

Agriculture and the Economy

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Introduction

The farm sector and rural regional economies have been closely linked. But these relationships are changing as the needs of agriculture change, as the factors influencing the regional economy change and as the economic factors that define the relationship between rural and urban Australia change. It is argued that a continuing strong relationship between agriculture and the regional economy will be the result of good policy and economic development strategy rather than necessity.

A strong commitment to regional development would likely include a close integration of agriculture and the regional economy.

In this paper, the discussion is initially focused on changes in the operation of agriculture and how they may impact on the regional economies. That is followed by consideration of some economic factors that are influencing regional economies and their relationship to urban areas. That leads into a discussion of those factors that might be critical in the performance of regional economies and those that bear on the operation of agriculture.

The discussion is broad-brush in nature and will hide the many variations that exist among regions and industries. Furthermore, the faster the rate of structural change, the more variation there will be among industries and regions.

A short attachment provides some personal interpretations of some of the trends and concepts that appear regularly in discussion.

Agriculture - Something Old Something New

Australian agriculture has always had a global perspective associated with its high dependence on export markets. To a considerable extent, the old model established structures that would manage the market needs (Marketing Boards) the research basis for technology development (Rural Industry Research Funds) along with financial and risk management needs (special rural finance programs, exceptional circumstances and drought assistance, and price stabilisation schemes).

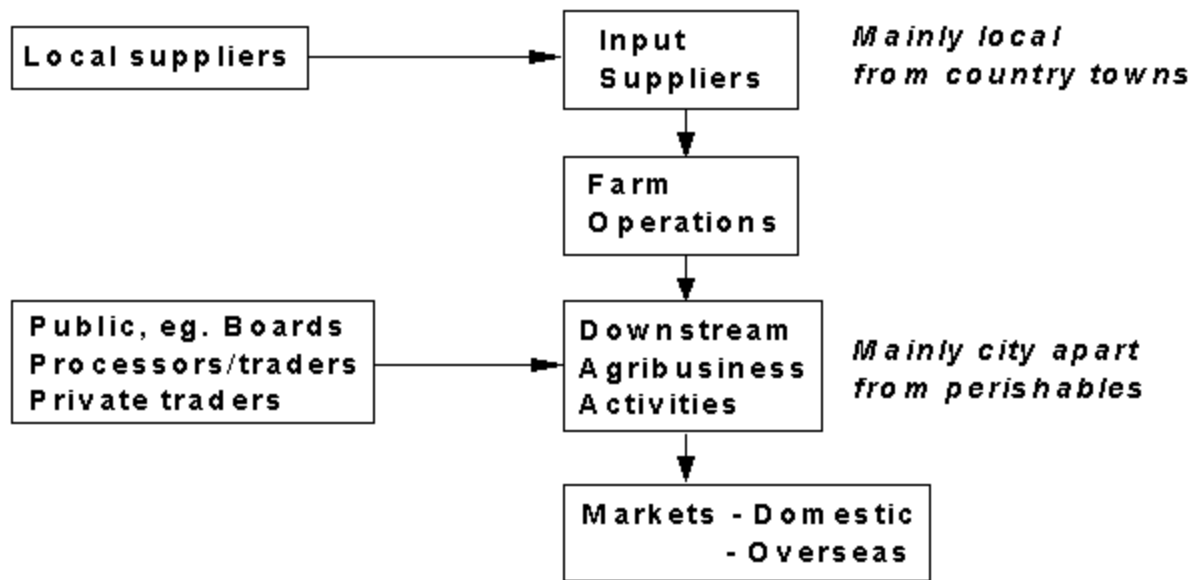


Figure 1 The Old Model of Agriculture

These arrangements enabled farmers to concentrate on what they did best - produce the product. The affluence of the industry made it possible to maintain the productive capacity of the farmlands within the accepted technologies and knowledge of the time. The rural region economy was structured with a similar emphasis on farm production, the supply of farm inputs and product shipment. There was little downstream activity unless it was driven by the local processing of perishable products (eg. dairy, fruit and sugar processing). Prior to the emergence of modern and cheap transport and communication systems, these structures formed the basis of the country town and regional economy - see Figure 1.

Agribusiness, whether public (marketing boards and research organisations) or private banks, stock and pastoral firms) were metropolitan based with branch structures in rural areas where needed. As farms have become larger and have used more sophisticated purchased inputs (both materials and services), many rural regions have seen a substantial reduction of these activities and withdrawal of services (referred to by Stayner and Reeve (1990) as 'the uncoupling of rural regions from the farm sector'). This has been aided by many agribusiness suppliers developing a range of direct marketing methods to at least the larger producers. This has been enabled by developments in information technology and communication systems.

The emerging model for the way agriculture operates is represented in Figure 2. This shows that new ways of providing inputs have emerged and that most of the new development opportunities associated with agriculture lie in the downstream value-adding area. Whether or not farmers are involved in the ownership of enterprises undertaking these activities, they are intimately connected through the basic need to supply product in consistent volume and quality.

There are three aspects of this model that are significant.

1. Perhaps the most important is the need to structure farming and other operations so as to realise the various economies associated with larger operations. This provides an advantage for large farms which may be emulated in part by small farms participating in clusters, networks and alliances as appropriate to needs. While this involves some loss of independence, it may be the only way for farms to remain as competitive, owner-operator enterprises.

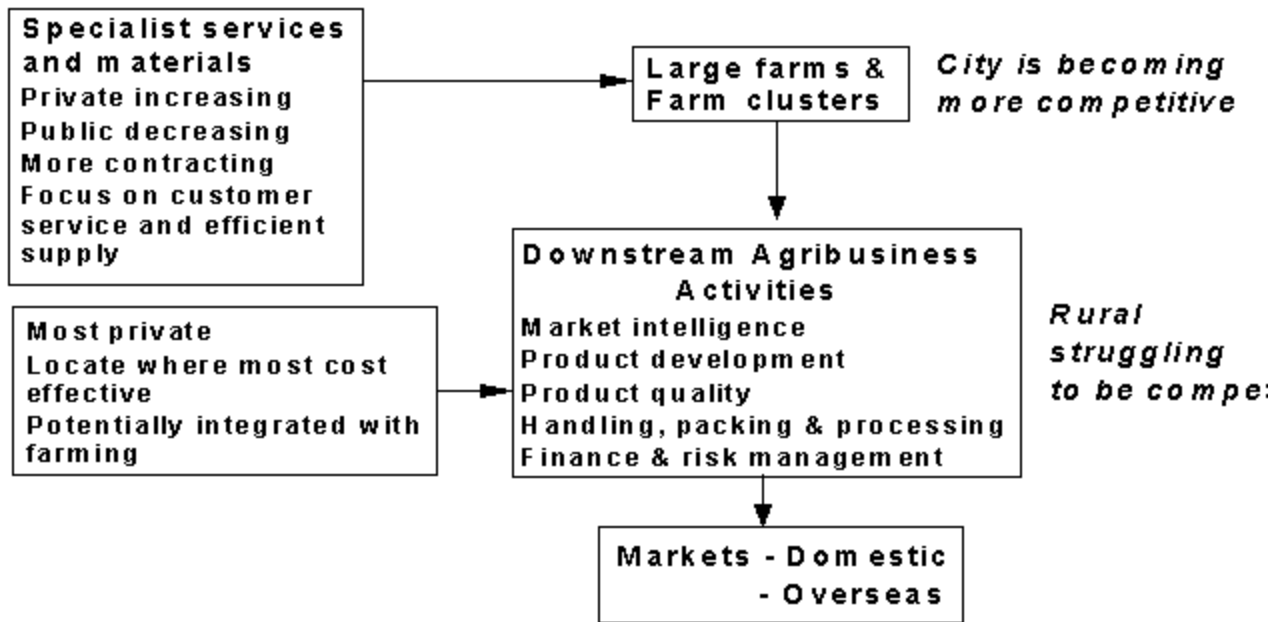


Figure 2 The New Model of Agriculture

2. The larger size enables farm businesses to access the needed range of specialist expertise and input services at competitive cost. Some of this is already occurring through Landcare groups and under the Farm Business Improvement Program (Farmbis) component of the AAA package (Anderson, 1997). A restructuring of the way these services are provided is also occurring. This involves a range of direct selling to larger operations, more contracting, amalgamations and networking of suppliers to achieve cost economies and the use of advanced information technology and communication systems.

3. There is large value-adding potential in the downstream marketing and market development activities. These developments have the potential to offset the decoupling occurring on the farm input side. To date, it has occurred in some regions and industries but is not a universal element of rural regions. It is a major area of interest in regional development strategies, but does need to secure scale effects.

These kinds of structures have developed most in situations where there is a concentration of particular farm types, thereby providing scale effects. This occurs in irrigation areas, in cases where production is centred on processing operations and has developed more readily in many of the newer industries (relative to the traditional broadacre industries). It is much more difficult to achieve in the dispersed, low volume and variable broadacre farming operations.

Apart from the farming operations themselves that are tied to the natural resource base, most of the other activities in these systems can be regarded as footloose in respect of where they locate. A major constraint lies in the existing location of these activities and some of those historical decisions will be difficult to reverse. But it is appropriate to turn now to issues that presently influence the location of these activities.

Underlying Macroeconomic Issues

The importance of the macroeconomic issues lies in how these factors influence the location of economic activity and the geographic distribution of wealth. And it is wealth that is a critical determinant of the capacity to pay for such things as a 'greener agriculture' and the ability to invest in future business capacity including the various dimensions of sustainable development.

In recent years, some new thinking and analysis under the heading of 'New Economic Geography' has emerged that is of considerable importance to rural areas (Fujita, 1997, , Krugman, 1991, 1995). At this stage, there is little recognition of these issues in Australia (Powell 1997). Yet the propositions appear to offer the best explanation of why rural areas are finding continued economic development so difficult (Henry and Drabenstott, 1996, Hite 1997).

The essence of this work is to include location factors (ie. the geographic distribution of economic activity) in economic analysis. It recognises that there are some important dynamic factors driving the way economies are developing, and that some of those factors represent significant departures from the conditions of a competitive economy on which much of 'rational economics' is based. In particular, there is a focus on increasing economies of scale within firms, and substantial economies in running businesses in larger urban centres relative to smaller centres (agglomeration economies). The bottom line is that it is generally cheaper to run businesses in cities than in rural centres. (Some evidence provided by Prud'homme, 1993, indicated that the cost of running a business in Paris was 35 per cent lower than in provincial France.) These arise from the ready access to a large range of specialised services, labour skills, products and information.

In addition, developments in transport and communications that lower costs have the effects of:

- Allowing a larger hinterland to be serviced from a given location, permitting the centralising of many operations and the use of just-in-time delivery systems.
- Hauling of products over longer distances to large-scale processing operations.
- Centralising of many functions enabling rationalisation of branch structures and functions.
- Making possible some operations on a fly-in-fly-out model now widely used in remote mining operations, or the operation of specialist services from a central location through the use of modern communication technologies. This central location could be rural, but it could also be metropolitan and lifestyle choice factors could be an important location determinant.

On balance, the net of these transport and communication factors has generally been adverse to rural regions. The most noticeable effects have been the rationalisation of bank branches and other functions, a decline in population and the withdrawal or downsizing of a range of government services, including those provided to agriculture.

The operation of an economy basically driven by market forces will allow the above effects of agglomeration and lower transport and communication costs to influence the structure of the economy on the basis of the levels of business operating costs at various locations. Generally, these forces will tend to centralise the economy into fewer and larger urban centres as businesses are able to realise the economies noted above.

Operating against the centralising trends are the costs of urbanisation in various forms of congestion and pollution. But these costs are shared across the urban economy and community in ways that result in very few of them appearing on the balance sheets of businesses as a significant addition to costs. Thus, they are a weak economic deterrent to an urban location, but may be an important factor in the personal choices made by key management staff.

The Opportunity for Agriculture and Regional Economies

A picture is emerging that agriculture could operate quite effectively without much support structure in the regional economies. This destroys the notion that the problems of regional economies can be fixed by fixing agriculture alone - a statement that still has currency among many in the Federal Government but was substantially rebutted by Sher and Sher (1994).

But the alternative model involving a close integration of agriculture and the regional economy is still possible and can succeed. This would result in regional economic growth and internationally competitive industries in rural regions. Many would consider this to be highly desirable from the perspective of achieving a better balance of economic activities among rural and urban areas. The NSW Country Mayors' Association (1993) sponsored a study of these issues made little impact, perhaps because of the

timing was not opportune. In addition the fundamental economic pressures were not well articulated which led to an inadequate set of prescriptions. But there is more work to be done in understanding the issues and appropriate responses taking into account the concepts of the New Economic Geography.

To move regional economic development forward, including a closer integration of agriculture and the regional economy, the following elements would appear to be necessary.

- The achievement of scale effects in the various operations through the development of networks and alliances and appropriate transport systems.
- The possible clustering of activities into defined locations so as to emulate the agglomeration economies that are powerful attracting forces in cities.
- The above will likely mean a higher degree of specialisation in the regional activities and the additional risks associated with that will need to be recognised and managed.
- The entrepreneurial and management capacity to run those businesses at low cost has to be available. A capacity to deliver lower business costs through low rentals and cost effective employment arrangements.
- The region needs high amenity values to act as an attraction for business managers and staff to stay and/or locate in the area.
- The infrastructure providing low-cost and best practice access to transport and communications systems has to be in place.

That is a substantial list of asks, and many rural areas will find that difficult to achieve without significant government assistance. As a very minimum, governments have to be prepared to provide the essential infrastructure. This is difficult as discussed further below.

The Role of Infrastructure

Infrastructure spending in recent times has been determined more by demand than by the role that it may play in shaping the future structure of the economy. Thus more of the infrastructure budget appears to have been targeted at ameliorating the social costs of pollution and congestion in urban areas, such as you see in Sydney and Melbourne at the present time. That program is supported by the majority of voters who reside in those centres, especially if it is generally funded from tax revenues raised across the economy rather than on the basis of a user pays system or taxes levied on those generating the congestion or pollution. Thus, if there is a larger proportionate share of infrastructure spending directed to urban centres relative to rural centres, then rural areas are effectively subsidising the urban centres.

In principle, the community's expressed desire for a greener agriculture is in the same category as its desire to improve the living quality of urban areas. Actions on both fronts might be guided by some principles related to the way those programs are funded with the public sector contribution being consistently applied and the amount of pain inflicted on local business and residents being equivalent. If that is not achieved, then it is tantamount to a tilting of the playing field in favour of those who bear little pain and obtain a larger share of the public contribution.

Expenditure on infrastructure is one significant issue to be examined by the NSW Country Summit. They have sought information on the allocation of NSW Government expenditure on infrastructure between urban and rural areas. The estimates presented indicate that the rural share has declined from around 17 per cent in 1991-92 to around 10 per cent in 1997-98, with the rural area covering 90 per cent of the State and about 30 per cent of the population (Windsor, 1998). That is indicative of a problem for rural areas. Further work would provide more detail, including scrutiny of the general public - local users contribution to expenditure.

Some further issues that might be examined include the mix of spending on various types of infrastructure. For example, the mix between the defensive, ameliorative, preventative or repair type to tackle the accumulated problems of the past relative to infrastructure that opens up new production, business and market opportunities. The latter might include better information technology systems, transport systems and communication services that make our industries more competitive in global markets.

The continuity of public funding contributions to the development of a 'greener agriculture' is a further issue. Both equity and capacity to pay principles suggest that if society wishes to have a greener agriculture as part of Australia's overall objectives, then society should contribute to resources to those programs. To date, the main Federal programs addressing these issues include (this is not an exhaustive list):

- The Landcare program where groups of landowners are assisted in improving the resource base, environmental conditions and operating technologies under which farming is carried out.
- The Natural Heritage Trust funding associated with the part-sale of Telstra (but there are doubts about the future level of funding for the programs).
- An alternative or complement to financial contributions is the use of regulations to secure greener agriculture outcomes. These might include (again this is not a complete list):
- A range of regulations that restrict the ways in which resources are used including restrictions on land clearing and use, forest logging and mining.
- Tighter controls on the amount and access conditions to public resources, most notably water for irrigation.

If these do not involve compensation, then it essentially involves the owner of the resource meeting the costs. There appears to have been little analysis of how consistently the costs of these various programs, in both rural and urban areas, have been shared between those directly involved and the community in general. This is complicated by the tasks being spread among all levels of government, a variety of programs, an apparent limited set of funding principles on which these programs might be built and variable definitions of property rights. All of these provide ample opportunity for political discretion on the one side and grievances by those affected.

Building an Integrated Future for Rural Regions

We live in a world in which there is:

- A blurring of the distinction between public and private sector activity;
- An increasing role for partnerships of all kinds; and
- The growth in various forms of networks, alliances and clusters that are designed to provide a range of competitive advantages (perhaps best captured by the comment that if you are not in a network, you sure as hell will be competing with one!).

Translating this into the development of agriculture and rural regions, it means some of the following:

- That industry and regional development is not the exclusive preserve of either the public or private sector and some form of partnership is likely to be necessary and most effective.
- That government programs will frequently be delivered in partnership with the private sector.
- That government programs and private sector programs will be delivered through a range of group structures.
- That business and regional development is an evolving mix of competition and collaboration.
- There is attention to the need to build the scale of operations as a means to improve competitiveness.
- There is a focus on meeting customer requirements on a consistent basis.
- Abandoning the idea that fixing agriculture will be sufficient
- Providing access to infrastructure systems that facilitate participation in the global economy
- A substantive program of capacity building both inside and outside agriculture
- Some policy initiatives that provide some protection or risk sharing associated with regions focusing on what they do best and becoming more specialised economies
- Building the leadership and entrepreneurial capacity of regional economies
- A long-term commitment to the task of building better businesses and regional economies

This is not an exhaustive list, nor is it new and reference is made to Burgess (1995) and other work of the Center for the New West, Henton et al (1997), Sher and Sher (1994) and the work of the Aspen Institute such as Salant and Marx (1995).

Perhaps the most important point to be made here is that there is not a strong commitment to the development of rural regions apart from some support for farming. While that may be necessary, it is not sufficient. And the development of the regions in productive and competitive ways will not be an automatic result from a reliance on market forces. Success will come for a range of collaborative endeavours (see Henton et al 1997) that include government support, involve good strategy and persistent effort. In short it is nothing more than the requirements for success in business.

Finally, a few comments on greening agriculture and applying science to agriculture.

Within the structure outlined above, the process could be assisted by an approach to 'greening agriculture' based on better analysis, equitable cost sharing, a better structured partnership approach and processes that are less disruptive of normal business operations.

Specifically, this might include:

- Recognising that the financial capacity of farmers is diminished and that the focus of their management is on improving the overall competitiveness of their operations. This implies that an increased effort on being greener is likely to involve some opportunity costs which better analysis would identify.
- Accepting that a greener agriculture is part of the overall social objectives of the Australian community. Further that the realisation of that objective will entail a contribution of resources, may include a clarification of the property rights that are involved and the possibility of paying compensation for any curtailment of those rights that might occur.
- Development of some guidelines on the contribution of public resources toward the amelioration of social problems. These should be applied consistently across rural and urban areas.
- Provide assurances of the continued provision of public funded programs that support these programs. The long-term support of Landcare funding stands in contrast to the 'one-off' appearance of the funding based on the partial sale of Telstra.

Turning the application of science to agriculture, it is apparent that there is a trend toward more commercial structures and approaches to the task. Competition is one element in the operating structure, and that will bring with it the need to identify customers, their needs and provide quality service.

As part of those developments, the comments above relating to the operation of networks, building clusters and developing alliances with farmers and agribusiness operators are all relevant. It is likely that the private agribusiness firms will become large players in the delivery of applied science to farmers and perhaps be leaders in the market place. But that will not preclude individuals and networks competing in that market or operating in alliances with agribusiness.

As explained earlier, the technology is in place to permit most of these operations to be city based. It is my hope that this will not happen. It is here that the regionally based universities and the few significant research centres in rural areas provide the basis for world-class clusters of agricultural research and technology which service the farm-based industries both in Australia and the world. There are many more opportunities to be taken in the agricultural sciences areas. Perhaps the steps already taken to develop structures that involve both the public sector organisations and the private sector commercial capacities will stimulate actions that will realise those opportunities and lead more rural regions into these high value service industries.

Attachment

Agriculture operates in a world that is characterised by a number of trendy terms as follows

- **Globalisation** - We are part of the global village where regions compete, not nations, where the advantages of free international movement of goods and services are assumed to be an important source of increased economic growth so long as you are internationally competitive

(see Ohmae, 1995). (If you are not, you soon will be as the international markets will devastate your exchange rate and at the same time lower your standard of living.)

- **Customising of products** - We are perhaps seeing at last some important forms of consumer sovereignty (the customer is king) where market operators can readily find someone in the world who is prepared to supply just what they want in terms of product specification and delivery terms. This is the essence of competitive advantage which is ephemeral without constant market intelligence, effort and vigilance.
- **Specialisation** - This management dictum urges business to be focused on those core activities that have potential to be internationally competitive and other non-core activities should be outsourced. Thus the 'regions compete' notion will result in regions concentrating their production into fewer of their activities and, as a result, will be reversing a century of thinking that advocated diversification.
- **Economic rationalisation** - This underlies the reliance on the market to determine what is produced, how it is produced, where it is produced and the distribution structure. This level playing field both nationally and internationally has progressed through such (relatively easy) areas as the reduction of subsidies and tariffs, some rationalisation of phyto-sanitary regulations, but much is yet to be achieved in terms of labour regulations, environmental regulations, tax regimes and so on.

Economic and structural change This is something that we are expected to understand and cope with. While 20 per cent of the population thrive on change and the opportunities that it provides, the remainder resist and resent being told with ever-increasing frequency that they have to change!

Holistic and dynamic management The business of the twenty-first century will need to approach management in an holistic way and allocate resources to a wide-range of tasks including:

- Production and the use of technology;
- Markets, product specification and product quality;
- Business finance and risk management;
- Business organisation structure;
- Environment and resource management; and
- Personnel and employment conditions.

This array of management needs will be a real challenge to most small businesses including farmers. (For an overview of these issues and some responses, see Burgess 1995.) It might make you contemplate how it is that so many small businesses still survive!

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