Australian agriculture's role in meeting increased Asian demand

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Abstract

Food and agricultural producers across Australia and New Zealand are increasingly turning their attention to their close neighbours on the Asian continent. The proximity of almost a third of the world's population has always been impossible to ignore; however, the region has taken on a new level of significance in recent times as developing countries across Asia have embarked upon their journeys of economic transformation. Rising incomes across Asia and the changing dietary habits of households have already had a significant influence on many global agricultural markets and trade flows. This influence is expected to strengthen in coming years as the region increases its share of the global economy, while remaining somewhat limited in its ability to satisfy its own growing needs and wants for food and fibre products. Indeed, the dawning of the so-called 'Asian Century' holds great promise, but it also presents a great challenge to Australian and New Zealand (ANZ) food and agricultural producers. Understanding the business risks of supplying a diverse economic, cultural and political region is critical for ANZ farmers and agribusinesses to maximise the value of their expansion into Asia. Improving their understanding of these factors will also allow ANZ agribusinesses to better respond to the opportunities emerging in Asia at the right scale. Developing strong partnerships along the supply chain and across borders will be critical to the success of Australia and New Zealand in capturing value in the growing Asian markets. Increasingly, consumers across Asia are demanding high levels of food safety and traceability, with many willing and able to pay a premium for the clean and green food we produce. Australia and New Zealand together supply less than 10% of Asia's total food and agricultural imports: our focus needs to be on leveraging the many attributes of agricultural sectors at the high-value end of the market.

Rabobank is a global food and agribusiness bank: the world's largest food and agribusiness bank. We started in the Netherlands 110 years ago as a co-operative, and we still are a co-operative. We do not have shareholders, and almost everything we do outside of the Netherlands is focused on food and agribusiness. In Australia and New Zealand we now have about 100 branches. We are located in about 48 countries around the world, and increasingly in Africa as the Rabo Development Bank where we invest significantly.

I manage the Rabobank Food and Agribusiness Research team in Australia and New Zealand. The team has over 80 members in 20 offices around the world, and covers the entire food and agriculture value chain, from inputs and production to processors and consumers. It focuses on animal protein, seafood, beverages, dairy, farm inputs, food retail & consumer behaviour, fruit & vegetables, grains, oilseeds, sugar & sweeteners. Our job is to try and capture information and knowledge and help support our clients, be they farmers or other participants throughout the supply chain.

This paper is about Australia's role in feeding Asia.We are currently developing policies and new financial products to facilitate that role, and I will discuss the importance of supply chains, which are going to be critical if Australia is to play a bigger part. There are also challenges for Australian agriculture which need to be addressed if we are to improve our importance in feeding Asia.

First, let me ask: Are we on the brink of a second 'GFC' (a global *food* crisis)? The following words[1] summarise the challenge we have as a community over the next 10–30 years.

> The world is on the verge of a global food crisis. Rising food prices can plunge millions more into poverty and destabilise the world as we know it today. Close to 870 million people are chronically hungry, 2.5 million children die of hunger every year. To make things even more challenging the world population is forecast to grow from 7 billion today to over 9 billion in 2050. Every minute, the world population grows with another 158 mouths to feed. The majority, 154 of these mouths, are expanding populations in emerging and developing regions. Not only is the world's population getting bigger, it's also getting older and wealthier, and diets are changing as well.
>
> If we continue consuming as we are today we will need the equivalent of two planets Earth before 2040. If everyone lives like an average resident in the western world a total of up to four planets Earth would be needed to regenerate humanity's annual demand on nature. One third to half of globally produced food is wasted, an amount big enough to feed 2 billion people. While in developed regions a significant share of this usually gets wasted on the end-consumer side, in developing regions food waste occurs through poor infrastructure, before it even reaches the consumer. Higher food demand will have to be realised with less available arable land, less water, fertilisers, chemicals, etcetera, and fewer emissions.
>
> Productivity gain of major commodities has slowed down to 1.4% per year. To meet rising demand it should be at least 1.75%. The last 20 years' productivity growth for wheat decreased to 0.5% per annum. A similar trend holds true for rice. So the two most important staple crops in the world have had almost flat yield increases due to a lack of sufficient investments. We have entered an era of scarcity, with higher and more volatile prices, and the battle for agri-commodities will only intensify. The economics of farming are not sound. Although prices are rising, farmers' margins have improved much less than prices of agri-commodities would suggest. Farmers get

[1] From 'Future of farming – global food security', a video uploaded by Rabobank, online at <https://www.youtube.com/watch?v=ArvQtSmjgcg>.

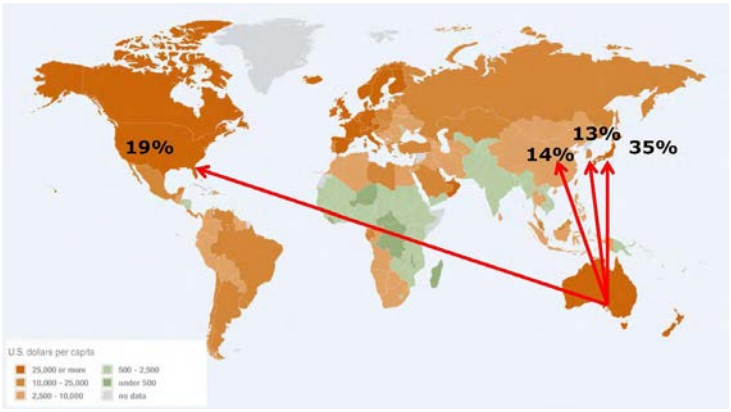
squeezed between highly consolidated upstream farm-input suppliers seeking to maximise their returns, and downstream customers seeking to capitalise on strong demand.

Australia's role in feeding Asia

Look at how the world has changed over the last 30 years in relation to Australia's beef trade. The maps (Figure 1) show the areas where per capita income is high, in brown. In 1980, trade was dominated by North America; 20 years later the brown areas were starting to spread and Australia's beef trade was moving more towards Asia. By 2013 much of Asia is coloured brown, and most of Australia's beef exports are going into that market.

Much can change in 30 years, and in 30 years' time it may be 100% of our protein exports going into those markets. Other things that affect agriculture and how we do business are changing rapidly as well, such as communication

Figure 1. (a) In 1980 the US and Europe dominated the world. (b) By 2000 Asia had begun to emerge. Colours show per capita income: darkest brown = US$25,000 or more; palest brown = US$2500–10,000; darkest green < US$500.



(c)

Figure 1(c). By 2013 per capita income has grown throughout Asia. Darkest brown = US$25,000 or more; palest brown = US$2500–10,000; darkest green < US$500.

and computing technologies which have advanced greatly in the last 30 years. Obviously, farming technology has changed with that.

Agriculture is also affected by other factors, including politics and geopolitics. For example, agriculture and agricultural markets can suffer significantly when geopolitical risks impede market trade.

Among Australian exports of agriculture and food, only exports to Asia have grown in recent years (Figure 2). North Asia and South Asia represent by far the most significant market share for our agricultural exports these days, reflecting what has happened in beef.

However, compared to our agricultural competitors around the world, Australian exports are growing much more slowly than those of some other countries. Brazil, for example, is very rapidly increasing soy bean exports into

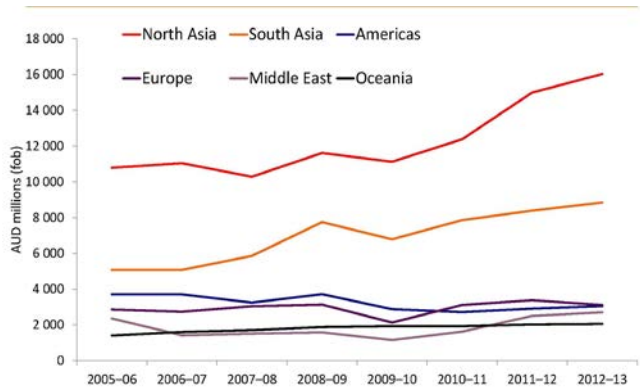


Figure 2. Asia already dominates Australia's export returns. From: ABARES, Rabobank 2014.

markets such as China. New Zealand's growth in dairy exports into China and Asia has been significant. Australia is actually lagging behind other exporters around the world in terms of that growth in capturing market share.

We continue to oversell our role as a food basket to Asia … because we really are not. We export around 6% of Asia's agricultural imports, which means they are really not very reliant on Australia (Figure 3). On the other hand, Australia is very reliant on Asia, given the fact that those countries are the most significant market for our goods.

Importance of quality and demand

What should Australia do? Agriculture Minister Barnaby Joyce is completely right in telling us Australia needs to be chasing value, chasing quality markets, chasing markets that can pay a premium for our goods.

Australia is a high-cost producer of agriculture compared to others in the world. Our role in feeding Asia is not to supply low-cost calories. It is to supply high-quality goods that consumers in the increasingly affluent middle classes are able to afford. That is where Australia should focus, and New Zealand is in a very similar situation. We share many attributes, such as our clean and green image, which allow us to charge a premium, and we need to ensure that premium flows all the way back to the farm gate. Farmer incomes are not improving, and although we talk about research and development and lifting production and tackling sustainability challenges, none of that will happen unless farmers are profitable.

Australia's trade flows of agricultural goods are also being affected by changes in demand from Asia and particularly from China. Almost all agricultural markets in all parts of the world are influenced and being changed by China's demand. China is now one of the largest importers of corn from the United States, and China is the largest pork importer in the world.

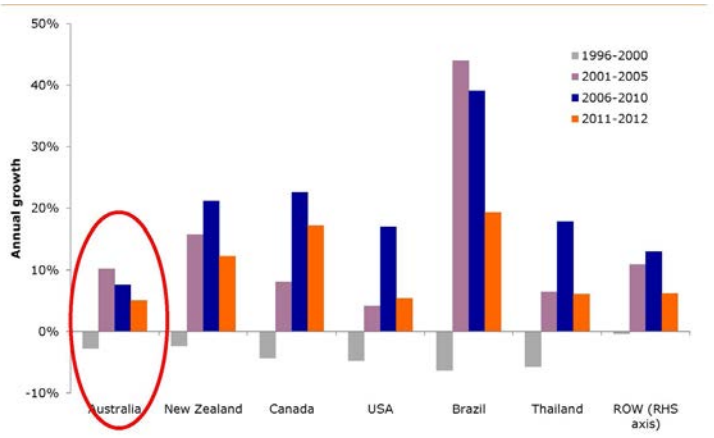


Figure 3. Australia's agricultural export growth rates are lagging competitors into the region. Sources: Comtrade, Rabobank.

China imports around 65% of world trade of soy beans, and their imports continue to grow. By comparison, 15 years ago China imported zero soy beans. China is the largest importer of dairy produce around the world, and New Zealand is the largest exporter. Just last year Australia exported record amounts of wheat and beef into the Chinese market, and we are sending increasing amounts of other animal protein – not necessarily beef – which is also meeting this food demand in China.

Look at any market. Look at wine and Penfolds 'Grange': last year they had to limit the amount of Grange that was allowed to be subscribed in Shanghai so that other markets around the world could get that product. These kinds of changes are transforming how agricultural trade flows operate, and also how agricultural supply chains work.

Supply chains

Rabobank has undertaken a significant amount of research on food and agricultural supply chains over the last couple of years. Big agricultural companies such as Coca-Cola and McDonald's and Unilever are really focused on how their supply chains are working, for a number of reasons. One reason is the commodity price dynamics. Over the last 10 years there have been a number of instances of record-high grain prices and shortfalls in supply. Companies with branded products want to ensure that they have sufficient commodity and sufficient supply to be able to meet their end needs. Chocolate processers are a clear example: they are investing significantly in cocoa producers in West Africa to ensure they can obtain the commodity on a sustainable basis. Security of supply is really critical for many of these companies.

Four main factors are pressuring supply chains (Figure 4). Shifting market power and margins are aspects we are very aware of in Australia, with the power that the retailers have. We have seen that power particularly in sectors such as dairy, influencing farmer margins significantly. The world needs to feed 9 billion people, and these situations add to the challenge of doubling food production.

On top of that there is the 'great cross-over' (see Figure 4) – a term to express the way agriculture is increasingly being influenced by other markets and also is influencing other markets. Consider the energy market: at the moment, for example, 40% of US corn produced goes into the ethanol market, as does a significant amount of Brazilian sugarcane. The interlinkages between agriculture and other markets are increasing, but so also are the interlinkages between agriculture and society.

Increasingly, consumers are demanding to know where their food comes from. They are putting pressure on supply chains through concerns about animal welfare and similar issues. This means supply chains across sectors need to be able to work together to ensure that they are viable. Figure 4 (boxes at right-hand side) shows several dimensions to this. Brand and reputation are critical and are increasingly the reasons for companies wanting to change their supply chains and ensure that they have partners along the supply chain who have the same values they aspire to.

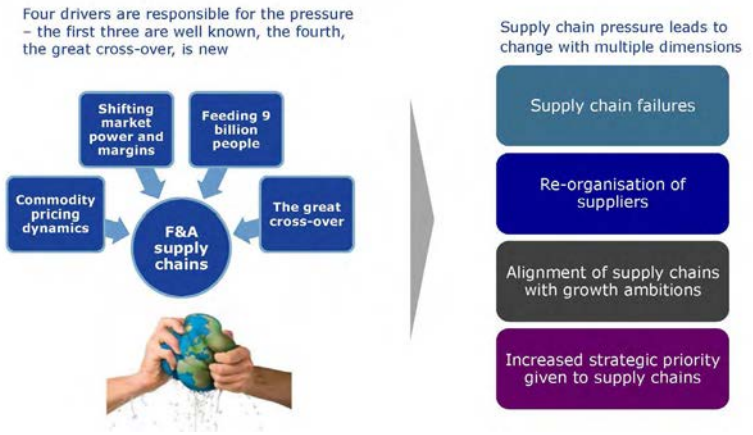


Figure 4. Food and agriculture supply chains are under more pressure and becoming more complex. Three of the four driving factors responsible for the pressure are well-known; the fourth, the great cross-over, is new.

Remember the breakdown in supply chains that followed the European horse meat scandal. This is a clear example where the supply chain broke down because people were chasing price, not value, across the supply chain: they did not have the incentive to be trustworthy. Consumers in China voted with their feet in KFC stores in 2012–13 (Figure 5). Year-on-year sales fell dramatically (far right of figure) after chemical residue was found on some of the chicken.

Australia is well placed in terms of food traceability (Figure 6) and we need to ensure that we are monetising that situation in our key Asian markets.

We need to think broadly in our planning. For example, social media means that information is flowing very rapidly now, and the big brands are very much

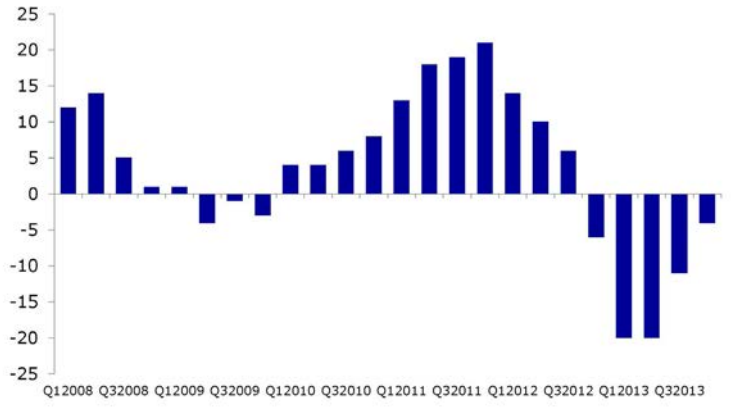


Figure 5. Sales percentages show consumer reaction to contamination found in food in China during the 3rd financial quarter of 2012. Source: YUM China Same-store Sales, YoY per cent.

Figure 6. Through its emphasis on quality, functionality, traceability and absence of disease in agricultural production, Australia has the opportunity to supply high-quality food at export.

focused on that. By 2017, two-thirds of all mobile data traffic will be video. It is said that almost 10% of all photos in existence were taken in the last 45 days. Farmers are engaged: for instance, there is now a website[2] where a farmer can post a selfie of themself with their livestock – called a 'felfie'.

What about the nature of our competition? We need to think ahead, up to and beyond the 30-year horizon: will competition then be from other countries exporting beef, or will it be from man-made beef?

To conclude, farmers are fed up hearing about all the wonderful opportunities offered by Asian demand, because they are not seeing the returns at the farm gate. Farmer terms of trade in Australia (Figure 7) show that prices they pay (e.g. Figure 7b) have been increasing at a greater rate than prices they receive, and terms of trade for farmers in Australia have been declining for a long time.

Unless there is some sort of step-change in farmer incomes it will be very hard to give farmers incentives to boost their production and to invest in technologies and in new research and development, in order to lift productivity and lift their exports (Figure 7c). I think this is typical all around the world. All Australia's confident talk about how we need to lift production to meet the increasing demand is useless unless farmers are seeing that return, because they are not going to have the incentive to invest in lifting their production.

Summary

In summary, Australia can have a big role in helping meet Asian food demand, but it needs to be at the right level, We should not overstate this role, nor try to be all things to all consumers. We should focus on quality markets where people are prepared to pay a premium for our goods. Supply-chain partnerships

[2] www.felfies.com

will be very important. We need to ensure our farmers have *incentive*. We need to address some of the challenges farmers face from costs of inputs, red tape, difficulties of market access and supply-chain efficiency – these are really restricting Australia's agricultural sector.

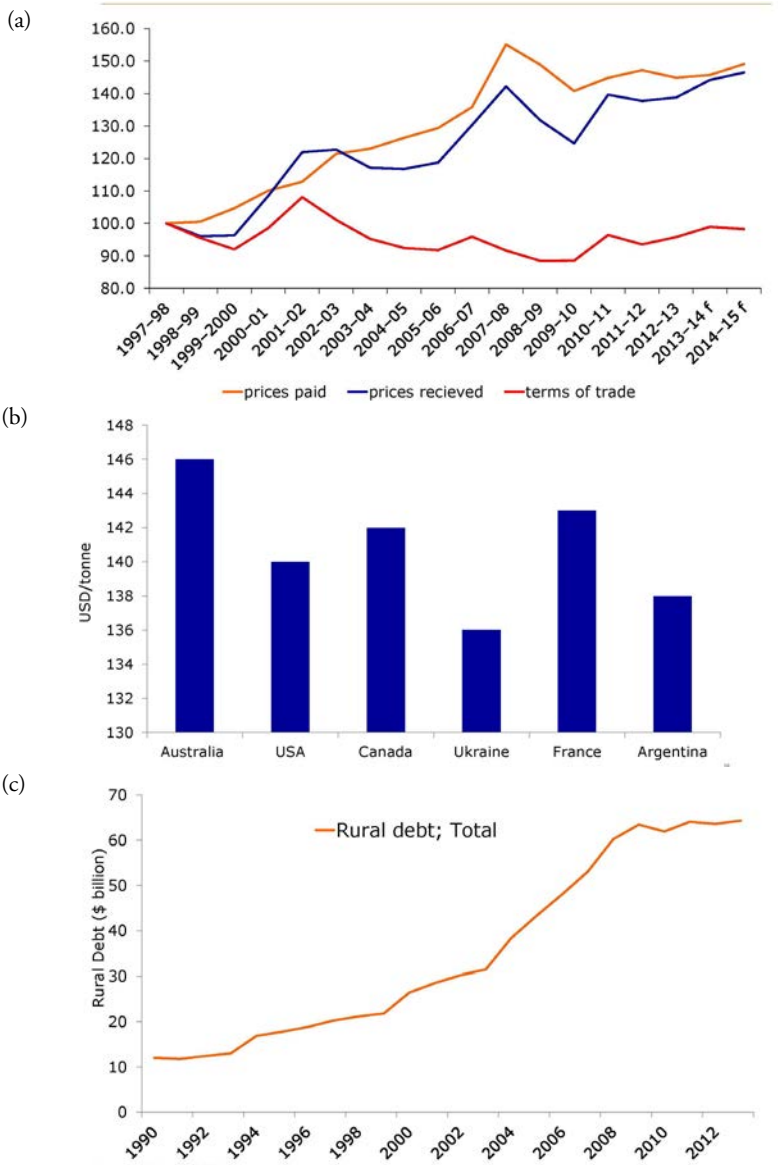


Figure 7. (a) Australian farmers' terms of trade, i.e. ratio of index of prices received by farmers and index of prices paid by farmers (ABARES, Rabobank 2014). (b) Cost of wheat production: it is high for Australian growers relative to other major wheat producers. (c) Australian farmers face capital constraints, restricting their capacity to finance the future. Sources: Reserve Bank of Australia, Rabobank 2014.

Postscript

The weekend before this conference in August 2014, some of my team from Rabobank and I set out to try the Oxfam 100 km Trailwalker Challenge in Sydney. The event, which raises money to go towards fighting poverty, challenges teams of four to journey through 100 km of bush trail within 48 hours. As the Oxfam website says, it is not a relay; the team has to start together, stick together and finish together; it is tough. The photos and caption below tell the story for our Rabobank team.

There had just been month's-worth of rain in a day and a half, so we had a muddy track. After 35 hours of no sleep, and lots of rain and mud, all four of us crossed the finish line. We were pretty pleased with that, because I think fewer than 35% of the teams finished with all of their team in one piece. We raised $6000 to go towards fighting poverty, and the event itself raised around $3 million. A great thing to be involved in!

Luke Chandler is General Manager, Food & Agribusiness Research and Advisory, Rabobank Australia & New Zealand. Luke is responsible for managing Rabobank's analysis and outlook for the world's major agri-commodities markets, including price forecasts for the key grains and oilseeds, softs and livestock commodity markets. In addition, his team of analysts works closely with Rabobank's commodity division servicing client price-risk management needs, and is part of the bank's Food & Agribusiness Research and Advisory (FAR) division. Rabobank's FAR division is staffed by an international team of research specialists focused on producing comprehensive, world class research on global food and agribusiness markets, including the latest market trends, future industry developments, sector and environmental issues. Luke has extensive experience working in commodities having worked in some of Australia's major agribusiness companies. Luke holds a Bachelor of Agricultural and Resource Economics and a Master of Economics, both from the University of New England.

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