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Has Australia fallen behind the strategic alliance contracting trend in the global food industry? If so, is government assistance warranted?

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Abstract:

Since the 1970s, there has been a broad shift from arm's length to long-term strategic alliance procurement practices across nations and industries. This has happened for sound commercial reasons. Peculiarities of agricultural production have slowed this shift in many food industry sectors, but it is now proceeding apace – driven primarily by rapidly globalising supermarket chains.

In most Australian agri-food sectors, few firms have the scale or level of sophistication that would make them attractive strategic alliance partners either for international food retailers or for their category managers. The reasons for this include a combination of past government failures (inappropriate policies) and failures or inefficiencies in a range of information markets.

The long-term nature of strategic alliances generates significant first-mover advantages for suppliers. Australian food producers risk being locked out of attractive opportunities if they fail to adapt to the new mode of contracting.

For regional economies, the long-term benefits from accelerating strategic alliance adoption are likely to be large. Such benefits will flow on to many who are not usually considered private beneficiaries of that adoption. In other words, there are significant public benefits in prospect.

While the results of past government intervention in this field have been mixed, there has been much learnt internationally from such experience. In Australia, many of the inappropriate policies have now been reversed and the prospects for cost-effective government assistance in the relevant information markets are good.

TABLE OF CONTENTS

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1 Introduction

This paper began life as a discussion paper for the Value Chain Expert Group that was formed to advise the Primary Industries Ministerial Council (PIMC) and related committees in relation to the National Lamb Value Chain Project. The purpose of putting the paper in the current format and presenting it to the 2011 conference of the Australian Agricultural & Resource Economics Society (AARES) has been to continue the development of some of the ideas and to seek peer review.

At the first meeting of PIMC after the Rudd Government took office, Commonwealth Minister for Agriculture, Fisheries and Forestry, the Hon. Tony Burke, listed *Enhancing Productivity* as one of four key issues facing Australian agriculture sectors.

At that and the subsequent PIMC meetings in April and November 2008, Ministers

> "agreed to progress work on enhancing productivity through analysis of agricultural value chains. …
>
> The interest of PIMC ministers in this matter arises from concerns about enhancing prosperity in the context of:
>
> - probable long-term climate-change-induced reduction of agricultural productivity (or at least reduction in its growth rate); and
> - evidence that *international* food retailers are among the fastest-growing segments of the food industry and that they, almost without exception, are using a long-term strategic alliance (that is, a value chain) procurement model[1]". (PIMC Minutes)

The intent of the project has been to inform (coordinated) policy of CoAG governments on value chain development and its implications for agricultural productivity. It has also been important to Council that the project gets strong buy-in from participating firms and industry organisations.

PIMC's call for the project was stimulated by:

- ABARE's evidence of slowing in Australian agricultural productivity growth over the previous decade;
- awareness that this is consistent with the cyclical history of agricultural productivity growth: surges following technology breakthroughs and lulls after the major benefits of those breakthroughs are captured;
- Ministerial comment that the next surge in productivity growth is likely to come from the above-mentioned change in the procurement model of global and other food retailers, rather than production-oriented technological change; and
- differing levels of awareness among PIMC members of the significance, for the global food industry, of the shift to strategic alliance procurement models.

[1] This report on the PIMC meetings uses the terms *long-term strategic alliance* and *value chain* synonymously. Section 3.1 explains that this is not the case in this paper.

The concern, at national Ministerial Council level, about the economic impact of alternative procurement models has been a significant driver of interest by agricultural economists. This included a much-increased profile at the 2010 conference of AARES in Adelaide.

2 The quest for improved productivity & competitiveness in the Australian agri-food sectors

The PIMC discussion canvassed the relationships between productivity, competitiveness and Australian national prosperity and it is useful to summarise those relationships for the purposes of this paper.

2.1 The relationship between productivity, competitiveness and national prosperity

A key issue in understanding the relationships between productivity, competitiveness and national prosperity is clarifying how productivity is defined. Much agricultural economics literature adopts a narrow definition of productivity, focusing on yield growth and a limited number of product quality characteristics. Most PIMC and PISC agenda papers relating to the *Enhancing Productivity* discussion adopt this definition.

By contrast, Michael Porter uses a much broader definition:

> "Now, productivity is *partly* (emphasis is mine) a function of efficiency, especially in commodity industries. In the modern global economy, however, productivity is more than efficiency in producing the same old goods. It also has to do with the value of the products that a nation produces. And as an economy becomes more advanced, it has to find ways to raise the value of its products, with value being measured by what buyers are willing to pay. Buyers are willing to pay more only if the product is better quality, it has better features, is offered together with better services, or carries a better brand name. Productivity growth is as much a function of raising product value as it is of improving the efficiency with which traditional products are produced." (M. Porter 1998, p.2)

The idea of value chains (or strategic alliance contracting) enhancing productivity depends crucially on adopting Porter's broader definition. In fact, this appears to be the case in the productivity measure used by ABARE and by PIMC, namely, Total Factor Productivity (TFP). In simple terms, in calculating TFP growth, differential productivity changes between products are weighted by the prices of those products as at the various dates of productivity measurement. *This means that, unless one explicitly removes the impact of, for example, better branding or service bundling, TFP will tend to measure productivity as defined by Porter*.

Using the broader definition of productivity, Porter links productivity to competitiveness and national prosperity as follows:

> "We know, beyond a shadow of a doubt, that the only way to have a prosperous economy is to create a high and rising level of productivity throughout the economy. A productive economy can pay high wages; an unproductive economy can only support low wages. A productive economy can earn high returns on the capital it invests in its business activities; an unproductive economy can only scrape by earning low returns.

> Productivity determines prosperity; there is no other way. Productivity is the definition of competitiveness; no other definition makes sense." (M. Porter 1998, p.2)

Nor is Porter alone in making these links:

> "The "official" definition of OECD of a nation's competitiveness is 'the degree to which a country can, under free and fair market conditions, produce goods and services which meet the test of international markets, while simultaneously maintaining and expanding the real incomes of its people over the long term'." (Garelli 2002, p.1)

In the above-quoted paper (presented at the Wellington Town Hall in New Zealand), Porter takes the further step of linking the foregoing to the nature of national innovation, emphasizing the importance of uniqueness and high unit value:

(Porter 1998, p.3)

Porter's introduction of the connection to innovation is very relevant to PIMC, because a key part of the discussion about enhancing productivity was (and continues to be) review of government subsidy of Australian agricultural research & development corporation programs. A long-standing criticism of both the programs and the subsidy has been the program foci on yield and disease-related quality parameters, rather than product uniqueness, unit value, environmental sustainability and through-chain aspects of competitiveness.

Moreover, some experts have argued that, in Australia's mostly moisture-constrained agriculture, most of the opportunities for yield growth have already been exploited and that yield growth is likely to be slower henceforth. Indeed given PIMC's concern about climate change reducing rainfall levels (especially in the temperate latitudes), yield growth could be doubly affected.

The relevance, in this paper, of Porter's approach to connecting innovation to productivity and competitiveness is that it supports the idea that innovation in Australian agri-food business models (including procurement) might be at least as successful as the traditional foci of agri-food research and development. This was

the thrust of the Ministerial comment in PIMC that gave rise to the above-mentioned Value chain project.

2.2 How can Australian agri-food improve its targeting of consumer preferences?

2.2.1 Scope for growth in unit value via better targeting of consumer preferences

For some decades, management literature has been replete with examples of firms in many industries increasing product prices, margins and sales volumes via better targeting of consumer preferences. Typically, such firms have added a degree of resilience to the resulting improved profit streams by:

- building credible brand names;
- incorporating hard-to-reproduce features and service offerings; and
- adopting smarter and hard-to-reproduce procedures for market intelligence, production and distribution.

One might reasonably summarise this literature by describing better targeting of consumer preferences as central to the growth and evolution of global competition since the 1960s. More recently, there has been a growing body of literature documenting this phenomenon in food products. (See, for example, Barber & Cutbush (2006), S. G. Heilbron Pty Ltd (2006), Fearne (2009), Reardon (2010), Gow (2010 & 2010a).)

2.2.2 Limitations of traditional market mechanisms

Many of the characteristics sought by consumers (taste, shelf life of fresh products, nutritional value, organic or biodynamic status, human and animal welfare in production, food safety, etc.) are not visible at the point of sale and are therefore referred to as credence values (as they must be taken on trust). With the growth in choice and competition in the market for food products, the capacity to differentiate products becomes more important. As credence values become more critical in differentiating products, two things happen:

- brands, especially highly credible brands, become more important; and
- there is a growing need for retailers and other brand owners to protect their brands through the traceability of ingredient quality and/or integrity. Industry-wide standards backed by robust audit trails, such as the Meat Standards Australia (MSA) standard for beef, are a significant contribution towards this. However, in general, traditional, arm's-length, spot-market modes of transaction will be inadequate for ensuring that a product's ingredients have the required credence values.

The second major limitation of traditional market mechanisms is to do with the rate of product innovation, whose importance was mentioned above. Increasingly, to stay ahead of competitors, firms need a faster and more detailed flow of information, from retailers, about changes in consumer preferences. This has not been possible through arm's-length contracting. Indeed, in many cases, arm's-length

intermediaries actively impede that flow in order to protect their role in the supply chain.

Much of the literature that has documented the trend towards better targeting of consumer preferences discusses the processes by which that is achieved. The major theme has been the trend towards closer integration between firms along the supply chain. There are a myriad of arrangements for integrating more closely and a wide variety of terms have been used to label them.

3 Can strategic alliance contracting have a major impact on productivity?

3.1 Definitions of some key terms

Discussion of alternative procurement models or modes of integration sometimes founders on confusion about the meanings of the relevant terms. To avoid that confusion, this paper adopts the following meanings.

Contracting

> "The existence of a contract requires finding the following factual elements: a) an offer; b) an acceptance of that offer which results in a meeting of the minds; c) a promise to perform; d) a valuable consideration (which can be a promise or payment in some form); e) a time or event when performance must be made (meet commitments); f) terms and conditions for performance, including fulfilling promises; g) performance. … Contracts can be either written or oral, but oral contracts are more difficult to prove." (The Free Dictionary http://legal-dictionary.thefreedictionary.com/contract)

In procurement-model discussion, the term 'contracting' is sometimes taken to infer the existence of written contracts. However, quite a few highly integrated procurement models are not documented in writing. (For example, WalMart does not use written procurement contracts.) This approach particularly suits arrangements of which some important aspects change frequently, such as with rapid product development. In this paper, such arrangements are referred to as contracting. Evidence of repeated shipments and payments would make such arrangements compatible with the above definition.

Relational contracting

Unwritten contracting of the sort discussed above is often referred to as relational contracting. See, for example, the quote below:

> "Relational contracts—informal agreements sustained by the value of future relationships—are prevalent within and between firms." Baker et al. (2001), p.1

Value chain

Michael Porter (1985) coined the term *value chain* to describe the chain of tasks that a firm undertakes to create a saleable product. The purpose was to articulate an analytical process for assessing which tasks actually add value and which could be deleted, simplified or otherwise changed to improve the value of the product to consumers and/or reduce its cost of production and distribution. The use of the term *value chain* has expanded to cover the chain from upstream producers, e.g. farmers, to retailers. In its multi-firm interpretation, the term tends to be used to distinguish

those chains in which the firms *agree to make joint strategic business decisions* in order to add more value to the product and/or strip out costs as per Porter's original definition.

Strategic alliance contracting

Strategic alliance contracting is similar to the multi-firm value chain concept described above. However, it refers to value chain partnerships in which the firms make *very significant* (and usually unrecoverable, or *sunk*) investments in the relationship. Asanuma (1992) and others refer to the extent of such sunk investments, especially when they are mutually made, as means of demonstrating commitment to the relationship. In agri-food, such relationships require mechanisms, at grower level, to improve understanding of changes in consumer requirements and demonstrate credence values. The aim of this investment is to help those chain members to differentiate their products. Its financial logic is to draw, from the consumer, a premium for the greater degree of satisfaction received. The downstream chain members then demonstrate their commitment by passing back enough of the premium to improve the return *on overall investment* by the grower. It will be clear that the grower would have to find a way of becoming irreplaceable enough to warrant such downstream commitment.

Strategic alliance terminology has been used in this paper, rather than *value chain* as in earlier versions, to emphasise three key points about food products and the international trends in their production and distribution:

- The growing importance of credence values in modern food retailing requires *very strong and credible relationships* between chain members.
- Many growers in Australia and elsewhere have neither the scale nor sophistication to become attractive (that is, fairly irreplaceable) strategic alliance partners of global, or even niche, food retailers.
- Many value chain writers state that commodity food production can be a legitimate part of state-of-the-art food value chains. This paper argues that commodity agricultural production cannot adapt quickly enough to changing consumer preferences nor can it deliver the level of credence values that are becoming essential to modern food retailing.

An example of the difference would be a situation in which a retail chain announces that it will only purchase cattle grown to Meat Standards Australia (MSA) specifications and a grower adopts MSA protocols to ensure suitability for purchase by that retailer. Such an arrangement might satisfy the value chain definition of some analysts, but it would not count as a strategic alliance. On the other hand, the arrangements described in most published case studies of successful value chains would count as strategic alliances.

Commodity agricultural production

In this paper, commodity production refers to systems exhibiting the following characteristics:

- Choices of product variety and growing regime are based on prevailing prices and outlook in commodity markets – rather than on building a long-term relationship with downstream chain members.
- Sales are made via spot markets.

The relationship between some of these concepts is explained well by Michael O'Keeffe, who defines value chains as a supply system involving

> "the replacement of markets with management as the coordination mechanism between demand and supply. In (supply-push) commodity systems, markets coordinate supply and demand: under (demand-pull) value chain systems, management coordinates product and information flow between the various players. … The value chain approach is used by firms to gain a competitive advantage through: (1) creating more value for consumers, (2) lowering the overall delivered costs and/or (3) improving the rate of innovation." (Report to PIMC Working Group, 2008)

In contrasting value chains with commodity systems, Mr O'Keeffe is using the former term at the strategic alliance-contracting end of its spectrum of meanings.

3.2 The global trend towards strategic alliance contracting

Strategic alliances are not a transitory phenomenon. The model appears to have emerged first (at least as a management concept) in post-war Japanese manufacturing, most probably from Edwards Demming's influence in shifting the focus from high volume at low cost to production efficiency (reducing the cost of errors and faults). Replacing arm's-length, short-term, tendered contracts with closer, longer-term working relationship between the client firm (the owner of the retail brand) on the one hand and the component supplier on the other proved to be the most effective method of reducing this cost.

The economics literature on the subject attributes growth in the Japanese share of the US car market during 1980s to consumer frustration with faults in US-made cars. The superiority of Japanese car firms in this respect was attributed to their strategic alliance model for sourcing car components. (See, for example, Asanuma (1992).) That model is now almost universal in the car industry and in most other manufacturing industries.

Of course, trust-based relational contracting has existed for thousands of years. Indeed, it appears to have been the main form of contracting until the commercial revolution of 11^{th}-14^{th}-century Europe saw the development of institutions that facilitated anonymous (arm's-length) contracting (D. North, 1994). Ironically, it was the success of those institutional arrangements in reducing transaction costs that led to the dominance of arm's-length commodity trading in Western primary industries. As supply chains became more complex, however, increased competition elevated the importance of credence values while the information and communications technology (ICT) revolution reduced the cost of relational contracting. The result has been that the limits of arm's-length contracting have been exposed. This has necessitated the current efforts to experiment with different blends of arm's-length and relational contracting to improve contracting efficiency, depending on the particular nature of the transaction costs along particular supply chains.

3.3 Why strategic alliance contracting works

3.3.1 The economics of strategic alliance contracting

As implied above, the most common explanation for the success of strategic alliance contracting is that it has been effective in stripping out transaction costs along the supply chain. (See, for example, Barber & Cutbush (2006) p.1.)

Transaction costs are estimated to constitute at least 60% of GDP in modern economies, so it is not surprising that they are a major focus in the quest for improved competitiveness. (See, for example, Dollery & Leong's (1998) estimation of transaction costs in the Australian economy. This work used the process pioneered by Douglas North in the US economy.)

There are five types of transaction costs reduced by strategic alliance contracting. The main three of these relate to the three sources of competitive advantage referred to in the quote from Michael O'Keeffe above:

- *Lowering the overall delivered cost:* In addition to reducing the number of logistic mistakes, strategic alliances reduce the cost of ensuring the required level of credence values mentioned in Section 2.2.2 and in the US car market example in Section 2.2.4.
- *Improving the rate of innovation:* Strategic alliances usually reduce the cost of maintaining a good flow of information about changes in consumer preferences, as discussed in Section 2.2.2. In addition, the high level of trust nurtured between brand-name manufacturer and component supplier in strategic alliances also increases the sharing of information about what is becoming possible in the way of improved features.
- *Creating more value for customers:* the cost to consumers of finding and selecting products that meet their requirements is a significant share of whole-of-chain transaction costs. (Economists refer to these as *search costs*.) For perishable food, ascertaining product quality has traditionally been the major search cost. For example, value chain analysts such as Michael O'Keeffe and Andrew Fearne refer to the "lottery" involved in trying to buy good Australian stone-fruit. In this case, the main search cost is the waste that occurs when the sub-standard fruit is bought for fresh consumption but thrown away or cooked to make it edible.

Another type of transaction cost reduced by strategic alliance contracting is protection of proprietary knowledge. Whether or not the knowledge is protected by patent or copyright, experts agree that limiting dissemination to trusted parties is an important part of normal intellectual property protection strategy. If the knowledge is to do with the connection with others along the chain, knowledge protection can be a major incentive for strategic alliance contracting (M. Casson, 1987).

Finally, the traditional way of capturing the above-listed advantages has been for the "chain leader" to buy businesses at critical stages of the chain. In some situations, this is still the best strategy. However, for various reasons such as when there is a large discrepancy between the efficient scale of operations at different stages of the chain, owning the other stages can be inappropriate. In fact, this is very often the case, especially in food chains, because the efficient scale in farming can be as low as $5-10 million in turnover. In processing, distribution and brand management, the efficient scale is usually many times that level. Strategic alliance contracting allows

the chain leader to capture a significant share of the above-listed competitive advantages while keeping its own business structure and balance sheet simple enough to be attractive to investors.

3.3.2 Evidence from other industries

There is little statistical evidence of superior performance from firms using strategic alliances. However, it is clear from supply chain management and related economics and management literature that there has been a long-term shift in manufacturing and, more recently, in service companies towards these practices. The thrust of argument in this literature is that these practices improve performance and stimulate the spread of strategic alliance practices to competing firms. Andreas Hammer (2006) provides a good summary of this trend and, in a comprehensive statistical analysis of 183 firms in the electronics, machinery and automotive industries, finds positive correlation between intra- and inter-firm integrative practices on the one hand and some performance indicators on the other.

3.3.3 Evidence from agri-food industries in other countries

As in other industries, there is little statistical evidence of superior performance by strategic alliances or value chains in agri-food. However, many cases of firms improving their competitive position, or at least maintaining it in the context of increasing competition, have been documented. (See, for example, Barber & Cutbush (2006), S. G. Heilbron Pty Ltd (2006), Fearne (2009), Reardon (2010), Gow (2010 & 2010a), O'Keeffe (2008) and Taylor (1994 and 2001).)

In summary, the compelling case for adoption of the strategic alliance approach by Australian agri-food is that almost all large, rapidly-growing international food retailers are switching from spot-market to strategic alliance procurement[2].

3.3.4 Strategic alliances and brand management

The interaction between sales growth and protection of brand credibility has been an important driver of the shift to strategic alliance procurement. The logic behind this can be summarised as follows. The information and communications technology (ICT) revolution has introduced global economies of size[3] into brand management and food supply logistics, since business expansion into new territories adds less to the cost of building brand familiarity/credibility and supply networks than did building those in the original (home) market. Such expansion increases the market value of the brand and this, in turn, warrants increased investment in protecting the brand's credibility – especially as global brands can be vulnerable to single negative incidents (viz. Perrier mineral water)[4].

As mentioned above, strategic alliance contracting is proving to be the best way to protect brand credibility, particularly for food products, in which transaction costs

[2] Anecdotally, many successful niche retailers, whether large (e.g. Waitrose in the UK) or small, are also using strategic alliance procurement.

[3] Economists use the term *economies of scale* to refer to constant-technology situations. Frequently, increased firm production levels require a change of technology (e.g. from traditional seeders to air seeders). The more general term, *economies of size,* is used for *any* situations in which average unit cost falls as production level increases. The latter term will be used in this paper as it is concerned with the general relationship between size and competitiveness, not with specific technologies.

[4] It has been reported that, when a MacDonalds Townsville, Qld, customer broke a tooth on a pebble (from hydroponic lettuce) in a Big Mac, the incident received media coverage in 26 countries within 24 hours. Pebbles are no longer part of the growing medium of hydroponic vegetables.

have traditionally been relatively high[5]. Building strategic alliances is a costly investment, however, and is more a capital and overhead cost than a variable cost, so it too increases size economies. Thus, the ICT revolution has greatly increased the pressure to expand internationally to maintain competitiveness in food retailing. This increases the incentive for brand protection and "ups the ante" in rapid evolution of product offerings.

Almost every retailer that has gone international has adopted the strategic alliance (or, at least, value chain) approach to product sourcing. Indeed, the idea of establishing a global food-retailing network and entrusting its brand credibility to the vagaries of auction and other arm's-length supply sources would appear to be a very high-risk management strategy!

Finally, growers and processors who establish strategic alliances rarely relinquish their positions and, while hard profitability data is difficult to obtain, most analysts report evidence of improved prosperity. Farmer's markets and other boutique market segments will continue to be viable options for entrepreneurial smaller food businesses. It appears reasonable to predict, however, that most firms excluded from strategic alliance chains will be increasingly marginalised or, at best, will become suppliers of last resort to firms that are strategic alliance members.

3.4 Why the food industry has been slower than other industries to adopt strategic alliance contracting

The food industry has been slower than most other industries to adopt the strategic alliance approach because of a range of logistic and other complexities. These have included:

- Uneven supply of agricultural products because of seasonal variability;
- Product perishability and poor "cool-chain" technology or, at least, slow adoption of better cool-chain technology;
- Structural problems in agriculture in most nations, including:
    - Small farm size (often less than 10% of efficient scale) and independent-mindedness that impedes the collaboration that might overcome scale problems (Taylor 2002 and 2002a);
    - Low levels of education and ability to understand and fund available new technology and business models;
    - Government subsidies that distort market signals and impede evolution towards efficient and strategically-adept business management;
    - Institutional arrangements that favour spot-market selling and therefore impede the transition to strategic alliance and related business models; and

[5] For example, unpublished analysis for PIRSA by this writer has estimated transaction costs in fresh apple, pear and citrus exports to be greater than 50% of the retail price of the product. This estimate includes, as a transaction cost, wastage in the hands of the consumer and others along the supply chain from arm's-length purchase of unbranded produce. The logic behind counting such wastage as a transaction cost is that, as with the above-mentioned stone-fruit purchase "lottery", in the absence of branded fruit of credible quality, buyers factor the risk of wastage into their purchase decision. Thus, risk of wastage is treated as a form of search cost.

- A bias, in publicly-funded agri-food research and development, towards on-farm production rather than chain integration issues.

Despite these problems, new information, communication, post-harvest and transport technologies have made it possible for food retailers to negotiate with leading growers the introduction of strategic alliance methods into food supply. This was pioneered in Europe and the USA and, in the 1990s, reached the point at which retailers such as Carrefour started to set up international retailing and international product sourcing arrangements. Typically, best-practice produce suppliers (including growers) have been invited to take on *category management* roles for their specific product or category. The category manager's role usually entails sourcing all the supply for the retailer's global requirement for 12 months of the year (from any part of the globe that can reliably supply produce of the specified quality). An extension of this model has been "follow sourcing": as a retailer moves into a new market (such as China), it invites an existing category manager to follow it into the new country and set up to source some of the product from domestic growers there, while using its existing suppliers when required. (T. Reardon, H. Gow, *AARES 2010*).

The strategic importance of the category manager role is obvious. This trend has clear implications for the Australian food industry: if Australian firms cannot establish themselves as category managers, they must at least position themselves as credible suppliers to them.

Tom Reardon (AARES 2010, Slide 31) summarises "the objectives of (emerging nation) food chains' produce, dairy and meat buyers (as):

a) low costs (of products and transactions)
b) items available all year
c) quality
d) food safety
e) product diversity
f) more volume – fast!"

Discussing the implications for the Australian food industry, Reardon says (2010, Slide 52) that the best strategic positioning in emerging markets requires a combination of:

→ a well-known brand
→ sufficient volume for the supermarket chain in question
→ price-competitiveness
→ low transaction costs.

3.5 Why some Australian food sectors have been slow to adopt strategic alliance contracting

In *Enhancing the Customer Focus of Australian Agriculture,* a research report for the Australian Farm Institute, long-time analysts of Australian agri-food industries, S.G. Heilbron and J.T. Larkin describe the position as follows:

> "The present model of Australian agriculture is rooted in the past. Deregulation and the microeconomic reforms of the 1980s and 1990s have clearly brought useful change and efficiencies focused on maximising production. However, now the focus needs to shift more towards developing a greater understanding of the needs and wants of the modern consumer – both domestic and

> international – and integrating this vital commercial intelligence into a successful new business model for Australian agriculture. There is little time left to do this. Other countries have already moved well ahead of Australia through the adoption of more effective business models for their agricultural sectors." S.G. Heilbron Pty Ltd (2006) p.ix.

In discussion after his presentation quoted above, Tom Reardon commented that the greatest competitive disadvantage of Australian food firms is the lack of internationally recognised brands. This is true in reference to both consumer-oriented brands and those whose purpose is to build credibility as a supplier to the retail and food service trade. As implied in Section 2.2.2, with the growing significance of credence values, brands have become a very important indicator of strategic alliance competitiveness. A key point is that lessons from the decade or so of international best practice by leading Australian wine businesses and from international experience in other sectors have been picked up by only a small number of firms in most Australian agri-food sectors. The result is that there are few firms operating at, or close to, a level that would make them attractive strategic alliance partners for international food retailers.

The explanations for this vary significantly between sectors but most include some combination of the following, which are listed roughly in order of importance:

- There are significant *system costs* (mainly capital and overhead costs) in establishing a strategic alliance and these create economies of size. These costs include building quality assurance systems and other procedures for demonstrating the firm's credibility as a dependable and flexible long-term supplier. There are numerous methods for smaller firms to capture such economies[6], but they generally require a combination of a collaborative culture and "business savvy" which are not qualities prominent in Australian agri-food (despite some notable exceptions). This impedes Australian efforts to overcome the small size of most farms and processing firms.
- State and Commonwealth Government interventions have mostly impeded the evolution towards an industry structure that would nurture strategic alliances. Drought policy has retarded much-needed amalgamation of farms; single-desk legislation has encouraged both commodity production for export and a minimalist approach to growing produce to customer specification[7]; and the combination of political rhetoric and government research, development and extension programs have contributed to over-emphasis on physical productivity growth as a solution to long-term competitiveness.
- Social and human intellectual capital has been shown to be negatively correlated with physical isolation, which impedes the flow of ideas and the building of familiarity and trust. In Australia, this has combined with high *sunk costs* in out-dated production systems (e.g. small farms and commodity export infrastructure) and inappropriate past government intervention to nurture the mistaken, but common, belief that Australian agri-food is at the cutting edge. This belief has been part of a "cultural inertia", that is, a largely self-sustaining system of attitudes and practices in which dependency on government as the default risk-manager

[6] Michael O'Keeffe (2008) provides some good examples of these methods.
[7] In a report for the New Zealand Business Round-table, ACIL (1992) provides a good account of how single-desk legislation stifles participation in modern strategic alliances.

has supplanted the desire to understand and respond to consumer requirements and preferences.

3.6 The retarding influence of Australia's political evolution

The above-listed explanations of Australian tardiness in adopting strategic alliance contracting apply, to varying degrees, in other countries. In an analysis of Australia's poor performance in fresh horticultural exports, Taylor (1994) argues that particular characteristics of Australia's political evolution explain much of Australia's uniqueness.

Traditionally, Australian agriculture has been the subject of a very great number of institutional and regulatory impediments to trade (Sieper 1982). The inertia in removal of the impediments can be attributed, primarily, to the following three characteristics of Australia's political and economic development.

First, the regulatory restrictions have their origins in what could be described as an Arcadian[8] model of agricultural production, which promoted the family farm as the ideal basic unit of production. This appears to have been a more significant element in the legislative and cultural development of Australia than that of its competitors. It had anti-corporate implications, including legislation, that have impeded vertical and horizontal integration.

Second, Australia has a history of producers in many industries gaining support in the form of tariffs, subsidies and production quotas. Sieper (1982) explains this as a rational and, in Australian agriculture, successful form of rent seeking. This resulted in less efficient allocation of resources and a consequent diminution of international competitiveness[9]. By contrast, growers in New Zealand, for example, have had greater international competitiveness forced upon them by the lack of both a large domestic market and an ability to draw cross-subsidies from other sectors of the economy.

Third, the Australian industry's geographical and political fragmentation has impeded efforts to achieve grower unity such as, for example, has been achieved by New Zealand, South African, Chilean and US growers. Land tenure and matters like the formation of producer co-operatives are all subject to state rather than federal legislation. In fact, some of the laws specifically prohibited inter-state co-operation (Industry Commission 1993, p.156).

While the legislative impediments have generally been removed, the legacy of structural distortion remains in many sectors. In horticulture, in particular, large, brand-building firms are yet to emerge. Among Australia's competitors, producer cooperatives and statutory marketing authorities have evolved into effective organisations, mostly in the form of "new generation cooperatives" that combine the advantages of cooperative structure with the improved stakeholder incentives of corporate structure. Examples include Enza, Zespri and Fonterra in New Zealand,

[8] The term *Arcadian* has been used by the art critic, Robert Hughes, to describe the early artistic portrayal of Australia as an agricultural utopia, populated largely by small farmers in a pristine landscape.

[9] The Industries Assistance Commission and its replacement, the Industries Commission (now the Productivity Commission), documented many such forms of support, both explicit and *de facto.* (For example, IAC (1988), Chapters 1, 3, 4 & 9).

CapeSpan in South Africa, Unifruco in Chile and SunKist in California. While some of these examples have shortcomings, they have all been able to build internationally recognised brands and effective supply systems to support brand credibility.

3.7 Evidence of progress in Australia

In *Vertical Contracting and Australian Agriculture: Implications for Farmers and Policy-Makers* (2006), a research report for the Australian Farm Institute, Barber and Cutbush summarise progress, across a range of agri-food sectors, towards more integrated procurement models.

Table 1: Summary of evidence collected on various forms of trading for a range of products from the farm level. *Source: Barber & Cutbush (2006)*

	Wholesale/ Saleyards/ Auction System	Processing/ Manufacture	Retail	Food Service	Farmer/Consumer Dealing (e.g. farmers markets)
Fresh Fruit Fresh Vegetables	Reducing Reducing		Moving to direct purchasing and preferred suppliers	Similar to retailers but more advanced	Farmers markets difficult to pick trend but possibly growing
Processing Fruit Processing Vegetables	Static or reducing	Major manufactures continue to deal direct with farmers	Private labelling with shift brand to retailer for many categories		
Beef Lamb	Some evidence that it is reducing but sale yards are competing	More dealing direct: 'over the hooks'	Preferred supplier system introduced by Coles for beef purchases	High value food service more likely to deal with farmer groups e.g. Illabo Lamb	Small proportion of total examples are AACo and some large farmers owning butcher shops
Wool	Overwhelmingly auctioned. Competition between market type providers	Some contracting being investigated to secure supply	Some grower groups trying to deal with retail but small volumes and slow progress being made		
Chicken Meat		Highly contracted for many years			Very little, organic mainly
Pigs	Very few	Rapid increase of contracting in Australia over last 10 years			Very little, mostly organic
Cotton	Almost all spot market traded, often in pools	Gins often buy from farmers but used standard contracts			
Grain	Shift to cash market trading following deregulation of some grains	Millers often forward contract with farmers. These contracts are standardised and usually use bulk handling system			Very little, mostly organic

With the repeal of single-desk marketing legislation during and since the decade of National Competition Policy (1995-2005), former statutory grain marketing authorities, including ABB Grain (now merged into the Canadian agribusiness firm, Viterra Corp), AWB Ltd and GrainCorp, have progressed quite quickly in establishing value chain arrangements of various sorts.

Another positive trend is the development of generic quality assurance and related branding strategies by some sectors. Those of the wine and red meat industries are recognised internationally as good or best practice. These are important complements to strategic alliance contracting, especially in their role of raising awareness of growers and processors about the changing preferences of various groups of consumers. It is noteworthy that there has been substantial Commonwealth and State government involvement in these initiatives, both in establishing the supporting regulation and in funding implementation.

Finally, one source of evidence that the average level of supply chain performance in some sectors is less than optimal is the presence, in those sectors, of niche operators forming very successful strategic alliances.

4 Is there a role for government in promoting the strategic alliance model?

The case for government intervention in this area can be summarised as follows:

- There is a broad shift to strategic alliance procurement across nations and industries. It is soundly based in commercial practice and is now proceeding apace in the international food industry.
- For a variety of reasons, in most Australian agri-food sectors, there are few firms operating at, or close to, a level that would make them attractive strategic alliance partners for international food retailers.
- The reasons for tardy adoption of strategic alliances include a combination of past government failures (inappropriate policies) and failures or inefficiencies in a range of information markets.
- For regional economies, there are likely to be substantial long-term benefits from accelerated adoption of closely integrated forms of contracting and of related structural and cultural reforms. Such reforms include firm aggregation (whether by ownership or collaboration) and more customer-focussed, business-savvy mind-sets.
- The characteristics of rural communities as mutually-dependent socio-economic systems are such that those benefits will flow to many who would not be considered private beneficiaries of the shift to strategic alliances, that is, there are significant public benefits involved in the shift.
- While the results of past government intervention in this field have been mixed, there has been much learnt internationally from such experience. In Australia, many of the inappropriate policies have been reversed and the prospects for cost-effective intervention in information markets are good.

Sections 2 and 3 above articulated the first three dot points. Sections 4.1, 4.3 and 4.4 will explain each of the remaining three points in turn. Section 4.2 will elaborate on market and government failures affecting strategic alliance contracting in Australia.

4.1 The long-term benefits from accelerating strategic alliance adoption

There is a dearth of published research on this subject. However, in summary, the case is:

- As argued in Sections 2 and 3, for products whose key characteristics are invisible at the point of sale (i.e. almost all products and especially food), brands have become increasingly important in maintaining consumer appreciation and therefore competitiveness. The food industry has been slow to adopt the strategic alliance approach to maintaining competitiveness, but is catching up, particularly amongst the faster-growing international retailers for whom protection of brand credibility is a major driver. For sound commercial reasons, strategic alliances are likely to be an enduring feature of the international food industry.
- There are numerous examples of prosperous regional industries in whose competitiveness the strategic alliance model has been a central plank. These include Californian and South African fresh citrus (SunKist and CapeSpan), New Zealand dairy (Fonterra), and Australian (and other New World) wine. Using the Australian wine industry as an example, exports grew from $40 million in 1987 to $3 billion in 2007, despite the fact that the global wine industry was oversupplied throughout that period (Wittwer & Anderson 2009, p.2). It is widely accepted that this outstanding performance in turning a long-existing advantage in viticultural capability into an enduring niche in international markets was primarily the result of recognition:
    - that many wine drinkers wanted "approachable", varietally-distinct wines of known, stable and dependable flavour characteristics (as compared to European wine styles);
    - that producing wines with such dependable characteristics required a high degree of control, by winemakers, over viticultural practices; and
    - that, since winery ownership of the required vineyards was neither possible nor commercially sensible, the strategic alliance model was the best solution to gaining control over viticultural practices in vineyards that are not winery-owned.

    In using the Australian wine industry as a case study, it is acknowledged:
    - that Pernod Ricard, the major French wine producer that bought Orlando Wyndham and created the *Jacob's Creek* brand, played a major part in establishing the strategic alliance model in Australia; and
    - that important mistakes in the way the model was implemented, including creating unrealistically high expectations about the long-term grape price, have since caused considerable grief in the industry.
- Scrutiny of the evolution of the Australian wine industry and other internationally successful regional industries indicates that application of the strategic alliance model to pre-existing competitive advantages has been instrumental in creating robust market niches that, in turn, have generated significant regional prosperity[10]. Indeed, this is a significant theme in Michael Porter's *The*

[10] There are numerous accounts of this evolution of the Australian wine industry. See, for example, Taylor (2001) and Case Study 8 in *Competitive Performance* (Collins, Gifford and Hall (1997)), which

Competitive Advantage of Nations, a comprehensive analysis of about 100 internationally successful regional industries. Porter's primary focus is on *locational proximity*, i.e. clustering, as a driver of the trust, collaborative rivalry and dynamism that are the common elements in the successes that he documents. However, almost every case involves strategic alliance contracting as the business model critical to success.

Unpublished analysis by this writer has estimated the impact of structural change in South Australian grains, fruit and extensive livestock industries at about 67% of (real) Wholesale Food Value, which is Primary Industries & Resources South Australia's (PIRSA's) Food ScoreCard estimated wholesale value of food processed in SA plus net commodity exports. The structural change impact was estimated as:

- 30% improvement in on-farm physical (that is, yield) productivity from the more commercial approach to farming that is required as a necessary condition of becoming attractive strategic alliance partners of major food retailers[11];
- 25% increase in Wholesale Food Value from the price effect (shared between processor and grower) from better targeting of consumer preferences; and
- 25% increase in the share of SA-grown food having value added (in processed or fresh form) in SA.

The 67% increase assumes no increase in the land or water resources allocated to the sectors in question. This might appear an optimistic assessment, but it refers to a systemic change in culture and structure of those sectors. Moreover, it is commensurate with changes in the SA potato, wine and chicken meat sectors, which have made such changes over the last 10-25 years.

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describes how Orlando Wyndham Group Pty Ltd has used strategic alliances to create the success story of the *Jacob's Creek* wine brand.

[11] Benchmarking studies across a range of industries show that average farm productivity is around two-thirds of the best operators in any particular survey. Examples include:

- J. Cummins (PhD thesis) shows that the median percentage of Potential Wheat Yield for 2,550 growers (based on the French-Schultz Water-use Efficiency model) was 70% of that for the best-performing 25% of growers in the study.
- Rendell McGuckian, *Grape Benchmarking Report 1998* (p.12), shows that the average income per hectare for 47 Sunraysia grape growers was 70% of that for the most profitable 25% of growers in the study. (In winegrape production, yield is often negatively related to profit, so total income is a better indicator of management performance than yield.)

This suggests that narrowing the dispersion in farm management performance to that of the top 25% of growers in any industry could deliver increases of up to 50% in physical production for the State. Better matching of products to customer specifications could also be expected to deliver on-farm dividends of a similar order.

It is also likely that similar improvements can be made at other points along the supply chain. Many South Australian packers, processors and marketers are as far below optimal business scale and strategic alliance readiness as are its growers. One of the often-overlooked factors causing this distortion is the risky nature of establishing a processing business in rural SA, in the hope that local growers will supply product of appropriate quality at a satisfactory price. Farm-level improvements of the sort discussed above would reduce that risk. Not only would the volume of product in any locality be greater but, with a farmer population skilled in growing to specifications, it would be possible to write long-term contracts before investing in processing plant. There is evidence, for example, from the wine industry, that the combination of efficient scale and good strategic alliance management skills at farm level is a major driver of growth in regional processing. (Taylor 2002a)

4.2 The public benefits arising from successful strategic alliance adoption

At least since the decade of National Competition Policy in 2006, COAG governments have adopted a standard approach to justifying government intervention. That approach includes:

- the presence of significant public benefits;
- the presence of market failure (including significant market inefficiency); and
- a ratio of public benefits to public costs that exceeds some hurdle rate or cut-off point.

In relation to government support for strategic alliance adoption, this section addresses the first point and Section 4.3 addresses the second. Neither the cost to government of achieving the impact estimated in Section 4.1 nor the benefit-cost ratio has been calculated.

In benefit-cost analysis of industry development programs, private beneficiaries are usually defined as those who, in the absence of any prospect of government subsidy, have sufficient incentive to fund the purported benefits themselves. Industry groups are included because they have the capacity to levy themselves to capture benefits that are dispersed widely across the group. Public beneficiaries, then, are those for whom the benefits are so widely dispersed (or identifying the beneficiaries is so difficult) that the transaction costs of collective private funding are prohibitive[12].

By this definition, public beneficiaries include people who are not currently employed in an industry targeted for a development program but who would be if the program generates significant growth. Similarly, people who enter firms either upstream or downstream of the target industry because of that growth are also public beneficiaries. As is well known, in rural communities, there are critical-mass issues associated with the support sectors for "mainstay" industries, so the web of public beneficiaries from these flow-on effects tends to be wider in such communities.

It is difficult to measure the difference in flow-on effects from a given amount of direct effect (in the target industry) generated by different development program proposals. In benefit-cost analysis, both the flow-on effects and the public benefits arising from them are usually assumed a constant percentage of the direct effect and ignored. While this convention is usually effective for comparing alternative programs, the results are sometimes interpreted as indicating an absence of public benefits. However, when the potential direct impacts are very large, as is argued here, so too are the public benefits.

4.3 Government and market failures affecting strategic alliance adoption

Sections 3.5 and 3.6 above outlined a number of historical and modern-day causes of tardy Australian strategic alliance adoption that together contributed to a self-sustaining system of structural and cultural inertia. These included:

[12] Capturing such benefits, at least in the transaction cost economics literature, is the primary reason for the existence of governments. (National defence, for example, fits this description.)

- Geographic isolation and political fragmentation of the nation;
- the particular characteristics of government intervention in agri-food industries; and
- lack of the collaborative culture and "business savvy" to adapt to changing competitive circumstances as effectively as other nations – for example, by transforming co-operatives from traditional to new-generation structures.

It was acknowledged that many of the government failures have been rectified[13]. However, even complete rectification of those failures, on its own, will not reverse the systemic inertia problem[14]. This will take a concerted effort on the part of government and industry leaders:

- to update industry and public opinion about realistic visions of internationally competitive agri-food sectors in the twenty-first century; and
- to facilitate the long-term structural change necessary for Australian firms to become attractive strategic alliance members.

The structural inertia is partly explained by the extent of sunk costs both in the infrastructure of farms, districts (e.g. irrigation networks) and commodity export organisations and in industry incumbents' knowledge of their business. On its own, this is an incomplete explanation. However, combined with agri-political ideology and Australian rural mythology about the importance of "the man on the land" (the gender specificity is historically accurate), the cultural inertia mentioned in Sections 3.5 and 3.6 has been a significant cause of the wider structural inertia[15]. In economic terms, this constitutes a failure in markets for a range of information types. The argument about the presence of such market failures can be summarised as follows:

- Mark Casson (1987) and others have explained that information, as a product, can suffer from any or all of the recognised causal categories of market failure: inadequate property rights (public good/externalities), market power (being expensive to produce, but cheap to disseminate gives it natural monopoly characteristics) and information asymmetry (inability to assess the quality before acquisition). It also suffers a significant extension of the asymmetry problem: that "one doesn't know what one doesn't know", that is, one does not know the value of the information to oneself until one has understood it.
- As a result, information markets vary greatly in their efficiency. While markets for share prices and cricket scores work very well, those for alternative career

[13] Notwithstanding the proposed changes, national drought policy remains the standout exception to this. The stated reason for drought subsidy is to assist the survival, through "exceptional circumstances", of Australian farm businesses. This is very unlikely to generate economic benefits when average farm size is around 10% of minimum efficient scale in most industries (so that Australia already has too many farms), when value chain adoption will introduce even greater scale economies and when the policy subsidises inadequate drought preparedness (despite current efforts to address this).

[14] In a forthcoming paper on *Assisting regions and communities to cope with change* (2011), Professor Cliff Walsh discussed three categories of failure impeding regional structural adjustment: market, government and systemic. He argued that depending on other characteristics of the adjustment problem, all three could be legitimate targets for government activity. I should add that, in subsequent discussions, Professor Walsh has not been convinced that his meaning of *systemic failures* is the same as that in this paper. The dialogue is continuing!

[15] In economic analyses, the importance of culture as a retardant (or driver) of technological and economic change is often overlooked, but many anthropological studies suggest that it has been a major factor in such change, including in the rise and fall of civilisations.

options for farmers appear to be very inefficient. For example, it has been calculated from ABARE Farm Survey data that the average Australian broad-acre farming family foregoes at least $60,000 per annum for the privilege of remaining on the land (Taylor 2002a, p.5). The usual argument is that they are buying quality of life. While this is undoubtedly true for some, it is at odds with sociological data such as suicide rates, stress-related disease incidence, access to health and education services, etc. (for example, Australia 2020 (2008)).

- This suggests improved access to career information (probably involving some repackaging to make it more appealing) might generate both a private benefit for some farming families and a public benefit from accelerating the aggregation of farms to sizes more compatible with strategic alliance membership, resulting in greater value creation from the existing agricultural resource[16]. If so, subsidised efforts to improve the targeting of this information to farmers would probably be justified.
- Based on the combination of private and public benefits, there is a similar case for subsidised provision of information about strategic alliance implementation. That expertise will be an important competitive advantage in agri-food firms of the future and we can expect the market for it to be well served by private consultants in coming years. The problem now is that the significance of strategic alliances appears to be under-appreciated (the asymmetry problem mentioned above). For 75% of growers, the main relevance of this information is probably to persuade them that it will get more difficult to make a profit in future[17]. Since this cohort has shown a disinclination to assimilate such information, the potential market is probably quite small and this makes it difficult for consultants to establish themselves. This is the reason behind the invitation to Professor Andrew Fearne, an internationally recognised expert in the value chain model from Kent University, to join the SA Government's *Thinker in Residence* program. Indeed, isolation-exacerbated inefficiency in a range of SA's information markets is the reason (in economic parlance) for the program's existence – and for its success.

Information markets for career options and for strategic alliance expertise are two of a number of information markets whose inefficiency helps to perpetuate the structural and cultural cycle of inertia behind sub-optimal agri-food competitiveness. Other papers have outlined the South Australian approach to primary industry assistance. The primary and over-arching mechanism has been industry sector-based strategic planning. More recently, building on international experience in rural structural adjustment, SA has started to complement this with regional strategic planning to address the cross-sectoral, but regionally common aspects of adjustment. The focus of the *Riverland Futures* project, for example, is to assist adjustment to potentially long-term reductions in availability of irrigation water.

In PIRSA's industry development approach, the centrality of strategic plans negotiated between government and stakeholders comes from recognition that all parties have limited knowledge, both of likely industry and regional futures and of the best strategies for getting "there" once visions for those futures are agreed. In other

[16] See Shaffaeddin (2004) p.12 for an articulation of the externalities flowing from education.
[17] Using ABARE Farm Survey data, Legura & Ronan (2010) show that, ranked by Farm Turnover, the smaller two quartiles of Australian broad-acre farmers made negative farm business profits on average from 1990 to 2008 and the third quartile (turnover $200,000 to $400,000) made negative profits, on average, from 2003 to 2008.

words, industry strategic plans are exercises in "learning by doing" for both industry and government. They are a means of addressing inefficiencies in markets for information about getting to best-practice participation in international markets for food and other products.

4.4 Appropriate forms of government assistance to promote strategic alliance adoption

The case for government assistance in agri-food strategic alliance adoption can be summarised as follows:

- Significant public benefits will flow from improved international competitiveness in markets for *finished food*[18] products;
- The strategic alliance approach is becoming increasingly important in such improved competitiveness;
- In general, Australian agri-food has been slower than many of its competitors in adopting the strategic alliance approach;
- The slowness has been caused by a combination of failures in information markets and inappropriate government policies;
- The repeal of inappropriate policies (which is happening) will not be enough. The failures in information markets must also be addressed;
- The relevant information markets are as much to do with the *structural and cultural pre-conditions* for strategic alliance formation as they are with strategic alliances *per se*; and
- Government assistance can be effective in addressing those failures, particularly the ones relating to pre-conditions.

This section of the paper does not develop a detailed case for or against particular forms of government assistance, but limits itself to some broad guidelines that are consistent with the foregoing.

The argument thus far has referred to impacts on particular agri-food sectors, but the worst-performing sectors tend to be the broad-acre sectors (grains, wool, sheep-meat, beef) plus some irrigation sectors (for example, citrus and stone-fruit). These sectors are integral parts of almost all agricultural regions of Australia. If this paper's estimate of impact in those sectors is close to correct, the issue is on the way to becoming one of regional adjustment. That is, if the sectors remain commodity producers when the major buyers want produce grown to specification and supplied via strategic alliance contracts, the loss of competitiveness in those sectors will result in declining real regional incomes.

There is another reason for thinking of the problem as a regional one. Section 4.1 above referred to Porter's emphasis on locational proximity as a major driver of trust building between firms. This is consistent with the international (notably Canadian)

[18] *Finished Food* is a term used by PIRSA to denote food products that have had value added in some way. This might be by processing or by production, packaging and delivery of fresh produce. It includes products ready for retail and intermediate products requiring further preparation by a trade customer.

evidence that successful regional adjustment programs tend to be community focussed more than sector focussed.

In a forthcoming paper on *Assisting regions and communities to cope with change* (2011), Professor Cliff Walsh provides a list of principles to guide government assistance. Those most relevant to this discussion include:

- having a capability building orientation;
- facilitating community-led change via a partnership approach; and
- ensuring that government involvement is time-limited.

The implications of this argument are that governments can usefully contribute to three related groups of activities. In all three, capability building is a key outcome; facilitating community-led change is probably essential to success; and time-limited government involvement, with clearly articulated exit strategies, is probably necessary to create the required sense of urgency.

The first group of activities addresses the *what-to-do* question and the second and third address *how-to-do-it* questions. The following discussion refers to current PIRSA activities as examples of some of those recommended. Using PIRSA examples by no means suggests that PIRSA "has got it right", indeed, one of the purposes of the current paper is to stimulate discussion, in PIRSA, about how it could be done better.

1. Raising awareness about the need for change

Industry and regional strategic planning, as currently facilitated by PIRSA, appears to be the appropriate over-arching mechanism for awareness raising and, indeed, for all government involvement. Usually, the result is an industry-government partnership agreement that lists functions: that businesses and industry organisations will undertake; that government agencies will undertake; and that those agencies will cease to perform.

Industry strategic planning provides the forum for each industry sector to assess:

- existing and likely future global trends in the products of the sector (such as the shift to globalised retailing discussed above);
- what international best practice in capitalising on those trends looks like;
- what Australian firms, inter-firm arrangements and industry institutions will look like when they are operating at best-practice levels;
- how to get there, that is, how existing firms need to change to meet the challenges implied by the agreed vision of the future;
- how relevant government policies are changing (especially the on-going reshaping of government investment in agri-food sectors and regions); and
- how it will negotiate the changes to government policies that will help it to achieve a vision that it prefers and that State and Commonwealth governments will sign up to.

Many of the required changes in each industry will involve major changes at the regional level, where the visions of different sectors will generate (indeed, are generating) both synergies and conflicts. Resolving the conflicts in order to capitalise on the synergies is the purpose of regional strategic planning and this is under way in the case of the *Riverland Futures* project mentioned above.

Projects such as Professor Andrew Fearne's *Adelaide Thinker Residency* are valuable complements to strategic planning in raising awareness about international competitiveness in the current environment and the need for change. Facilitation of tours, by industry or regional leaders, of best-practice strategic alliance participants might also be an awareness-raising activity in which government could play a useful, if minor (facilitatory), role.

2. Getting the strategic alliance ball rolling

Both Michael O'Keeffe and Andrew Fearne have argued that creating awareness of the need for change without providing some guidance about how to do it can be a backward step. O'Keeffe (Section 4, 2008a) sets out a capability framework for successful participation in agri-food strategic alliances and argues that the requisite skills are both sophisticated and challenging to acquire. There is a strong case for government contribution to gaining a broad consensus about the content of that framework and facilitating the development of training capacity (probably a combination of public and private delivery).

The Thinker Residency and tour facilitation mentioned in Activity Group 1 would also contribute in this area.

3. Facilitating career change

Not all current agri-food industry participants will be well suited to the "brave new world" of consumer focus, strategic alliances and larger-scale, more commercially oriented farms. It is clear from the recent drought-exacerbated situation in the Murray-Darling Basin that there is both a public interest and a humanitarian case for some government facilitation of the process of adjusting out of industries. Consistent with the information-market failure argument above, this should include provision of information about alternative careers and about the process of making the change. Having elements of all three categories of failure (market, government and systemic) mentioned by Professor Cliff Walsh above, this is consistent with his in-principle case for government assistance in regional structural adjustment.

All three groups of activities listed above have a strong educational thread. Economic development agencies such as PIRSA have relatively little capacity to affect many of the requisite changes directly and must therefore operate largely by influencing or facilitating the activity of others.

One aspect of the required vertical and horizontal integration is that SA typically represents a relatively small part of national-linked agri-food industries and that it shares both the structures and culture with other States. Consequently, there are considerable national synergies in addressing the problems. This is why the former SA Minister for Agriculture, Food & Fisheries, the Hon. Rory McEwen, sought national cooperation in strategic alliance development via Primary Industries Ministerial Council.

Postscript: Why have government activities to date not been successful in stimulating the required changes?

Useful questions during the presentation of this paper (in summarised form) at AARES 2011conference posed the question about why the activities proposed in Section 4.4 would be successful when previous and existing activities have not been. What follows is an unrehearsed list of elements of a satisfactory explanation.

Sections 3.5, 3.6 and 4.3 above list a combination of factors that have retarded such integration. These include a range of government failures and policies that, while not necessarily failures, have had purposes that have conflicted with integration. For example, drought subsidies have had welfare objectives that have allowed smaller and less efficient farms to remain viable than would otherwise be the case.

Capability building programs of all Australian governments have aimed, very largely, to increase production- and financial-management skills, rather than, for example, skills in strategic alliance building or alternative career selection. Even in programs whose stated purpose was to assist structural change, such as the Howard Government's *Advancing Australian Agriculture*, the majority of funds finished up subsidising traditional areas of skill building. This has been partly because those are the skills that farmers understand and request. To the extent that the resulting skill improvement marginally enhances viability of farms that are unlikely to be viable in the long term (with reduced drought and other subsidies), such programs tend to retard the adjustment that a world dominated by strategic alliance contracting will require.

Some of the relevant programs in recent years have had the primary objective of increasing finished (that is, fresh or processed intermediate or retail ready) food exports without necessarily assessing the trends in international food retailing and the implications for vertical and horizontal integration discussed in this paper. It has been particularly difficult to gain political support for the structural adjustment required to address the economies of size issue referred to above – even when this has been well understood by program managers and advisory boards.

There have been examples of export enhancement programs that had the effect of replacing existing Australian exporters of particular products in particular markets with the program recipient. In some cases, the new product might have been of superior quality with better branding and marketing, but one result has been creation of an enemy of the program.

Over some years, the National Food Industry Strategy appeared to have developed an export enhancement approach that avoided most of the problems mentioned above and was starting to deliver growth in both strategic alliances and exports. However, it was cancelled with the change of federal government. No explanation was offered. Creation of too many enemies and too close alignment with the previous government have been floated as possible causes.

The systemic nature of the necessary changes (economic, sociological and political) is poorly understood by most of the relevant public and private stakeholders, but it suggests that a range of simultaneous and well-coordinated activities from many of those stakeholders will be required. Moreover, in advocating such a range of activities and stakeholders for value chain development in South Australia, Adelaide

Thinker in Residence, Professor Andrew Fearne (2009, p. 34-36), recommends the transfer of funds from other programs. This level of stakeholder engagement and program coordination has not yet been achieved in South Australia or elsewhere in Australia.

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