was placed in administration in late 2003 after the detection of a major fraud. The group has not substantially changed its business in the Australian market, with major processing assets located in SE Queensland and Victoria. The lack of available investment capital from its parent has hampered its ability to improve its cost competitiveness, and it remains heavily exposed to the south-east Queensland milk supply region, a relatively high-cost production region.

2.9 How cooperatives are performing

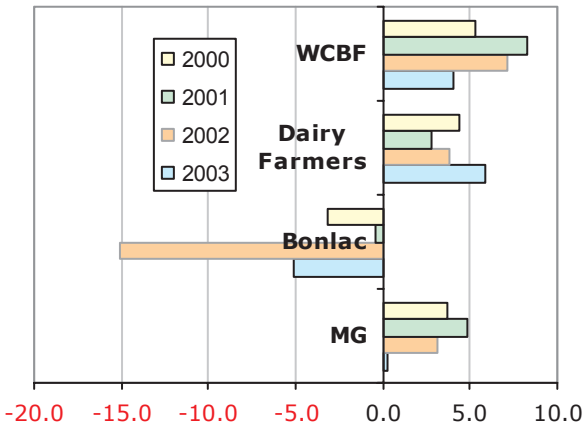
The performance and structure of cooperatives

The traditional model of the major dairy cooperatives and other farmer-owned companies is that they operate as an extension of the farm, owned by dairy producers and therefore chiefly in business to optimise the return from milk through the chain to the marketplace.

Cooperatives face competition from public and privately listed companies in the marketing of products, and are limited in the extent to which they can pursue these altruistic goals. There is increasing need to balance the demands on manufacturing and marketing performance with achieving suitable returns on-farm for suppliers.

The risk in comparing cooperatives across simplistic profit and balance sheet benchmarks is to misunderstand the core purpose of the cooperative, as well as underlying changes that have affected the performance of the sector in recent years. Over time, cooperative performance can only be effectively measured by the overall returns to the supplier shareholders in milk price, dividends and other bonuses.

Profitability of major farmer-owned companies 2000-3 (EBIT as a % of sales)

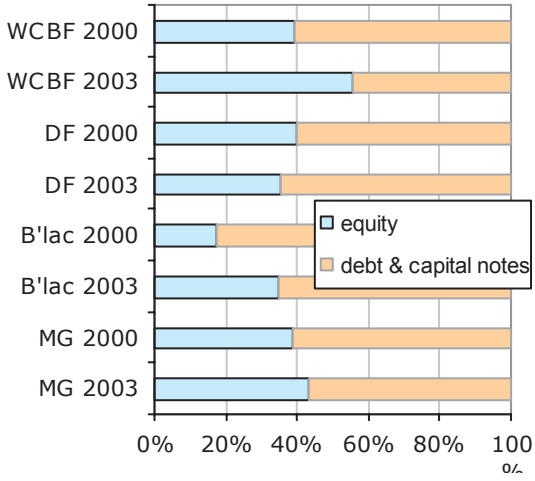


Several factors have impacted reported profits of major Australian dairy cooperatives:

- Drought has limited profits in the 2002-3 and 2003-4 year as cooperatives – especially major Victorian co-operatives – have sought to maximize the payouts to farmers for alleviation of cost pressures at a time when the dairy markets were depressed.
- Bonlac Foods has undergone major transformation due to poor performance in managing a dual strategy as a consumer brand manager alongside commodity manufacturer in the late 1990's. Poor performance in milk payments shortly after deregulation saw it lose significant numbers of suppliers, affecting throughput volumes and manufacturing efficiencies.

  Bonlac is now split into a supply business and a contract manufacturer for Fonterra's domestic and export business. Fonterra's support has enabled restructuring and rationalisation of Bonlac's business.

Gearing of farmer owner businesses (% of total assets)



- WCBF has geared itself for public listing (achieved in 2003-4), and therefore had a higher profit retention than other businesses, and in recent years has reduced its debt.

2.10 Potential further restructuring of industry

Processing and manufacturing

The processing sector of the industry has been seeking opportunities for further consolidation of the industry for some time, and it is widely regarded in the industry that further change in the ownership of processing and manufacturing is inevitable

This change is likely to come from one or more of the following:

a) Consolidation of ***milk processing –***

Several permutations of this may be feasible but not under any scenario would there be a complete merger of two of the three major milk processors for competition reasons.

ACCC conditions for any further consolidation will see one or more of the major existing businesses broken-up so that effective competition (that is, more than one major processor) remains in each major market region (based on major metro areas).

In reality, such rationalisation is not likely to significantly change the competitive dynamics in the national retail market as several minor players will remain, as well as ongoing involvement by major manufacturing cooperatives which will seek access to the packaged milk sector as a commodity channel for milk consumption.

b) Rationalisation of ***dairy brands*** across dairy product groups is likely after the proliferation of competition between processors and manufacturers for an increasingly diverse domestic market sector.

This is likely to involve Fonterra's Australian subsidiary (Bonland Dairies), which has a major share in the cheese and spreads market, but may also involve other Australian brand managers including Nestle Australia, Burns Philp and Unilever.

c) Rationalisation of ***manufacturing facilities in Victoria***

As a result of sustained competition for supply between major dairy companies, and the effects from drought on the plant throughput and capacity utilisation, there is at present excess installed capacity in the major Victorian regions.

It is likely that this will be addressed in the coming years in the form of increasing cooperation between manufacturers, and/or the closure and mothballing of certain sites so as to increase plant efficiencies in those that remain viable and capable of cost-effective expansion in the future.

The pace of change in this regard will depend on the rate of recovery in industry production from the effects of drought.

d) Rationalisation in ***regional manufacturing plants*** –

Further reduction in production volumes in Qld and NSW may jeopardize the volumes of milk available for manufacturing facilities, and see further closures.

Once again, drought recovery and a return to reliable climatic conditions and sustainably lower feed costs will be the key determinant of this outcome, as it is not considered likely that a significant uplift will occur in farmgate prices in these regions other than those which result from a general increase in export returns.

Farm sector

The farm sector will also continue to see consolidation in numbers, as has been the trend for many years, and there is no reason to suspect that this trend will not continue.

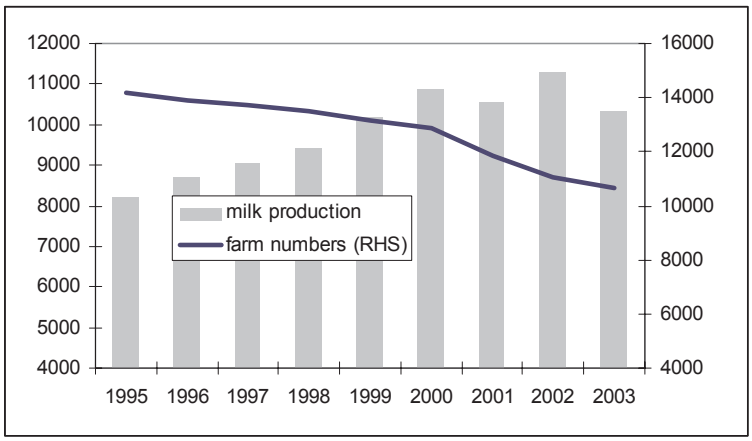
A major attitudinal survey of the production sector was undertaken in April 2004 as part of Dairy 2004: Situation & Outlook to assess the future prospects for milk production. This projected potential farm exit rates for the period to 2007, yet these rates do not suggest that national production will fall as a result. As has been shown in the past, increases in production come through greater intensification and farm expansion by those remaining in the industry, to offset those who exit production.

There are regions with greater vulnerability than others:

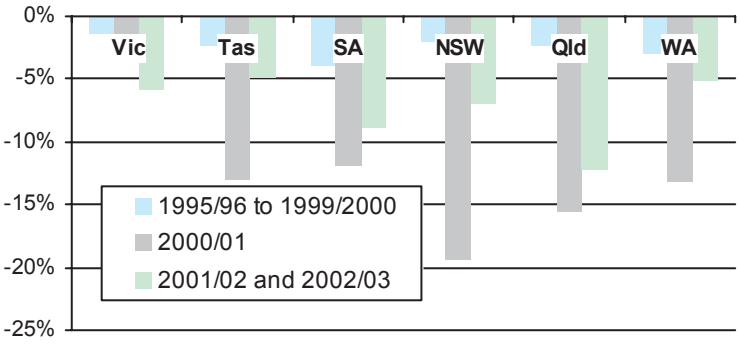
- SE Qld & Northern NSW is a region with long-term exposure to unreliable climates and a potential change in the pricing of milk in the future (see separate section)
- WA's milk prices have been affected by the ability of the regional cooperative - Challenge Dairy – to find profitable uses of a significant portion of its milk in manufactured product

The milk production sector shows ongoing vulnerability to climate risk, as drought in several key regions remains a major threat to the ability of farmers to produce and/or access low-cost high quality feed.

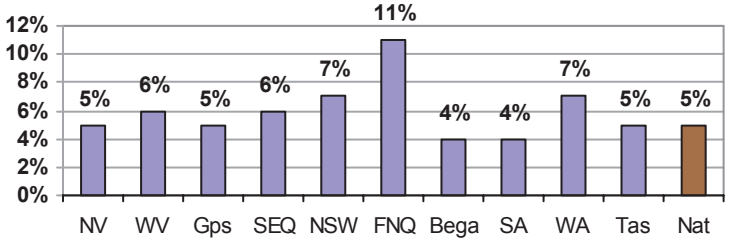
Changes in industry production and farm numbers 1995 - 2003



Change in farm numbers 1995-2003 (% exit)



Estimated annual rates of farm exits 2004-5 to 2006-7



2.11 How the industry used DSAP

The "package"

The dairy industry negotiated an adjustment package to assist farmers cope with the changes in financial effect on their farm businesses.

The adjustment package was structured in 2 portions – the original DSAP which totaled $1.62billion and a supplementary SDA package of $130m. The overall package was financed by borrowings which were negotiated by the industry with a consortium of bankers. Those borrowings were secured against the future collection of levies supported by Government legislation.

The package was funded by a levy of 11c per litre on packaged milk product sales which was set at wholesale level – that is, collected by processors on every litre of sales made to their customers. That levy remains in place for a total period of 8 years, of which approximately half has now elapsed.

Producer options

In essence, the package was designed to pay calculated entitlements (based on the respective exposure of farmers to "market milk" and "manufacturing milk") to qualifying dairy farmers over 32 quarterly payments.

Milk producers were given an option of taking out a loan which was secured against their future payment entitlements. This became known as the "up-front" payment, yet it was essentially a transaction between farmer and bank.

This option gave individual farmers the ability to make their own judgments on how to finance the adjustment to their business.

How DSAP was used

There is little available industry-wide data on how the producers in the dairy industry have used the adjustment package, nor on how successful the package has helped the industry through the changes that have occurred in farmgate market conditions.

As indicated earlier, the changes affecting industry have been a mixture of market and climatic forces. It is likely that many have ultimately consumed the benefit of their package payments in meeting the high costs of feed experienced through the drought.

Survey findings

A limited survey of 220 dairy farmers was undertaken by the Dairy Adjustment Authority to assess the producers' use of the package, with samples taken in regions more exposed to market milk on one hand and manufacturing products on the other.

Key results from this show:

- About 82% converted their package into a lump sum payment – with little difference between market milk and other regions
- In total 43% used the package payment for on-farm development, 37% for the reduction of debt – both of these measures increased in market milk areas to 49% and 48% respectively
- In terms of farm development, purchases of land and equipment were the highest uses of package payments, followed by developments of irrigation systems and pastures

Chapter 3
The changes in industry practices

3.1 Changes in how companies source milk

State borders no longer affect prices and milk use

Dairy companies – processors of fresh milk and manufacturers of dairy products – value milk based on the relative costs of supply from each economic milk field.

The role of each of the major milk fields in the context of the national industry has not fundamentally changed as a result of farmgate deregulation of market milk. In the past, milk moved between regions and across state borders within the regulated farmgate arrangements, and state-based systems catered for physical transfers without adjusting the net prices paid to farmers for access to the "market milk" sector.

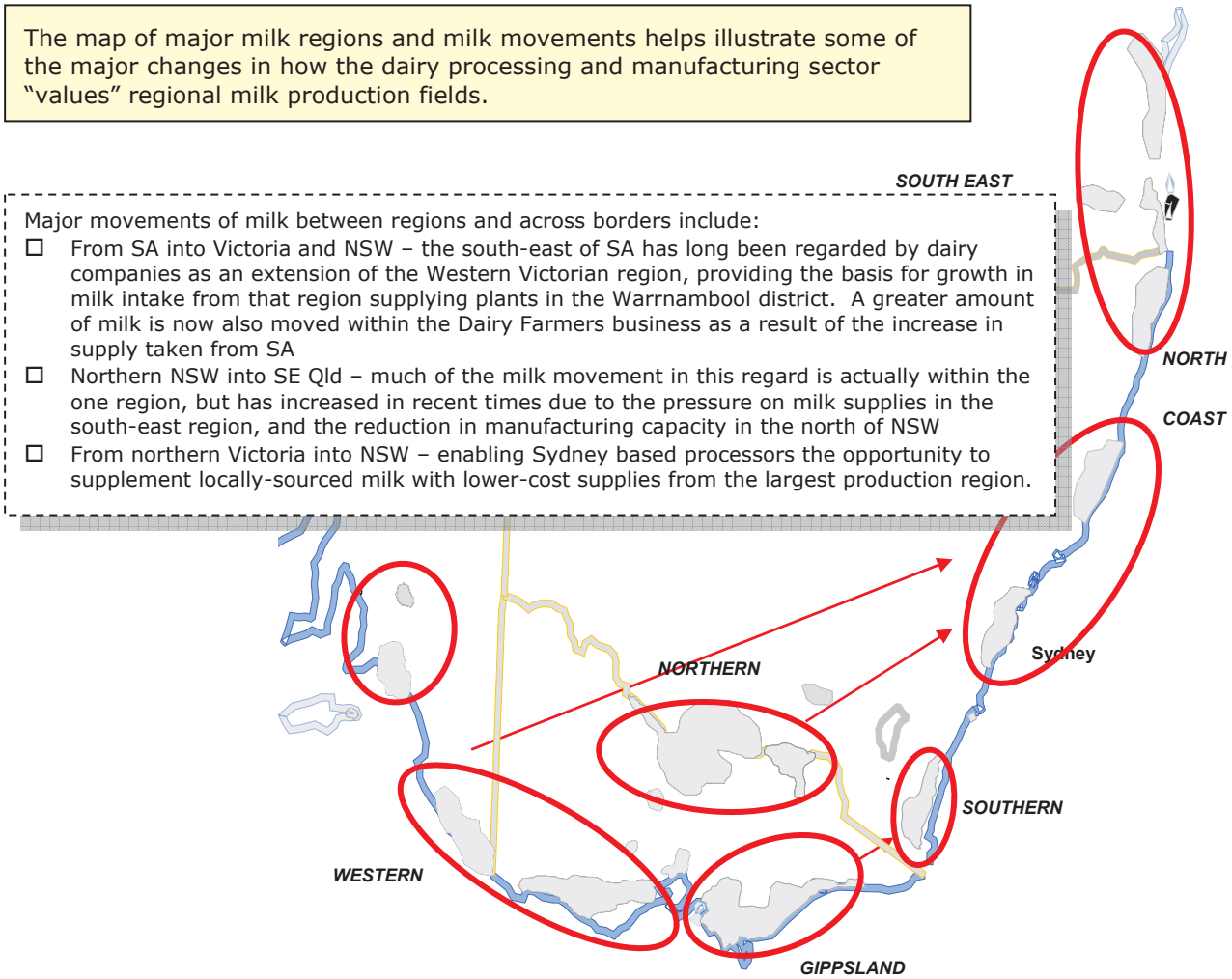
Change has occurred since that time however in the impact that movements of milk – or the threat of milk movements – have on farmgate milk prices. The removal of state borders has allowed greater flexibility in the competitive sourcing of milk by packaged milk processors such as National Foods and Parmalat, affecting the farmgate prices offered by all dairy companies supplying the major markets in the Sydney region and the South East Queensland.

Movements of milk between the milk production regions are not significant in the scheme of the industry but they are important in the business of certain companies.

The map of major milk regions and milk movements helps illustrate some of the major changes in how the dairy processing and manufacturing sector "values" regional milk production fields.

Major movements of milk between regions and across borders include:

- From SA into Victoria and NSW – the south-east of SA has long been regarded by dairy companies as an extension of the Western Victorian region, providing the basis for growth in milk intake from that region supplying plants in the Warrnambool district. A greater amount of milk is now also moved within the Dairy Farmers business as a result of the increase in supply taken from SA
- Northern NSW into SE Qld – much of the milk movement in this regard is actually within the one region, but has increased in recent times due to the pressure on milk supplies in the south-east region, and the reduction in manufacturing capacity in the north of NSW
- From northern Victoria into NSW – enabling Sydney based processors the opportunity to supplement locally-sourced milk with lower-cost supplies from the largest production region.



Determinants of prices from manufactured product returns

With more than 90% of milk collected in the major Victorian regions processed into dairy products, and given the dominance of Victorian supply regions, farmgate prices in the industry are driven by

the value that can be derived by major co-operatives from the use of the components of milk (milk solids including butter fat and proteins) in the four major manufacturing processes.

In the export-dependent Victorian and Tasmanian industries, a number of factors will affect individual farmer milk prices:

- ⇨ The overall product mix of dairy cooperatives
- ⇨ The net currency exposure on actual export shipments – most export sales are forward-contracted, with currency exposures hedged to minimise the effects of fluctuation in commodity prices and currency
- ⇨ The seasonality of milk supply – a flatter milk production profile is "valued" more highly than seasonal production by a dairy company, as it allows a more even flow of milk to dairy plants allowing better recovery of plant overheads
- ⇨ The importance of milk quality to the business of the manufacturer or processor, and therefore the availability of bonuses or penalties that are offered by the companies for milk quality factors
- ⇨ The extent of supply competition that might exist from time to time in major regions
- ⇨ How the dairy company elects to separate milk returns from other payments and deductions – such as contribution to co-operative share capital, dividend returns on shares etc.

Major exporting co-operatives set farmgate milk prices based on net returns that can be achieved from their operations, making allowance for capital costs and working capital. Milk price is generally determined as a residual amount after the costs of business.

Private and public listed companies (who operate as either manufacturers or milk processors) only pay the competitive milk price necessary to obtain the supply of milk needed for their operations.

Sourcing of milk by processors

Private or publicly-owned milk processors operating in Victorian regions have balanced their sources of milk between:

- ☐ Farmers on direct supply agreement
- ☐ Major dairy cooperatives
- ☐ Milk supply companies

In other regions, they have tended to opt for a high percentage of milk sourced direct from contracted dairy farmers, using agreements structured to achieve the desired milk supply pattern and quality.

The role of milk supply companies

The opportunities for specialist milk supply companies to source milk on behalf of milk processors and smaller dairy product manufacturers has seen a number of companies establish milk brokerage and/or supply management businesses. The major independent supply business, UDP, remains a supplier to a number of customers, sourcing as much as 150 million litres in the 2003-4 year.

Failures in this area have occurred – TQM, a farmer owned operation was formed in 2000 but collapsed in 2003 as a result of difficulties managing milk usage.

The role of collective bargaining

Collective bargaining is available to the dairy industry as a result of a "blanket" authorisation obtained by ADF on behalf of industry. This facility has had very limited, if any, effective application in the industry for two reasons:

- ☐ Most milk is sourced by dairy cooperatives – who have not engaged in the process as they consider their role to include bargaining on behalf of their farmers
- ☐ Milk processors such as National Foods and Parmalat (for Victorian supply) have been reluctant to engage in the process as they have been able to source sufficient requirements without a formal negotiation process provided under the authorisation.

3.3 Changes in the structure of milk supply contracts

Contract structures have changed

There has been little effective change in the way that major manufacturing cooperatives have structured their milk pricing arrangements over the past 5 years. Dairy companies pay for milk solids (butter fat and protein) and penalize for volume such that the effective price per litre depends directly upon the percentage of components per litre, which varies widely amongst individual producers.

There has however been significant change in the formality and structure of milk supply arrangements offered by milk processors. Processors no longer have regard to the end use of milk in products, using a uniform pricing approach in each region.

A variety of approaches have been taken to the structure of contracts however, with the milk processors now using a range of price signals and incentives to match the milk flow needs of their businesses. This allows the milk producer to choose their desired production system and milk supply pattern to best suit their needs.

The changes have generally increased transparency as to value placed on milk components (e.g. butter fat, protein and other components used in co-products) and milk supply attributes (timing and consistency of milk supply) in the farm sector. These changes in contract structure have provided producers with more choice concerning their production systems in response to the incentives available. The diversity of signals contained in contracts has progressively increased over time – especially by processors with a higher exposure to milk supply sources and market segments that are less regulated as a result of the changes outlined in this paper.

Processors such as Dairy Farmers, National Foods, Parmalat and Peters seek consistent year-round supply to match the market demand placed on their various processing plants. The companies vary their approaches to the severity of the disincentives for supplying milk that doesn't match that profile or quality requirements.

Accordingly approaches across the industry vary as to:

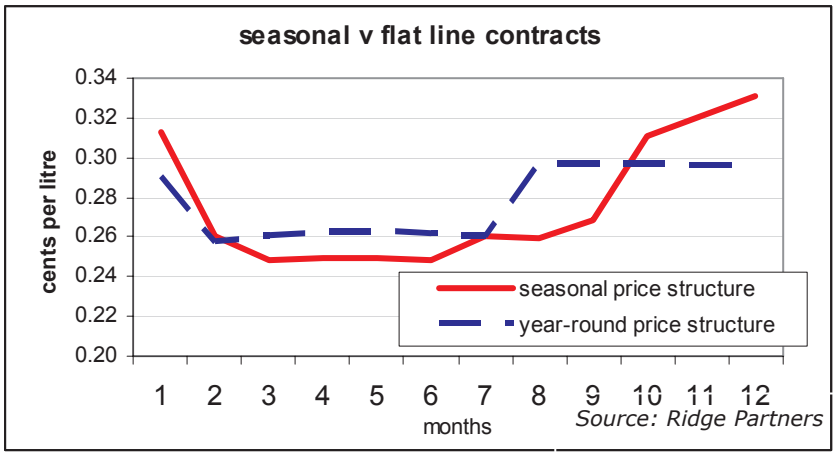
- The difference in pay rates across the season – a lower rate is generally paid when milk flow is in abundance (when grass feed is plentiful), and a higher rate when supplementary feeding is required
- The reward for high quality milk (more important to support longer shelf life in fresh products)
- The use and scale of milk growth incentives (which vary according to whether companies actually need growth in milk intake from direct suppliers.
- Productivity incentives – to reflect lower cost to the dairy company of dealing with larger suppliers
- Sharing the cost of cartage between farm and factory

	Seasonal incentive		Volume incentive	Growth incentive	Quality bonus/penalty	Collection charge	Volume charge	Penalty for shortfalls	Regional variation
Murray Goulburn	S								
Bonlac Supply Co	S				S*				
Nestle	S								
Warrnambool	S								
Dairy Farmers	S		S		S*			*	
National Foods	S		S					S*	
Parmalat (Qld)					S				
Norco				S					

Legend:
S = variation has a significant impact on annual net price
= included in milk pricing formula
* = incentive in the form of a penalty

The changes have created transparency regarding the differentials in market value between year-round and seasonal milk supply, and the different values placed on these supply patterns by dairy companies. It has also brought an accompanying misunderstanding as to the comparisons between milk prices throughout the season.

Invalid comparisons between monthly price points between seasonal and year-round milk supply arrangements are frequently publicised within the industry, where seasonal milk prices are generally lower in months when milk is cheapest to produce and higher in months when it is not, yet year-round milk supply arrangements offer a smaller variation in monthly milk pay rates.



In the chart, two milk supply arrangements have been illustrated in respect of milk supply that achieves the same full year milk price under two milk company offers. The companies require different milk supply patterns for their operations and product mix requirements, and send different signals to producers accordingly.

3.4 How dairy products are priced at wholesale

Creation of a national wholesale market

Deregulation of market milk pricing at the farmgate was not directly related to the supply of milk by processor to retailer, yet the change provided retail buyers with access to a greater number of options, which forced down wholesale prices of milk products.

Farmgate changes followed quickly on the heels of "marketplace" deregulation of pricing and distribution which occurred on a staggered basis around the industry with key dates in the final stages being:

- 1995 – Victoria
- 1998 – NSW
- 1999 - Queensland

Regulation in the "marketplace" was in place to manage not only retail and wholesale prices, but also regional supply and distribution franchises, which affected who was entitled to supply the milk requirements of national retail chains. While removal of those controls enabled freedom of supply, the change did not necessarily create the opportunity for enhanced margins and supply chain management by retailers.

Removal of farmgate regulation however allowed the creation of a meaningful national retail supply market at wholesale:

- retailers could then have access to cheaper quotes based on a transparent Victorian benchmark milk supply price which was based on a lower farmgate supply price given the low-cost production conditions – even on a year round basis
- they could then ask dairy companies to bid for business on a national basis, without the restrictions on farmgate milk pricing across state borders

Retailers have transformed the wholesale market for milk products by calling for tender bids for national and regional supply of private label milk products based on uniform wholesale prices regardless of the point of supply.

Prices negotiated under such agreement were at the time significantly lower than those prices being offered to the market for company-branded milk products.

The private label drove change

Retailers offered private label products to the consumer at a discount to branded products in order to drive increased volumes in their private label lines – consistent with the emerging approach to the use of private label in other food lines.

The national market quickly changed as a result of this process, resulting in a substantial reduction in the gross incomes flowing into the fresh dairy sector of the industry. It has changed the overall share of the gross retail returns from the packaged white milk market between farmer, processor and retailer, as was analysed in the recent Food Price Determination study produced for the Australian Government.

The competitive tendering process for the rights to supply private label lines to each of the major chains now drives the market share and returns of the major dairy processors from the packaged milk sector. The nature of the closed bidding process and the increasing importance of the private label volumes to the processing plant throughput of the major companies have encouraged companies to bid "keen" prices to secure the increasingly important volumes of private label business.

It is not likely that further rationalisation of major milk processors will change the competitive dynamics at retail buying level, where the opportunity to engage suppliers in competitive bidding for the rights to supply commodity lines will remain a key retailer strategy.

The wholesale pricing of manufactured dairy products remained largely unaffected by this process – commodities such as cheese and dairy spreads are subject to import competition and affected by available export returns, none of which changed as a result of the farmgate changes.

3.5 The changing marketplace for dairy products

Changes in the milk category

The use of the private label or house brand as a price-competitive item in key commodity 2-litre and 3 litre packs in whole and low-fat lines has assisted major chains rapidly increase private label's share of total packaged milk business at the expense of company-branded lines, and assisted supermarkets gain overall share in the packaged milk market.

On the basis of 2003 full year data, supermarket sales are around 56% of the total volumes sold in the industry.

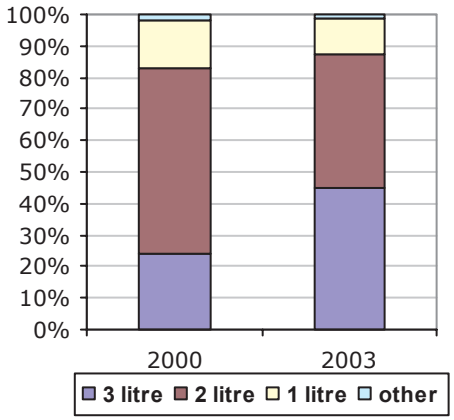
A number of trends have been observed in the changing packaged milk market over the past few years:

- Pricing practices have steadily widened the gap over time between private and company brands. This can be seen in the analysis on the following page.
- There has been an increased portion of business sold through 3 litre private label containers which have increased their share of supermarket business from 24% to 45% in 3 years to June 2003.
- There has been an increasing role of modified milk products (low and reduced fat) in the total drinking milk market – however regular milk has only reduced its share of total product output from 65% to 55% in the past 10 years
- Retail product pricing now sees a widening gap between price of fat modified and whole milk products to the consumer, due to the downward price pressure on regular milk and small increases in the fat modified lines.
- There has been greater investment in innovation and packaging of product to enhance the opportunities for processors to take advantage of increased trends towards healthy living (using functional ingredients, sports drinks etc), and to take a greater share of the impulse drinks market outside the supermarket.

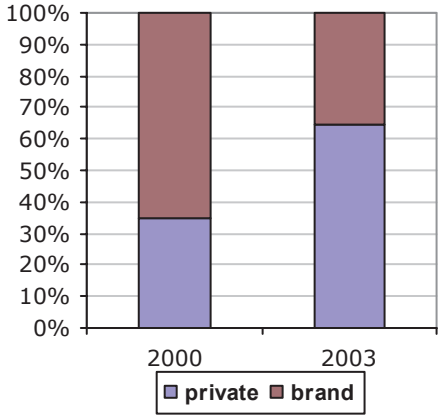
There has been an increase in the number of products and brands supplying markets in Queensland and NSW, with the entry of a number of small processors – including small groups of farms or single farms processing their own milk. Alongside this, processors have increased their efforts to market products in the non-supermarket segments of retail – convenience stores, independent food stores and other outlets.

In the future, the scope for greater use of the convenience market to achieve better returns to processors will be reduced, as a result of the entry by major chain retailers into the retail petrol business, operating convenience retail stores in place of independent convenience outlets. This will increase overall retail share of the consumer spend on milk, and see retailer practices extend deeper into the food marketplace.

Share of supermarket pack-size sales for regular milk products



Share of supermarket sales for June quarters in each year



Source: Dairy Australia

Overall category management

Whilst considerable external focus is given to the bulk product lines, a key driver of success for dairy companies is management of the whole category. Within any grocery food category there are a range of volume and specialised lines. Volume lines are driven purely by price.

Major suppliers to the retail sector create additional opportunities for themselves through a range of product offerings that extend the breadth of their category by different end uses (convenience packs), taste preferences and dietary ("lite" products or products with added functional ingredients).

Private label sales dominant the packaged milk category, though use of the generic label has a strong impact in cheese and table spreads. Major chains are expanding the use of the private label. In other lines, company brands and promotions are critical to developing opportunities for growth in the market.

Chapter 4
The measurable impacts of change

4.1 Farm productivity

There have been substantial changes in the farm sector as a result of the change in the past few years, but these trends are in line with clear directions that have been evident in the production sector well before deregulation of the farmgate arrangements. It is clear from the chart on the right however, that the trendline of farm numbers has taken a turn downwards since 2000, escalating the per-farm output:

Per-farm milk production has increased by 25% over the 4 years from 1999 to 2003. Sharpest increases have been seen in South Australia, NSW and WA, where the gains are all in excess of 30%. The number of cows milked per farm has increased by 20% from 1999 to 2003, in line with this trend.

ABARE have suggested that the average annual rate of growth in farm total factor productivity was 3.1% in the decade to 1992-93, but this has leveled off during the next decade to 2002-03, as the gains from supplementary feeding did not convert into higher output. In essence, the industry has seen productivity level off in the past 4 years according to their analysis.

Milk output per farm ('000 litres, 1999 and 2003)

The change in the industry's product mix through the 1990s as exports grew in their effect, and the recognition of the onset of deregulation from 1996 onwards has led to a greater focus on productivity, with a greater uptake of intensive production practices.

However drought has limited and reversed some key productivity gains. Output per dairy cow has not increased in this period, as a result of the shortages of feed available to the industry in the drought, which curtailed total output. Whilst the average per cow output rose 8% between 1999 and 2002, these gains were wiped out in the 2003 year, despite greater use of bought-in feed.

Drought has however challenged producers to better understand the risk management needs associated with greater intensity. Much of the pain of drought has been experienced by those in the progress of expansion and intensification.

Making sense of productivity requires recognition of the diversity of production systems. Industry data is "young" on the relative performance over time between high and low intensity systems, and between the three major production systems in terms of seasonality of cow calving, and is significantly tainted by recent drought effects. Data series that measure relative performance of farms over longer time frames is prone to generalisation and small sampling per region.

There are significant differences in productivity between low and high intensity operations. Likewise, there is very wide variability in milk production costs and business profitability at farm level – not so much between farm sizes or the degree of intensity applied in cattle feeding regimes, but more so due to differences in farm management skills. None of the existing industry cost databases is either extensive enough nor does it possess sufficient longevity to demonstrate these effects.

4.2 Adoption of technology

Milk production

The business of milk production is increasingly becoming a highly technical and sophisticated activity.

Much of the adoption of technology is aimed at achieving one or more of the following outcomes:

- Better labour productivity in milking and herd management
- Increased output per cow through better feeding systems, animal nutrition and herd management
- Increased productivity per hectare of available farming land, through better pasture management, higher stocking rates and supplementary feeding practices

The know-how associated with these three major areas has been widely shared and promoted in the industry through its primary R&D service providers, Dairy Australia and its predecessors.

Studies across the industry by ABARE into the uptake of technology in the farm sector have measured greater adoption of a core set of technology applications:

- Larger scale milking sheds
- Increased use of stored fodder
- Increased use of purchased feed concentrates and grains
- Increased use of soil testing for better pasture productivity
- Increased use of computers on farms where now there are more than 52% using computers, mostly in total farm management, the keeping of breeding records, and milking records

4.3 Factory productivity and throughput

Changes across the industry in regions that were more greatly exposed to changes from farmgate deregulation have had a mixed effect on factory productivity and efficiency.

Once again, it is important to discern the impacts on dairy factories from reduced production volumes caused by drought, versus any identifiable effects from deregulation alone.

Over time across the national industry, factory productivity has been steadily increasing. Statistics on this trend are however misleading due to changes in the way that dairy factories have been registered under regulation – moving from dairy industry to food safety regulation on a state-by-state basis – creating a discontinuity in factory throughput data.

In the states directly affected by changes in regulation to farmgate pricing and supply management, the effect on factory throughput has been far more pronounced in recent years, due to a number of plant closures in regional milk production areas, chiefly:

- South Queensland
- Northern NSW

Closures have occurred in other regions but with less pronounced effect.

These closures have involved a mix of milk processing plants as well as dairy product manufacturing sites. Dairy companies have implemented such changes to enhance overall factory efficiency and milk usage – opting for longer milk haulage routes and/or milk trading to overcome the need for separate milk balancing and product manufacture.

At the same time however, a number of smaller plants have been commissioned in many dairy regions as individuals and small groups of farmers, as well as private business operators, have sought to create new business operations in niche milk processing and product manufacture.

4.4 Employment in the dairy industry

Employment impacts

There is little useful data on a national scale to provide insight into the effects that changes have brought to regional employment.

The major study into the changes from deregulation of the white milk market by ABARE in 2001 identified the employment numbers associated with the industry at the farm level. This included identification of those regions which were more highly dependent on dairy employment due to the concentration of dairy farming and/or the lack of readily available alternative farming or rural enterprises.

The Dairy 2004 survey identified the low level of external full-time employee use in the farm sector – 25% of farms employ one or more full time labour unit, showing a high dependence on family labour or part time milking labour to run a farm.

There has been little analysis made however of the employment in the industry beyond the farmgate into manufacturing, processing, and distribution – where there have been significant impacts from the changes described in this report.

Effects on direct and indirect employment brought by deregulation of the industry have been greatest in the regions more directly exposed to the changes in farmgate incomes brought by deregulation – areas of Queensland, NSW and WA.

These effects have been:

- Farms exiting milk production
- Closure of regional manufacturing, milk processing and milk receival facilities
- Withdrawal of services provided by specialist dairy input providers in affected areas due to a threat to the critical mass of business

Downstream impacts from changes in the industry have been significant, coming as a result of the loss of income to the dairy industry from the packaged milk market, and the rapid development of a national milk market by major chain retailers.

Those changes have aided the rationalisation of processing facilities, but also brought substantial changes to the distribution sector – between dairy factories and retail customers. Over time a number of specialist milk distribution vendors have exited the business due to changed logistics practices.

It can be argued that the removal of farmgate regulation created the opportunity for retailers to take greater control of the supply chain through the exertion of competitive price pressure. Again, no measurement of the effect of these changes has been undertaken at a regional level.

The impact on regional economies

There has undoubtedly been a significant impact of changes in the dairy industry described above on the affected communities that have relied to some extent on the industry for a source of livelihood.

However it is inconclusive from the study of the dairy industry alone as to whether this has had a major impact on regional incomes – aside from effects of a concurrent drought. Any permanent impact on regional economies would have to take account of:

- Alternative farm use that has been applied to farms that are no longer milk production farms
- Alternate employment sought by dairy farm families that have exited the industry
- The changes in use of inputs by alternate land use – whereby dairy is a relatively intensive user of inputs such as feed, fertilizer etc.
- Other regional farming or business developments that have emerged during the period with a change in farming mix

Chapter 5
Regional impacts of change

The earlier sections of this report summarise effects of change across the national industry. The effects of change in the past 4 years have far greater complexity when considered at a regional level.

The following pages provide a profile of three regions which have experienced different impacts from the changes in farmgate arrangements in terms of:

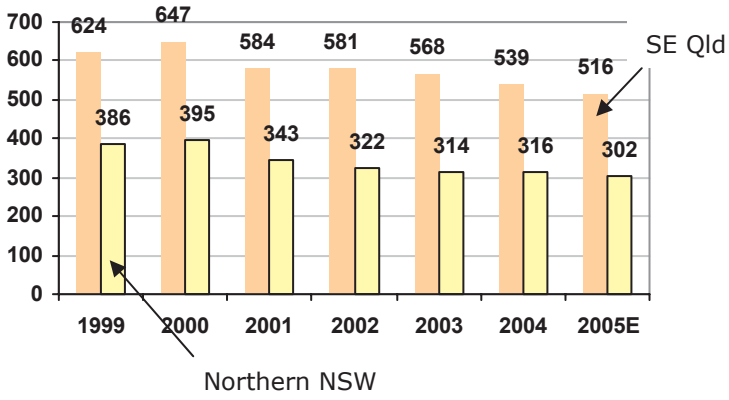
- Their levels of exposure to change
- The changes that have evolved since that time
- Future challenges facing the regions

5.1 The subtropical region
South East Queensland & Northern NSW

Major impacts of change

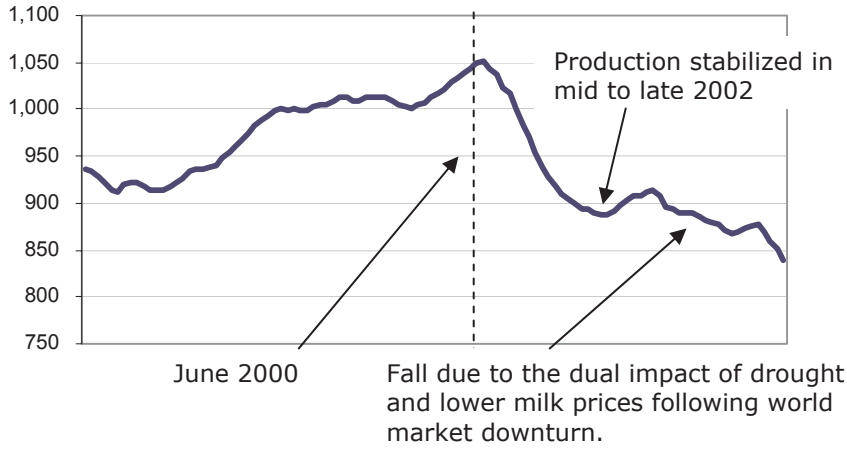
- Farmgate milk prices reduced in SE Qld from an average of close to 37cpl in 1999-2000 to an average across the region of between 32-34cpl.
- There has been a separation of milk prices paid by dairy companies based on their respective product mix – as shown on page 21. Company product mix is the driver of those differences, with the commodity manufacturing of Dairy Farmers returning lower prices than the higher fresh product dependence of Pauls and National Foods.
- Increased competition in milk market with the entry of National Foods in 2000, and an increase in the number of small processing operations in the market

Regional annual production (millions of litres)



- Steady decline in milk production volumes has been experienced due to a combination of the lagged effects of milk prices and the unreliable climate which has increased costs of production in the region

Moving annual total of milk production for the combined region (millions of litres, 1995 to 2004)



- There has been little change in the overall seasonality of milk supply, as the majority of need remains in the fresh product market, overcoming the potential drive towards lower-cost seasonal production systems.
- This has reduced total milk available to manufactured products, which has placed pressure on the performance of remaining manufacturing facilities in the industry.
- As part of that process, increased investment has been made to improve the scope for returns from cheese processing at the Toowoomba plant of Dairy Farmers
- Factory rationalisation has also seen the closure of a number of regional plants.

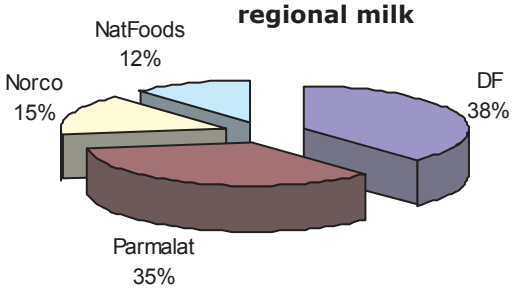
Current and future challenges

Market environment

- The regional fresh products market services is one of the fastest growing consumer market regions, but increasing volumes of product are moved into the region in finished form, along with milk components.
- Strong competition in regional retail markets will remain. This sustains an environment between companies which sees ongoing supply competition (see below) and which may work against greater cooperation to manage overall regional milk balancing requirements.

Estimated use of Qld milk

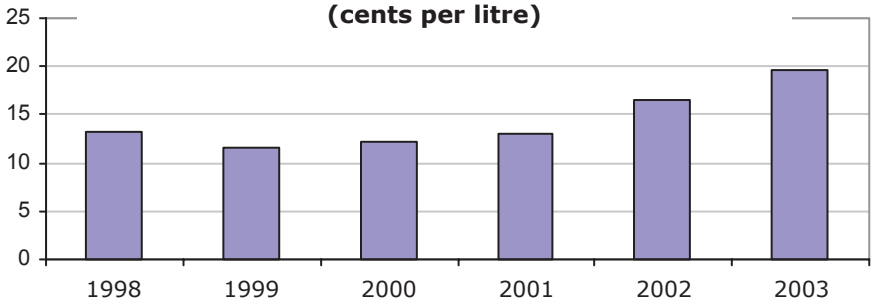
Estimated intake of regional milk



Milk production

- The production sector faces increased climate risk than in the past as the region's climate has shown less dependability over the past 5 years to support pasture base and allow access to low-cost fodder and grain inputs, increasing the overall production cost base.

Variable feed related costs of production (cents per litre)



- Farm sizes have grown as smaller producers exited the industry and remaining farmers increased intensity, yet higher operating costs have not created sufficient margins for greater investment in scale production as seen in southern regions. Factor productivity has improved over the past few years under commercial pressure, yet gains have been hampered.

Milk prices

- Regional prices offered by non-cooperative processors in Sth Qld have been higher than NSW regions due to the retention by Parmalat of a two-tied pricing approach, protecting its milk supply from sharper adjustment than might have been the case. This has to some extent lessened the impact on the region. When that pricing regime expires (late 2004), any revision to significantly lower prices is likely to see further exits
- As regional production has declined and shortages in year-round milk have been experienced from time to time, the divergence in milk prices has allowed Parmalat to attract suppliers from Dairy Farmers. Supply competition is likely to remain a factor in the region unless the trend line is reversed.

Some key farm productivity indicators

	98	99	00	01	02	03
Average herd size	123	127	149	156	169	179
Production/cow (litres)	5129	5063	5528	5419	5421	5570

Processing sector

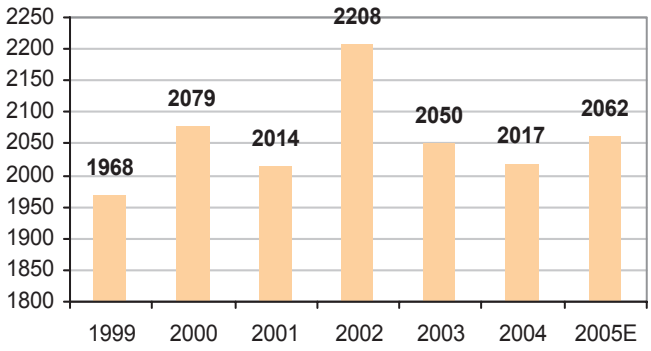
- Rationalisation of the processing sector in the region has been widely anticipated – consistent with the scenarios identified earlier in the ownership of processing assets. The likely outcome of this change would see closure of one or more major plants, including the Brisbane plant of Parmalat, and increased throughput at National Foods existing Crestmead facility.
- A key asset to the region is the Toowoomba cheese plant of Dairy Farmers which provides scope for regional milk balancing, and is suited to the relatively "flat line" of milk production. Reduced competition and installed processing capacity in the region will improve the use of the region's milk not required for fresh dairy products.

5.2 Western Victoria

Major impacts of change

- There has been limited direct impact of change on returns as deregulation coincided with strong growth in world prices.
- The impact of drought has subsequently curtailed production. The prevailing milk prices were not sufficiently attractive, due to world market conditions, to stimulate production. This limited the seasonal incentives affordable by dairy companies and reduced the overall feed available to cows – cutting the size of the seasonal production peak as well as post-peak "shoulder" period production.
- The region has seen strong production growth in the past 10 years and is regarded as the lowest cost production region in the Australian industry due to the reliability of pasture growth. The region has benefited from new investment in new dairy farms as conversions from sheep or beef cattle use. The south-east SA region has been regarded by certain processors as a key part of the future growth of the region
- A limited percentage of milk production from the region is used in fresh dairy products due to the equal proximity of Gippsland and Northern Victorian milk to major processing operations located in and near Melbourne.

Regional annual production (millions of litres)



Current and future challenges

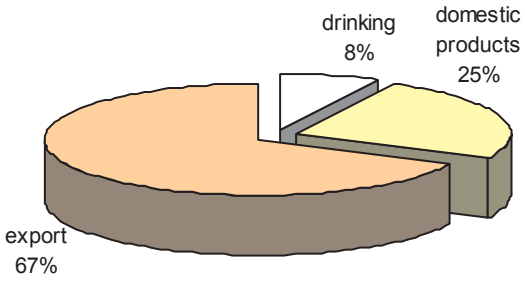
Market environment

- The region is heavily reliant on world market returns with more than 90% of its milk used in dairy products.

Processing sector

- The key challenge for the region in the short to medium term is to encourage a recovery in milk production so as to restore manufacturing plant efficiencies which have been affected by the reduced throughput in the 2002-3 and 2003-4 production seasons.
- The region is currently operating around 90% of the peak throughput achieved in the 2001-2 season, with significant additional installed capacity available

Estimated end-use of total Victorian milk 2004

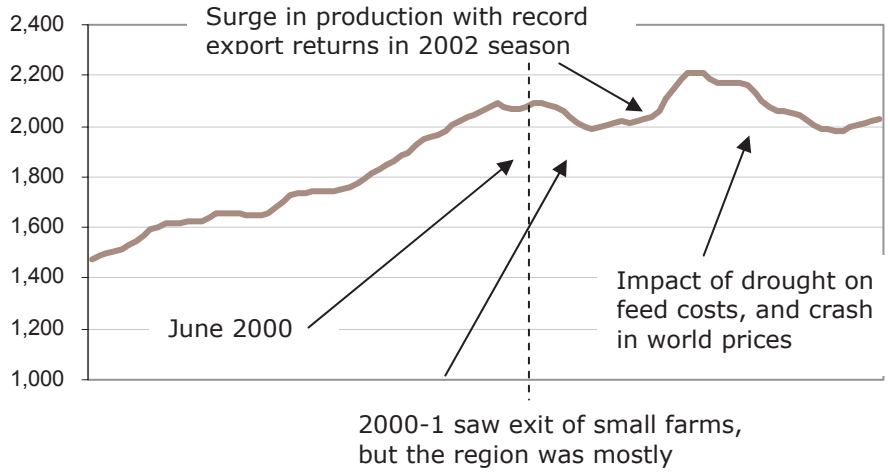


Milk production

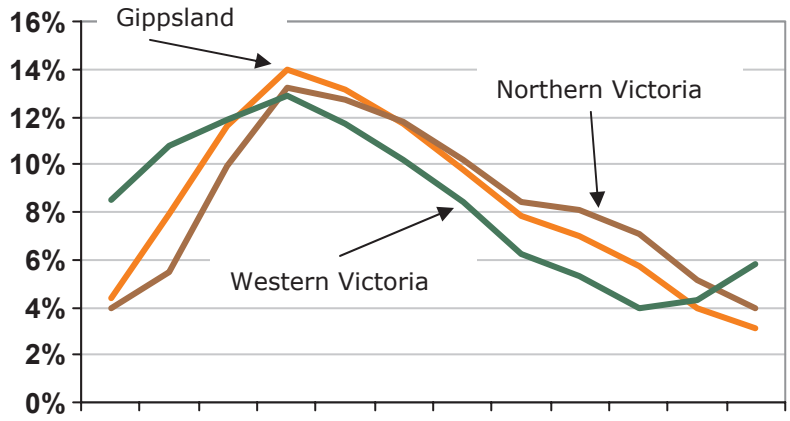
- The production sector has generally enjoyed good production conditions and was not directly affected by the drought. The impact on the region was however an indirect effect, whereby supplementary feeding costs were significantly increased affecting about half the region's producers who intensively feed.
- The region plays an important part in the future of the export-focused sector of the industry due to its cost advantages and the flatter production pattern (which can be achieved with seasonal conditions) compared to other production regions.
- Growth in the future will continue to depend upon the reliability of natural pasture conditions, and the increasing intensification of production. Additional dairy farms will be attracted to the region due to its cost advantages however the conversion economics will be affected by the relative returns available to beef and sheep industries (presently enjoying good returns compared to dairy) and the relative attraction of other regions such as Tasmania (which is generally preferred by ex-New Zealand farmers).
- South East SA has seen strong production growth in the past 5 years yet remains a small part only of the economic milk pool of Western Victoria. Presently most of the milk leaves that

region for processing either in the Warrnambool region or in plants near Adelaide, yet it is planned in the medium term for additional manufacturing plant to be located in that region. The region's production profile is different to that of the Victorian region, allowing it to supplement milk flows and provide better plant efficiencies.

Moving annual total of milk production for the combined region (millions of litres, 1995 to 2004)



Comparison of 3 Victorian regions – each month as a % of total annual output (average last 4 years)



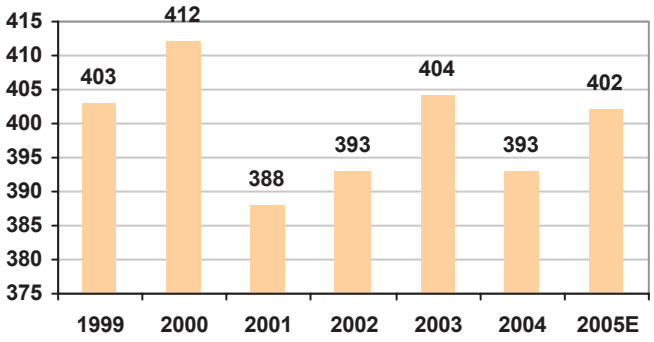
- The viability of such future option depends on the potential size of the sub-regional milk pool – scope for which is affected by competing land use and the regulation of groundwater in the region, as production is mostly reliant on irrigation.

5.3 Western Australia

Major impacts of change

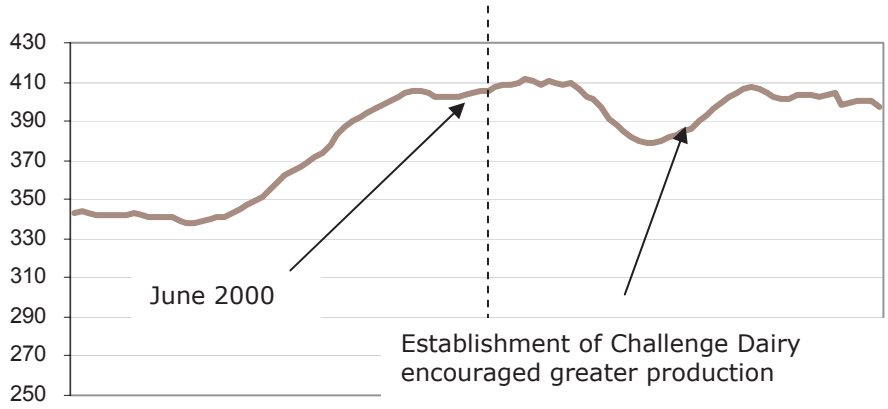
- Significant changes in the structure of the processing sector in WA have affected the industry climate
- Fonterra Cooperative acquired Peters & Brownes as part of its AFH group in Australia, but runs the business strictly as a proprietary company
- Dairy farmers established a new cooperative, Challenge Dairy, as a manufacturer, which acquired former assets from George Weston and National Foods, and sought an expansion of milk intake to develop export markets

Regional annual production (millions of litres)



- Challenge has had limited success in obtaining prices above commodity levels (ie world prices) and has returned low milk prices.
- Pressure has increased on Challenge with National Foods reducing its direct milk requirements

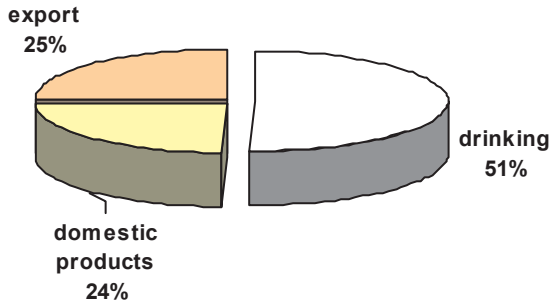
Moving annual total of milk production for the combined region (millions of litres, 1995 to 2004)



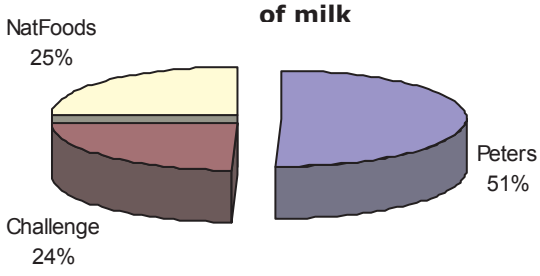
in the WA region due to a reduction in regional processing activity. This has left more milk in the hands of Challenge.

- As other companies have only sought to pay the necessary margin above Challenge prices to obtain milk flow, and in the face of aggressive market competition, farmgate milk prices reduced from an average of close to 37cpl in 1999-2000 to an average across the region of between 26-27cpl.
- The production response has seen a number of farm exits (around 25% of numbers in 2000), but production remaining in line with pre-deregulation levels, as remaining producers have increased their scale to achieve better farm efficiencies.

Estimated end-use of milk



Estimated company intake of milk



Current and future challenges

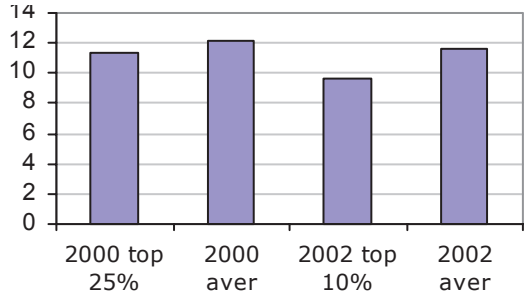
Market environment

- The regional fresh products market services is one of the most competitive in the industry, with aggressive price competition affecting the sustainable retail and wholesale prices of milk for processors.

Processing sector

- The key challenge for the region in the short to medium term is whether Challenge Dairy can enhance its return on its milk intake from product sales. Better performance of the cooperative will increase its milk returns and place a firmer floor under WA farmgate prices, in view of the pricing approach of the other two companies.
- Any further rationalisation of the processing sector in the remainder of the industry will have no impact on WA, as two businesses will remain. Each company has relatively new assets with modern capabilities
- Better returns will also allow Challenge to invest in plant efficiencies and modernization that may enhance returns further, however the small scale throughput means it is at a disadvantage when competing in commodity product against Victorian and New Zealand competitors.
- This will further compel Challenge to seek differentiated markets and relationships that provide some protection from commodity competition.

Variable feed related costs of production (cents per litre)



Milk production

- The production sector has enjoyed good production conditions and was not affected by drought. It did however experience an increase in grain costs due to a rise in world feed grain prices, which has impacted on profitability at the time when milk prices were adversely affected by the overall region's use of milk.
- Farm sizes have grown on average by more than 33% since 2000 as smaller producers exited the industry and remaining farmers increased scale throughput.
- Farmers have opted to reduce their production intensiveness in response to the lower milk price regime, thereby reducing per-cow output significantly over the past few years, alongside increasing their average herd sizes. This has increased the seasonality of milk production slightly compared to levels in the past.

Some key farm productivity indicators

	98	99	00	01	02	03
Average herd size	165	153	158	202	218	225
Production/cow (litres)	5369	5835	6338	5903	5402	5350

National Competition Council
Level 9/128 Exhibition Street
Melbourne Vic 3000
P: [03] 9285 7474
F: [03] 9285 7477
E: info@ncc.gov.au
W: http://www.ncc.gov.au