

Is this the climate that will deliver change - for the better?

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Where I live in Sydney is midway between two major shopping centres. One of them is located in one of the most affluent postcodes in Australia, and the other is located in what would be classified as a working class area.

Occasionally – usually in conjunction with dropping off or picking kids up from sport – I am required to do some Supermarket shopping for our family. This means that sometimes I go to the Supermarket in the wealthy area, and sometimes to the one in the less-affluent suburb.

Despite the fact that the two Supermarkets are both operated by the same retailer, I am always interested in the differences between them.

In the affluent suburb, there are at least two or three cabinets of organic meats and poultry, as well as a full range of other organic produce. There is also Halal and Kosher produce, and an enormous range of different cheeses and dairy products – many of them imported. Last time I was there, I counted 32 different types of eggs, ranging from organic to barn laid to Freedom animal welfare friendly eggs to eco-eggs with extra Omega-3 oils, each available in different sizes. There are also at least a dozen different types of milk.

In the supermarket in the less affluent suburb, the range of products is much smaller. There are very few organic products, and there are certainly less different types of milk and eggs available. The Supermarket also seems to have a lot more of its budget house brand products on offer.

It occurs to me that what I am observing in these two stores is a microcosm of developments that are occurring in agricultural markets on a much wider scale – both within Australia and internationally. Two developments in particular are;

1. that food is now more readily available, on a year-round basis, and in real terms at cheaper prices than it has ever been in the past, and

2. that as the wealth of consumers increases, they begin looking beyond taste and safety, and start making demands about 'non-functional' characteristics of their food and fibre.

These two related developments bring with them both challenges and opportunities for Australian agriculture, and it is these challenges and opportunities that I will discuss today.

Global market developments.

Statistics compiled by the Food and Agriculture Organisation of the United Nations show that, despite the global human population growing from 3.7 billion in 1970 to 6.45 billion in 2005, global food production per capita has actually increased by 27% over that same period, and global agricultural output per capita (which includes natural fibre production) has increased by almost the same amount.

In simple terms, this means there is almost 30% more food produced globally per person now, than there was thirty years ago.

The bulk of that growth in output has occurred in developing countries, with Asia and South America in particular boosting agricultural output per capita by 180% and 160% respectively. In contrast, per capita agricultural output in developed economies has remained almost static, and Africa and Eastern Europe are the two regions of the world where per capita agricultural output has declined.

Relying on these figures to gauge the state of play in world agriculture is somewhat risky, as at the start of the period many in the world were starving – especially in parts of Asia. Aggregate global figures are also a bit deceptive, in that they include what many would classify as over-fed populations in developed nations, and undernourished people in many developing nations. It is also true that as wealth increases, a persons average daily intake of food increases up to a certain level, meaning that the observed growth in agricultural output over the past twenty years might not be keeping up with this increased demand.

However, even taking all these qualifications into account, the Food and Agriculture Organisation of the UN concluded in a major analysis of future world food supplies in 2005 that;

“Competition in global commodity markets will intensify in the medium term. Coupled with marked productivity gains at the world level, this will result in a further drop in real prices for most agricultural commodities.”

This conclusion is similar to ones reached in recent years by a number of national and international agencies, including the International Food Policy Research Institute, and the United States Department of Agriculture.

These analyses indicate a continuation of the trend of increasing competition in global agricultural markets, as low-cost developing nations first develop their agriculture sector to meet their domestic needs, and then aggressively export agricultural produce as a key part of national economic development.

This, in turn, means that the long-term downward trend in real prices for global agricultural commodities that has been evident since the 1960s is unlikely to be reversed in the near future.

There are a number of implications arising from the global abundance of food. Perhaps the first and most significant change that has occurred is the increasing globalization of food and fibre supply systems.

Even though barriers restricting agricultural trade remain relatively high, especially in developed countries, the value of global agricultural trade has been growing in real terms over the past twenty years by between 4 and 5% per year according to the World Bank, and has increased from US\$243 billion in 1980/81 to US\$467 billion in 2000/01.

This growth is partly as a consequence of improved transport and storage systems that reduce spoilage risks, but also a consequence of growing domestic agricultural surpluses, especially in developing countries.

The result of this growth is that even for produce such as fruit and vegetables, consumers now have fresh products available on retail shelves every month of the year. Often this is being facilitated by global retailers such as Tesco, Wal-Mart, Cortraulds and ASDA in conjunction with supply companies such as Chiquita, Dole, and Del Monte.

But just as often it is being facilitated by indigenous retail chains in developing countries such as China and Brazil, which are growing at a much

faster rate than the multinational retail chains, and copying their supply-chain systems in the process.

The result is that in virtually any market around the world, competition between agricultural exporters has intensified, and as has occurred in Australia, even traditional domestic markets are experiencing import competition.

The most intense competition is occurring in markets where products are largely undifferentiated, and sourced predominantly on cost. Examples include grain markets in developing countries, and markets for ground beef in Russia and the USA.

Developing countries such as Brazil, Argentina and Uruguay are extremely competitive in these markets.

As a consequence of the relative abundance of food and fibre, the increasing wealth of consumers, and the relative inelasticity of demand for additional food once a certain level of daily calorie intake or fibre consumption has been reached, a further trend that seems to be growing is that wealthy consumers and the retailers that supply them are becoming increasingly choosy – not just about the quality of food and fibre they purchase, but also about the ‘system’ used to produce that food or fibre.

Many major food retailers in wealthy markets require their contracted suppliers to have third-party audited quality assurance systems, that range from the EUREPGAP system used by major European retailers, to proprietary systems such as WoolworthsQA, and even extend to full environmental accreditation systems compliant with the ISO14001 standard.

This trend is not surprising, and seems to coincide pretty much with the work of the psychologist Abraham Maslow, who created his “hierarchy of needs” theory in the 1950s. He suggested that human needs are hierarchical, and that as wealth increases and the more basic needs for food, clothing and shelter are met, higher level needs begin to arise.

This is reflected in the global growth in ‘extras’ associated with food and fibre production, such as interest in the region the product originated from, and the production system that was used. It is perhaps no surprise that the largest growth in demand for organic food, a market estimated at US\$28

billion in 2004, is occurring in wealthy countries – especially the USA and the EU.

Similarly, interest in “fair trade coffee” and eco-labeling appears strongest in wealthy countries, and it is no surprise that the EU has just announced the introduction of an ‘animal welfare friendly’ labeling system for farm products to be implemented over the period to 2010.

The wealthy consumer interest in information about farm production systems is not just limited to labeling. An immediate example is the current situation in the Japanese beef market, where the Australian animal health ‘system’ has resulted in Australian beef maintaining access to that market, while beef from other nations has been excluded. This highlights that even in markets for relatively undifferentiated commodities, the integrity of the national ‘system’ is increasingly important as a determinant of product value.

Australian community attitudes towards agriculture.

Globalization and agricultural abundance has made concerns about food scarcity a thing of the past in most developed nations and in many developed nations. It has also resulted in a change in the relationship between rural and urban populations, especially in a country like Australia which is now one of the worlds most urbanized countries.

Whereas twenty or thirty years ago most people living in cities had some connection with rural Australia through a relative, that situation no longer applies. Something like a quarter of Australians now living were born overseas, and forty three percent of Australians have one or both parents born overseas. In addition, 80% of the population lives within 50 kilometres of the coast, which means there is limited desire or opportunity for urban people to become familiar with rural areas.

In my experience kids living in many areas of urban Australia are now more likely to have traveled overseas than to have stayed on a farm. This was highlighted to me a few years ago when I was asked to visit one of my children’s primary classes at a suburban school and talk about living on a farm.

My first question to the kids was ‘how many of you have ever been on a farm?’. From memory, no more than two or three put up their hands. I then proceeded to tell them some pretty basic things about life on a farm, such as the fact that the drinking water is collected from the roof. The look of abject horror on the kids faces astounded me, as did the stream of questions about having to drink water that birds had pooped in, or that had dirt off the roof in it. At that stage I immediately abandoned the next part of the talk, which was to explain where milk and meat came from!

There are a number of consequences of this growing gap between urban and rural Australia. These include an increasing tendency for urban people and commentators to be critical of farmers and their practices, especially in relation to issues such as the environment and animal welfare. Evidence of this is loud chorus of criticism that arises any time there is discussion of proposals that might amount to handouts or special support for farmers. Recent examples include sustained criticism of drought support, and even more recently criticism of arrangements within the National Water Initiative that are regarded as being a handout to irrigators to improve their water use efficiency.

The disconnect between rural and urban Australia has also been evident in recent debate about water policy. Time and time again, commentators have stated that the so-called crisis in our rivers is caused by farmers taking too much water for irrigation, especially as farmers use 70% of Australia’s extracted water. Few seemed prepared to stop and think about the fact that agriculture is the first sector to lose access to water during a drought. Even fewer seem prepared to consider that, of the water used by agriculture, more than one third goes straight back to urban Australians embodied in the farm produce they eat and drink, and the rest generates some quite handy export revenue.

Another consequence of the gap between urban and rural Australia is that the rural sector is facing an increasing struggle to obtain a balanced hearing in public debates about complex issues such as dryland salinity or climate change.

I regularly talk to Rotary Clubs in Sydney about water and salinity, and most in the audiences believe that inland Australia is rapidly disappearing under a sea of rising salt, and that there will soon be little fertile land left to grow crops. Most are incredulous to hear that this is not the case, or indeed to see

graphs which show the steadily declining salt content of the water in the Murray River.

What this highlights to me is that the lack of connection between rural and urban Australians makes it very easy for those interest groups that benefit from environmental problems to promote and often exaggerate those problems to a relatively ignorant urban audience.

The gap between rural and urban Australia, and the Australian communities somewhat blasé attitude towards food and fibre production also manifests itself when there is a need for a tradeoff between agricultural output and environmental conservation. Whereas in earlier times there was a strong cultural belief in the need to expand agriculture and increase food and fibre production, this has changed in recent decades. Over the last thirty years some 50 million hectares of conservation reserves have been established in Australia – much of that utilising land previously used for agriculture. In relation to water, the proposed “Living Murray Initiative” would see around 10% of the amount of water currently used for irrigation in the Murray-Darling Basin allocated to environmental flows. It is not clear how much of that will be water currently used by agriculture, but it is reasonable to assume that a substantial proportion of it will be.

A looming issue where there is the possibility that this gap between rural and urban Australia will work to disadvantage the rural sector is that of climate change. I am aware that this is a topic that will be comprehensively analysed by later speakers, and for that reason I will keep right away from debates about the science.

However, I think it is reasonable to recognise that there will be a price placed on greenhouse gas emissions in the not too distant future, which will be of considerable significance to Australian agriculture, as it is the sector of the Australian economy that is the second largest source of national greenhouse gas emissions, accounting for either 16 or 22% of national emissions, depending on how landuse change is counted.

A danger for the agriculture sector, and the dairy industry in particular, is that at some stage there will be a form of greenhouse tax applied either to farm outputs, or on farm inputs. Nitrogen fertilizer, for example, is a potent source of greenhouse emissions and it would not be surprising to see some form of tax applied to its use in the future. Cattle and sheep are also a major

source of methane emissions, and may be a future target, just as was the case when the New Zealand Government tried to impose a greenhouse tax on that country's livestock sector.

It hardly needs saying that in a situation where Australia moves to impose a price on greenhouse emissions ahead of our developing nation competitors, Australian agriculture will be made less competitive, as we are essentially price takers in competitive global markets. At the same time the net impact on global emissions would be minimal as developing nation agricultural exporters that do not have greenhouse taxes will simply increase their output.

A second danger for agriculture lies in the potential design of a national emissions trading scheme. While agriculture has considerable potential to provide cost-effective greenhouse sequestration services, the small-scale of greenhouse parcels that individual farmers will be able to provide may make them en-economic.

Unless the design of a national emissions trading scheme includes opportunities for agricultural greenhouse sequestration to be recognised, there is a real danger that a future national emissions trading scheme will impose costs on agriculture, but not provide farmers with an opportunity to offset those costs.

The future.

Taken together, the issues could easily lead to a great deal of pessimism about the future prospects for the dairy industry, and Australian agriculture in general.

However, I think there are reasons to be optimistic, despite the challenges I have highlighted, and paradoxically, some of the reasons to be optimistic arise from some of these challenges.

The first reason for my optimism stems from trends that are evident in the changing diets of populations in developing countries, many of them Australia's near neighbours.

As these populations are becoming wealthier, their diets are changing and more closely resembling western diets, with increasing consumption of fruit

and vegetables, meat, and dairy products. Available statistics for China, for example, show quite strong increases in daily consumption levels of meat and dairy products, and declining dietary importance of cereals.

At the same time, however, statistics show that the amount of arable land in China is shrinking, and water scarcity is becoming a greater problem. This indicates that China's ability to expand agricultural production, especially in land-extensive commodity sectors, is limited, and China will have a greater reliance on imports of these products in the future.

Australia is well-positioned to meet this demand, especially in wealthier markets that will be less accessible to farmers in developing countries that find it more difficult to meet environmental, food safety and biosecurity standards.

These changes aren't limited to China. Enormous growth is also occurring in consumer wealth in countries such as India, Thailand, Malaysia, Vietnam and the Phillipines. The resulting increased demand for animal protein, fruit and vegetables and dairy products provides an enormous opportunity for Australian farmers due to our close proximity and good reputation.

The second reason for optimism arises from the trend I spoke of earlier, whereby wealthy consumers are becoming increasingly demanding about their food, and even the non-functional aspects of their food such as the environmental sustainability of farm production systems, and the animal welfare and other standards that are applied in its production.

One lesson learnt in recent years in the beef industry in particular has been that Australian farm production standards, and our post-farm hygiene, food safety and traceback standards have been robust enough to meet the requirements of some of the world's most particular consumers in Japan, Korea and the USA.

And what has also emerged from that experience is that those consumers are prepared to pay a premium for our products partly because of these standards, and as a result we haven't had to compete on price with other, lower-cost beef producers.

The infrastructure that has developed around Australian agriculture, which includes the physical infrastructure, administrative and analytical systems,

and the knowledge and skills of farm personnel, means that Australian agriculture is better equipped to meet the requirements of fussy, high-wealth consumers, than many of our developing-economy competitors are.

In fact, somewhat paradoxically, the more fussy global consumers get, the better off Australian farmers might be.

While the recent premiums in the beef market have been associated with food safety issues and as yet there is no real evidence that consumers are prepared to pay a premium for environmental aspects of farm production systems, there are already signs that retailers are interested in these issues, because of their desire to present a 'good' corporate image to high wealth consumers.

Michael Luscombe, the new CEO of Woolworths, has already foreshadowed that Woolworths is starting to consider ways to reward environmentally sustainable farmers, and European retailers have already gone some way down that path with their Eurepgap farm accreditation system.

If Australian farmers move to implement voluntary farm environmental accreditation systems in a cost-effective manner, then it may mean Australian farm products are better equipped to compete in higher-value markets that are not accessible to farmers without such accreditation, or from countries which don't have the same biosecurity infrastructure.

At the same time, farm environmental accreditation systems may provide a very positive way to reassure the wider Australian community about the environmental management standards of Australian farmers, and help to bridge the gap I spoke of earlier that has arisen between urban and rural Australia. In fact it is probably reasonable to observe that if Australian farmers don't take steps to prove their environmental credentials, then the community will impose regulations that require them to.

To grasp these opportunities, however, Australian farmers will need to discard some hoary old myths about our industry.

The first myth is the one that says Australia is a low-cost agricultural exporting country. That may have been the case twenty years ago, and perhaps it still holds true in some commodities, but the reality is that Australia is now at best a middle-cost producer, and if Australia attempts to

compete on price alone in domestic or global agricultural markets, we are unlikely to succeed.

The second myth is that Australia and the world needs our food and fibre. Again, this may have been the case thirty years ago, but it is no longer. There is plenty of food and fibre available globally, especially for those who can afford it. Urban Australians would exist quite happily eating imported food, and many already do.

Acceptance of these myths has probably led to a degree of complacency in Australian agriculture, which needs to be discarded.

Australian farmers are now competing in consumer-driven global markets in much the same way that the makers of ipods or computer games are. In consumer-driven markets, suppliers only survive if they keep meeting or exceeding the needs of those consumers.

Consumers don't need ipods or computer games, but, given the right approach, can be made to want them, and to pay a premium for them. The challenge for Australian farmers and the entire agricultural sector is to adopt this same consumer-driven approach, and find ways to make consumers want to pay a premium for Australian farm products, and in that way create some real opportunities from what might currently appear to be adversity.
