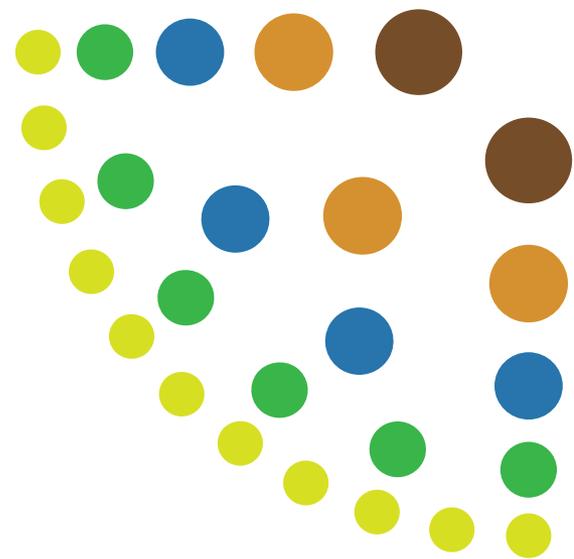




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From farm to retail – how food prices are determined in Australia



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From farm to retail – how food prices are determined in Australia

Project No. PRJ-009688

ISBN: 978-1-74254-859-3

Publication No.: 16-013

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Foreword

The Australian food system is complex and dynamic – a matrix of sectors, products, markets, and value-chains that make up Australia’s agrifood industry. Further dimensions are added with the diversity of quality of produce, the extent to which foods are processed and the variety of end-uses within single product categories.

Understanding the major determinants of food prices along value-chains is of critical importance to the future of policy-making by Governments and industry bodies.

The aim of the paper is to convey a better understanding of the main factors that determine prices (and costs) in value-chains for Australian agricultural food products, involving primary producers, manufacturers, wholesalers, and retailers.

This study has been done as an update to a 2004 report into Food Price Determination for the (then) Australian Department of Agriculture published in 2004 by the same author.

Much has happened in the intervening 11 years to change the landscape. Since that earlier report there have been significant changes to the influence of trade – import and export on most industry sectors – as well as the nature and intensity of competition in the domestic retail market. The ongoing effects of price-based competition for retail market share continue to alter the food industry landscape, and will do so for some time. Alongside this, there have been many successful cases where food producers have captured higher unit value in meeting a more diverse set of consumer wants.

The study takes a whole-of-chain perspective of each sector of the agri-food industry, considering the differing transformations of farm-gate commodities into food products, where value is captured and how participants perform over time. The study looks into the quality of intelligence that is available to food producers on market conditions that affect their decisions; where major gaps exist and where improvements may be possible.

The results are expected to be valuable for informing Australian agricultural and food policies and of interest to a broad range of stakeholders concerned about Australia’s food future.

This project was jointly funded by RIRDC and the Australian Government Department of Agriculture and Water Resources.

This report is an addition to RIRDC’s diverse range of over 2000 research publications and it forms part of our National Rural Issues R&D program, which aims to inform and improve policy debate by government and industry on national and global issues relevant to agricultural and rural policy in Australia by targeting current and emerging rural issues, and produce quality work that will inform policy in the long term.

Craig Burns

Managing Director

Rural Industries Research and Development Corporation

Acknowledgements

The author wishes to acknowledge the assistance of the numerous members of the primary production, food processing and retail sectors that contributed information and valuable insights to help inform this report.

The contributions of Dairy Australia, the Meat and Livestock Association, Horticulture Innovation Australia Limited and the Australian Bureau of Agricultural and Resource Economics and Sciences in reviewing the data and analyses are also gratefully acknowledged.

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Term	Meaning/explanation
ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
ABS	Australian Bureau of Statistics
Channel	Distribution and retail sales path from processor/wholesaler through to end consumer
CODB	Cost of Doing Business, which is a key performance indicator for grocery retailers referring to the full cost of maintaining and servicing a retail store chain and supporting logistics activities
Co-products	Secondary saleable products that are derived from a manufacturing process
cwt	Carcass weight
EBIT	Earnings before interest and tax
EBITDA	Earnings before interest, tax, depreciation and amortisation
FCOJ	Frozen Concentrated Orange Juice
FOB	Free on Board – export pricing
MLA	Meat and Livestock Australia
NLRS	National Livestock Reporting Service, a market reporting service operated by MLA for the meat industry
OTH	Over The Hooks, which is a means of selling a livestock carcass based on dressed weight
Private label	Retail food products that are branded in supermarket brands – otherwise known as “no-name” or “generic” labels
Proprietary brand	Retail food products that are branded in food company brands
QSR	Quick Service Restaurants, which designates fast food outlets including McDonalds, Hungry Jacks, Pizza Hut
ROA	Return on assets
ROE	Return on equity capital employed
Route trade	The grocery food distribution channel that services independent and convenience stores
SKU	Stock Keeping Unit

Food terminology	
Food sector	A major component of the food industry – used at a high level such as dairy, beef, fruit and vegetables, and grains.
Food category or sub-category	<p>A group of food products with similar characteristics based on their nature or end-use, either within a sector, or which might span products derived from more than one sector.</p> <p>In the case of the dairy sector, cheese, packaged milk, fresh dairy, and spreads are categories. In retail, the meat category comprises beef, pork and lamb. Spreads include butter, blended products or vegetable oil products.</p> <p>A sub-category refers to a lower-level grouping with distinctive product features – flavoured milk, butter, fresh tomatoes, yoghurt.</p>
Food product	An individual product line or SKU as defined on the left.
Food commodity	Tradable products usually referred to in bulk, generic or raw form. It generally refers to categories of product traded internationally or along major domestic supply chains.

1. FINDINGS AND CONCLUSIONS

Purpose

- The aim of this report is to provide a better understanding of the determinants of prices in key food value chains, addressing several objectives:
 - a) Provide an **analysis of movements over time** in prices paid by consumers in comparison to that received at the farm level;
 - b) Identify the **costs and value-adding factors** which are determining food prices over time;
 - c) **Review the high-level performance of and trends** impacting food processing/manufacturing businesses and retailers in Australia and other countries in the context of pricing along the value chain from farmgate to retail;
 - d) Provide an **analysis of the profitability and returns** over time for participants along key food supply chains in Australia; and
 - e) **Examine options for improving price transparency** along food value chains and impacts on their effective and efficient operation.
- This report aims to provide a comprehensive but high-level analysis of the factors driving food pricing along value chains in Australia over time.
- This report is intended for a wide audience as a resource and reference for policymakers, researchers, food industry participants and advisers.
- The scope of and approach to this study is outlined in section 2, including the primary aims and limitations of this work.

This update

- This report provides a substantive update of the 2004 Food Price Determination Report produced by Whitehall & Associates, a predecessor firm to Freshagenda.
- There are a number of major differences in the content and analysis in this update, more than 10 years after that initial study. These include:
 - A deeper analysis of consumer preferences and drivers of choices, and how these are reflected in the range of prices being achieved in retail prices to consumers;
 - Changes in the structure of and competitive forces in retail markets;
 - Practices adopted by grocery retailers;
 - The influence of international trade on food value chains;
 - Performance of food categories broadly including products that comprise categories; and
 - An analysis of the relative transparency of pricing information along food value chains.
- This report has attempted to look more widely at the influences on pricing within food production and processing sectors, rather than a focus on the influences of the retail market and the pricing applied by grocery chains, which was a large focus in the previous study.
- While the work has looked at influences on prices over time, limits on the availability of data – especially at retail – means that the time periods of comparison provided are relatively short - up to 5½ years in some cases from early 2009 to mid-2014, but in several cases shorter recent periods in this range.

The food market context

A more volatile world

- A comparison of prices in the context of relative incomes indicates that Australian food is generally more affordable than similar foods in other developed markets. Food prices to consumers have risen more slowly in Australia than most other categories of consumer spending in the 7 years to 2014.
- While food production costs have been volatile and rising over this time, recurring global food shortages have affected most commodity markets since 2007.
- Farmers generally have experienced these pricing cycles in food commodities exposed to global market cycles, like dairy, meat and grains, although the relationships between export and farmgate prices varies across food categories.

Consumers protected

- The Australian consumer meanwhile has felt few of these pressures. Weak consumer sentiment in recent years has led to cautionary consumer spending on discretionary food items purchased for meals at home and reduced spending on dining out, despite food gradually reducing as a share of overall household spending.
- In response to food shopper sentiment, there has been increased price competition between major grocery chains over that period to be seen as providing best value prices on food and groceries.
- The work finds that prices to consumers for the main selling lines in the categories examined have been relatively flat, with a few exceptions where export markets create competitive tension and potential shortages.
- The story of the food retail market isn't only about higher consumer spending on cheaper items. Consumer preferences have become more complex in recent years as lifestyle demands calls for more convenience and interest in a range of ethical primary production and processing values has grown. Consumers pay considerably more for food products when acting on these preferences.

Retail sector changes

- The financial performance of grocery retailers in Australia is not materially out of line with profitability being achieved in other comparable developed retail food markets.
- There have been significant changes in the competitive tension in the grocery retail market with the revitalised financial performance of Coles and the rapid expansion of the Aldi discount chain.
- The cautious consumer spending behaviour and effective promotion of value by grocery retailers has seen a tangible shift towards more meals being consumed at home, giving volume growth to the grocery sector.

Pressure in the middle of the chain

- With rising operating, ingredient and labour costs, the static retail pricing environment for staple food lines has created significant cost pressure along many food value chains, most significantly on the performance of food manufacturers and marketers.
- There are limited locally owned public food companies to observe. Surveys of the sector have reflected a trend of declining profitability in the sector, although with a wide range of outcomes being achieved.

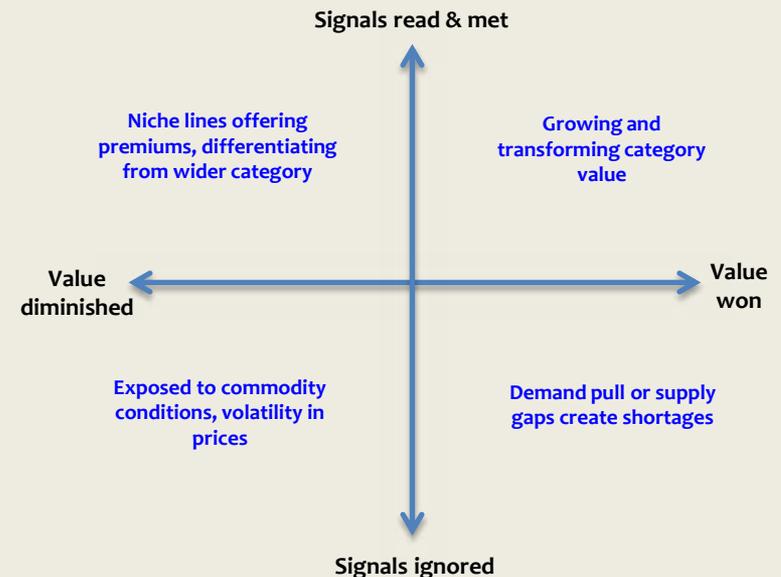
Executive summary

Price comparisons

- The complexity of issues across food industry sectors, the varying degrees of integration and product transformation and the intensity of competition within the food retail and foodservice markets means simplistic explanations for the relationships between farmgate and retail prices are often not relevant or misleading.
- Any analysis of pricing through food value chains should be undertaken with a case-by-case understanding of the structure and dynamics of the categories in question, when assessing the influences on pricing and relationships between prices achieved by participants.
- While it is a key requirement of this study, there are dangers in a narrow focus and simplistic comparisons of farmgate to retail prices for individual products.
- For this analysis to be useful, there is a need to consider:
 - the composition of products within categories; and
 - the extent to which market signals are being read and met by participants in value chains and – as a consequence – where value is being added (or not).
- Focus on a single line item within a category will miss these wider issues and distort reality.
- This study has sought to provide a summary of those settings in each case. Where possible, credible data sources have been used to illustrate pricing over time and at a point in time as relevant to the requirements of this study.
- Australia's geography and urban demographics, relatively small consumer market and slow population growth present food marketers and retailers with significant challenges in offering sustainable growth in value and volume.
- There are however many examples where significant growth in categories is being achieved and value being added and captured by participants in the value chain.

A framework to enhance understanding

- Throughout this analysis we have applied a consistent framework to help assess the relative performance of food categories over time.
- This is a framework to understand how category value is impacted over time by its dynamics which include the nature of the product offering, how value is created and captured, the competitive conditions faced and supply chain structures.
- In this report, we have applied this across a number of complex categories and sub-categories to provide a qualitative context to the determinants of pricing over time – beyond the numbers for value and volume.
- The criteria used and the interpretation of this framework are explained in further detail in the report.



Key findings

The general determinants of pricing

This chart provides a high-level summary of the common factors seen across food categories. These factors are examined at a sector and category level in further detail.

Farm production

- Variability in output and supply
- Propensity to meet market requirement (time, quality, volume)
- Perishability of produce
- Seasonality of production
- Proximity to market

Influence of international trade

- Share of output (and product form) that is exported
- Competitiveness and relative dependence of imported products
- Volatility of market conditions

Value chain economics

- Extent of vertical and horizontal integration in all sectors
- Relative cost-competitiveness of processing facilities
- Cost of logistics

Retailer strategy

- Promotional pitch to the consumer – value and points of differentiation
- Category management and product sourcing models



Regulation of business activities

- Increasing costs of business regulation and compliance
- Legal and policy restrictions on consolidation and integration

Marketing approach

- Scope for product differentiation and customisation
- Propensity to meet consumer requirements (convenience, quality, other attributes)

Technology and innovation

- Scope to improve efficiencies
- Scope for product customisation
- New product development
- Changing formats and usage

Consumer preferences

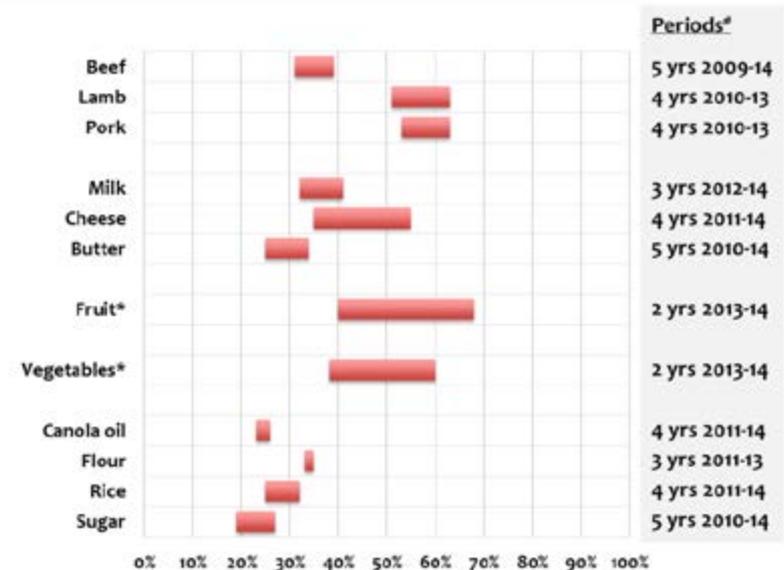
- Household income pressures from time to time
- Value placed on convenience
- Priorities placed on healthy eating and ethical issues
- Life and workstyles influencing choices between eating out and at home

Executive summary

Pricing relationships

- The relationships between farmgate and retail prices vary greatly across the food categories that have been analysed in this study.
- In many food categories there is a complete disconnect between the retail price achieved in the Australian food market and farmer returns, while in others there is a stronger relationship – usually, however, farmgate or wholesale prices are shown to influence prices through to the retail selling price to the consumer rather than vice-versa.
- Where comparison is possible - through credible data availability - and valid, in terms of appropriate like-for-like products, the portion of the retail price in a category has been derived in this work across one or more years.
- The chart on the right provides a summary of the indicative range of farmgate shares of retail prices at a category level. This is based on assumptions and the sources outlined in the document, and summarised on page 41.
- The approach to estimating farmgate share takes account of appropriate comparisons – for example, rather than taking the erroneous and simplistic approach of comparing the price of a cut of steak with the price of cattle, the retail proceeds of the entire carcass are compared to the saleable product in raw form.
- Given the limited information available in many sectors, there is a challenge in providing a consistent approach across all food value chains and channels.
- Ranges are provided due to the variability of retail prices that can be achieved, and in the case of fruit and vegetables, the wide range of farmgate shares achieved in key products across a number of the sub-categories examined in this study.
- The analysis takes account of yields in the processing of livestock and other raw materials into saleable food products. Where relevant co-products have been taken into account to ensure an appropriate like-for-like comparison. In all cases it is assumed that retail values are derived from grocery price data which has been obtained for this study.

Figure 1.0 – Farmer's share of retail value



Determinants at a sector level

- The study addresses price and cost determinants against a background environment of the Australian food sector, which takes account of:
 - Both global and domestic economic and commodity market climates affecting prices for goods traded internationally;
 - The influence of relative currency values on export returns to producers, as well as the landed prices of imported goods;
 - The complexity of consumer preferences within the Australian market, and their influence on the value placed on products;
 - The composition of sales through retail channels using available data on mix of product forms and selling prices;
 - The structure of the markets in each food category and the relative importance of the respective channels to the consumer – the role various foods play in meals eaten at home versus those eaten out of home;
 - The demonstrated consumer preferences for value, convenience and ethical values in their choices of products.
- Pages 11 and 12 summarise the forces that have the most influence on prices for each major category analysed in this report.
- This study examines the extent of the relationship between farmgate and retail prices – specifically the extent to which retail prices affect farmgate outcomes.
- Page 13 provides a summary of the extent and nature of these relationships, which vary across categories. In most cases, there is either no or a weak influence of movements in retail prices and farmgate outcomes.

Performance of participants

- The report compares available data on the performance of participants in the farm sector, food processing and food retail, measured in terms of profit margins and returns on assets.
- Typically the available data shows the farm sector generates a wide range of margin profitability across sectors, heavily influenced by seasonal variation, but this translates to low rates of return on asset values over time.
- Downstream participants generate higher returns on asset investments, but business models vary in their employment of capital, especially in the retail sector, making comparisons between sectors misleading.
- The analysis indicates however that while retailers have performed at or better than their international peers, Australian food processors (in the cases where data is available) have tended to generate returns weaker than overseas counterparts, although the performance range varies widely across sectors.

Key findings

Primary determinants of pricing

- This table summarises the factors that primarily set prices along supply chains in each major food sector or category.

Sector	Farmgate	Processing/Wholesale	Retail
Beef	<ul style="list-style-type: none"> Supply and demand for cattle, affected by weather and feedlot input costs, abattoir demand and the demand from cattle re-stockers into feedlot and pasture finishing operations. Demand for live export cattle in the northern supply chain. 	<ul style="list-style-type: none"> Competitive pricing against other white and red meat categories, with differentiation according to eating quality. Integration of supply chains with retailers reduces price volatility and stabilises returns to suppliers. Export demand for processed meat. 	<ul style="list-style-type: none"> Competitive retail pricing to position cuts in the category against other white and red meat lines based on meal occasion and preparation methods. Significant differentiation through different grades of eating quality, packaging, product branding, and service.
Lamb	<ul style="list-style-type: none"> Largely influenced by export returns, affected by customer demand and currency. 	<ul style="list-style-type: none"> Carcass and portion value: Largely influenced by export returns affected by customer demand and currency. Integration of supply chains with retailers reduces price volatility and stabilises returns to growers. Export demand for processed meat. 	<ul style="list-style-type: none"> Competitive retail pricing to position cuts in the category against other white and red meat lines. Differentiation through different cuts, eating quality, and packaging. Movements over time correlate with export and carcass returns.
Pork	<ul style="list-style-type: none"> Prevailing carcass value based on mix of export and domestic market returns. Strong influence of significant volumes of pork into lower end of processed meat market. 	<ul style="list-style-type: none"> Imported volumes of cured pork portions for use in bacon, ham and other smallgoods Use of pork cuts and its retail positioning. The needs of the domestic markets in terms of carcass size and quality. 	<ul style="list-style-type: none"> Competitive retail pricing of meat protein cuts in the category against other white and red meat lines based on meal occasion and preparation methods.
Poultry	<ul style="list-style-type: none"> Not applicable – there is no significant stand-alone “farm” sector in the industry as bird-rearing is integrated into processor activities. 	<ul style="list-style-type: none"> Competitive pricing against other white and red meat categories. 	<ul style="list-style-type: none"> Competitive pricing of meat protein cuts in the category against other white and red meat lines based on meal occasion and preparation methods.
Dairy-Milk	<ul style="list-style-type: none"> Milk used in fresh milk: Varies by production region - In southern regions influenced by competing uses of milk in manufactured products; In fresh milk production regions, balanced between prices to sustain stable year-round supplies, costs of alternate sources and processor returns from the milk category. 	<ul style="list-style-type: none"> Balancing retailer and processor margins on products within the category – differing between brand and private label lines and product types. 	<ul style="list-style-type: none"> Average target margin over cost while remaining competitive with alternate retail channels. Retail prices on private label value lines constrained by aggressive retail competition between major chains, independents and discount grocers. Pricing of alternative non-dairy and UHT products.
Dairy-Cheese	<ul style="list-style-type: none"> Milk used in manufactured products: Average returns to major production regions from the mix of domestic and export sales, underpinned by the prices affordable by the major co-operative. 	<ul style="list-style-type: none"> Import parity or world prices for major cheese varieties. Grocery and food service supply contracts offer smoothed pricing but reflect export values over time. 	<ul style="list-style-type: none"> Target margin over cost, balanced across the cheese category between bulk and specialist products. Regular discounting sustains turnover volumes between competing brands and imported lines.

Key findings

Primary determinants of pricing (continued)

- This table summarises the factors that primarily set prices along supply chains in each major food sector or category.

Sector	Farmgate	Processing/Wholesale	Retail
Fresh fruit and vegetables	<ul style="list-style-type: none"> Prevailing balance of seasonal supply and demand of fresh produce at the time of marketing/supply. Returns variable dependent on use of direct supply to major purchasers or wholesale markets. Climatic events and regional seasonality. 	<ul style="list-style-type: none"> Prevailing balance of seasonal supply and demand at the time of marketing, enhanced by ineffective transparency at certain stages (including packing and wholesaling). Integrated supply chains with retailers reduces some price uncertainty and generally delivers a higher gross return to suppliers based on specifications. 	<ul style="list-style-type: none"> Prices set to provide target margin over full costs of produce category. Strong influence of perceived price-sensitive points to consumers, with periodic fluctuation according to fruit availability and quality. Short-term pricing subject to local competitive pressure between grocery chains and specialists. Competitive price points of frozen/preserved product.
Oilseed products	<ul style="list-style-type: none"> Prevailing world commodity prices for oilseeds and grain commodities used in feedgrains. 	<ul style="list-style-type: none"> Oils: Suitable crushing margin over cost, balanced against import parity prices for competing cooking and industrial oils. 	<ul style="list-style-type: none"> Oils: Pricing sensitive to changing consumer tastes, and foodservice cost pressures. Influenced by pricing of competing oils (including imported lines) and spreads.
Grains products	<ul style="list-style-type: none"> Prevailing world market balance of demand and supply – mostly supply-driven – and commodity prices for food wheat varieties. 	<ul style="list-style-type: none"> Flour: Suitable margin over processing costs, subject to end-use requirement and specification. 	<ul style="list-style-type: none"> Flour products: Target margin over cost with retail prices constrained by competition between major grocery chains and discounters.
Rice	<ul style="list-style-type: none"> Average returns from export markets, affected by performance of the major co-operative from its diversified overall activities. 	<ul style="list-style-type: none"> Suitable margin over cost, influenced by import parity price for finished goods. 	<ul style="list-style-type: none"> Target margin over costs over time, influenced by pricing of imported products and pricing offered by discounters.
Sugar	<ul style="list-style-type: none"> Prevailing world price for sugar affected by stability of global supply for food uses from major producers. 	<ul style="list-style-type: none"> Export (and import parity) prices for raw and processed sugars. Some stability offered to large industrial users through pool-referenced contracts to smooth pricing. 	<ul style="list-style-type: none"> Target margin over costs – little direct product competition, but prices restrained by competition between major grocers and discounters.
Eggs	<ul style="list-style-type: none"> Based on affordable price to packer/marketer Influenced by prevailing balance of supply and demand of eggs at the time of marketing. 	<ul style="list-style-type: none"> Prevailing balance of supply and demand of eggs at the time of marketing, strongly influenced by price competition in non-grocery channels such as through independent specialist fresh food retailers. 	<ul style="list-style-type: none"> Target margin over costs, influenced by competitive pricing against independent retail outlets. Alternative ethical sourced/farmed eggs.

Key findings

Farmgate and retail prices

- This table provides a summary of the nature of relationships between farm and retail prices.

Sector	Farm price	Retail products	Relationship	Explanation	Pages
Beef	Cattle prices	Beef cuts	Minimal	Cattle prices move independently of the movements of prices at retail, which have been relatively stable in recent years. Retail prices tend to move with limited lagged effect to the changes in domestic cattle input prices.	45-51
Lamb	Lamb carcass prices	Lamb cuts	Moderate	Both prices influenced by export returns. Retail prices move in response to changes in export prices.	53-55
Pork	Carcass prices	Fresh pork cuts, ham and bacon products	Weak	Higher carcass prices may pass to retail prices if shortages of fresh pork arise.	57-59
Milk	Farmgate milk	Packaged milk	Weak and variable	Movements in retail prices – through changing sales mix over time – have constrained movements in farmgate prices in fresh milk regions. In other regions, there is no relationship over time.	64, 66-69
Cheese	Farmgate milk	Packaged cheese	Minimal	Price movements in milk do not get reflected in retail cheese prices.	65, 70-71
Fresh fruit & veg	Raw fresh produce	Fresh produce lines	Strong	Retail prices move in response to changes in supply availability which varies seasonally for many fresh produce categories.	81-95
Processed fruit & veg	Raw fresh produce	Frozen and tinned products	Weak	Farm prices more directly affected by wholesale prices of competing imported produce.	97-102
Oilseed products	Crop price	Cooking oils and margarine	Weak	Retail markets use a small portion of overall crop output. Farm prices driven by global forces and crop sizes, which may influence traded oil prices.	104-105
Grains products	Wheat price	Flour and bread	None	Grain prices move independently of flour and bread prices. Bread prices are not materially affected by movements in the cost of grain which is a small component of overall costs.	107-108
Rice	Paddy rice payment	Packaged rice	Minimal	Farm prices move independently of retail prices.	110-111
Sugar	Cane price	Packaged sugar	Minimal	Cane prices move independently of retail product prices. Grocery has very small share of total sugar use.	113-114
Eggs	Raw eggs	Packaged eggs	Moderate	Mix of retail prices achieved from brand and product type will affect returns available to egg producers.	116-117

Transparency

- There are varying levels of pricing transparency and understanding of supply and market conditions across food sector value chains.
- Farmgate pricing information is typically not shared between growers. While average farmgate and retail transaction data is readily available, wholesale prices are a key information gap in supply chains.
- While in theory it would seem greater transparency would be beneficial to all supply chain players, allowing for more efficient market operation, there are a number of barriers to price transparency.
- Business costs and pricing are commercially confidential. Supply chain players also have a vested interest and legal limitation in sharing financial information. Market knowledge and intelligence can overcome some of these gaps and help those with the expertise to negotiate in their favour.
- The cost-benefit equation of information collection whether through regulation or commercial service provision is also high and there are substantial legal risks and sanctions which severely limit the ability of businesses to share or discuss such information.
- Industry efforts at improving transparency are highly dependent on the capabilities of organisations and the willingness of participants to collaborate in the sharing of data that will aid decision-making.
- Our analysis suggests that improving price transparency will not necessarily deal with all the issues that challenge participants in supply chains – especially producers. However improved market signals whether through price or other mechanisms would facilitate improved decision making and could point to opportunities for extracting greater value. Our report looks into several examples of the scope for added value achieved at a category level, using an assessment method (outlined earlier and on page 40) which may be useful in understanding opportunities. Improving understanding of how markets function and future demand drivers, and fostering closer supply relationships with improved signals are vital to such efforts for suppliers.
- Looking to overseas examples, markets with the greatest transparency across the supply chain tend to be highly regulated. Mandatory price reporting - a feature of US agriculture - does not appear to have reduced volatility over time or improved market efficiency for primary producers.

What does “fair” mean?

- Many of the calls for increased price transparency have been predicated on a need for greater fairness across the supply chain, particularly in respect of primary producers. However defining what is “fair” in terms of prices is not simple.
- An economic definition of “fair pricing” refers to the situation where market demand and supply result in prices that provide the ability for participants in a sector to achieve a normal rate of return over time.
- However there are a wide array of enterprise types and owner expectations in agriculture. Some calls for fair prices suggest farmers should receive a certain share of retail prices, or production costs should be covered in a way that is monitored and enforced by regulation.
- These questions are complex, as are the markets themselves. Our analysis indicates a more targeted approach to transparency and fairness is required to improve rather than detract from effective market operation.
- Policy interventions in the form of price regulation run the risk of producing other market distortions, as they have in the past, in Australia and overseas. These distortions generally lead to higher prices for consumers, misallocation of resources and can reduce incentives for innovation.
- The question of whether there is a role for policy makers in enshrining “fairness” in pricing is beyond the scope of this study, nevertheless this issue will inevitably be associated with discussions about competition and price determination within the food industry.

Recommendations for increasing transparency

- The report contains a number of recommendations and considerations for improving transparency. Foremost is an objective identification of the target audience, the outcomes that are sought and the likely cost and benefit.

SECTION 2: INTRODUCTION

2.1 Terms of reference

Terms of reference

The objective of this study is to build on the 2004 *Price Determination in the Australian Food Industry* report, detailing current agrifood supply chain dynamics, including profit allocation and price formation along the supply chain for a given list of food products, both minimally and significantly transformed.

1. Provide an analysis of movements over time in retail prices paid by consumers in comparison to those received at the farm level.

This analysis should consider, explore and detail supply and demand factors and the impact of these on price movements and prices received by farmers and value-chain intermediaries. The time period should be of sufficient scope to ensure that a reasonable and reliable assessment is established.

Consideration should also be given to other factors that may influence price movements, such as innovation and structural change, etc.

This analysis may include economic modelling and associated economic analysis and explanation of factors impacting price allocation and profits along the value-chain.

2. Identify the key costs and value-adding factors which are determining food prices over time

This analysis should use qualitative and quantitative information and data in respect of key commodity and product lines in domestic and export markets, and in domestic markets in a selection of comparable countries to Australia.

It should isolate key components affecting the final price and associated trends and drivers.

3. Review, broadly, the performance of and trends impacting food processing/manufacturing businesses and retailers in Australia and other countries over the past decade in the context of pricing along the value chain from farmgate to retail.
4. Provide an analysis of the profit margins and return on equity for participants—farmers, wholesalers, retailers—along key selected food supply chains in Australia.

The analysis should consider how the bargaining power of participants affects their profit margins and return on equity relative to others in the supply chain, and the extent to which major supermarkets are price setters in these markets.

5. Examine options for improving price transparency along food value chains and impacts on their effective and efficient operation

The analysis should consider Australian value chains and models in comparable countries that encourage dissemination and improve availability of pricing information. The analysis should also consider the counter-argument for commercial confidentiality.

Food products

The products selected for analysis in this work are within the following categories:

- Dairy products (milk, cheese, butter and spreads, yoghurt)
- Meat (pork, beef, lamb)
- Fresh horticulture (various fruit and vegetable product lines)
- Processed fruit and vegetables (selected lines)
- Seafood
- Rice
- Eggs
- Flour and bread
- Vegetable oil
- Sugar

2.2 Scope

General approach

We have undertaken the following major steps in compiling this report:

Accessed data and intelligence on prices, costs and margins

- We have mapped the value chains and undertaken a data scan for a list of product groups/items. This included a range of products to ensure the analysis has adequate coverage of relevant categories.
- We identified available data and intelligence from food industry sources, including industry statistics, existing research studies and through consultation with organisations and participants.

Mapped and analysed product value chains

- We collated available and relevant insights and trends on factors affecting retail food markets
- We collated available insights on factors affecting major food value chains identified in the project.
- We collated and analysed pricing data and relevant pricing dynamics for the product groups.
- We assessed available public information on corporate profitability, and any linkages between product pricing and the outcomes achieved by food manufacturers and retailers.

Undertook analysis and reporting

- We documented insights, findings and conclusions from the sector and category-level analysis.
- We developed criteria relevant to the assessment of transparency in each sector.

Coverage

The study draws on information as to pricing and cost influences and outcomes over time from a number of sources which are outlined on page 20 and throughout each section on the respective food sectors.

Our assessment of the visibility and transparency of food commodity and category prices along chains is reflective of the limited availability of representative and consistent prices in many circumstances. This study has necessarily focused in areas where pricing data is available - mostly changes in farmgate prices across most sectors over time, and on wholesale and retail prices in grocery channels.

This means certain retail and foodservice channels are not covered by the analysis, as the scope of this study prevents more detailed work which would be required in such cases.

Competition

The study is however **not a study into the extent of competition** that exists in the retail food market, nor should it be relied upon for that purpose.

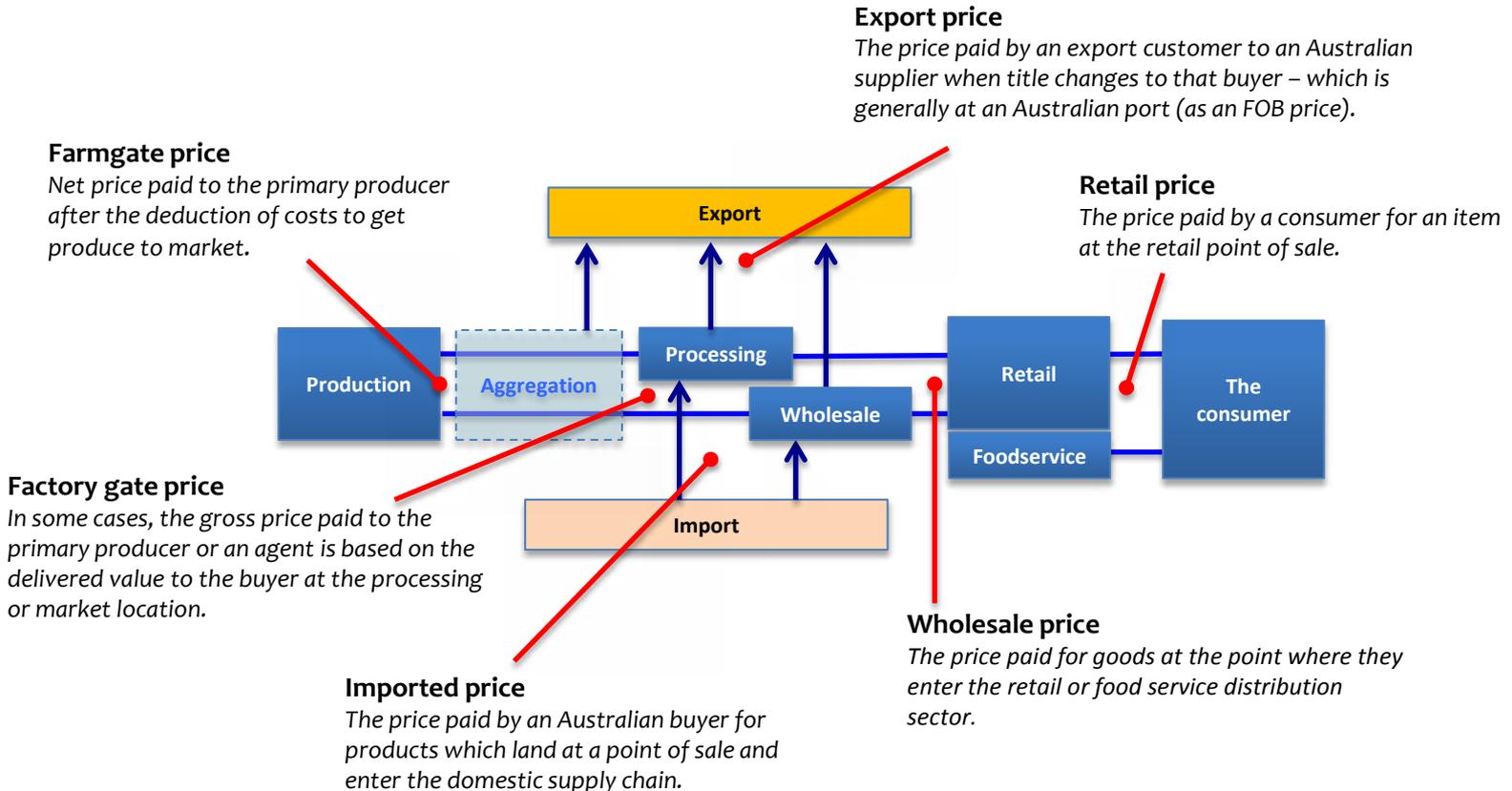
Such a study would require examination of a far wider set of conditions along food supply chains affecting entry and exit barriers; commercial terms and negotiation processes; transparency of volumes and prices at each point of the value chain; and the numbers of participants (suppliers and buyers) in each case.

It however looks at the evidence from pricing outcomes over time for selected food products, as to the apparent influences on prices, of which the nature of competition between retail participants is but one factor.

2.3 Pricing concepts

What is price?

- The chart below provides a summary of the key price concepts that apply through food value chains as relevant in this analysis. The use of different terminologies and the points at which prices are struck and for which data is available varies across different categories.



2.4 Differences in 2014 from 10 years ago

This update

This report is a substantive update of the Food Price Determination Report produced by Whitehall & Associates in 2004. There have been a number of major changes in the global and Australian food markets since that earlier report:

Global markets

1. World food commodity markets have become more volatile, since the “food crisis” of 2007 when acute shortages of supply in major commodities caused price spikes. Since that time, price cycles for major commodities have become more extreme and compressed, as shown on page 34.
2. Climate change impacts add further pressure in balancing supply and demand markets in areas as diverse as cereals, dairy, protein and certain fruit and vegetables.
3. China has a more significant influence on trade in a number of commodity groups as its burgeoning consumer demand has outgrown local supply capacity
4. The Global Financial Crisis (GFC) and its flow-on effects has left the global economy in a more fragile state.

Australia

1. In developed economies including Australia, households have sought opportunities to save to protect their wealth. The resulting greater consumer demand for “value” lines in food purchases (including in takeaway and dining out) has become a much bigger influence on overall retail prices.
2. Retail competition in Australia has become more complex, with the expanded store network of German discounter Aldi, expansion of larger-scale Supa IGA stores, and the arrival of club US discount retailer Costco.

3. Our analysis over recent years has indicated that the turnaround in performance of Coles has intensified the parent-brand competition on price and other values between major grocery chains, and between those chains and discounters, independents and specialty good retailers for shares of consumer spending on meals.
4. Consumer segments have become more diverse and complex, with stronger preferences for convenience and a range of ethical values, which have included certain production systems and food origin.
5. These ethical issues stem from greater community attention to aspects of agricultural production systems with perceived impacts on animal welfare and the environment.
6. The relative strength of the Australian economy through the aftermath of the GFC, assisted by strength of commodity metal prices, lifted the value of the \$A against major other currencies, making imported food more affordable.
7. The higher value of the \$A, rising labour costs, and energy have further weakened Australia’s competitiveness as a food processor.
8. There have been more frequent major weather events having widespread impact on food production regions, including major droughts, cyclones and regional floods, which have impacted farmgate and retail prices for fresh produce.

This update has been able to take advantage of better data availability compared with the earlier work, including improved industry sources.

2.5 Sources of data and insights

Process

- Freshagenda works exclusively in the food industry in the analysis of market and supply chain conditions, with clients that stretch from providers of inputs to the farm sector, through to retailers.
- The information contained in this section of the report has been compiled and analysed by Freshagenda, based on its own investigations, recently undertaken engagements for clients in various industry sectors; consultation with a number of industry organisations and commercial participants, as well as a review of available published material and industry data sources.
- The analysis draws on our insights as to how value chains operate in key food categories and the nature of the commercial relationships between supply chain participants.

Pricing and volume data

- Pricing data has been sourced from a variety of providers and industry sources, as summarised in the table on the right. The earliest retail data available to us for this analysis is from early 2009 onwards.

Farmers share of retail

- Where appropriate, a like-for-like comparison of farmgate and retail prices has been provided. These take account of relevant product yields (from raw material through to retail product form), existence of co-products and other adjustments. No reliable data has been aggregated for spoilage and wastage through the value chains examined by us.
- For such factors, we have drawn on industry data and discussions with industry bodies, specialist analysts and processors to ensure treatment is consistent with the requirements of the brief.

References

- Our data sources have been identified in each figure throughout the document. We have relied on a number of primary sources which are listed in references in the Appendix.

Price point	Sources
Retail data	<ul style="list-style-type: none"> • (all categories) Retail sales summaries at a product or SKU level provided on a confidential basis by a major grocery chain from 2009 to 2014, providing unit selling prices and sales volumes on a quarterly basis. • Where necessary these have been aggregated and averaged on a volume-weighted basis for products and categories, depending on the level of analysis chosen. • (selected categories as identified) Retailworld summary data.
Wholesale prices	<ul style="list-style-type: none"> • (for categories covered in this analysis excluding meat) Grocery wholesale or buying prices provided on a confidential basis by a major grocery chain. This information is generally limited to a 2-year period, as such data is not retained for longer periods by the provider. • (for fresh produce) Wholesale fresh produce prices supplied by central market reporting agencies.
Farmgate prices	<ul style="list-style-type: none"> • Relevant industry-collated data sourced as referenced. • (for fresh produce) The relevant farmgate price for producers on average is calculated by reference to wholesale prices, less a deduction for logistics, ripening and other relevant charges, to reflect the reality of their market access.

2.5 Sources of data and insights

Limitations on data availability

- One of the significant challenges in undertaking an exercise of this nature is accessing reliable and accurate data.
- In general, the study found that food sectors generally make a low level of collective investment in industry-wide data.
- As the food industry becomes more concentrated and integrated, it has generally been observed that the strong influence of commercial interests generally ensures there is less transparency of information and more limited availability of market intelligence.
- There is varying availability and quality of pricing data across different sectors in the food industry. This study has drawn on data where available, which has included some commercial participants which have supplied information subject to confidentiality undertakings which have governed how it can be disclosed in such a report.
- This report also compares and contrasts the transparency across sectors in section 6.
- There is limited transparency in prices along certain value chains and channels to the consumer. It is not possible to gain any aggregated retail sales data (volumes and prices) for independent grocery stores and for fresh food specialists (such as green grocers, butchers, delicatessens)
- Wholesale prices are available in certain sectors where organized markets exist in a number of categories (fresh produce, limited segments of the meat market, certain seafood markets).
- Sales into food service channels remain largely uncharted across the food industry.

SECTION 3: OVERVIEW OF THE FOOD MARKET

3.1 Structure of the food market

3.1.1 The big picture

This table provides an overview of the relative value, trade exposures, and market mix of the major Agrifood categories.

Figure 3.1.1.1 – Summary of food sectors

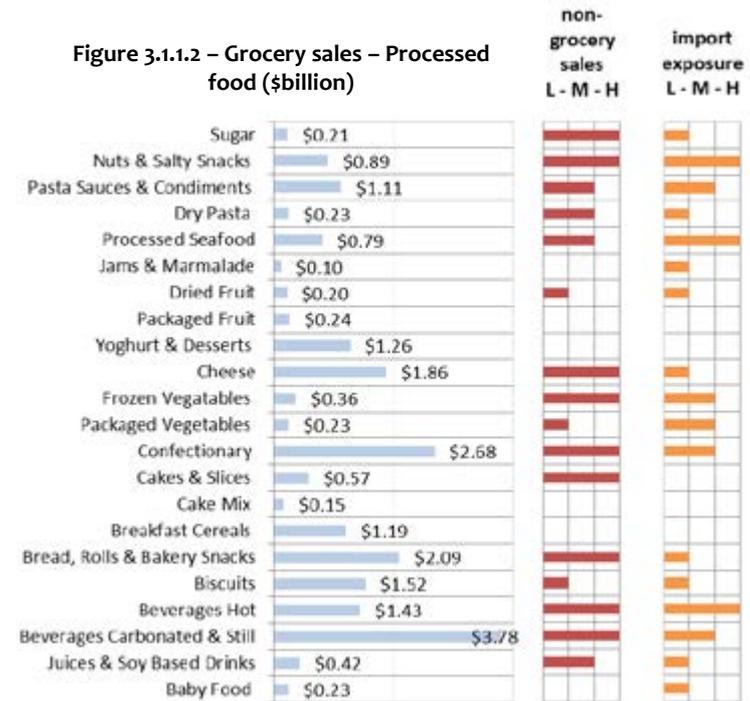
	Farmgate value \$bn (2013/14)	% exported	Australian market		
			% sourced locally	Volumes consumed ('000 t)	Grocery share % ¹
Beef	7.7	67%	99.6%	439	57%
Lamb & mutton	2.8	65%	100%	180	51%
Pork and smallgoods	1.1	23%	50%	290	46%
Chicken	N/A	5%	99%	623	44%
Seafood	2.5	38%	29%	307	27%
Milk (litres)	4.7	1%	100%	2,100	63%
Dairy products		43%	79%	306	52%
Eggs (mil. Dozen)	0.7	-	100%	240	34%
Fruit	3.8	18%	96%	1,215	60%
Vegetables	3.7	7%	99%	2,095	60%
Wheat flour	9.0	-	99%	1,462	5%
Rice	0.3	63%	44%	230	32%
Sugar	1.1	72%	99%	1,196	10%

Notes:

1 – Share of product available in the Australian market (ie. excluding the share of output that is exported) which is sold through the grocery channel (that is excluding specialist retailers and food service channels).

Source: Freshagenda analysis

Figure 3.1.1.2 – Grocery sales – Processed food (\$billion)



Source: Retailworld 2013, Freshagenda analysis

3.1 Structure of the food market

3.1.2 Share of channels to consumers

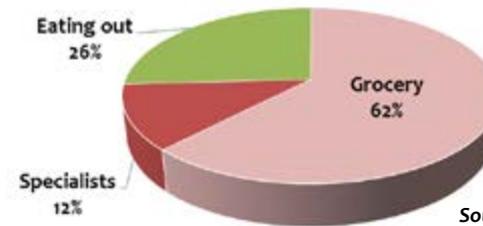
Importance of channels

- Overall consumer spending on food and beverages is split between a number of retail and food service channels.
- The FOODmap project published in 2012 provided a measure of the relative size of those channels to consumers in terms of overall volumes as well as total consumer spending.
- The grocery channel dominates most agrifood categories in terms of sales into the domestic market, but this varies depending on the relative importance of certain categories in food service channels and volumes sold into export markets.
- Year to year changes in the output of certain sectors – such as grains, oilseeds, dairy and beef – affects the proportion of output which is available to export markets. In some cases export buyers compete with domestic buyers for farm produce – such as in beef and lamb and grains, and in the sourcing of milk.

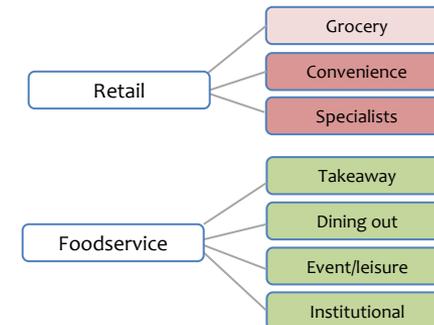
Channel shares of spending

- The volumes sold into the channels do not closely align with the overall relative proportions of household spending on eating meals at home or out of the home.
- The retail value of food products reflect a higher mark-up or value-add on wholesale costs in the food service sector, as food is sold wholesale into the food service channel as an ingredient with added costs of labour in meal preparation, service and delivery.

Figure 3.1.2.1 – Share of channels by category



Source: Freshagenda analysis



3.1 Structure of the food market

3.1.3 Distribution to consumers

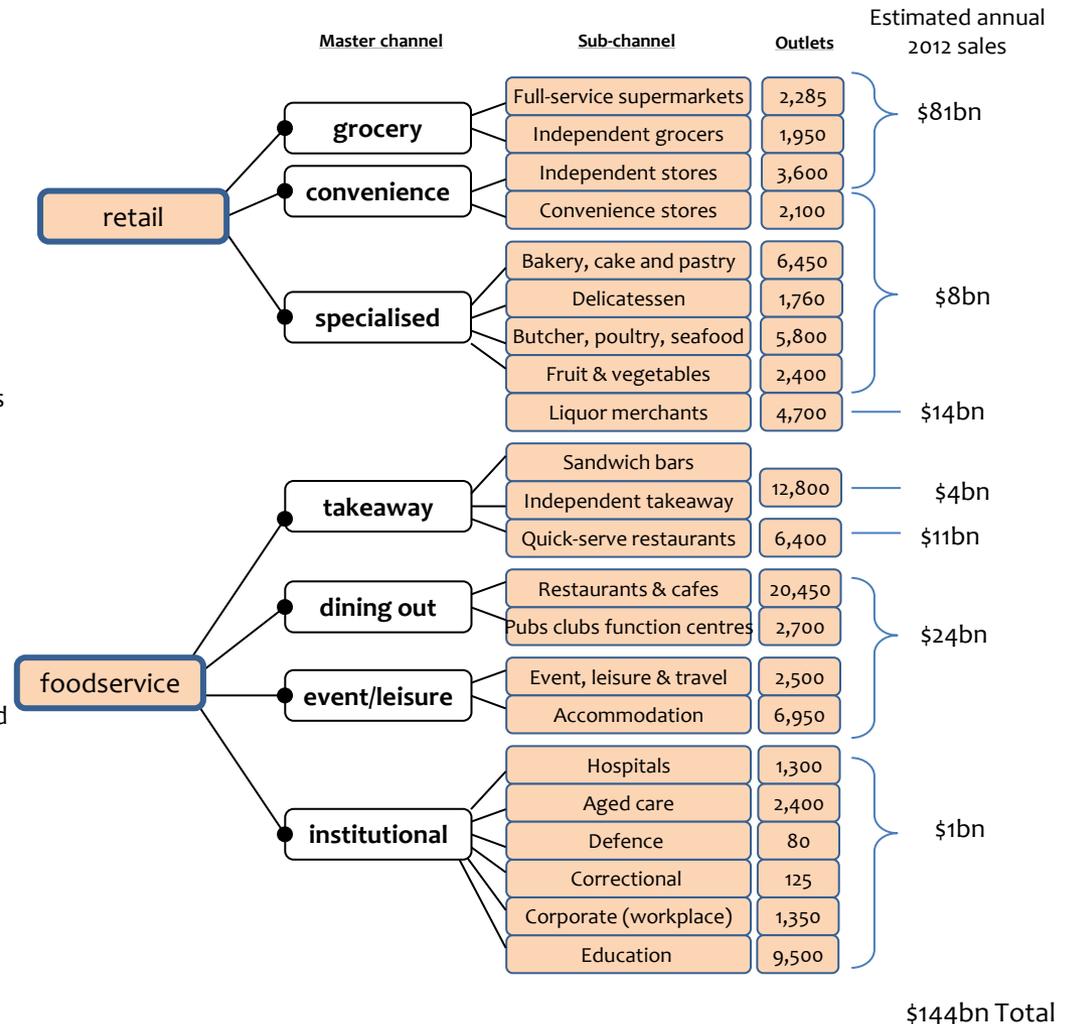
Overall size of channels

- The chart on the right shows the mix of estimated total spending through the various channels to the consumer. This draws on the analysis conducted in the FOODmap study in 2012.
- The numbers of outlets in the chart were assessed in June 2011 as part of preparation for this report. They have been established based on a variety of sources, including data from industry groups, databases of food establishments, and information from specific retail and foodservice chains.
- This shows the significant influence of the grocery channel on overall spending on food with a high percentage of sales through a relatively small number of outlets.
- While a large influencer of the value available at wholesale, grocery is one of the many determinants of value in the broader food market.
- Retail does, however, provide the greatest visibility of the value of food products – everyone is a shopper and the pricing information is public, and often available online.
- There is some potential minor double-counting in this analysis, as some of the smaller independent retail and food service outlets buy food and other groceries through grocery chains and specialist food stores (such as bakeries and butcher shops).

Complexity of foodservice

- The foodservice sector and the distribution channels that service food outlets are complex.
- The most concentrated segments of this market are Quick Serve Restaurants which have a major share of takeaway food sales and buy in similar fashion to grocery chains.

Figure 3.1.3.1 – Size of channels and distribution to consumers



Source: Freshagenda analysis

3.2 Food market trends

3.2.1 Trends in consumer spending

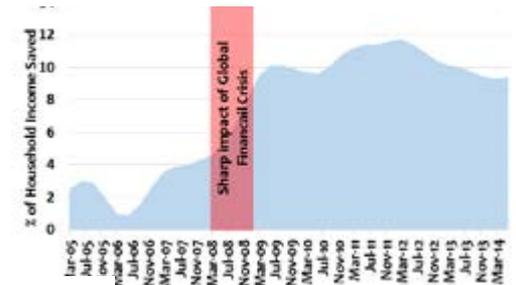
Trends in spending

- Since the onset of relatively sluggish economic activity since the global financial crisis was precipitated in 2007, with the impact felt in 2008, households have exhibited ongoing concern about maintaining living standards and have sought to protect their financial positions through greater savings, limiting discretionary outlays.
- Figure 3.2.1.2 shows the curbing on household outlays, and the extent to which savings have been built and at times used to affect overall spending.
- The general levels of consumer sentiment per Figure 3.2.1.3 – highly influenced by the perceived threats to employment and/or housing values – have remained subdued over the past three years.
- While spending on food has represented a declining portion of household outlays (see next page), discretionary spending – especially on meals eaten out of the home – has been adversely affected by this consumer caution.
- Shoppers have actively sought opportunities over the past five years to take advantage of savings where available, in food and other areas of spending. “Value” has been a priority for an increased number of people, and hence become a strong focus for grocery and food service retailers, despite improvement in discretionary spending in 2014.

Changing household structures

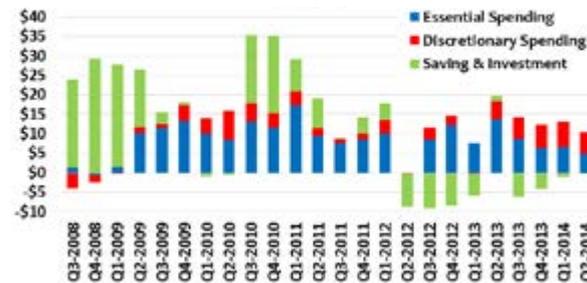
- Over time per Figure 3.2.1.4 there have been gradual changes in the structure of households that has added further dimensions to the growing complexity of the consumer segments.
- These changes affect the lifestyle choices being made and the role that meals and shopping play in those lifestyles, in turn affecting propensity to spend, on attributes such as convenience and other values.

Figure 3.2.1.1 – Australian household saving ratio



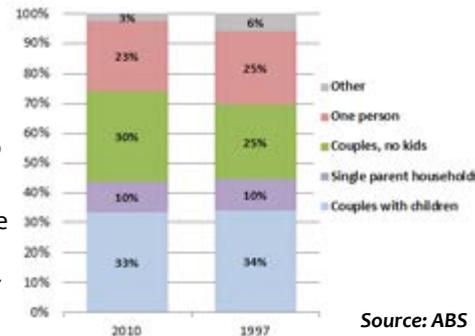
Source: ABS

Figure 3.2.1.2 – Changes in quarterly household spending (\$/week)



Source: Derived from ABS

Figure 3.2.1.4 – Household types (% of total per ABS Cat. 4442)



Source: ABS

Figure 3.2.1.3 – Australian consumer sentiment v interest rates



Source: Reserve Bank/Westpac

3.2 Food market trends

3.2.1 Trends in consumer spending

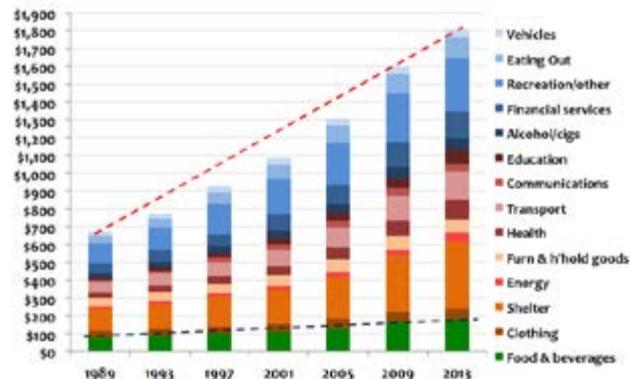
Trends in spending

- Spending on food by Australian households has over time represented a gradually diminishing portion of total household expenditures according to a long-term data series maintained by ABS.
- While incomes have risen much faster than the cost of living, a greater share of spending has shifted toward meeting rising living costs and discretionary non-food items.
- Within this overview, retail food prices have also risen more slowly than other costs of living in the five years to 2014, despite the general rise in the prices of global food commodities (see page 30).

Rising costs of business inputs

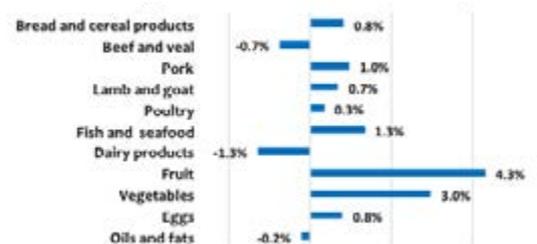
- Across food categories, those more prone to seasonal variation in supply – fruit and vegetables – have shown the highest overall price increases over that five year period.
- The cost increases reflected in CPI for other goods and services have not only contributed to higher outlays for households, but also reflect the rising costs to businesses engaged in food processing, logistics and retailing.

Figure 3.2.1.5 – Food spending as a portion of household outlays



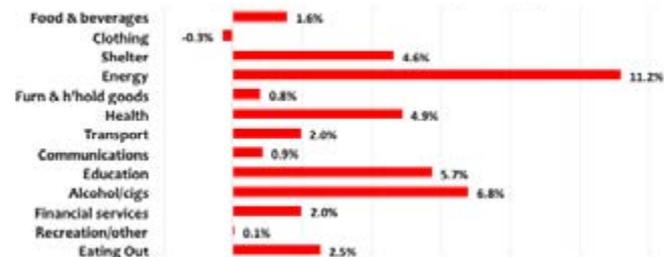
Source: Derived from ABS

Fig 3.2.1.6 – Average annual inflation – 2009 to 2014



Source: Derived from ABS

Fig 3.2.1.7 – Average annual inflation – 2009 to 2014



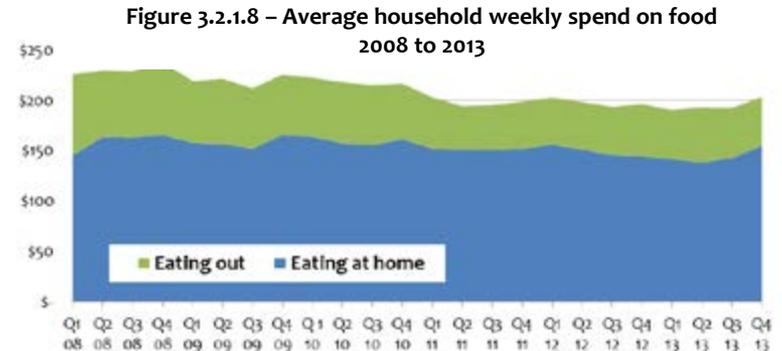
Source: Derived from ABS

3.2 Food market trends

3.2.1 Trends in consumer spending

Take home v eating out

- Food spending has proven it is not immune from economic pressures. Since late 2009, the total amount of money spent on food by households has steadily declined.
- Declining consumer sentiment has curbed discretionary spending on food and thereby affected the composition of spending in a number of ways:
 - There have generally been more meals eaten per week in the home
 - There has been “trading-down” in spending for meals at home – affecting the products selected and the choice of retail outlet
 - There has also been “trading-down” to cheaper dining-out options.
- The share of spending on take home food has increased marginally overall in recent quarters, but the movements and shares vary per socio-economic segment, with lower eating out percentages for those with more sensitivity to household savings risks – generally in lower income segments.
- The volume share of food spending won by supermarkets has gradually increased over the five-year period. This has been reflected in both increased shopper “traffic” numbers, as well as the capture of a higher share of the spending on fresh produce, meat and bakery lines, where previously shoppers spent a higher portion of their weekly outlays in specialist stores driven by value and quality.
- Specialist stores - retailers of fresh food (such as fruiterers, butchers, bakers, and delis) have consequently lost share of the total household food spend.
- The average weekly food expenditure on eating out has fallen, with a higher share generally won by fast food outlets. Page 33 outlines our analysis of trends across different segments of those food service channels based on our analysis of spending over past years.



Source: Freshagenda analysis of multiple panel data sources, adjusted for ABS survey data

3.2 Food market trends

3.2.2 Consumer preferences affecting pricing

We have identified three major forces that combine to explain some observable trends in shopping and consumer spending in recent years. These forces often intersect and shoppers trade off to save money, effort and time and/or pursue ethical values they feel strongly about.

Eating at home to save

Higher spending on meal occasions taking share away from casual meals out. This has impacted:

- Breakfast ingredients
- In-store fresh bread
- Replacement of impulse purchases – energy drinks, flavoured milks, multi-pack ice-creams
- Entertainment lines
- Ingredients for ethnic cuisines (Asian/Indian)

Cut-through ethical propositions

Consumers continue to support ethical values in some categories which are generating growth in the sales of:

- Free range products in systems that resonate - chicken, eggs and pork
- Greater interest in “local” and in the story of the product
- Animal welfare propositions
- Environment through organic “natural” products and the like



Healthy-eating

Supporting foods with perceived health advantages and claims. This has underpinned sales growth in:

- “Traditional” bread lines
- Preference for ‘natural’
- Products that assist portion control
- Improvement in butter v margarine
- Emotional product propositions (eg A2 milk)

Entrenched preference for “saving”...

Including “value” lines in their shopping baskets, observed in sales growth of:

- Bulk or value pack lines
- Private label lines in undifferentiated staples
- Products on promotion

... yet a willingness to trade off costs to spend more on

- Convenience, waste-free or portion-sized products at higher per-kg prices
- Indulgence or “reward” lines

Time-saving and bundling features

There are growing preferences for convenience to cut meal preparation time:

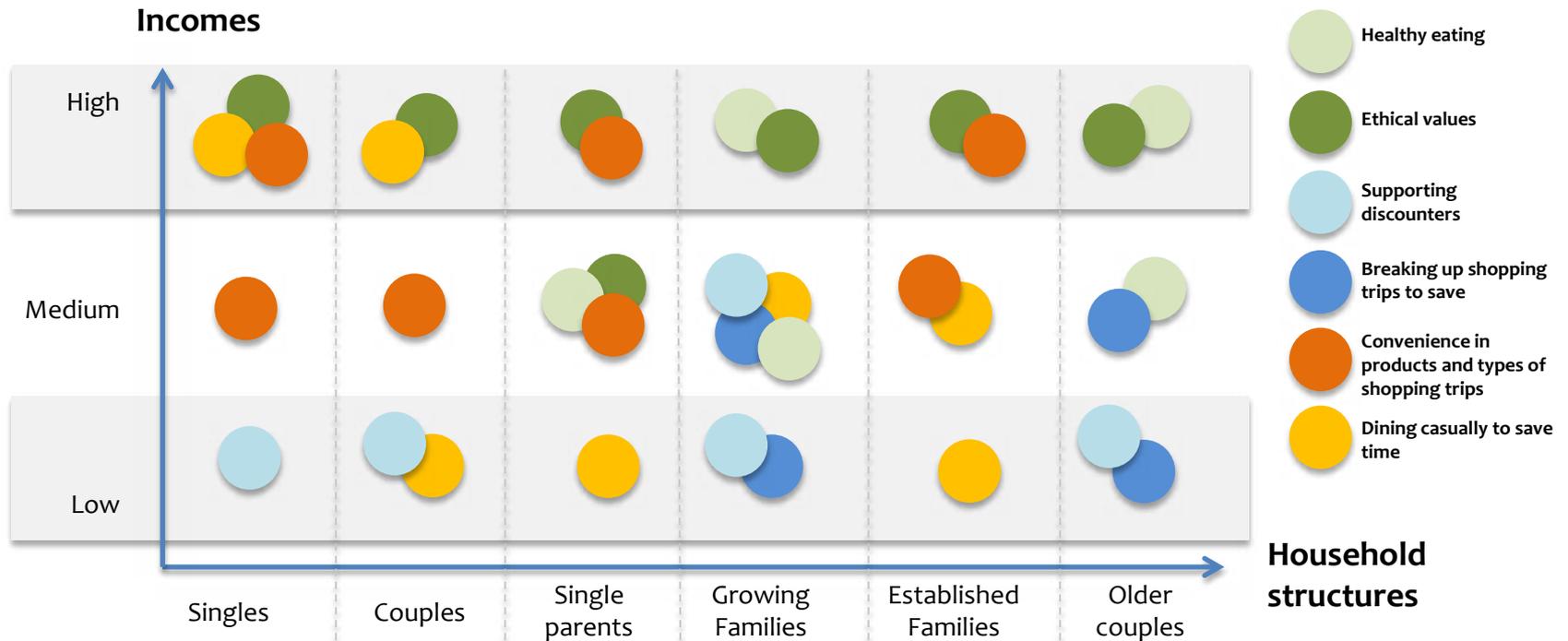
- Pre-packed, portion-based serves
- Convenience meals
- Pre-mixed ingredients
- Mobile snacks or grazing lines
- Semi-prepared meat dishes
- Lunch box fillers and kids snacks
- Meal-base products to cut preparation time

Note: The circles for each of these major preference areas are illustrative only and not meant to be representative of relative size.

3.2 Food market trends

3.2.2 Consumer preferences affecting pricing

Segments of the consumer market can be viewed in a matrix of income levels and household structures. Our analysis of the results of a number of consumer panels, in which our firm and a predecessor firm have invested, shows a general set of spending patterns across these segments. There will always be exceptions to these observations, but the illustrations below have typified behaviour.



This conceptual framework draws on Freshagenda’s consumer insights, underpinned by two consumer survey platforms. **Ipsos Food-Health Report 2013** – used a sample of N=3000 people aged 18+ who are recruited at random from the I-View consumer panel N=150,000+ representative of Australian population. Data is reweighted by age and sex. Low income = less than 40k; middle = 40-100k; and high = greater than 100k per annum. **Mealpulse** – a long-term consistent tracking of consumer spending 2007 to 2013 using a nationally representative sample, capturing all household segments based on socio-economic and economic variables, allowing segment-specific insights.

3.3 The competitive landscape

3.3.1 Retail competition

Intense rivalry

- There is apparent intense price-based competition in the grocery retail market for consumer spending on food, between the major grocery chains themselves, and Supa IGA grocers, discounter Aldi, and independent or franchised specialty food stores.
- Since 2008, the major theme underpinning the positioning of the major chains has been based on delivering value to shoppers, responding to the tight economic conditions and the cautionary sentiment of households.
- The intensity of retail price competition has been given impetus by two major corporate developments – the improvement in performance of Coles, and the expansion in Aldi’s store network.
- Coles sales momentum has been leveraging off improved fresh produce performance and aggressive marketing of everyday value. Investments have been made in lowering supply chain costs, improving sales productivity and specialist skills in store operations, while also lowering group overhead costs which had risen under previous managements.
- The expansion of Aldi, with a smaller store footprint and a focus on a limited number of low-priced lines, has sustained the focus on value pricing of major selling lines.
- Over this period, while Woolworths has remained a significantly larger retail chain, Coles has led in underlying store sales growth.

Outlet numbers

- Figure 3.3.1.1 on the right indicates the relative size of store networks across major grocery chains at the end of 2014. Costco and Aldi are growing discount store networks using radically different models.
- There are a large number of small independently bannered stores supported by wholesale distributors of which Metcash is the dominant supplier and equity holder in key Supa IGA networks.

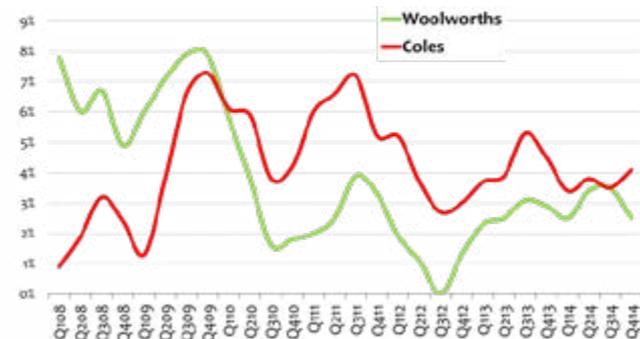
Figure 3.3.1.1 – Retailers’ outlet numbers and growth since 2010

	Stores As at Oct/Nov 2014	Growth in store numbers since 2010
Large format		
Woolworths	931	13%
Coles	762	-
Supa IGA	387	16%
Aldi Stores	354	41%
Small format		
IGA group	1417	6%
Foodworks	575	(12%)
SPAR	215	(1%)

Source: Retailworld 2014, Annual reports

Note: Combined supermarket sales of groceries by Woolworths (\$34.5bn) and Coles (\$26.4bn) were \$60.9bn in 2013/14, making up 65% of the sales through supermarkets and grocery stores according to ABS for the same period of \$93.0bn. Retail sales by other retailers above are not publicly disclosed.

Figure 3.3.1.2 – Retailer “same store” sales growth (year on year) 2007 to 2014



Source: Annual reports

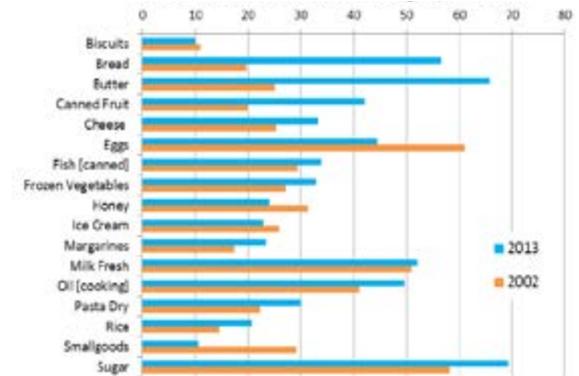
3.3 The competitive landscape

3.3.2 Retail strategy

Perception of value

- The major grocery brands compete to influence shopper perceptions about the quality and value of the products and services they each offer. The retail grocery contest focuses on the “best place to shop to save money” within the choice and convenience of their store offers.
- Grocery promotional activity – through printed catalogues and media channels - provide the highest volume of marketing messages that reach most households and consumers.
- They convey the value of products available and strongly influence consumer buying patterns between similar products. It is an integral part of any new product launch and stimulates trialling by consumers. The tactics used in promotional activities have changed over time, closely tracking and feeding greater sensitivity to value.
- Since the economy started to tighten in 2008, the value themes on promotion have strengthened. The promotion of “value” gained momentum in 2011 with the advent of deep-discount programs on key staple lines offering “everyday savings” across categories which have been sustained to the time of writing.
- The expansion of Aldi as a competitor in low-price groceries has served to ensure the two major chains sustain the focus on value.
- The perception of saving shoppers money on their food spending is taken through to regular corporate reporting of the underlying food inflation – or deflation as it has been since 2011 – that is being achieved. These have consistently tracked below the overall reported ABS all food CPI since that time.
- This can be explained by the ABS methodology which tracks the same basket of products over time – which included branded items and consistent fruit and vegetable products. The methodology does not allow for shopper behaviours such as switching to private label or promoted items or avoiding out of season produce in an effort to save.

Fig 3.3.2.1 – Private label share of grocery categories



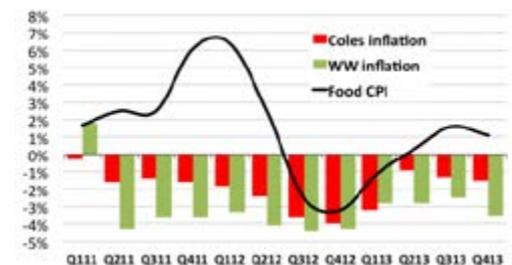
Source: Retailworld 2013, 2002

Fig 3.3.2.2 - Grocery promotion themes 2010 to 2014



Source: Freshagenda analysis

Fig 3.3.2.3 – Retailer deflation v ABS 2011 to 2013



Source: Annual reports

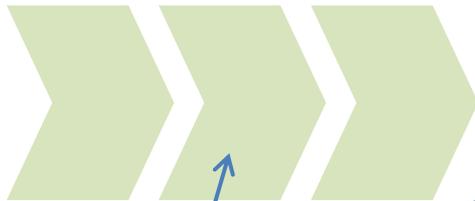
3.3 The competitive landscape

3.3.3 The food service market trends

A summary of the pressure points in various segments of the foodservice market that are influencing prices achieved by suppliers is summarised below by reference to the different price points offered by outlets:

Those providing 'experience' can excel - High-end innovators in food experience and format, maintaining high throughput and demand.

Undifferentiated middle ground failures - The large segment has had the greatest exposure to households and business curbing costs. Those without a compelling point of difference in experience, location, variety and quality have failed.



Cutting 'back of house' risks - Many in the lower-cost end of the market are risk-managing back-of-house costs by outsourcing to specialist caterers – cutting waste and kitchen labour.

Channel blurring - Takeaway options for agile cafes and restaurants are more common-place to increase scope for capture of home convenience meals. Increasing prevalence of ready meals in grocery and specialist food stores will be seen in future.

High meal prices



Low meal prices



Name alone is not enough - Big names are not enough. Reputations matter little at the fine dining end. Failures have included 'name' chefs. The celebrity chef name is not sufficient to ensure queues.

Diverse influence of choice - greater consumer desire for peer opinion, coupled with digital media that is a major vehicle for 'word of mouth' ensures higher importance of customer rather than professional critics' opinions.



Addressing diner health - Healthy options are key differentiators – demanding more information on ingredients, greater variety in options, and more use of 'sharing' meals.

QSR winners - Bundling variety, value, and convenience. Many new variants of Quick Service Restaurants (QSR) have emerged based on cuisine specialisation.

Emerging alternate channels - small but expanding share being won by home convenience meal providers, including those catering to business and home 'entertainers'.

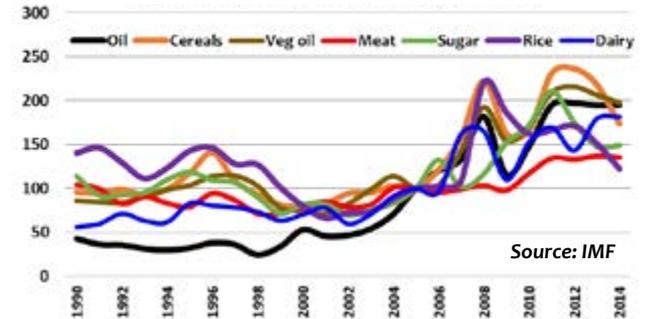
3.4 Global comparisons

3.4.1 Trends in food prices

Global trends

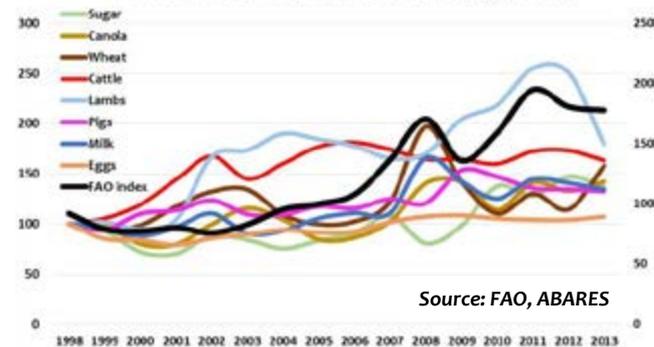
- International food commodity prices have generally increased more sharply and become more volatile in the past decade compared to previous periods.
- The charts (Figures 3.4.1.1 and 3.4.1.2) show a number of commodity price indices tracked by the International Monetary Fund (IMF) and the Food and Agriculture Organisation of the United Nations (FAO).
- Major volatility was precipitated by food shortages in 2007, caused by the convergence of strengthening demand from developing countries and shortages of supply caused by droughts in several regions.
- At this time, the global financial crisis also changed the perception of risk associated with food commodities.
- The volatility in prices has remained a strong feature of commodity markets since – particularly affecting cereals, dairy, vegetable oils, and sugar.
- These movements in price have generally been reflected in farmgate prices across the Australian industries, as tracked over time by ABARES. Each of these are explored in section 4 of this report.
- While international prices for food commodities have risen strongly, these increases have not been fully passed onto consumers in developed world economies, as consumer spending has been dampened by slow economic growth and ongoing uncertainty regarding employment and household wealth.
- In most cases prices have been held below rises in average incomes, as shown in the charts on page 36.

Fig 3.4.1.1 – Global commodity price indices (2005=100)



Source: IMF

Fig 3.4.1.2 – FAO food index v trends in Australian farmgate prices



Source: FAO, ABARES

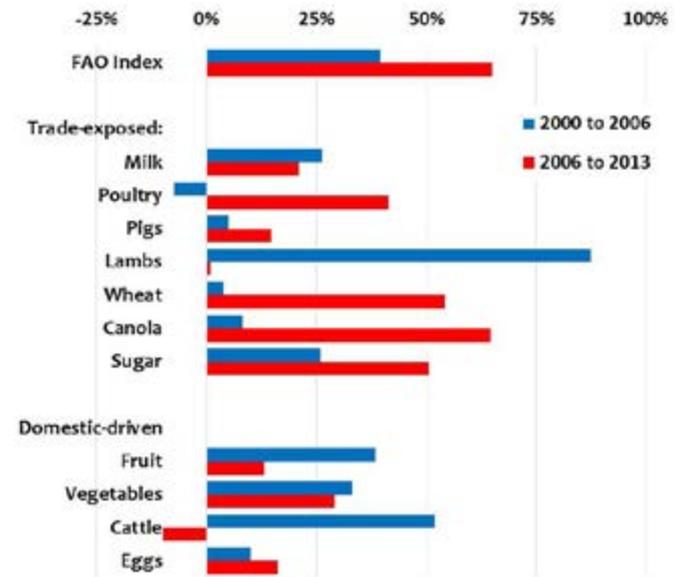
3.4 Global comparisons

3.4.1 Trends in food prices

Australian farmgate prices

- The historical changes in farmgate prices paid in Australia varies considerably depending on the relative influence of international trade and domestic weather events.
- The chart on the right compares changes over historical time periods in average farmgate prices for each of a number of commodity groups (from ABARES data) with changes in the FAO food index over the same periods.
- Movements in traded commodities such as grains (which has in turn influenced poultry), oilseeds, dairy and sugar have been more pronounced in the past 7 years, in line with global commodity trends.
- Domestically-driven farmgate values have been mostly affected by local supply conditions including weather events. Beef is included in this list in the chart on the right, as the farmgate prices over time are assessed as being more directly affected over time by domestic cattle supply and processor throughput demand, rather than the value of beef in export markets. This is explained in section 4.1.

Fig 3.4.1.3 – FAO index v changes in Australian farmgate prices



Source: ABARES

3.4 Global comparisons

3.4.2 Is our food more expensive?

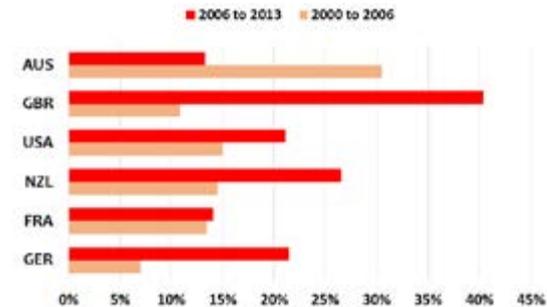
Relevant countries

- One of the key issues analysed in this report is whether prices paid by Australian consumers are higher than those faced by consumers in relevant other countries.
- Which countries are appropriate in such a comparison? Our work has considered a number of factors in ensuring comparisons are valid, including:
 - Average household income levels
 - The portions of household incomes spent on food
 - The nature of food retail channels (including the prevalence of supermarkets).
- Australians spend a similar proportion of their income on food eaten at home compared to other developed countries, according to the Organisation for Economic Co-operation and Development (OECD) analysis, as illustrated in the comparison on the right.

Changes in prices

- After rising more quickly in the period since 1990, food prices in Australia would appear to have risen more slowly in the past five years compared to a number of similar countries.
- The higher prices in other countries have reflected the inability of the processing and distribution to prevent higher commodity food costs being passed through to consumers in the absence of alternate sources.
- In the case of the EU and US to a lesser extent, the gradual removal and reduction in the support provided to farmers through subsidies and other protections has seen a greater exposure for their consumers to world market forces and relatively higher growth in the cost of food products.

Fig 3.4.2.1 – Growth in Consumer Food Prices (2010=100)



Source: OECD

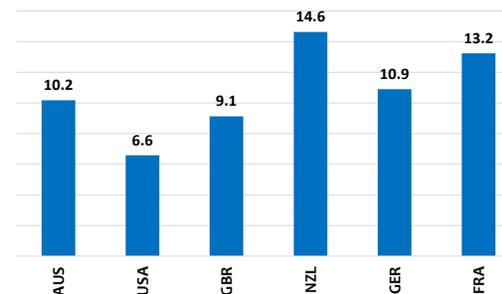
Fig 3.4.2.2 – Food CPI v earnings growth – 2003 to 2013



Source: OECD

Source: OECD

Fig 3.4.2.3 – Percent of consumer expenditures spent on food consumed at home (2012)



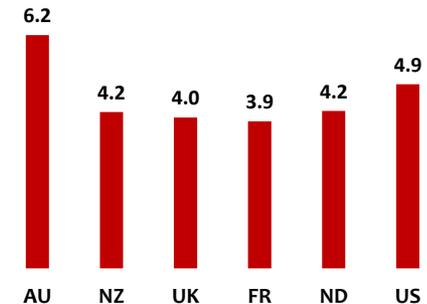
Source: Euromonitor International

3.4 Global comparisons

3.4.3 Cost of the food basket

- We have developed a comparison of the relative cost of a comprehensive food basket across countries.
- This has been assembled using a consistent basket of products which have been priced using prevailing grocery prices in a number of retail outlets across the countries. This has, where possible, excluded the effect of “specials” and promotions.
- To ensure consistency and eliminate the effect of different currencies, this comparison has been expressed in terms of the number of times average household incomes cover the costs of that food basket.
- There are a number of challenges with international comparisons of prices:
 - **People don't buy the same products** in all places – a representative basket in Australia may not necessarily be representative of what households typically purchase and consume in other countries;
 - The **sources** for these price comparisons are supermarkets with online facilities. The ranges offered through online facilities vary between countries as does the overall role of supermarkets as a consumer channel;
 - **Products are not the same** – there are often different specifications and pack sizes across countries; and
 - **Seasonal influences on prices will be different** at a point in time – Australian and NZ fresh produce prices in spring 2014 will be affected by different factors to those affecting prices in autumn months in Europe and the US.
- **Note:** At a category level, through this document, we illustrate some of the comparisons in that basket and in other observations of pricing in these other countries. In all cases, these should be read with due regard to the above caveats.

Fig 3.4.3.1 – Number of times that the average food basket can be purchased using the average weekly household disposable income



Source: Freshagenda analysis, OECD IDD, retailer online unit prices

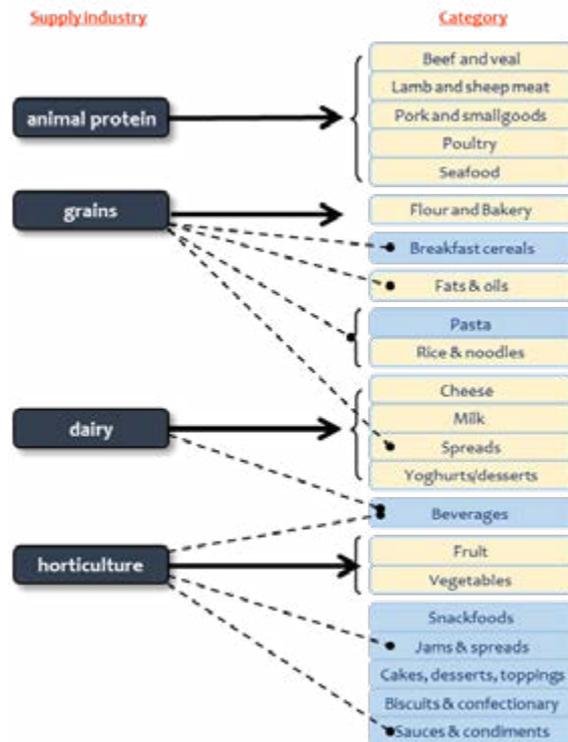
SECTION 4: ANALYSIS OF VALUE CHAINS

4.0 Introduction to this section

4.0.1 Coverage

Introduction

- This section provides analysis of the influences on prices through food value chains across a number of categories that encompass the products identified in the project brief.
- The table on the right shows the coverage that has been achieved in terms of the identification of pricing at points where title passes from one sector or participant to another.



Category	Pricing analyses undertaken				Page
	Farmgate	Wholesale	Retail	Category evaluation	
Beef	✓	✓	✓	✓	45
Lamb	✓	✓	✓	✓	52
Pork	✓	✓	✓	✓	56
Poultry	XX	NA	✓	✓	60
Seafood	L	NA	✓	✓	75
Milk			✓	✓	66
Cheese	✓	✓	✓		70
Spreads		✓	✓		72
Fruit	L	✓	✓	✓	80
Vegetables	L	✓	✓	✓	90
Processed fruit and veg	NA	NA	✓	✓	96
Oilseeds	✓	NA	✓		103
Grains	✓	NA	✓		106
Rice	✓	NA	✓	✓	109
Sugar	✓	NA	✓		112
Eggs	NA	L	✓		115

Guide to symbols

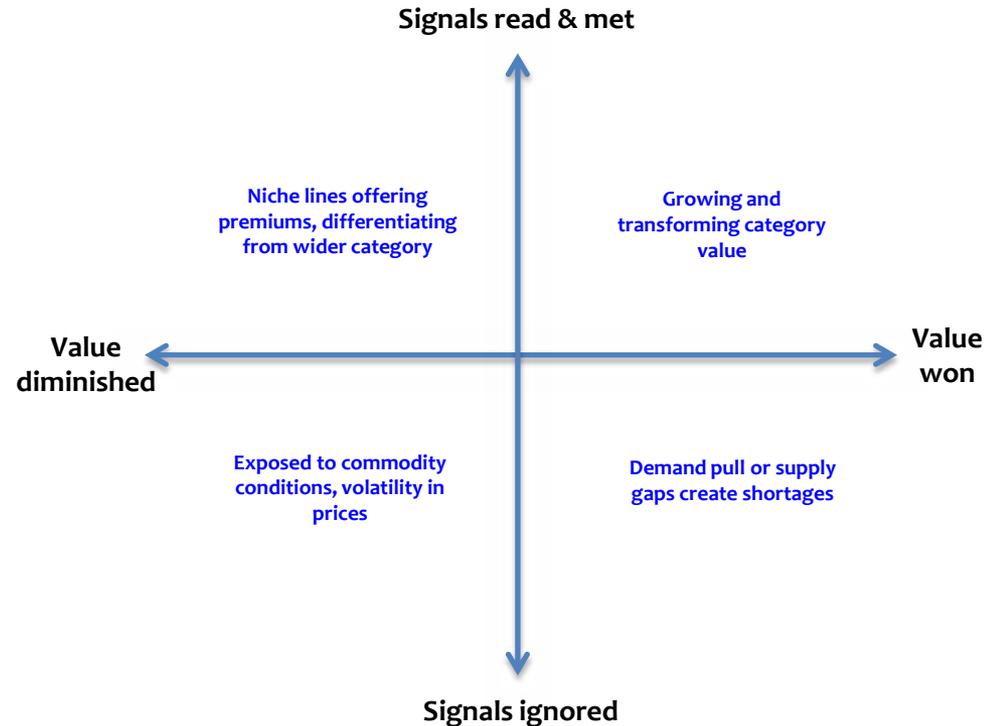
L = limited; NA = no data available; AD = awaiting data at time of draft; XX = not applicable (no separate farm sector)

4.0 Introduction to this section

4.0.2 Products within categories

Relative product performance

- In assessing prices within and across food categories it is critical to respect the diversity of roles played by individual food products within their categories. Many products have demonstrated the ability to capture higher value for both retailers and suppliers, while others either offer niche opportunities, or are exposed to commodity conditions and volatility.
- The terms of reference asked for a comparison of prices through the supply chain for a range of products. There is danger in simply focusing on a single line within fresh produce and other categories, without a full picture of the entire category and an appreciation of the experience within those categories of reading and meeting market signals and capturing opportunities for category growth and higher value.
- Retail prices in fresh produce and in some meat categories tend to reflect movements in wholesale market prices – short-run trends in retail prices for products that are exposed to commodity conditions reflect “cost-plus” behaviour.
- There are however an increasing number of products that have demonstrated their ability to defy these commodity conditions, where suppliers have read and acted on preferences being expressed by shoppers - extracting higher unit value for the produce, and altering the dynamics of the category in total.
- Any assessment of pricing along supply chains must in our view take account of these factors to accurately convey the value relationships.
- We have applied a criteria as summarised on the right across selected product categories to illustrate these features over time, which have been observed in unit pricing trends, the composition of category and sub-category sales and the changes in volume over time.



The criteria applied in scoring specific products:

Signal reception

- Growth in volume is being achieved over time for the overall category
- Extent of product differentiation is strong
- There is a greater breadth of end-use solution or application being provided

Value creation

- The extent of exposure in unit value over time to seasonality and/or competitors – low exposure ensures more consistent value capture
- Relativity of unit value over time compared to wider category

4.0 Introduction to this section

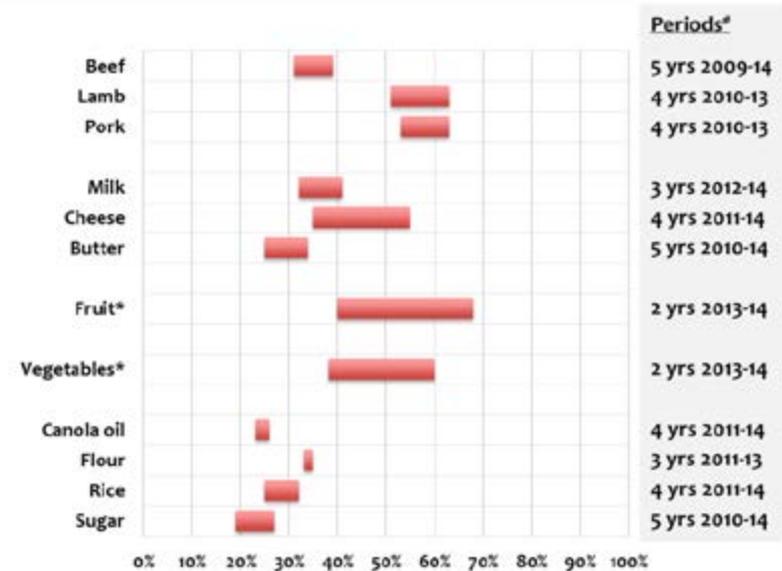
4.0.3 Farmers' share of retail

Approach and findings

- A key component in the terms of reference for this study is an estimation of the farmgate share of retail prices.
- Our approach has been to ascribe a range to the shares, due to the fact that prices change over time, and within categories there are a wide range of prices dependant on quality and seasonality.
- Where possible, we have developed a like-for-like comparison of prices, taking account of relevant supply chain relationships and product yields.

Sector	Approach & key assumptions	Pages
Beef, lamb and pork	<ul style="list-style-type: none"> • Beef based on retailer supply chain model. • Each takes account of typical saleable meat yields from carcasses and average retail category values. 	49-50, 55, 59
Dairy	<ul style="list-style-type: none"> • Milk is based on the range of farmgate prices paid for supply to fresh milk processors, and average milk category prices. • Prices for dairy products refers to typical yields from milk. 	69, 71, 72
Fresh produce	<ul style="list-style-type: none"> • Based on produce supplied direct to retailers, across a number of categories examined. Individual lines occur within these ranges. 	82-95
Oilseeds	<ul style="list-style-type: none"> • Assumes typical refined oil yields from canola, and average category prices across product range. 	105
Flour	<ul style="list-style-type: none"> • Assumes flour yield from wheat and average retail value for packaged flour. 	108
Rice	<ul style="list-style-type: none"> • Assumes milling yield from paddy rice and medium grain retail prices. 	111
Sugar	<ul style="list-style-type: none"> • Assumes sugar yield from cane ice and average retail prices for packaged sugar. 	114

Figure 4.0.3.1 – Farmer's share of retail value



Source: Freshagenda analysis

This refers to financial year ends ending June in each year.

*This analysis has been based on farmgate shares of sales through **grocery channels**. In the case of fresh produce lines, the farmgate prices are based on estimates of direct supply prices in 2013/14 and earlier where available that have been provided on a confidential basis, which are adjusted for logistics and packaging.

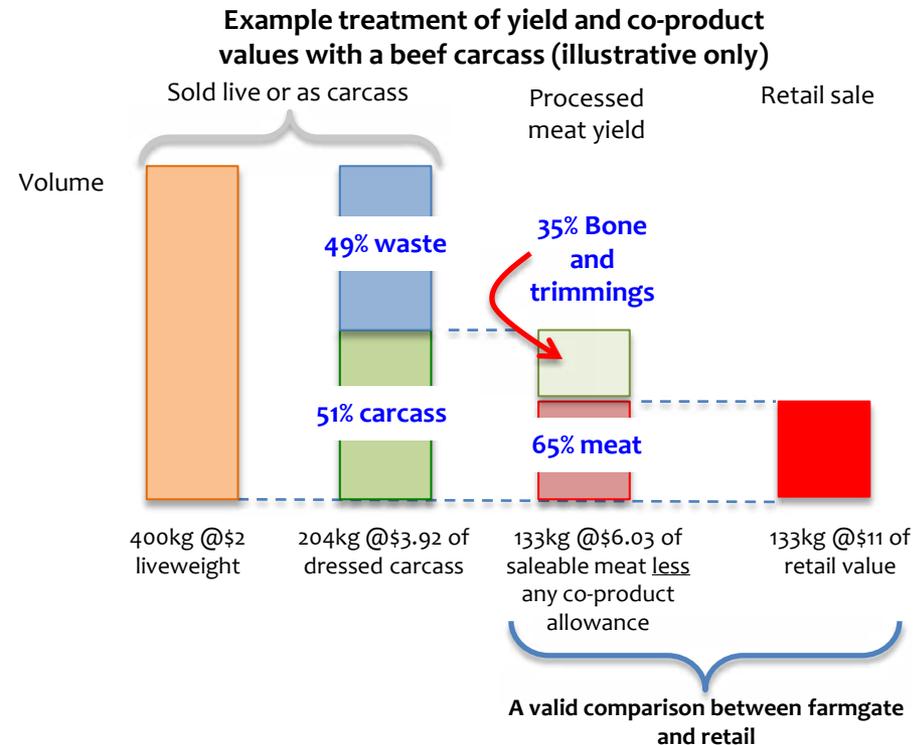
For fresh produce lines, this has not taken account of prices achieved by producers who supply wholesale markets, which have been evidenced as being (on average) below prices achieved for direct supply to grocery. This produce is typically then sold through independent grocery and specialist greengrocers, the prices for which could not be gathered on any representative basis for this project, given the scope provided.

4.0 Introduction to this section

4.0.3 Farmers' share of retail

The importance of yield

- Simplistic comparison of farmgate and retail prices often neglect the critical conversion factors associated with product transformation and yield, and the roles of any significant co-products.
- In the case of livestock, for example, it is not valid to draw direct comparisons between individual retail cuts of meat and the value of the carcass at farmgate, due to the loss of unsaleable weight, processing waste and the diverse array of products and co-products that are produced from each animal.
- Taking account of carcass dressing and yields of saleable meat and other products is critical in these analyses. This also applies in dairy and oilseeds products, where waste streams have been commercialised to achieve processing efficiencies.
- The roles played by co-products varies considerably across these sectors, depending on processing economics and the determinants of farmgate prices over time.
- Our approach has been to consistently align the relationship between a retail product and the farmgate equivalent of the saleable yield in product.
- The example on the right illustrates a simplistic case of a beef carcass, which is sold into the value chain either as live or as a carcass, yet carries a certain saleable meat yield. The producer gets paid for an overall carcass value which is converted to saleable meat equivalent. In our workings, the value of offal and other nominal co-products are assigned as a portion of the farmgate value in this case, and hence the cost of the animal to the processor is adjusted.
- The issues associated with the influence of co-products on farmgate values and the calculation methods in each case have been detailed in each relevant page of this section.



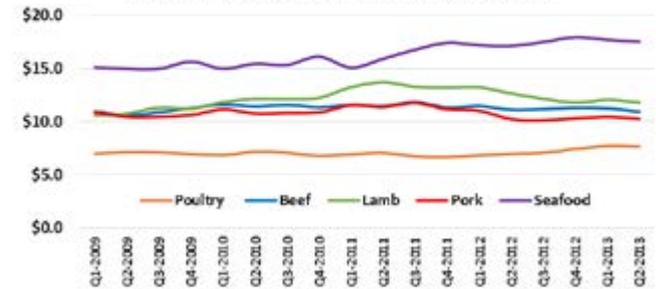
4.1 Meat

4.1.0 Major meat proteins

Introduction

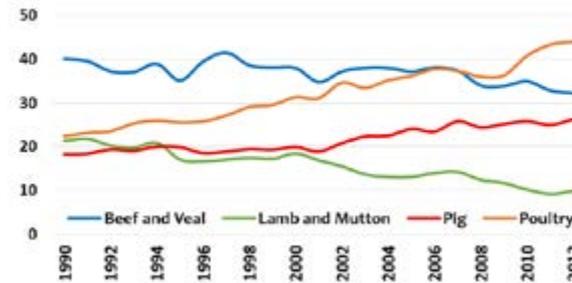
- The major meat protein sectors are each fundamentally different in their size, the nature of farm and processing enterprises, integration, and market structures.
- Pricing through the value chains in most cases, with the exception of poultry, is strongly influenced by the returns from international trade. Closer to the domestic consumer, the prices achieved for the competing proteins are affected by their suitability and relative ease of use in meal occasions and preparation methods.
- The meat industry has focused its promotion and market development activities at improving the information and choices available to the consumer in the form of cuts and eating quality, which major retailers have been best-placed to communicate through product branding, portion sizes and packaging.
- The overall consistency, versatility (in home-prepared meals as well as across food service products) and price competitiveness of chicken has ensured steady growth in per-capita consumption over time.
- Beef on the other hand has suffered somewhat through negative health perceptions and some price sensitivity for higher-value cuts.
- Lamb consumption has also meanwhile declined due to the relative higher price of cuts, affected by the strong export value of the meat (as seen in this section).

Figure 4.1.0.1 – Average retail prices achieved by each overall meat category



Source: Freshagenda analysis

Figure 4.1.0.2 – Apparent kg consumption per capita



Source: ABARES

4.1 Meat

4.1.0 Major meat proteins

Category overview

- There is a large amount of diversity in the retail range of meat products across the major protein categories, which compete on a range of attributes, including health, convenience of preparation, consistency of flavour and versatility.
- The matrix on the right attempts to illustrate the relative performance of some key products that offer this differentiation, compared to commodity or generic lines.
- The differentiation in placement of individual products in this matrix is based on their role and performance within their respective meats, with regard to the overall impact on sales, the pricing achieved and the respective growth achieved.

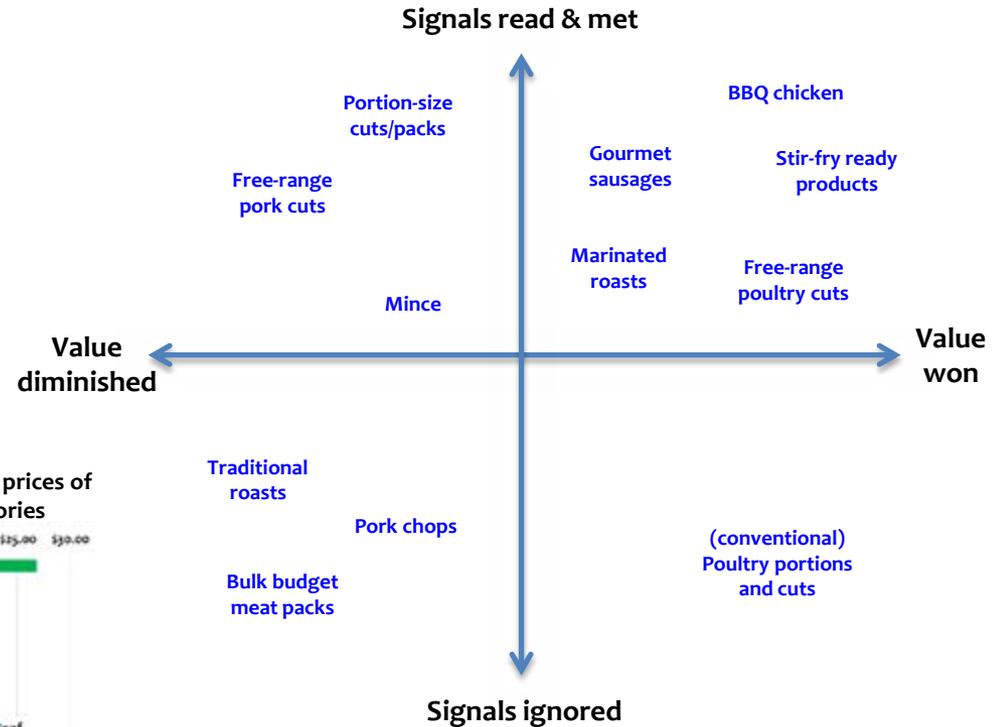
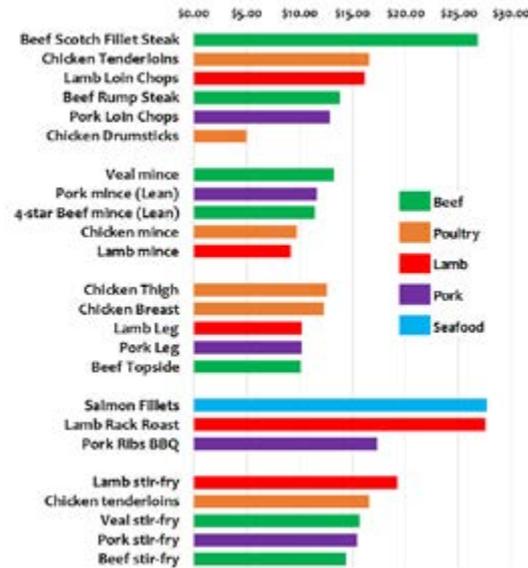


Figure 4.1.0.3 – Average per kg retail prices of selected meat cuts across categories



Source: Freshagenda analysis of retail price data

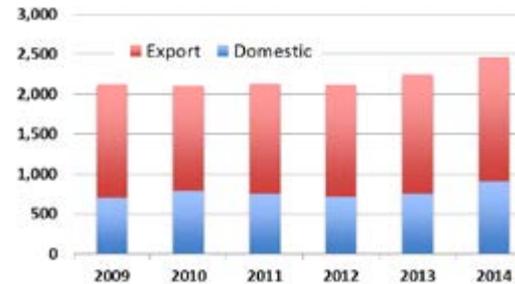
4.1 Beef

4.1.1 Beef sector overview

Introduction

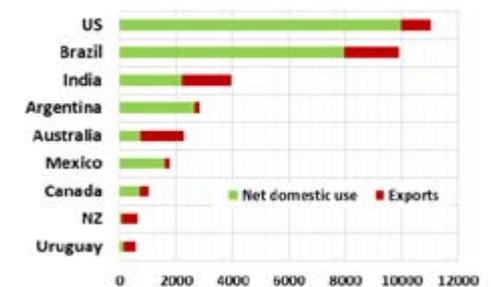
- The Australian beef industry is dominated by large volume supply chains through finishing and abattoir facilities in Queensland, which have developed to service export markets. In other respects the industry is a diverse food sector with a large number of production enterprises of varying size and specialisation and a range of supply chain models through to both export and domestic consumers.
- Most of annual beef production is from grass-based farms, but about 30% of animals are finished in feedlots.
- Australia is a leading exporter of beef onto world markets, but is unlike most exporters (with the exception of New Zealand) which consume most of their output in their home markets.
- **About 67% of beef production is exported** (in terms of carcass weight equivalent) to a variety of export markets. Export shipments are dominated by low-value primals and portions sold into developing markets, alongside the supply of manufacturing beef to the US. About 10% of total cattle numbers turned off each year are exported live into a number of overseas markets.
- **Major supermarkets** (with about 57% of the domestic market for beef) have to some extent developed dedicated supply chain models to provide scope for stability in supply and prices of beef over time in an effort to mitigate volatility in seasonal conditions and export returns.
- Specialist retailers (butchers) retain a significant share (16%) of the domestic market despite strong price competition from grocery chains. Foodservice volume share (27%) is dominated by the volume sold through major QSR chains which typically contract their supply direct with processors.
- There are increased instances of integration featuring wholesalers and specialty retailers aiming to improve points of difference and returns to counter the intensely price-competitive grocery sector.

Figure 4.1.1.1 – Australian beef market mix 2009 to 2014 ('000t cwt)



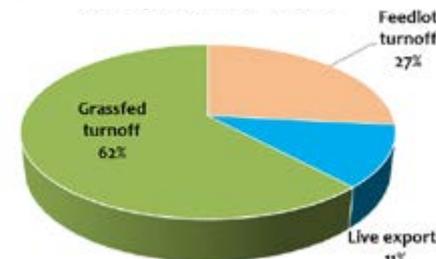
Source: MLA

Figure 4.1.1.2 – Major beef producers 2014 ('000t cwt)



Source: USDA

Figure 4.1.1.3 – Cattle production 2013/14



Source: ABS, ALFA/MLA, Freshagenda analysis

4.1 Beef

4.1.2 Factors affecting supply chain pricing

The beef value chain has two distinct markets – one for cattle and another for meat. These are affected by different dynamics and there is limited overall correlation between these markets over time that affect pricing.

Cattle values are set by the supply of and demand for animals into feedlots and abattoirs.

Meat values set at wholesale (including buying to address the requirements of retail mix) by export returns from various markets.

Livestock price volatility affected by supply and demand at each point in the chain - including seasonal conditions, feedlot margins and live market access.

Customer & competitor dynamics - export returns mostly affected by \$A values, changing export mix (countries and carcass portions); economic conditions in Japan/Korea; and supply/demand conditions in US markets.

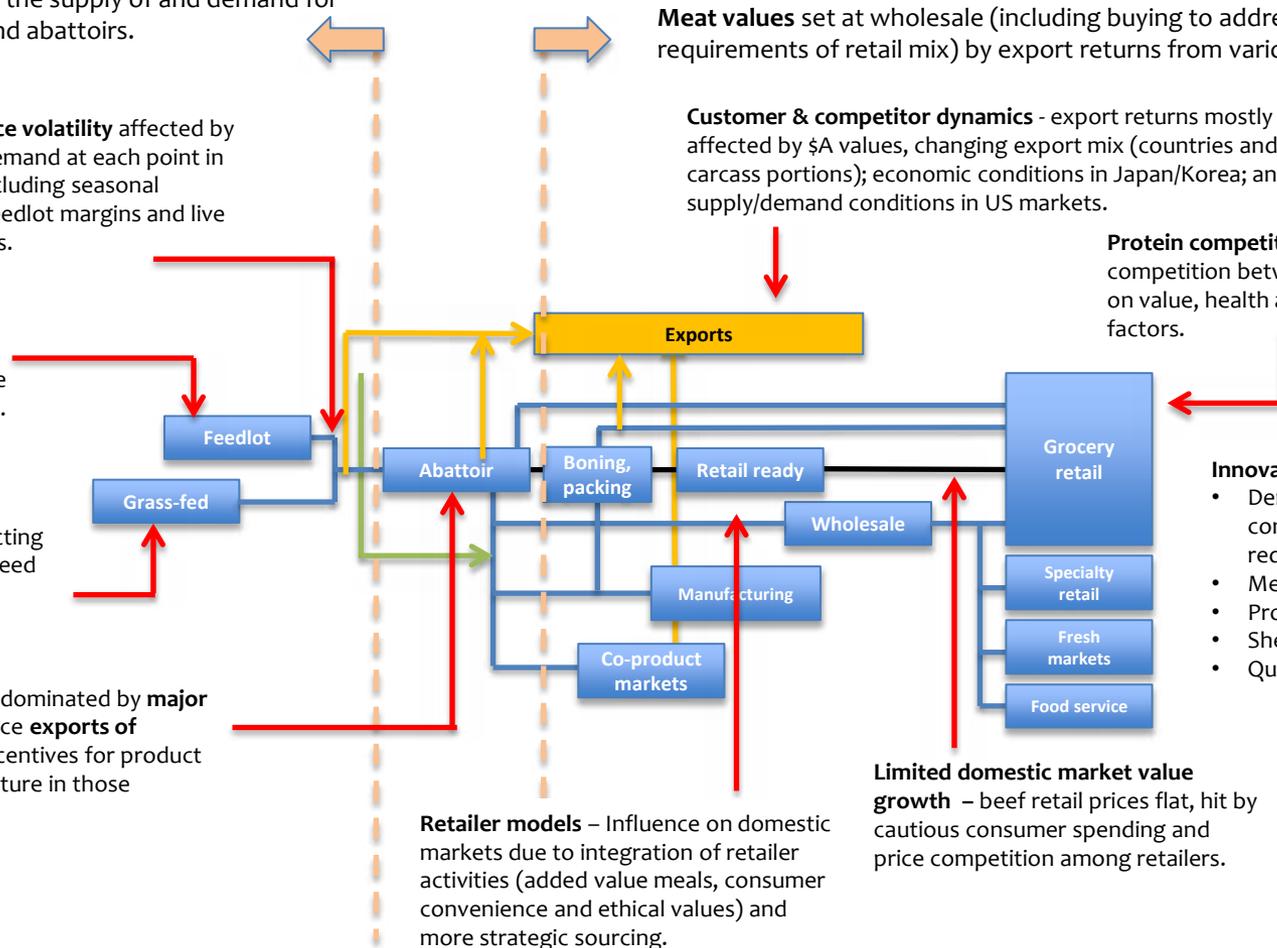
Protein competition - strong competition between meat proteins on value, health and convenience factors.

Feedlot activity – volumes on feed driven entirely by short-term cash margins – affected by feeder cattle supply, prices and feed grain costs.

Climatic variability - affecting production capacity and feed costs.

Concentration - processing dominated by **major facilities** developed to service **exports of chilled product**, creating incentives for product development and value capture in those markets.

- Innovation drivers** –
- Demand for portion control (diet/waste reduction)
 - Meal-ready convenience
 - Provenance
 - Shelf-life extension
 - Quality/value ranges.



Limited domestic market value growth – beef retail prices flat, hit by cautious consumer spending and price competition among retailers.

Retailer models – Influence on domestic markets due to integration of retailer activities (added value meals, consumer convenience and ethical values) and more strategic sourcing.

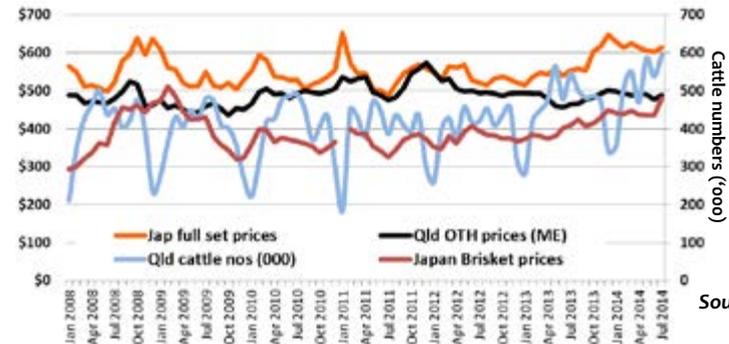
4.1 Beef

4.1.3 Beef pricing over time

Exports the main driver

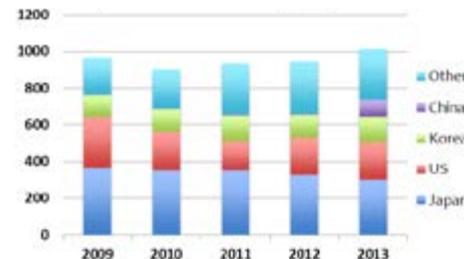
- There are slim margins between values achieved for saleable meat and carcass prices paid for animals. This situation is common globally – meat processors in most developed large-scale regions effectively operate with profit margins of less than 3% of sales, which is subject to variability due to the volatility in cattle prices.
- Relative cattle prices are influenced by the carcass sizes and production system which to some extent defines their path to market. Prices are most affected however due to the balance in available supply and feedlot and/or abattoir demand.
- The processing sector operates on small margins, with values obtained from co-products critical to profitability.
- **Export returns** vary over time due to the strength of demand from specific markets and value of the \$A over time which affects the competitiveness of Australian product in destination markets. In general however, export returns in recent years have averaged between \$3.50 and \$4.50/kg of processed meat.
- There is some relationship between prices achieved for exports into certain markets and the availability of cattle that are suited to specific markets. The chart at the top shows the relationship between over the hooks (OTH) prices for heavy steers and prices of meat sold into Japanese markets.
- Farmgate and slaughter prices for domestic livestock track overall cattle market trends. **Grocery retail prices for meat** are relatively stable, as retailers have sought to deliver consistent prices to consumers. Over time the data reflects practice – that retail prices follow trends (with some smoothing) in the cost of cattle inputs. See Fig 4.1.4.1 on page 49.
- The domestic retail market is strongly influenced by the price promotional activities of grocery chains, with popular cuts of meat being used as a major value drawcard since deep-discounting programs were intensified in 2010.

Figure 4.1.3.1 – Japanese market v Qld carcass prices (meat equivalent) v slaughter numbers 2008 to 2014



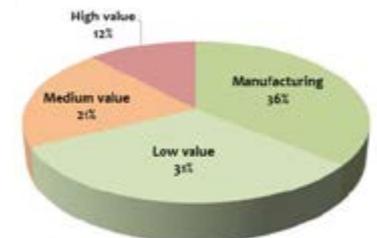
Source: MLA, ABS

Figure 4.1.3.2 – Export market mix 2009 to 2013 ('000t swt)



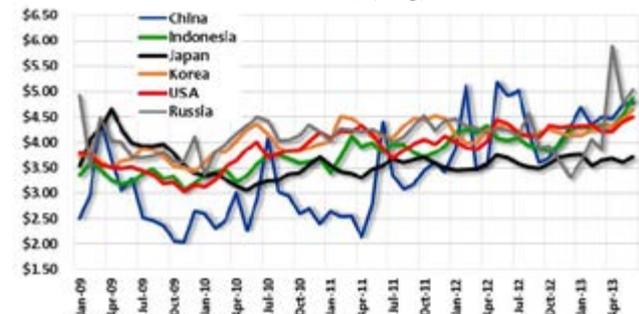
Source: MLA

Figure 4.1.3.3 – Australian beef exports – top 10 beef cuts in 2013



Source: MLA, Freshagenda analysis

Figure 4.1.3.4 – Beef boneless frozen exports 2009 to 2013 (\$/kg)



Source: MLA

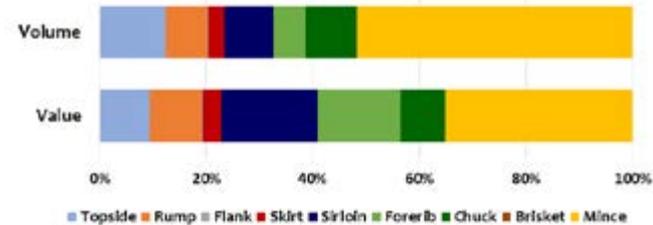
4.1 Beef

4.1.3 Beef pricing over time

Retail product mix

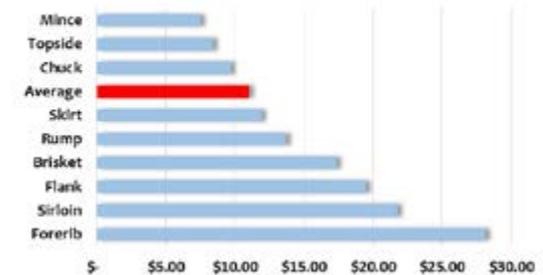
- The sales mix of meat products through retail channels differs significantly from the prima-facie yield of cuts obtained from a beef carcass.
- The mix of meat sales volumes for the Australian retail market is dominated by mince, which is the lowest value portion.
- The chart on the right shows the typical average retail value and volumes obtained across the category over a full year.
- Prices for beef products have on average been consistent over recent years, due to the price competition within the category.
- Prices tend to vary over seasons within any year given the different demands for roasting and barbeque/frying products.
- Even within each of those portions, there is considerable range of prices due to variation in fat, eating grades, pack/portion size, and the extent of preparation for ultimate use.
- Cattle prices for medium weight cattle sold into domestic markets are relatively consistent over time, as are average retail prices for the beef category. While the farmgate share of retail (on the following page) draws on data from 2013 and 2014 financial years, the chart below at Fig 4.1.3.7 shows that similar calculations for earlier periods (2010 to 2012) would deliver similar results.

Figure 4.1.3.5 – Retail beef sales contribution by portion in 2013



Source: Retail sales data

Figure 4.1.3.6 – Retail beef prices by cuts in 2013



Source: Retail sales data

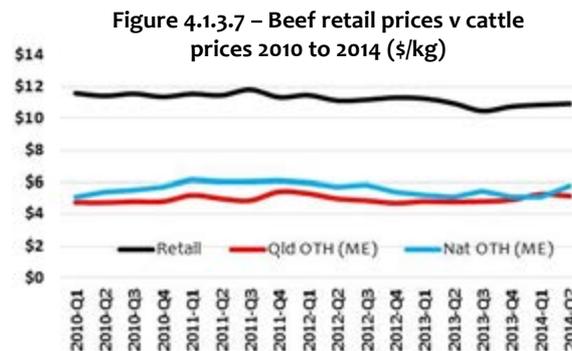
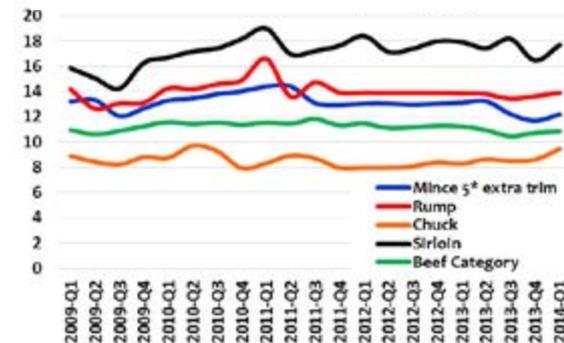


Figure 4.1.3.8 – Beef retail prices (\$/kg)



Source: Retail sales data

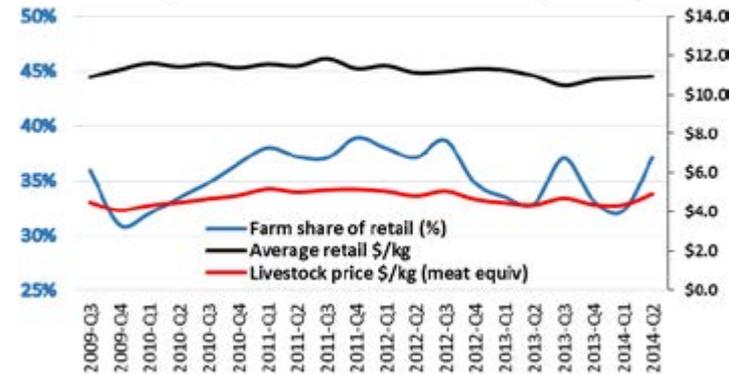
4.1 Beef

4.1.4 Beef supply chain models

Retailer direct supply model

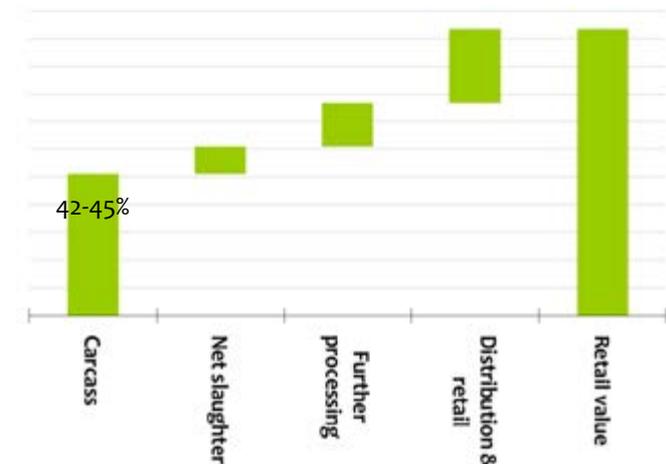
- We have undertaken analyses to compare an average retail value of beef cuts with the farmgate price of relevant livestock. This takes account of the carcass yield and actual retail sales mix, and the contribution of co-products from the beef value chain.
- There are a number of supply chain models in use within the industry. Meat sold through the Australian grocery channel is based on a variety of supply chain models with retailers sourcing animals from a mix of grass and grain fed-systems and some contract outsourcing of slaughter and processing.
- The calculation of relative prices paid (in meat equivalent terms) at farmgate (based on MLA data for domestic livestock in the weight range used for domestic sales, adjusted for co-product values) and retail is shown in the chart on the right. This shows the farmgate share has varied over the 5-year period between 31% and 39% of the retail value.
- **Assumptions used in these calculations are set out in the box on the following page.**
- Retailer models typically pay a little higher than the prevailing market prices, to ensure commitment and consistency of supply.
- An illustration of such a model over a 24-month period is provided in the chart on the right. A longer time series is not available through similar analysis due to the unavailability of livestock buying price data. This reflects a price paid to the producer which was about **45% and 42%** of the average achieved retail value across all cuts for the 2012/13 and 2013/14 financial years respectively.
- There are other models in use. The category and supply chain management models vary across retailers, with differences in the mix of sales through stores that have in-house butchery operations and those that rely on retail-ready packaged meat trays. These involve different cost structures in staffing and facilities for the retailer.

Figure 4.1.4.1 – Beef producer’s share of retail meat prices



Source: MLA livestock sales and co-product data, Retail data, Freshagenda analysis

Figure 4.1.4.2 – Retailer value chain – illustrative costs and values



Source: Industry sources, Freshagenda analysis

4.1 Beef

4.1.4 Beef supply chain models

The role of co-products

- Co-products obtained from a beef carcass may have a material value in terms of the processing efficiencies available to meat processor.
- Yet cattle prices are not determined by reference to the potential value of offal or co-products that can be derived. In general prices paid for animals vary according to fluctuations in cattle supply and the demands of processors for throughput volumes.
- Over the hooks prices are set by processors according to a “grid” based on the estimated saleable meat yield and meat grade quality.
- Co-product yield is however an important outcome for the beef value chain, yet is accounted for between the participants in different ways depending on the relationship between processor, producer and/or ultimate processed meat customer.
- Where the processor takes full risk on processing an animal, co-products offset the cost of killing, dressing and cutting the carcass.
- In cases where the processor is engaged in a toll processing arrangement, an allowance for co-products may be costed into a net processing fee.
- A modern processing facility or downstream enterprises are likely to have significant investments in further stages of product recovery beyond the extraction of co-product portions at the slaughter stage, which may offer further value-adding but only after further investment and added cost.

Assumptions used in the comparative pricing analysis

- Farmgate values of livestock have been converted from a live animal cost into a price per saleable meat yield equivalent.
- Yields used in this analysis are based on estimated retail yields achieved.
- The value assigned to co-products (which has been deducted from the animal value at farmgate) has been determined using MLA data per the assumptions below.
- Average retail value is a-volume weighted amount for each of the periods.

Assumptions used in assigning value to co-products

- Co-product yields have been calculated based on the expected weight for each component, for a 240kg carcass which has been used in the value allocation workings, using industry standard cutting yields sourced from past studies undertaken by our consulting team and MLA data.
- Unit prices were assigned to each component based on MLA data for offal and co-products over the years ended June 2009 to 2014, according to MLA’s co-products reports.
- This assigned values to co-product recoveries extracted at slaughter stage. The values assigned to certain components that are typically used in or sold into further processing plants for downstream processing into fertilizer, animal meal and pharmaceutical products were nominal.
- This derived aggregate value for co-products is ascribed to the value of the carcass upon slaughter.

4.1 Beef

4.1.5 Beef pricing – overseas comparisons

Retail prices

- A number of comparisons have been extracted in our analysis of international beef prices, including achieved price points through various stages of the processing supply chain. This has been limited to countries where sufficient industry data is available.
- Australian retail beef prices tend to be cheaper on average than EU countries but similar on average to the US – although the comparison is dependent on exchange rate assumptions.
- EU countries are not specialist beef producers, as their beef market is essentially supplied by small-scale facilities from animals that are a by-product of their large dairy herds, resulting in a high cost of meat to consumers. Dedicated beef production on a large scale occurs in the US and in several Latin American countries.

Share of retail value

- We have extracted a comparison of the farmgate share of retail prices in countries where such data is available and analyses are provided by their industries or government agencies. These prices have been yield-adjusted to ensure like-for-like meat values.
- Australian farmgate prices typically represent a **lower portion** of the average retail value compared with a number of other countries due to the strong influence of export markets which take a major share of Australian output and typically return lower meat values than the returns achieved in other countries from their domestic markets.

Lower farmgate values

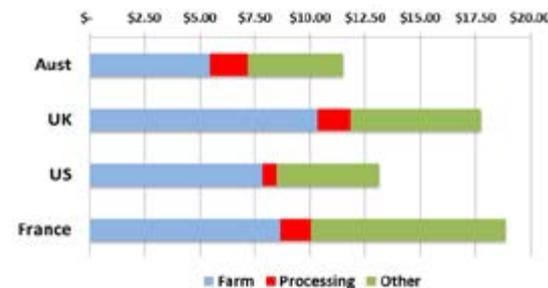
- Australian cattle prices are typically lower than their competitors, given the high portion of output exported into low-value uses. Australia uses smaller animals than other countries, influenced by the domestic market preference for portion size and yield. In recent times the high \$A has reduced the average value flowing back into the sector.
- Note: The Australian returns in these comparisons are affected by recent drought which has lowered livestock prices.

Figure 4.1.5.1 – Global average live cattle prices (US\$/kg)



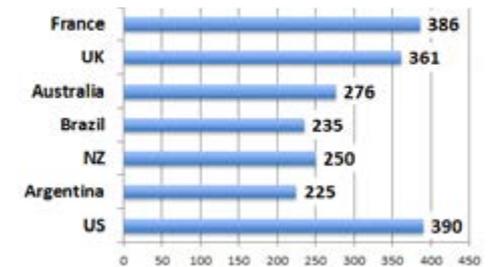
Source: Various industry bodies, Rabobank

Figure 4.1.5.2 – Share of retail value in A\$



Source: Freshagenda analysis from in-country data

Figure 4.1.5.3 – Average slaughter weights – kg/head



Source: MLA, USDA, AgriMer, Eblex

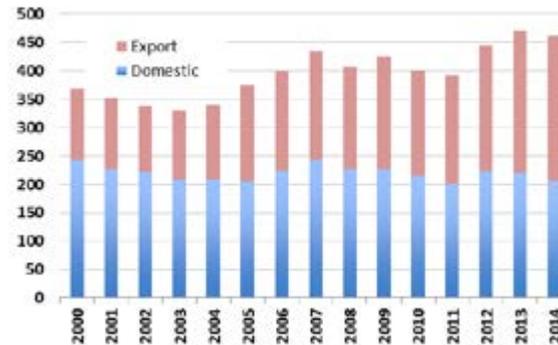
4.2 Lamb

4.2.1 Lamb industry overview

Introduction

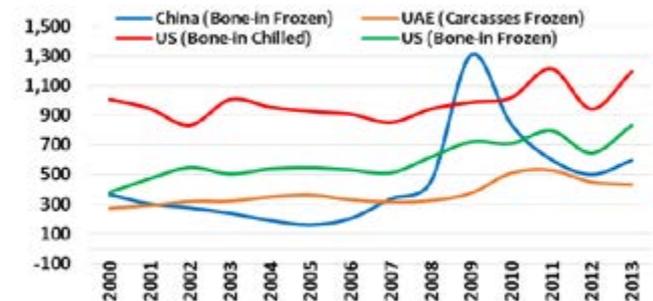
- Lamb is a major element of the red meat sector, but its industry fortunes have been historically linked to that of the sheep sector, in view of the dual purpose role of sheep as a source of meat and fibre, and the historical influence of merino genetics for wool production.
- The size of the Australian sheep flock has fallen significantly from the turn of the century, and as a consequence the specialisation of lamb for meat production has increased in importance. Production of lambs and lamb meat has steadily increased, but varies year-to-year due to climate and export market conditions.
- Australia has emerged as the second-largest exporter of lamb behind New Zealand.
- A major influence in recent years has been the decline in product availability on the world market from other major production countries in the face of rising demand in the US, Japan and EU. These trends are expected to continue in to the foreseeable future.
- The behaviour of consumer segments in key markets such as the US will continue to drive change through the lamb sector and increase the focus on specialisation of production for those markets.
- Specialisation in prime lamb production has increased over time as production and feeding systems to meet customer specifications has become more sophisticated.

Figure 4.2.1.1 – The historic mix of markets for lamb ('ooot)



Source: ABARES

Figure 4.2.1.2 – Prices for Australian lamb (Ac/kg fob)

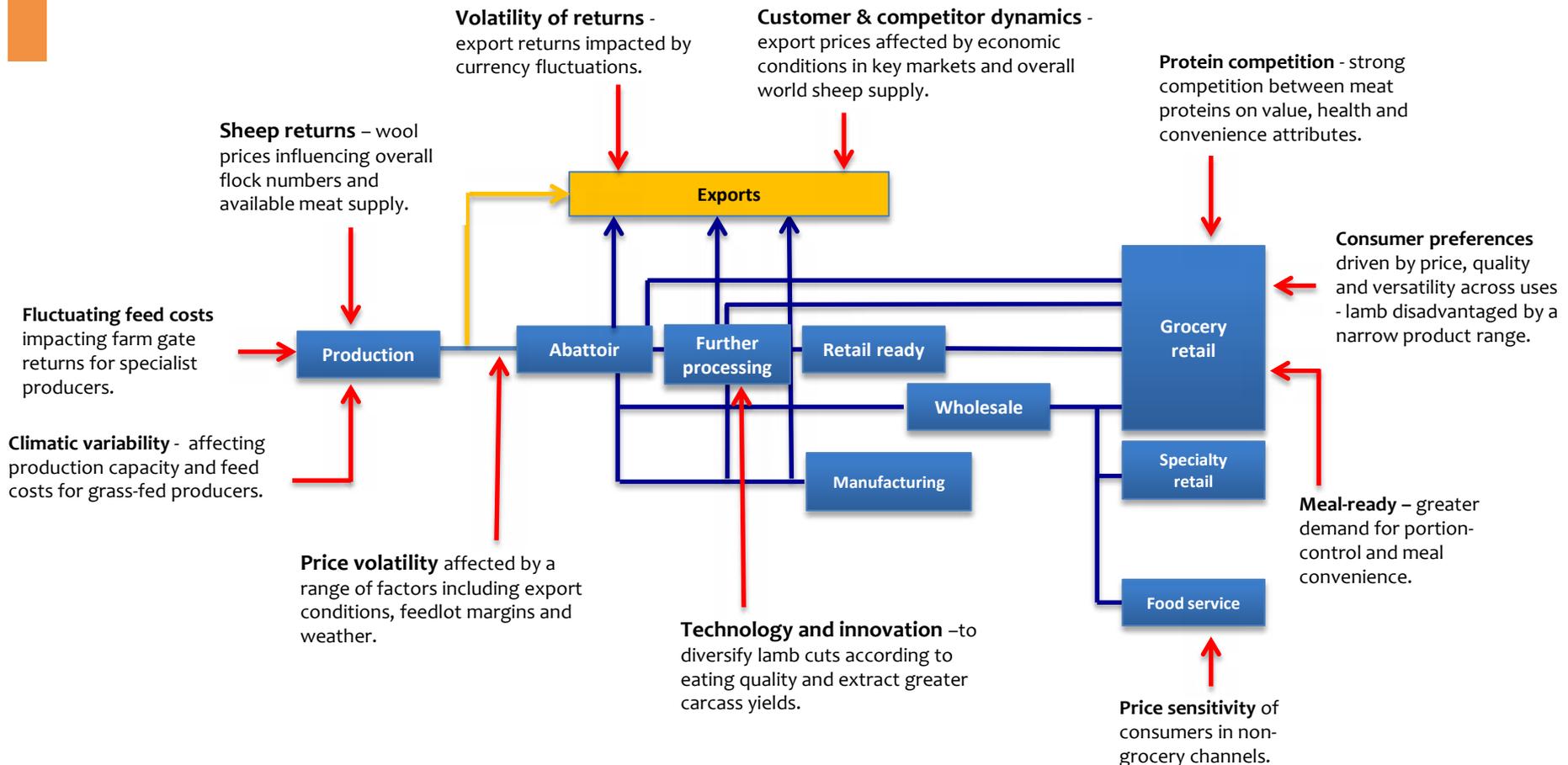


Source: ABARES

4.2 Lamb

4.2.2 Factors affecting lamb pricing

Overall, Australia has a high-level of self-sufficiency of lamb and sheepmeat, and a relatively stable supply. However, as with beef, there are a number of factors that influence supply stability and create a level of short-term volatility in prices and supply within the industry, including the influence of international markets and production complexity.



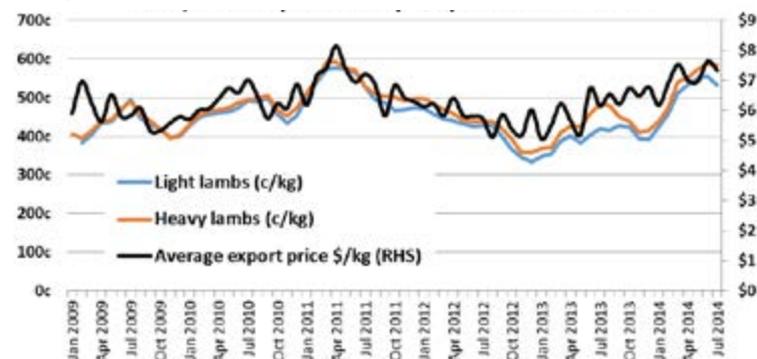
4.2 Lamb

4.2.3 Lamb pricing over time

Strong correlation with export returns

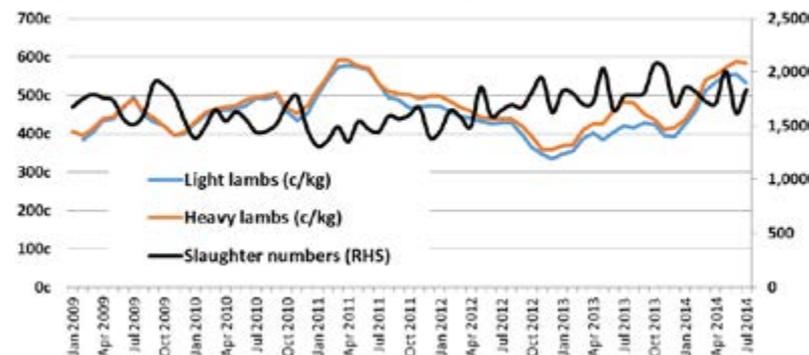
- Despite the high proportion of meat going into the domestic market, returns to the lamb production and processing sector are strongly influenced by world trade, through prices demanded by overseas customers. Domestic market consumption is relatively static, and subject to price competition from other red and white meats.
- With growing export influence of the sector, supply of lambs and accordingly the prevailing prices over time are driven by other factors which include:
 - Exchange rate relativity and volatility;
 - Seasonal conditions which affect both quality and quantity of stock. Drought may delay new season or sucker lambs coming onto the market; rainfall provides good feed and quicker turnoff of lambs which may increase supply and lower prices;
 - With increased specialisation of production through lot-feeding, there is greater exposure to movement in grain prices; and
 - The returns from wool, although this effect has weakened.
- As with beef, the major retail buyers operate with a variety of models to ensure they cover price, supply and quality risks. Buyers seek to achieve a target buying price to maintain target returns for the category, based on carcass usage, processing cost and competing retail prices for the category.
- Major retail buyers vary the mix of product sourcing between dedicated producers, paddock selection and livestock markets depending on market conditions.

Figure 4.2.3.1 – Meat/carcass prices v export prices 2009 to 2014



Source: MLA

Figure 4.2.3.2 – Meat/carcass prices v slaughter numbers 2009 to 2014



Source: MLA

4.2 Lamb

4.2.3 Lamb pricing over time

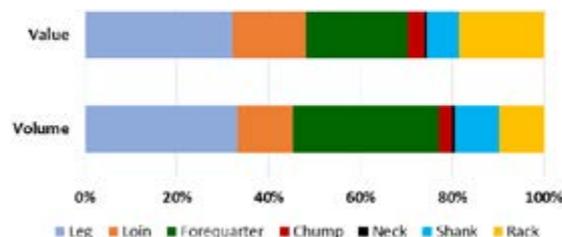
Retail prices

- There is a significant spread of prices achieved in the lamb category with an overall average price higher than that achieved in beef, despite a different mix of end uses across that spectrum, with a much smaller volume of lamb going into the “value” portions such as mince and stewing meals.
- In overall terms, domestic retail prices in the lamb category have been driven by providing sufficient coverage of costs, balanced against prices of competing meats at retail.
- Retail prices move with the cost pressures from the supply of lambs, competing with demand from export markets, despite the fact that there is a lower overall percentage of lamb directed to export markets.
- There is a demonstrated relationship between export prices and average retail prices as illustrated in the period from 2009 to 2013.
- This is a contrast to the case of beef, which is the anchor category in the meat department and which has been consistently priced as a key value-category by grocers.

Farmgate share of retail prices

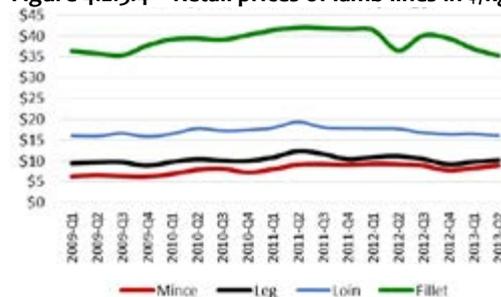
- We calculated weighted average retail selling prices across the retail category from 2009 to 2013.
- Based on average saleable meat yields; the average carcass selling prices achieved over 4 years to 2012/13 for medium trade lambs according to MLA data; and the above retail value, carcass prices represented about 51-64% of the retail value of lamb. With movements in carcass prices over the period, a range has been assigned to reflect these movements.
- Offal yield from lambs is minimal, yet a small value has been deducted on a basis consistent with that in the beef calculations in arriving at the above calculations.

Figure 4.2.3.3 – Retail lamb sales contribution by portion
3-year average (2010/11 to 2012/13)



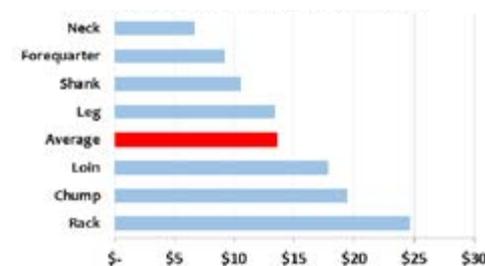
Source: Retail sales data, Freshagenda analysis

Figure 4.2.3.4 – Retail prices of lamb lines in \$/kg



Source: Retail sales data

Figure 4.2.3.5 – Retail lamb prices \$/kg by cuts in 2012/13



Source: Retail sales data

Figure 4.2.3.7 – Lamb farmgate value as a share of retail prices

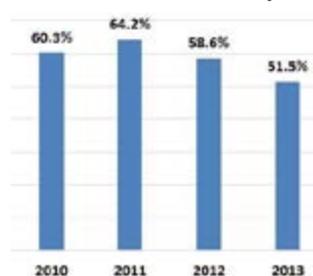
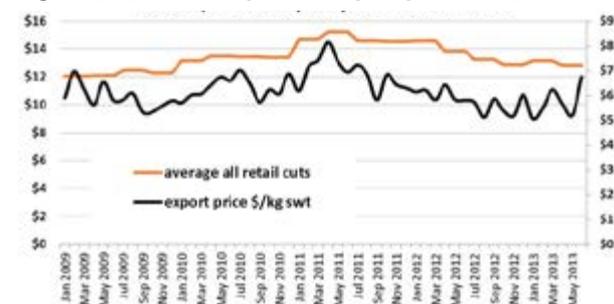


Figure 4.2.3.6 – Retail prices v export prices 2009 to 2013



Source: MLA, Retail sales data

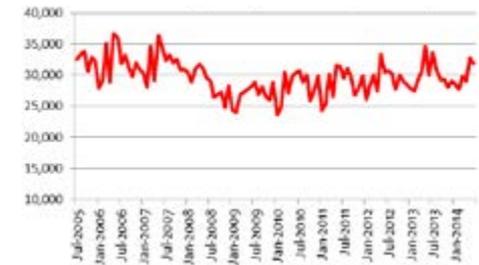
4.3 Pork

4.3.1 Pork industry overview

Introduction

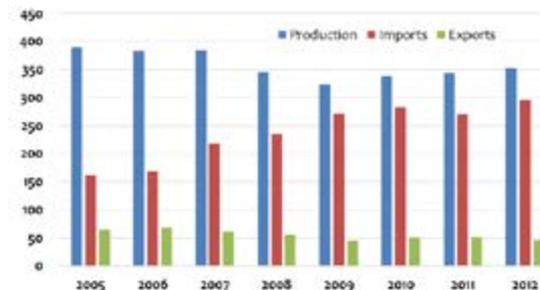
- Pork is a small fresh meat category alongside beef and poultry.
- The pork industry fortunes are strongly shaped by the large proportion of pigmeat used in processed smallgoods (ham, bacon and manufactured meats), which are exposed to significant import competition.
- The volume of use in smallgoods and manufacturing varies according to the competitiveness of local product in the face of the landed cost of processed imports.
- There has been a gradual fall in pork export volumes over time due to a high \$A and loss of cost-competitiveness of local product.
- Pig carcass prices over time reflect the balance of returns from fresh pork cuts and use of major portions in production of ham, bacon and other smallgoods.
- Producers are further exposed to volatility in feed grain input costs which represent a high portion of production costs. Feed is the major cost of production representing an estimated 60% in pigmeat production in normal conditions.
- The overall impact of these different forces on carcass profitability has been to sustain pressure on net returns for pork processors and producers. Production volumes have tracked trends in carcass returns and import prices.
- Production of pork has been relatively unchanged for the past 15 years. Imports of frozen pork by major processors for hams and cured meats have meanwhile increased over time to take a greater share of rising domestic consumption.

Figure 4.3.1.1 – National monthly pork production (tonnes cwt)



Source: ABS

Figure 4.3.1.2 – Pork production and trade ('000t cwt)

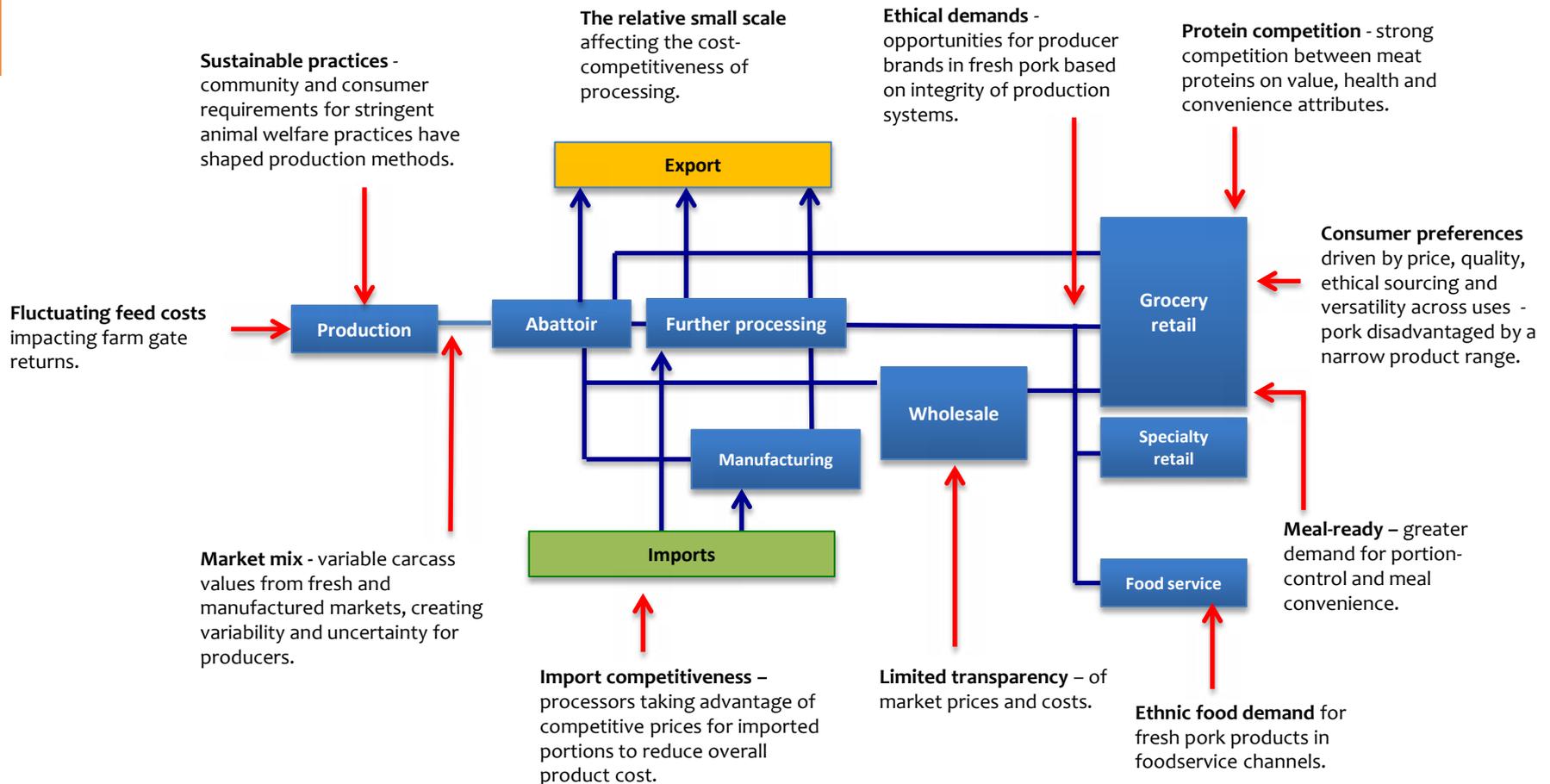


Source: ABARES

4.3 Pork

4.3.2 Factors affecting pork pricing

Pork value chain: The pressure points identified reflect the pressure of balancing returns from the fresh pork products and the growing import competition from processed small goods products. Factors influencing short-term volatility of prices and supply include the impact of currency movements, import competition, and complexities within the production system.



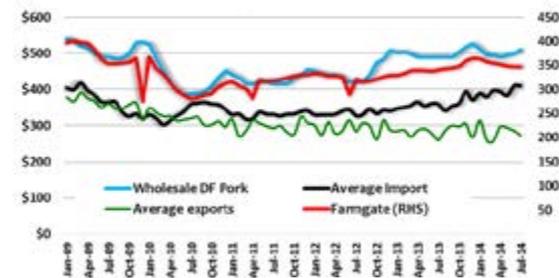
4.3 Pork

4.3.3 Pork pricing over time

Strong influence of import trade

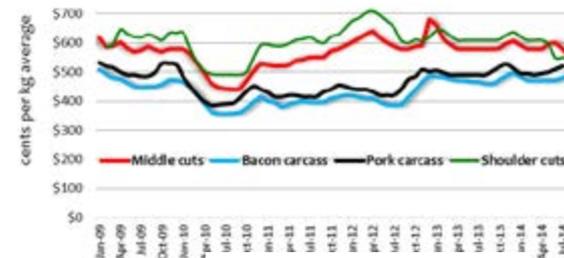
- Returns to producers in carcass prices from domestic and export markets for pork are determined by a set of forces affecting the wholesale value in fresh and processed meat markets.
- Processors have sought to extract optimum value from the domestic fresh pork market subject to strong competition for alternative meats.
- Retail prices for pork products and cuts are subject to competition in terms of price and consumer preference for meat use from other red and white meats.
- Over time the average retail price that has been observed for fresh pork cuts has remained relatively flat, with some slight correlation to the pricing of shoulder cuts in wholesale markets as shown in the charts on the right.
- Wholesale prices for carcasses and portions track trends in imported pork values.
- Australia's domestic production and processing sectors are at a cost disadvantage to these suppliers due to their production scale and labour costs.

Figure 4.3.3.1 – Pork farmgate v wholesale and import prices (Ac/kg) 2009 to 2014



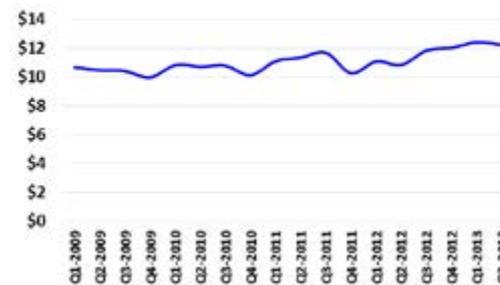
Source: Australian Pork Limited

Figure 4.3.3.2 – Pork wholesale prices 2009 to 2014



Source: Australian Pork Limited

Figure 4.3.3.3 – Quarterly retail pork prices (\$/kg)



Source: Retail sales data

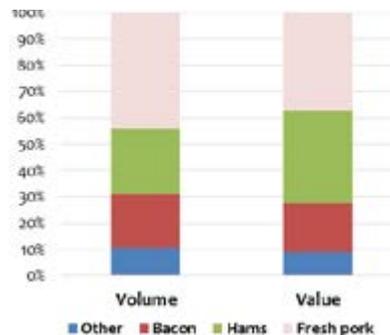
4.3 Pork

4.3.3 Pork pricing over time

Farmgate share of retail prices

- Returns to producers in carcass prices from domestic and export markets for pork are influenced by the value of the uses of the carcass in fresh and smallgoods markets, with imported smallgoods impacting the prices offered by processors.
- In contrast to the yield-based return calculations that have been undertaken for beef and lamb, it is a far more complex consideration for pork given the wide variety of end-uses of portions of the pork carcass, including the use in a range of processed meats which do not have a directly comparable retail value given other ingredients used in some of those products.
- The illustration undertaken for these purposes makes important assumptions based on the use of the pork carcass, assuming all portions are used in retail products.
- The analysis shows that the farmgate value of the saleable meat yield from the pork carcass over the 4 years to 2012/13 was the equivalent to 53-63% of the retail value of carcass portions.
- This is based on:
 - average carcass prices reported by Australia Pork (as shown in the chart on the previous page);
 - a saleable meat yield from a typical medium-weight pork carcass; and
 - retail prices achieved for fresh bacon, ham, pork cuts and other product forms (including sausage).
- This assumes a full retail utilisation of a carcass, and takes account of a portion of the carcass yielding value for offal, which reduces the farmgate equivalent of meat value.
- Lower values may be realised for portions of the carcass in manufactured meats from time to time which would lift the farmgate share above the range provided from this analysis.

Figure 4.3.3.4 – Share of carcass across products



Source: Freshagenda analysis

Figure 4.3.3.5 – Retail pork sales contribution by portion 2011/12

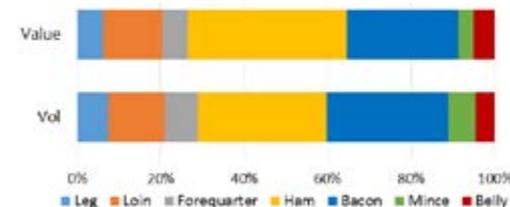


Figure 4.3.3.7 – Pork farmgate value as a share of retail prices

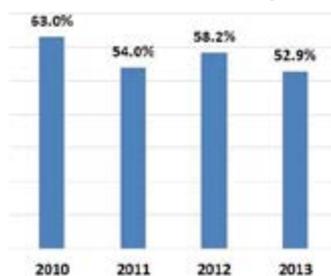
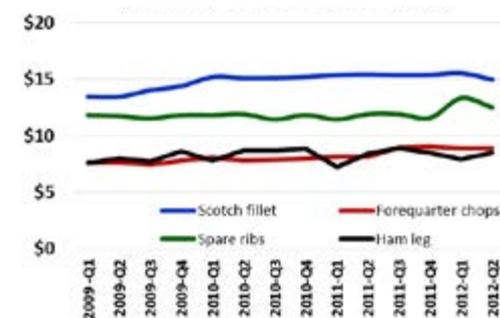


Figure 4.3.3.6 – Retail pork prices by cuts (\$/kg)



Source: Retail sales data

4.4 Poultry

4.4.1 Poultry industry overview

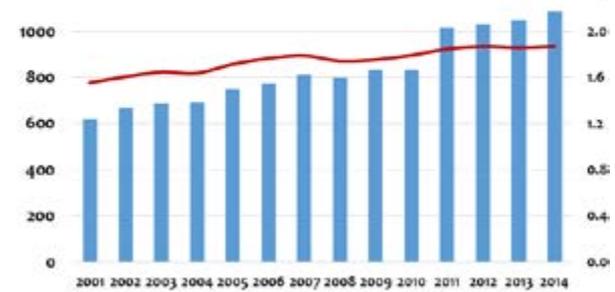
Introduction

- Poultry meat is the most consumed meat protein in the Australian domestic market, but being only domestically focused with minimal overseas trade, operates on a much smaller scale than the beef sector.
- Industry output has gradually increased over time as chicken meat has claimed a greater share of domestic per-capita protein consumption. This is largely due to the consistency, price competitiveness and versatility of use across a range of meal occasions and preparation methods of chicken meat compared to red meat and pork.
- The industry is dominated by two major processors, Baiada and Ingham, with a number of smaller regional processors.

Integrated models

- The industry operates with fully integrated models that encompass breeding, feeding, slaughtering, and further processing business models managed by major poultry companies.
- This approach is similar to that run in other major poultry producing countries, as a means of achieving production efficiencies, food safety and hygiene control, product quality and supply chain management over time.
- As a result there is no “farmgate” as such in the chicken production industry. Poultry growers are contracted by processors to rear birds on a fee-per-bird basis that is negotiated based largely on cost factors, in some instances using collective bargaining arrangements.
- Growers are provided with day-old chicks and a required feed regime, and supply grown-out birds to processors. Growing fees represent about 10% of the production cost of a bird. Feedgrain represents the most significant portion of total costs.

Figure 4.4.1.1 – Chicken meat production ('000 tonnes) and yield per bird (kg)



Source: ABS

Figure 4.4.1.2 – Relative importance of distribution channels (volume)

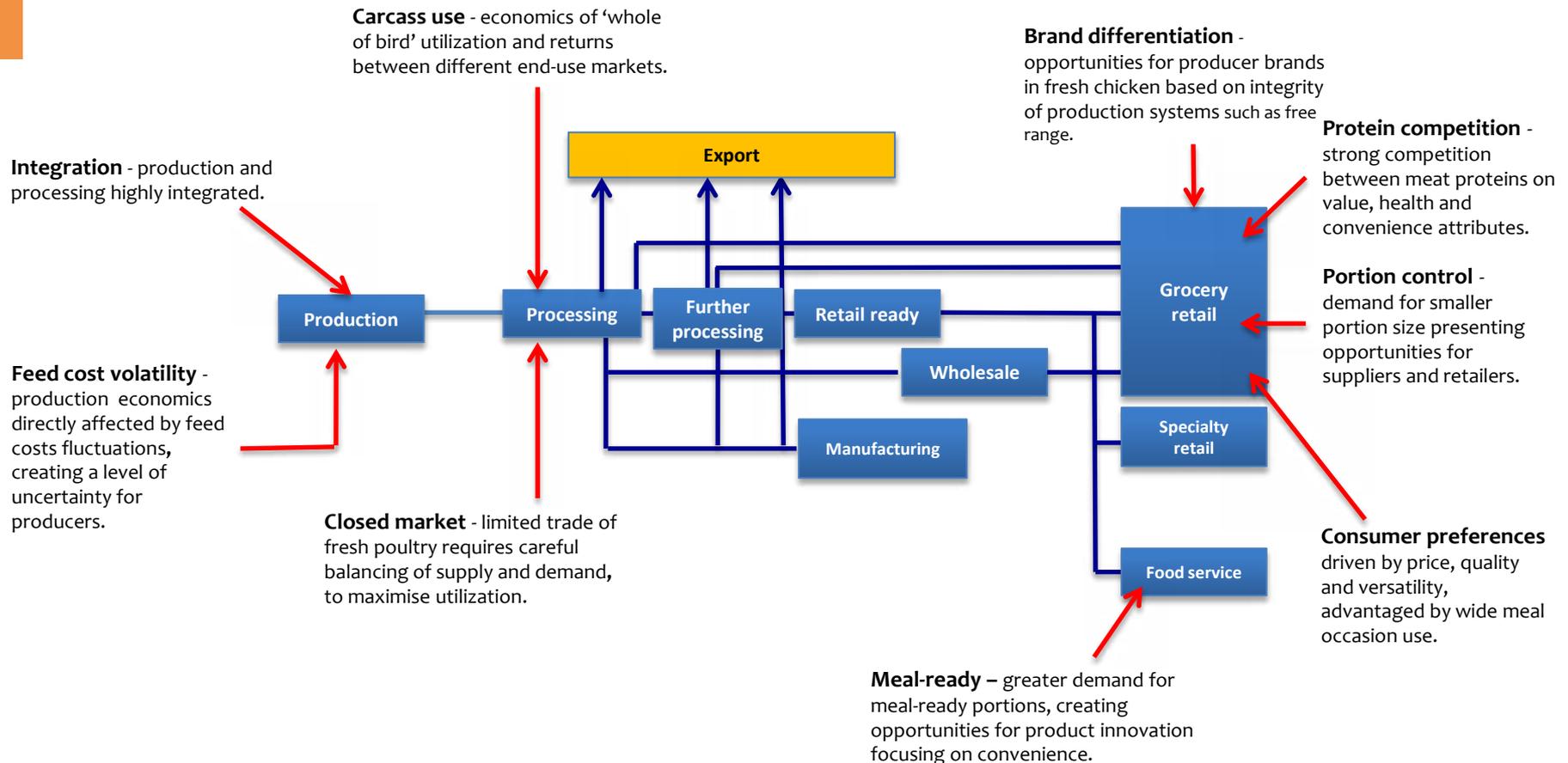


Source: Chicken Meat Federation 2011

4.4 Poultry

4.4.2 Factors affecting poultry pricing

Poultry value chain: The pressure points in the chain reflect the highly integrated and concentrated nature of the production and processing sectors, and the importance of the balancing recovery of meat from birds through the various market channels for fresh and processed poultry meat. Factors contributing to short-term volatility of supply and prices include the lack of visibility across the supply chain, and the influence of climate and price movements.



4.4 Poultry

4.4.3 Poultry pricing over time

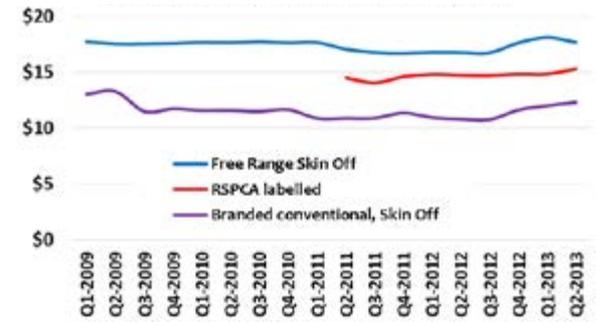
Through-chain pricing not relevant

- Chicken meat encompasses great diversity and is sold in various forms for different uses in retail stores – fresh in a wide range of cuts and portions in meat trays (sold alongside other meat categories), at the deli counter - raw and cooked, in ready-to-eat BBQ packs and frozen (which is now a very small portion of the category).
- Further processed poultry products such as nuggets and crumbed fillets are sold through frozen food sections.
- The highest use however is in the foodservice category where processed meat is the largest meat protein used in the fast food sector.

Production systems

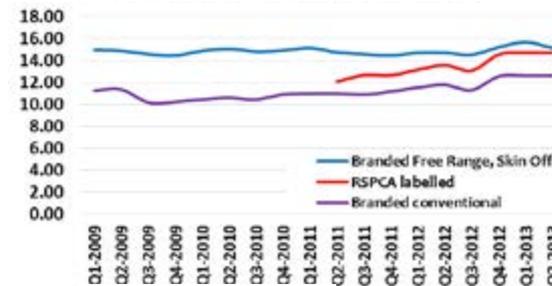
- Chicken meat provides one of the strongest examples of acceptance by consumers of higher prices for free-range and organic products.
- Free range products have about 14% of the share of the sales of fresh poultry through the grocery channel. There is a growing share of sales being won by welfare-accredited lines which are used by one major retail chain and planned by the other at the time of writing.
- This will be lower in the foodservice sector but there is no visibility of pricing.

Figure 4.4.3.1 – Chicken breast fillets retail prices (\$/kg)



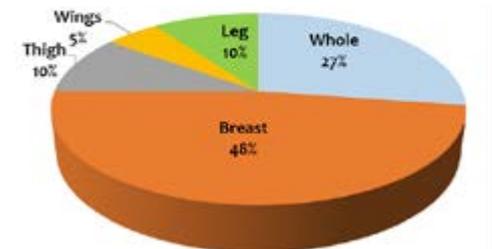
Source: Retail sales data

Figure 4.4.3.2 – Chicken thigh fillets retail prices (\$/kg)



Source: Retail sales data

Figure 4.4.3.3 – Poultry retail mix by fresh portion (volume share) in 2013



Source: Retail sales data

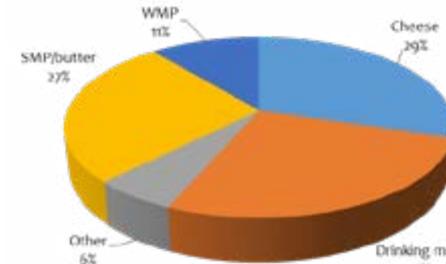
4.5 Dairy

4.5.1 Dairy sector overview

Introduction

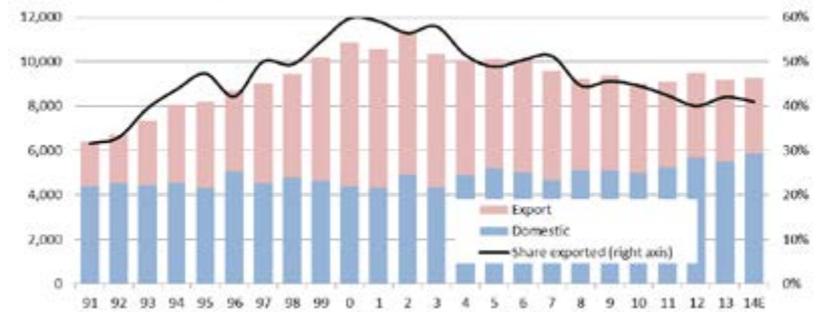
- The dairy industry produces a wide range of consumer products and ingredients for domestic and international markets. This analysis focuses on consumer products sold in the domestic market.
- Milk output** for the Australian industry fluctuates with seasonal conditions affecting feed input costs and the production margins in southern states (Victoria, Tasmania and southern South Australia) which produce about 70% of Australian milk output.
- While Australia is a competitive exporter of dairy products, static milk output coupled with steady growth in output by competitors such as New Zealand and the US has seen Australia's share of the world trade halve in the past decade to about 7-8% in 2013/14.
- Wholesale prices for manufactured dairy products (cheese, spreads and ingredients) and most farmgate milk prices are highly influenced by world market prices for traded dairy commodities.
- The Australian market has accounted for an increasing share of the industry's milk output, as production has stalled and consumption has continued to grow.
- Depending on total production, 40-45% of milk output is exported in the form of manufactured dairy products. While the domestic portion of milk use is therefore significant, a further 30% of milk is used in products for which wholesale prices are directly affected by world prices, due to tariff-free access to the Australian market for imports of cheese, butterfat and other ingredients.

Figure 4.5.1.1 – Australian industry use of milk in 2013/14



Source: Dairy Australia
SMP = skimmed milk powder; WMP = whole milk powder

Figure 4.5.1.2 – Australian consumption and exports



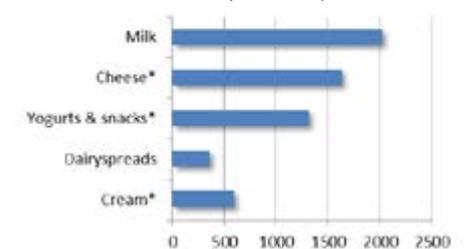
Source: Dairy Australia

Figure 4.5.1.3 – Sales of product into channels ('000t)



Source: Dairy Australia

Figure 4.5.1.4 – 2013 retail value (\$ million)

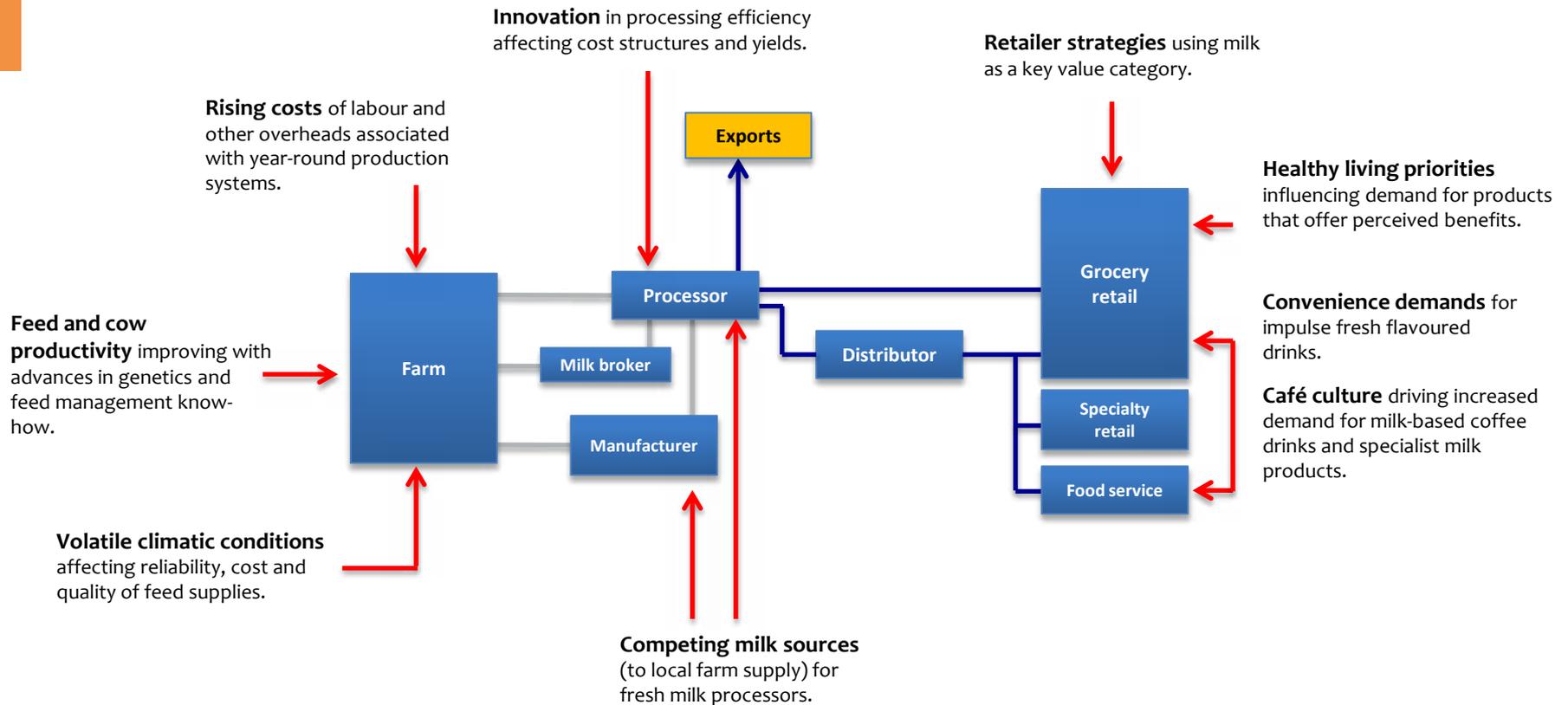


Source: Freshagenda analysis

4.5 Dairy

4.5.2 Factors affecting packaged milk pricing

Fresh dairy value chains are highly integrated for everyday production and processing, relying on year-round production systems on farms, processing focused on managing the balancing of milk use, and the precise cold supply chain requirements for supply into various market channels. Overall, Australia is self-sufficient in fresh milk and has a relatively stable supply.



4.5 Dairy

4.5.2 Factors affecting dairy product pricing

Australia is relatively self-sufficient in manufactured dairy production (although is exposed to import competition in cheese, butter and ingredients), with a large export focus of a number of the major manufacturers based in southern low-cost milk production regions. The significant factors contributing to the short-term volatility of prices and supply include the influence of climate, currency movements, and production complexity.

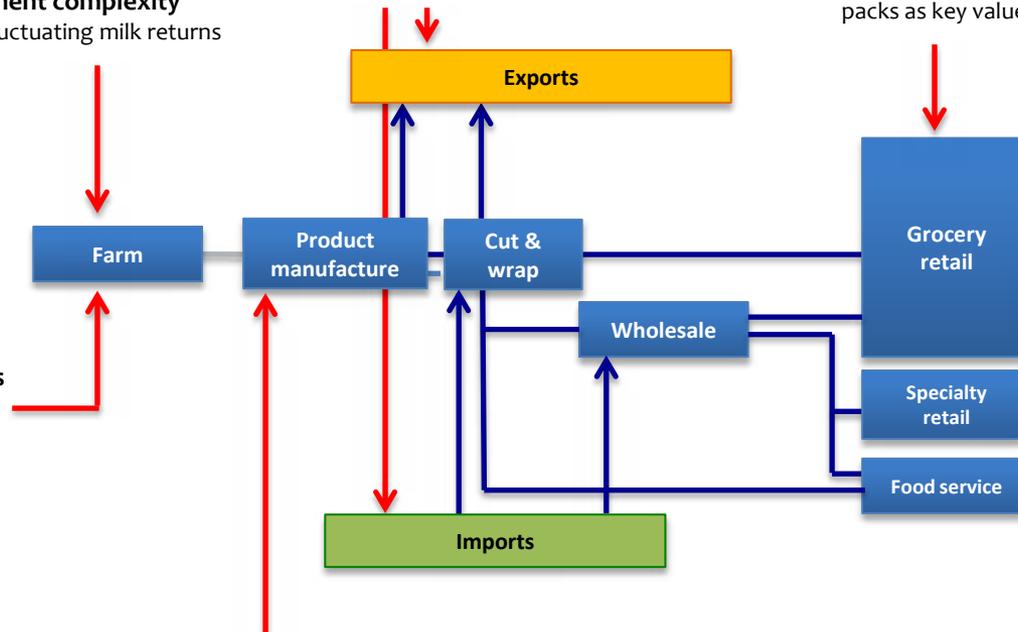
Export market fluctuations due to the changes over times in world balance of milk products, affecting value of competing milk uses and imported product pricing.

Retailer strategies using everyday cheese and butter packs as key value lines.

Rising management complexity associated with fluctuating milk returns and feed costs.

Feed and animal efficiency improving with advances in genetics and feed management know-how.

Regional climatic conditions affecting reliability, cost and quality of feed supplies.



Innovation in processing efficiency and co-product yield affecting overall raw milk returns.

Healthy living priorities influencing demand for dairy fats over vegetable oil-based spreads.

4.5 Dairy

4.5.3 Milk products

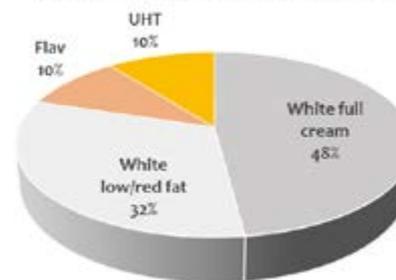
The market

- Fresh milk is an important category to the dairy sector, accounting for about 25% of national milk production. The share of raw milk use in fresh milk processing varies significantly between states.
- Demand for milk products has generally risen in line with population growth. In the 5 years to 2014, drinking milk sales have grown at an average of 2.1%. Dairy Australia estimates that per capita milk consumption rose from 103.8 to 107 litres in the 5 years to 2013.
- Much of the growth in sales volume in the past decade or more has been in sales of low and reduced fat products, but sales of UHT and flavoured milk products have grown faster in percentage terms.
- The supermarket sector has almost 55% of total white milk sales, with convenience and foodservice making up the remainder. The supermarket share has steadily increased over time.
- Only about 40% of flavoured milk sales are made through grocery with a high proportion of these made through convenience and takeaway stores.
- Growth in private label milk sales has strengthened since the introduction of discounted private label milk in early 2011, relative to branded milk sales, although the total value of the category has not kept pace with volume increases.

Brands v private label

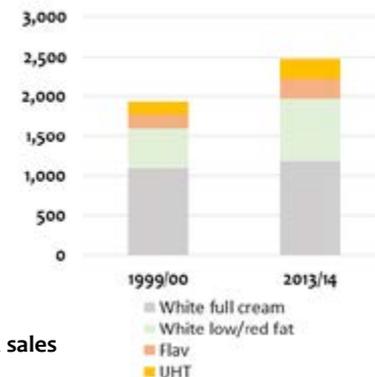
- A major influence that has shaped returns from the fresh milk market has been the use of private label lines by grocery chains.
- Private label lines have been used in milk products for more than 15 years, however the challenge for milk processors has been the large price differential between their branded lines and private label lines, exacerbated in 2011 when the average price of major 2 and 3 litre lines fell to \$1/litre, which is where it remains in 2014.
- This saw a significant shift to low and reduced fat product sales, as private label lines had previously been priced well above regular full cream milk.

Figure 4.5.3.1 – Share of milk sales by type in 2013/14



Source: Dairy Australia

Figure 4.5.3.2 – Changing total sales mix 2000 to 2014 (m litres)



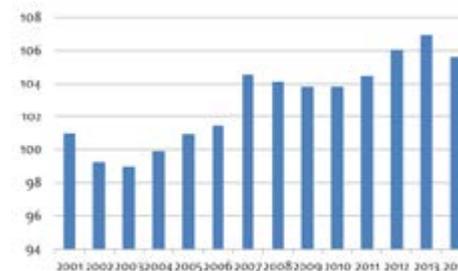
Source: Dairy Australia

Figure 4.5.3.3 – Generic vs branded milk sales by state



Source: Dairy Australia

Figure 4.5.3.4 – Per capita milk consumption (litres)



Source: Dairy Australia

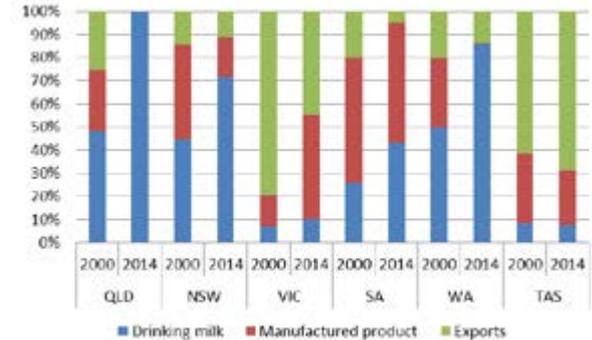
4.5 Dairy

4.5.3 Milk products

The value chain

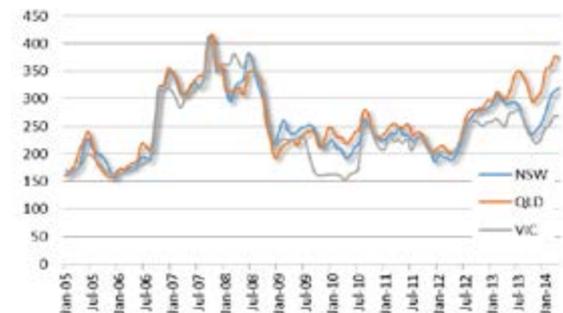
- Most fresh milk processing requirements are supplied from farms close to major processing plants and retail markets, therefore costs of production vary by region.
- Year round production systems supply most fresh milk requirements. Processors source from southern regions where possible to balance milk supplies and avoid surpluses. In southern regions, prices for year round processing will be in general higher than prices paid by manufacturers but smoother over time.
- Prices are more stable in northern regions (Qld and NSW) and WA where the majority of milk is used to supply local fresh milk demand, compared to southern regions where prices are more directly influenced by manufactured returns, in turn affected by export returns.
- In fresh milk regions there is greater use of contracts and price signals aimed at encouraging flat supply to avoid surpluses, as there is no capacity with major milk processors to process surpluses into storable dairy products in these regions.
- In regions that are more skewed toward manufacturing products, most farmers have an exclusive supply agreement to a dairy company or cooperative, with no set price or volume. At the commencement of the production season, an opening price is announced which is typically 90% of the expected final price and includes some intra-season variation. “Step-ups” are then announced over the season as milk is converted to product and sold on the domestic or export market.
- As international market volatility has increased, the variability of southern prices has also increased.

Figure 4.5.3.5 – Milk utilisation by state



Source: Freshagenda analysis

Figure 4.5.3.6 – Feed barley price (\$/t)



Source: Dairy Australia

4.5 Dairy

4.5.4 Farmgate pricing over time

Farmgate influences

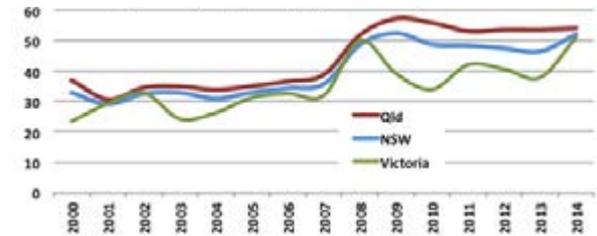
- Southern mainland dairy regions produce about 70% of Australia’s milk. Milk prices paid to farmers in that region closely track trends in global dairy commodity prices.
- There remains a large farmer-owned cooperative in Murray Goulburn (MG) that operates across a number of regions and accounts for around one third of annual production. With exposure to both export and domestic markets, MG plays an important price-setting role as competitors tend to match or better the MG price offered to its suppliers in order to retain or attract supply.
- While international cheese prices are far less volatile than other export commodities such as milk powders, they utilise more milk in total. Farmgate prices paid in the 5 years to the end of 2013 have closely tracked spot prices for cheese on export markets, which as outlined earlier, also influence wholesale prices within the food industry in Australia.
- Farmgate prices in other regions (most of NSW, Queensland, WA), which are committed to the supply of milk year-round for fresh milk processing, are influenced over time by a balance between long-range cost of local production and alternate sources of supply, which includes transport of milk interstate.
- No major effect of the private label pricing has been seen in NSW and Qld pricing, as since 2011 average regional farmgate prices according to industry data collated by Dairy Australia (per the chart at Fig 4.5.4.8) have been largely stable.

Figure 4.5.4.1 – Victorian farmgate price v average commodity prices



Source: Freshagenda, Dairy Australia

Figure 4.5.4.2 – Average farmgate prices (cpl) – financial year ended June



Source: Dairy Australia

Figure 4.5.4.3 – Cheese and southern farmgate prices over 5 years



Source: Dairy Australia

4.5 Dairy

4.5.5 Milk product pricing over time

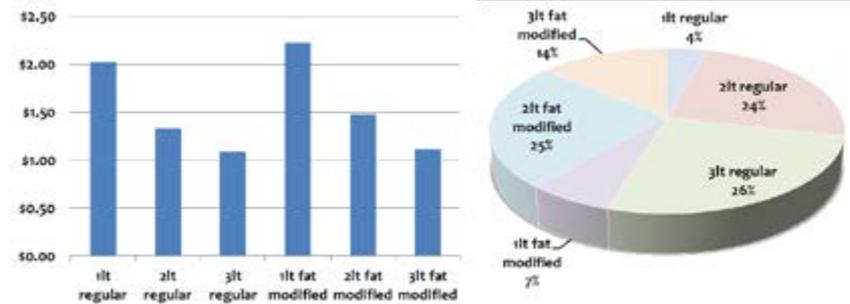
Milk products

- Returns to processors are affected by the mix of private label and brand in each region and the proportion of their business represented by flavoured milks, which provide higher margins.
- There is a significant spread in the value achieved in milk products – based on pack-size, fat modification, flavouring and other attributes. There was formerly – prior to the advent of discounted milk pricing – a significant differential between full-cream and low-fat products.
- “Natural” continues to be an important value associated with fresh white milk. Consumers are highly distrustful of any additives to milk – which limits the ability for processors to fortify and enhance.
- Smaller brands with an emotional appeal to consumers – either because of regional branding or a “good for you” message are enjoying strong growth and achieving higher prices as seen in sales of A2 products.
- Increased price pressure from private label has not driven down farmgate prices significantly. The most significant influence on prices from year to year has been changeovers in private label supply contracts with retailers that have altered the milk requirements of processors, and the extent to which they seek to commit to milk supply in regions without processing capacity to manage surpluses.

Farmgate share of retail prices

- Our analysis shows that the average farmer share of the average retail value achieved in the total fresh white milk category (a mix of branded and private label products) is between 32 and 42%, depending on the region.
- The state variation reflects not only the difference in farmgate prices – but also the difference in average retail prices, influenced by the share of private label products as well as processor and retailer pricing strategies. The farmgate price share for Victoria fluctuates significantly with export returns, while Queensland and NSW shares are more stable.

Figure 4.5.5.1 – Average selling prices and sales mix in retail channel



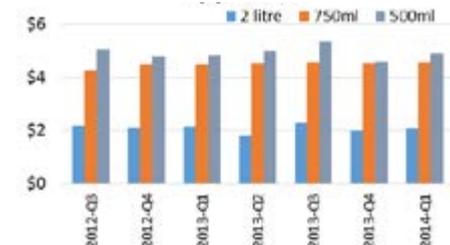
Source: Dairy Australia

Figure 4.5.5.2 – Fresh white milk v Avg farmgate (cpl) - 3-yr average to 2013/14



Source: Dairy Australia

Figure 4.5.5.3 – Flavoured milk retail unit price by pack size



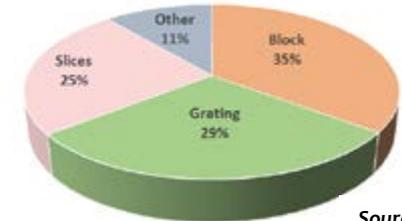
Source: Retail sales data

4.5 Dairy

4.5.6 Cheese pricing over time

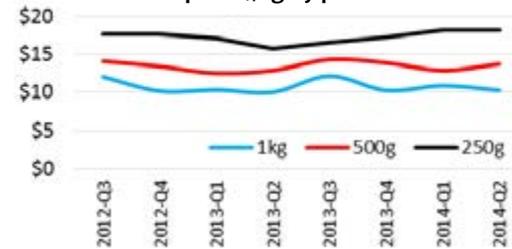
- Cheese products use approximately 33% of total milk usage, making it the largest single product category for the dairy industry. There are many sub-categories of cheese produced and sold, differentiated on the basis of quality, age, production method, fat content, texture and appearance. Accordingly there are a large range of values achieved between everyday “commodity” cheese and specialty gourmet lines.
- Cheddar is the largest variety category with about 47% of total output, and is the most internationally traded cheese. Cream cheese and Mozzarella are the next most traded types.
- Australia exports a similar volume of cheese as it consumes in the domestic market. There are significant cheddar cheese imports, mostly from New Zealand, which ensures wholesale prices in the market are closely aligned to world prices over time.
- The grocery channel accounts for about 56% of cheese sales by volume for the entire category. However share varies greatly by variety. For example, the grocery channel accounted for 74% of white mould cheese sales, but only 20-28% of semi-hard sales.
- Cheese export prices are more stable than other internationally traded dairy commodities such as milk powders. Due to the influences of world trade on milk prices for producers in regions producing cheese, there is some correlation over time between cheddar wholesale prices and farmgate milk prices.
- However, annual milk prices are more strongly influenced by returns from milk powder products whereas cheddar pricing is relatively more stable.
- Average per kilogram retail prices in the domestic grocery market have been under pressure over the past two years due to price competition and promotions.

Figure 4.5.6.1 – Cheese sales in grocery by form (Mar 2013)



Source: Aztec

Figure 4.5.6.2 – Block cheese retail unit price \$/kg by pack size



Source: Retail sales data

4.5 Dairy

4.5.6 Cheese pricing over time

Farmgate share of retail prices

- Milk prices paid in Australia by dairy manufacturers under formal supply agreements or terms are expressed in explicit values for the milk solids (fat and protein) contained in whole milk supplied from farms. These prices are commonly expressed in per-litre prices as a guideline or benchmark.
- There are a number of potential co-product options available to manufacturers from the production of cheddar cheese, including a range of whey powder products (with varying component specifications and concentrations), butter and/or cream. Smaller cheese manufacturers may not process whey at all and may either sell or dispose of the waste.
- Co-product earnings (gross and net) will vary widely depending on market movements, milk solids and supply seasonality to a processor, and the extent of investment made in further processing to yield specific product functionality.
- Our discussions with processors indicate there is not a standard approach used, rather the co-product configurations and options vary across the sector. The common aspect of the approach taken however is to seek to extract highest value from the available milk components in prevailing market and supply conditions, and based on available processing facilities.
- Rather than attempt to develop a theoretical co-product yield, the most appropriate approach is to address the portion of value of whole milk (based on values of milk solids) that should be assigned to cheese. This has been derived in the workings on the right.

$$\frac{\text{Milk solids (total fat and protein of 638g) required for a kg of cheddar cheese}}{\text{Milk solids in whole milk required to yield 1 kg of cheese (9.46 litres)}} \times \text{milk price paid (\$/kg milk solids)}$$

Milk solids in whole milk required to yield 1 kg of cheese (9.46 litres)

In 2013/14, based on average milk solids produced, this yielded a result of 90% of the milk price of \$6.81/kg or \$6.17/kg, being attributable to the milk solids used in cheddar cheese.

Figure 4.5.6.3 – Farmgate share of retail cheese prices

Year	Average retail value	Farmgate \$/kg milk solids	Value of raw milk in cheese	Share of retail value
2009/10	\$11.56	\$4.49	\$4.01	35%
2010/11	\$11.28	\$5.58	\$5.00	44%
2011/12	\$11.45	\$5.46	\$4.95	43%
2012/13	\$10.87	\$5.05	\$4.55	42%
2013/14	\$11.16	\$6.81	\$6.13	55%

4.5 Dairy

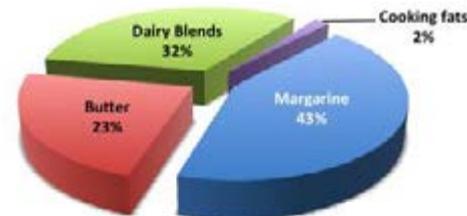
4.5.7 Dairy spread pricing over time

- Butter and dairy blended spreads are an important product group within the dairy category with a wide range of uses as spreads and cooking ingredients. Overall the spreads category is gradually declining on a per-capita basis as eating habits change and traditional uses decline.
- Butter and dairy blends has gained market share from margarine in recent years as consumers seek more “natural” products and avoid trans fats. Increased interest in cooking and baking at home have helped boost butter sales, as consumers have prioritised improved taste and functionality.
- The grocery channel had 78% share of wholesale volumes in 2012/13 in the overall category (butter and blend products).
- Private label penetration in supermarket sales for dairy spreads was 32% (by volume) in 2013, with much higher penetration in the butter segment. Manufacturer brands dominate sales of dairy blends, with just 5% of the segment private label.
- Retail prices remain in check despite the changing export value of the product - butter features in private label campaigns of the grocery chains. Australia exports 40-45% of butter and butter oil production. Imported product accounted for 21% (by volume) of the domestic market for butter and blends in 2012/13.

Farmgate share of retail prices

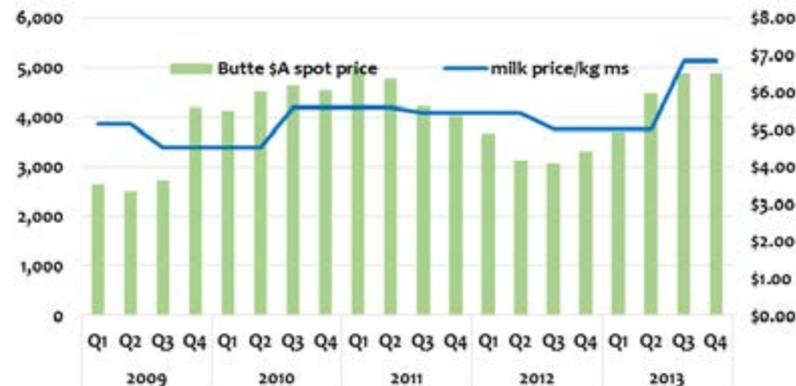
- Butter can be produced as a co-product to several milk powders and casein. Rather than assign respective values based on relative value of other products, the value of butterfat itself is recognised at farmgate.
- The value of butterfat in whole milk required for the production of butter products is calculated using a similar approach to that with cheddar cheese. The payment for milk at farmgate by dairy manufacturers which can be attributed to butterfat averages about 35% of milk payment rates.

Figure 4.5.7.1 – Mix of supermarket sales by value 2012/13



Source: Retail sales data

Figure 4.5.7.2 – Butter and southern farmgate prices over 5 years



Source: Dairy Australia

Figure 4.5.7.3 – Farmgate share of retail butter prices

Year	Average retail price (\$/kg)*	Farmgate \$/kg milk solids*	Value of 82%* butterfat at farm (\$/kg)	Share of retail value
2010/11	\$8.21	\$5.58	\$2.38	29%
2011/12	\$8.50	\$5.46	\$2.33	27%
2012/13	\$8.51	\$5.05	\$2.16	25%
2013/14	\$8.45	\$6.81	\$2.91	34%

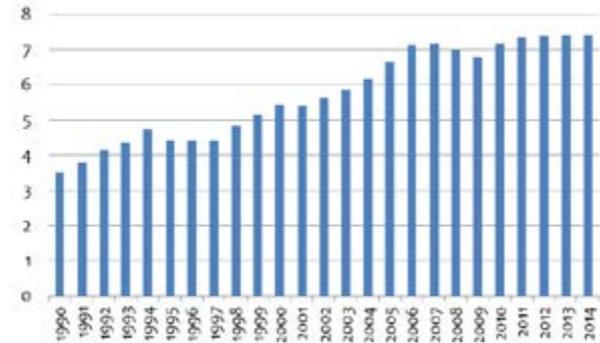
*Source: Dairy Australia

4.5 Dairy

4.5.8 Yoghurt pricing over time

- Yoghurt has been a “hero” product for the dairy category, combining positive attributes of health, convenience and innovation. This has resulted in steady growth in consumption, as processors have responded to consumer demands for reduced fat lines, flavour variants and innovative packaging.
- The category is dominated by international brands such as Ski and Yoplait. The proliferation of well-known brands and continued product innovation and marketing has limited the role for and penetration of private label products. In fact, private label products accounted for just 2.6% of supermarket yoghurt sales in 2013.
- The dairy yoghurt category was valued at \$994 million for the year to June 2014. While sales volume grew by around 1% , value has grown 4% for the period.
- Unit prices for yoghurt products vary significantly based on packsize and other attributes. Per kilogram prices ranged from over \$10 for single serve tub to less than \$5 for bulk packs. Multipack products – of 4, 6 or 12 single serve tubs are a highly competitive segment with price averaging around \$5 per kilogram. In recent years there has been an increase in the number of gourmet yoghurt products – marketed as a “healthy indulgence”, as well as products that feature added cereal.
- Yoghurt is produced using fresh milk, to which dairy ingredients such as cream and skim milk powder are added, as well as fruit and other flavourings.

Figure 4.5.8.1 – Per capita consumption of yoghurt (kg)



Source: Dairy Australia

Figure 4.5.8.2 – Supermarket yoghurt sales by packsize (MAT to June 2014)

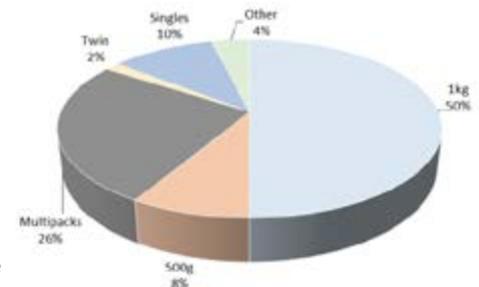
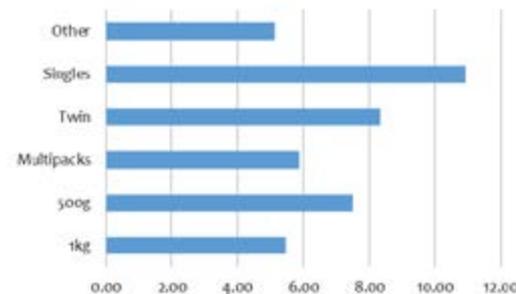


Figure 4.5.8.3 – Unit price by packsize (MAT to June 2014)



Source: Aztec

4.5 Dairy

4.5.9 Dairy pricing – overseas comparisons

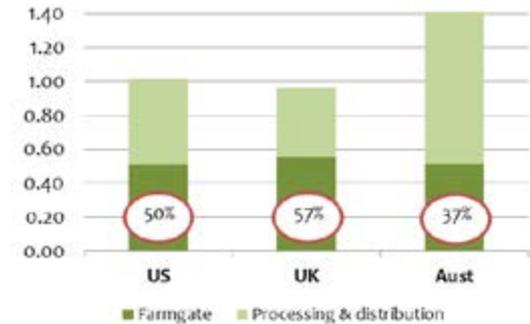
Introduction

- We have compared the pricing of dairy consumer products in a number of markets.
- Milk consumption is in decline in most developed world markets – Australia is one of the few comparable countries managing to keep consumption stable or rising, largely due to a strong perception of the natural advantages of the product, and aided by the continued growth in the popularity of milk coffee drinks.

Farmer share of retail prices

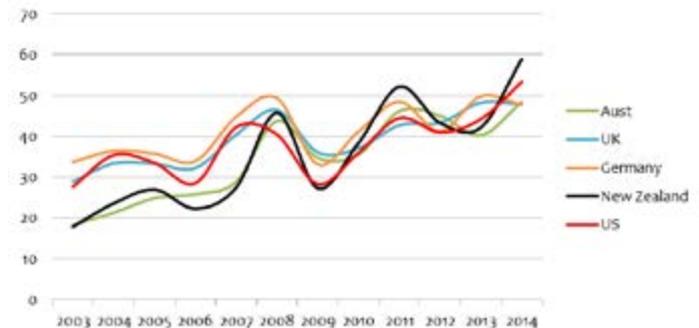
- Farmer shares of retail milk prices in Australia are comparable to major northern hemisphere producing and consuming countries, where comparable products are used.
- In each case, the estimated average grocery retail prices for major selling 2-3 litre fresh white milk products have been used for the comparison in Fig 4.5.9.1.
- Australia is a cost-competitive dairy producer, with lower farmgate prices on average compared with many of its export competitors.
- That said, there has been increasing convergence in farmgate prices in recent years, as the EU has reduced its market-based support mechanisms in preference for direct income support, and the US has become more engaged with the international dairy market.

Figure 4.5.9.1 – 2013/14 cpl prices in A\$ (farmgate as % of grocery retail)



Source: Freshagenda analysis from industry data

Figure 4.5.9.2 – International farmgate price comparison (US\$ per 100kg)



Source: Dairy Australia, DairyCo, LIC, USDA

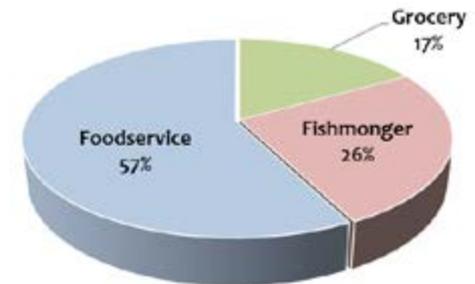
4.6 Seafood

4.6.1 Seafood sector overview

Introduction

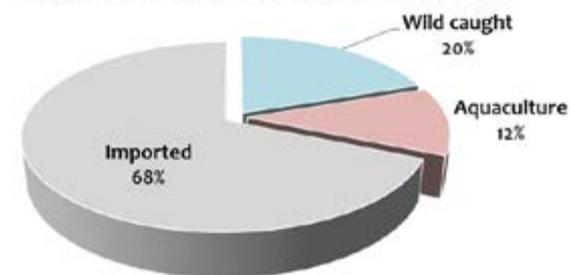
- Australia exports high-value species and imports low-cost chilled and frozen product. Australia's dependence on lower value imported seafood and much of the supply chain is focused on managing the integration of local wild caught, aquaculture with imported sources.
- It is estimated that imported product makes up more than two-thirds of consumption, once yield is taken into account regarding tonnages of local wild-catch and aquaculture production.
- There are about 320,000 to 350,000 tonnes of edible seafood sold in the Australian market with about 55-60% of this volume going through the food service sector. The retail market value (all channels) of all forms of seafood is estimated at \$2.5 to 2.7bn per annum.
- Seafood is sold in many forms. Fresh seafood however has its origins in different supply chains and processes, which includes fresh, chilled and defrosted to be sold as fresh. The category also includes product sold in a frozen, canned and smoked form.
- Fresh seafood (which excludes tinned and frozen product) has a volume of about 220,000 to 230,000 tonnes of which 36% is sold through retail (grocery and fishmongers).
- The large number of independent specialist fishmongers dominate the retail seafood category, but major grocery chains have grown their share in recent times with improved offers to take advantage of increased consumer interest in the category for health and convenience benefits.
- The distribution channels are complex and often lengthy due to:
 - the diversity of species (fish, crustaceans, and molluscs);
 - the range of product forms (fresh, chilled and frozen);
 - geographic supply and production sources;
 - different requirements for early-stage cold-chain handling; and
 - the wide range of market outlets for fresh seafood products

Figure 4.6.1.1 – All seafood – estimated by channel



Source: Freshagenda analysis

Figure 4.6.1.2 – Sources of seafood – shares of edible volumes



Source: Freshagenda analysis

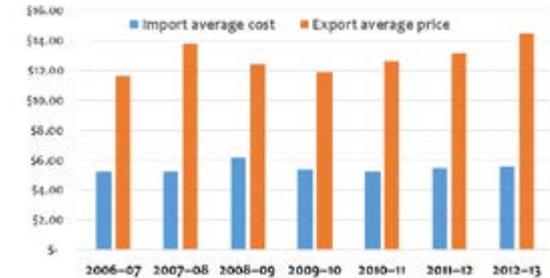
4.6 Seafood

4.6.1 Seafood sector overview

Pricing

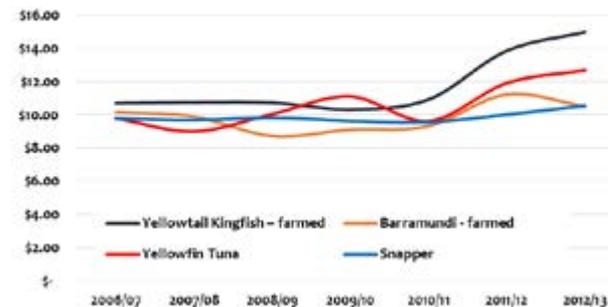
- It is simplistic to generalise about the seafood market due to its diversity and varied distribution channels to consumers.
- Traditional consumer preferences vary by region and capital city, and while the top selling products are similar in each state there is a wide range of fish species and localised names that contribute to the diversity of demand.
- Market conditions are tight, these being led by availability, value-seeking consumers, intense retail competition and further fuelled by the ready availability of lower priced imported seafood that requires minimal processing.
- With a stronger \$A in recent years general wholesale margins are under pressure as imports become more affordable, and the overall fish market has moved towards increased proportion of overseas product.
- The pressures on local product is also impacted by:
 - The lack of visibility of prices for imported products, due to the poor information and intelligence systems in the industry;
 - The increasing prevalence of imported product that requires minimal transformation and therefore less opportunity to further process and capture value; and
 - The ease with which larger buyers can deal directly with importers and or the overseas source of the product.
- These pressures have generally capped local wholesale product prices.

Figure 4.6.1.3 – Seafood unit value of imports and exports



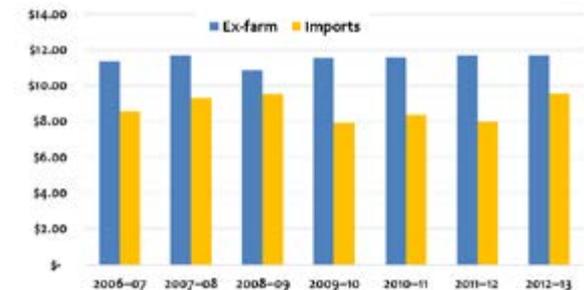
Source: Sydney Fish Market

Figure 4.6.1.4 – Sydney Fish Markets wholesale prices 2006 to 2013



Source: Sydney Fish Market

Figure 4.6.1.5 – Salmon – ex-production v imported prices

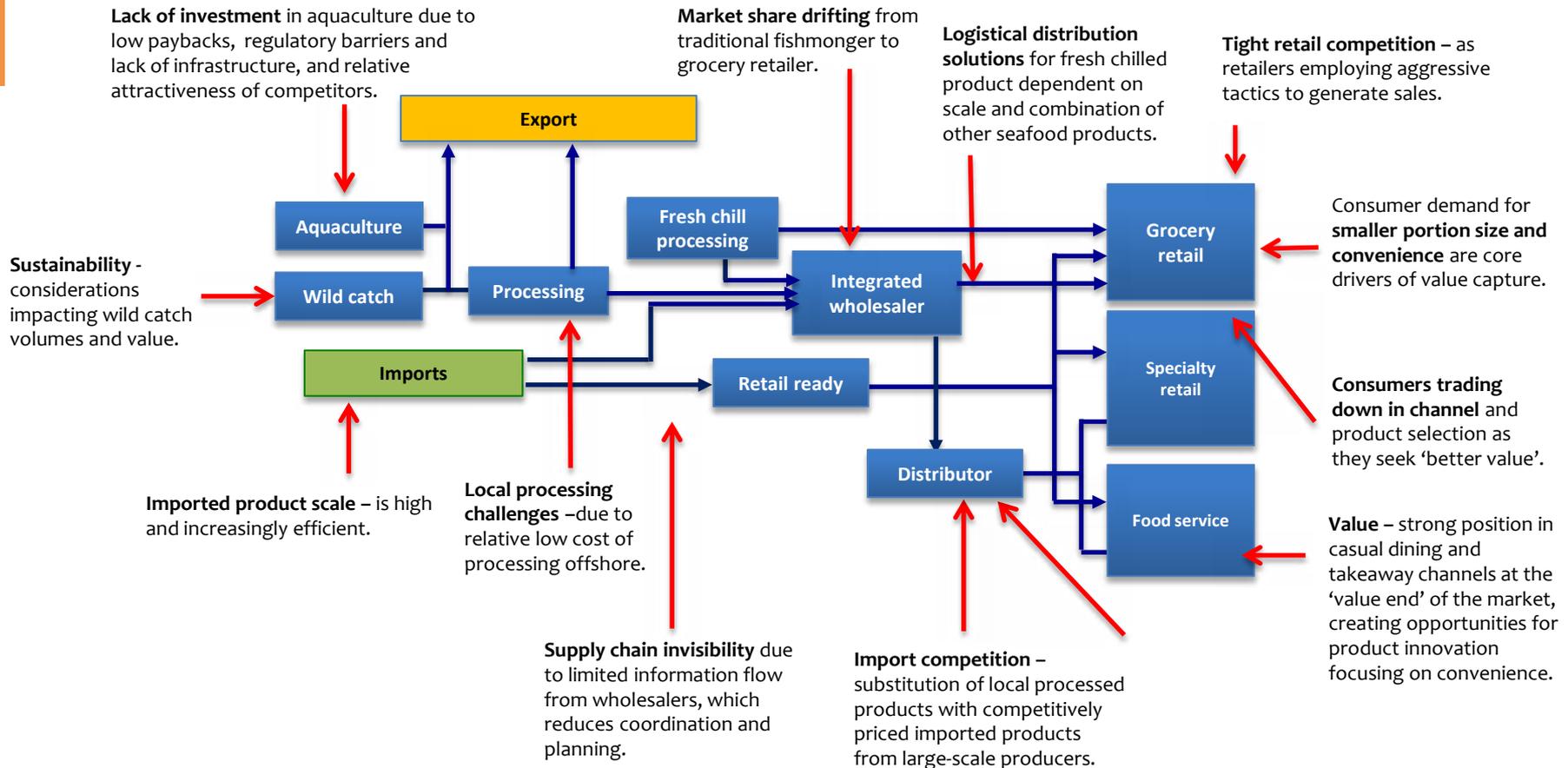


Source: ABARES

4.6 Seafood

4.6.2 Factors affecting seafood pricing

The distribution channel structures for fresh seafood are complex and often lengthy due to the diversity of species, catch, and geographic sources, the different requirements for early-stage cold-chain handling, and a wide range of market outlets for fresh seafood products. The complexity is due to the fact that most sales are made of highly perishable product sold in fresh or frozen form.



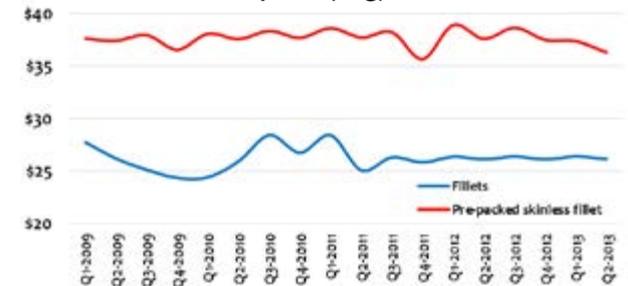
4.6 Seafood

4.6.3 Seafood pricing over time

Limited through-chain analysis

- There is limited industry data available on pricing of seafood through the various supply chains that operate in the sector.
- The dominant drivers of relative values paid for products in the fresh seafood sector are:
 - Balance of supply and demand for specific species
 - Competition between meat proteins at relevant price points for meal occasion and preparation method, compared with competing meats such as beef and chicken
 - Perceptions of fish and other seafood eating quality
 - A large component of imported frozen fish volumes are sold into the domestic markets as fresh product
 - Increased demand for portion-prepared products.
- We have highlighted the prices for two high-selling fish lines in recent years, which reflect consistent pricing while the category enjoys strong growth.

Figure 4.6.3.1 – Fresh Atlantic salmon retail prices (\$/kg)



Source: Retail sales data

4.7 Fresh fruit & vegetables

4.7.1 Fresh produce overview

Introduction

- Fresh produce – covering fruit, vegetables and herbs, is the largest combined food category sold into the domestic food market in terms of total value.
- While the size going through the grocery channel is significant, wholesale fresh produce markets in capital cities still play an important role in the setting of price – they are reflective of the movements in seasonal value. Evidence suggests that grocers pay prices well above the averages prices reflected in reported wholesale pricing data.
- For these products, the seasonality of supply – and the extent to which the fluctuations in volumes are anticipated by the market - is the biggest single driver of wholesale and retail prices over time.
- There is a value range for fruit & vegetables – vegetables generally at an average of about \$3-5/kg, while fruits tend to sell a little higher – but there are many exceptions even within categories – such as tomatoes.
- There are significant regional and seasonal variations in pricing due to supply and demand variations. Retail data has not been available at regional levels, but the summaries for the sub-categories examined shows seasonal variations in national average prices.
- Fruit is more prone to seasonality and regional production. Vegetable production tends to be for shorter growing cycles and hence easier for suppliers to match demand patterns relative to fruit which are often from established orchards.
- There have been changes over time in the structure of many produce sectors, with increasing farm sizes, a greater prevalence of protected cropping systems in certain produce, and migration of production away from urban areas.
- There are few major restrictions other than quarantine on the importation of fruit and vegetables – freshness and perishability remains a key limitation but this is being overcome with the increasing use of airfreight for high-value produce. Import competition is expected to intensify from NZ (apples), and SE Asia (pineapples).

Figure 4.7.1.1 – Range of achieved retail value per category in 2013



This shows the range of value achieved and the overall average for the category

Source: Freshagenda analysis using retail data

4.7 Fresh fruit & vegetables

4.7.1 Fresh produce sector overview

Quality of data

- Wholesale market reporters capture an estimate of selling prices achieved on a daily basis through the capital city fresh produce markets. These are aggregated over longer periods and reported in terms of price ranges and the estimated average prices paid.
- Only Brisbane market provides volumes sold through the wholesale markets. Larger markets in Sydney and Melbourne only report prices.
- Wholesale market data reflects a mix of product quality and possible terms on which produce was sourced. This is reflected in a wide range of reported prices for each period.

Farmgate share of retail prices

- It is not feasible to calculate a reliable estimate of the farmer's share of retail prices where sales are made through markets other than direct supply to major grocery chains, due to the wide range of outcomes achieved in wholesale produce markets and the lack of reliable retail data from independent grocers and speciality greengrocers.

Disclosure

- This section has drawn on confidential data that enables a comparison over time between retail prices, grocery buying prices and wholesale market prices. Charts that provide these comparisons do not disclose actual prices, but the trends and relationships over time.

Direct supply v produce markets

- Wholesale prices for fresh produce are generally set in a fresh market system which operates in capital cities and limited other major urban centres.
- A grower either:
 - Sells produce to a market wholesaler who takes a position in the produce to realise an available price; or
 - Uses a commissioned agent to facilitate or broker a sale on the growers' behalf to a buyer.
- Wholesale markets remain a major function within the fresh produce sector, influencing wholesale produce values in all channels. This is despite significant volume of fresh produce supply being purchased direct by major supermarket chains.
- The use of direct supply arrangements has grown in the past decade. These arrangements are preferred by major grocery buyers as:
 - Produce reaches stores in and gets into store in a shorter time – accordingly it is fresher;
 - Certainty of supply is improved, minimising retail stock outs;
 - Stability in pricing is more readily achieved; and
 - Specifications for quality, appearance or other attributes are agreed in advance or to reflect adverse seasonality.
- The fresh produce markets – which collectively handle about 45-50% of volumes (for independent grocers and specialist greengrocers) retain a key role for the overall market in **price discovery**. Direct supply prices in the short-run remain directly influenced by prevailing seasonal conditions and prices struck in the fresh markets system. Our observations on prices confirm this over recent years.
- The direct supply arrangements generally benefit suppliers, who typically earn a higher price than the prevailing averages achieved in the wholesale markets, although the extent of such differentials and the ongoing fluctuations in product varies category to category.

4.7 Fresh fruit & vegetables

4.7.2 Factors affecting fruit pricing

Fruit value chain: The fresh fruit sector is highly fragmented and diverse in terms of the product groups, scale of enterprises in farm production and extent of integration that exists through the chain. The sector is strongly driven by the competition at retail level between major supermarkets and specialty green grocers for a share of the consumer dollar. The consumer is sensitive to the cost of fresh food items that go into their shopping basket.

Production complexity – Production volumes highly volatile and seasonal, which has a big bearing on the volumes coming to market, causing price fluctuations.

Limited visibility - certain categories and channels are characterised by poor information flows and market visibility, providing a weak platform for adding value.

Value-chain efficiency – Direct supply by integrated growers/packers to chain retailers, providing stable pricing to secure long lines of consistent quality product.

Greater preference for **consistency of product** availability and quality in retail presentation.

Technology & innovation - innovation in minimal processing and pre-prep of fresh fruit for more convenient end-use in home and food service.

Perishability – of product requires timely access to market once crops are planted and picking time committed.

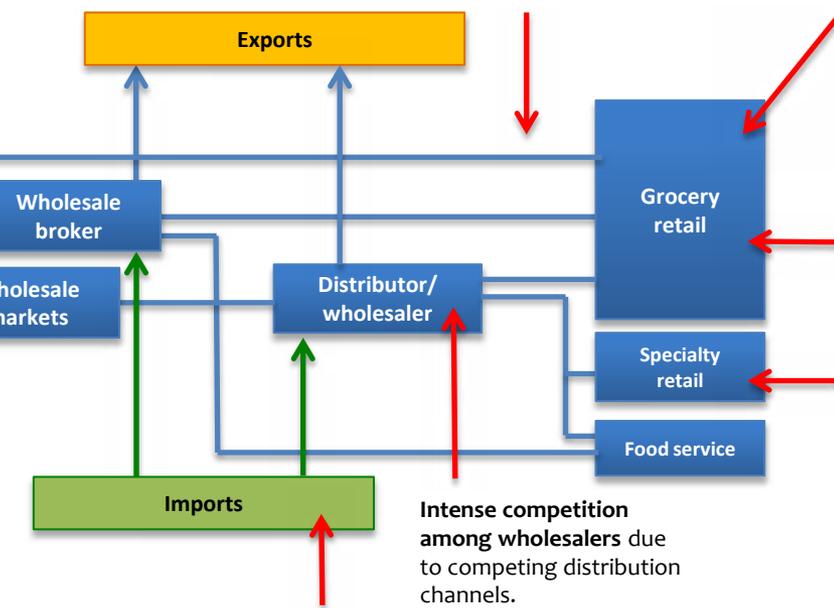
Increasing capital intensity - large-scale production and packaging house efficiency is changing operating cost structures.

Juice fruit availability and returns have strong bearing on returns to citrus, apple and pear producers.

Intense competition among wholesalers due to competing distribution channels.

Stiff competition – between major chains and other forms of convenience and specialty retail, as well as food service.

Quality perception – compete on basis of higher quality, wider range and better value.



Potentially strong impact of imports in areas such as bananas, and apples affecting confidence to maintain economies of scale in production enterprises.

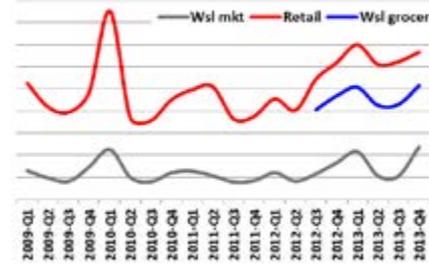
4.7 Fresh fruit & vegetables

4.7.3 Fruit pricing over time

Avocado

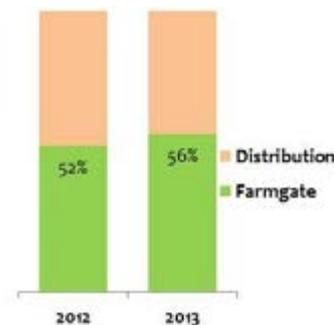
- Avocado is a fruit that is a key salad item, but increasingly used in other occasions.
- Prices are relatively stable but have fluctuated due to local supply gaps, chiefly in summer months.
- Prices are reflected on a weight basis in wholesale and retail data but products are sold as single fruit on a “price per item”.
- There is a significant influence of imported product (from New Zealand mostly) due to those seasonal shortages in local production. Imported product has been able to gain a significant foothold in recent years once it was accepted, and now represents a growing portion of the market. A small volume of fresh exports are also made.
- Prices reflect strong seasonal variation with changes in supply. Local prices also reflect a close correlation with landed prices from New Zealand. Wholesale and retail prices have lifted in 2013 due to local supply shortages.
- Our analysis of grocery retail and farmgate prices for Haas avocado over two financial years based on confidential data provided to us shows the farmgate portion of the average retail prices was between 52% and 56%. Costs between producer and wholesaler include packaging and transport, which are assigned to the “distribution” share of prices in this illustration.

Figure 4.7.3.2 – Avocado prices 2009 to 2013*



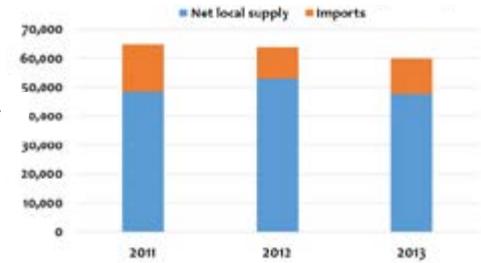
Source: Brisbane Markets, Retail sales data

Figure 4.7.3.4 – Share of retail price in %



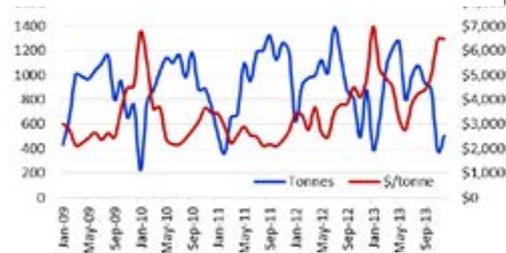
Source: Freshagenda analysis

Figure 4.7.3.1 – Avocado net local supply and imports (tonnes)



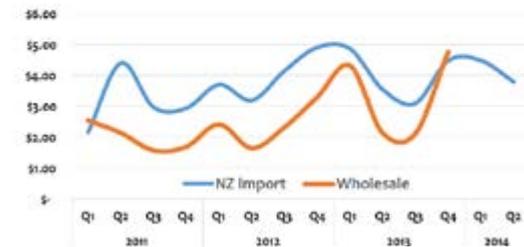
Source: UN Comtrade

Figure 4.7.3.3 – Average avocado wholesale prices and volumes 2009 to 2013



Source: Brisbane Markets

Figure 4.7.3.5 – Wholesale v NZ import prices (A\$/kg)



Source: UN Comtrade

*See the disclosure note on page 80

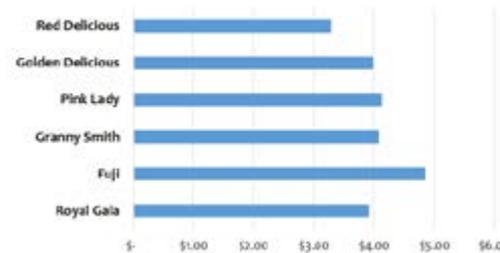
4.7 Fresh fruit & vegetables

4.7.3 Fruit pricing over time

Apples

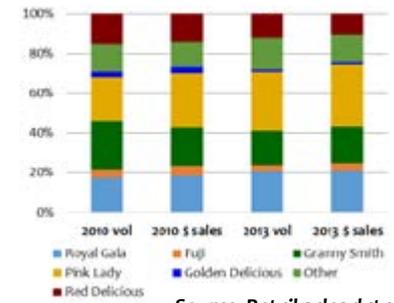
- Apples are a major fruit category with year-round availability comprising a number of varieties, of which Pink Lady is the highest seller in volume and value.
- Total fresh production is about 200,000 tonnes, with about 1% exported. A further 80,000 tonnes was produced for juicing and processing.
- A small volume of imported apples are supplied to the market.
- The category is made up of a number of varieties with different eating qualities and appearance.
- Apple pricing for major selling varieties tends to be relatively stable over time, with the exception of extreme weather events which shortened supplies of other fruit, creating greater demand for the category.
- Grocery buy prices represent a relatively high portion of the retail price, reflecting costs associated with storage.
- Our analysis of grocery retail and farmgate prices in the apples category over two financial years based on confidential data provided to us shows the farmgate portion of the average retail prices was between 52% and 56%. Costs between producer and wholesaler include packaging and transport, which are assigned to the “distribution” share of prices in this illustration.
- Other apple lines achieved a slightly higher share of retail prices in 2013/14 of up to 60% of retail value.

Figure 4.7.3.6 – Range of retail prices for apple varieties (2013)



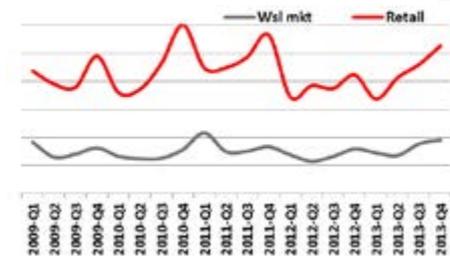
Source: Retail sales data

Figure 4.7.3.7 – Changing sales mix of apples 2010 to 2013



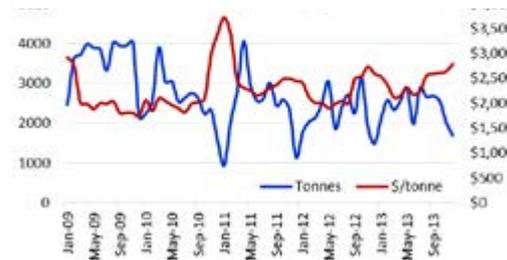
Source: Retail sales data

Figure 4.7.3.8 – Royal Gala apple prices 2009 to 2013*



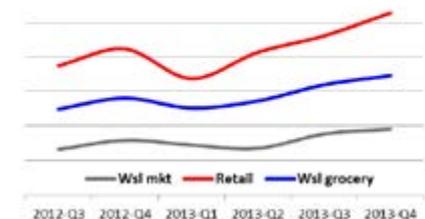
Source: Brisbane Markets, Retail sales data
*See the disclosure note on page 80

Figure 4.7.3.10 – Average apple wholesale prices and volumes 2009 - 2013



Source: Brisbane Markets

Figure 4.7.3.9 – Royal Gala apple prices 2012 to 2013



Source: Brisbane Markets, Retail sales data

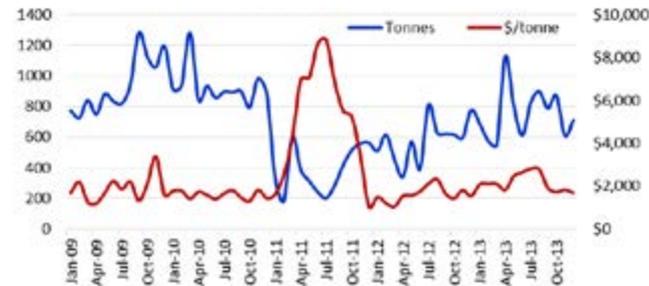
4.7 Fresh fruit & vegetables

4.7.3 Fruit pricing over time

Bananas

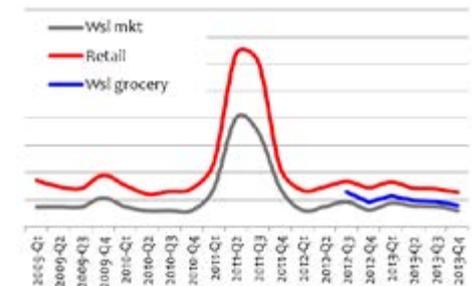
- Bananas are a major fruit category with seasonal availability.
- 97% of the category are the Cavendish variety with small volumes of Ladyfinger and Eco bananas.
- Banana pricing is highly variable over time, affected by product availability in normal production seasons, but in recent years has been severely affected by extreme weather events.
- This is shown graphically in the chart, when the 2011 cyclone affected the crop and a slow recovery has ensued. It is estimated 100,000 tonnes was taken out of annual production as a result of the event – about a third of annual output.
- Retail prices have closely tracked wholesale prices.
- Our analysis of grocery retail and farmgate prices for Cavendish bananas over two financial years based on confidential data provided to us shows the farmgate portion of the average retail prices was between 49% and 52%.
- Costs between producer and wholesaler include ripening, packaging and transport, which are assigned to the “distribution” share of prices in this illustration.

Figure 4.7.3.11 – Average banana wholesale prices and volumes 2009 to 2013



Source: Brisbane Markets

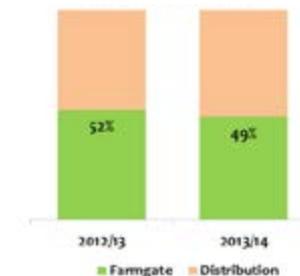
Figure 4.7.3.12 – Banana prices 2009 to 2013*



Source: Brisbane Markets, Retail sales data

*See the disclosure note on page 80

Figure 4.7.3.13 – Share of retail in %



Source: Freshagenda analysis

4.7 Fresh fruit & vegetables

4.7.3 Fruit pricing over time

Berries

- Berries are a snacking and dessert fruit category with seasonal availability, which results in wide variation in pricing for fresh fruit as shown at right.
- At retail level, strawberries are generally sold in 250g punnet at prices that fluctuate between \$1.50 and \$3 depending on overall availability of supply, averaging around \$2.70-\$2.80 in grocery based on overall sales volumes.
- Fresh strawberries compete with a number of snacking fruit lines but have a wide range of applications across eating occasions.
- The fresh product also competes with frozen berry products which offer greater convenience in storability.
- Minor volumes of imported lines enter the fresh market if there are shortages, but these have minimal effect on pricing.
- Our analysis of grocery retail and farmgate prices for strawberries over two financial years based on confidential data provided to us shows the farmgate portion of the average retail prices was close to two-thirds on average.
- Costs between producer and wholesaler include packaging and transport, which are assigned to the “distribution” share of prices in this illustration.

Figure 4.7.3.14 – Strawberry prices 2009 to 2013*

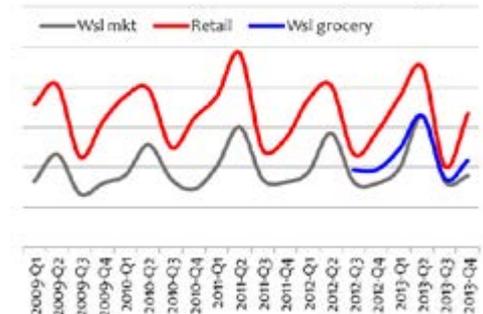
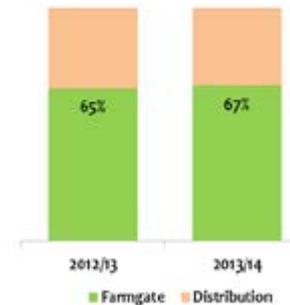


Figure 4.7.3.15 – Share of retail in %



Source: Freshagenda analysis

Source: Brisbane Markets, Retail sales data

*See the disclosure note on page 80

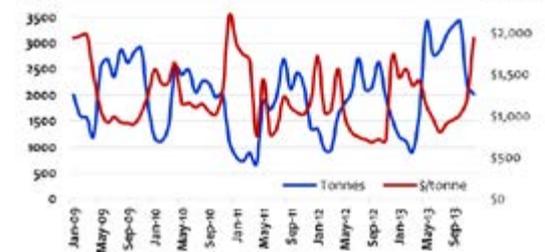
4.7 Fresh fruit & vegetables

4.7.3 Fruit pricing over time

Oranges

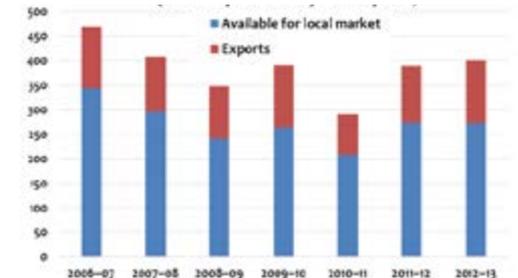
- Citrus are a major fruit category with seasonal availability, which drives fluctuations in wholesale and retail pricing.
- There are two major varieties of oranges with different seasonal usages – Navels typically available June to October and Valencia from November to February. Navels are sold in much greater volume and in 2012 and 2013 we estimate the variety represented about 85% of sales value in grocery.
- Orange production varies according to seasonal conditions affecting water availability. Annual local production has ranged from 300,000 tonnes to about 470,000 tonnes in the recent past, with efforts to sustain export volumes a priority over domestic market sales. Australian production is supplemented by small volumes of seasonally imported navel oranges typically from the US.
- Juicing is the major use of Valencia varieties, and also a destination for unwanted volumes of navel oranges which do not make export specification and/or are in excess of fresh market demand.
- Our analysis of grocery retail and farmgate prices for Navel oranges in 2013/14 based on confidential data provided to us shows the farmgate portion of the average retail prices was between 50% and 55%.

Figure 4.7.3.16 – Average orange wholesale prices and volumes 2009 to 2013



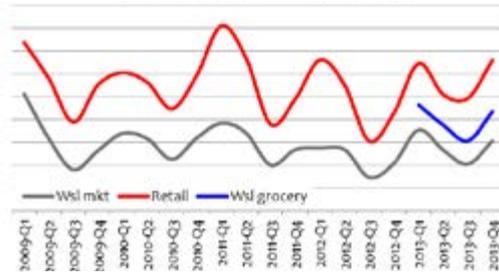
Source: Brisbane Markets

Figure 4.7.3.17 – Orange volumes – local crop availability and exports ('000 tonnes)



Source: ABARES

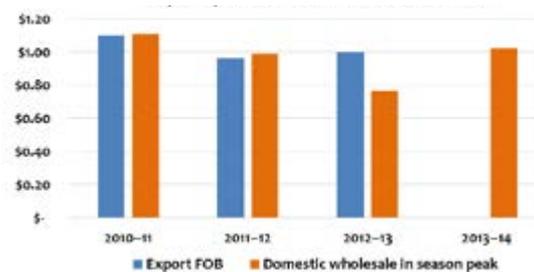
Figure 4.7.3.20 – Orange retail and wholesale prices*



Source: Brisbane Markets, Retail sales data

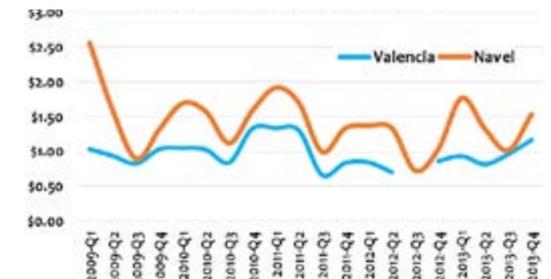
*See the disclosure note on page 80

Figure 4.7.3.19 – Export prices v local wholesale values



Source: ABARES

Figure 4.7.3.18 – Fresh orange wholesale prices (\$/kg)



Source: Brisbane Markets

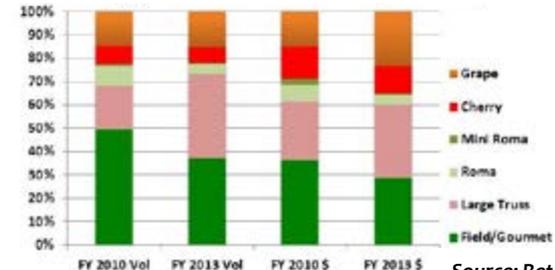
4.7 Fresh fruit & vegetables

4.7.3 Fruit pricing over time

Tomatoes

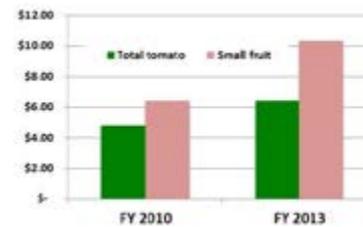
- Tomatoes are a major fresh produce category which has grown in overall retail value in the past decade.
- The tomato category has evolved in recent years towards a higher value mix of product as suppliers and retailers have responded to greater consumer demand for products that provided greater taste, usage and convenience.
- The fresh tomato category in 2013 reflected a wide range of retail pricing from loose field gourmet to pre-packed grape tomatoes.
- While field tomatoes formerly dominated the category with close to half of overall sales in a typical retail profile, their share of sales has slipped to about a third as pre-packed truss and small fruit lines have increased in popularity.
- Pre-packed (PP) products – presented in punnets and small trays – typically attract a significant price premium over loose. The range of small fruit products have been enhanced by products targeted at snacking occasions.
- Wholesale prices stay volatile due to seasonal factors - adverse weather and drought conditions in key production regions.

Figure 4.7.3.21 – Changing fresh tomato retail sales mix (2010 v 2013)



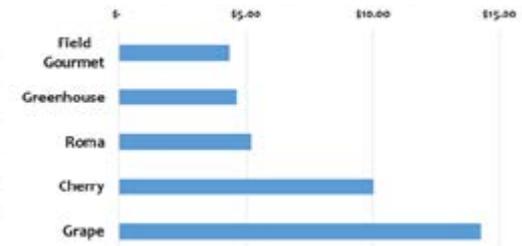
Source: Retail sales data

Figure 4.7.3.22 – Fruit price/kg in fresh sales



Source: Retail sales data

Figure 4.7.3.23 – The value range in retail prices per kg



Source: Retail sales data

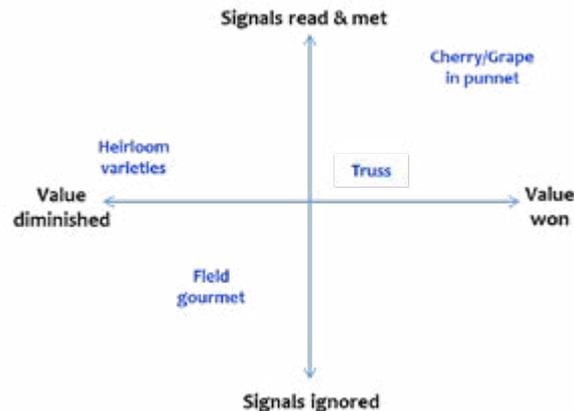
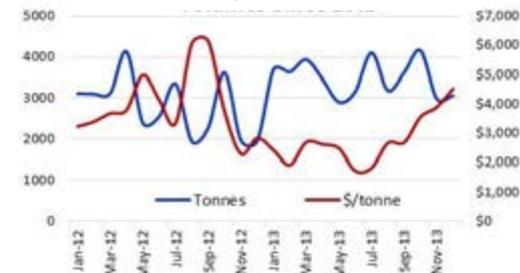


Figure 4.7.3.24 – Average tomato wholesale prices and volumes



Source: Brisbane Markets

4.7 Fresh fruit & vegetables

4.7.3 Fruit pricing over time

Tomatoes (continued)

- Prices for low-value field gourmet tomatoes at wholesale and retail are heavily influenced by the different seasonality of supply, whereas the pricing of pre-packed, small fruit is relatively stable by comparison due to their consistent year-round production in protected cropping (greenhouse) facilities.
- The chart on the right compares an estimate of the national average wholesale prices achieved for varieties of tomatoes sold through fresh produce markets.

Farmgate share of retail price

- Grocery retailers pay a buying price to their direct suppliers that is well above that reported by the fresh produce markets. The chart on the right shows a comparison over a period of 6 quarters in 2012 and 2013.
- Our analysis of retail and farmgate prices for field gourmet products over two financial years based on confidential data provided to us shows the farmgate portion of the average retail prices was between 41% and 45%.
- The share of retail in other higher-value pre-packed lines tested by us were between 55% and 65% of the retail value, showing a higher value-capture for the supplier.
- Costs between producer and wholesaler include packaging and transport, which are assigned to the “distribution” share of prices.

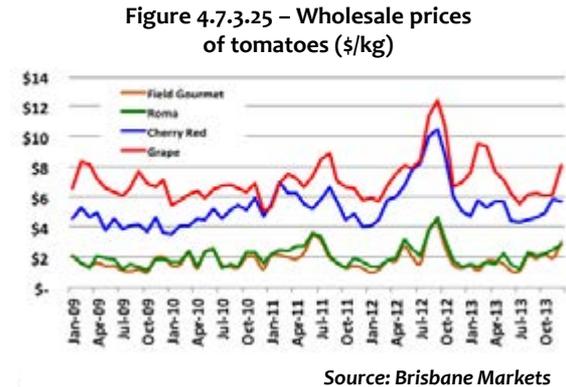


Figure 4.7.3.25 – Wholesale prices of tomatoes (\$/kg)

Source: Brisbane Markets

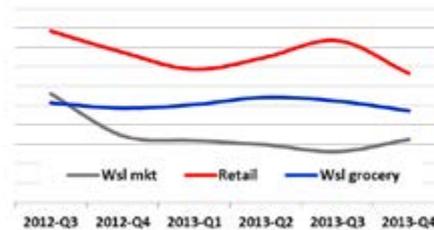
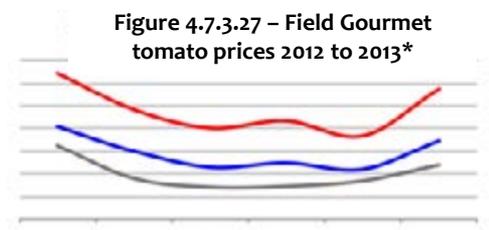


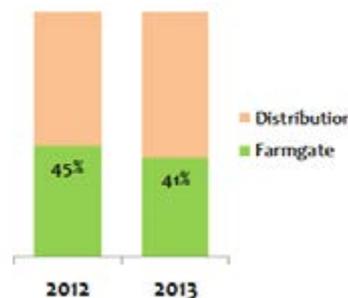
Figure 4.7.3.26 – Grape tomato prices 2012 to 2013*

Figure 4.7.3.27 – Field Gourmet tomato prices 2012 to 2013*



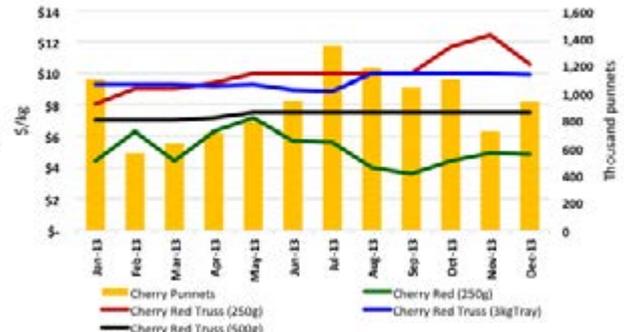
Source: Brisbane Markets, Retail sales data

Figure 4.7.3.28 – Share of retail price in % (field gourmet)



Source: Freshagenda analysis

Figure 4.7.3.29 – Seasonality of cherry tomatoes – vol v value of lines



Source: Brisbane Markets

*See the disclosure note on page 80

4.7 Fresh fruit & vegetables

4.7.4 Factors affecting vegetable pricing

Vegetable value chain - The fresh vegetable category is highly fragmented and diverse in terms of the product groups, scale of enterprises in farm production and the extent of integration along the chain. The dominant drivers of value include the balance of supply and demand throughout seasons, and primary volume lines of staple vegetables. The consumer is sensitive to the cost of fresh food items that go into the shopping basket.

Production complexity – Production volumes highly volatile and seasonal, which has a big bearing on the volumes coming to market, causing price fluctuations.

Limited visibility - certain categories and channels are characterised by poor information flows and market visibility, providing a weak platform for adding value.

Value-chain efficiency – Direct supply by integrated growers/packers to chain retailers, providing stable pricing to secure long lines of consistent quality product.

Demand patterns – Greater demand for convenience and lifestyle solutions in meals and food preparation .

Technology & innovation - innovation in minimal processing and pre-prep of fresh vegetables for more convenient end-use in home and food service.

Perishability – of product requires timely access to market once crops are planted and picking time committed.

Increasing capital intensity - in large-scale production and packaging house efficiency is changing operating cost structures.

Role for fresh imports due to supply windows or climate affected shortages.

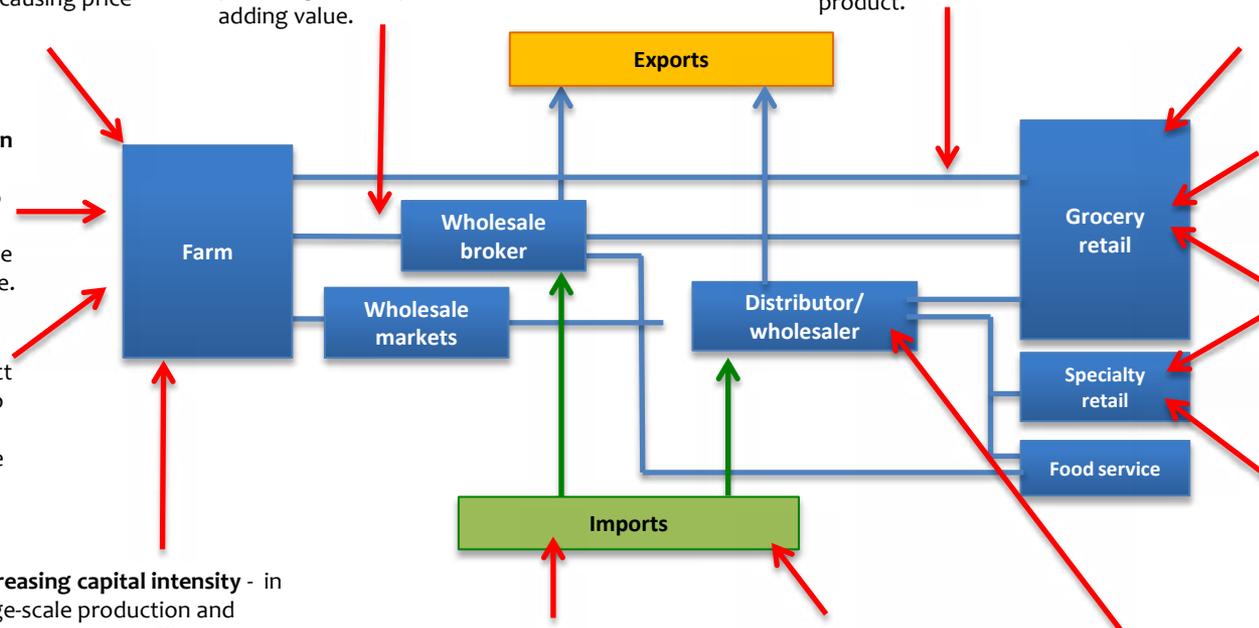
Import competitiveness is growing reliance on imported frozen and processed products, forcing more fresh product onto the market.

Intense competition among wholesalers due to competing distribution channels.

Household penetration – prep methods and usage defining peak consumption periods.

Stiff competition – between major chains and other forms of convenience and specialty retail.

Quality perception – compete on basis of higher quality, wider range and better value.



4.7 Fresh fruit & vegetables

4.7.5 Vegetable pricing over time

Broccoli

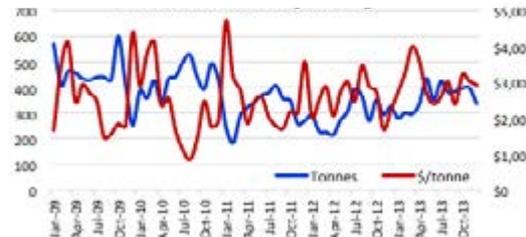
- Broccoli is a major vegetable category which has steadily grown in overall value due to its image as a healthy green vegetable.
- Seasonal fluctuations in supply are regularly caused by climatic patterns, which flow on to cause price variations at both wholesale and retail points. Broccoli displays strong seasonal purchasing patterns with increased weekly purchasing during cooler months of the year.
- There has been limited product development and range extension in the category. The large majority (90%) of broccoli is sold as a crown in loose form, at an average price that typically ranges between \$3.50 and \$5.50/kg, and in 2013 averaged close to \$4/kg.
- The remaining 10% of volume is sold as Broccolini or Baby Broccoli, which is sold by the bunch at a substantial price above loose broccoli, in a range of \$12 to \$13/kg - a narrower range that is reflective of the managed marketing of this product.

Farmgate share of retail price

- Based on confidential data provided to us for the purposes of this study, broccoli producers supplying direct to a grocery retailer earned an average of 45% of average retail price in 2012, and 43% in 2013.
- Costs between producer and wholesaler include packaging and transport, which are assigned to the “distribution” share of prices.

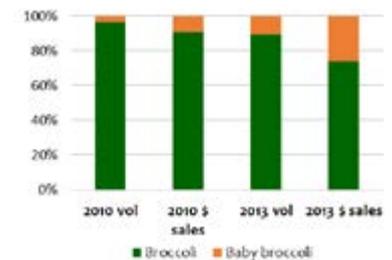
*See the disclosure note on page 80

Figure 4.7.5.1 – Average broccoli wholesale prices and volumes 2009 to 2013



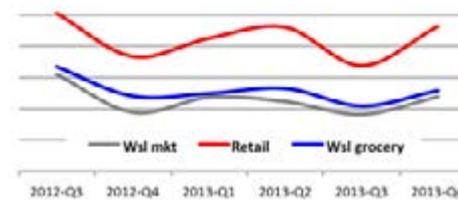
Source: Brisbane Markets

Figure 4.7.5.2 – Changing sales mix 2010 to 2013



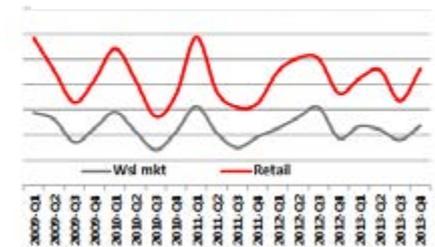
Source: Retail sales data

Figure 4.7.5.3 – Broccoli prices 2012 to 2013*



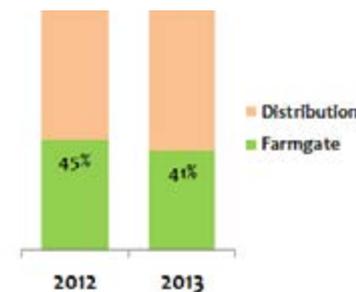
Source: Brisbane Markets, Retail sales data

Figure 4.7.5.4 – Broccoli prices 2009 to 2013*



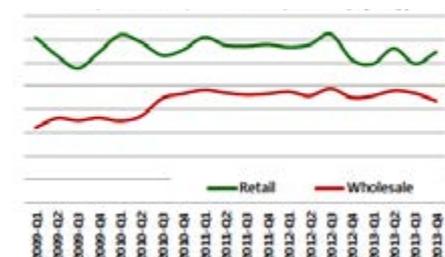
Source: Brisbane Markets, Retail sales data

Figure 4.7.5.5 – Share of retail price in %



Source: Freshagenda analysis

Figure 4.7.5.6 – Baby broccoli prices 2009 to 2013 (\$/kg)*



Source: Brisbane Markets, Retail sales data

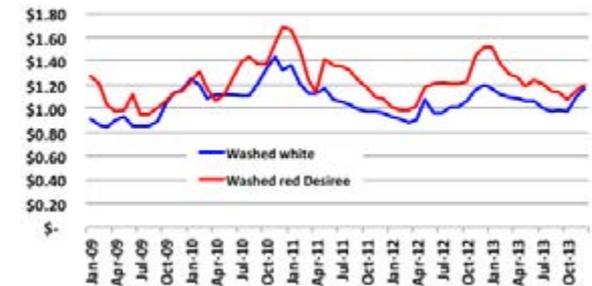
4.7 Fresh fruit & vegetables

4.7.5 Vegetable pricing over time

Potatoes

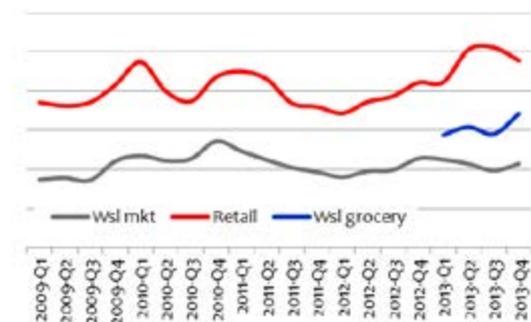
- Potatoes are a major hard-cooked vegetable category which remains a staple in cooked meals and salads.
- Seasonal fluctuations in supply are less-pronounced in this category and prices tend to be far more stable than soft-cooked and salad vegetables.
- Potatoes are a comparatively low value vegetable product that is purchased by consumers for an average around \$2 to \$2.50/kg.
- There has been varietal and range extension in the category over the past decade to provide consumers with a range of products to suit various cooking methods and end-use occasions. The composition of the category is shown in the chart at right.
- There has been a growing preference by consumers for pre-packed product which has increased its annual share of category value from about 50% in 2009/10 to 65% in 2013/14. In recent years, varieties in small pre-packed form, offering better convenience, have added greater unit value.
- This has lifted overall average retail prices in the category by about 22% over this period.
- Based on confidential data provided to us for the purposes of this study, potato producers supplying direct to a grocery retailer earned between 45% and 50% in 2013/14 for major selling varieties in loose form. Products sold in larger bagged quantities earned a higher share.
- Costs between producer and wholesaler include packaging and transport, which are assigned to the “distribution” share of prices.

Figure 4.7.5.7 – Wholesale prices of potatoes (\$/kg)



Source: Brisbane Markets

Figure 4.7.5.8 – 3kg washed potatoes prices 2009 to 2013*



Source: Brisbane Markets, Retail sales data

*See the disclosure note on page 80

4.7 Fresh fruit & vegetables

4.7.5 Vegetable pricing over time

Lettuce

- The lettuce category is a large component of the fresh salads market, with a seasonal sales pattern dominated in warmer months.
- The category has evolved to include a number of different and innovative varieties and types of lettuce, including loose, self-select and pre-packed product. There are various pre-packed consumer options also, with standalone varieties and mixed salads.
- Our assessment of product contribution to the category is shown on the right – the high proportion of convenience-based products has added significant value to the category over time.
- Product innovation has helped grow the category, increasing the versatility of use and the overall value of the category. New varieties and types of lettuce have also played a role in this development.
- Loose product sells in two forms, loose leaf (leaves that do not form a compact head) and whole headed product. All headed products are sold on an “each” basis, while loose leaf products are sold by weight.
- Pre-packed salads have won support with greater interest in portion control, convenience and limiting household waste. This is better suited to single and couple households that do not require a full head of lettuce.
- Many of the prepacked salads are supplied in kit form, reducing preparation time. This has included the likes of resealable tubs, providing solutions for mobile snacking occasions.
- Based on confidential data provided to us for the purposes of this study, lettuce growers supplying direct to a grocery retailer earned between 45% and 50% in 2013/14 for iceberg lettuce in loose form.
- Suppliers of bagged pre-pack products captured higher value and achieved between 50% and 65% depending on the specific line.
- Costs between producer and wholesaler include packaging and transport, which are assigned to the “distribution” share of prices.

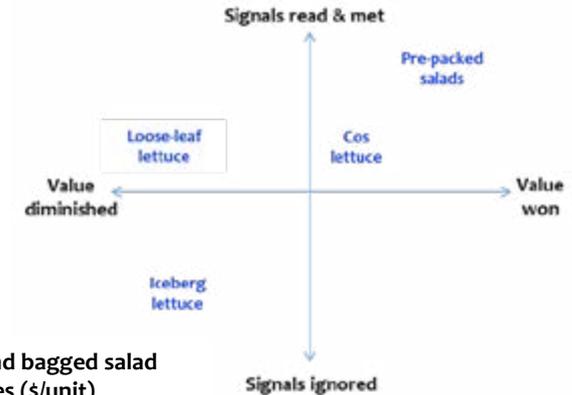
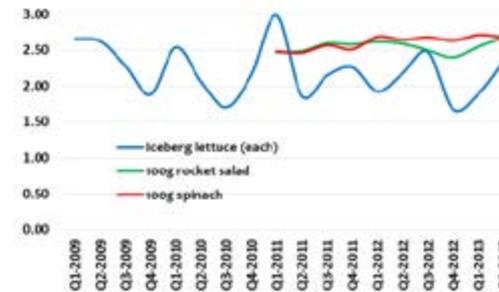
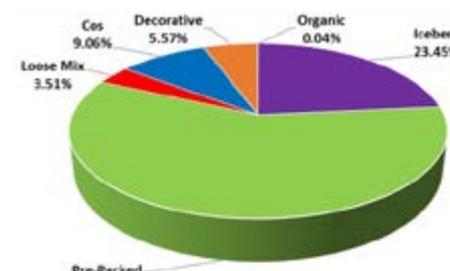


Figure 4.7.5.9 – Lettuce and bagged salad products retail prices (\$/unit)



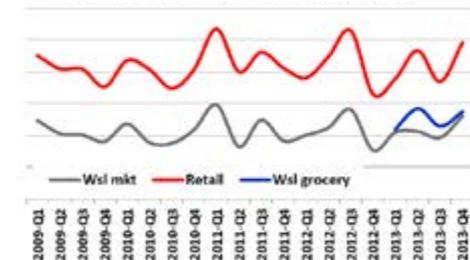
Source: Retail sales data

Figure 4.7.5.11 – Estimated share of retail sales (2012/13)



Source: Retail sales data

Figure 4.7.5.10 – Iceberg lettuce prices 2009 to 2013*



Source: Brisbane Markets, Retail sales data

*See the disclosure note on page 80

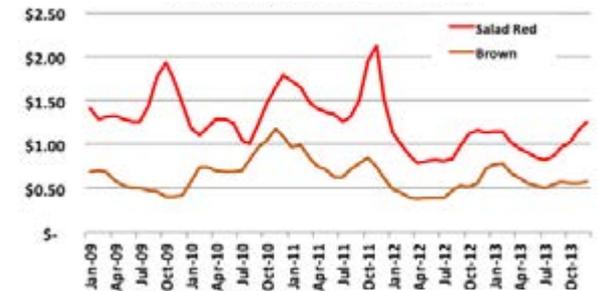
4.7 Fresh fruit & vegetables

4.7.5 Vegetable pricing over time

Onions

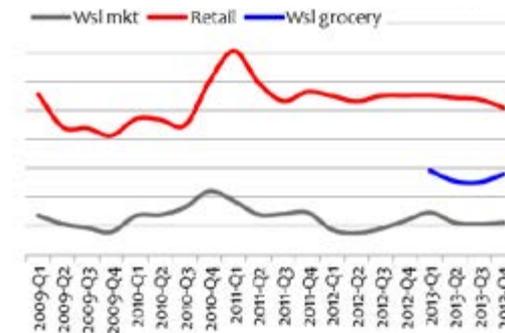
- Onions are a key seasoning category.
- Seasonal fluctuations in supply are less-pronounced in this category and prices tend to be far more stable than soft-cooked and salad vegetables.
- Onions are a comparatively low value vegetable product that is purchased by consumers for an average around \$2-2.50/kg.
- There has been limited varietal and range extension in the category over the past decade.
- The composition of the category is shown in the chart at right.
- The chart on the right shows the comparison of average prices achieved for different products.
- About half of all sales are made in loose form, which sell at a significant premium to the bulk pre-packed form. In recent years, small sales of varieties in loose form offering culinary variety have added greater unit value, but remain insignificant in the overall category.
- Based on confidential data provided to us for the purposes of this study, onion producers supplying direct to a grocery retailer earned an average of 49% in 2013/14 for major selling lines in bulk and pre-packed bags.
- Costs between producer and wholesaler include packaging and transport, which are assigned to the “distribution” share of prices.

Figure 4.7.5.12 – Wholesale prices of onions (\$/kg)*



Source: Brisbane Markets

Figure 4.7.5.13 – Brown onion prices 2009 to 2013*



Source: Brisbane Markets, Retail sales data

*See the disclosure note on page 80

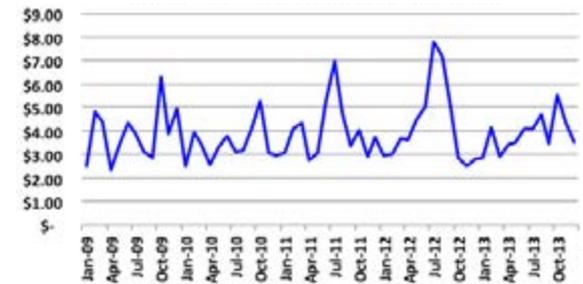
4.7 Fresh fruit & vegetables

4.7.5 Vegetable pricing over time

Green beans

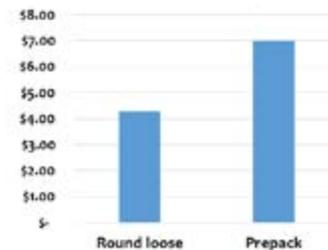
- Green beans are a small soft-cooked vegetable category.
- Seasonal fluctuations in supply affect pricing in this category, although it tends to be a little more stable than some other soft-cooked and salad vegetables.
- Beans are a comparatively high value vegetable product that is purchased by consumers averaging between \$4 and \$7/kg.
- There has been limited varietal and range extension in the category over the past decade. The chart on the right shows the comparison of average prices achieved for different products.
- Half sales by value are made in loose form, but sales in pre-packed packaging are made at a unit price per kg which is a significant premium (greater than 60%) to the bulk form.
- The overall product mix has not altered significantly in recent years.
- Based on confidential data provided to us for the purposes of this study, bean producers supplying direct to a grocery retailer earned an average of 54% in 2013/14 for major selling lines in bulk and pre-packed bags.
- Costs between producer and wholesaler include packaging and transport, which are assigned to the “distribution” share of prices.

Figure 4.7.5.14 – Wholesale prices of round beans (\$/kg)



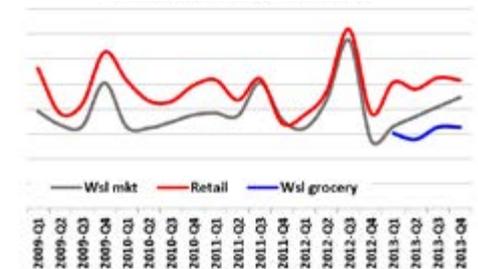
Source: Brisbane Markets, Retail sales data

Figure 4.7.5.15 – Price comparison in 2013
Loose v pack (\$/kg)



Source: Retail sales data

Figure 4.7.5.16 – Round bean prices 2009 to 2013*



Source: Brisbane Markets, Retail sales data

*See the disclosure note on page 80

4.7 Fresh fruit & vegetables

4.7.5 Vegetable pricing over time

Pumpkin

- Pumpkins are a small hard-cooked vegetable category.
- Seasonal fluctuations in supply are more-pronounced in this category compared with other hard-cooked vegetables.
- Pumpkins are a comparatively low value vegetable product that is purchased by consumers for an average around \$2.50-3.00/kg.
- There has been limited varietal and range extension in the category over the past decade. The chart on the right shows the comparison of average prices achieved for different products.
- In recent years, small sales of varieties in loose form offering culinary variety have added greater unit value, but remain insignificant in the overall category.
- Based on confidential data provided to us for the purposes of this study, pumpkin producers supplying direct to a grocery retailer earned an average of 38-40% in 2013/14 for major selling lines.
- Costs between producer and wholesaler include packaging and transport, which are assigned to the “distribution” share of prices.

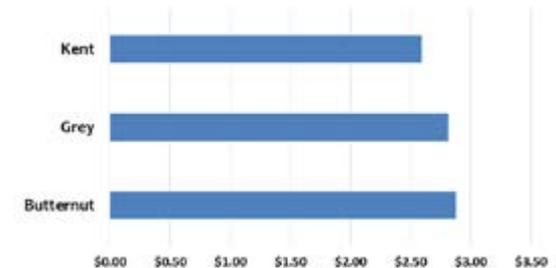
Figure 4.7.5.17 – Pumpkin prices 2009 to 2013*



Source: Brisbane Markets, Retail sales data

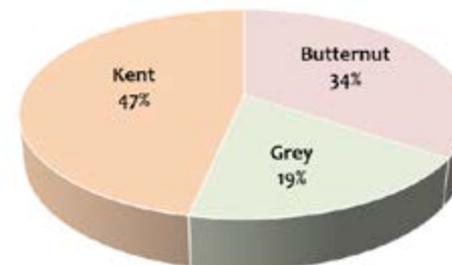
*See the disclosure note on page 80

Figure 4.7.5.18 – Relative prices for pumpkin varieties in 2013



Source: Retail sales data

Figure 4.7.5.19 – Share of pumpkin category by value



Source: Retail sales data

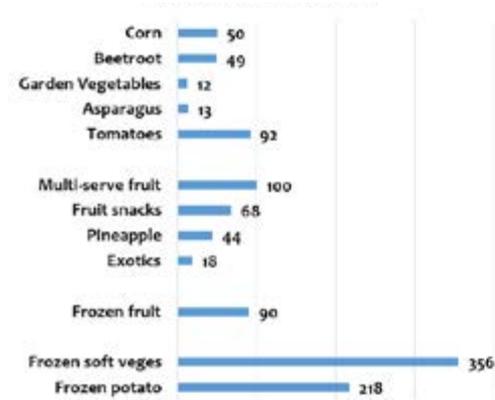
4.8 Processed fruit & vegetables

4.8.1 Processed foods sector overview

Introduction

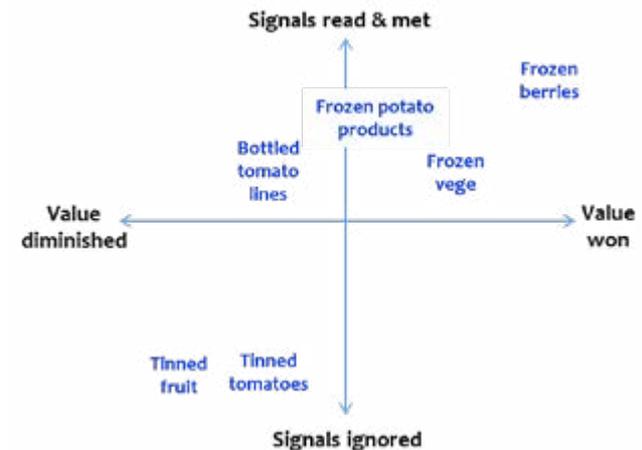
- The processed fruit and vegetable sector comprises products which are sold in grocery retail in frozen and tinned form. There are additional significant volumes sold into the foodservice sector for use in meal preparation and in fast food outlets.
- Our assessment of the products in the category is based on the unit value being added and the growth (or contraction) in sales demonstrated over recent years based on our analysis of retail industry data.
- The chart on the right shows the relative retail values for the grocery channel of the major product groups.
- Returns to processors and producers from the processed products sector are strongly influenced by the exposure to imported lines, which have increased in volume over the past decade as the value of the \$A has increased and as Australia's manufacturing labour costs move higher compared to those in alternate processing sources.
- Competition between processors is chiefly based on price, though there have been considerable efforts by some to increase the diversity of their product range, other than in canned products.
- These food segments have partially suffered due to their traditional product image, but some processors and marketers have innovated to improve product convenience. The resurgence in preparing more meals at home has helped with the recovery in volumes in some product categories.
- In more recent times, the interest in demonstrating support for products of local origin has also supported confidence in local processors.
- Producers supplying raw material have been forced to improve efficiency due to the competitive pressure on processors and manufacturers.

Figure 4.8.1.1 – Grocery value in \$m in 2013



Source: Retailworld 2013

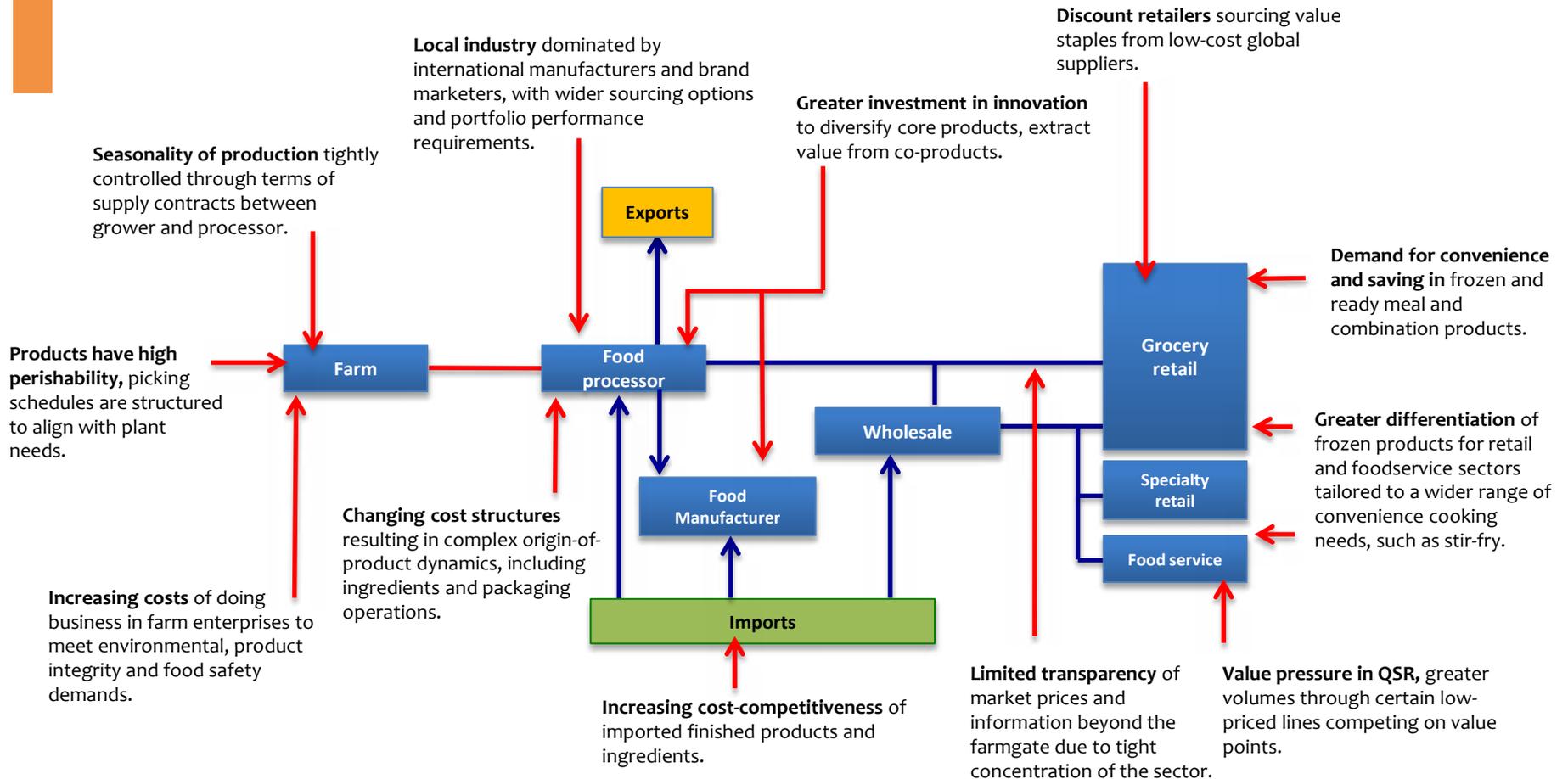
Figure 4.8.1.2 – Average retail selling price \$/kg in 2013



4.8 Processed fruit & vegetables

4.8.2 Factors affecting processed food pricing

Processed fruit and vegetables value chain: Unlike the fresh sector, Australia has a lower level of self-sufficiency and stability of supply of processed fruit and vegetables, relying on imports of some products at processed or finished goods stages, which in some categories, influences the short-term volatility of supply and prices.



4.8 Processed fruit & vegetables

4.8.2 Factors affecting processed food pricing

Prices to the consumer

- We have illustrated the consumer prices observed for a number of major selling processed food lines over time.

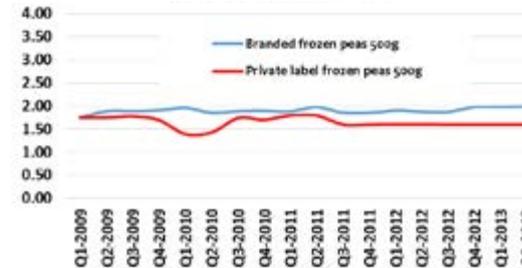
Peas

- Costs of imported frozen product fell over the three years to 2013, while retail prices have remained flat over the past 5 years.
- No reported series of farmgate prices for peas used in processing is available. Various studies in recent years have attempted to quantify annual prices paid for peas used in processing, the last of which identified in this study was undertaken in Tasmania in 2011, which assessed average prices in 2010 at between \$470-480/tonne.
- Contract negotiations between growers and processors are confidential.

Potatoes

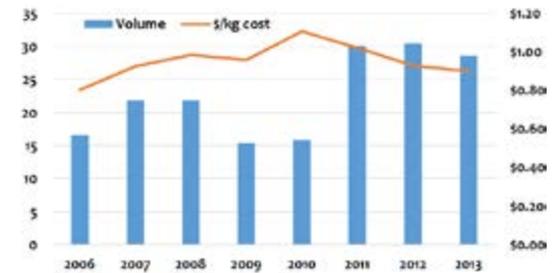
- Retail prices of main selling frozen potato products have remained flat for much of the past 5 years.
- No reported series of farmgate prices for potatoes used in processing is available. Various studies in recent years have attempted to quantify annual prices paid for produce used in processing, the last of which identified in this study was undertaken in Tasmania in 2011, which assessed average prices at close to \$290/tonne.

Figure 4.8.2.1 – Retail frozen pea prices



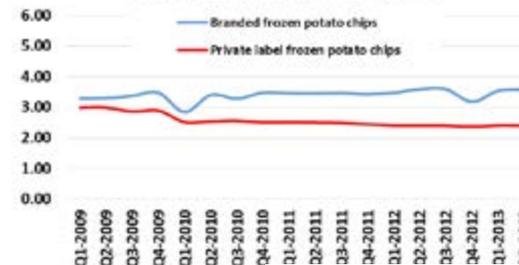
Source: Retail sales data

Figure 4.8.2.2 – Imports of frozen peas ('000 tonnes) and A\$/kg



Source: UN Comtrade

Figure 4.8.2.3 – Retail frozen potato product prices



Source: Retail sales data

4.8 Processed fruit & vegetables

4.8.3 Processed food pricing

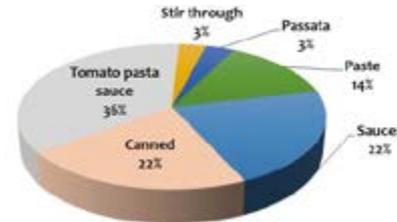
Tinned tomatoes

- Tinned tomatoes, while the largest canned sub-category, have a relatively small role in the overall grocery range for processed tomato products.
- While trends have been towards more meals being eaten at home, there is also an increased desire for convenience in meal preparation, favouring higher sales of bottled, value-add lines.
- Tinned tomato grocery sales have fallen over the 7 years to 2013. This has been offset by the growth in value-added pasta sauces and other meal base products (dominated by supplier branded lines). Consumers are prepared to pay more for the convenience and added-value of the bottled product.

Imports

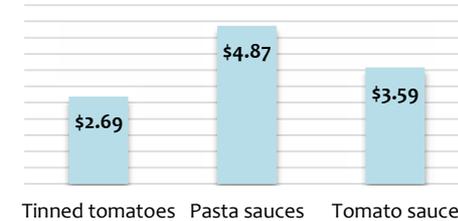
- Processed tomato imports have gradually taken a greater share of total demand in the Australian market. Weather and disease events have aided the decline, although the increased cost-competitiveness and quality of imported lines has damaged local margins.
- In March 2014, the Anti-Dumping Commission found that Italian imports are being dumped, causing injury to the local industry.
- Tinned tomato products make up a significant portion of imported product. While our analysis showed that import volumes have grown over time with the decline in local supply to tomato processing, there has been no appreciable growth in small tinned imports (i.e. retail pack) in the past 5 years.
- Growth has been far more pronounced in bulk puree and pasta sauce lines which are imported by brand manufacturers supplying bottled sauce, meal base and food service products.
- As these products are in more concentrated products, imports on a whole-tomato-equivalent basis, shows the growing dependence on concentrated ingredients for use in branded and bulk food service products.

Figure 4.8.3.1 – Grocery mix of processed product sales (% of value 2012/13)



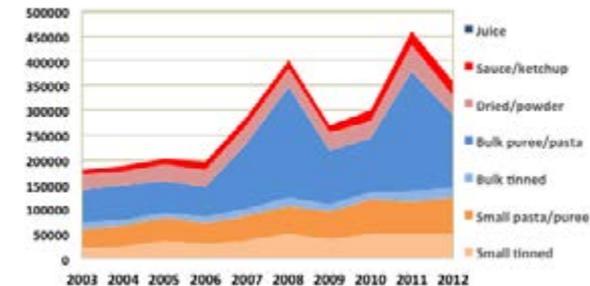
Source: Retailworld analysis

Figure 4.8.3.2 – Average retail prices/kg in 2012



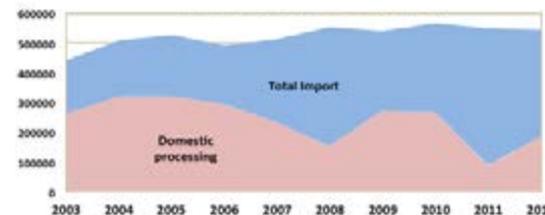
Source: Retail sales data

Figure 4.8.3.3 – Tomato product imports (WOTE tonnes)



Source: DFAT data

Figure 4.8.3.4 – Tomato supply WOTE (tonnes)



Source: Customs data; APTG survey

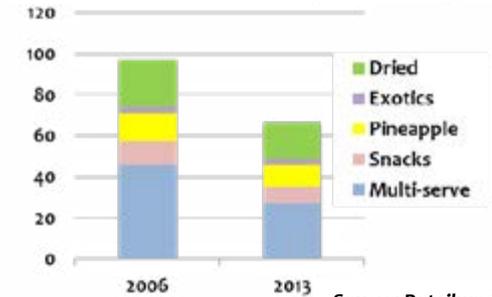
4.8 Processed fruit & vegetables

4.8.3 Processed food pricing

Processed fruit

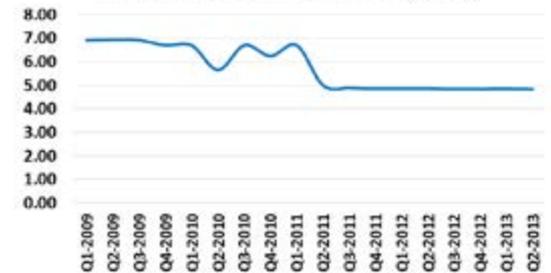
- The sales of tinned and plastic tub fruit products through the grocery channel have significantly reduced in volume and value terms between 2006 and 2012.
- The decline has been strongest in the lines of stone fruit, where competing foods, including fresh and frozen product, have won consumer support.
- While private label sales have grown slightly and proportionally in the overall category, in absolute sales the volumes of private label sales were not significantly higher in 2013 than in 2006. The greatest contraction has occurred in branded lines.

Figure 4.8.3.5 – Processed fruit sales ('000 tonnes)



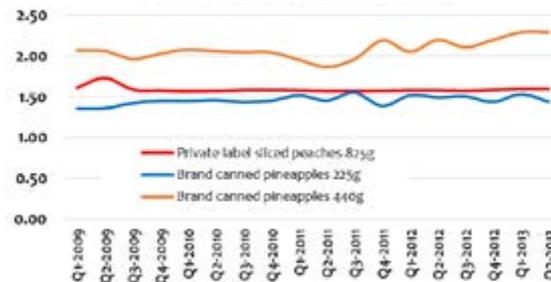
Source: Retailworld

Figure 4.8.3.6 – Frozen berry retail prices (\$/kg)



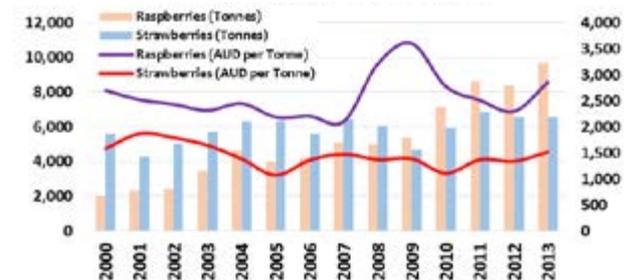
Source: Retail sales data

Figure 4.8.3.8 – Tinned fruit retail prices (\$/unit)



Source: Retail sales data

Figure 4.8.3.7 – Australia frozen berry imports



Source: FAS-USDA

4.8 Processed fruit & vegetables

4.8.2 Factors affecting juice pricing

Processed juice value chain: Unlike the fresh sector, Australia has a lower level of self-sufficiency and stability of supply of processed fruit and vegetables, relying on imports of some products at processed or finished goods stages, which in turn influences the short-term volatility of supply and prices.

Increasing capital intensity - in large-scale production and packaging house efficiency is changing operating cost structures.

Consumer health demands – Increasing consumer concerns about sugar and calorie levels in drinks products has affected juice sales across channels.

Enterprise mix – the farm production mix of variety production and the relative returns from fresh produce and juice markets.

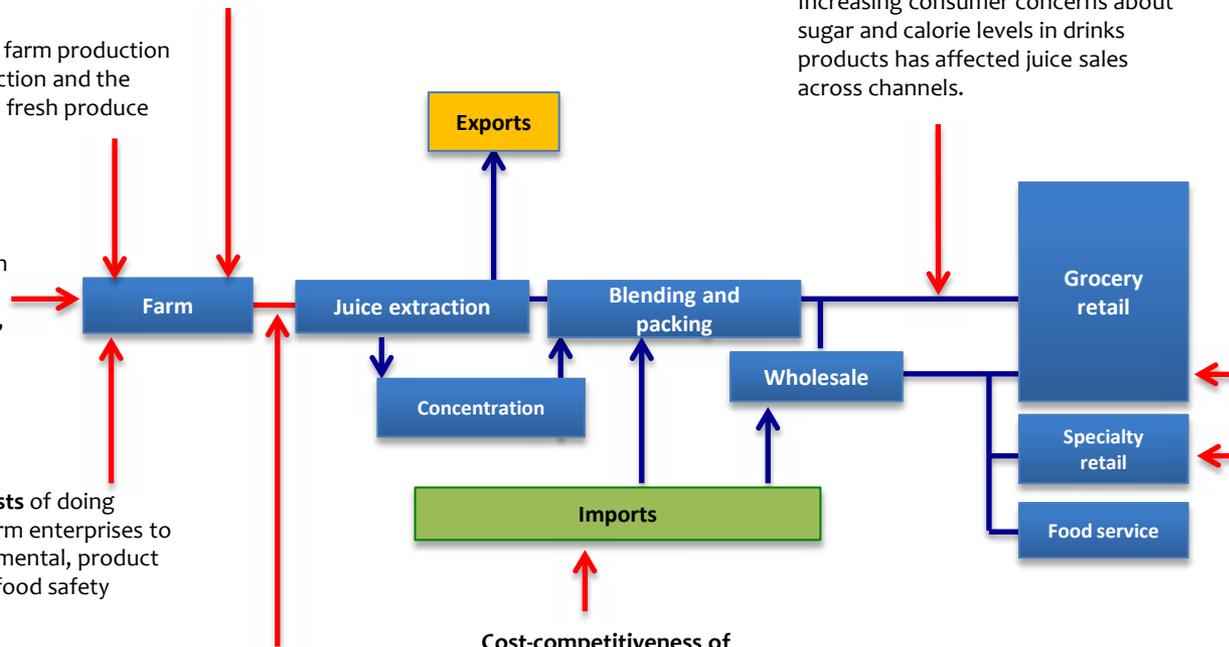
Production complexity – Production volumes are volatile and seasonal, which has a big bearing on the volumes coming to market, causing price fluctuations.

Increasing costs of doing business in farm enterprises to meet environmental, product integrity and food safety demands.

Relative returns from fresh produce and juice markets affects juicing product availability in seasons of short supply.

Cost-competitiveness of concentrate imports – the landed cost-competitiveness of frozen concentrates affects overall product costing.

Consumer preferences for natural products – supports greater preference for fresh local juice lines.



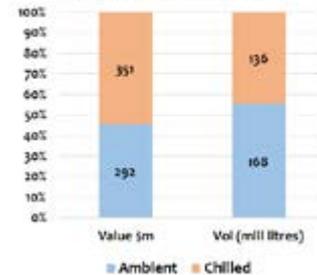
4.8 Processed fruit & vegetables

4.8.3 Processed food pricing

Juice

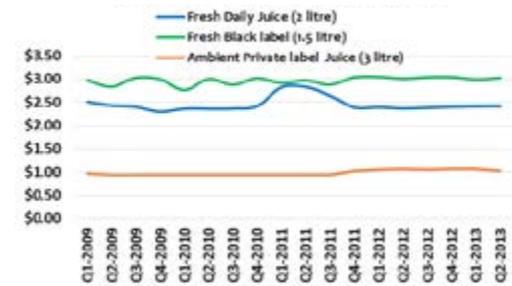
- The grocery channel sells about 300m litres of juice in chilled and ambient form, with about 45% sold in chilled form, yielding close to a 50% price differential at retail.
- Significantly higher unit selling prices are achieved in the convenience market, where a similar mix of product is sold.
- Orange juice is the major segment of the juice market. Australia does not produce sufficient juicing fruit to meet the total juice market, and supplies are supplemented by the import of concentrate.
- Imported orange juice concentrate (FCOJ) has a significant bearing on the profitability of the local juice industry and hence the prices offered for Australian fruit as a component of the overall product requirement, especially in the lower-cost ambient product. FCOJ volumes (mostly sourced from Brazil) have not grown significantly in recent years, despite the higher value of the \$A.
- Orange juice supplies from farms for the majority of annual requirements are generally contracted by processors at rates of \$270-\$320 per tonne, depending on the availability of fruit and quality of supply. This is used across a product range and blended with concentrates for some ambient products lines.
- Valencia oranges are the primary source, although with crop shortages in that variety, navel oranges are also used in processing. Spot purchases of fruit are also made above contracted volumes, but spot prices may vary considerably year-to-year depending on demand and supply situations.
- A time series of the paid prices for fruit is not available from processors. Based on a contract fruit price of \$300/t of oranges, and a typical yield from juicing, the freshly squeezed chilled juice product affords a farmgate share of just 24%. However, fresh juice is also blended into the lower value ambient products, but in proportions that are not available, hence an overall share is indeterminant.

Figure 4.8.3.9 – Mix of grocery sales



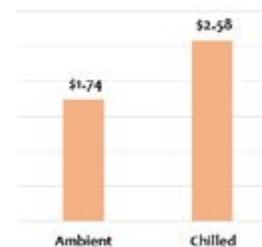
Source: Retail sales data

Figure 4.8.3.10 – Juice per litre equivalent retail prices



Source: Retail sales data

Figure 4.8.3.11 – Average grocery selling price of juice in 2013



Source: Retail sales data

Figure 4.8.3.12 – Australia FCOJ imports



Source: UN Comtrade

4.9 Oilseed products

4.9.1 Oilseeds overview

Introduction

- The oilseed industry is predominantly export focused although this varies between crops.
- The main commodity used in retail cooking oil and margarine is canola, with smaller quantities of sunflower and soybeans. This report focuses on canola because this represents over 50% of the oils and fats used in the domestic retail market.
- Australia produces on average 3-4 million tonnes of canola annually of which around 600,000 tonnes is crushed into oil (for cooking oils and spreads) and meal (for animal feed).
- As such, international prices of both canola, competing oilseeds, cooking oils and fats is the major factor influencing raw material prices. There are small volumes of canola oil imported into Australia, but much larger volumes of vegetable oil which set prices.
- Similarly to other agricultural businesses, because the raw material is the major cost component, the influence of international prices is felt right through the value chain.

Figure 4.9.1.1 – Oilseeds production (‘000 tonnes)

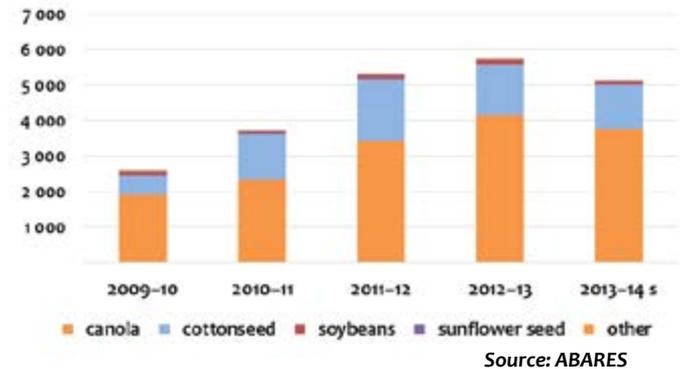
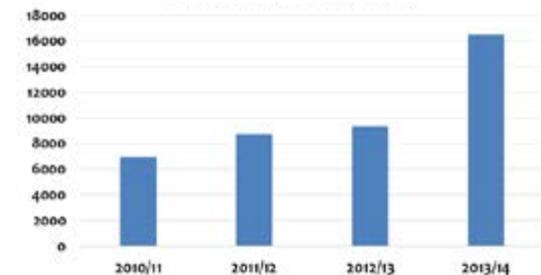


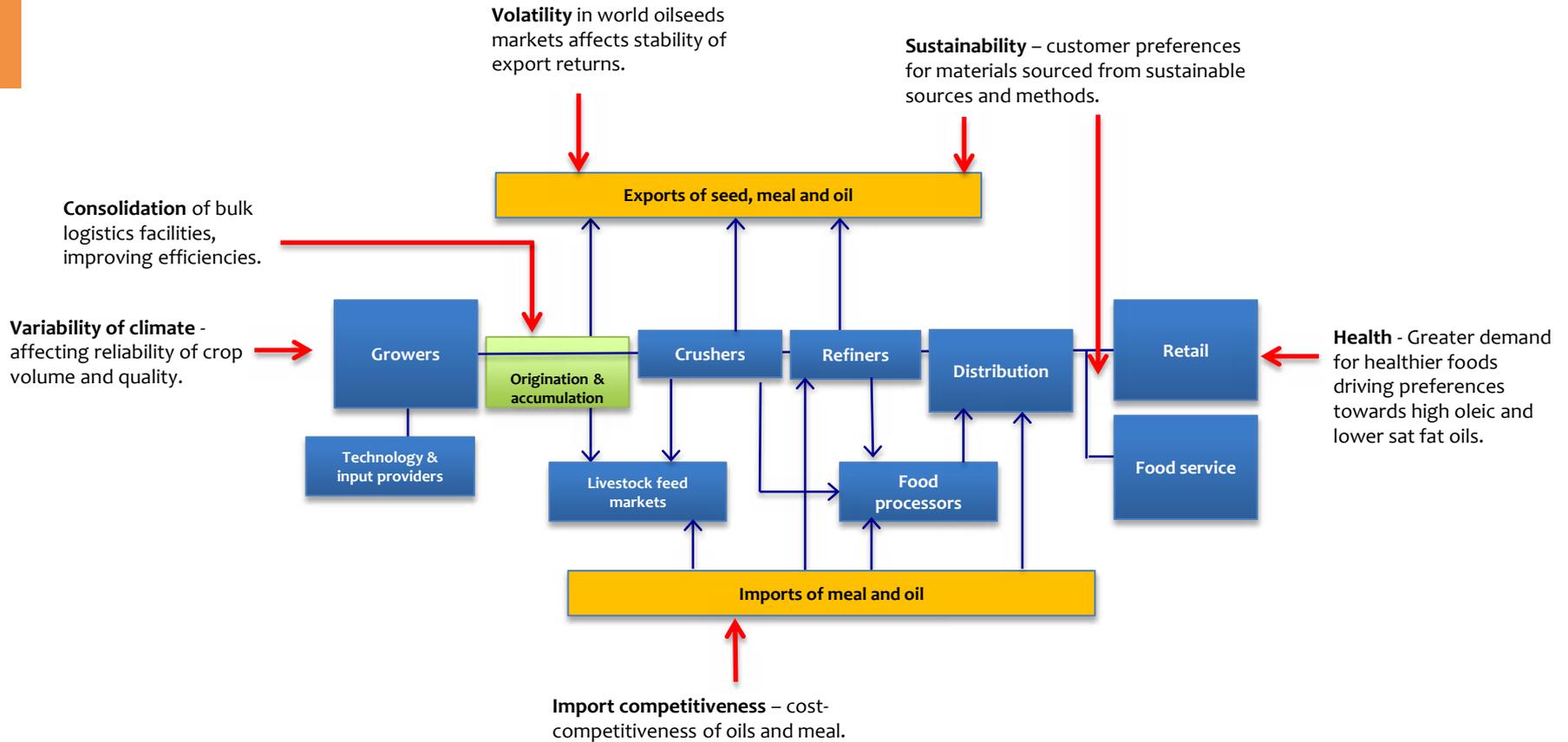
Figure 4.9.1.2 – Canola oil imports (tonnes)



4.9 Oilseed products

4.9.2 Factors affecting oilseeds pricing

The pressure points below reflect the issues in the value chain from Australian oilseeds production through to domestic oil products and the animal feed market. Prices are significantly influenced by the world market value for oilseed crops, trade in vegetable and competing oils and relative value of competing livestock feeds.



4.9 Oilseed products

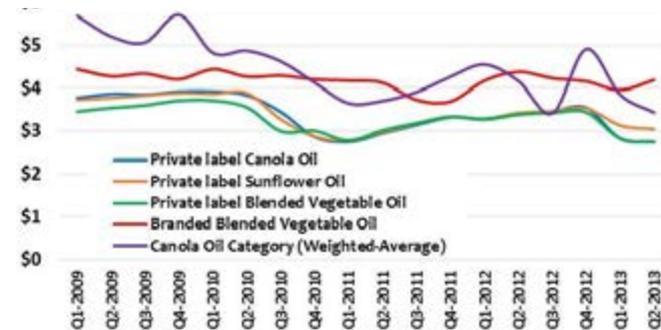
4.9.3 Oilseed product pricing over time

- Oilseed products of interest for the Australian retail and foodservice markets are spread across a range of oil types including olive oils, canola, other oilseed crop oils and blended products.
- Imported product makes up a significant component of the market, but with different quality and functionality attributes.
- A comparison of retail and imported oil prices illustrates the apparent influence of steady landed imported prices on retail prices offered to consumers over recent years.
- Retail prices across the canola oil category have been relatively stable, but have gradually trended downwards due to the increased share of sales through larger pack sizes.

Farmgate share of retail prices

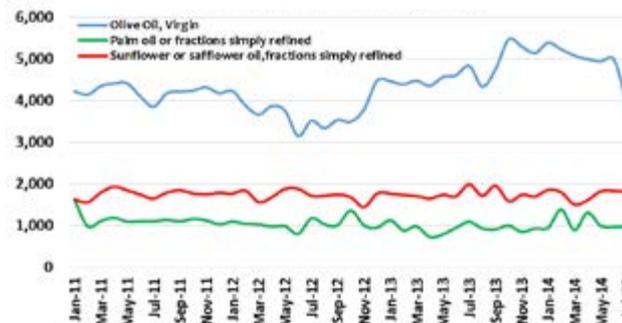
- The economics of canola processing depends on markets for oil and meal products, which are sold into livestock feed markets.
- Based on the oilseeds industry's experience of oil crushing and refining yields, the average canola seed price achieved at farmgate has in the 4 years to 2014 represented a range of 22-26% of the retail value of canola oil products.
- This takes account of the relative wholesale values of refined oil and canola meal, and the range of retail prices achieved in oil and spray products over that period. While retail prices are relatively stable, there is variation in canola seed prices.

Figure 4.9.3.1 – Retail oil prices 2litre packs and Canola oil average - \$/litre



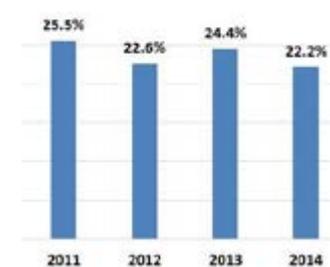
Source: Retail sales data

Figure 4.9.3.2 – Vegetable oil import prices (A\$/t)



Source: UN Comtrade

Figure 4.9.3.3 – Canola farmgate value as a share of retail prices for oil



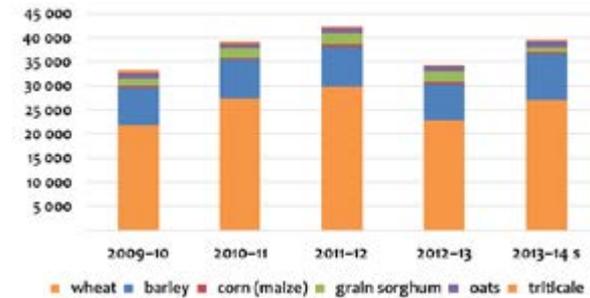
4.10 Grains and flour

4.10.1 Grains and flour sector overview

Introduction

- The major focus of pricing analysis for these purposes is prices of wheat, flour and flour products including bread. There are a range of other grains produced in Australia as shown in the chart on the right.
- The wheat industry is predominantly export focused, while the flour industry is domestically focused with a small portion of total flour production exported.
- The main factor that affects prices and costs through the chain is the international price of flour milling varieties of wheat.
- International prices returned to Australian exporters and affecting local grain prices are driven by supply and demand. With demand rising steadily, volatility is largely associated with fluctuating supply – the size and quality of crop harvests in major production regions which are spread across planting and harvesting schedules as outlined in the chart on the right. Local flour millers buy grain on contractual arrangements to smooth volatility in price, with costs benchmarked over time to export prices.
- The use of flour across bakery and other parts of food manufacturing is diverse.
- The flour milling sector has undergone considerable rationalisation in the past decade. The industry is highly competitive, low margin and suffers from considerable under-utilisation of milling capacity.

Figure 4.10.1.1 – Grain production ('000 tonnes)



Source: ABARES

Profarmer Australia's Global Crop Calendar

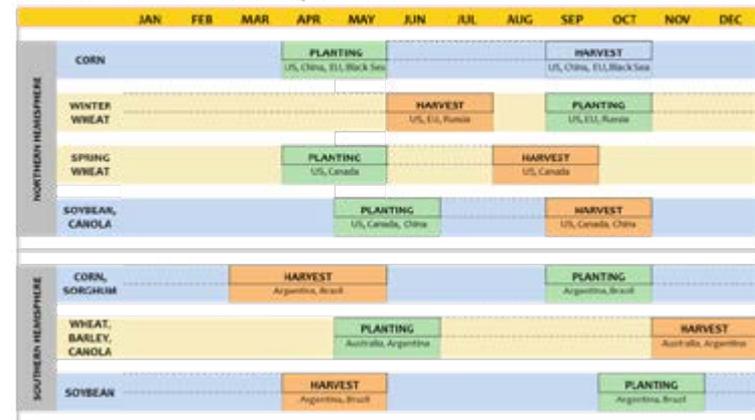
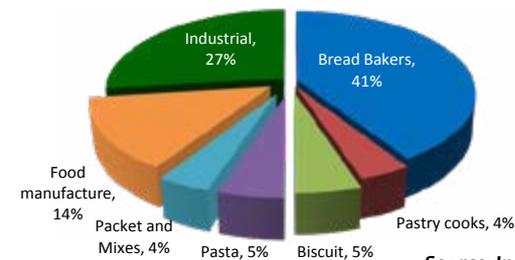


Figure 4.10.1.2 – Use of flour in food and non-food products

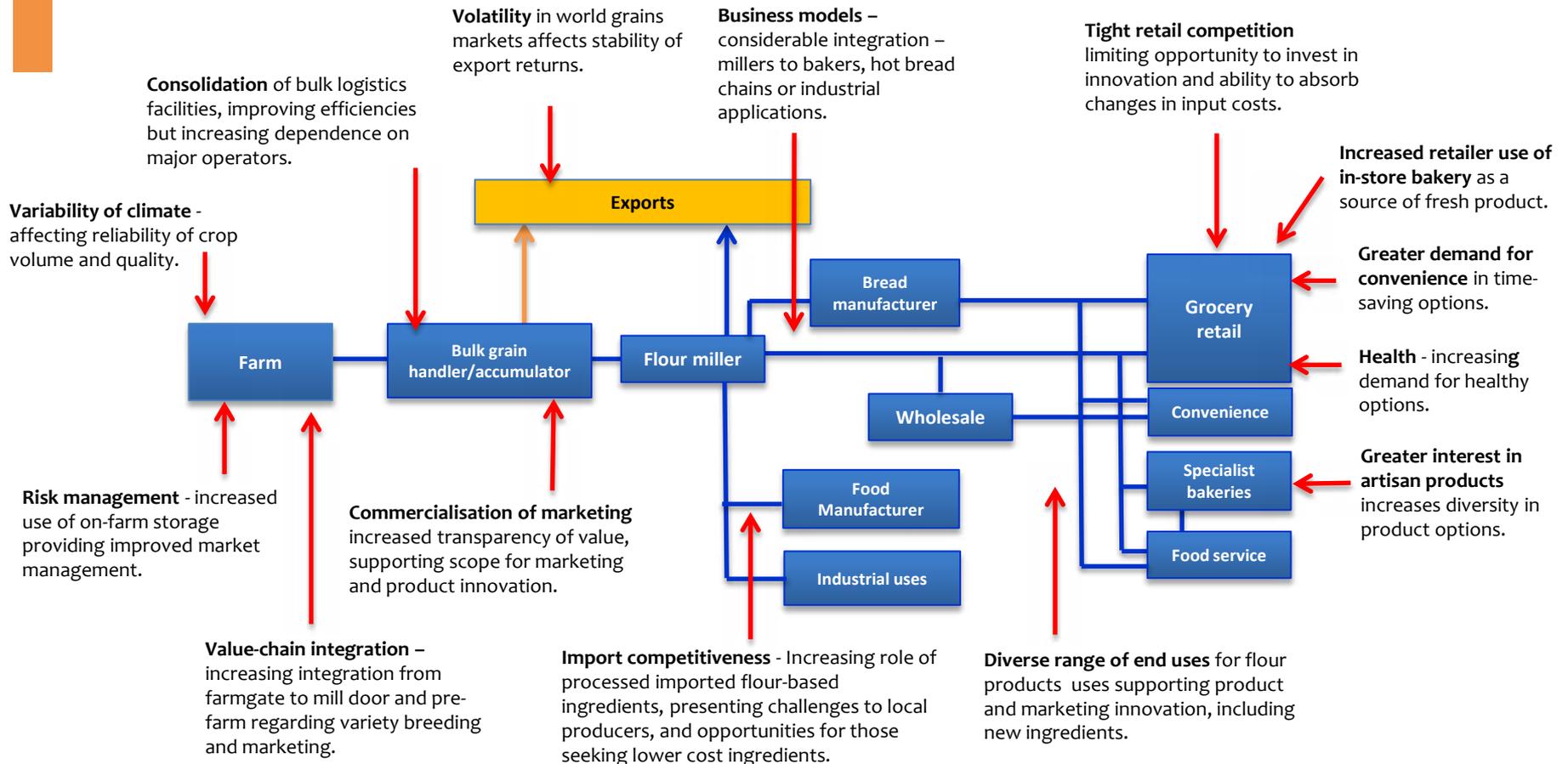


Source: Industry sources

4.10 Grain products

4.10.2 Factors affecting grains and flour pricing

The pressure points below reflect the issues in the value chain from Australian grains production through to domestic bread and baking market. Australia has a relatively high level of supply stability, and is self-sufficient in grains, bread and bakery products.



4.10 Grain products

4.10.3 Grains and flour pricing over time

Usage of grain

- Grain prices at the farmgate vary over time according to the balance of global supply and demand, affected by crop sizes in the key production and exporting regions.
- There is no published or commercial source of data for the wholesale price of flour transacted between millers and users in the bakery and food manufacturing sectors.
- The industry produces between 2 and 2.2 million tonnes of flour each year, consuming close to 3 million tonnes of wheat. The grocery market uses a small portion (less than 2%) of the output in retail pack product.
- Movements in the cost of grain has a small bearing on the overall cost of bread manufacture across all product forms, the higher the value of the product, the less significant is the grain cost. In a basic white loaf, grain is 20-25% of the total product cost. A \$50 change in the cost of grain will amount to a 3% change in the cost of bread in this type of product. This effect declines with multigrain and other higher-value lines.
- There has been a slight increase in the average prices of branded product over the five years under review as grain prices have gradually increased.

Farmgate share of retail

- The farmgate prices received by grain growers are derived from a combination of markets serviced by the industry.
- We calculated an average retail selling price of \$1.30/kg across the retail packet flour category in 2012/13, which has changed little since a large drop in pricing when flour was included in discount promotions.
- Based on flour milling yields, the average milling wheat price over the 3 years to 2013 represents a 34% share of the average retail value of flour.

Figure 4.10.3.1 – Average AP wheat (flour wheat) in A\$/t

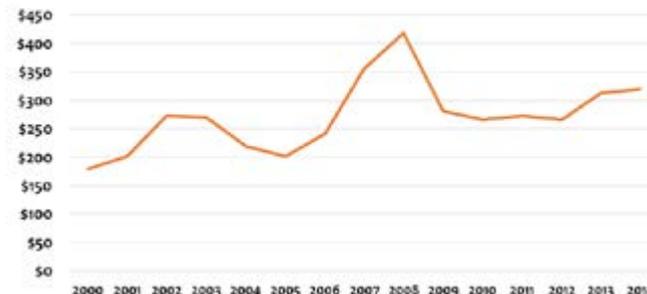
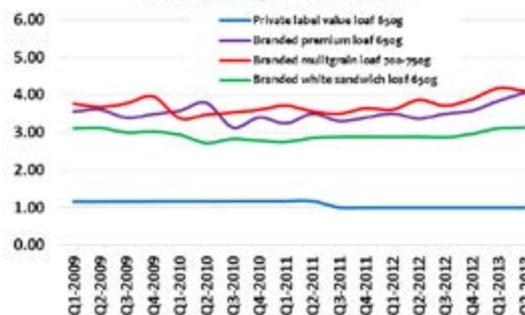


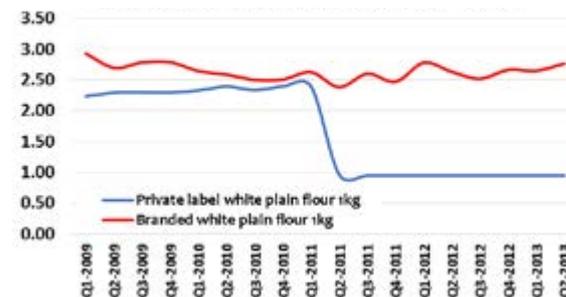
Figure 4.10.3.2 – Retail packaged bread prices

Source: Jumbuk Consulting



Source: Retail sales data

Figure 4.10.3.3 – Quarterly retail flour prices (1kg packs – \$/unit)



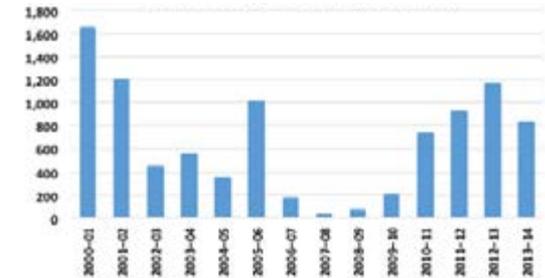
Source: Retail sales data

4.11 Rice

4.11.1 Rice sector overview

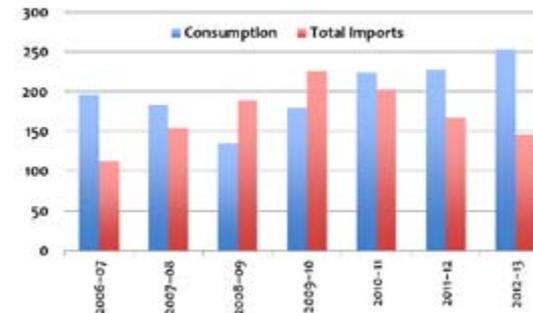
- The rice industry is predominantly export focused with much of the industry managed by a single integrated grower-owned co-operative, Ricegrowers, which trades as Sunrice. The industry retains a single desk export regime in NSW (where the vast majority of rice is produced) under the direction of the Rice Marketing Board.
- The industry’s output has fluctuated greatly over time due to the limitations on irrigation water due to drought.
- As a result of drought experiences, Sunrice has developed a strong international market focus aimed at maintaining its market presence, and stabilising returns to growers. Australia is a small player in the world market, averaging less than 2% of trade when the local crop is above 1 million tonnes.
- The market mix of the industry varies with the size of the crop, but over the past decade an average of 37% of the Australian crop is consumed in the domestic market across a range of market channels. Year to year comparisons of output, imports and exports are affected by the timing of production and use of stocks in the supply chain.
- Australia imports a range of rice varieties with no trade barriers in place with the exception of brown and paddy rice, due to quarantine restrictions. Import requirements have grown over time with the culinary interest in fragrant rices (not produced locally) and the unreliability of the domestic rice crop, which has allowed some cheaper imported product a greater foothold in the market.
- Overall consumption of rice has grown over time, as there has been increased consumption by the food service and food processing sectors, and an increase in the volumes of imported fragrant and specialty rices.
- There has been value-adding achieved by marketers in pre-cooked and ready-meal rice products to address convenience and portion-size demands which has significantly extended the category. Grocery sales of these products had grown to \$70m in 2013.

Figure 4.11.1.1 – Australian rice production (‘000 tonnes)



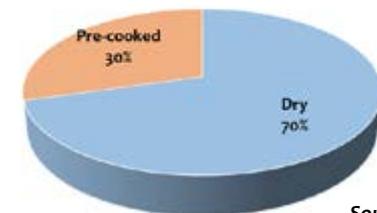
Source: ABARES

Figure 4.11.1.2 – Apparent consumption and imports of rice (‘000 tonnes)



Source: ABARES

Figure 4.11.1.3 – Rice products – composition of grocery volumes in 2013

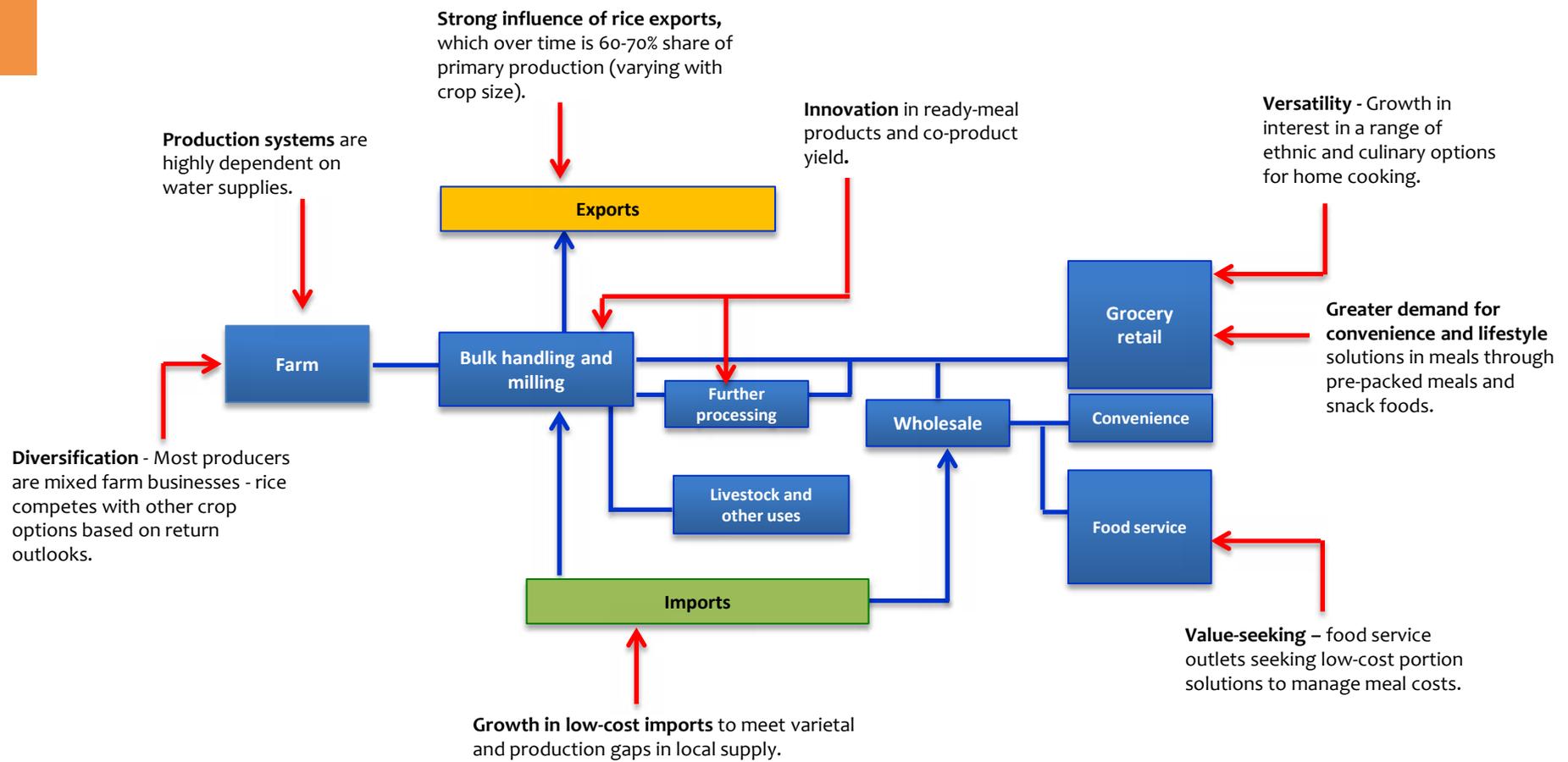


Source: Retailworld

4.11 Rice

4.11.2 Factors affecting rice pricing

Rice value chain: The rice industry is a closely integrated industry that retains a managed single desk for export markets. This dominates consumption of Australia's rice output.



4.11 Rice

4.11.3 Rice pricing over time

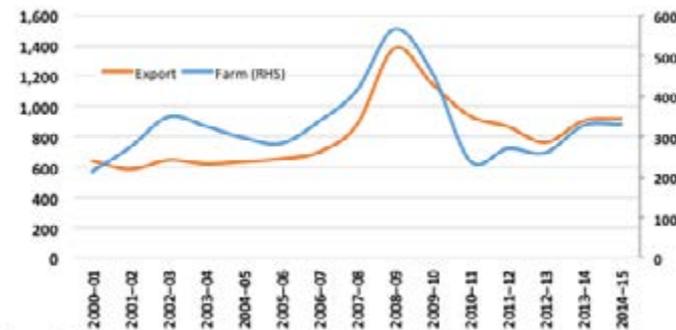
Influence of trade

- Australia has a small share of international trade in rice. About 8% of world production is traded, dominated by India, Vietnam and Thailand.
- Export prices are driven by global supply and demand. Unlike some globally traded commodities, rice trades on customer specifications, which encompass quality, packaging and delivery – producing a range of values. Australia operates at the premium end of medium grain rices.
- Whilst medium grain (MG) is the major crop variety produced, the majority is exported. Australia supplies about 20-25% of the traded world market for MG rice into discerning consumer export markets. Only 8% of domestic retail sales are of MG rice.
- There is limited relationship between domestic prices and export returns, given the small portion of the crop that remains in the domestic market and the strong influence of imported rices on the value extracted from the category.

Farmgate share of retail

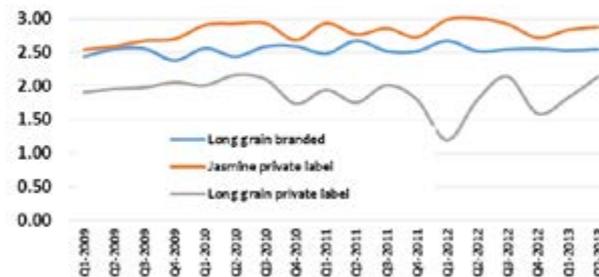
- The farmgate returns to rice growers above are based on the derived farmgate return from a combination of markets serviced by the industry.
- Rice growers are paid a weighted average return per variety based on the average returns from export and domestic markets in each season, which bears no relationship to the level of retail sales value on a long grain product alone.
- The domestic retail market represents a small portion of the usage of Australian-produced rice varieties.
- We calculated an average retail selling price across the retail category for medium grain rice in each of the periods, which has changed little over recent years. Based on milling yields, the paddy rice price reported by Sunrice over the 4 years to 2014 **represents a share of 28-34% of the average retail value**, with a range that varies due to crop pricing.

Figure 4.11.3.1 – Australian average farmgate and export rice price (A\$/t)



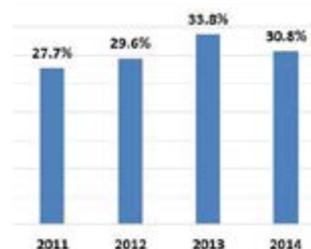
Source: ABARES

Figure 4.11.3.2 – Quarterly retail rice prices (1kg packs – \$/unit)



Source: Retail sales data

Figure 4.11.3.3 – Rice farmgate value as a share of retail prices



4.12 Sugar

4.12.1 Sugar industry overview

- About 72% of Australian sugar is exported and the remainder is consumed domestically in the food processing and food service sectors.
- Overall output varies according to climatic conditions – major weather events in North Queensland have adversely affected crop sizes in recent years.
- Industry returns are driven by prices available to Australian sugar exports – affected by prevailing levels of support provided to producers in the US and EU, and output from the largest producer in Brazil, which also supports its sugar production through cross-subsidies from its ethanol sector.
- World market conditions are volatile due to the variation in bulk sugar available to export markets by major producers, which includes Brazil which processes significant volumes to ethanol. Australia produces about 5% of world trade in sugar but is positioned as a high quality supplier.
- The domestic market consumes a relatively small percentage of raw and refined sugar in retail and food service products, and industrial use in food and drink manufacturing.
- Domestic retail sugar market returns have minimal affect on total industry returns as they represent about 3%, but are affected over time by the cost competitiveness of substitute products such as artificial sweeteners.

Figure 4.12.1.1 – Australian sugar production and use

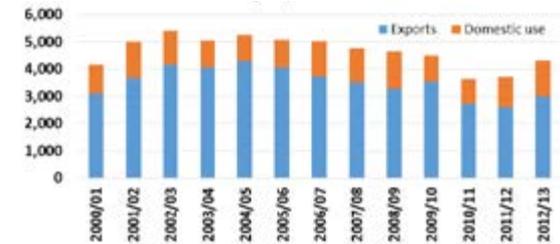
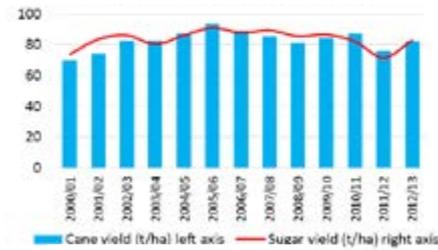
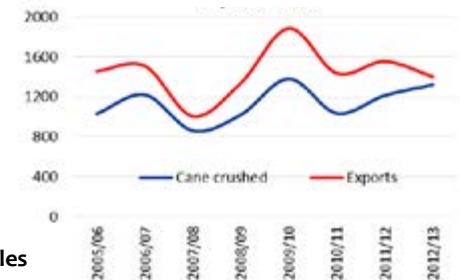


Figure 4.12.1.2 – Australian cane and sugar yields



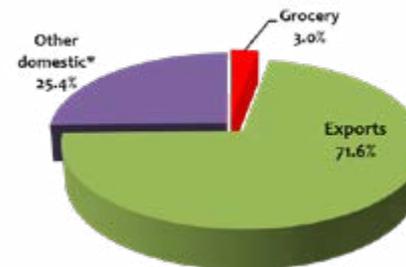
Source: ABARES

Figure 4.12.1.3 – Gross value of Australian sugarcane and exports in \$m



Source: ABARES

Figure 4.12.1.4 – Share of sugar sales



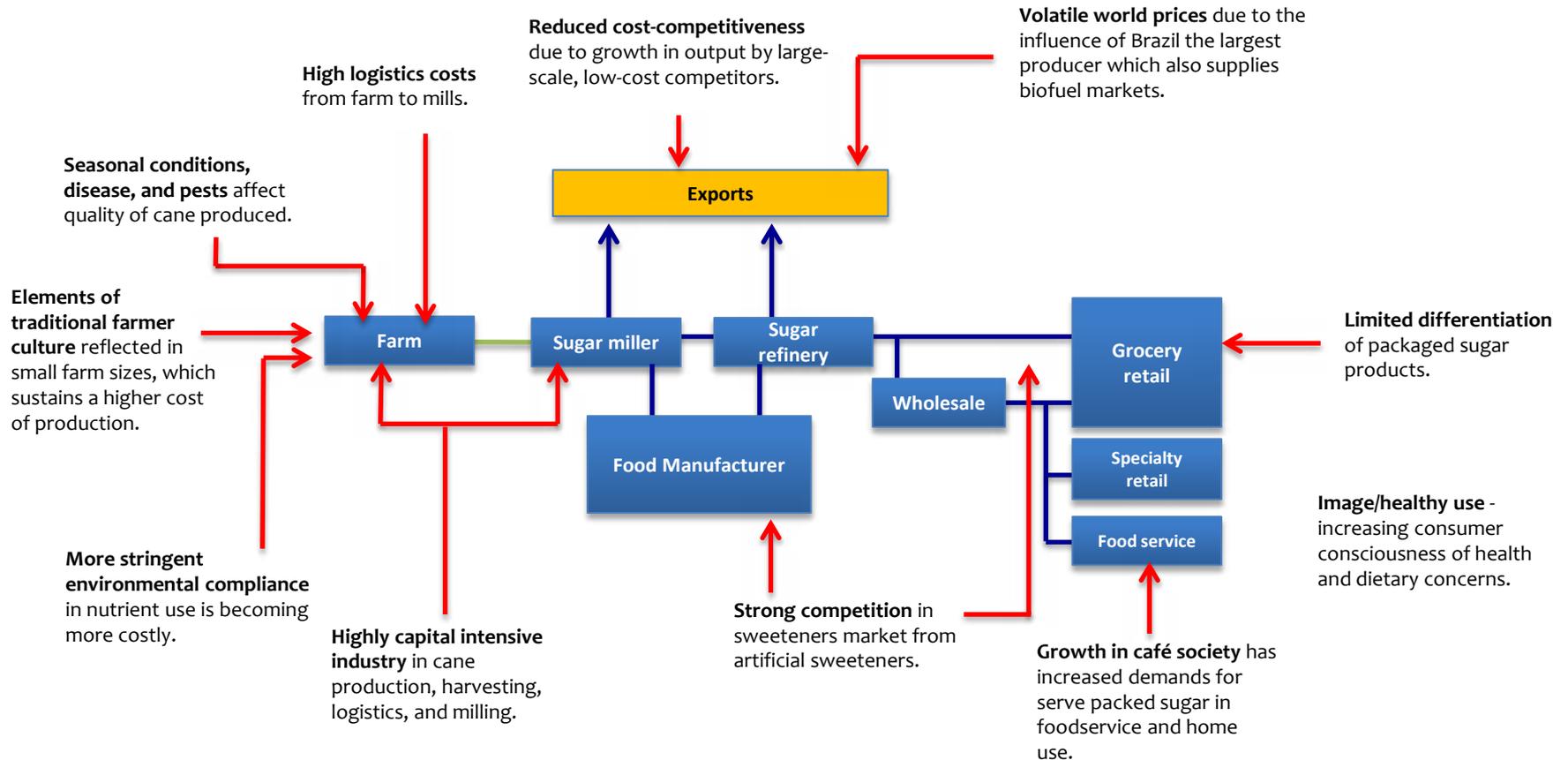
* this includes use in food manufacturing and sales into food service

Source: ABARES and retail data

4.12 Sugar

4.12.2 Factors affecting cane and sugar pricing

Sugar value chain: The sugar value chain shows there is a high-level of self-sufficiency and stability of supply within the sugar industry. Factors influencing the short-term volatility of price and supply include import competition and currency movements, and the influences of climate, supply chain logistics, and nature of production on sugarcane production.



4.12 Sugar

4.12.3 Sugar and cane pricing over time

World prices drive farm returns

- The close relationship between export sugar returns, as reflected in pool prices declared by Queensland Sugar Limited (QSL), and the prices paid for cane are shown in the chart on the right.
- Pool prices are declared annually by QSL based on export market sales.
- Cane prices are set by formula which is based on the commercial sugar content (CCS) in cane supplied to mills. There is on average about 14% sugar content in cane.
- A valid high-level comparison of the returns to farm with returns from industrial and export markets converts cane prices to a sugar equivalent based on the annual CCS. Over the 5 years to 2012/13, the cane price effectively represents 58% of the export return.
- The costs of transport, milling and storage represent the difference between market returns and farm prices.
- There is no available data on industrial sugar prices within the Australian food industry between millers and commercial users such as food manufacturers and processors.
- Average prices of retail sugar products have remained very stable in recent years despite the movements in international sugar prices, given the disconnect between global and retail pack products.

Farmgate share of retail

- As indicated earlier in this section, the domestic retail market represents a small portion of the total sugar market.
- We have calculated an average retail selling price of \$1.40/kg across the retail category in 2012/13, which has changed little over recent years. **Based on cane pricing formulae, the average sugar value in the industry's average cane price over the 5 years to 2014 represents a range of 19-27% share of the average retail value.**

Figure 4.12.3.1 – Australian average export sugar and cane prices (\$/t)

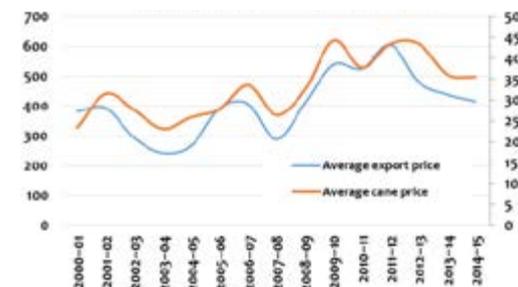
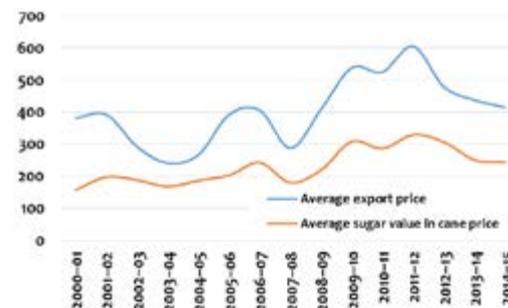


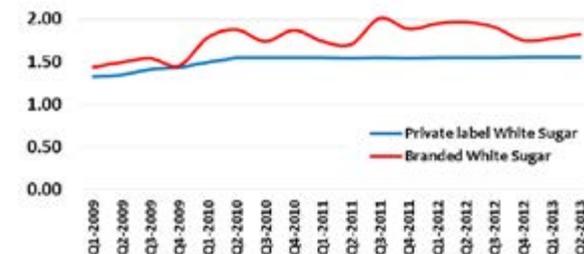
Figure 4.12.3.2 – Comparison of export prices and grower prices (sugar equiv) (\$/t)

Source: ABARES



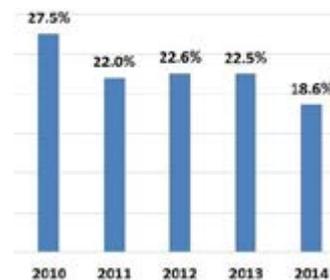
Source: ABARES

Figure 4.12.3.3 – Quarterly retail sugar prices (1kg pack - \$/t)



Source: Retail sales data

Figure 4.12.3.4 – Cane farmgate value as a share of retail sugar prices



4.13 Eggs

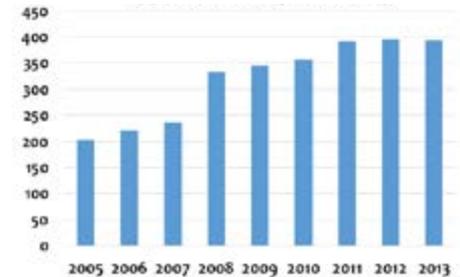
4.13.1 Egg industry overview

- The industry has been undergoing structural change in production systems, with increased importance of ethical/bird welfare issues demanded by customers and consumers, and changes in the product mix sold in retail markets. The egg industry output has grown considerably in recent years (by 68% since 2005) in response to increased domestic market demand.
- The industry has repositioned the category and reversed perceptions of the role of eggs, promoting them as a protein source. Other sectors of consumption – food service and industrial/commercial uses - are exhibiting slow growth.
- There is a small volume of international trade in egg products (both imports and exports), limited to processed eggs sold as an ingredients into food service uses. It is estimated that 91% of eggs available to the domestic market are sold as fresh eggs with the remainder processed.
- The competitive tension in the domestic fresh egg market remains strong with growth in sales of free-range and cage-free products, and the reduction in relative premium available for free-range products.
- The major expense faced by egg producers is feed, representing approximately 50-65% of costs of production in normal conditions.

Changes in production systems

- The largest issue facing the future of the industry is the evolving change in production systems, as consumers increase demands for products from systems which provide improved bird welfare, greater freedom in their movement, and higher cost for producers.
- State governments have in the past implemented regulations to require cage-egg production to switch over time to larger cages, while major food companies and retailers have announced phasing out the use of eggs from such systems over various periods in coming years.
- Consumer preference for non-caged eggs continues to grow. Over the 10 years to 2013, free range share of sales grew from 14% to 37%.

Figure 4.13.1.1 – Egg production (million dozen)



Source: AECL

Figure 4.13.1.2 – Channel share of fresh egg sales in 2012/13



Figure 4.13.1.3 – Share of egg retail volume sales

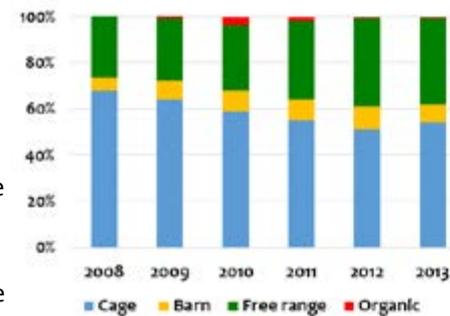
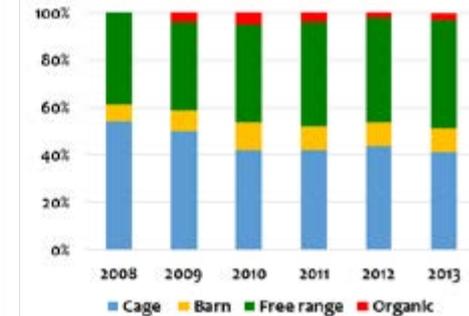


Figure 4.13.1.4 – Share of egg retail value sales

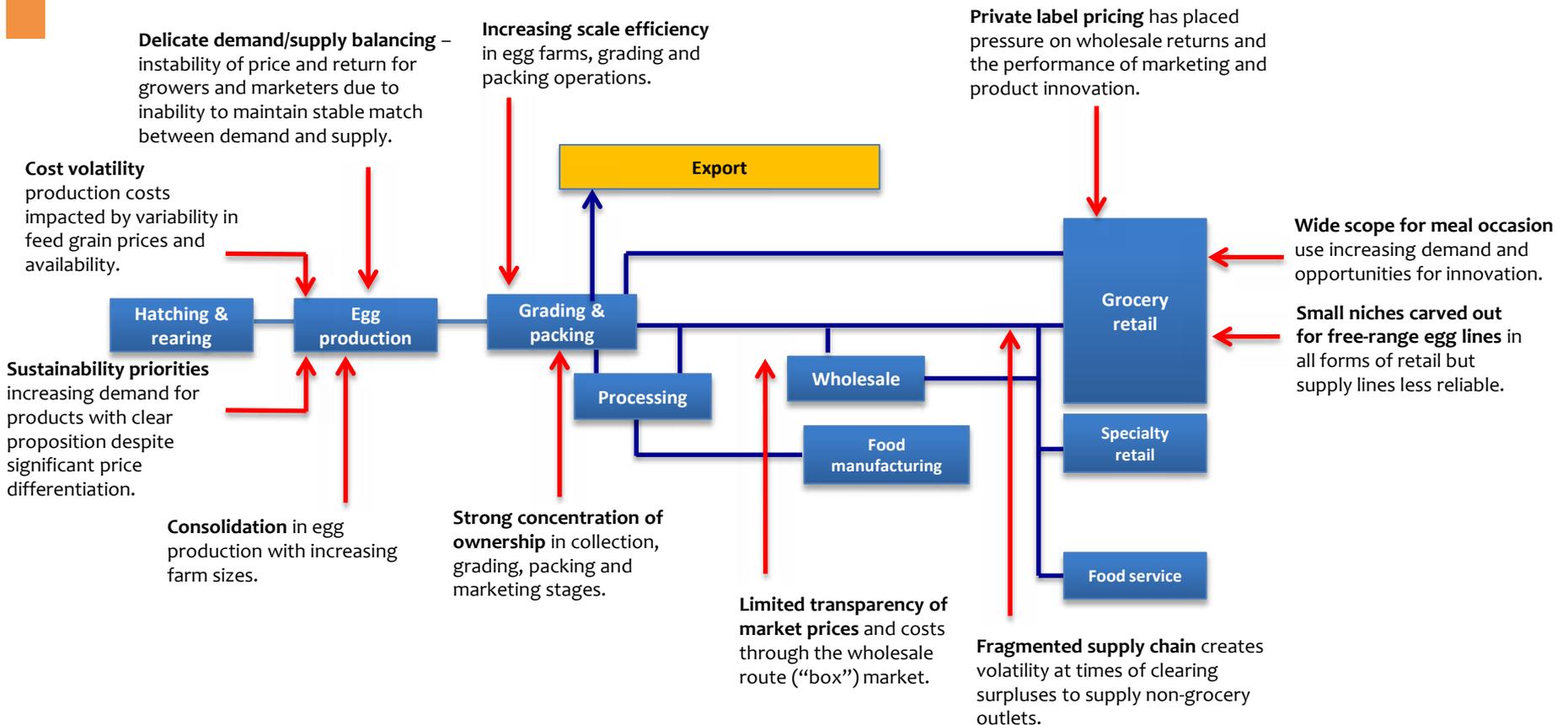


Source: AECL

4.13 Eggs

4.13.2 Factors affecting egg pricing

The domestic egg supply chain has benefited from growth in per-capita consumption in recent years, but remains finely balanced in terms of short-term demand and supply of shell eggs. Australia is self-sufficient in the production of eggs and has a relatively stable supply.



4.13 Eggs

4.13.3 Egg pricing over time

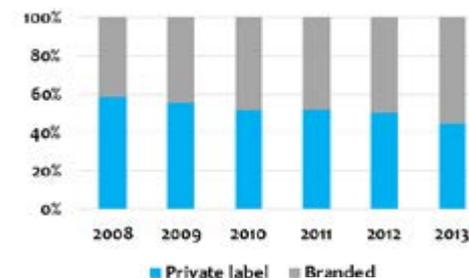
Changing product mix

- Egg prices have improved over time with a shift in product mix and greater consumer acceptance of higher prices. Prices in the past tended to move with changes in feed input costs which is estimated to comprise 60-70% of on-farm costs.
- Higher prices are achieved for eggs produced in free-range and barn systems, compared to conventional cage systems.
- Over time as more sales have moved towards these higher priced lines, the unit value achieved by cage eggs has remained flat, resulting in a slow gain in total average prices.
- With the reduction in the price differential between private label free range and other products in the grocery channel and the strong price-based competition between grocers and brands, average retail prices achieved in the category have been flat for the past 5 years. This has placed considerable pressure on the value chain as the cost of grain inputs and other inputs have risen.

Farmgate share of retail

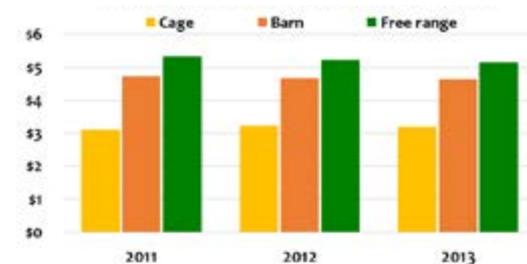
- The concept of a “farmgate” is less applicable in egg production as there is no stand-alone sector in the larger scale end of the industry.
- This is due to the greater incidence of integrated production, grading and packing operations, which are seeing more use of in-line systems that reduce egg handling.
- There is no industry-aggregated data or reliable objective measures in time-series of the “farmgate” value of eggs sold from producers to packing/distribution enterprises. There are a relatively small number of egg producers, yet a high portion of volumes are passed through these integrated value chains.

Figure 4.13.3.1 – Share of egg retail volumes (PL v branded)



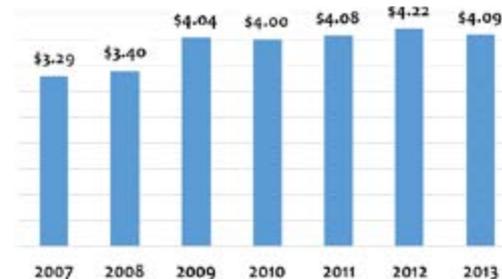
Source: AECL

Figure 4.13.3.2 – Retail egg price of dozen eggs by production system



Source: AECL

Figure 4.13.3.3 – Average grocery selling prices (\$/doz)



Source: AECL

SECTION 5: PERFORMANCE OF PARTICIPANTS

5.0 Introduction to this section

5.0.1 Approach

Introduction

- We have gathered published information on the performance of farm sectors and food companies across various categories and channels covered in this report.
- Where possible, we have obtained Australian public companies or separately reported divisions of Australian-based businesses in this analysis.
- Comparable foreign companies have been contrasted with the local companies.
- This analysis has focussed on two key performance measures which are universally applied across financial reporting:
 - EBITDA % of sales – which is the reported Earnings Before Interest, Tax, Depreciation and Amortisation as a percentage of the sale revenue
 - ROA – Return on Assets, defined as Earnings before Interest and Tax (EBIT) as a percentage of the total assets employed.
- It is not valid to draw general implications for the pricing of food products from the reported performance of participants along value chains in the various sectors.
- There is insufficient information available in farm sector performance that might allow market conditions to be separated from factors such as climate and risk-management decisions as a cause of a performance outcome.
- At a food processor level, there are a small number of company analyses available given the sector is largely foreign-owned without disclosure of local results. Trends are apparent however in terms of cost factors that might impact results over time.

Performance of participants

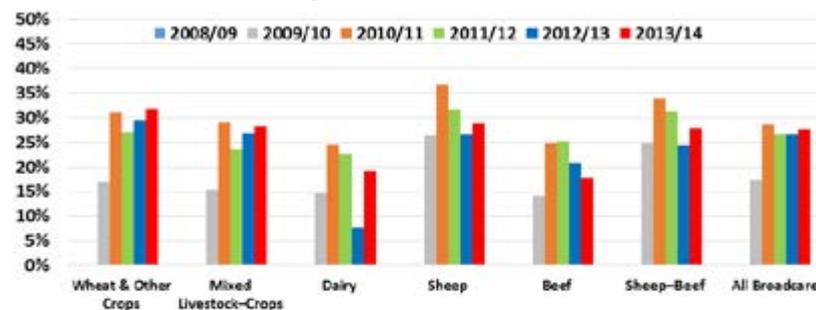
- This section compares available data on the performance of participants in the farm sector, food processing and food retail, measured in terms of profit margins and returns on assets.
- Typically the available data shows the farm sector generates a wide range of margin profitability across sectors, heavily influenced by seasonal variation, but this translates to low rates of return on asset values over time. Some sectors (such as beef) consistently perform below others.
- Downstream participants typically generate higher returns on asset investments, but business models vary in their employment of capital, especially in the retail sector, where it is common for stores to be located on leased land, reducing the invested capital to short-term working capital, making comparisons between sectors on returns on assets or invested capital misleading.
- The analysis indicates however that while retailers have performed at or better than their international peers, Australian food processors (in the cases where data is available) have tended to generate returns weaker than overseas counterparts, although the performance range varies widely across sectors.

5.1 Performance of the farm sector

5.1.1 Overview

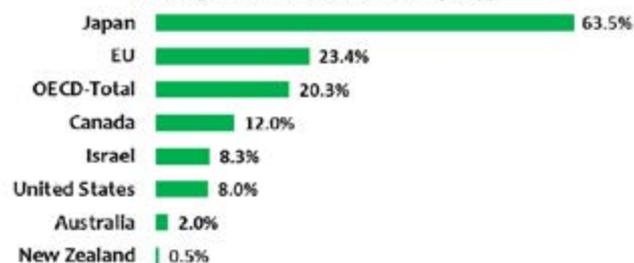
- We have gathered publicly available information undertaken by ABARES and other industry-funded projects on the performance of farm enterprises in the food sectors.
- This is available for broadacre livestock, cropping, mixed production vegetable farms, and dairy. The data indicates income and return on capital for Australian primary producers is highly variable from year to year.
- Incomes for the Australian farm sector tend to be more directly linked to international commodity price movements than in some other developed countries - particularly northern hemisphere competitors.
- While support for farmer incomes is under budgetary pressure in regions such as the EU, farmers in the EU and in North America still receive quite high rates of support, as indicated by the comparison of OECD producer support estimates – in the form of tariff protection, direct income support and market instruments.

Figure 5.1.1.1 – Australian broadacre farms, average/farm total cash receipts as a share of farm cash income



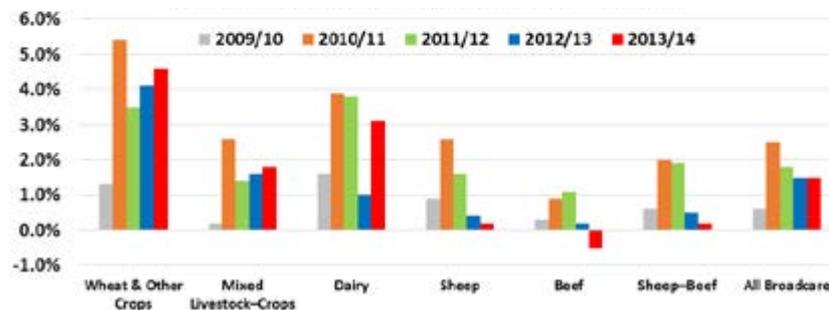
Source: ABARES

Figure 5.1.1.3 – Producer support estimate as a share of farmgate production value (2013)



Source: OECD

Figure 5.1.1.2 – Australian broadacre farms, average/farm rate of return (excluding capital appreciation)



Source: ABARES

5.1 Performance of the farm sector

5.1.2 Beef

- The available data on beef production separates producers into southern systems and northern pastoral systems.
- Cash margins appear stable across southern regions, but northern producers, more exposed to harsher climates, experience fluctuation in margins.
- Rates of return across these groups are small but volatile. Smaller producers in northern regions, unable to manage risk across larger and more diverse properties, show consistently poor returns on capital invested.

Figure 5.1.2.1 – Northern Australia beef cattle producing farms by herd size – Cash income as a % of total cash receipts

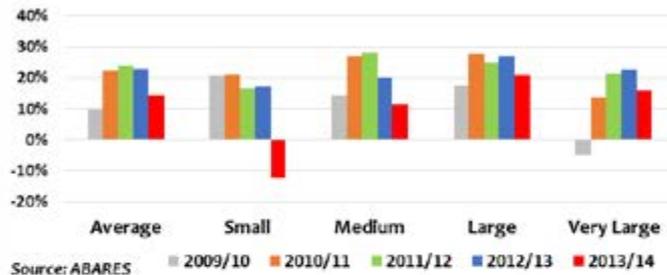


Figure 5.1.2.2 – Northern Australia beef cattle producing farms by herd size – ROC (Excl. capital appreciation)

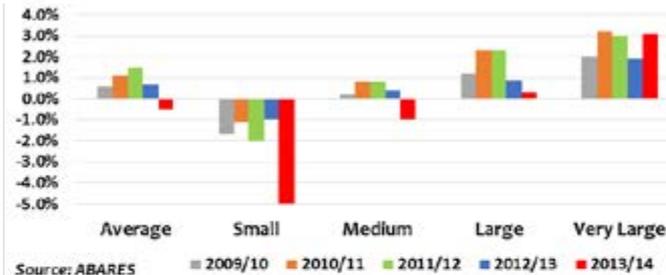


Figure 5.1.2.3 – Southern Australia beef cattle producing farms by herd size – Cash income as a % of total cash receipts

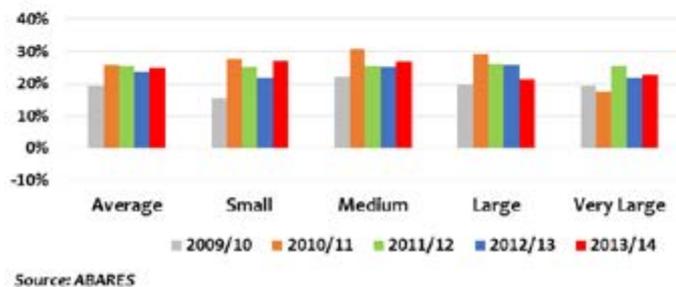
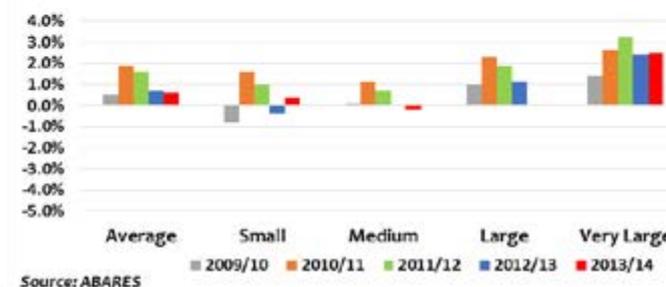


Figure 5.1.2.4 – Southern Australia beef cattle producing farms by herd size – ROC (Excl. capital appreciation)

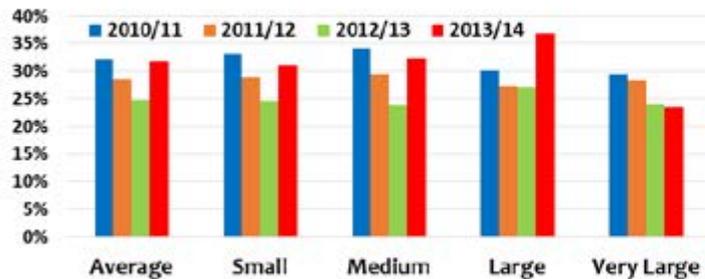


5.1 Performance of the farm sector

5.1.3 Lamb

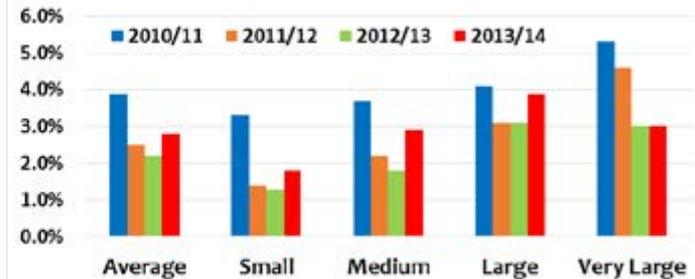
- The available data on specialist lamb production separates producers into different business sizes.
- Cash margins appear stable across different enterprise sizes, but overall returns improve with larger producers due to the economies of scale.

Figure 5.1.3.1 – Australian slaughter lamb producers by size – Farm cash income as share of total cash receipts



Source: ABARES

Figure 5.1.3.2 – Australian slaughter lamb producers by size – Rate of return (Excl. capital appreciation)



Source: ABARES

5.1 Performance of the farm sector

5.1.4 Dairy

- There are several financial and physical benchmarking systems in use across the industry, with separate systems in major regions due to the differences in production systems in use.
- Each of these systems uses a consistent reporting format.
- Margins and returns across southern regions are volatile due to the fluctuations in milk prices received by producers from export markets, which tends to influence most southern milk prices received by farmers.
- Northern systems offer greater stability in milk prices due to the high proportion of milk use in fresh processing, but the results from these systems reflect rising feed and overhead costs of production, especially in the case of the Queensland industry.
- The NSW series has been operating for two years, whereas the other series are longer.

Figure 5.1.4.1 – Qld dairy farm margins and returns*

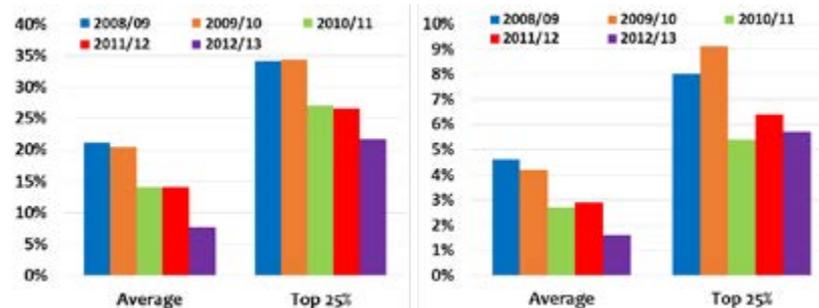
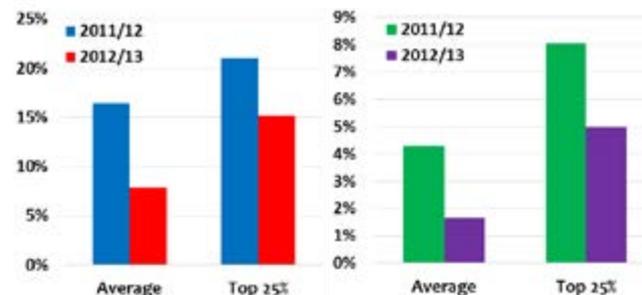


Figure 5.1.4.2 – NSW dairy farm margins and returns*



Source: Dairy Australia

Figure 5.1.4.3 – Victorian dairy farm margins

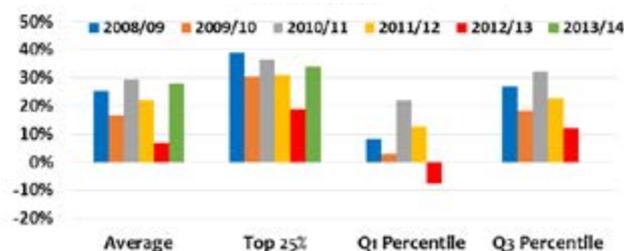
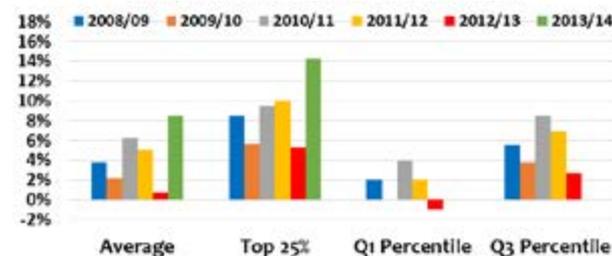


Figure 5.1.4.4 – Victorian dairy farm returns*



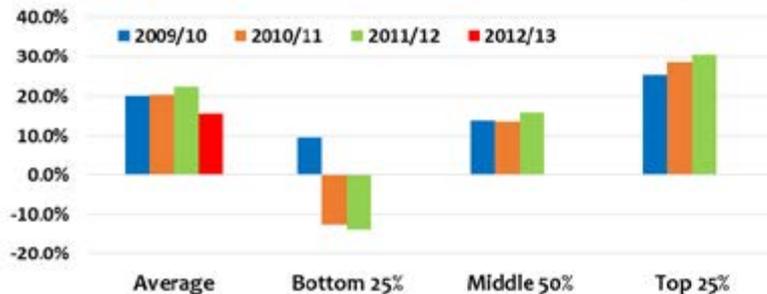
Source: DEPI; Dairy Australia

5.1 Performance of the farm sector

5.1.5 Vegetables

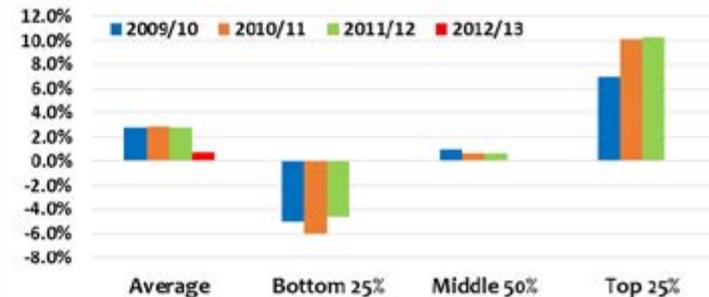
- The available data on vegetable production separates producers into different performance bands.
- These have shown a wide range of results, especially in terms of the returns on investment.
- The analysis of results indicates a rising cost of production across the board for producers, with larger operations better able to cover those costs due to scale advantages.
- The top performers in the sector gradually increased their results in margins and returns on capital over the period of the survey, while the worst performers got worse.

Figure 5.1.5.1 – Australian vegetable growing farms – Farm cash income as share of total cash receipts



Source: ABARES

Figure 5.1.5.2 – Australian vegetable growing farms – Rate of return (Excl. capital appreciation)



Source: ABARES

5.2 Performance of food processors

5.2.0 Overview

Structure of food processing

- The high level data on this page shows the contribution of enterprises by sector to the overall revenue and value-added by the food processing sector.
- Food processing turnover is dominated by protein, dairy and bakery operations, yet the contribution to value-added is more diversely spread due to the limited processing associated with meat industries.
- There has been limited overall increase in the total value-added by the food processing sector in recent years.
- This section looks at some of the common factors affecting costs and profit margins of food manufacturing companies.
- The sub-sections that follow compare reported earnings and returns across a number of food processing sectors.

Figure 5.2.0.1 – Relative revenue and value-added by sectors of the food processing industry

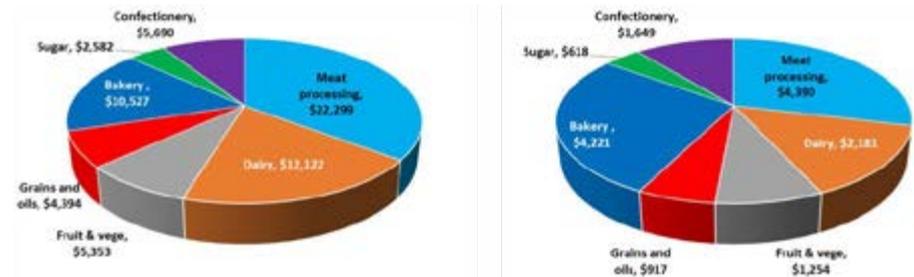
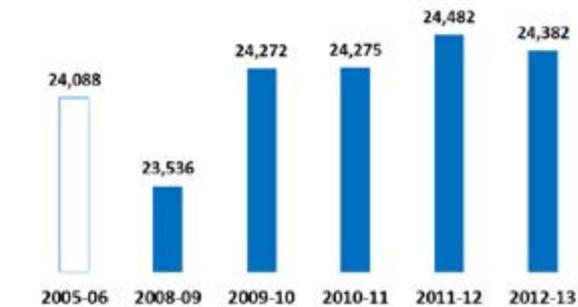


Figure 5.2.0.2 – Total value-added by the food processing industry



Source: ABS

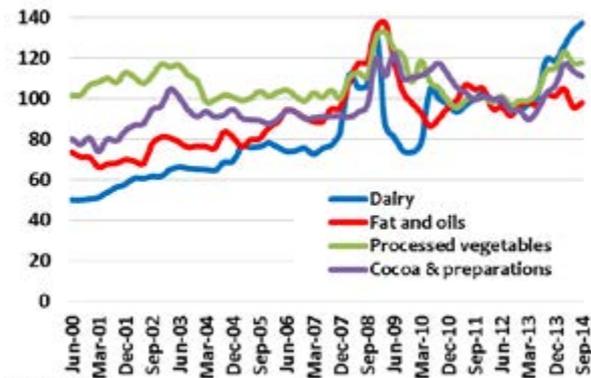
5.2 Performance of food processors

5.2.0 Overview

Recent influences

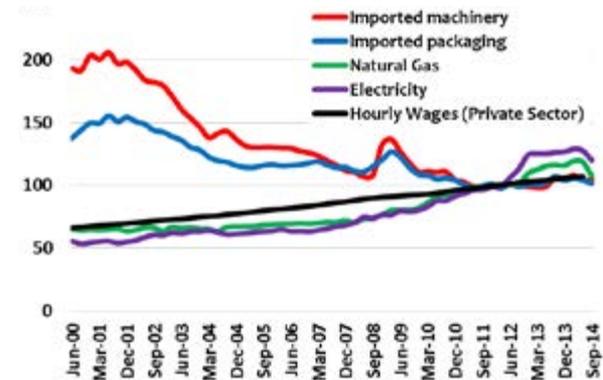
- Input cost pressures for energy and wages have built for food processors in recent years, however in other respects the costs of imported ingredients, packaging and machinery have fallen due to the strength of the \$A.
- Australia's food processing sector has generally increased its imports of food ingredients across a range of food categories in the past decade, as processors have gradually replaced more locally-sourced processed food inputs with lower cost alternatives from overseas suppliers.
- Figure 5.2.0.3 shows a mixed history of cost factors from a range of food ingredients, which have broadly been lower in the four years following a peak in 2008/09, but all have recently risen sharply in 2013/14 with the fall in the value of the \$A.
- These effects have impacted different food processors in different ways, and it is difficult to generalise about the effects on companies in each sector.

Figure 5.2.0.3 – Indices of costs of imported ingredients



Source: ABS

Figure 5.2.0.4 – Indices of input costs to manufacturing



Source: ABS

5.2 Performance of food processors

5.2.0 Overview

Recent performance

- There is little analysis of the performance of the food processing sector, as a high proportion of the larger enterprises in the sector are foreign-owned subsidiaries or divisions without separate public reporting of results.
- Those reported results that are available across various sectors are shown on the following pages.
- In 2014, the Australian Food and Grocery Council (AFGC) commissioned a survey by KPMG of grocery manufacturers. This survey was published and summarised results from 17 participant enterprises which represent about 25% of AFGC’s members. The survey includes results from members which are manufacturers of non-food groceries, but the food/non-food portions were not disclosed.
- The results showed the average earnings before interest and tax (EBIT) as a percentage of gross sales had fallen over the four years to the 2013 financial year, but also that the achieved earnings showed wide variation.
- Returns on assets and capital showed variable results over time, each rising in the final year covered by the survey.
- A number of interesting insights were drawn from the AFGC survey.
- The companies indicate an increasing portion of gross sales – rising from 22% to 26% from 2010 to 2013 - is invested in “trade spend” to support sales through grocery.
- Companies have spent progressively larger amounts of capital over the survey period, with the largest (and expanding) portion invested to “stay in business”, followed by growth investments.

Figure 5.2.0.5 – Average EBIT % of gross sales for grocery manufacturers (AFGC survey)

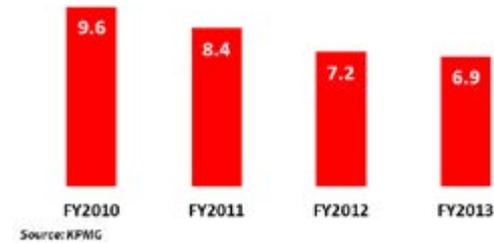


Figure 5.2.0.6 – Average returns for grocery manufacturers

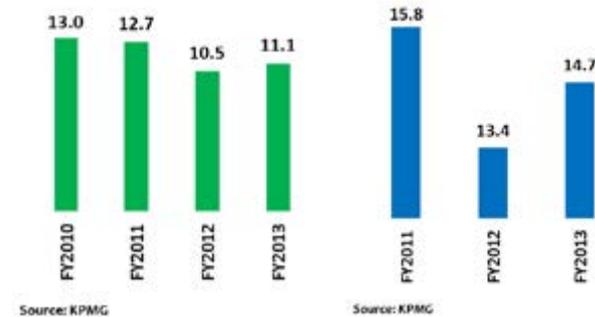
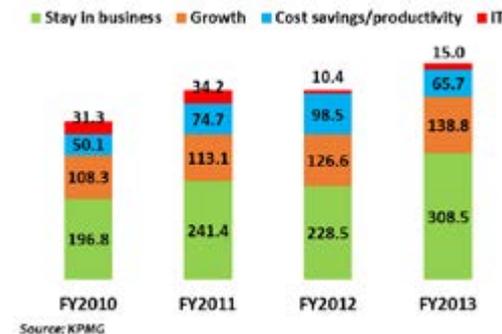


Figure 5.2.0.7 – Reasons for capital expenditure of grocery manufacturers



5.2 Performance of food processors

5.2.1 Meat and seafood processors

Limited local examples

- There are no listed meat processing companies operating in Australia.
- AACo, an Australian beef pastoral and feedlot production company, has only recently invested in a meat processing facility. Other major facilities operating in Australia engaged in
 - beef processing,
 - sheepmeat processing,
 - pork and smallgoods processing and
 - integrated poultry production and processing,

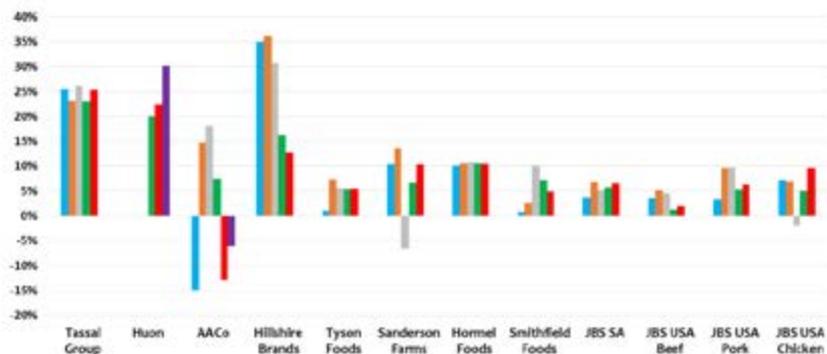
are either divisions of overseas companies, or privately operated groups.

- There are two public companies engaged in seafood production and early stage processing – Tassal and Huon (which is in the process of gaining a public listing at the time of writing this report). Whilst engaged in protein, these enterprises are not directly comparable to integrated processors in red meat, chicken and pork processing.

Main points from the comparison

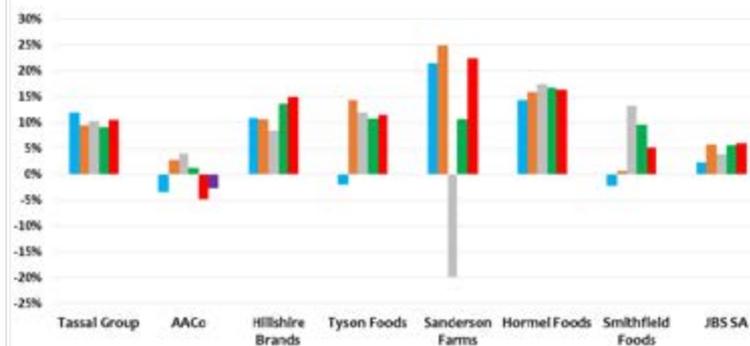
- Overseas beef and poultry processors operate on thin margins.
- The largest beef processor in Australia – JBS – is part of the US Beef division of its parent group JBS SA.

Figure 5.2.1.1 – EBITDA margin of meat and seafood processors



Source: Annual reports

Figure 5.2.1.2 – Return on assets of meat and seafood processors



Source: Annual reports

5.2 Performance of food processors

5.2.2 Dairy companies

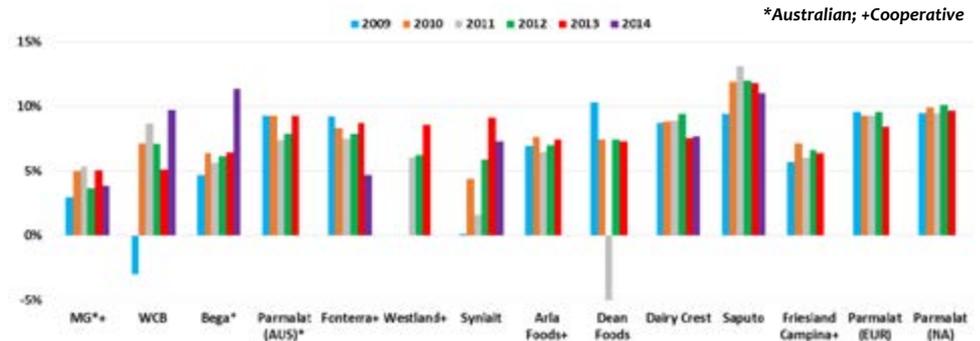
Large number of comparables

- There are a number of dairy companies available for comparison in Australia, New Zealand and overseas countries.

Main points from the comparison

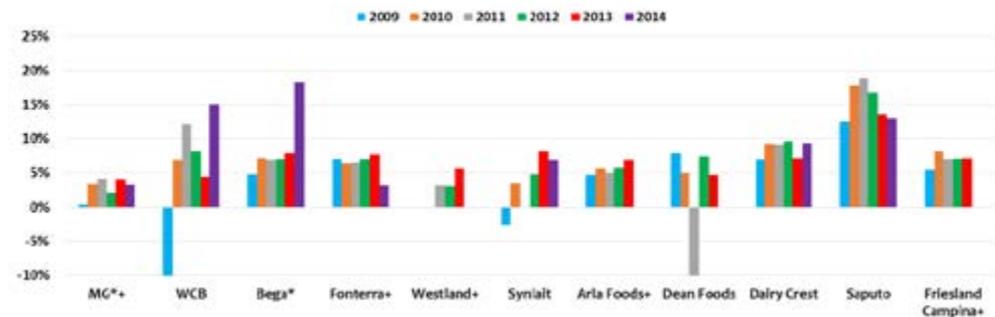
- Co-operative dairy companies are compared with a number of listed companies in this analysis.
- Co-operatives operate to maximize the milk price payout to farmers, and hence do not tend to operate with the same level of profitability as measured by EBITDA and ROA.
- This is apparent in the results of major groups Murray Goulburn (MG), Fonterra, Arla, and Friesland. These groups are in various stages of altering their capital structures over time, which in each case has required a greater delineation between business profitability and the underlying market value of milk.

Figure 5.2.2.1 – EBITDA margin of dairy companies



Source: Annual reports

Figure 5.2.2.2 – Return on assets of dairy companies



Source: Annual reports

*Australian; +Cooperative

5.2 Performance of food processors

5.2.3 Food manufacturers

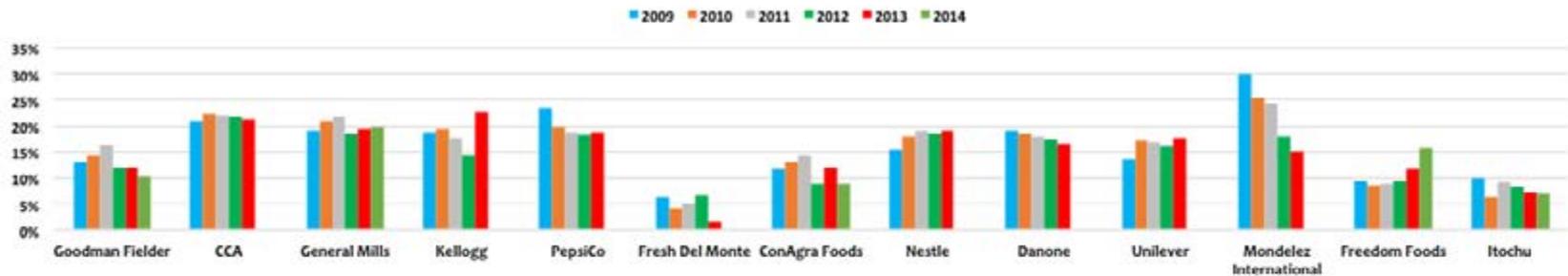
Limited domestic comparables

- There are a limited number of Australian-based food processors and marketers that remain as stand-alone public companies.
- Australian businesses are included within the divisions of many of the groups shown below.

Main points from the comparison

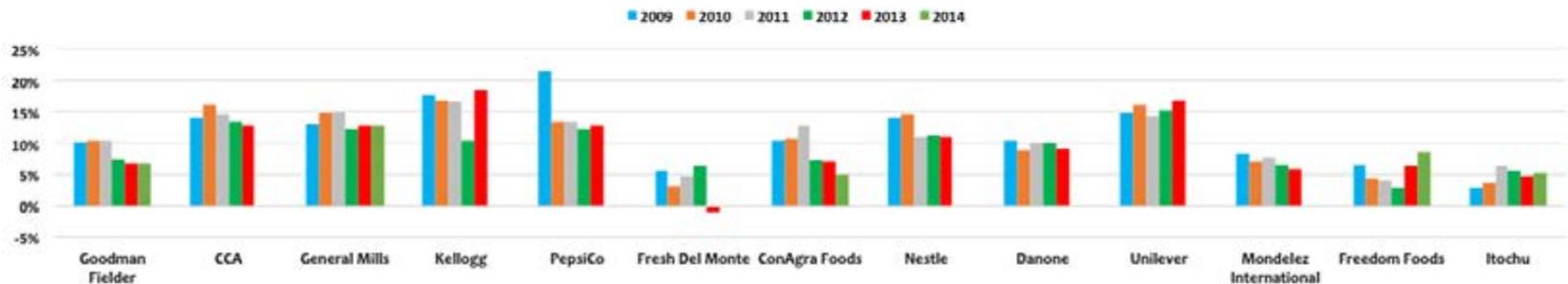
- Major food groups operate on similar profit margins, but the only major Australian food processor – Goodman Fielder – has consistently earned lower margins than most in recent years.

Figure 5.2.3.1 – EBITDA margin of food manufacturers



Source: Annual reports

Figure 5.2.3.2 – Return on assets of food manufacturers



Source: Annual reports

5.2 Performance of food processors

5.2.4 Sugar millers and marketers

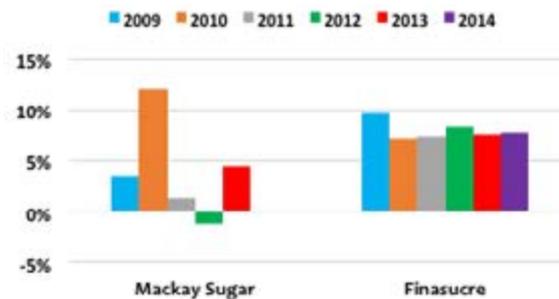
Few comparable companies

- There is one Australian-owned sugar processing operation, Mackay Sugar, which is a grower-owned operation. Other major millers and marketers are now owned by larger commodity or sugar groups.
- The results below have extracted the relevant sugar divisions of the groups involved.

Main points from the comparison

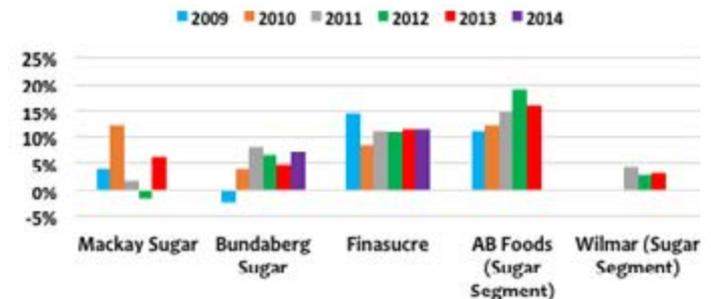
- Australian millers perform below the average of overseas divisions.
- The poor production conditions in Queensland in recent years due to crop damage from major rain events will have contributed to this outcome.

Figure 5.2.4.1 – Return on assets of sugar millers and marketers



Source: Annual reports

Figure 5.2.4.2 – EBIT margin of sugar millers and marketers



Source: Annual reports

5.3 Grains, oilseeds and rice

5.3.1 Commodity marketers

Few comparable companies

- Few of the major companies engaged in the grains and oilseeds sector in Australia are separately listed or reported. Many of the groups engaged in this market are divisions of multinational groups, and many of these groups are privately-owned.
- The chart below shows separate analyses for rice processors and marketers, from other commodity handling and trading groups.
- Australia's Graincorp which is engaged in grain handling, grain and oilseeds processing, marketing, and oilseed crushing, operates with healthier margins and returns compared to others in the comparison set.

Figure 5.3.1.1 – EBITDA margin of commodity marketers

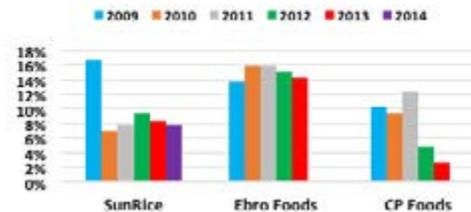


Figure 5.3.1.2 – Return on assets of commodity marketers

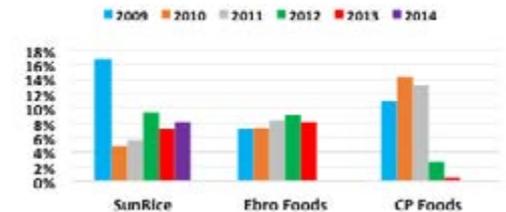


Figure 5.3.1.3 – EBITDA margin of commodity marketers

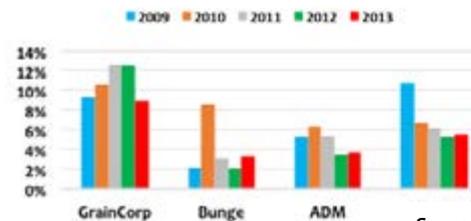
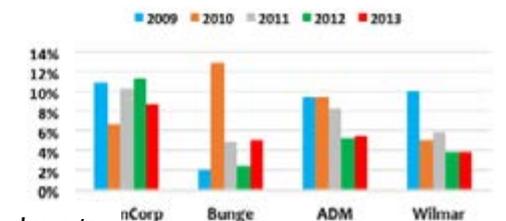


Figure 5.3.1.4 – Return on assets of commodity marketers



Source: Annual reports

5.4 Grocery retail

5.4.1 Supermarket chains

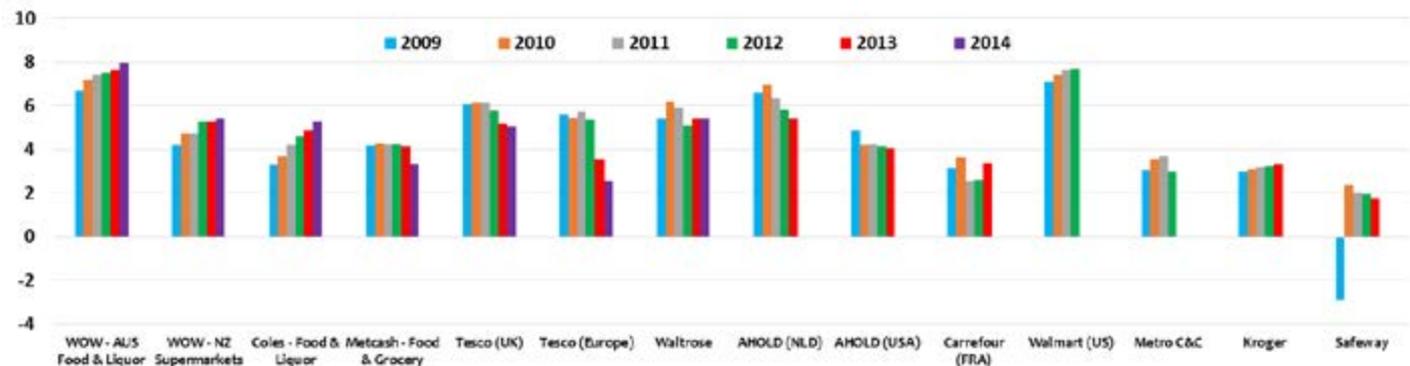
Range of business models

- There are a large number of comparable and relevant grocery retailers in developed markets of the US, UK and Europe.
- These groups include a diverse mix of retailing portfolios and geographies, with a number of these groups operating across regions outside their domiciled base.
- Where possible we have separated their reported results into different territories to exclude emerging regions (such as Latin America, China and South East Asia), where performance varies considerably.
- Retailers have vastly different funding models for the ownership of store networks within their groups, which means a comparison of returns on assets can be misleading.

Main points from the comparison

- Australia's largest retailer (Woolworths) is a strong performer in global terms on profitability and other return measures. When the margins of the two major groups are weighted together, they are similar to best-performing UK and US groups.
- Australian retailers have improved performance in recent years while a number, especially in Europe where recessionary impacts on consumer spending and retail has been more severe, are struggling. Performance of US retailers, where market shares of individual groups are smaller and the operations are more regionally based, is far patchier compared to those in other countries.

Figure 5.4.1.1 – Operating profit margin (%) of supermarket chains



Source: Annual reports

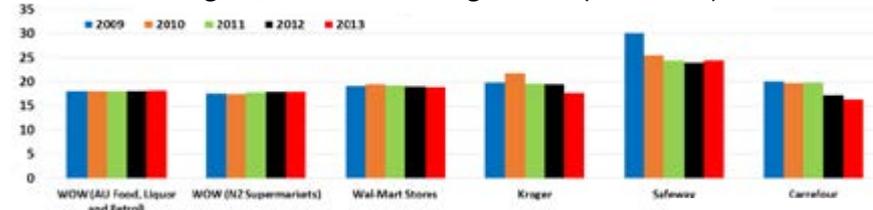
5.4 Grocery retail

5.4.1 Supermarket chains

Other relevant indicators

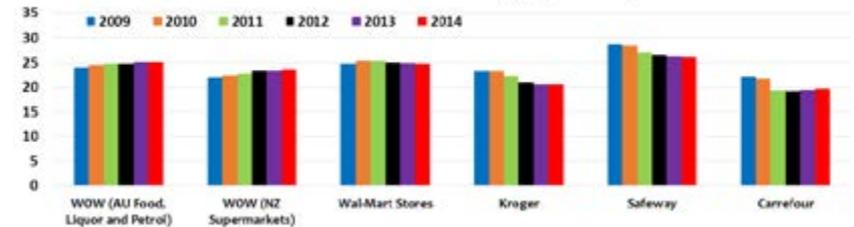
- Other measures of retailer performance are relevant in this comparison.
- Australian retailers are as efficient in terms of the “cost of doing business” as other leading groups, whereas gross margins (reported by only a few groups on a similar basis) are close to the best.
- Due to the generally higher traffic associated with greater urban density, best performing UK retail groups achieve highest store productivity in terms of sales per selling area in stores, while US groups are significantly lower. Further analysis in the Australian industry suggests Coles is close to the level achieved in this indicator by Woolworths.

Figure 5.4.1.2 – Cost of doing business (as % of sales)



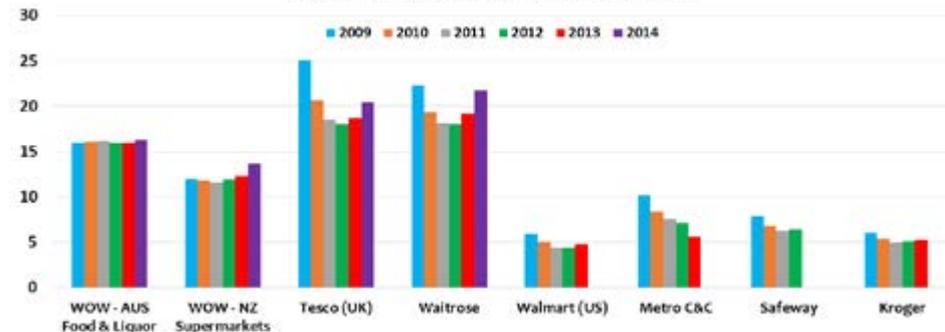
Source: Annual reports

Figure 5.4.1.3 – Annual and forecast gross margin (% of sales)



Source: Annual reports

Figure 5.4.1.4 – Sales per average square metre (A\$ '000)



Source: Annual reports

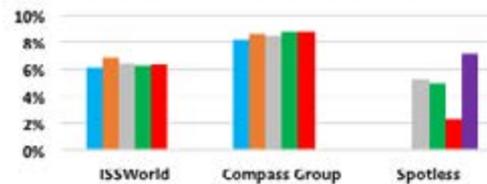
5.5 Food service

5.5.1 Food service retailers and caterers

Limited domestic comparables

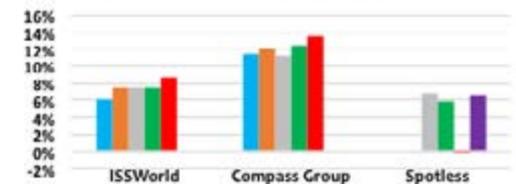
- There are few major locally-owned public food service enterprises operating in the Australian market
- Business models vary across the fast-food or quick-serve restaurant (QSR) sector, with a mix of outlet ownership and franchising models in use, which restricts ready comparability across these examples.
- Australian QSR chains have tended to operate at slightly lower margins than their US-based counterparts.
- Food service caterers are also compared on this page, with one local company (Spotless) recently becoming a public entity. It also earns lower margins compared to its overseas counterparts.

Figure 5.5.1.1 – EBITDA margin of food service retailers and caterers



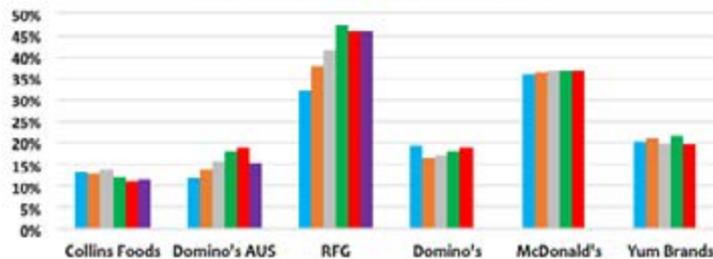
Source: Annual reports

Figure 5.5.1.2 – Return on assets of food service retailers and caterers



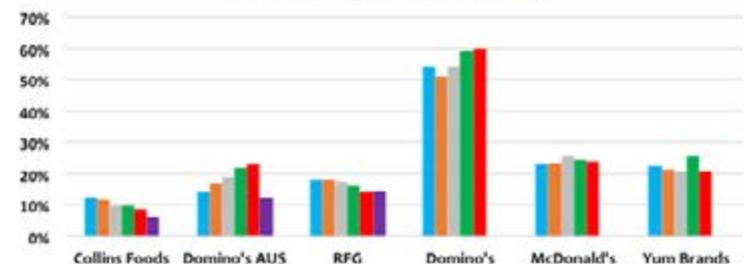
Source: Annual reports

Figure 5.5.1.3 – EBITDA margin of food service retailers and caterers



Source: Annual reports

Figure 5.5.1.4 – Return on assets of food service retailers and caterers



Source: Annual reports

SECTION 6: PRICE TRANSPARENCY

6.1 How much transparency?

6.1.1 What do we mean by transparency

Introduction

- A number of recent inquiries into the food and grocery sectors have called for greater price transparency, but what does that really mean?
- In this context, transparency generally refers to a state where all market participants have access to information on the prices achieved and costs incurred at each point along the supply chain – from farmgate through to retail, as well as the market conditions that influence pricing.
- Economic theory holds that markets are less effective when there is limited information on which to base supply and demand decisions. Perfect information is the ideal situation where all buyers and sellers have all the information they require to effectively manage supply and demand and determine price.
- In most markets, however, there is less than perfect information. In fact information asymmetry – that is when one participant in a market has less information than another – is more the norm and this can lead to distinct disadvantages for players who may already have limited market power – such as primary producers.
- In the food industry the link between retail and farmgate price is not always obvious, particularly where primary produce is substantially transformed post-farmgate. In many instances price signals that can inform a primary producer about consumer demand for specific attributes or quality issues are less than effective. This tends to reduce market efficiency and can add to supply chain costs.
- There is also a level of mistrust that is heightened when information about costs and prices along supply chains is lacking. There is a perception that someone is taking more than their “fair share” of value, particularly when the relationship between the prices consumers pay and the returns to primary producers is not clear.

Barriers to greater transparency

- If transparency could achieve greater market efficiency and build trust, why isn't it a feature of food supply chains?
- **Commercial interests** – greater transparency is not in the interests of everyone. In fact, information asymmetry is often an advantage for supply chain participants. Those who have a greater understanding of market conditions and supply chain margins can leverage this superior knowledge in their transactions with supply chain partners. Often this superior knowledge is the result of significant investment and/or market power, and there is little incentive to change the status quo.
- **Investment cost** – food supply chains are complex with many suppliers, multiple channels to consumer and product variants. The investment required to develop and maintain systems to collect, analyse and distribute data that is comprehensive and timely is significant. Increasingly this investment has fallen to industry organisations with varying abilities to resource the activity.
- **Enforceability** - regulations that demand transparency are difficult to enforce since they can often be avoided by supply chain participants. As industries have been deregulated in many cases, market information provision has passed to industry organisations. As a result, there is even less ability to compel supply chain participants to submit information without the legislated powers of the ABS or other regulatory bodies.
- **Ability to collaborate** – the propensity of supply chain participants to collaborate in the sharing of cost and price data is highly variable, both between and within food supply chains. While in general primary producers of similar products may be willing to share data, the collection may be onerous. On the other hand, wholesalers and retailers who are in direct competition could access the data but may be unwilling or even precluded from sharing it. For example, the ACCC has recently taken action against petrol retailers for sharing close to real time data on the grounds that it facilitates price collusion.

6.1 How much transparency?

6.1.2 How do the sectors compare?

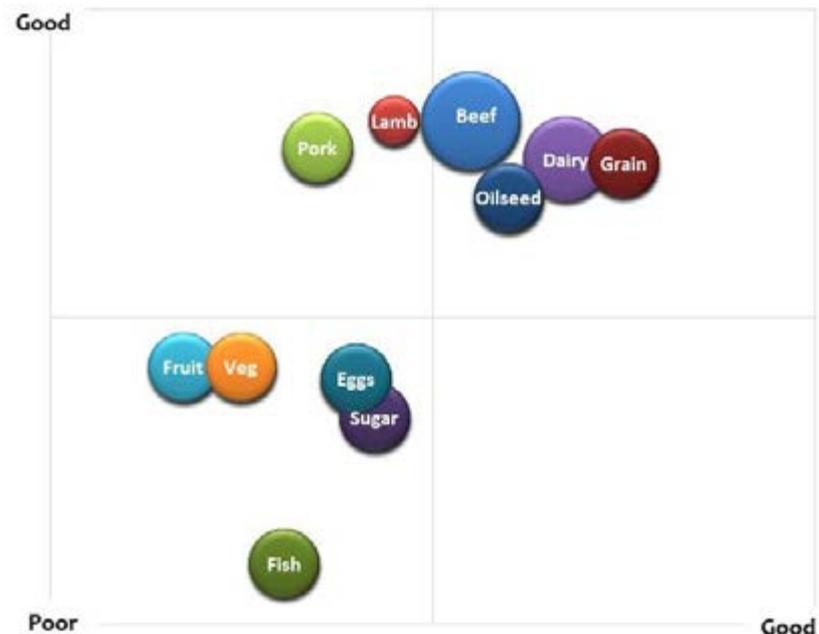
Introduction

- Food sectors exhibit differing degrees of price transparency. This can be attributed to many factors including the nature of the product and market, and the degree of integration of supply chains.
- In assessing the transparency of food sectors we have applied criteria to two major aspects that influence the ability of primary producers to access information:
 - **Market data** - the **availability** and **quality** of information across supply chains
 - **Effective price signals** - the mechanisms in place that provide signals on current and future pricing that aid supply chain decisions
- Each of the sectors were assessed against the criteria detailed in the table below.

Market data - availability	Market data - quality	Effective price signals
<ul style="list-style-type: none"> • Regular collection • Coverage – farm to retail • Cost of and access to information • Distribution – how widely? • Sources – one or several 	<ul style="list-style-type: none"> • Timeliness • Credible – in terms of coverage and relevance • Forward-looking 	<ul style="list-style-type: none"> • Prevalence of supply contracts • Relevant futures market

- The results of this analysis are summarised on the chart below, which shows the relative transparency of the nominated sectors. While none of these sectors have achieved absolute transparency across supply chains, the ranking gives some insight into how they perform against these two aspects.
- It indicates that the seafood sector is ranked lowest in terms of market data and in particular effective price signals.
- The broadacre grains and livestock industries were ranked highest, mostly on the basis that futures markets and or supply contracts are available.

Figure 6.1.2.1 – Price transparency – how do the sectors compare?



6.1 How much transparency?

6.1.2 How do the sectors compare?

	Farmgate	Wholesale	Issues/comments
Beef & lamb	Good – sale-yard, carcass and OTH hooks prices monitored and reported weekly. The overall transparency of cattle values (including the use of indices) is more developed than for lamb.	Good – wholesale market data from MLA for major portions. Export prices reported through MLA.	The complexities of carcass use in retail products and co-products limits linkage to farmgate price.
Pork	Good – market prices for carcass and OTH sales.	Good – wholesale prices reported weekly for selected cuts by APL.	Complexity of carcass use in a variety of retail products limits linkage, imports have significant influence on pricing.
Dairy	Moderate – confidential contracts, complex pricing systems make comparisons difficult.	Limited – export spot prices provide guidance as to product market conditions which strongly influence most milk prices.	Volatility of international markets and a still fledgling futures market make price determination difficult. Product mix and market exposures are highly variable.
Fresh produce	Mixed – derived from wholesale data and selected industry reporting of market conditions. Direct supply contracts exist but with mixed terms and price signals, strongly influenced by wholesale markets.	Limited – wholesale data is widely reported and accessible. Limited overall industry intelligence on supply and demand.	A Horticulture Code of Conduct has been implemented and is overseen by the ACCC. The code aims to encourage greater clarity and commercial transparency in transactions.
Oilseed products	Good - daily prices offered by GrainCorp and other buyers.	Mixed – export/world oilseed prices available from multiple sources, limited information on processed products.	Limited linkages between often highly transformed retail products and farmgate prices.
Grains	Good - daily prices offered from AWB and other buyers, a number of commercial intelligence providers.	Mixed – export/world grain prices available from multiple sources, limited information on processed products.	Limited linkages between highly transformed retail products and farmgate prices.
Rice	Good – pool estimates and forecasts from SunRice.	Limited – international prices available, limited information on products.	Integrated supply chain through SunRice monopoly.
Sugar	Good – pool prices are offered with variable terms.	Mixed – international market prices and futures available, limited information on domestic use.	
Eggs	Good – producer contracts provide price signals, industry reporting of production forecasts assists with short-term forward expectations.	Limited – wholesale prices vary widely due to the unstructured nature of the “box market”.	Pricing linked to production systems that are not uniformly defined by industry crates confusion .
Fish	Poor – no coordinated collection of fish price information available.	Limited – wholesale prices available from Sydney Fish market for registered suppliers.	Large number of commercial species, most trade through markets to specialist sellers.

6.2 How does Australia compare?

6.2.1 Examples of practices used overseas

- This table provides some international examples of government and private sector activities aimed at improving price transparency.

	Sector/commodity group	System	Issues and observations
United States	Livestock sector – cattle, sheep and pigs	Mandatory Price Reporting (MPR) - The Mandatory Price Reporting Act was established in 1999 and has subsequently been amended to cover additional wholesale meat transactions. The data is collected and reported by the USDA's Agricultural Marketing Service.	The US agriculture remains highly regulated, creating the impetus for collection of detailed market data by government. This comes at a considerable cost, the Agricultural Marketing Service has an annual budget of US\$1.3bn.
	Dairy	The US dairy sector is highly regulated with Federal Marketing orders governing almost all the milk produced and the government involved in purchasing product. In order to administer regulation, data is collected on farmgate, wholesale and retail prices.	In addition to government regulation to monitor and regulate prices, a futures market is well established within the US. Nevertheless there is considerable volatility in products and farmgate prices, as the futures market has been subject to manipulation by large players.
Europe	Food – EU Commission	Food prices monitoring tool – in response to the volatility in food prices of 2008, the EU Commission instituted a study into price transparency. A price monitoring tool was implemented across the EU with the aim of improving price transparency (primarily for consumers and policy makers) and market function.	In developing the tool covering 26 food product, retail price variation of 34% was identified across the member states and that a direct comparison of consumer prices of final retail and of unit prices of agricultural input gave very different results across countries.
	UK- mySupermarket	A website that allows consumers to find the best deals of the day and compare baskets across 11 supermarket chains and shop online.	The mySupermarket site has been operating since 2006 and attracts an estimated 4 million visitors a month in the UK. The tool has tended to make prices across different outlets more consistent.
New Zealand	Dairy – Fonterra Cooperative	Global Dairy Trade (GDT) auction and Farmgate price manual – farmgate prices are calculated using a formula that links commodity returns achieved in regular online auctions (GDT) and Fonterra's production of reference products minus associated costs.	The methodology was developed to improve transparency for both farmers and investors in Fonterra's listed fund. In the 2013/14 the Fonterra Board elected to pay less than the price prescribed by the Manual, drawing criticism from the Commerce Commission which is required to review Fonterra's farmgate price setting each year.

6.3 Scope for improvement

6.3.1 Potential improvements

Introduction

- In considering improvements in the area it is important to be clear about the issues that increased price transparency is seeking to address.

Issue	Response	Considerations
No apparent link between retail and farmgate prices	<ul style="list-style-type: none"> There is a lack of understanding about what actually drives farmgate prices. The development of credible and accessible information that describes how food supply chains work . 	<ul style="list-style-type: none"> In most instances retail and farmgate data is publically available – the missing links are the supply chain costs associated with processing and distribution. These are unlikely to be disclosed due to commercial considerations. Consideration needs to be given to the nature of the data required and the appropriate channels and influencers for messages to be effective. Not all stakeholders wish to be educated and perceptions are likely to be hard to shift.
Price volatility and a limited ability to predict future direction	<ul style="list-style-type: none"> This is an issue for primary producers and their ability to manage risk exposures within their operations. Support the development and use of risk management tools such as futures products. Facilitate the adoption of longer-term contracts that provide greater certainty of returns. 	<ul style="list-style-type: none"> The issue for primary producers is income volatility, with both prices received and input costs highly variable. In this case bolstering the efficacy and flexibility of tools such as farm management deposits may be more effective. Futures market need to be relevant to the farmgate market. This is problematic when the products futures are based on are transformed or represent only a segment of farmgate production. Futures can also be subject to speculation and manipulation from non-sellers and buyers.
Lack of trust in supply chain partners	<ul style="list-style-type: none"> The fostering of long term relationships would be the most effective way of improving trust. Long term relationships enhance and enable improved supply chain signals about market requirements. 	<ul style="list-style-type: none"> There remains a need for a credible mechanism for price discovery that can be trusted and relied on to be representative. Collaboration and investment needs to be fostered in supply chain relationships to develop robust systems for gathering and sharing information that informs price negotiations. Issues of market power and long complex supply chains will remain in these negotiations, with or without increased transparency.

6.3 Scope for improvement

6.3.1 Potential improvements

Approaches to greater transparency

- While it's clear that price transparency alone will not address all the issues stakeholders might have with the way prices are determined, given the interest in improving transparency and the international examples, here are some possible approaches for improvement, as well as some considerations

Approach	Response	Considerations
Regulate the reporting of transactions along the supply chain	<ul style="list-style-type: none"> • Resource an appropriate government organisation such as the Australian Bureau of Statistics or ABARES to collect price information. 	<ul style="list-style-type: none"> • Mandatory reporting would ensure that all identified supply chain players would report transactions. • Enforcement, collection and reporting costs are likely to be considerable.
Targetted industry-based investment	<ul style="list-style-type: none"> • Fund and support relevant R & D and industry organisations to develop market information systems. 	<ul style="list-style-type: none"> • This approach is on the basis that industry organisations are best-placed to build on existing systems and relationships to ensure data is adapted to industry conditions, credible and relevant to stakeholders. • In some instances agri-political concerns can get in the way of these efforts, depending on the industry structures in place. • The resource requirement will vary significantly for different industries. • Industry organisations would need to rely on collaboration and may not be able to engage all supply chain participants.
Market delivery	<ul style="list-style-type: none"> • Support commercial players to develop information systems that deliver transparency for interested parties. • These types of commercial providers are prominent in the grains industry where there is limited industry-produced data. 	<ul style="list-style-type: none"> • Some industries do not have the market size and customer base to warrant commercial providers investing in price monitoring, so market responses are likely to be highly variable. • In more highly complex markets and concentrated sectors, commercial provision may not be financially viable.

6.4 Transparency considerations

6.4.1 Transparency and fairness

- Calls for greater transparency in pricing are often linked to the need for greater “fairness” in pricing – particularly with respect to primary producers.
- Discussions of fair prices in this context are often emotive and highly subjective, referring to the need to “cover the cost of production” or deliver a “fair share” of the retail price for food.
- Better understanding and transparency of pricing through supply chains and at retail could assist to provide better insight to suppliers.
- As highlighted in this analysis this approach is problematic given the significant range in farm performance and therefore costs of production within and across commodity sectors. Furthermore, the farmer share of retail price can be significantly affected by the nature of the end product and its level of transformation as well as seasonal factors.
- While “fair price” has a specific meaning in respect of futures trading and asset valuation, there is no robust and common definition of fair price in relation to other general market transactions.
- According to accounting and economic definitions, fair value is a rational and unbiased estimate of the potential market price of a good, service, or asset. It takes into account such objective factors as:
 - supply vs. demand;
 - acquisition/production/distribution costs, replacement costs, or costs of close substitutes;
 - actual utility at a given level of development of social productive capability;and a number of subjective factors such as;
 - risk characteristics;
 - cost of and return on capital;
 - individually perceived utility.
- These are the types of concepts that could be relevant in a discussion of fair pricing with respect to food markets, and many of them rely on a degree of transparency regarding demand, supply and market requirements - key determinants of pricing - which are lacking in a number of food supply chains.
- The nature of this information and analysis is critical in addressing the issues of transparency and fairness. Simplified comparisons of financial measures or shares without recognition and understanding of market context and reality can be misleading.
- For example, a simple comparison of return on assets for supply chain participants without recognising differences in the available alternative uses and financing options available for capital employed in primary production (land) versus food processing or retailing (shareholder funds) is unlikely to improve perceptions of fairness or improve the decision making of primary producers.
- However ensuring the market conditions and returns are such that a normal return on assets **can be achieved** over the long term would be seen by most of the community as “fair”.
- Access to analysis that addresses the information asymmetry that undoubtedly exists across food value chains in ways that help primary producers understand the critical future drivers of supply and demand, consumer preferences and value chain pressures will facilitate those with the skills and capability to negotiate contracts and more successfully navigate the volatility inherent in food markets.
- The ability of all supply chain participants to make choices based on accessible and credible market information that can identify and articulate where value is embodied and extracted is likely to increase the effectiveness of markets and improve perceptions of fairness for all supply chain participants – from farmers to consumers.

6.4 Transparency considerations

6.4.2 Some conclusions

- This analysis indicates there is considerable variation in the transparency of prices within and between food sectors.
- Generally, wholesale prices are the least transparent. Farmgate prices are often reported by industry organisations but are strongly influenced by export returns. Retail price data is available at a high level from industry organisations, the ABS and in detail through the purchase of supermarket scan data.
- While it would seem greater transparency would be beneficial to all supply chain players, allowing for more efficient market operation, there are a number of barriers to price transparency.
- Commercial interests are a key consideration. Some supply chain players have little interest in improving the transparency of pricing, as their superior knowledge, and in some cases, market complexity allows them to leverage price negotiations in their favour.
- It is notable that in its 2008 enquiry report, the ACCC did not make a recommendation on greater transparency through the supply chain, despite receiving a number of submissions that called for it, stating:
 - *“confidentiality in transactions can lower the likelihood of tacit collusion or explicit cartelisation;*
 - *regulations that demand transparency are very difficult to enforce since they can often be avoided by parties having undisclosed side-agreements.”*
- These issues remain valid in regards to transparency and underline the issues around enforceability and some of the regulatory issues that might effect the ability for companies to collaborate.
- Greater transparency can be achieved in highly regulated agri-food markets. However, it is unclear that volatility is reduced, decision-making improved or prices to farmers increased as a result.
- In developing recommendations to improve transparency it is important to be clear about what the issues to be addressed are, what is to be achieved, and who would benefit.

Recommendations

1. Undertake a detailed study to identify:
 - where the greatest information and reporting gaps exist which impair effective price discovery and affect timely decision-making;
 - key reasons for those gaps;
 - options that provide practical solutions in each sector;
 - the net benefits of addressing the gaps.
2. In addition to the above, identify opportunities at a sector level for improved forward-looking intelligence affecting prices, and the relevant costs and benefits of implementing such systems.
3. Undertake an assessment to improve the transparency of retail data in certain categories (including meat and fresh produce) to improve the understanding of the relationship between farmgate, supply chain dynamics and retail prices.
4. Undertake an assessment of the scope for improved risk management and education as to market realities and price determinants.
5. Identify and undertake effective ongoing initiatives that improve the understanding of the drivers of prices and margins, credible ongoing analysis of the market context, and the development of longer term supply relationships based on well-articulated customer requirements and terms that recognise the realities of food production.
6. In addressing the collection and delivery options available in 1 and 2, consult and collaborate closely with appropriate industry organisations as to the scope for improved resourcing of development, implementation and maintenance of systems for collecting price data and providing credible contextual information on future price drivers.
7. In each sector, identify the business case and scope for co-investment between industry, government and commercial participants.

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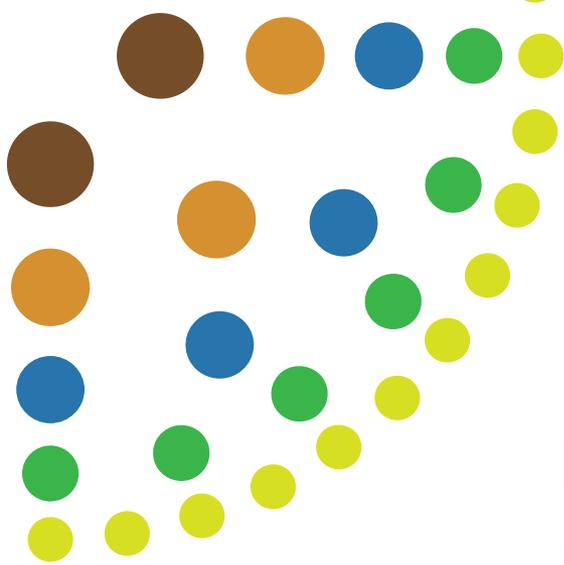
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Key publication references

<u>Nature</u>	<u>Reference</u>
Commodity trends	Australian Bureau of Agricultural and Resource Economics and Science 2010-2014, <i>Australian Commodity Statistics (series)</i> , ABARES, Canberra.
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NATIONAL RURAL ISSUES

From farm to retail – how food prices are determined in Australia

RIRDC Publication No 16/O13

RIRDC Project No PRJ-009688



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