

The Government of New South Wales

Review of the NSW Poultry Industry

A review of the Poultry Meat Industry Act undertaken in accordance with National Competition Policy

October 2004

Prepared by:



Executive Summary

Purpose

Ridge Partners were commissioned to undertake a review of the NSW Poultry Meat Industry Act 1986 under the terms of the 1995 Competition Principles Agreement.

The Agreement requires:

- a) that legislation should not restrict competition unless it can be demonstrated that the benefits to the community as a whole outweigh the costs; and
- b) that the objectives of the legislation can only be achieved by restricting competition.

The review process involved the public release of an issues paper and call for submissions, direct consultation with industry and government stakeholders (including the National Competition Council), reviewing developments in the regulatory environment for this industry in other States and an independent review of developments in markets and value chains relevant to the NSW poultry meat industry.

The Legislation

The Poultry Meat Industry Act 1986 (PMIA) has the dual objectives of protecting contract poultry growers from the superior bargaining position of processors and maximizing employment in the NSW poultry meat industry.

To this end, the legislation regulates the negotiation of contracts for the provision of growing services, through measures which require prices to be approved or compulsorily arbitrated and contracts to be approved by an industry committee. Thus, the Act provides for the establishment of the Poultry Meat Industry Committee (PMIC), which sets guidelines and approves forms of agreements between processors and growers of poultry meat, determines the fees to be paid to growers for raising poultry, negotiates and, where necessary, arbitrates disputes between growers and processors operating in NSW. The membership of the PMIC comprises grower and processor representatives, and three independent members, of which one is the chair.

The Review therefore focused on the justification or otherwise for continuing the current regulation of growing fees and contracts between processors of poultry meat and contract poultry growers in NSW under the PMIA, in view of industry and market conditions.

In this regard, it is pertinent to note that amendments were made to the PMIA in 2002 that provided for much greater flexibility in the determination of contract growing fees than had existed previously. For example, the current legislation provides for different fees for different classes of batch poultry and specifies the factors to be taken into account in determining those fees.

The PMIA does not deal with or seek to regulate the actual offering of contracts by processors, but only deals with negotiations relating to contracts and growing fees once there is agreement to enter into a contract.

It was also observed that there is government intervention in the poultry meat industry, either under state legislation or through authorised arrangements under the Commonwealth Trade Practices Act 1974, in all states of Australia.

Industry Context

The Australian poultry meat industry has enjoyed good growth in recent years and appears set to continue increasing its share of meat consumption per capita in domestic food markets. The industry's value chain is highly competitive against other meat sectors in terms of price, quality and product consistency. The NSW industry has recorded growth in output of almost 30 per cent in the past 10 years. With seven processors and around 300 growers operating in NSW, poultry meat is a thriving industry employing more than 5,000 people directly and supporting an estimated 39,000 jobs in other industry sectors.

The poultry meat value chain is highly integrated, with dominant involvement by major poultry processors from bird breeding and conception through to finished consumer product. This integrated model is common around the world and has much to do with the successful growth of the industry, as it has allowed tight control over product quality and consistency, delivered



significant gains in productivity, and maintained cost-competitiveness against other animal protein options.

Contract poultry growing is an outsourced provision of services as part of this integrated manufacturing process. In this regard it is different to other intensive livestock industries, which see the primary producer selling produce into the market. The relationship between the processor and grower is one of strong mutual dependence in meeting the needs of the marketplace and balancing meat demand and bird supply.

The industry is undergoing significant transition as poultry processors seeks to enhance their competitiveness within the marketplace by encouraging the progressive upgrading of growing technology.

Issues and Observations

The NSW PMIA was put in place almost 20 years ago because of concern about potential abuse by processors of their market power over contract growers. The legislation sought to ensure fair market prices for growers. These concerns were shared by other jurisdictions and every other State had, and still has, arrangements under their own or Commonwealth legislation to countervail the superior bargaining position of processors.

In submissions to the review, contract growers have argued that countervailing measures are still required because they remain in a relatively weak bargaining position because of:

- Production and locational factors that to a significant extent limit their market options and 'tie' them to particular processors;
- High capital investment and limited alternative production options (i.e., barriers to exit); and, perhaps most importantly,
- Temporal excess capacity in shedding space that as a consequence exposes individual growers to high risk of low throughput or even non-renewal of contracts (i.e., being put out of business).

Processors argued that the PMIA and the operational procedures of the PMIC have caused inefficiency in the NSW industry and impeded technological advancement by:

- Preventing the establishment of more flexible growing fee structures and contract arrangements that reward innovation and investment (although the 2002 amendments are now ameliorating this problem); and
- Arrangements that force them to share information and negotiate with growers in the presence of their competitors (i.e., other processor representatives on the PMIC).

It was further argued by processors that the inefficiency caused by the PMIA was a significant factor in decisions by some processors in recent years to focus investment in processing capacity in neighbouring states and not in NSW. Processors have not extensively exercised their option in NSW of substituting company farms for contract production, and have preferred in recent times to reduce the investment in corporate farming to focus the application of investment capital on processing assets. This might suggest that any efficiency costs to them are limited and can be partially addressed through the periodic offer and re-allocation of contracts.

Growers argued that one of the major reasons for the perceived slow up-take by them of new technology was that processors have used their superior bargaining power to force them to accept a disproportionate level of risk. Despite the high capital investment requirement imposed on growers, PMIC-approved contracts do not provide growers with security of income. The PMIA does not, in fact, address this issue.

Processors did not contend that the industry should be fully deregulated to provide no intervention whatsoever, but considered rather that regulatory arrangements that allowed individual processors to negotiate privately with their contract growers would be better for the industry and deliver increased benefits to the community.

Conclusions

This Review finds that contract poultry growers in NSW are in an inferior bargaining position to processors in the negotiation of fees and the terms and conditions of supply, and that under prevailing market conditions growers perceive that this weak position is likely to be abused by



processors in the absence of regulatory intervention, thereby affecting investment certainty within the contract-growing sector.

The PMIA has successfully delivered competitive fees to NSW contract poultry growers, but nevertheless there are significant ongoing concerns that the pervasive nature of the centralised regulatory process to some extent impedes efficiency and innovation within the poultry production sector.

The centralised PMIA process has focused primarily on price and therefore does not address other significant issues in the relationship between growers and processors, such as the sharing of risk. Consideration should be given to shifting the focus of the regulation from price to promoting the development of more appropriate and robust contractual arrangements. In this regard, there would appear to be potential value in maintaining a statutory authority with the roles of ongoing review and development of minimum contract guidelines and monitoring adherence to a Code of Practice for Contract Negotiations, oversighting the negotiation process, and mediating or – if parties to agreements choose – arbitrating contract disputes. This approach may ultimately enable the industry to operate with reduced levels of government intervention.

Other state jurisdictions have maintained regulatory intervention in the poultry meat sector, but have introduced decentralised negotiation systems to achieve more 'tailored' grow fee and contract terms and conditions in order to minimise any unwarranted income transfers and efficiency losses. Decentralised negotiations between grower and processors would also address processors' current concerns in relation to the sharing of information with their competitors. Consideration could be given to implementing this type of approach in NSW.

Recommendation

It is recommended that modified regulatory arrangements, which provide safeguards for the behaviour of parties whilst avoiding the use of centralized, compulsory price-fixing and contract approval mechanisms, be adopted. A number of principles associated with such an outcome are identified and discussed in the report. These include:

- a) the use of guidelines for contract form and content;
- b) dispute resolution processes, including mediation and arbitration;
- c) the ability for parties to opt-out of regulatory arrangements;
- d) statutory oversight of the arrangements; and
- e) a regulator without the direct involvement of industry participants.

The detail of the components of that future model should be developed between industry and government.



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Glossary of Terms Used in this Report

| ABS | Australian Bureau of Statistics | | |
|-------------|--|--|--|
| ACCC | Australian Consumer and Competition Council | | |
| СРА | Competition Principles Agreement | | |
| FCR | feed cost ratio | | |
| IRA | Import Risk Assessments | | |
| KPMG | KPMG Chartered Accountants | | |
| KPMG model | The economic model used in the submission of Processors to this Review, based on a framework drawn from the Victorian NCP Review report (1999) | | |
| NCP | National Competition Policy | | |
| NSW | New South Wales | | |
| NSW Farmers | NSW Farmers Association | | |
| PMIA | Poultry Meat Industry Act 1986 (as amended) | | |
| PMIC | Poultry Meat Industry Committee | | |
| PNG | Processor negotiating groups | | |
| Processors | NSW Chicken Meat Processors (collectively) | | |
| QSR | Quick-serve restaurants or fast-food restaurants such as McDonalds, KFC, Red Rooster etc | | |
| ТРА | Trade Practices Act 1974 | | |

RidgePartners

1. Introduction

1.1 Purpose of this report

The Department of Agriculture in NSW (now NSW Primary Industries) engaged Ridge Partners to undertake a review of the PMIA in NSW. The Terms of Reference for that Review are set out in Appendix 1.

The review was commissioned by the NSW Minister for Agriculture (now NSW Minister for Primary Industries) in accordance with the requirements of the National Competition Policy ('NCP'), in particular the *Competition Principles Agreement* between all State and Commonwealth Governments. National Competition Policy represents a commitment by all Australian governments to a consistent national approach to fostering greater economic efficiency and improving the overall competitiveness of the economy.

This report provides a summary of the analysis undertaken in that Review.

1.2 Terms of reference of the Review

In applying the Public Benefit Test to NCP reform it is important that it be consistent with the requirements of the Competition Policy Agreement. Under that agreement legislation should not restrict competition unless it can be demonstrated that the benefits to the community as a whole outweigh the costs, and that the objectives of the legislation can only be achieved by restricting competition. That is, under the Competition Policy Agreement:

- The objectives of the legislation must be clear;
- The nature of the restriction must be identified;
- The likely effects of the restriction on competition and the economy generally will be analysed;
- The costs/benefits of the restriction will be assessed and balanced; and
- Alternative means for achieving the same result should be considered.

The factors that may be taken into account in a review of this nature where relevant are stated in the Competition Principles Agreement under Clause 1 (3). That clause requires that:

- (a) the benefits of a particular policy or course of action are to be balanced against the costs of the policy or course of action; or
- (b) the merits or appropriateness of a particular policy or course of action are determined; or
- (c) an assessment is made as to the most effective means of achieving a policy objective;

where the following matters shall, as relevant, are to be taken into account:

- (i) government legislation and policies relating to ecologically sustainable development
- (ii) social welfare and equity considerations, including community service obligations;
- (iii) government legislation and policies relating to matters such as occupational health and safety, industrial relations and access and equity;
- (iv) economic and regional development, including employment and investment growth;
- (v) the interests of consumers generally or of a class of consumers;
- (vi) the competitiveness of Australian businesses; and
- (vii) the efficient allocation of resources.



1.3 The Review process

1.3.1 The dimensions of the Review

The review regards the grower/processor relationship as an outsourced input of services into an integrated manufacturing process. The role of growers as suppliers of services to processors is an integral one in the chicken meat value chain. Viewing the relationship between processor and grower as involving some interdependence, with mutual interests in meeting the needs of downstream customers and consumers, is a useful basis for considering the implications of the existing NSW legislation and the future need for government intervention.

The relevant market for assessing legislative restrictions on competition is the market for 'chicken growing services' – the supply of chicken housing facilities, labour and management for the care of chickens owned by processors.

1.3.2 Consultation

This review has been conducted using an appropriate combination of the following inputs:

- a) consultation with participants in the NSW poultry meat industry;
- b) receiving written submissions from participants in the NSW poultry meat industry;
- c) undertaking a review of the developments in states surrounding NSW; and
- d) undertaking our own independent review of the developments in markets and value chains relevant to the industry.

1.3.3 Issues paper

To facilitate input to the review from interested parties, we released an Issues Paper in early June 2004, which served to highlight the issues and questions relevant to the terms of reference of the Review itself.

1.3.4 Submissions

A number of written submissions have been received from interested parties to this Review. The parties who have provided input in this fashion are detailed in Appendix 2.

We have also had discussions with a number of parties to enhance the understanding of the industry environment, arguments for and against the retention of the restrictions on competition and other background information.

They have included:

- □ grower representatives, including NSW Farmers policy staff and elected grower representatives;
- □ grower groups;
- □ individual growers;
- processors and their representatives;
- $\hfill\square$ the chair of the PMIC; and
- □ economists who undertook modeling on behalf of NSW Farmers'.



2. Industry Overview

2.1 The Australian poultry meat industry

The chicken meat supply chain encompasses integrated enterprises engaged in hatching meat breed chicks, raising poultry for production of meat, basic processing of whole chickens and further value-added processing. "Contract growing" refers to the outsourcing of production from day-old chicks to mature birds by independently owned businesses.

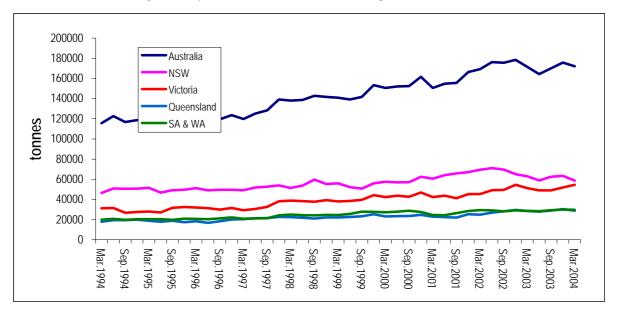


Chart 1- Poultry meat production (tonnes, moving annual total) 1994 to 2004

Source: ABS

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In 2001-02 the Australian chicken meat industry gross food revenue was measured at \$3.2 billion. A total of 415.6 million chickens were grown in Australia.

The industry is vertically integrated and highly concentrated in terms of the number of medium and large processors. The approximate national contract growers profile is presented below.

| State | No. of contract | | | Average number of | Average production | |
|-------------------|-----------------|-------|--------|----------------------|---------------------------|----------------------|
| | growers | Small | Medium | Large | growers per processor* | tonnes per grower |
| NSW | 310 | 2 | 3 | 3 | 62 | 785 |
| Queensland | 111 | 2 | 0 | 2 | 55 | 1047 |
| South Australia | 74 | 2 | 0 | 2 | 37 | 784 |
| Tasmania | 8 | - | 1 | - | 8 | na |
| Victoria | 191 | 2 | 2 | 2 | 47 | 1071 |
| Western Australia | 48 | 0 | 0 | 2 | 24 | na |
| Australia | 742 | | | | 46 | 919 |

Table 1 – Grower and processor numbers and average output (major states)

* = average over total medium and large processors only

2.2 The poultry meat supply chain

The Australian chicken meat industry is composed of breeders, hatcheries, growers, processors, wholesalers and retailers.

Vertical integration

In conformity with world best practice the industry is vertically integrated, with the vast majority of birds grown for processors through contract growers. Globally, vertical integration has been found to be the most efficient way of controlling costs and managing the decisions needed to supply the large volumes to service customers with a continual supply of consistent product.

The integrated processors provide day-old chicks, feed, technical and veterinary advice and other services to the contract growers. They also process, distribute and market the product.

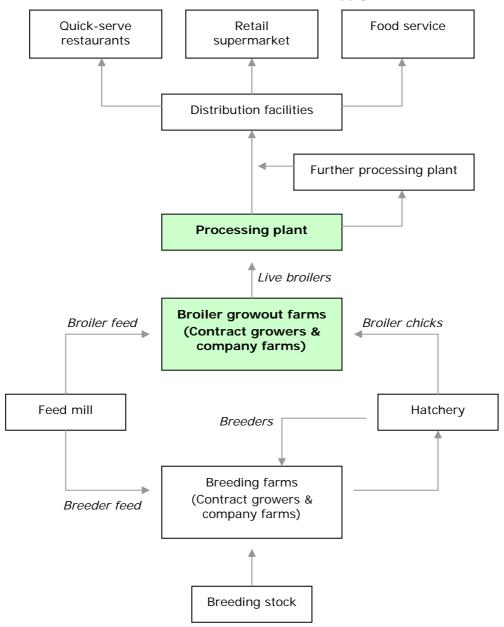
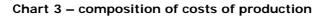


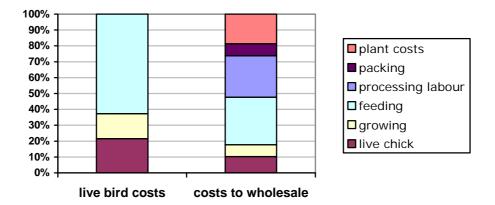
Chart 2 – the chicken meat supply chain

Relative costs

The composition of total production and processing costs puts the relative significance of the growing activities into perspective.







Source: KPMG Final Report 1999¹

The growing fee represents about 16-18% of costs in the 'live bird' stage of the chain. On the basis of estimates provided to the Review by processors, an average bird cost for NSW of 53 cents equates to about 20.4 cents per kg of live weight in a total "live bird" cost which is estimated based on 2004 data of \$1.10 per kg.

The major cost in the live bird stage is feed, which is estimated at nearly 60 per cent of the live bird cost, though this will fluctuate according to the market cost of feedgrains and concentrates used in the chicken feed mix which is supplied to growers. The growing fee represents on average just over 6 per cent of the retail chicken meat price, and about 8 per cent of the cost of wholesale supply.

Discussions with processors indicate that cost structure relativities have not materially changed in the past few years.

2.3 The market for poultry meat

2.3.1 The wholesale and retail markets for chicken meat

The consumption of chicken meat in Australia has grown dramatically over the past three decades, and has recently overtaken beef and veal as the most consumed meat per capita in Australia. Poultry production is forecast to continue to grow reasonably strongly at 4 per cent annually. Australian poultry meat consumption is around 690,000 tonnes or 35.1 kg per head (2002-03).

ABARE² predicts average chicken consumption to overtake beef this year as Australia's most consumed meat with consumption set to continue to rise to 37 kg per head by 2006.

NSW has the largest production in Australia followed by Victoria and Queensland. NSW production in 2003 was 247,000 tonnes from 147 million birds, with state consumption estimated at 233,000 tonnes.

The retail market

Chicken meat has increased it share of the animal protein market in the Australian market. The growth in per-capita demand for chicken meat over the decades has been driven by several factors:

- □ declining chicken prices in real terms resulting from technological change and increased efficiency in the growing and processing of poultry;
- □ consumer demand for chicken meat has been shown to be less sensitive to changes in price, compared to red meats such as lamb, mutton and beef;
- □ consumer perceptions of nutritional issues in diet have operated to the advantage of poultry and fish and to the detriment of red meat; and
- □ higher real incomes and altered lifestyles have increased the proportions of meals eaten/prepared outside the home; and



□ population trends have favoured growth in the consumption of poultry with the greater influence from ethnic and cosmopolitan culinary trends, which have promoted dietary patterns which include less red meat and more pork, poultry and fish.

Initially, demand for poultry was centred on frozen whole chickens, but the demand for fresh product has increased steadily over time so that about 90 per cent of supermarket sales are now fresh chicken and chicken pieces.

The retail market is highly competitive with product pricing the major weapon employed by processing companies to gain and hold markets.

The "retail" sector of the poultry meat market is segmented into four major channels;

- □ major grocery retail (major supermarket chains);
- **u** quick-serve restaurants (or "QSRs") including firms such as McDonalds, KFC, Red Rooster);
- □ independent retail (independent retail chains and small retail outlets); and
- □ other food services.

Major supermarkets and quick-serve are far and away the major market outlets for chicken meat. It is estimated that supermarkets and major retailers account for 74% of the retail trade in fresh poultry meat market and 99.7% of the frozen poultry meat market. Specialist chicken meat shops, butchers and delicatessens account for 24% of the retail fresh meat market³.

The wholesale trade

Very little chicken meat product is sold under contracts with set periods and specifications, and only a few contracts have fixed prices. Processors must meet demanding product and distribution requirements to service clients in retail and food service markets with an ongoing supply of fresh and fresh value added products to stores and outlets that are open 7 days a week.

Prices in this market are continually being negotiated with the client as demands for product vary and as clients demand quantity and price 'specials' to run campaigns in stores. Key supply arrangements to major retail chains and QSRs are subject to a competitive tendering process the result of which is determined on the basis of highly contestable price and service requirements. Transport technology in servicing these markets is such that product may be delivered anywhere on the East Coast within 24 hours without any diminution of shelf life.

The competition between major retailers continues to transform the supply chains of processors. All major retailers (including independent groups) have increased their control over costs in the logistics chain by requiring just-in-time availability of fresh meat products in line with regional store demand.

In their submission to this Review, processors observed:

The major buyers faced by the processors are the supermarket chains and the food service industries. These buyers are extremely powerful and may in fact act as perfectly discriminating monopsonists in that they seek to understand the supplier costs and to bear down on prices towards those costs (along the supply curve).

The customers have a number of pricing strategies that they use including tenders, new store specials and other aggressive pricing techniques. They also are continually reviewing supply chain logistics to decrease or move costs away from themselves. They have very rigid order specifications that also impose costs on processors.

Therefore strong pressure is focused on price and on production costs. Demand volumes are volatile in the short-term, as major retailers and food service chains encourage competition between processors through discounting and store promotions.

Processors are accordingly "price takers" in the wholesale market for chicken meat, and do not possess the power or ability to force wholesale or retail prices up by insisting on price increases or threatening to withhold supply. The situation in the NSW market is more competitive than in other regions in the Australian wholesale market, and would therefore seemingly place greater pressure on the businesses of the processors in their dealings with a small number of major customer groups.

In this environment, processors depend on consistent and reliable volume throughput to achieve their own plant efficiencies.



Prices for chicken meat

The only published data on chicken meat prices are the prices of frozen chicken published as part of the ABS series on quarterly prices. Prices for fresh poultry are not surveyed as part of the ABS price reporting series, nor are they reported as part of the industry data on the market place. We are informed by processors, however, that the whole-bird frozen chicken price is a reasonable indicator of the price trends in the sector, although the fresh market (which accounts for the vast majority of sales) is far more complex in market-product mix and accordingly far more diverse in wholesale and retail pricing.

The available data show pricing for whole frozen chickens for each capital city market:

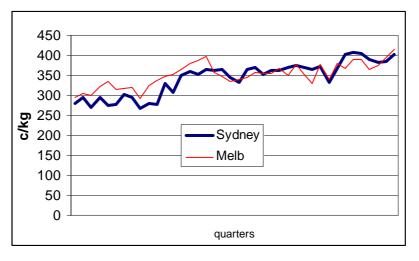


Chart 4 – retail prices of chicken meat quarterly Sept 1993 to June 2003

Source: ABS 2003

Product mix affecting "bird balancing"

As in any integrated livestock production and processing sector, profitability in the processing sector is significantly affected by the processor's ability to manage "whole-of-carcass" returns. In the case of chicken meat, this pressure is no less, and in view of the rapid growth in the industry's share of the total meat consumption market, has required far greater incremental investment in processing technology and market management by the processing sector than in any other livestock industry.

The increasing dominance of the market by fresh poultry portions – evidenced, for example, in greater demand for breast meat in whole breast portion and value-added marinated and stir fry products – places greater pressure on the processor to attempt to "balance" the use of the whole bird across their product use. This has been at the expense of sales of whole birds in fresh or frozen form as retailers and consumers increasingly seek convenience products.

In recent years this has seen a far greater separation of wholesale prices between breast meat and wings/legs with the latter being priced to clear. Whilst processors have sought to increase the value recovered from the higher-end products which are prepared in ready-to-cook format, this is achieved with higher further processing costs as well as a greater need to dispose of less-popular portions.

Industry dominated by private companies

The processing sector is dominated by privately owned processor businesses – as opposed to public listed companies. It is estimated that the wholesale market is dominated by three major processors – Inghams, Bartter and Baiada – who together represent 68% of the processing market.

2.3.2 The market for growing services

As has been stated earlier, the Review is interested in the chicken growing market as a service based market. As a market it is different to other primary industry commodity markets where the producer sells a product direct to a processor or to an intermediary acting in a wholesale marketplace. Whilst there is commercial pressure for increased integration and interdependence in



all sectors of intensive livestock production and processing within Australia and other competitor producing countries, in the production of chicken meat it is only the structure of the commercial relationship between the processor and the owner of the growing facilities which is different.

Farms in production

Chicken growing farms are a mix of corporate and independent family enterprises. It is estimated that 80 to 85 per cent of birds produced in New South Wales are on contract grower farms with the remainder from processor company farms. Based on these numbers the production of contract birds may be put at 120 million per year.

| Processor | Plant locations |
|------------|-----------------------|
| Bartter | Beresfield, Griffith |
| Inghams | Cardiff, Hoxton Park |
| Red Lea | Blacktown |
| Cordina | Girraween |
| Baiada | Pendle Hill, Tamworth |
| Sunnybrand | Byron Bay |
| Summertime | Galston |

Table 2 – Locations of NSW processing plants

The percentage of corporate farm production has fallen in recent times with the sale by major processors of a number of farm units to private investor/growers. This has been due to a change in strategy by relatively new owners of processing companies which had invested in growing sheds under previous management.

Supply of capacity

Prior to the renewal of contracts in the second half of 2004, there is anecdotal evidence that the NSW poultry growing sector has surplus available capacity in terms of the area of chicken growing floor space, in comparison to the available demand in terms of chicken placements. This apparent over-supply of available shedding space using old technology, higher-cost facilities was temporary however, pending the allocation of contracts.

Growers have argued that this created has a situation where the buyer of growing services (i.e. a processor) is able to take greater advantage of their options in managing the placement of birds and reducing live bird costs, compared to a situation where a shortage or matching of supply exists.

The quantity of available shedding capacity will alter after the current round of contract renewals or offers. Most processing groups are currently placing birds at near full capacity with break periods (the time between bird removal and placement of birds in the next batch) generally only slightly longer than desired by growers. Growers argue that this situation is distinctly different to the past 12 months, where lower throughputs and extended breaks were the norm and shed capacity was not fully utilised. They also argue that a large proportion of growers costs remain fixed regardless of the number of birds placed, this situation impacted significantly on growers finances.

There is little or minimal ongoing upgrading of facilities during a contract period, because to have a contract a grower must satisfy the company's facilities requirements.

Barriers to entry and exit for growing

By its nature, poultry growing as an enterprise has barriers to entry and exit which growers claim affect their capacity to negotiate the terms and conditions of their contracts, including growing fees.

The barriers to entry are relatively low compared to other specialised production sectors. Barriers to exit may be overemphasized by focusing on a single or limited numbers of situations, in preference to recognizing that the growing sector is comprised of a wide range of diverse situations in terms of farms and farm sizes in different stages of development, of technical capability, in different locations and in financing.



| Barriers to entry | Barriers to exit |
|---|---|
| capital costs of shed installation, and ongoing upgrade of facilities in line with processor technical requirements (<i>Medium</i>) | asset specificity prevents diversification in use of growing facilities or sale of the facilities to other uses (<i>Medium</i>) |
| obtaining a grower contract with a processor (<i>Medium</i>) | for the group of growers with a pre-existing high level of debt exposure, there is a pressure to accept less-favorable contract |
| moderate (but not highly specialised) skills required in managing an intensive livestock production operation (<i>Low</i>) | terms rather than exit the business (<i>Low</i>) for growers located in environmentally sensitive areas, there is an inability to expand their operations, or sell their operations to other growers (<i>Low</i>) |
| | many operations are family farms which do not facilitate sale of the operating assets separate from the family dwelling, due to the need for the grower to be on-hand at most times in case of a production issue (<i>Low</i>) |

A summary of identified barriers (and their relative weighting) includes:

NSW Farmers' have argued that a further barrier to exit exists in this industry, in the lack of skill development or opportunity for diversification amongst poultry growers in the more traditional production regions. The view submitted by NSW Farmers' is that *"the dominant demographics of contract growers' ie ethnic background, lack of education and over 50 years of age also make it difficult for growers to exit"* requires specific recognition as a factor that presents an impediment to acceptance of change in the relationship between sectors.

In this regard, however, the poultry production sector is no different to many other traditional production sectors of agriculture, such as sugar production, pig farming, horticulture and egg production, where strong ethnicity exists. Many, particularly the smaller established farms have been in existence for many years (30 years) and the assets have been fully depreciated. A number of farms have high land values brought about by their location as distinct from returns from chicken growing. It is recognized that a number of growers are at or nearing retiring age and are planning to sell their operations for the value of the land. Farms sited in environmentally sensitive areas may have difficulty in expanding operations for chicken growing or of relocating to new establishments, but there is little effective barrier preventing a sale of farm assets.

Market structure

In terms of competition law that is relevant to this industry, the Australian Consumer and Competition Commission has previously defined market regions in the industry at a state level. It can be argued however that the competitive market between providers and buyers of the growing service can be most accurately defined at a regional level.

Processors prefer to have their contracted farms located within 80 kilometres of their processing facility in order to ensure logistical efficiencies, and to minimise the risk of damage to the quality of grown-out birds when hauled over road distances of more than one hour. This requirement has in NSW led to 6 main geographic locations for growing services in NSW. Across these regions, the extent of choice of processor by the individual contract grower varies.

In their submission to this Review, NSW Farmers' stated:

Growers on the north coast, Griffith and Tamworth operate in a regional monopsony while growers in the Sydney basin, Hunter and Central coast operate in regional oligopsonies. The effects of a monopsony and oligopsony are well understood, prices and quantities are suppressed below levels than would otherwise occur in a competitive market. The lack of alternative processors also means that growers have little ability to bargain by threatening to switch processors when negotiating contracts and have no other effective option than to accept whatever arrangements that the processor in their area offers.



Processors did not dispute the existence of a regional monopsony in some regions, but pointed out that in such regions this drives efficiency in bird production as the growing fee is driven down to but not below the level that covers both fixed and variable costs. Processors stated that if the fee were held below production costs (for efficient technology), they would not be able to procure the quantities of birds that the market requires.

NSW Farmers' stated that the nature of the exit barriers in the industry (outlined previously) prevents this outcome being achieved, and prevents rationalisation of the grower service supply in each region down to a point where efficient supply is provided in line with market demand for birds. NSW Farmers' contended that these barriers "hold up" exits and see producers staying in business supplying services at fees which are below full production costs.

2.3.3 Industry competitiveness

Industry competitiveness is important to consider in the context of the entire value chain relevant to chicken meat production. The measures of cost through the chain between production regions are not readily transparent to a process such as this Review due to the intensity of competition between processors for market share, and the private-company status of their ownership.

A comparison of average growing fees for conventional shedding in each of the East Coast states is as follows:

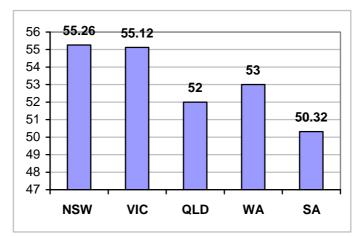


Chart 5 – unweighted bird fee comparisons for conventional shedding between states (June 2004 prevailing rates)

Source: Latera Economics and PMIC 2004

Issues that affect the relative competitiveness of NSW's chicken meat supply chains go far beyond consideration of the relative size of the growing fee. Factors which affect such costs to a processor through the chain include:

- □ processing labour and labour on-costs;
- □ logistical efficiencies in getting feed to growers, birds to processing, and processed product to customers;
- □ the cost of meeting changing service needs of major customers affecting packaging costs, product mix; and
- □ state and local government charges and taxes.

Chicken meat has reduced its costs overall compared to other meat industries in the past 20 years. A major industry benchmarking study noted that the real price of chicken declined 4.7 per cent per year in the 15 years from 1974-75 compared with declines of 2.4 per cent for pork, 1.6 per cent for lamb and 1.3 per cent for beef.⁴

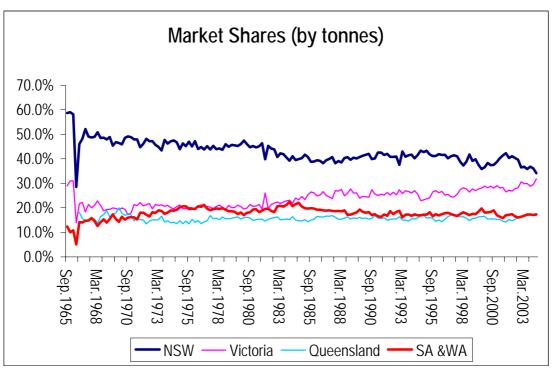
The processors maintained that the impact of the all-pervasive nature of the process that is administered by the PMIC has the effect of preventing change and therefore causing the NSW supply chain to be at a competitive disadvantage to supply chains in other less-regulated States. They argued that this is a factor that has been increasing in its impact on the attractiveness of NSW within the national industry as growers in other States have made productivity improvements. Processors further maintained that the PMIC process actively frustrates the adoption of innovation in contract design and results in longer retention of a lower standard of shedding (technology)

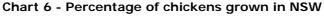


which impacts not only on feed costs, but also on yield, mortality, pick up and delivery costs of birds and supplies.

2.3.4 Loss of market share for NSW

The decline in New South Wales market share relative to the other States is shown in the chart below. Victoria has seen the major gains in share, whilst other states have held their positions over time.





Growers and processors differ in their views as to the reasons for the decline in NSW's share of the Australian market.

Processors argued that this is due:

- a) to the great degree of difficulty that a processor faces in getting any alterations through the PMIC system which inhibits and frustrates changes and adopts a "one size fits all" solution or attitude; and, to a lesser extent
- b) to restrictions placed on their flexibility to encourage efficient pricing signals in contracts,

It is claimed that this prevents the capturing of dynamic efficiencies and the shaping of supply chains to better suit the market that otherwise would occur. This inhibition creates a transfer of costs from one group to another, and imposes efficiency losses or costs on the NSW community in addition to the administrative and legal costs incurred by the NSW Government in operating the PMIC.

Some processors stated that they are shifting production interstate in preference to processing in New South Wales due to a higher overall cost through the supply chain from growing to customer. In the case of Inghams:

Inghams for example has cut its production in New South Wales by 40 per cent over the last 5 years. The company has made significant investments in upgrading or building new plants, in Victoria, South Australia and Queensland with only maintenance investment in New South Wales. Product is brought into New South Wales to supply customers.

Inghams stated that a major reason for its move to other States is because of the inflexibility and resultant cost structure caused by the legislation and the operations of the PMIC which made investments and management commitment to developments in other locations more attractive.



Bartter has moved into interstate operations significantly in the last several years after purchasing Steggles and has closed processing operations in South Australia and upgraded in Victoria. Baiada are continuing interstate expansion buying processors in Victoria and South Australia.

There are significant interstate product movements as processors compete with each other for stakes in the national requirements of major chain retailers and QSR groups.

Growers observed, however, that the reduction in market share was an old trend that was happening well before NSW became the last state with a price-setting mechanism that is regulated by Government. NSW Farmers' maintained their view that the nature of the regulatory arrangements is not a driving factor behind the movement of processing out of NSW.

2.3.5 The influence of trade

The pressures to continue to improve efficiencies are immense both from within the industry and from the threat of chicken meat imports. Imports of cooked chicken meat are permitted under strict quarantine conditions (however very high temperatures are mandated which adversely affect product taste) but have not yet eventuated in large quantities, although some would have entered in canned and heat sterilized mixed products.

World Trade Organisation (WTO) agreements require counties who have sanitary and phytosanitary barriers to trade in agricultural commodities to justify barriers through a process of undertaking Import Risk Assessments (IRA). Recent IRAs in horticulture and pork have seen dramatic change to the outlook for the domestic production and processing of such products.

There is considerable pressure to allow raw chicken imports and a risk assessment will be released in the second half of 2004. The risk of increased importation of chicken meat product within the next 2 years is considered by processors to be strong.

The Instate benchmarking study⁵ provided information on the cost comparability of the Australian industry compared with industries overseas. While now some 7 years old, this indicated that if imports are permitted they will put extreme pressure on current industry arrangements in Australia.

In terms of technical efficiency and performance Australia compares very favorably with other countries, but in production costs Australia ranks poorly. Major world producers such as the United States, Brazil, China, Thailand, and the European Union, enjoy large economies of scale, and low labour and feed costs.

2.4 Contracts between processors and growers

2.4.1 Contracts in general

The market for chicken growing services is characterised by the close integration of the poultry meat value chain and the ongoing demand for fresh chicken meat. A strong interdependence between a processor and grower has led to the use of a contract to commercially "regulate" their relationship. The contract has been used as a risk management tool by processors:

- □ to achieve a desired level of live bird throughput to processing plants;
- □ to provide a "comfort level" in the volume of guaranteed supply which allows them to extract the required volumes needs to service the fluctuating retail markets; and
- as a device to provide a bargaining tool to overcome the risk of a loss of supply to a plant.

A processor will at all times have in place and on offer a set of supply contracts that provides access to bird volumes which are in excess of their direct day-to-day requirements for processing, and will rarely be in a position to place birds to match the individual farm capacities of all their suppliers due to the unpredictability and competitiveness of retail markets.

The nature of contracts that are generally offered in the poultry meat industry is impacted by conditions affecting chicken meat demand. Contractual terms are set and designed to ensure that an adequate standard of facilities is supplied and maintained and to encourage the required performance from growers in terms of quality, consistency, volume and timing of output.

The growing fee is the remuneration paid by a processor to a grower for the provision of growing services. Growers in NSW receive a per-bird growing fee, with the actual fee paid determined by the efficiency realized within a pool. (A pool consists of all growers who receive a batch of chicks at a particular time). Current fees range from 67.84 cents to 51.25 cents per bird⁶.



Grow-out contractors supply the land, shedding and equipment, environment control plant, water, labour, waste disposal and pollution control, and bird husbandry services and meet some variable costs such as bedding, gas and electricity.

NSW Farmers' submitted that in their view, processors offer contracts which:

- *a)* require significant upfront investment into sheds etc as a prerequisite;
- b) omit any reference to future income provision (unlike contracts in other industries);
- c) do not always demonstrate how prices paid to growers are calculated under pool arrangements;
- d) are in many cases 5 years or less in duration (while they claim new sheds alone take 20 years to pay off); and
- e) Prevent the grower from growing birds for any other processor.

2.4.2 Growing fees

Growing fees are gazetted under NSW regulation (approved by the PMIC whether set by direct negotiation or under PMIC intervention) as base bird prices. The actual fee paid to an individual grower is then varied according to processor-specific incentive adjustments which are dependent upon the individual's performance in the relevant "pool" of growers under that contract. Incentive payments in such pools are in some cases self-funding – the sum of total increments paid equal the sum of deductions based on quality and throughput adjustments. Other arrangements – such as those offered by Bartter for example, offer open-ended or less-constrained performance incentives.

Per bird fees are not the only factor in determining grower income; density and throughput are key determinants of total farm income. A comparison of the current weighted average growing fees paid in each state is set out as follows:

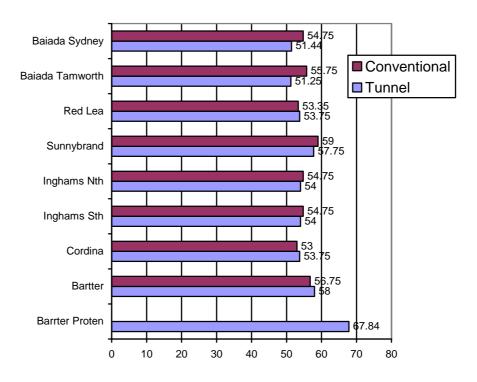


Chart 7 – comparison of bird fees for NSW processors

RidgePartners

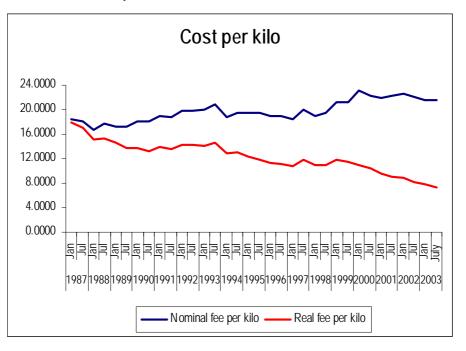


Chart 8 – comparison of bird fees in nominal and real terms

Growers argued that the bird fee has fallen in real terms over a considerable period of time, a position which is consistent with the terms of trade faced by much of Australian agriculture. Latera submitted that in constant (1987) dollar terms, the real fee per kilo paid to the poultry producers in NSW has fallen by 60 per cent since 1987.

Returns on an area basis

The table below outlines the returns per metre across processor growing groups in NSW, which show that the returns per square metre for growers with tunnel shedding are higher than for conventional growers by on average 19%.

| | Tunnel/ Improved | Conventional/ Standard | % Difference |
|--------------------|------------------|---------------------------|--------------|
| Inghams North | 52.93 | 41.28 | 28% |
| Inghams South | 54.52 | - | |
| Inghams turkey | 40.00 | 38.74 | 3% |
| Bartter | 61.35 | 47 | 30% |
| Bartter Griffith | - | 57.14 | |
| Bartter turkey | - | 46.12 | |
| Sunnybrand | 57.76 | 49.08 | 18% |
| Baiada Sydney | 53.31 | 40.65 | 31% |
| Baiada Tamworth | 51.99 | 45.98 | 13% |
| Cordina | 55.62 | 41.39 | 34% |
| Red Lea | 50.22 | 39.68 | 27% |
| Unweighted average | 53.07 | 44.70 | 19% |

Table 3 - Returns per square metre across processor groups (Jan-June 2004)

Source: PMIC



Source: Latera submission p12

2.4.3 Grower returns

Information has been provided to the Review regarding the issue of the adequacy of the returns to growers from contract growing. NSW Farmers' provided a cost of production model which had been prepared for the purposes of a submission to this Review. This has been based on their modeling of production costs from grower surveys. Modeled outcomes provided by NSW Farmers' make the following comparison between shedding technologies:

| Cost | Conventional shed 4645m ² | Tunnel ventilation shed 8,826m ² |
|---|--------------------------------------|--|
| Per bird fixed costs | 62.5 cents | 47.6 cents |
| Per bird fixed and variable costs | 81.8 cents | 66.2 cents |
| Growing chickens per square metre | 15.4 | 19.59 |
| Mortality rate | 5.4 | 68 |
| Batches per year | 5.6 | 5.4 |
| Live chickens per square metre per year | 81.6 | 99.4 |

Table 4 – NSW Farmers' opinions of costs of alternate technologies

Source: NSW Farmers

There is a discrepancy of views as to the costs of production facing the grower – a difference that has characterised the proceedings at the PMIC over recent years, and is reflected in the positions of each sector in submissions to this Review.

NSW Farmers' submitted that the average price for chickens is substantially lower than the fixed costs for conventional sheds and comparable to the fixed costs in the case of tunnel ventilated sheds. It is also stated that this would imply that a rational chicken grower would exit the market. It is suggested, however, that the barriers to exit for chicken growers are sufficiently high to protect processor supply. On this basis, they submitted that the Review needs to take account of the fact that processors have the power to drive grower returns below the cost of production.

Processors refuted the above model on the basis that the costs used in the case of conventional shedding are based on the replacement value of assets, wherein such an assumption is no longer valid as all new installations are sought using tunnel shedding. Inghams stated that in setting prices with growers, the company uses a formula based on recognition of an acceptable return on investment. For the Inghams template, investment is set as 85 per cent of current replacement cost of shedding, an agreed land valuation and allowances for other capital items. The company stated that template provides a 7 per cent return on investment (ROI). In addition, growers receive an owner-operator labour allowance, an allowance for other labour and allowances for fixed and batch cost items.

If the above table of full costs were a true reflection of the situation facing the grower, it could be expected there would be limited or no new additional tunnel shedding facilities being developed in NSW and in other states where incomes and production factors – and therefore costs - are of similar levels.

Payments for the supply of services

Growers have stated their interest in looking at alternative ways in which greater security might be provided in the form of agreements for the supply of services. The supply of services is said to be the supply of a facility (growing capacity) coupled with the skill of the grower as a facility manager. As such, NSW Farmers' believes that consideration should be given to contract payments/fees being restructured into the form of a capacity charge (to reflect the commitment to supply) plus a variable volume charge to reflect bird throughput volumes.

Processors have expressed limited interest in an arrangement of this nature in view of the commitment to cost that would be entailed, and the lack of flexibility in market demand volumes to which they are exposed. The processing sector believes a fixed capacity fee removes incentives to align the interests of the parties to a growing services agreement.



2.4.4 The sharing of risks

The Review has considered the nature of the contracts and commercial relationship between growers and processors. The sharing of the relative risks in the interdependent relationship between growers and processors may be summarised as follows:

| Risk area | Risks assumed by processors | Risks assumed by growers |
|--------------------------|---|--|
| Chicken meat market | Exposure to fluctuating volume demands from retail and food service customers. Supply is rarely subjected to contract, and volumes are specified. Exposure to price and service competition from other processors located in NSW and in other states | Exposure to the throughput requirements of their processor, reflected in overall bird placement Risk of not being offered a contract or contract renewal |
| Feed cost | Exposure to fluctuations in feed costs due to market and supply volatility | □ None |
| Feed quality | Exposure to fluctuations in feed quality supplied | Exposed to the risks of lower growth rates due to feed quality issues [®] |
| Bird quality | Managing the quality of batch chicks produced by own hatchery operations Exposed to the risk of inconsistent bird specifications when "grown-out" | Exposed to lower growth rates and mortality due to the supply of poor quality chicks [®] |
| Chicken meat supply | Exposed to the risk of having insufficient growing available capacity# | □ None |
| Throughput efficiency | Exposed the grower performance in feed conversion efficiency to ensure birds reach appropriate weights | Exposed to the risk of bird placements not reaching available shed capacity |
| Investment returns | Return over the life of the processing plant and marketing investments Certainty of sales volumes of chicken | Uncertainty over the lack of a guaranteed volume of bird placements Return over the life of the growing facility |
| | meat into the marketplace Management of live bird costs and processing costs, including balancing use of total birds in respective markets | asset (once established and "in supply") is subject to Uncertainty over contract renewal Adequacy of fee levels* Adequacy over throughput and capacity utilisation |
| | | Ability to meet processor specifications for facility |

Table 5 – relative risks assumed in poultry production

* this is overcome by the existence of a price-setting

this is overcome by some processors owning corporate farms

@ these risks are referred to as group composition risks, where the exposure only exists as long as the individual growers contract pool do not also experience to the same factors.

Processors submitted that there have been numerous US studies which show that in comparison to independent growing, contract growing shifts nearly 97 per cent of risk from growers to processors⁷. In addition, other studies show that the practice of pool payments shifts the common production risk from growers to processors⁸.

Growers, however, argue that they are left more exposed to the risks associated with uncertainty of investment returns once investment in infrastructure has been made and a contract has been entered, such that they are locked in to the industry. The processors right to refuse to offer contracts places growers at a perceived significant disadvantage as regards the supply of growing services.

2.5 The uptake of technology

There are three key determinants of better efficiency in the production of poultry meat:

- a) Shedding technology;
- b) The skills and management of the grower; and



c) The throughput in bird volumes that is allocated to a grower.

Much of the focus in the enhancement of efficiency within the industry relates to shedding technology.

There are two primary types of shedding technology in use within the Australian industry – referred to as conventional and tunnel.

Processors continually update shedding requirements and review farm sizes and technical expertise to ensure the most efficient products and processes are utilised. Shedding technology is the major determinant of growing productivity, as well as being a strong influence over the consistency in quality of birds produced.

Tunnel shedding is the current new technology applicable to NSW and has a significant impact on grower productivity as well as on non-grower live bird costs. It has been available for a number of years.

It is estimated by processors that the respective uses of tunnel and conventional shedding are as follows:

| State | % of production from tunnel shedding |
|-----------------|---|
| NSW | 23 |
| Queensland | 55 |
| South Australia | 65 |
| Victoria | 75* |

*Victorian shedding uses different technology which can be better described as "environmental shedding" which differs due to the greater climatic extremes experienced in that state compared to much of NSW.

| | Proportion of growers' farms with tunnel shedding (estimate) | | | |
|-----------------------------------|--|-----|-----|--|
| Full Tunnel Part tunnel Conventio | | | | |
| Inghams | 15% | 20% | 65% | |
| Bartter | 35% | | 65% | |
| Baiada Sydney | 21% | 20% | 59% | |
| Baiada Tamworth | 85% | 15% | | |
| Cordina | 2% | 32% | 66% | |
| Red Lea | 5% | 11% | 84% | |
| Sunnybrand | 83% | 17% | | |
| Average | 23% | 15% | 62% | |

The table below shows the estimated proportion of growers with tunnel sheds across processor groups in NSW prior to contract expiration:

It is difficult to ascertain the likely mix of tunnel versus conventional shedding after 30 September 2004 when the majority of current contracts expire. At this time processors are likely to offer short term contracts to a number of conventional growers to meet short term demand needs.

2.5.1 Benefits of tunnel shedding

Processors estimate that savings of 10 to 12 cents per bird in live bird costs can be achieved in the NSW production environment with a move from conventional to tunnel shedding. They estimate that this therefore represents a potential saving of \$9 to \$10.8 million dollars per year in costs alone from this factor, based on the current 75 per cent utilisation of conventional shedding.

Processors claimed that growers also would benefit from tunnel shedding by some 25 to 30 per cent through better efficiencies and improved incentive payments:

Tunnel shedding provides productivity gains to growers of between 25 to 30 per cent arising from factors such as:



- an increase in batch rates by some 3 per cent;
- an improvement in density by up to 20 per cent; and
- a reduction in mortalities by some 1 per cent (grower receives fee for more birds).

Per bird gross efficiencies to the grower therefore on an equivalent per bird basis may be of the order of 12.5 cents on a 50 cent fee.

Processors estimated that the further impact on the non-grower live bird costs through improved grower productivity is significant:

The technology provides savings from the following:

- allows light controlled systems;
- *improves feed conversion ratios resulting in around 5 cents per bird in feed cost savings;*
- allows more uniform flock sizes with benefits in being able to better satisfy customer requirements;
- reduces mortalities by around 1 per cent, a saving of some \$1.8 million per year (1.5 cents per bird);
- *improves hot weather performance (0.2 cents per bird);*
- *improves live bird pick up efficiencies, lower servicing costs, lower cost pick-up scheduling giving some 1 cent per bird;*
- decreases condemnation rates (reduced feather picking, breast bruising); and
- improves yields including gains on breast meat giving some 3 cents per bird.

The Allen Report⁹ acknowledges that tunnel shedding provides lower per bird costs of between 8 to 10 cents to processors.

2.5.2 The moves towards increased use of tunnel shedding

NSW poultry meat processors stated that, where possible, they are moving towards having a greater percentage of their contract growers using tunnel shedding. Strong incentives exist for processors to seek cost reductions available from the shedding approach, due to the pressure on processor margins in the consumer meat market which affects overall bird recovery.

Processors have stated several examples where companies have instigated the change in technology:

- □ Baiada negotiated an agreement on tunnel shedding with its Tamworth growers who have probably the lowest growing fee in Australia, claiming that the focus however was on income through better throughput, not the stated bird fee rate itself.
- □ Sunnybrand on the North Coast is experiencing growth with growers investing in modern farms.
- Bartter commenced discussions with grower representatives in November 1999 about converting to tunnel shedding, but final decisions were not reached until October 2001. When insufficient Bartter growers were prepared to upgrade, the company sought and found new investors to enter the industry to ensure its future supplies.
- □ Inghams is working with its growers to upgrade and all new farms or farms with tunnel shedding have been offered contracts beyond June 2004.

Processors stated that they have experienced an active campaign by a number of growers (particularly the NSW Poultry Farmers Cooperative in the Hunter) to convince other growers and grower groups not to accept any upgrading to tunnel shedding and to prevent any new shedding being approved by local governments by opposing the relevant planning applications.

Impediments to uptake

In addition, processors argued that the pervasive PMIC process serves as a barrier to technology change being achieved at a quicker rate. It was argued that this is not just a matter of pricing structures achieved under the current regime failing to properly recognise the different market realities as to the supply chain cost advantages of tunnel shedding. Adoption of new technology is inhibited by the use of templates for production costs that base fee decisions on older higher cost technology. The PMIC system does not allow sufficient flexibility, they argued, to apply innovation



in contract arrangements, due to conflicts of interest, the inhibition to any changes, delays, drawn out processes of settlement of any disputes, intervention of parties who have no direct economic interest in the outcome of a decision, the lack of an ability to develop commercially sensitive strategies (as all competitors know what each company is doing) impedes efficiency gains by protecting growers from pressures to improve. The overall result is that owners of the older technology therefore have less incentive to change.

A switch to tunnel shedding changes the cost structure for the grower. It offers better scale and throughput efficiencies to a contract grower, yet comes with the trade off of requiring a larger capital investment by the contract grower – not only in the up-front outlays in shedding facilities and equipment, but in ongoing capital enhancements to ensure that the facility remains in line with processor specification.

NSW Farmers' disagreed that incentives exist for growers to take up tunnel shedding:

Few processors have offered financial incentives to growers (ie higher prices or longer contracts) to warrant the increased capital upfront expenditure that is required in tunnel sheds. Instead processors state that growers benefit by 25-30% from improved densities and throughput after they are built. However both these factors are completely under the control of processors and rely on processors placing birds at near capacity levels. There is no obligation (or penalty) when processors do not supply promised densities and throughput.

There has been a national trend towards the use of tunnel shedding as a technology. Different regions have been more or less inclined to take up tunnel shedding based on the commercial requirements of a processor competing with other processors in NSW and in other states. In recent times, processors have been more interested in offering contracts to larger tunnel growers or potential new entrants with those intentions, to provide an ability to extract overall cost-savings.

Growers have pointed out as well that the increased movement towards tunnel shedding stimulates investment in improvements in conventional shedding operations, where a move to the newer technology may not be feasible or viable. Conventional shedding also requires regular upgrades in order to maximize throughput in line with benchmarks available to processors from more modern installations.

Differential pricing

Due to the different cost structures between conventional and tunnel shedding, there is a tendency for growing fees to be different, with a tunnel growing fee typically higher, as can be seen in Chart 7.

Processors stated that the current regulatory structure impedes the development of clearer market signals (which include pricing structures) to more effectively reward the tunnel growers for the productivity gains provided through that technology.

They stated that PMIC-determined pricing delivers prices for tunnel shedding that are strongly influenced by cost models developed on the basis of conventional shed cost models.

Due to the relatively low percentage of tunnel operations in NSW, and the resistance to more widespread adoption of tunnel shedding, prices are pegged close together in centrally-determined outcomes. This situation has been supported by a number of tunnel growers in discussions with the Review team.

2.5.3 The effects of change

The NSW industry is experiencing a gradual move towards improved growing technologies in terms of the overall supply chain efficiency and cost-competitiveness.

The attrition in farm numbers has been exacerbated by the movement of processing volumes out of NSW by Inghams.

Inghams stated:

In 2001 Inghams had 61 contract growers (out of a State total of 322), it currently has 30 plus 6 company farms out of a State total of 248 broiler farms. By 1st July it will have only 27 contract farms of which 11 will be on short term, ending contracts.

The transition is likely to be exacerbated by the issue/offer of new contracts in the NSW industry in mid-2004, which will see each of the companies vary their respective use of tunnel and conventional shedding. The Allen Report¹⁰ prepared for the NSWFA claimed that 80-100 growers would leave the industry by June 2004. The PMIC estimated in June 2004 that 50 chicken farms



would not have their contracts renewed, the bulk of which (30) were associated with Bartter, where Processors have argued has been due to the reluctance to upgrade to new technologies.

Processors claimed that industry participants (processors and growers) in the Western Sydney region face problems associated with urbanization and the planning restrictions, with the effect that growers in these areas are largely prevented from investing in new technology and/or expanding their production. Processors drawing chickens from these growers face higher bird costs compared to processors with supplies grown in other areas or national processors who can source less expensive product from interstate.

2.6 Employment

One of the aims of the legislation – to be considered in the next section – deals with overall employment within the chicken meat industry. The NCP review is required to take account of the impact of potential change on the community, including the socio-economic effects on employment within the various regions and affected industry sectors within Australia.

Contract grower numbers in 2001 were around 310 (employment on farms would increase employment numbers to possibly around 1,000).

Employment depending directly and indirectly on growing, processing and other associated activities as part of the chicken meat value chain has been estimated in various studies and submissions as follows.

| | | | | - |
|--|------------------|------------|-------------------|--------|
| Source | Growing | Processing | Other | Total |
| Direct and indirect | | | | |
| Larkin & Heilbron (2001) ^a | 2,939 | 15,203 | 25,916 | 44,058 |
| Direct only | | | | |
| Hassall (2001) ^b | 1,021 | 4,116 | na | 5,137 |
| Processors ^c | 311 (growers) | 8,500 | Inc in processing | na |

Table 3: Estimates of employment in NSW poultry industry

(a) Cited in Hassall (2001,p15) and includes both indirect and direct employment.

(b) Hassall (2001, p37) and is based on ABS 1996 direct employment census data.
(c) Direct contract growers and full time equivalent employment supported by processor activities as estimated by Processors and used in representations to NSW Government in 2001.

(d) Na: not available/applicable.

Processor provided estimates above understate employment on farm, as more likely reflected in the Hassall analysis.

Contract grower numbers could fall by end of June 2004 to 260 because about 50 growers have not chosen to renew or are not being offered new growing contracts. These are predominately old technology or conventional farms. New entrants and expansion of existing farms are expected to pick up all of the production capacity that would be lost from these displaced growers.



3. The Legislation

3.1 The objectives of the legislation

3.1.1 Intentions at the time

The *Poultry Meat Industry Act 1986* (the Act) provides for the establishment of the Poultry Meat Industry Committee (PMIC) which sets guidelines and approves agreements between processors and growers of poultry meat, determines fees to be paid to growers for raising poultry and negotiates disputes between processors and growers operating in NSW.

The implied outcome can be assumed by reference to the Hansard record of the second reading speech, namely the avoidance of market power abuse:

"There is an imbalance in bargaining power in the industry between growers and processors... The 1977 Act was introduced to regulate the contractual obligations between growers and processors by means of the Chicken Meat Industry Committee".

The primary intent of the Act was therefore to avoid any abuse of market power by processors over growers.

At the time of changes to legislation in NSW in 2001, a secondary objective was added, namely that the Act exists **to protect jobs in the chicken meat industry**. This important set of amendments has enabled a less-restrictive set of arrangements from those which existed in the past.

However, they have been made with a wider set of objectives than the original PMIA, which refers to employment within the whole chicken meat industry, which is not limited to the growing sector.

These stated objectives recognise the need for balance in the management and administration of the legislation. While balancing the bargaining position of the parties to contract growing contracts, the arrangements must take account of the overall levels of employment across the chicken meat industry.

3.1.2 Market failure

As NCP deals with core issues affecting resource allocation, the basis of any assessment of legislative objectives under an NCP test is the economic concept of a 'market failure'. The challenge for a review such as this is to determine whether there are market failures which justify the form of intervention provided by the chicken industry legislation in addressing the two objectives clarified above.

This firstly involves an understanding the concept of market failure. Then its relevance to the objectives of the legislation must be examined and a conclusion reached on whether there are valid market failure grounds for the measures contained in the legislation.

The concept of market failure can be defined as a situation in which economic efficiency is unable to be achieved by the normal operations of the market mechanism. Market failure may manifest itself either in the inability of the system to produce certain goods or services which are wanted or the inability to produce the right quantity of goods or services.

Governments may justify intervention on the basis of one of several types of market failure:

- □ Through an **externality** where an external force imposes costs or benefits on others, such as climate change, disease risk etc
- □ As a result of a **natural monopoly** where it is cheapest for a single business to supply an entire market where economies of scale are very high.
- □ In the provision of **public goods** goods which are no likely to be provided in a market setting
- □ Where there is **information asymmetry** where buyers and sellers do not have similar information in respect of the goods or services being traded

In the case of the supply of live birds from contract growing farms, a market failure would result in a collapse of supply – an abuse of market power over time by the processor over the grower would see:



- □ The setting of "unfairly-low" contract fees over a sustained period of time, which sees fees below fixed and variable costs
- □ Contracts with low fees and no assurance of throughput volumes providing insufficient certainty for further capital outlay by growers
- □ A loss of production as producers see themselves facing greater risks than benefits in accepting to offered contract terms
- □ The productive capacity of the NSW industry would decline, with a resultant inability for the market demand to be serviced
- □ A far weaker the competitive proposition offered by the chicken meat industry as a consistent supplier of quality meat and a risk of lesser choice or costs for the consumer.

This Review has to assess the likelihood of this outcome in the state of NSW.

3.1.3 Bargaining power

One of the key issues for this Review has been whether or not growers are in a weak bargaining position with processors, and whether such weakness is enough to constitute a market failure.

Neither sector in the industry denies the existence of a bargaining power issue, but differ in views as to its extent and its effects on the industry.

What factors denote a weak bargaining position?

The factors which give evidence as to the existence of a weakness in bargaining power – or perceived weakness – include the following:

- □ the weighing of relative risks shared in contracts between processor and grower as shown in the table in 2.4.4
- □ the fixed and specialised nature of the investment in shedding facilities
- □ the lack of alternative choices available to growers for the use of those assets
- □ the imbalance of information available to each (see below at 3.1.4)
- □ the lack of flexibility facing certain growers in changing technologies due to other external restrictions on their business through local government regulation
- □ the lack, in some regions of the state, of choice in access to a market for the provision of contract services

In submissions to the ACCC in other states, processors have supported the case for intervention through collective bargaining by submitting that the concern is not so much regarding the debate as to whether there is in fact a weak position, rather the threat to the interdependence between the sectors of the *perceived* weak position of the grower, which discourages confidence in the ability to achieve fairness in outcome¹¹.

Positions of the sectors

Growers argued that the integration of the chicken meat supply chain has created a very high dependence on the processor and a commercial structure that places them in a weak bargaining position.

Processors have stated however that rather than a one-way dependence, there is a strong **interdependence** between processor and grower. Actions to force efficient growers out or causing under-investment in the growing sector would have adverse economic consequences for processors both in the short and long run. Such actions in their view would reduce output, cause higher non grower bird growing costs and allow other processors to gain advantage at the expense of the processor indulging in such conduct.

Processors disagreed that there are specific factors that create a special need in the case of chicken growing. Inghams stated:

There are many instances such as dairying, fruit growing, vegetable growing, wine grape growing in which growers have large fixed costs that are specific to that industry and that depend on a single or a few buyers for their product. In the case of chickens, the growers do not even bear the expense of owning the product and paying for the feed they consume unlike say the dairy industry, pork or other intensive livestock industries.



They further disagreed based on comparisons with other sectors where the supply of services to limited buyers was a feature:

In the broader community there are numerous situations of suppliers to single or few buyers. These range from various franchisees (many of whom require large capital commitments) through component suppliers to the car industry, concrete truck owner drivers (see ACCC Authorization A500106), other owners of large specialized equipment, owners of packaging plants located next to or within the product plant that they serve and many other examples. There is no need for special legislation to ensure that contracts are concluded and that regular fee reviews occur.

NSW Farmers' submitted further instances and examples of practices used in the industry which it suggested are evidence of the weak bargaining position of the contract grower, in support of intervention.

This is evidenced through the ability of processors to undertake the following activities:

- manipulate operating pool efficiency ranking systems where a processor can vary inputs to influence the results towards certain growers and away from others with impunity (for instance against growers with agri-political involvement);
- coercing growers to accept a price or contract on a 'take it or leave it' basis, knowing that the price is uneconomic'
- breaching the PMI Act, in particular payment terms, and using the overdue payments as a bargaining tool;
- issuing new contracts, or encouraging expanded shedding, with no or unrealistic assurances of occupancy rates, and not keeping faith with existing growers
- unilateral variation or termination of contracts based on processor discretion

NSW Farmers stated further that:

The lack of alternative processors also means that growers have little ability to bargain by threatening to switch processors when negotiating contracts and have no other effective option than to accept whatever arrangements that the processor in their area offers. This explains to a great extent why growers in Tamworth and the far north coast have converted to tunnel shedding technology.

Whilst these factors are not the subject of the specific restrictions in the Act to which this review relates, they are – if correct – instances that reflect a strong perception of relatively superior bargaining position.

3.1.4 Information asymmetry

A problem frequently arises in agricultural markets is that small producers have inadequate information on product supply, demand and price conditions that enable them to respond to market developments. It would be relatively costly in terms of time and/or money for individual primary producers to obtain such information. In contrast, purchasers of many agricultural products are likely to be larger economic entities and, given their trading activity, are more actively involved in acquiring market information. Purchasers may not necessarily share market information with producers, except in the form of prices and other contract terms such as product specifications which they offer and require.

This is a condition that affects the bargaining position of a grower or producer, and is an issue that is common to intensive industries such as dairy, pork and beef. In the case of chicken meat it is made more complex by the fact that there is not a concept of a farmgate market in existence, and accordingly there is not a transparent price for the sale of live birds from growers to processors.

There is however a market for the provision of services, and despite the integration within the supply chain, these services have a market and a market price.

The asymmetry – or unevenness – of information in the case of the supply of chicken growing services **in the absence of intervention** (such as NSW regulation or other forms of regulation as exist in other states) would be evidenced as follows:



| Information in the hands of processors | | Information in the hands of growers | |
|--|--|-------------------------------------|---|
| | total committed growing capacity available to source supply to their business | | contract prices offered to certain other growers (this may be available in some |
| | total demand requirement which they are to meet (although this fluctuates in the short- | | cases – anecdotally - in the absence of intervention) |
| | term) | | the true costs of growing chickens |
| | the costs of growing chickens on corporate farms held or recently held within their enterprise | | |
| | prices offered to other growers supplying their operations in different locations | | |

Processors pointed out that in other reviews of poultry industry arrangements it had been concluded that the issue of information asymmetry in the poultry industry did not constitute a market failure, therefore it was unlikely that there was any serious misallocation of resources arising from information differences alone. This issue has been mostly ignored by some previous reviews in the chicken meat industry.

Processors noted that the Victorian Farmers Federation (2004) application to the ACCC for Authorization for collective negotiations did not raise information asymmetry at all in its supporting information (Annexure E to that submission).

In addition:

The Allen Report (2003, p4) raises information asymmetry as market failure and a basis for government intervention. The concern focused on what the Report regarded as a lack of a market signal regulating the supply of shedding. Allen (2003, p5) however notes that the PMIC has no authority over this area, therefore if it is an issue (which has not been demonstrated) the Act does not address it and therefore rectification of it cannot be claimed as a benefit or an outcome of the current Act.

The imbalance of information access by either party significantly contributes to the relative bargaining position of the processor versus the grower.

3.1.5 Conclusion

This Review concludes that there is strong likelihood of an imbalance of market power between processor and grower, which favours the processor, due to:

- a) the nature of the relative risks shared in contracts between processor and grower
- b) the lack of information symmetry which prevents the grower from greater knowledge or confidence of their bargaining position or a wider range of options
- c) the fixed nature of the investment in shedding facilities; and
- d) barriers to exit which are faced by certain chicken growers.

Many farmgate and/or contract service markets are characterised by unequal market power, however the apparent or perceived dominant position of the processor should not be taken to mean that there is repeated abuse of power over an extended period of time which would be sufficient to cause a market to fail, in the way that was outlined earlier in 3.1.2.

The review will conclude – in section 3.5 – whether this imbalance is of an extent which will cause a market failure were there not restrictions on competition in place in NSW to address that imbalance.



3.2 Operation of the legislation

3.2.1 The scope of the legislation

It is important to clarify in general terms what is within the intended scope of the legislation and what aspects of commercial industry arrangements are otherwise left to private negotiation:

| What the Act applies to: | | What the Act doesn't apply to: | | |
|--------------------------|--|--------------------------------|---|--|
| | setting of prices where parties can't agree or refuse to negotiate | | the offer of and negotiation of terms in new or renewed contracts | |
| | approving prices determined by direct processor and grower negotiation | | negotiation of non-price issues | |
| | to prevent growers or processors opting out of a collective bargaining process | | | |
| | providing standard contract formats | | | |
| | approving grower contracts according to their adherence to contract guidelines | | | |

3.2.2 The PMIC

The PMIC consists of 15 members, 6 representing growers, 6 representing processors, 2 independent and an independent Chairperson selected by the Minister.

The functions of the PMIC are:

- a) to set guidelines for the drawing up of agreements between growers and processors,
- b) to approve forms of agreement if they are in accordance with the guidelines,
- c) to determine taking into account factors detailed in section 10 of the Act, base rates for poultry,
- d) to settle by negotiation disputes relating to any agreement between processors and growers, and
- e) to report to the Minister on any matter referred to it by the Minister or that the Committee feels is appropriate and
- f) any other function prescribed.

3.2.3 Recent changes in the Act in 2002

The PMIA (1986) was amended by the Poultry Meat Industry Amendment Act (Price Determination) Act 2002 and received assent on 10th July 2002.

Prior to the amendments, the emphasis in the Act was on achieving a single growing fee that applied to all growers across the State, subject to some adjustments for certain factors. The PMIC used a standard model (cost of production) to determine a fee that was then subject to various adjustments (market factors, throughput) and this became the standard price that applied to a particular processor. The fee an individual grower received varied from the standard price depending on the grower's efficiency within a pool.

The major changes of interest to the Act included:

- □ the concept of different classes of batch poultry;
- □ the determination of base rates for different classes of batch poultry at least every 6 months;
- □ an addition to the list of factors that the Committee is to have regard to in determining base rates to include:



- any suggested base rate agreed to by processors and growers;
- the reasonable minimum return to growers whilst encouraging industry efficiency
- □ the explicit acknowledgement of efficiency incentive schemes to overcome a technical legal difficulty in the previous legislation that lead to a divergence between the pool fee actually paid to a grower and the fee calculated strictly in accordance with the legislation.

3.2.4 The workings of the legislation

The regulatory process in NSW was significantly amended in 2002 with a change to the PMIA. Since then, 28% of price issues have been referred to the PMIC with the remainder settled directly between processor and grower outside the price-setting role of the committee.

Faults of the system

Processors stated that there are a number of inherent structural faults that are apparent in or result from the legislation and this leads to economic efficiency losses.

The structural faults (which are recognised by either Processors and/or grower input to this Review) include the following:

- □ the pervasive nature of the PMIC process and its demands on the time and cost of members and industry participants;
- an intrusion of a third party that has no economic interest in the outcome between the two parties that do have a direct commercial interest in the outcomes of negotiations of agreements;
 - the third party may be an independent who in practice make most decisions because growers and processors are generally split; or
 - processors and growers who have no interest in a matter, for example matters relating to turkeys;
- □ conflicts of interest in that:
 - competitors (growers and processors) gain knowledge of the details of agreements;
 - competitors are in a position to oppose agreements;
 - competing processors are sitting in judgment on the base rates paid between other processors and their growers;
 - other growers who are not involved in a base rate of interest are sitting in judgment of that rate;
 - the involvement of competitors in dispute settlement negotiations; and
 - the ability to gain knowledge of issues surrounding such disputes;
- □ the potential of the Contract Guidelines to prescriptively dictate terms that may inhibit innovation and change is limited only by decisions of the PMIC itself;
- □ the Contract Guidelines are still prescriptive in a number of instances, for example contracts have to be for a minimum of 5 years (unless a lesser term is agreed by the *Committee*), (this requirement inhibits agreements where growers may only want to go on for a lesser period or inhibits mothballed shedding being brought back into production for seasonal periods);
- □ the Guidelines may, though promoting fairness, be retarding efficiency advances, for example
 - the obligation (clause 4 of guidelines) to treat similar growers on materially similar terms may preclude rewarding the better performing growers with increased throughputs or other advantageous terms;
 - the veto power of a minority of growers (in excess of 25 per cent) of any changes to efficiency incentives rules within a pool;
- □ the ability of agreed contract terms to be altered merely by the PMIC subsequently altering the Guidelines
 - contracts refer to the Guidelines, therefore if the Guidelines are altered so are contractual terms without approval of the contracting parties;
- □ the highly prescriptive templates required in the determination of base rates;



- □ a high degree of effective discretionary power that the Chairperson carries with possible substantial changes in direction when that person changes;
- □ the protracted nature of the discussions at the PMIC to resolve disputes and disagreements over procedural matters.

Contract Guidelines

The PMIC has – from an examination of its proceedings as documented in minutes of meetings – taken considerable time to deal with the issues of Contract Guidelines and their compliance. There appears to be considerable disagreement between members of the PMIC as to the weight that is to be applied to Guidelines in this context. Grower representatives have informed the Review that the Guidelines are regarded as highly important in terms of ensuring adherence to the disciplines of contract content and structure, and have accordingly urged the process to provide them with "teeth".

Processors have argued that use of the Guidelines has strayed well beyond their intended weight and meaning in the administration of the industry and that this has added to the costs of the current regulation of industry in terms of time and money. They have argued that Guidelines are more than simply guides to be used in drawing up contracts, but are in fact highly prescriptive. The PMIC has engaged external legal advice to resolve issues of compliance or otherwise of contracts with the Guidelines. This has resulted in the PMIC and parties to the contracts incurring significant legal expenses.

The culture

It is acknowledged by both processors and growers through this Review process that there have been important improvements in the operation of the legislation since the amendments in 2002. These changes however improved the operation of the regulatory system yet have not resulted in a productive culture.

Processors submitted that:

...the current legislation and the structure of the PMIC over the years has engendered a culture within the NSW industry of a 'them and us' attitude and of allowing the parties to abrogate their responsibilities of reaching their own agreements. The adversarial climate between processors as a group and growers as a group is in contrast to modern industry growth theory which places emphasis on competition developing between supply chains.

The processor submission provided an illustration through examples of certain specific cases. Their submission stated:

The relevant points that emerge from these examples are:

- parties are not encouraged by the process to seriously negotiate on the economics of the issues facing them, but rather are encouraged to make ambit claims hoping to gain an advantage;
- third parties that have an indirect interest in the outcomes are involved in decisions and therefore have a strong incentive to compare outcomes and make decisions in an endeavour to advantage their own positions;
- third parties with no interest or knowledge in matters are at times involved in decisions; and
- the Chairperson has considerable power to influence process and outcomes and therefore outcomes will depend on the style a Chairperson adopts rather than on the economics of the situation.

The inference is that a change of Chairperson will effect outcomes when it is the underlying economic (market) conditions of the particular situation that should decide the outcomes.

NSW Farmers' argued that the arrangements in NSW are frequently abused and that processors exert their position over growers:

This has taken the form of blatant disregard and contravention of the Act, vocal and open contempt for the PMIC process and a refusal to submit anything other than anecdotal evidence to refute growers' assertions in submissions concerning price.

Examples of this behaviour are plentiful. Cordina farms for instance decided to pay a fee to growers arbitrarily determined by themselves rather than the PMIC determined fee for a



particular 6 month period. This decision was based on the presumption that another ongoing case against the PMIC precluded them from paying the fee determined under the Act. Both cases were awarded against Cordina.

Another example of behaviour regularly conducted by processors is not paying growers in the prescribed 28 day period after birds are received by the processor. A number of processors have continually refused to pay growers for over 100 days until solicitors became involved.

A recent example is of Baiada twice altering the placement order of birds to discriminate against certain producers. The second occurrence is in direct contravention of the minimum contract guidelines and opposes Baiada's own agreement that was obtained through the PMIC dispute resolution process.

Assessment

The assessment of this Review is that the arrangements under the Act have not generated confidence in the industry – amongst either growers or processors – as to the ability of the PMIC process to achieve a reasonable balancing of the two stated objectives of the legislation.

Some of the instances cited by growers are potential examples of the exertion of a superior bargaining position by processors – they may at the same time be processor action in the face of a highly competitive and volatile retail market, and in view of restrictions placed on the way in which they can send price and other market signals to their growers.

3.3 Restrictions on competition

The guiding principle under NCP is that legislation should not restrict competition unless it can be demonstrated that:

- (a) the benefits of the restriction to the community as a whole outweigh the costs; and
- (b) the objectives of the legislation can only be achieved by restricting competition.

The table below sets out restrictions on competition apparent in the current regulatory system:

| Issue | Current covered by the Act | No restriction under current arrangements & not covered by the Act | | |
|---|---|--|--|--|
| Setting contract growing fees | PMIC determines a growing fee where:a) either of the parties elects to apply for the PMIC to set the fee, and/orb) the parties cannot agree on a fee through their own negotiation efforts | Fee-setting is not without restriction. <u>Note</u> : Parties can separately meet and agree fees – yet they are subject to PMIC scrutiny. | | |
| Approval of fees | The PMIC reviews all fees (agreed or not) for compliance with the factors set out in Section 10 4 (a) to (k). There is no discretion allowed for parties to unilaterally agree a binding fee between themselves without PMIC scrutiny. | | | |
| Compulsion on parties to collectively negotiate | Once there is disagreement or refusal to deal (either party), the negotiations must be brought to the PMIC for determination | <u>Note</u> : Parties are free to enter negotiations and agree terms – however these are not outside the application of the PMIC, which must first approve those agreements before they can be adopted | | |
| Terms and conditions of contracts The Minimum Contract Guidelines requi the PMIC approve a form of the agreem such issues as processor and grower obligations, payment terms, dispute resolution, termination etc. | | The guidelines don't specify what the specific contract provisions should be. | | |
| Length of contract period | Contracts of fixed set (5-year) length have applied. | <u>Note</u> : Flexibility for lesser or greater terms are available but have not in the past been endorsed by the PMIC | | |
| Selection of growers to whom contracts are offered | | Processors are free to determine to whom they offer contracts at the times of contract renewal. | | |
| Opt out | The inability of a grower to opt out of the regulated price-setting arrangements once instigated. | | | |

This Review has to determine whether these restrictions can be justified on the basis of the two limbs of the test as outlined above.



3.4 Legislative options

3.4.1 Chicken meat legislation

A broad summary of the regulatory arrangements in all states is set out below.

| | Qld | Vic | NSW | SA | WA |
|-----------------------------|--|---|---|---|---|
| Uses collective bargaining? | Yes | Yes, under a number of ACCC authorisation | Yes | Yes Under ACCC authorisation | Yes |
| Legislation oversight | Yes | Yes, but rendered inactive | Yes | Yes (new laws passed in July 2004) | Yes |
| Opt-out | Yes | Yes | No | Yes | Yes |
| Price determination | Group or individual negotiation | Group or individual negotiation | Base price Committee determined Or efficiency based agreement | Group or individual negotiation | Committee Determined (Cost of Production Model) or individual negotiation |
| Mechanism | Mediation Pre- agreement, Arbitration post agreement. (Cost Basis) | | Committee. Post agreement (Nominal charge) | Mediation with arbitration for only existing growers (Cost Basis) | Committee Determinations (Free access) Or arbitration on mutual agreement. (Cost Basis) |
| Code of practice | No | No | Yes | No | No |
| Contract periods | No | No | Yes (but changes post June 04) | Yes | No |
| Committee? | Equal number processors & growers Ind Chair | | 1 Ind Chair 2 Ind 6 Processors 6 growers | Registrar | 1 Ind (Chair) 2 Processors 2 Growers 2 Ind |
| Agreement form | No | No | Yes | No | Yes |

| Table 4 - Summary of State regulatory | arrangements in poultry meat |
|---------------------------------------|------------------------------|
|---------------------------------------|------------------------------|

Growers stated that the assessment of the relevance and merit of other options for establishing restrictions on competition needs to take account of the market structure in each context.

At the same time, the assessment of options must also take account of the fact that the industry operates not as discrete state systems, but interconnecting industries within a national food industry.

Queensland

The legislation provides for mediation and arbitration – however the resort to arbitration is only compulsory regarding disputes during the term of the contract on terms and conditions. Arbitration is not available when negotiating prices in setting up a new contract.

NSW Farmers believes that the nature of competition – that is, less intense competition - between processors has given rise to a less volatile and uncertain climate for Queensland contract growers.

...in Queensland there is effectively a comfortable processor duopoly and weak legislation that has been approved by the NCC. However the relationship between growers and



processors is good as competition between processors is not strong and the industry is expanding.

South Australia

The State Government in South Australia has recently passed amended laws to regulate the arrangements between processors and growers in the state, after a period without legislative oversight. During that period, the industry made use of collective bargaining authorisations provided by the ACCC to processors and growers negotiating in groups.

The SA Government sought to re-regulate the industry in view of the weakened position of growers in the state. New legislation has been enacted by the SA Parliament, after amendments to comply with NCC requirements. Those amendments included:

- 1. the removal of compulsory arbitration on contracts; and
- 2. the removal of both compulsory mediation and arbitration for growers entering the industry after the date of legislation proclamation.

It is evident that the poultry production industry in that state grew and became more significant within the national industry in the absence of state legislation. Processors have also argued that this included entry of two new processors that previous legislation had prevented from entering the industry. The current situation is that while legislation has been re-enacted, the vast majority of growers have opted out of the legislated arrangements and have entered individual contracts with processors.

Western Australia

The state operates a dual system, where growers and processors can opt-out of the regulatory approach to price-setting if they wish. The option however exists for a regulated approach to the setting of prices and contract terms, similar to that in NSW.

Total deregulation

Without any regulation or restriction on the arrangements for bargaining contracts, a model may exist for individual one-to-one negotiations between processors and growers.

It is noted however that in no state has a totally deregulated industry arrangement been adopted and maintained. In the case of the Victorian industry, which has removed the effective workings of their Broiler Industry Act, the industry has resorted to the use of a collective bargaining system under the authorisation of the ACCC.

The ACCC has accepted this approach after it has considered the combined effect of individual growers' having the option to opt out of collective negotiation and negotiate individual contracts, increasing competition from mainland states, the growing fee constituting only a small percentage of the total retail price and the pressure from downstream purchases mitigates the potential anti-competitive effects of collectively negotiated terms and conditions, including fees.

3.4.2 Other approaches

It is useful in the context of this Review to consider approaches used in other industry contexts where a perceived or real imbalance of power exists between buyer and seller of a commodity or service.

An example is the case of wine grapes marketing, where in NSW the Wine Grapes Marketing Board (Reconstitution) Act 2003 provides intervention to ensure that formal contracts are used between the contract grape grower and winery, as there was seen to be a significant weakness for growers in the Riverina area of the State.

The legislation provides for:

- □ a Board with powers to establish default terms and conditions of contracts where a "complying contract" does not exist
- a determination of price in the absence of declared prices made available by wineries
- □ a Board to collect and disseminate price and volume information to growers and wineries to allow greater transparency within the region

It is noted that the legislation in question sunsets on 31 December 2007, therein providing transitional intervention designed to improve the use of private agreements and enhanced information exchange in the industry.



3.5 Are the restrictions warranted to achieve the objectives?

The terms of reference require the Review to consider whether or not the restrictions on competition are necessary to achieve the stated objectives of the Act. Prior to considering any measurement of the costs and benefits of the arrangements to the community, it is necessary that the restrictions pass this first test.

3.5.1 Current restrictions not justified

It is the conclusion of this Review that in view of:

- a) the lack of a substantive differential between the regulated growing fee and commercial rates set in other states
- b) the existing high-level of use of collective negotiations outside the PMIC process
- c) the apparent lack of market failure that would occur in absence of the regulation by virtue of the fact that other regional poultry production industries have operated with less regulation for several years without the collapse of poultry meat supplies in those regions
- d) the availability of other options to address issues created by an imbalance or perceived imbalance of power between grower and processor,

the restrictions on competition currently imposed by the legislation are not necessary to achieve the stated and implied objectives of the Act.

It is the conclusion of this Review that the nature of the restrictions on competition that exist in NSW are not justified in prima-facie terms in view of the current industry environment, and the existence of other options which have been adopted in other states.

3.5.2 Less-restrictive options exist

The above conclusion does not necessarily imply, however, that the relationship between chicken growers and processors should be totally unregulated.

This conclusion has been supported by processors in other states in the interests of achieving the necessary confidence of growers through administered contract-bargaining regimes, either through state legislation or subject to ACCC authorisation. These options stop short of intervention in price-setting and contract approval, but provide a mechanism to support collective bargaining between processors and grower groups.

The reasons in support of such less-restrictive options include the need to:

- a) overcome a weak psychological position of uncertainty for individual growers created by a perceived imbalance of bargaining power;
- b) avoid increased transaction, search and information costs associated with individual negotiations between processors and growers;
- c) reduce the potential for disputes due to a lack of a clear resolution process or consistency in contracts of growers in similar situations; and
- d) avoid risks of lowering efficiencies in operations due to an inability to ensure standardization of business practices.

This Review concludes that suitable less-restrictive options exist to address the perceived weakness in bargaining position of the contract grower.



4. Public Benefits Test

The guiding principle in the CPA leads to the presumption that restrictions on competition are not in the public interest unless they are necessary to achieve a public policy objective and the benefits outweigh the costs. The onus placed by the NCP framework is on those proposing to continue the restrictions (ie. state governments or the sectors enjoying the benefits from restrictions on competition) to demonstrate and justify that they meet these criteria.

A cost-benefit table which reflects the conclusions from the above analysis is set out below. This reflects the annual impacts of estimated costs and benefits as well as the present value of those future impacts. Details of the assessments reported in this table are shown in Appendix 2.

| | 201101110 | | |
|---|-----------|-----------------------|--|
| Source | Comment | Net annual benefit | Present value of future benefits |
| Transfer to growers | | \$3.6m | \$38.1m |
| Avoidance of the costs of social adjustment | | Negligible | - |
| Provision of regional employment | | Negligible | - |
| | Total | \$3.6m | \$38.1m |

Benefits

Costs

| Source | Comment | Net annual cost | Present value of future benefits |
|--|----------|--------------------|--|
| Transfer from other downstream participants including consumers | | \$3.6m | \$38.1m |
| Overall delay in efficiency gains through delays in the uptake of technology | | \$2.5m -\$4.1m | \$10-16m |
| Incremental costs of the PMIC process | | \$0.2m | \$2.1m |
| | Total | \$7.9m | \$50.2-56.2m |
| | Net Cost | \$2.7-4.3m | \$12-18m |

Note: it is considered that there are likely to be transaction costs associated with the negotiation of contracts under either a regulated PMIC model or one which has no regulation of contracts and prices. It is concluded that such costs – for the purposes of the above analysis – are balanced.

As noted in the discussion of efficiency gains, it is uncertain as to the length of time over which efficiency gains are discussed through the workings of the current regulation, or conversely the extent to which such gains would be brought forward without regulation. These costs would not remain in perpetuity as it is considered more realistic to reflect the opportunity to "bring forward" those gains that exists over a period of (say) 5 years.

Based on the above summary of benefits and costs, this Review finds that the current arrangements impose an annual net cost on the community of between approximately \$2.7-4.3 million which have a present value over 10 years of \$12-18 million.



5. Alternatives to the current legislation

5.1 The available options

The primary intent of the *Act* was determined by the review group to be the avoidance of abuse of market power by processors of growers.

Alternative options for achieving the identified objective, identified in the Terms of Reference and analysed here include:

- a) Adopting a less-restrictive legislative model to improve its workability and effectiveness, and/or to remove the major restrictions that place constraint on participants. This revised legislation would make provision for the establishment of processor negotiating groups (PNGs) and an oversighting industry committee;
- b) **The provision of ACCC Authorisation** this option involves authorisation from ACCC for processors and their contract growers to collectively negotiate growing agreements; and
- c) No intervention in the negotiation process between processor and grower.

A summary of the potential features of options (a) and (b) above is provided on the following page. In the case of option (a), two variations are proposed.

5.2 Legislated bargaining arrangements

There are now several regulatory models in existence in other states. These models are providing oversight for a collective bargaining process which is similar to the NSW situation.

The main aspects that are common to each of these options are for grower fees to be established at a processor level, with increased ability for processors to distinguish between efficient and inefficient growers, and the ability for growers to opt out of statutory arrangements if they wish.

No option provides for a compulsory arbitrated price setting mechanism, except where

- a) the arrangements are part of a transitional industry model such as is the case with South Australian legislation;
- b) growers have the ability to opt-out of the regulatory arrangements; or
- c) the parties to agreements provide for such an arrangement in their agreements.

The models vary state to state in terms of:

- Access to arbitrated and/or mediated settlement of disputes;
- □ The ability for processors and growers to opt out of the regulated arrangements in striking agreements;
- □ The reference to, use of, and legal effect of, standard contracts or contract guidelines;
- □ The timeframe for the arrangements; and
- □ The management of transition from previous state-based legislation which exerted tighter controls over price setting and contract negotiation.

A number of potential scenarios may be developed for modified regulatory arrangements which provide sufficient safeguards for the behaviour of parties whilst avoiding the use of compulsory price-fixing and contract approval mechanisms, which are a feature of the current arrangements in NSW.

A number of principles associated with such options have been identified in consideration of the relative merits of these options, as regards the development of a preferred future approach to contract growing arrangements.



This approach might entail the following features:

Contracts

- a) The use of contract guidelines which carry industry endorsement and become the industry standard as to the form and content of grower contracts;
- b) The development of an industry Code of Practice for negotiations, and ongoing monitoring of compliance with such a Code;
- c) Freedom for processors and growers to form negotiating groups;
- d) The ability exists for parties to opt-out of regulatory arrangements; and
- e) The parties to agreements have access to a dispute-resolution processes necessitating mediation or arbitration (by agreement in contract).

Dispute resolution

f) The parties agree as to whether negotiation of new and/or existing contracts is subject to a referral to an external independent mediator or arbitrator.

Regulation and management

- g) Administration of the arrangements is conducted by an independent body;
- h) The use of a central register of negotiating groups;
- i) Use of an industry advisory group to provide input as to contract guidelines; and
- j) There are no powers to:
 - i) directly resolve pricing disputes, but has a function to refer matters to external dispute resolution processes;
 - ii) determine prices; or
 - iii) compulsorily procure information.

Information

k) There is no central supply of information to parties engaged in the negotiation processes, unless on a service basis.

5.3 Collective bargaining under ACCC authorisation

Authorisation is a procedure under the *Trade Practices Act*, which provides protection from action by the Commission or any other party for potential breaches of the *Trade Practices Act*. Collective negotiation by growers, without authorisation, would be a breach of the *Trade Practices Act* and could result in penalties of up to \$10 million per offence.

Authorisation has been adopted in the Victorian industry by growers and processors as a means of providing each other with a process of directly negotiating in relevant supply groups. Prior to its adoption, the state operated for a period of time without any form of intervention.

Collective bargaining was used for a period in South Australia prior to that State seeking reregulation of its arrangements through specific legislation.

Given the precedents in other states, it is reasonable to expect that authorisation would also be given for New South Wales growers, provided the application was supported by growers.

NSW Farmers' do not favour the use of this option:

However, the experience of poultry meat industry deregulation and authorisation in other states suggests that authorisation alone will not adequately address the imbalance in market power that exists. Authorisation will not work while ever there is no ability to compel processors to negotiate with the collective group. It is for this reason that processors publicly state their preference for authorisation over deregulation as the two are synonymous.



While authorisation may involve fewer administrative costs, it does entail higher transaction costs given that such arrangements would need to be re-established on a regular basis and a number of authorisations might be required to provide full industry coverage.

5.4 No intervention (full deregulation)

Full deregulation of contract-growing arrangements has not been considered a viable option for the NSW industry, with stated support for the continuation of at least some intervention by growers and processors, and the use of intervention in all other regions of the industry.

Section 3.5.2 provides a rationale for the use of less-restrictive options that would serve to provide better certainty and lower transaction costs than a fully deregulated environment.

Processors stated that they do not support a fully deregulated poultry industry in NSW:

Processors have not and do not advocate deregulation. Processors in NSW as well as in other States lead the industry in applying for Authorization from the ACCC to enable growers to negotiate collectively if the legislation governing the industry were repealed.

Processors stated that the advantages of less-regulatory models have been significant in other states:

When South Australia was under an open system the production capacity of the industry increased dramatically. New processors entered and a thriving growing market supplying product into NSW developed.

Queensland under a system that is akin to ACCC authorization has seen investment in processing plants increase, to the detriment of the NSW industry and also has increased exports into NSW.

Victoria, despite being in an uncertain situation because of a dormant Act and grower opposition to authorization has seen investment increase. Victorian growers have also seen sizeable increases in growing fees (to 54 - 55 cents) bringing them up to the levels in NSW. Victorian growers have applied for to the ACCC for Authorization (A40093) to enable collective bargaining with Processors.

5.5 Costs and benefits

In general, each of the options identified above in 5.2 and 5.3 would result in a reduction in the net cost to the community of the poultry industry arrangements. Removal of the restrictions placed on contract negotiation would remove the impediments allowing scope for the passage of efficiency gains through faster uptake of technologies within the NSW industry.

They would each substantially reduce or eliminate the net cost to the community shown in the table in section 4.

It is likely however that the option in 5.4 of total deregulation of arrangements would increase the costs above outcomes achieved from either of these alternatives. These would stem from higher transaction, search and information costs associated with the negotiation of individual grower agreements, compared to the position where growers work in groups in negotiations with processors.

This option would also run the risk of not adequately addressing a market failure that potentially arises from the weak psychological and uncertain position for the contract growing sector, as outlined above in 3.5.2.

5.6 Preferred approach

Of the alternatives identified above, a preferred approach for the future management of industry arrangements could be based on either the alternatives in sections 5.2 or 5.3. There is little or no support for the deregulated option in 5.4.

The preferred approach would to develop a modified legislative model based on the principles outlined in 5.2 above which provides the greatest scope for the continuity of discipline around the



development and use of formal agreements, without the costs associated with the intervention of approval of prices and specific contract terms and conditions.

Whilst there are likely to be no measurable differences between the options in 5.2 and 5.3, it is likely that the growers will have greater confidence in a system that has legislative backing at the State level, rather than move to an ACCC-based model with perceived higher costs and greater delays in the development of appropriate negotiation arrangements.

Such a legislative model should be developed in discussion between the representatives of processor and grower sectors outside of the existing PMIC process. This would, in our view, assist in the removal of existing negativity regarding that process, to ensure a balancing of needs of grower and processor certainty, and in the interests of a competitive NSW poultry industry.

There are several detailed and practical aspects of the future arrangements that can only, in our view, be developed at such a time, including:

- The constitution of, and industry involvement in, a regulatory authority;
- The contents of a Code of Practice for Contract Negotiations and accordingly the legal effect of contract guidelines;
- The extent to which the future authority monitors and/or approves contracts according to such Code of Practice; and
- Arrangements for dispute resolution, including mediation and arbitration.

6. Conclusions

The conclusions from this Review are as follows:

- The primary objective of the Act at the time of its inception was to avoid any abuse of market power by processors over growers. A secondary objective was added at the time of amendments to the Act in 2002 which Act exists to protect jobs in the chicken meat industry. These remain the objectives of the legislation.
- 2. The key restrictions on competition that are relevant to this Review are:
 - a) Determination of the price for grower services by the PMIC in cases where parties cannot agree;
 - b) The approval of all prices set in negotiations between grower and processor in the State; and
 - c) The approval of contracts and contract terms by the PMIC as to their structure, fixed time period, and other terms.

The Review has also assessed the current operations of the PMIC in carrying out its functions, and the effect of those operations on industry practices and conditions.

Prima-facie case

- The current PMIC system and processes have a pervasive effect on the market for poultry growing services in the state of NSW, and place significant restrictions on the development and operation of the commercial relationships between processors and their contract growers.
- 4. The restrictions that are created as a result of the current arrangements go far wider than the direct effect of the items identified in 2. above on pricing of those services and the signals that are conveyed in growing fees themselves.
- 5. Based on tests required to be applied under the terms of reference of an NCP review of legislation, there is no justifiable prima facie case to support the retention of the **current legislative arrangements in NSW** in view of:
 - a) The regulatory industry arrangements in NSW do not provide growers with a growing fee which is significantly higher than prevailing commercially-struck rates achieved in NSW (reached without recourse to the PMIC's arbitration of prices) or in Victoria, where processors and growers negotiate under collective bargaining arrangements.
 - b) The majority of price-setting is agreed between growers and processors outside the PMIC, which largely "rubber stamps" the agreement.
 - c) Consideration of the secondary legislative objective that was added at the time of the 2002 amendments to the Act, which states that the purpose of legislation is to increase employment in the NSW chicken meat industry.
 - d) The existence of less-regulatory options which are available and which are in operation in other major chicken production regions in the national industry.
 - e) The conclusion that such less-regulatory options **appear to adequately address market failure** in the poultry meat industry, due to the strong interdependence between grower and processor.
- 6. However, **there are grounds for intervention through less-restrictive arrangements** such as those that exist in other states which provide an oversight of the commercial collective bargaining process between processors and growers.

Net costs

- 7. In addition, the Review has found that the net costs of the current arrangements to the community exceed the benefits.
- 8. Whilst there are potentially significant transfers of income that would exist between growers, processors and retailers, the quantum of these transfers, and their ultimate distribution is based on a variety of assumptions in respect of which there is a lack of consensus within the chicken meat industry.



- 9. The net costs of the current arrangements exist chiefly due to the potential efficiency gains which are prevented from being fully realised by the existence of current price-setting arrangements. These gains are limited by the existing ability of processors to manage the allocation of contracts to specific growers.
- 10. These costs are evidenced by the existence of less-regulatory arrangements in each of the surrounding states to NSW, which provide processors with opportunities to form direct supply relationships with growers without the risk of interventionist pricing mechanisms such as they face in NSW.
- 11. This review has estimated that the annual quantum of efficiency gains to processors and growers from a removal of regulatory restrictions are in the vicinity of \$2.5-\$4 million. The inability to allow full access to such gains inhibits the competitiveness of the NSW poultry meat value chain from grower through to retailer and food service operator.

Alternatives

- 12. A number of potential options exist as to available future regulatory arrangements for the state's poultry production industry. These include:
 - a) The adoption of less-regulatory models for the oversight of processor and grower negotiations
 - b) The use of ACCC-authorised collective bargaining arrangements
- 13. Total deregulation without some regulation of contract negotiations is not justified by the Review findings nor supported by major submissions to the process.
- 14. This Review recommends the adoption of modified regulatory arrangements which provide sufficient safeguards for behaviour of parties whilst avoiding the use of compulsory price-fixing mechanisms.
- 15. There are a number of principles associated with such options that have been identified in consideration of the relative merits of these options, as regards the development of a preferred future approach to the regulation contract growing arrangements. The detail of such future arrangements should be developed between sectors of industry and Government.
- 16. These would entail the following features:
 - a) The use of contract guidelines as a voluntary industry standard as to the form and content of grower contracts;
 - b) The ability for parties to opt-out of regulatory arrangements;
 - c) The parties to an agreement have access to dispute-resolution processes, involving mediation and/or arbitration (by agreement).
 - d) Administration of the arrangements is conducted by an independent body;
 - e) Use of an industry advisory group to provide input as to contract guidelines; and
 - f) There are no powers to directly resolve pricing disputes, determine prices or compulsorily procure information.



Appendix 1

NATIONAL COMPETITION POLICY REVIEW OF THE POULTRY MEAT INDUSTRY ACT 1986 (NSW)

TERMS OF REFERENCE

A review of the Poultry Meat Industry Act 1986 ('the act') is to be conducted in accordance with the principles for legislation reviews set out in the Competition Principles Agreement (CPA). The guiding principle of the review is that legislation should not restrict competition unless it can be demonstrated that:

- (a) the benefits of the restriction to the community as a whole outweigh the costs; and
- (b) the objectives of the legislation can only be achieved by restricting competition.

The review is to:

- 1. identify any restrictions on competition in the Act;
- 2. assess and balance the cost and benefits to the community as a whole of any restrictions identified;
- 3. if the Act restricts competition, assess whether the objectives of the Act can only be achieved by restricting competition; and
- 4. make recommendations for any reform considered necessary as a result of findings under paragraph 1, 2 and 3.

Without limiting the scope of the Review, the review is to:

- take into account, where relevant, the matters listed in clause 1 (3) (d) (j) under the CPA;
- consider the economic characteristics of the contract growing process, including capital investment requirements, access to legal recourse, likelihood of relocation to other jurisdictions, ability to adapt to changing market needs as well as the risk and returns associated with investment; and
- consider structural developments in the industry and the likely longer-term outlook.

The reviewer may seek to interview or request written submissions from external parties, including;

- the Poultry Meat Industry Committee
- grower representatives
- processor representatives
- retailer representatives
- worker representatives
- the Australian Competition and Consumer Commission
- NSW Agriculture
- NSW Farmers Association representatives
- any other persons the reviewer considers to be relevant.



Appendix 2

1 Identification of benefits and costs

The table below sets out a summary of the costs and benefits of the existing regulatory arrangements in the NSW industry.

These factors are a combination of the "market effects" of changing from the current model to one without the restrictions on competition, as well as other costs associated with the changes in arrangements.

| Benefits | Costs |
|---|--|
| Gain in growers' surplus which accrues from the available price | Foregone consumers' surplus to consumers from price decrease |
| Reduction in transaction costs | Foregone consumers' surplus from increased output |
| Avoidance of social and economic impacts of unemployment | Foregone growers' surplus from increased output |
| Avoidance of adverse environmental impacts from deregulation | Foregone growers' surplus from cost efficiencies |

When assessing the legislative arrangements, it is important to note the distinction between the private benefits enjoyed, or costs incurred, by the market participants and the public's benefits and costs.

1.1 Measuring "market" benefits and costs

The conceptual basis for valuing the economic costs and benefits to the community from changed regulatory options is the supply and demand, or market, model. This measures the benefits and costs based on a "before and after" approach, or looking at the industry with and without the restrictions in place.

The model that has been proposed for this purpose by Processors is based on the framework that has been accepted and used in previous reviews of chicken meat legislation, namely in the following contexts:

- the Queensland Review undertaken in 1997
- o the Victorian Review undertaken by KPMG in November 1999
- the Hassall review of the NSW arrangements in 2001 (a review report which was not publicly released but has been frequently referenced in the submissions of Processors and NSW Farmers)

The model itself was developed by the Queensland DPI and has been adapted and tailored to each of the state contexts by subsequent reviewers.

It was suggested by Processors that such a conceptual model can be developed for the current intermediate production of chickens by growers¹². The figure below represents the concepts.

The supply curve or marginal cost curve in the analysis is assumed to be an upward sloping indicating that the higher the price received for grown out chickens the greater quantity that will be supplied as more growers find it profitable to sell.



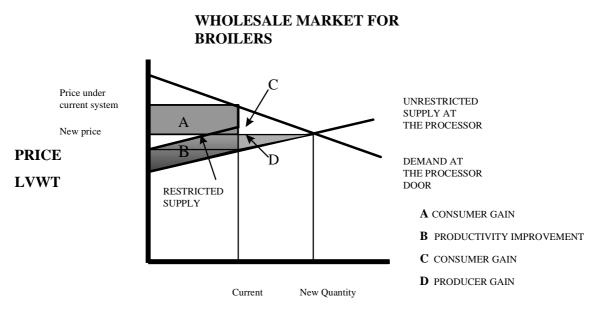


Chart 9 – Economic model of the wholesale market for broilers

QUANTITY OF LIVE BIRDS

The area labeled "A" represents the gain to consumers evaluated at the existing output level and is determined by the difference between the current price under regulated conditions and the price under deregulation. It is assumed in this way that the deregulated price will be lower than that under regulation. The area "A" incorporates a loss of economic rents to growers as the growing fee falls.

The area labelled "B" represents the productivity improvement (at current output levels) accruing to both growers and processors.

The areas "C" and "D" represent further gains to consumers and producers from additional output being supplied in the deregulated market (output effect).

"Before and after" prices

A change in the regulation to a deregulated model would see a loss in growers' surplus from a price reduction of on average, which for these purposes in quantifying change has been assumed at 3 cents per bird and is applied to the annual production by family-owned contract growers.

There has been considerable input provided in relation to the quantum of the changes in price that would be experienced in NSW with a removal of regulated price setting as is currently practiced.

Processors have submitted that there is an expectation of a 3 cent fall in the average NSW price from 53 cents to 50 cents. They also claim however that the current pricing contains distortions that results in the proximity of tunnel and conventional rates.

NSW Farmers' argued that due to the findings of the Allens report in 2003, a fall of some 24% in average prices might be expected. This would push prices well below those that have been set in other states under commercial negotiation arrangements, which would see a fall in the order of some 13 cents, which is not supported by current prices in other states.

One of the difficulties in making an assessment of the changes in price is to take a medium term view of the impact of change. Much of the focus of debate presented to this Review has centred on short-term effects, which has been somewhat impacted by a temporary over-supply of capacity in NSW.

It is to be expected that commercially set prices without intervention by a process of arbitration or third-party price setting will see tunnel and conventional shedding growing fees separate more markedly than recent history has demonstrated in NSW, with **tunnel shed rates to exceed conventional rates**. Over time, the mix of the production and fee income generated from each of the respective technologies will change affecting the weighted average return for comparison with current rates.



For these purposes however a 3 cent change in weighted average rates has been accepted as a basis for measurement and sensitivity analysis.

Transfers

At an assumed current production level on private farms of 120 million birds, **this is equivalent to a transfer \$3.6m per annum**. This loss can be regarded as a straightforward transfer to processors, retailers and/or consumers.

Because of the largely competitive market for processors and competitive market for retailers it is considered that the majority of cost savings would be absorbed by processors and retailers.

Processors argued that the majority of such gains are likely to be absorbed by retailers:

The move towards fresh from frozen chicken and the increasing demand for bird pieces as opposed to whole birds is also adding to pricing pressures. The less preferred parts can be very difficult to sell or only at very low prices. Given the competition between processors and the strong buying power of the customers, it is highly unlikely that processors are able to retain any above normal profits (rents).

Changes in the assumed level of price change through the loss of regulation affect the level of transfer between the participants of the industry and are of little consequence to the overall results of this Public Benefit Test.

1.2 NECG model – a supply model

NSW Farmers has contended that the above KPMG modeling framework is not valid for the identification and measurement of benefits and costs, and prepared a submission to this Review that included an Annexure prepared by the Consulting firm Network Economic Consulting Group Pty Ltd (NECG).

The Annexure of their submission contained a critique of the KPMG (1999) report on the NCP Review of the Victorian Broiler Chicken Industry and on the model used, which is the approach used in the model above.

Critique of the "market model"

The differences of approach proposed by processors and growers are based on a fundamental difference in the objectives of the models used. The NECG model has adopted an approach which is based on the assumption of the modelers that the structure of the NSW supply chain is such that the poultry processors are monopsonist or oligopsonist buyers of services and inputs – depending on their regional location. Growers in this regard are suppliers into a market where there is limited or no competition.

The difference in this approach assumes that as such a buyer will – in the absence of a regulated pricing regime – drive the input buying price (that is, the growing fee) down to a level which is at or below a "socially efficient" level. In effect, the regulated pricing arrangements improve the welfare and output outcomes by offsetting the market power of the monopsonist buyer.

NECG argued that the KPMG model is the wrong model as it is a market model, not a supply model, and as it assumes essentially easy entry and exit on both sides of the market.

From the NECG paper:

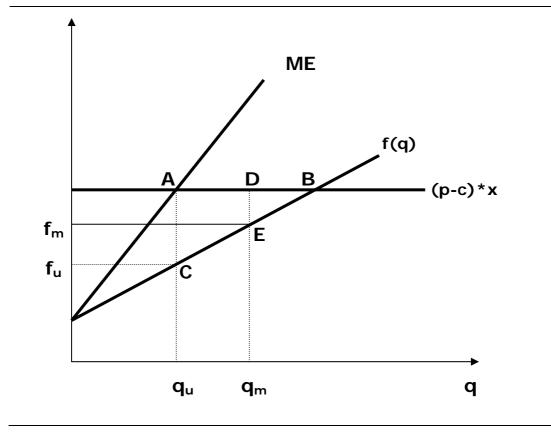
The major errors and problems with the KPMG report are as follows:

- □ It fails to note that the demand of processors for the product of growers is in reality a derived demand for final poultry by consumers;
- □ Its analysis of market failures is also misleading because on the basis of this exercise being made, the report makes the implicit assumption that the market for broilers is perfectly competitive;
- □ The underlying model used in the report assumes away the significance of transaction costs even though transaction costs have been crucial in shaping the organisation of industry in both growing and processing. The social loss due to regulation that KPMG claim to identify is therefore tautological given their assumption of perfectly working markets;
- □ The report defines the relevant geographic market as the State market even though it is admitted that live chickens cannot be economically transported for longer than one hour.



The NECG model calculates welfare benefits based on the gain to the NSW economy that are at risk with a change in the arrangements.

Figure 3 illustrates the market equilibrium in markets where only one processor operates as a monopsony.





The chart depicts the net revenue product of chicken growing input for the monopsonist buyer, (p-c)*x, which is a constant due to assumptions about wholesale price, variable processing costs and the input-output relation.

If the input market were perfectly competitive, then the growing fee f and the growing quantity q would be determined by point B where growers would be remunerated exactly by the net revenue product that their production delivers.

NECG argued that a monopsonist, however, maximises profits at the point where his or her marginal expenditure, ME, is equal to the net revenue product.

Because the growers' minimum fee requirement at this level is given by point C, the resulting fee, f_{u_i} will be lower than the net revenue product. Compared to the outcome under perfect market conditions, society loses surplus equal to the area of the triangle ABC.

The model finds that the mandated minimum growing fee leads to a **welfare gain of \$1.75m** per year. *Welfare* is calculated by NECG as the sum of consumer surplus, processor surplus, and grower surplus.

- □ The *consumer surplus* will not be affected by regulation in a measurable way, although industry output increases, since it is assumed in the model that the activities of the processors in NSW have no influence on the market price for wholesale chicken.
- □ The *processor surplus* is the sum of processor profits across all firms in each region and all regions in NSW.
- □ The *grower surplus* in each region is a mathematical integral that measures the excess of the equilibrium growing fee over the acceptable growing fee up to the "market clearing level" of growing services.



Processor critique

Processors have contended, and themselves make a number of points that should be made with regard to the NECG model, the oligopsony assumptions and therefore of the model conclusions:

- the mere existence of oligopsony conditions is not sufficient for that behaviour to be followed and therefore it does not necessarily hold that the modeled outcomes occur in the real world;
 - different assumptions regarding behaviour under 'imperfect' competition yield different outcomes, some of which may differ little from the perfectly competitive outcome;
 - o the outcomes may not be stable in price output outcomes or
 - the level of uncertainty surrounding the variables is such that parties do not act in such a way that their decisions accord with a theoretical outcome;
- □ the empirical importance of the differences in outcomes compared to the assumption of competition may be trivial, particularly as the number of processors in a region increases and is dependent on the elasticity of supply assumed.

Processors added:

There are however no generally accepted behavioral assumptions, each buyer can control the level of his own purchases, but each is noticeably affected by the actions of the other. The (NECG Model) solution is contingent on the participant of interest maximizing his profit by varying the level of input factor used and acting as though his output decisions invoke no reaction from any other rival, rather a naïve assumption. Stability, if equilibrium is ever achieved, depends on other rivals decreasing their output, if the firm of interest increases its output, by the same amount.

They further disputed the reality of the assertions that have been used in the development of a base case value on gains under the present arrangements.

To determine how plausible the model outcome of \$1.75 million is one has to judge whether the fees would fall to the levels suggested by the NECG model if regulation was removed from NSW. Is it plausible that processors would cut back production in the regions in which their most productive growing facilities are located to gain lower growing fees? Would these growers who include sophisticated investors allow this and what impact would this have on the ability for the processor to increase production capacity in the next period? In other words are the behavioral assumptions of the model valid? If not then the model is overestimating the supposed benefits between the modeled unregulated and regulated conditions. It is argued that the model dramatically overestimates any net surpluses.

Processors draw comparison between the modeled outcomes (ie. that give rise to the assessed welfare benefits of \$1.75million) and actual prices paid in the industry where the regulated PMIC process was not employed in grower-processor negotiations. The modeled fee of 31.6 cents per bird for three regions which are predominantly based on tunnel shed production compares with independently agreed prices in NSW which range between 48.25 cents (plus clean-out) and 55 cents.

Variation in assumptions

Processors have argued that the underlying assumptions used in the NECG model do not reflect reality.

It is noted that the NECG analysis is highly sensitive to changes in the assumptions regarding the elasticity of supply. The net economic surpluses shown in the table below are the differences between the total processor plus grower surpluses in the regulated regime compared with the unregulated regime – in a manner consistent with that modeled by NECG.



| Elasticity | 1 | 1.5 | 2 | 3 | 4 |
|----------------------------|---------------------|------|-------|------|------|
| | \$ | \$ | \$ | \$ | \$ |
| 1. Regulated price used | 1.75 | 0.07 | -1.21 | -3.3 | -5.3 |
| 2. Regulated minimum price | 1.84 ^(a) | 0.65 | 0.47 | 0.24 | 0.07 |

NECG model: net surpluses vs supply elasticity

Source: Processor submission

(a) The net surplus here is slightly larger than under scenario 1 because in scenario 1 one region (Central Coast had an unregulated price (52.67) that is greater than the regulated price scenario of 51.73 cents.

This analysis shows that as the elasticity increases under the "regulated fee" scenario, the total net surplus becomes negative, as in more frequent instances the unregulated fee becomes larger than the regulated fee. Setting the regulated fee as a minimum removes these negative impacts. The processor's analysis indicated that the minimum net surplus possible under this second scenario is zero in which case all regions are operating at the unregulated prices.

The debate on the divergent views over the approach to modeling are – in the opinion of this Review – of limited interest only in the overall scheme of the analysis.

Hold-up

NECG refers to "hold up costs" which arise due to possible opportunistic behaviour of processors once investment is made. Processors can "hold up" growers because the latter make relationship-specific investments before the return on these investments is agreed on.

NSW Farmers through the NECG analysis stated that the potential for such hold-up arises because the grower who has made a highly asset-specific investment will find that his or her investment has little value outside the current contractual relationship. Therefore, once the investment is sunk, the investing grower may be more likely to accept any barely profitable terms offered by the other contracting party rather than risk wasting the investment completely.

This position was supported via a number of submissions from individual growers.

Processors argued however that:

...processors over a long period of time need a continuing increase in growing services. If they indulge in such opportunistic behaviour, as distinct from an economic reason for lowering fees (holding them at nominal levels) then they simply would not attract the investment that is needed.

This would be particularly relevant to attracting new entrants who have obviously a choice of processor. The fact that many existing growers and new financially sophisticated entrants are prepared to come into the industry strongly suggests that hold up costs are not a concern. There are strong economic reasons for paying lower growing fees to growers who have old high cost facilities (higher growing costs are incurred by processors) or for moving those facilities out of the industry altogether.

2 Efficiency gains and losses

A primary issue in the measurement of costs and benefits is an assessment of the potential efficiency or productivity gains from a change in regulation. NCP is interested in the scope for more efficient allocation of resources.

Efficiency is not just about lower-cost production of poultry meat. It is concerned with the long-term sustainability and competitiveness of the industry's supply chains in NSW. It is also concerned with the way in which other results and outcomes are achieved – including industry employment, community impact, and socio-economic benefits for the state.



2.1 The source of such efficiency gains

The nature of the Public Benefit Test of regulated price-setting arrangements is such that the outcome of the Test tends to be driven by the scope for perceived efficiency gains which are prevented by the existence of a restriction on competition.

There are assumed to be two sources of efficiency gain for the poultry industry in NSW:

- a) from the uptake of tunnel shedding
- b) from a response to incentives to improve management application in turn affecting throughput and bird quality through commercial pricing and supply signals

2.2 The issue: does the PMIC process affect efficiency?

This Review is not focused on the adoption of one technology over another, but whether restrictions prevent or hold up better productive performance of the industry. Regulation is also capable of achieving efficient outcomes where a market failure can be corrected or prevented.

The potential impact in productive efficiency is not wholly associated with a change in the current regulation, as some productivity improvements associated with industry restructuring and rationalisation will occur in the case of continuation of the existing regulation.

Processors have argued however that a deregulated contract negotiation regime in NSW will allow the industry to pursue improved efficiencies in the growing sector through greater use of better technologies and the ability to provide greater incentive to more productive growers through pricing arrangements.

This will be the case as about 90% of grower contracts are due for renewal in mid-2004 and contracts between processors and many conventional shedding operators will not be renewed. NSW Farmers estimate that some 16% of growers will not be offered contracts at this time, which would see numbers fall from 310 to 260, leading to better cost efficiencies for processors who take advantage of changing their input mix of supply technologies.

For the purpose of the analysis it may be reasonable to assume that a portion of the total potential productivity improvement will be achieved from 2004 onwards as a result of industry rationalisation from selective contract renewal. The important aspect of this analysis however is not to view the impact of change in the immediate short-term (that is, by considering the 2004 changes in contract/shedding mix), but over a medium to long term timeframe.

In terms of both items, processors have – for the purposes of modeling – assessed the overall potential productivity gains to the NSW supply chain of 7.5 cents per bird, of which 5 cents would accrue to a processor and 2.5 cents to a grower – the latter realised through better growing performance and throughput efficiencies. These factors are discussed in Section 2.5.1 in the body of our report. Based on evidence presented to this review and to other state reviews, such per-bird gains are considered conservative.

The existence of potential gains of this order has been broadly supported by other studies in the past. The Allen Report (2002 p 2) acknowledges that tunnel shedding provides lower per bird costs of between 8 to 10 cents to processors.

2.3 How much of a gain is realistic?

The scale of the benefit that would accrue from a change in the current arrangements might be variable and debatable. At present, processors are free to decide which growers to whom they offer contracts, yet are constrained by the workings of the overall PMIC system which – it is claimed - supports a broader continuity of conventional shedding. This is due to the following issues:

- the inability for any processor to develop meaningful incentive arrangements that provide any sustainable competitive advantage due to the ability for their processor competitors to learn of the contract framework through the PMIC contract approval process
- o the use of conventional shedding cost models in the development of the case for bird-fees

These benefits would only apply therefore to a percentage of private farm operations and exclude the 10-15% of production represented by corporate farms. It is our estimate that change to remove the constraints to offer commercial incentives and signals and allow individual development



of processor-grower arrangements without transparency would advance the uptake of tunnel shedding between 20-40% of capacity.

In terms of item (b) identified above, such additional gains are proposed by processors – and supported by the findings of previous review reports – which flow from a deregulation of pricesetting.

It can be argued that the size of efficiency gains that may be available from a removal of regulatory arrangements are limited. If gains were significant over time, then processors might resort to increasing their investment in grow-out farms to take advantage of the benefits available from closer integration. Processors however have generally reduced their investment in grow-out farms – a trend that is consistent across much of the broader agrifood sector as food processors and marketers have tended to prefer applying their investment capital in processing and marketing assets which have tended to require greater attention due to the nature of consumer markets.

Processors stated that other areas not necessarily related to the uptake of tunnel shedding that will improve processor productivity is improved layout of shedding, size of sheds and other factors that affect access, pick up and delivery times and works that are to the processor's account but are affected by the actions of growers in response to the availability of a share of incentives.

The gains were attributed to improving incentive schemes to growers and to obtaining an improved quality product. Estimates have ranged from 0.8 cents per bird to 1.8 cents per bird in other states. We have opted for the bottom end of this scale for this aspect of change, which we have regarded as already included in the processor estimate of 7.5 cents per bird noted above.

| Source | Assumption | Net gain (low) | Net gain (high) |
|---------------------------|---|-------------------|--------------------|
| Uptake of tunnel shedding | 20 to 40% of birds (= 24 to 48 million) @ 6.7 cents | \$1.6m | \$3.22m |
| Overall efficiency | 0.8 cent per bird for 75% of production | \$0.88 | \$0.88m |
| | Total (per annum) | \$2.48 | \$4.10m |

Gains of this nature would accrue over time, and would not be immediately realised within the industry. The argument of the processors is that the removal of restrictive price setting would **bring forward** the scope for greater adoption of tunnel shedding gains to the whole industry and see the NSW industry more quickly enhance its competitive position.

Accordingly any measurement of these gains on a net present value basis should reflect the delivery of gains over a limited period of time. For these purposes, a typical period of a contract term of 5 years has been used for such purposes.

2.2 Who benefits?

The effect of efficiency gains would enable the NSW industry to produce chicken meat to meet the demand from the marketplace at a lower overall cost of production. It will not necessarily mean that the industry turns out greater volume, which is regulated by market demand and the extent of national market share that can be reclaimed by the NSW supply industry – by replacing interstate shipments into the state or capturing more of the markets in adjoining consumer and further processing markets.

In providing the scope for better market competitiveness through lower costs, some of the gains will inevitably be passed to the retail sector (grocery retail and QSR), which is aggressively seeking cost reductions as part of their business strategy – for EDLP practices and supply chain management efficiencies. The existence of a larger number of processors in NSW will increase the likelihood of a significant percentage of such gains being passed onto the retailer and consumer (through competitively priced chicken compared with other meats).

Growers state that in order to realise the benefits from the higher efficiencies, it is necessary to make greater capital investments in technology conversion and facility upgrade. Over time, the net benefit from the change may be marginal in its effect on the net present value of future returns, yet are assured the opportunity of maintaining their market access in the industry.



NSW Farmers did not seek to quantify the scope of any potential efficiency gain, but have argued that any such gains would accrue only to the account of the processor, and therefore (it is assumed) be considered as part of the overall assessment of transfers. They argued that the gains are dependent upon grower facilities being employed at optimal capacity:

Few processors have offered financial incentives to growers (ie higher prices or longer contracts) to warrant the increased capital upfront expenditure that is required in tunnel sheds. Instead processors state that growers benefit by 25-30% from improved densities and throughput after they are built. However both these factors are completely under the control of processors and rely on processors placing birds at near capacity levels. There is no obligation (or penalty) when processors do not supply promised densities and throughput.

It is also not clear from the NECG analysis where any account is taken of the efficiency factor that is affected by a change in arrangements. The NECG model assumes a single technology in chicken growing, and does not describe an effect on the supply chain of a change in productivity.

Conclusion

It is the conclusion of this Review that a deregulated price-setting environment is likely to support industry rationalisation and associated cost efficiencies and lead to the achievement of potential productivity gains. It is reasonable to assume that the current arrangements, which do not freely permit the development of commercial grower and processor relations specific to the individual needs of each processor's business, **limit improvements in efficiency** of the nature that the NCP tests and process is concerned with.

However, the magnitude of these gains, the speed of their uptake and where such gains will be made is difficult to predict with any certainty for the purposes of this review. That uncertainty is exacerbated by the fact that regulated pricing arrangements have been in place in NSW under the current Act for almost 20 years.

Unpredictability is aided by uncertainty of the potential future dynamics of the chicken meat market once a truly national commercial system is allowed to develop.

3 Transaction costs

The regulated arrangements currently accommodate various grower groups engaging in negotiation of base growing fees with their processor. In a move to a deregulated model, these costs are likely to be common to both the regulated and deregulated system.

The incremental costs of the operations of the PMIC system is associated with the preparation for and attendance at PMIC meetings, which processors argue places considerable requirements on people's time for preparation as well as the use of the time of public officials and the direct cost of appointed members for travel and fees. The PMIC system may therefore incur higher costs on the community in the form of net administration costs compared with a deregulated system.

It is acknowledged by processors that without the PIMC, litigation and other costs may rise to both processors and growers, and in broad terms the net effect of change may be minimal.

4 Other considerations under NCP

4.1 Competitiveness of business

Processors argued that the analysis in their submission and the poor relative performance of the New South Wales industry support the argument that the legislation is hampering the competitiveness of the state's industry.

4.2 Employment and regional development

Moves towards a more deregulated environment for the poultry meat industry are likely to speed up rationalisation of growers. As noted above however, the greatest impact of change will flow from changes in the allocation of contracts themselves rather than a departure from the PMIC price-setting process.



However, offsetting any rationalisation of growers that would give rise to the closure of farms and loss of output, and the flow-on benefits of value-added, income and employment, will be expansion of remaining contract grower output to meet the demand that exists within the state's regions.

Poultry processing has been shown by previous reviews and studies into the industry to be a more significant contributor to regional economies in terms of direct employment, output, value added and income than poultry farming. As the overall aim of the NCP process is to enhance the competitiveness of business, the combined effect of change to the overall industry supply chain is a pertinent consideration.

Processors argued that:

the major employment impact is in the over 1,200 jobs in both the growing and the processing areas have most likely been lost because the New South Wales poultry industry has performed below its economic potential. As noted in this analysis and in the Hassall Review (2001), it is the processing sector that is at least four to five times more important for employment.

Larger scale farms are more likely to employ more people and provide better income flow-ons into regional economies.

4.3 The interests of consumers or a class of consumers

Theoretically, consumers in NSW might benefit from lower costs and from higher output levels providing that benefits of a change in arrangements are passed along the marketing chain.

Whilst the chicken meat market is highly competitive and in the past has passed on the advantages of a cost-competitive homogeneous product and cost reductions arising from technological change/productivity improvements, this Review does not believe that specific changes in the levels of growing fee will be identifiably passed on to the consumer.

Growing fees currently account for somewhere between 5-10% of the retail price of chicken meat (depending upon the form in which the product is sold and the final market channel). This means that should all of any ultimate lower growing fee be passed through to consumers in the form of lower retail prices, or in the ability for processors and retailers to pass on lower price rises to the consumer over time in direct price competition with other meat products, that reductions may be less than 1% of retail price.

This gain may be regarded as insignificant when the nature of retail practices in the consumer market for meat with frequent discounting of prices by retailers and processors in order to enhance category attraction compared with other meats. Discounts are frequently of the order of 20-25% on a regular basis.

The poultry industry has over time demonstrated that savings are passed along the chain to the consumer. There is no reason to believe that processors will be able to retain any "above-normal returns" from productivity enhancements or from fee gains. The competition between processors and the cost-pressure placed on suppliers of fresh products by the retailers will ensure that only "normal" profits are retained over any reasonable period of time.

4.4 Ecologically sustainable development

The Review received no submissions relating to this aspect of the factors under consideration.

The argument has been advanced by growers that changes to regulation will reduce prices paid to growers and grower incomes, and force growers to find cost of production savings. One avenue of cost of production savings might well be measures that effect farm hygiene and the industry's bio-security.

It is recognised however that processors have a significant stake in securing a reliable and consistent supply of birds free of disease. It is a condition of grower supply contracts that growers adhere to strict animal health guidelines, or risk non-placement of batches. As it is not in the processors' interest to have either supply interruptions caused by grower non-compliance with welfare and environmental requirements, contracts are not likely to be offered to those considered a supply risk in these regards.

NSW Farmers' stated that both growers and processors contend with increasing problems associated with land use conflict as land becomes scarcer and rural/ residential dwellers encroach on 'rural' zoned land. This problem will worsen into the future as Sydney and Central Coastal urban regions expand and the coastal population moves further inland.



A further aspect of this issue is the difficulty in obtaining Development Application approval in different Local Government areas to enable expanding production and relocation to occur.

Other regulatory mechanisms have the primary objective for the maintenance of bird health, biosecurity, bio-diversity and pollution control in areas of poultry production. It is not anticipated that the removal of regulated price-setting arrangements will in themselves give rise to increased risk in these regards.

4.5 Social welfare and equity issues

One of the potential major impacts that may result from any deregulation of price-setting is a redistribution of wealth between growers and other industry participants, as well as end consumers.

The participants dispute the ultimate result of a distribution of a change in the structure of growing fees with a deregulation of price-setting. The most likely result is a transfer to processors and retailers, yet some benefit may flow to consumers due to the nature of the competitive retail meat market. If gains were to ultimately flow to consumers, this would benefit numerous consumers of chicken. On the other hand, the transfer identified in 4.2.1 of \$3.6m or 3 cents per bird will be focused on the existing growers (who are likely to number 260 in the period after contract renewal), which may force some growers into losses. This may have a negative flow-on to growers, their families and communities.

Grower rationalisation – especially amongst those who remain or are locked into conventional shedding - may be quickened through a change in price-setting, while it may be conversely argued that those growers who remain in the industry are likely to benefit from increased production levels, economies of scale and hence lower average production costs per bird.

The existing arrangements allow for processors to select their suppliers at the time of the negotiation or renegotiation of contracts outside the reach of the legislation, wherein there lies a greater risk for growers to suffer income losses and adjustment pressures.



Endnotes and references

⁸ Tsolouhas, T. & Vukina, T. (2001), *Regulating Broiler Contracts: Tournaments versus Fixed Performance Standards,* American Journal of Agricultural Economics, Vol 83, No 4, November, p 1062-1073.

⁹ Report to NSW Farmers' Association by Allen Consulting Group (2003), p2.

¹⁰ Report to NSW Farmers' Association by Allen Consulting Group (2003).

¹¹ ACCC authorisation number A90888 in respect of the Tasmanian chicken growers contracts, May 2004.

¹² The conceptual model has been developed at the grower level rather than the processor level because of the focus of the legislation on growers and absence of processor cost of production and price information.

¹ KMPG Final Report into the Victorian NCP Review of the Broiler Chicken Industry Act, (1999).

² Australian Bureau of Agriculture and Resource Economics (March 2004) Australian Commodities: Pig and Poultry Outlook.

³ Australian Bureau of Statistics. Retail Industry, Commodity Sales.

⁴ Instate Pty Ltd & S.G.Heilbron Pty Ltd (1997), *The Australian Chicken Meat Industry; International Benchmarking Study*, commissioned by the Australian Chicken Meat Federation, May.

⁵ Instate Benchmarking Study (1997), Chapters 5 and 6.

⁶ Fee range excludes Proten fee (67.84 cents) which is for large birds only.

⁷ Knoeber, Charles, R., Thurman, Walter, N. (1995), *"Don't count your chickens...": Risk and risk shifting in the Broiler Industry,* American Journal of Agricultural Economics, Vol 77, No 3, August, p 487.