

EGGS

Analysis of the determinants of prices and costs in product value chains

EGGS – OVERVIEW

Background

The industry has been undergoing structural change since production and marketing was deregulated, commencing in the 1980s. This saw a reduction in production, lower margins in the early supply chain and a greater share of returns in the retail sector.

Of egg production output, 65–70 per cent is consumed in the household sector which is showing no growth. Other sectors of consumption – food service and industrial and commercial uses – are showing slow growth. The domestic egg market has suffered as the egg has lowered its profile as a major source of protein and other sources have gained important ground. The fresh egg category is also under pressure from the increasing demand for health and convenience foods, which the egg sector has not been able to successfully overcome.

The industry structure

It is estimated that 40 per cent of eggs are sold through major retail chains, 35–40 per cent through the box market and the rest into the route trade and convenience retail segments.

The box market is characterised by small retailers who have the ability to make the local decision on purchase terms and prices.

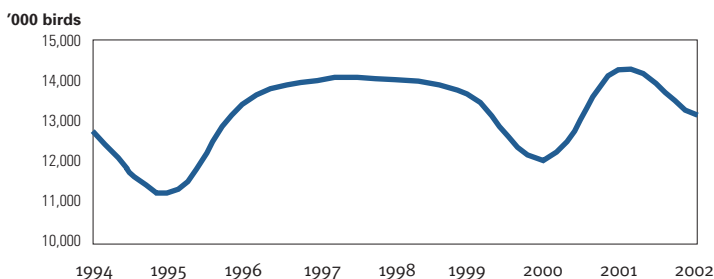
There are seven major egg marketing groups in Australia, employing a range of different business models in terms of integration of production, grading, packing and marketing. The national industry has progressively evolved from state-based supply regulation. Today, despite rapid expansion of certain packing and marketing enterprises, none of the groups is capable of servicing retail on a national basis.

Cage eggs are 83 per cent of retail grocery sales. Free range represents 11 per cent and barn eggs the remaining 6 per cent.

Major factors affecting prices

- Egg prices in the domestic retail market are strongly driven by the interaction of supply and demand over time.

Figure 93. **BIRDS IN EGG PRODUCTION, 1994–2002**



Source: Australian Egg Corporation Ltd

- The major cost faced by egg producers is feed. This represents approximately 60 per cent of costs of production in normal conditions.
- Whilst the general level of retail and wholesale prices have been historically driven by a cost-plus approach, since deregulation of the supply and pricing of eggs, fluctuations in pricing have been determined largely by variations in available egg supply.
- In recent times, the level of retail prices has been strongly influenced by greater use of private label product by major retailers – leading to minimal increases in prices to the consumer.
- Major chain retailers have driven an increase in the market share held by private label product to combat competition for their egg sales from the non-integrated box market which sees discounting at independent outlets.

Figure 94. EGGS: MAJOR DRIVERS OF PRICES AND COSTS

Cage eggs are a major grocery category where over time the production industry has gone through substantial change and restructure, with strong rationalisation of growing and marketing sectors.

1. Farm production factors

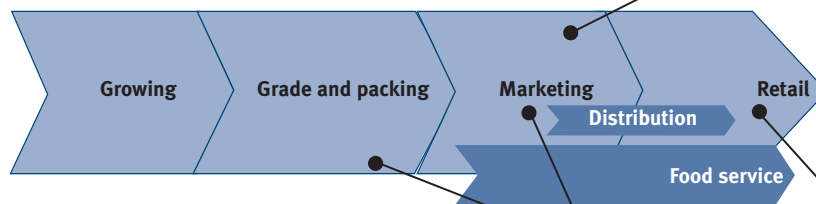
- Production has tended to be volatile due to movements in supply in response to price signals.
- Product is perishable with a limited shelf life for optimum freshness.
- There are long lead times to scale up production yet flock reductions can be immediate through culling.
- Production profit is sensitive to fluctuations in feed costs.

2. Value-chain integration

- Instability of price and return for growers and marketers due to an inability to maintain a stable match between demand and supply.
- Increasing scale efficiency in egg farms, grading and packing operations.
- Strong concentration of ownership in the collection, grading, packing and marketing stages.
- Consolidation of egg marketing into a small number of companies operating in different zones has enhanced bargaining power of marketers.
- Box market remains a large share of market – in disaggregated form where packers supply direct to retail.

3. The marketing approach

- Limited differentiation and de-commoditising at retail.
- Brand presence still strong in major retail sectors with strong price competition against box market and private label.
- Packaging and presentation is reasonably generic.
- Marketing approach based on the relative cost of eggs as a protein source.
- Small niches carved out for free-range egg lines in all forms of retail, but supply lines less reliable.



4. Regulation and compliance

- Major challenge facing producers is compliance (over any time up to 2008) with new cage size regulations. These will require re-equipping across the sector.
- Uncertainty over the extent of the future impact of that capital requirement on production levels and accordingly on temporal matching of supply and demand.

5. Trade impacts

- Limited exports of powdered eggs helps remove small market surpluses.
- Small volume of shell egg exports out of Western Australia has minimal effect on east coast market.
- No shell egg imports are permitted under Australian Quarantine and Inspection Service rules.

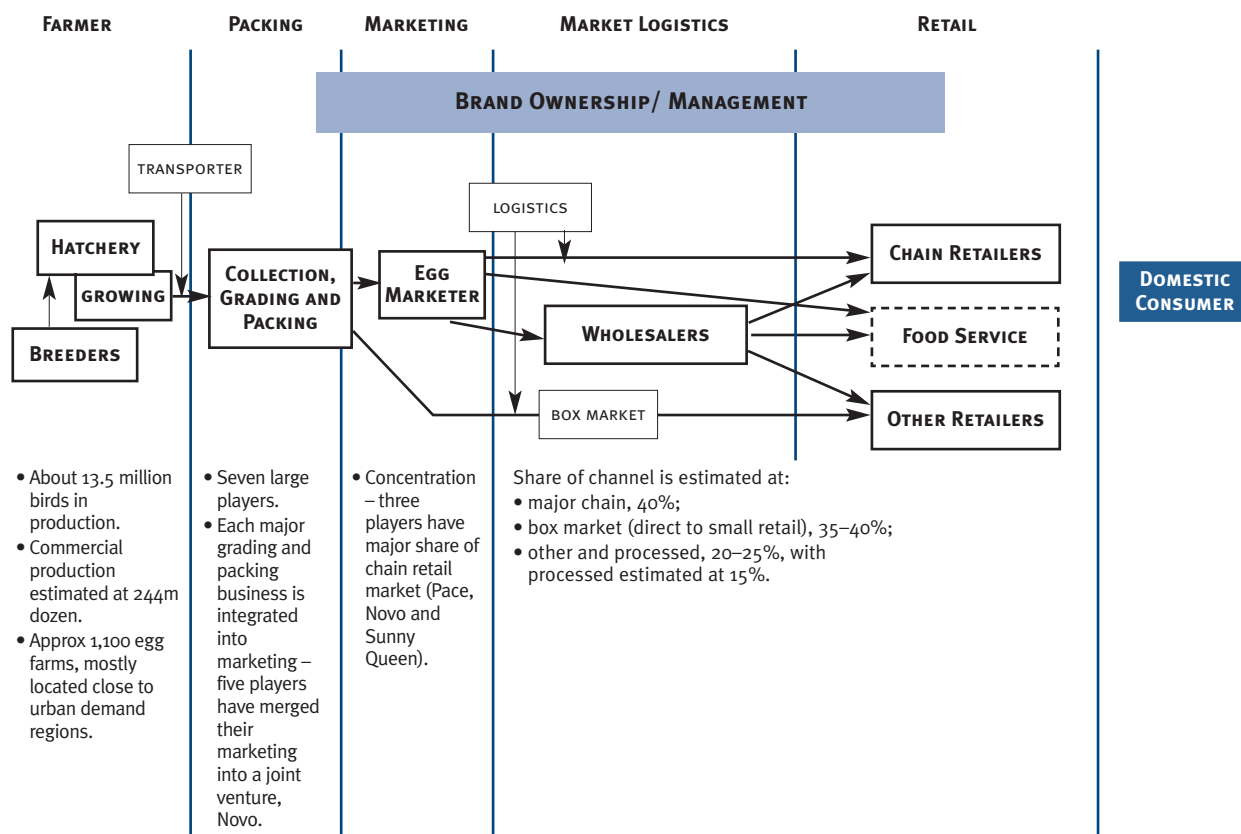
6. Technology and innovation

- Increasing capital intensity is improving cost structures in grading and packing sector.
- Limited transparency of market prices and costs through the box market channel chain, yet retail market is highly visible.
- Limited new product development over recent years.
- Limited scope to diversify core product due to its uniform, consistent nature – yet development of powdered egg products and pre-cooked products for food service has occurred.

7. Retail market dynamics

- Diverse retail market with major chains only having about 40% of market.
- The growth of the private label in eggs has been strongly based on price competition in order for retailers to gain greater share of total market.
- Greater demand for convenience and lifestyle solutions in meals and foods has put pressure on the egg as a fresh food option.
- Prices deemed sensitive at retail point of sale.
- Growing diversity of consumer needs will see increasing demand for processed products in food preparation solutions.

Figure 95. **CAGE EGGS, SUPPLY CHAIN MAP**



EGGS – ANALYSIS OF PRICING

The levels of prices and costs

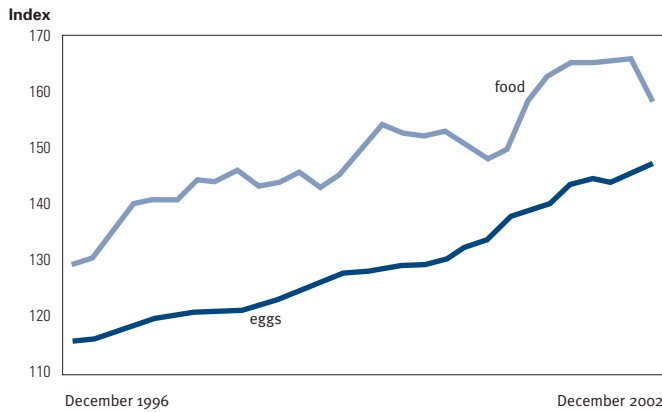
- Egg production features high barriers to entry. Production – once committed – is relatively inflexible.
- Industry is typically asset-rich and cash-poor in view of the major capital requirements for production and packing, the investments in flocks and feed, and the fluctuating selling prices.
- Fluctuations in supply exist but face lead times. A flock lays for 76 weeks but it can take up to 50 weeks to get a hatchling into production. Yet production can be cut very quickly (by killing the layer).
- Cage egg production systems, which provide about five-sixths of total output, provide scope for better scale efficiencies and greater integration than other systems which are in use. These provide greater animal mobility and perceived better welfare for the birds.
- It is estimated that the costs of production (for a 700g dozen eggs) are:

cage eggs	\$1.25 per dozen
barn eggs	\$1.70 per dozen
free range eggs	\$2.15 per dozen

Source: RIRDC 2002

- It has been estimated by industry analysis that the sustainable retail price differential for barn and free range eggs is approximately 60c a dozen.
- Over time, the retail prices for eggs have been held at levels below the increases in the cost of living.

Figure 96. CONSUMER PRICE INDEX, FOOD AND EGGS, 1996–2002



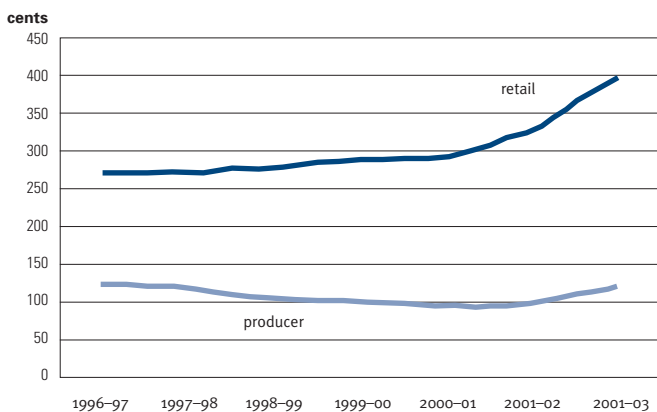
Source: Australian Egg Industry annual statistics 2002

- The low price of eggs has been achieved through a combination of factors including:
 - the passing to consumers of the benefits of the gradual consolidation of the industry in production and packing sectors; and
 - the use of supermarket brands to compete with independent operators who face lower cost regimes than the emerging major suppliers of supermarket and proprietary brands.

Retail versus farmgate prices over time

The comparison of retail and farmgate returns over time is as follows.

Figure 97. RETAIL AND PRODUCER PRICES FOR EGGS, CENTS/DOZEN, 1996–2003



Source: Australian Egg Industry annual statistics 2002

The farmgate numbers above are based on industry estimates.

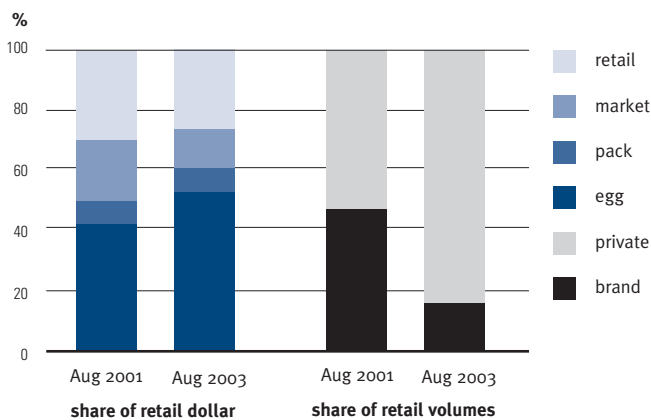
The rise in both values in 2003 was due to the effects of drought, where the egg marketers set higher selling prices (about 30c per dozen at wholesale) to assist in recovering the sharp increase in the cost of feed grain. Retail prices rose by a larger amount.

The sharp rise in feed costs has not yet been reversed in production cost structures. It is expected that the full cost of greater future security of feed grain supply to the poultry industry will see feed costs do not return to reliable pre-drought levels.

Margins in the chain

Our analysis of the margins captured by each function in the cage egg value chain is represented as follows.

Figure 98. **SHARES OF RETAIL PRICE AND VOLUME OF EGGS**



The average retailer margin as a percentage of retail value has changed in recent years with the rapid move to dominance of the category in major retail by private label product. This is a higher volume, lower margin product for the retailer compared with proprietary brand due to the significant retail price differential that has developed in the past two years. Aggregate retail return has increased with the volume growth through supermarket retail. The chart under 'Private label as a weapon' illustrates the increasing difference in retail prices for each private and proprietary branded line.

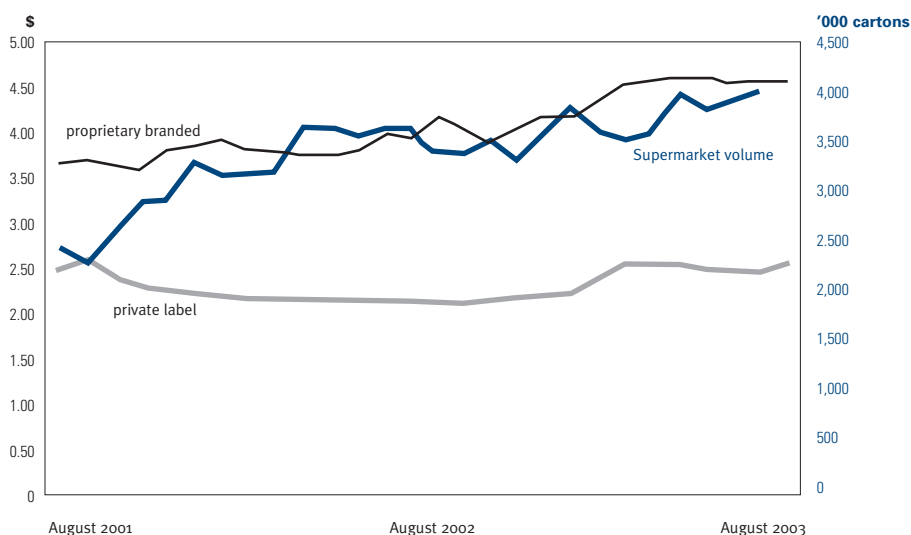
The concept of a farmgate is less applicable to a standalone sector in the larger scale end of the industry. This is due to the greater incidence of integrated production, grading and packing operations, and more use of in-line systems that reduce egg handling.

The cost of packaged egg products costs vary considerably with the scale of production systems that are employed, the extent of integration between laying, grading and packing, and the degree of automation that is used in the process.

Cage regulation

- The largest issue facing the future of the industry is the change in production systems.
- Cage egg producers face a mandatory requirement to ensure cages comply with animal welfare standards as agreed by government ministers at the Agricultural and Resource Management Council of Australia and New Zealand. State governments have indicated their intention to enforce requirements for cage egg production to switch to larger cages on or before 31 December 2007.
- The change in production systems requires substantial capital investment by industry.
- Major integrated producer-marketing groups have committed to such investments. Some are currently underway.
- There is ongoing price competition in the retail marketplace between major retail chains and independent retailers – in the latter case where local store operators can make individual decisions regarding sourcing of eggs.
- Independents are largely serviced by operators in the box market – where smaller and/or non-aligned producer-packers supply direct to the store offering significant price advantages over major marketers.

Figure 100. **SUPERMARKET EGG SALES BY PRICE, \$/DOZEN, AND VOLUME, '000 CARTONS/MONTH, 2001–2003**



- The effect of this situation is that, due to the domination of the sector by private label, egg pricing is being driven by the short-term pressures facing suppliers to the box market, many of whom do not intend to supply eggs in the long term and do not have the potential to offer major retailers reliability and consistency of supply.

Future challenges

- The state of the production-marketing sector is such that major suppliers are not in a position to offer national supply to each of the major chain retailers.
- The national industry effectively operates with supply broadly in keeping with demand, subject to short-term fluctuations. This provides suppliers with a degree of leverage which would not be the case where significant excess capacity existed. This leverage was recently exercised to achieve a price increase to cover the cost of feed grain.
- To overcome this leverage, retailers have attempted to fragment their buying zones to ensure there is greater contestability for their supply contracts.
- The ongoing power of major chain private label as the dominant volume line at retail level may place increasingly more pressure on industry profitability in the run-up to the mandatory change in cage requirements. Whilst the conditions to meet the supply requirements of the major chains require significant investment in scale efficiency and logistics, this higher business cost may have little impact on factors and considerations driving retail and wholesale prices.
- The major retailers are using their muscle to engage in competition on price, whilst meeting required targets on product margins. This situation ignores the higher business costs faced by large egg marketers in doing business with major retailers.
- The industry faces a huge challenge in managing production and supply forecasts so that there is not a major dislocation of supply and demand ahead of and after the new production systems take effect. This will require better knowledge management of the supply and demand signals and the smoothing of investment cycles.