

# Investment Analysis of the Queensland Beef Supply Chain



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Queensland  
Government



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Sources used in obtaining the information, based on which we performed our analysis to reach certain conclusions and points of view that are included in this guide, are outlined in references section of this report.

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# Executive Summary

This report analyses market factors impacting the Queensland beef sector, and discusses potential opportunities for investors.

## The Queensland Beef Supply Chain

Australia has consistently been one of the world's top three exporters of beef and veal over the past decade (ABARES, 2017) despite having only 2% of the global beef cattle herd (USDA, 2018). Queensland produced an average 54% of Australia's total beef exports by value, including an average 13% of live cattle exports by value, over the past decade (QGSO, 2018).

Queensland is home to 42% of Australia's cattle herd, the largest export terminal for red meat (Brisbane) and the second largest live export port (Townsville).

Queensland's free range pastures, strict biosecurity, and well-managed environment, combined with Australia's reputation for high quality product and world-leading animal welfare practices, creates the foundation for its strong international reputation. Market access for Australian beef continues to expand. This includes a number of signed free trade agreements, and several more are under negotiation. Close trade relationships and geographic proximity to Asia are competitive advantages for Australian beef.

## Strategic drivers of the beef industry

A variety of influences impact Australian beef prices, including climatic conditions, herd size, global beef production and consumption (particularly in the United States). Population growth, the rise of the middle class, increased urbanisation and exchange rate fluctuations are the key macro drivers of future global beef demand.

## Queensland beef investment indicators

There are a range of indicators that can be used to demonstrate the performance of the Queensland beef supply chain including the MLA Eastern Young Cattle Indicator (EYCI) (c/kg cwt), herd size, the Herron Todd White Queensland Grazing Property Index (QGPI), live export volumes, grain and Over the Hook (OTH) prices and the foreign exchange rate.

Government supports research and development and extension services for the beef industry in Queensland. There are many emerging practices and innovations within the beef industry that have the potential to address inefficiencies, generating costs savings and provide productivity benefits across the supply chain. Prospective investors in the Queensland Beef Supply Chain should consider these advancements.

## Investment trends and indicators

Agriculture, forestry and fisheries accounted for \$119 million, or 0.2% of total direct foreign investment into Australia in 2016 (ABS). Cumulative foreign investment into agriculture, forestry and fisheries stands at \$2.3 billion as at the end of 2016. Nationally, foreign ownership remains low relative to Australian ownership with 99.7% of grazing and grain farming businesses, 98.0% of feedlots and 86.8% of grazing and grain farming land wholly Australian owned in 2016. Queensland foreign owned land and businesses are similar to the national proportions.

Nevertheless, a range of foreign institutions, from beef producers to pension funds, have been active in acquiring grazing properties in recent years, while multinational beef processors have also been active in acquiring feedlots and abattoirs.

Investors from the United Kingdom and China have the largest foreign agricultural landholdings in Australia, both in terms of land area subject to some level of foreign ownership and in terms of equivalent hectares fully owned by foreign investors (ATO, 2017).

Global agricultural land values have boomed since the turn of the century, increasing more than six-fold from 2002 through 2015 (Savills, 2016). In North Queensland, export booms in key commodities (coal and natural gas), together with strong growth in live export volumes, saw valuations of prime agricultural land soar. Valuations peaked in 2009, as the mismatch between supply and demand for properties widened (Herron Todd White, 2018). While cattle prices have declined since their peak in 2016, they are still at historic highs compared to long run averages.

### Characteristics of the beef supply chain

Investment characteristics vary across levels of the supply chain. Whilst all levels are generally capital intensive, returns vary, and different components often experience contrasting fortunes. The industry's capital intensity generally means that liquidity is relatively low, transaction costs are relatively high,

and acquisitions are made with long-term investment horizons. Agribusiness services and agtech markets continue to grow as producers increasingly embrace technology and employ consultants to optimise its deployment. The investment profiles associated with these parts of the supply chain are more akin to those associated with the services and technology sectors, with significantly lesser capital intensity, moderate transaction sizes and short investment horizons.

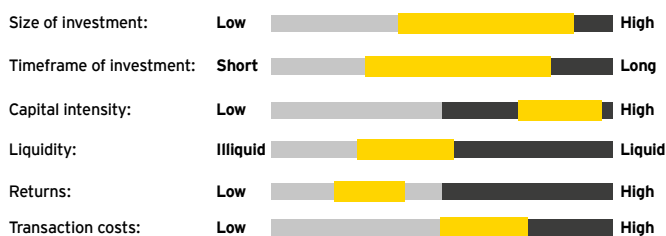
Processing facilities represent the largest investment commitments on average, due to their high capital costs, relatively high operating costs, low liquidity and concentrated market. Conversely, breeding and grazing properties regularly come to market in all types, sizes and price ranges, meaning the investment required will vary depending on the investor's business model and strategy.

Key investment characteristics for each level of the supply chain are demonstrated below.

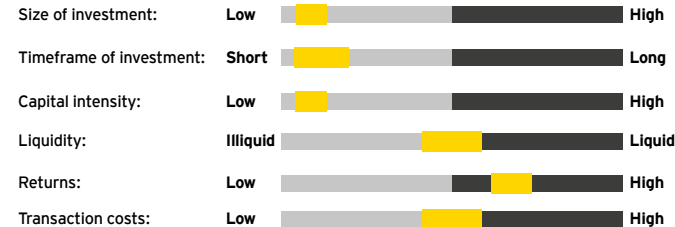
### Investment models

There are a range of potential participants who may invest in the Queensland beef supply chain. These include high net worth individuals, family businesses, intra-industry groups, real estate investment trusts, financial institutions and private equity. There are strengths and weaknesses of each investor type based on their risk appetite and the needs of graziers, feedlotters, processors and service providers.

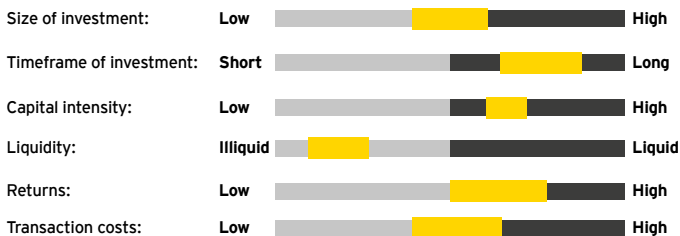
#### Breeding and grazing



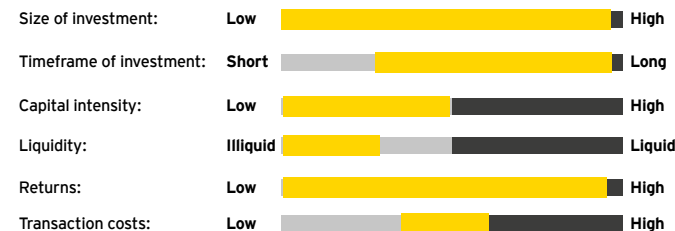
#### Agribusiness services



#### Feedlotting



#### AgTech



#### Processing

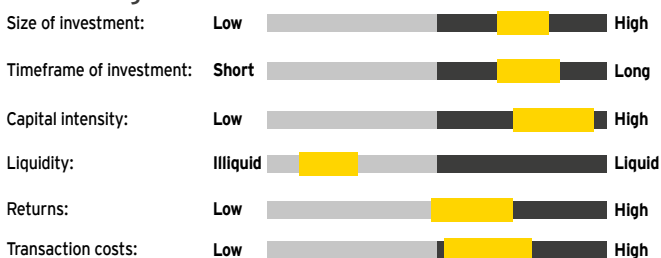




Image: ALFA

# The Queensland Beef Supply Chain

Queensland is the largest beef producing State in Australia. Queensland's beef industry has diverse beef cattle production systems, multiple established and emerging market options and extensive infrastructure along the supply chain.

## Queensland Beef industry statistics

**42%** Queensland's cattle herd is almost half of the national herd

**702,462 tonnes** red meat exported from the Port of Brisbane in 2017

This is **42.5%** of the national total and makes Brisbane the largest red meat export terminal

**11.04 million**

total head of cattle in 2017

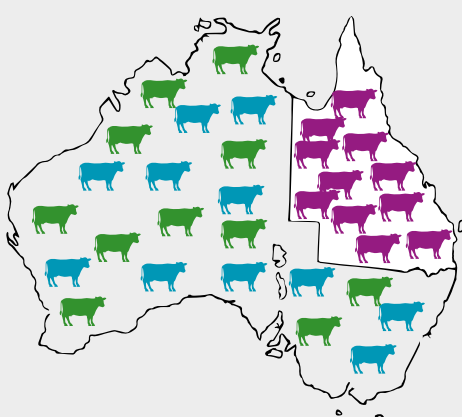
**1.70 million**

head turned off from feedlots in 2017

**3.40 million**

head processed in 2017

Source:  
ALFA, ABS, DAWR & ABARES, 2018



The Port of Townsville was Australia's second largest live export terminal by volume with a throughput of **204,000 head**



**Australia has consistently been in the top three global beef exporters. The majority (65.7%), of Australia's processed beef and veal was exported in 2017 (ABS, 2018).**

Australia has consistently been one of the world's top three exporters of beef and veal over the past decade (ABARES, 2017) despite having only 2% of the global beef cattle herd (USDA, 2018).

Australia is also one of the world's largest live exporters, supplying \$1.2 billion worth of cattle to markets in Asia, North America and the Middle East in 2017 financial year (QGSO, 2018). For the past four years, all of Queensland's live exports have been destined for Asia.

Australia's small domestic market relative to its scale of output creates the need to maintain strong export markets. This is demonstrated through Australia's extensive Free Trade Agreements (FTAs).

Queensland produced an average 54% of Australia's total beef exports by value, including an average 13% of live cattle exports by value, over the past decade (QGSO, 2018).

**As a leading exporter, Australia has a well-established international reputation as a reliable and safe source of beef. Queensland has the opportunity to leverage its brand further to target growing consumer demands. This concept underpins the 'True Aussie Beef' brand, developed by Australian producers. This brand allows beef exports to be marketed under one Australian brand and is an example of utilising a brand to give confidence to consumers. A reputation that gives confidence to consumers can command a price premium.**

**The Queensland beef industry has:**

- ▶ **extensive grazing pastures**
- ▶ **a focus on animal welfare practices**
- ▶ **world-class processing facilities**
- ▶ **strict biosecurity practices, ongoing investment in research, development and innovation (MLA).**

The United States and Asia's emerging middle class consumers prefer high quality, healthy, humanely produced beef.

The consumer and society more broadly have an increasing focus on animal welfare standards. Australia has a strong reputation in this regard.

The Livestock Production Assurance (LPA) tracks animals' history and on-farm practices, providing evidence of location and health, and providing assurance with respect to food safety, animal welfare and biosecurity.

The Australian Lot Feeding Association (ALFA) offers accreditation under the National Feedlot Accreditation Scheme (NFAS). This scheme requires feedlots to be independently audited every year and supports continual improvements in production, the welfare of cattle and environmental management.

The Australian Standards for the Export of Livestock (ASEL) and Exporter Supply Chain Assurance System (ESCAS) are world-leading initiatives aimed at maximising the welfare of animals throughout the live export supply chain. There is an international push for other nations to follow Australia's example (MLA).

The NFAS, ASEL, ESCAS and LPA accreditation process combine to provide consumers of Australian beef surety over its safe and ethical production.

Research and development, innovation, and education programs continue to promote industry leading practices throughout the beef cattle supply chain. This further differentiates the Australian industry. Investment by government, geographic isolation from other countries and strict biosecurity practices is key to Queensland remaining free from the world's most serious bovine diseases; including foot and mouth disease and bovine spongiform encephalopathy (mad cow disease).

## True Aussie Beef

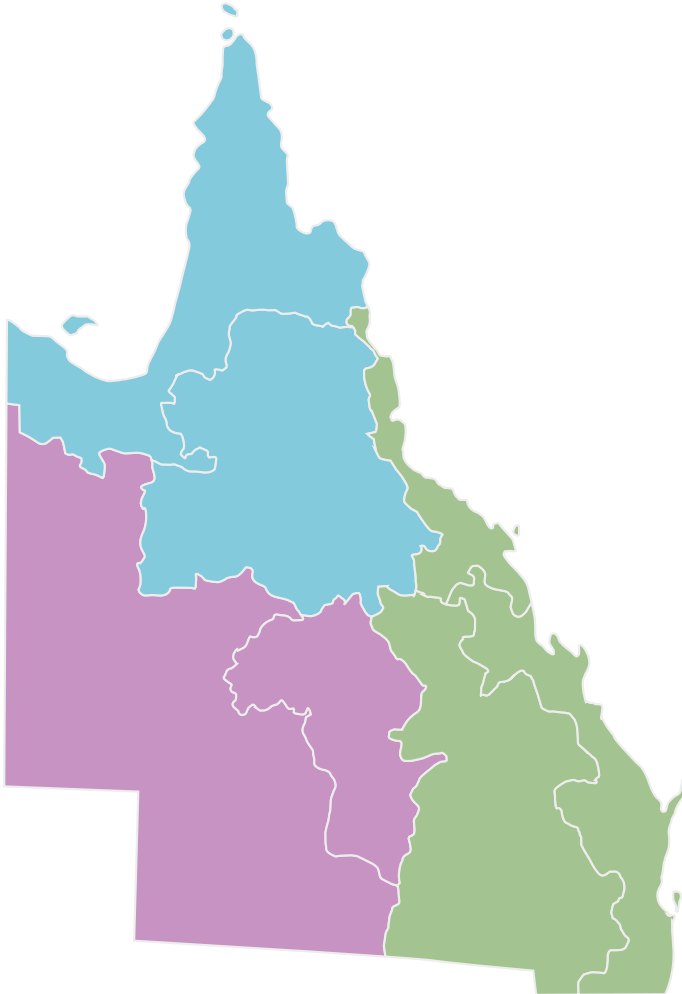
Australian producers have invested in the True Aussie Beef brand, with a specific focus on Japan, North America and Korea. This brand helps consumers identify authentic Australian beef and maintains Australia's reputation for quality and safety.

Source: MLA



# Queensland's grazing and production systems

There are two key production systems in Queensland which produce cattle for either live export or domestic processing. There are three key grazing regions in Queensland defined as Northern, Central and Southern.



**Northern grazing properties allow for the low cost production of cattle through breeding on large marginal grazing pastures.**

**Central grazing properties are commonly used for backgrounding cattle. With breeding and finishing operations also common.**

**Southern properties are characterised by smaller properties with intensive grazing areas.**

## Dominant bovine species

<b>Bos Taurus</b>	Of British and European decent
	Best suited to temperate climates
	Produces a high yield of beef
	Produces high marbling and tenderness in beef
<b>Bos Indicus</b>	Of Southern Asia decent
	Well suited to extreme temperature conditions
	Tick resistant

## Northern production systems

Northern Queensland production systems are characterised by extensive grazing pastures dominated by annual wet and dry seasons. The dry hot conditions of Northern Queensland create a climate more suited to *Bos Indicus* breeds such as Brahman cattle. Their drought and tick resistant qualities allow them to remain productive in long dry seasons. However, their meat is of a lower value in the Australian domestic market and they are often exported live as feeder cattle to Asia markets. Northern cattle that are processed domestically overwhelmingly cater to the commodity beef market and are processed by Northern and Central Queensland abattoirs. Northern graziers are increasingly producing cattle suited to domestic and boxed beef export markets. This is achieved through cross-breeding



with *Bos Taurus* breeds to create cattle that demonstrate the hardier traits of a *Bos Indicus* animal and the marbling, tenderness and yields of a *Bos Taurus* animal. Examples of these breeds include Droughtmaster and Santa Gertrudis, both of which are well established within Queensland. These cattle are turned off Northern properties after weaning and generally moved to backgrounding properties.

Backgrounding properties allow weaners to grow out to a larger size prior to entering more intensive finishing systems. Backgrounding can also prepare cattle for intensive systems, introducing handling, socialisation and acclimatising to feed bunkers.

Within the Queensland beef industry the major methods of cattle sales include;

- ▶ through saleyards by liveweight (lwt)
- ▶ direct to abattoirs by carcass weight (cwt)
- ▶ through online sales platforms (lwt)
- ▶ to live export companies (lwt).

## Southern production systems

Queensland's Southern grazing properties are characterised by smaller land holdings with more intensive farming practices. Southern production systems generally produce *Bos Taurus* breeds such as Hereford, Angus, and Charaloi, however these

more intensive holdings also span north along the Queensland coastal region capturing the *Bos Indicus* and cross species breeds. The South East region and Rockhampton area provide infrastructure hubs supporting the sale, finishing and processing of cattle.

Saleyards are used heavily in the Southern production systems. Predominantly cattle suitable for domestic market use, restocking properties and breeding purposes are sold through saleyards. Processors are also active buying suitable cattle. Cattle generally go through a finishing system before processing.

Finishing systems are the method of fattening cattle before they are processed. Cattle are either finished on improved pastures, creating grassfed beef, or in feedlots creating grainfed beef. Finishing systems are focused in the Southern region of Queensland due to the accessibility of grain, higher quality pastures and predominance of *Bos Taurus* cattle. Finishing systems help to create consistency in product and cater for the high value domestic and export markets.

Farm size is generally inversely correlated with productivity<sup>1</sup> – smaller farms tend to be located on more productive land. Queensland's south eastern regions are characterised as being more productive and farm sizes are typically smaller in these areas. Table 1 demonstrates the higher average carrying capacity of Southern properties in comparison to Northern properties.

**Table 1: Queensland's farm sizes and proportion of herd by region**

Production Region	Region	# Farms (approx.)	Avg Area operated at 30 June 16 (ha)	Proportion of herd	Avg carrying capacity* (ha/cow)
Northern	Cape York and the Queensland Gulf	78	177,832	6%	24.74
	Central North	581	43,719	16%	34.93
Central	West and South West	359	118,769	13%	16.45
	Central West	605	16,817	9%	11.93
Southern	Eastern Darling Downs	857	1,851	3%	5.41
	Southern inland	2,962	5,608	34%	5.15
	Southern Coastal	2,298	2,982	15%	4.80
	Northern Coastal	419	3,465	3%	4.83

Source: MLA Farm Survey Data for beef, slaughter lamb and sheep industries

\*Average carrying capacity was determined by dividing average area operated by beef cattle with the intention to demonstrate the productivity difference and should not be used as management advice.

<sup>1</sup>Productivity is defined as the carrying capacity of the land (head/hectare)

# Free trade agreements will continue to improve market access

Australia pursues a free trade agenda and has bilateral agreements in place with its key trading partners

## What this means for our beef industry

- ▶ A more influential competitive position
- ▶ Greater access to the global market
- ▶ Potential attraction of foreign investment
- ▶ Reduced fluctuations in trade
- ▶ Growing innovation practices
- ▶ Exploitation of export opportunities

The close relationship and geographic proximity to Asia is key to future demand.

Asia's growing middle class will be the largest source of food demand growth over the next 10 years with a forecast

**45%** increase in consumption over this time (OECD-FAO 2016).

Queensland's geographic proximity to Asia means producers are able to benefit from relatively low freight costs and transport times. This presents a competitive advantage over other exporting nations, particularly in the expanding high end chilled beef market segment which is experiencing increased demand due to its perceived higher quality.

## China (ChAFTA – effective 20 December 2016)

Key outcomes include elimination of:

- ▶ the tariffs on beef imports (ranging from 12-25 per cent) by 1 January 2024
- ▶ the 12 per cent tariff on beef offal by 1 January 2022.

The ChAFTA creates a competitive advantage over almost all other large beef exporters. Key competitors Brazil, Uruguay, Argentina, Canada and the United States of America face:

- ▶ 12% tariff on meat
- ▶ 20% tariff on chilled carcasses/ half carcasses
- ▶ 25% tariff on frozen carcasses/ half carcasses.

New Zealand was the first developed country to enter into a FTA with China in 2008. All tariffs on New Zealand beef have been eliminated as a result of this FTA.

## Other Australian FTAs include:

- ▶ New Zealand – ANZCERTA
- ▶ Singapore – SAFTA
- ▶ United States – AUSFTA
- ▶ Thailand – TAFTA
- ▶ Chile – Australia-Chile FTA
- ▶ The ASEAN-Australia-New Zealand Free Trade Area – AANZFTA
- ▶ Malaysia – MAFTA.

The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (TPP-11) was signed by 11 countries on 8 March 2018 and is moving to be implemented by the respective parties. The TPP-11 will benefit the Australian beef industry through further reduction and elimination of tariffs. Around 33% of Australia's beef exports go to TPP-11 markets, worth \$7.8 billion in 2016-17.

The key market access for Australian beef arising from the TPP-11 includes:

- ▶ Japan – The tariff reduction in the JAEPA will be further reduced to 9% within 15 years
- ▶ Canada – Elimination of the 26.5% tariff on beef imports over 5 years
- ▶ Mexico – Elimination of all Mexican tariffs on Australian beef within 10 years, these tariffs are currently up to 25%.

## The Republic of Korea (KAFTA – effective 12 December 2014)

The KAFTA will help Australia compete against the United States in the Korean market. The United States' beef imports have had lower tariffs than Australia since 2012.

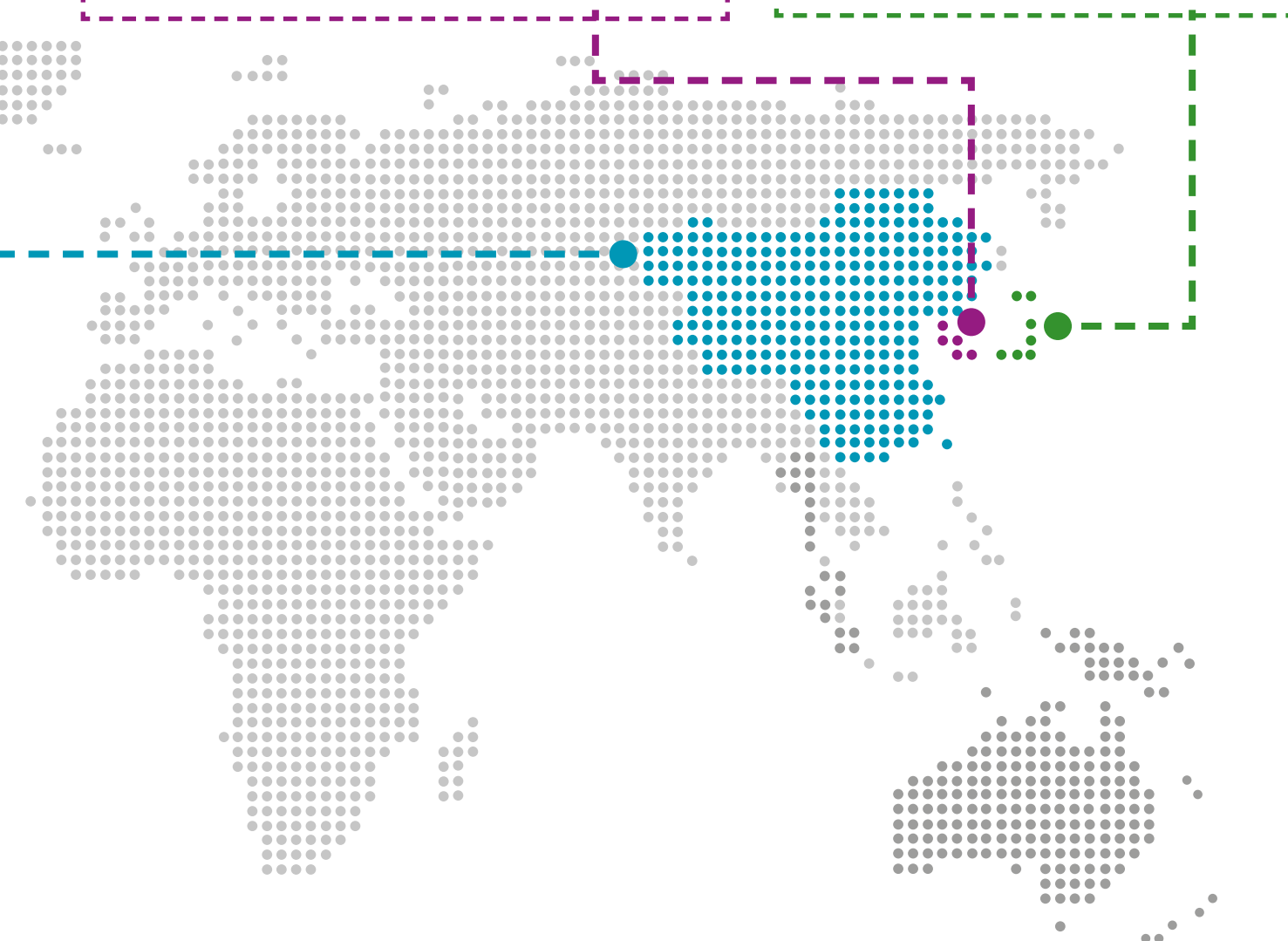
The KAFTA outcomes include:

- ▶ Elimination of Korea's 40% tariff on Australian beef products by 1 January 2028. In 2018 Australian beef imports will face a 26.6% tariff
- ▶ Elimination of Korea's 18% tariff on offal and 72% tariff on processed beef products by 1 January 2028
- ▶ Volume restrictions will apply, once a volume trigger is reached tariffs will increase back to 40%.

In comparison the United States will have 0% tariffs by 2026 under the KORUSFAT.

## Japan (JAEPA – effective 15 January 2015)

- ▶ Australia is the first major agricultural exporter to secure a bilateral trade agreement with Japan
- ▶ Australia and key competitor the United States of America both faced tariffs of 38.5% on beef imports, however the JAEPA immediately reduced tariffs on Australian imports and will phase them to a further reduced rate over 10-18 years. The United States of America does not have a FTA with Japan and still faces tariffs of 38.5%.



FTA's that are under negotiation with our other key trading partners include:

- ▶ Indonesia - IA-CEPA
- ▶ Hong Kong - A-HKFTA
- ▶ Middle East - GCC-Australia FTA

Source: DFAT



# Strategic Drivers of the Beef Industry

As with many agricultural commodities Queensland beef production is exposed to a long-term cycle.

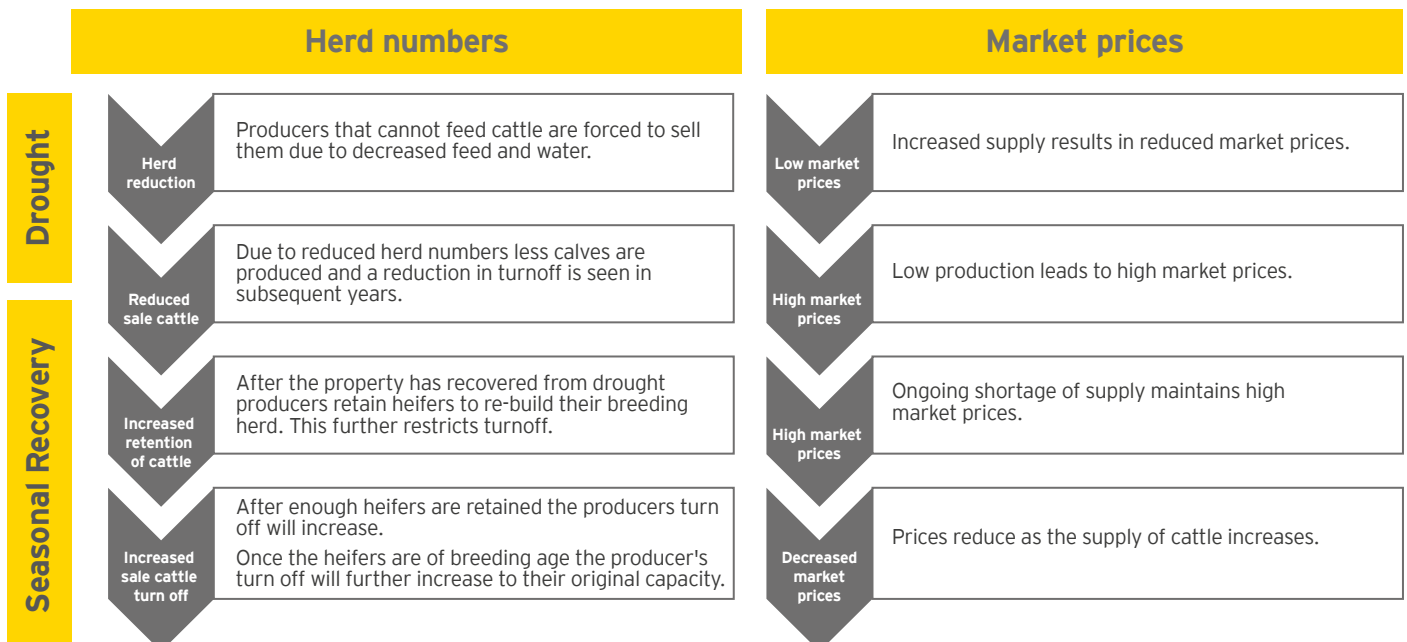
Drought conditions have a significant impact on beef production and market prices in Queensland. Figure 1 provides a high level depiction of the drought cycle as it applies to the Queensland industry.

Drought conditions will generally force primary producers to destock, due to a lack of feed. Once drought conditions abate individual herds need to rebuild. This destocking and rebuilding cycle impacts the supply of cattle in the market,

and consequentially influences market prices. Generally supply is inversely correlated with market prices, however this should not be considered in isolation. Market prices are impacted by a range of other drivers such as exchange rates and global competition.

Investors need to be prepared to accept cyclical returns associated with these impacts, and adopt a flexible business strategy with a timeframe that accounts for this.

Figure 1: The impact of drought on the beef cattle market



# Influence of the United States

## United States beef production and consumption impacts demand for Australian beef.

The United States (US) is among the world's largest grassfed beef importers, importing a substantial volume of Australia's manufacturing grassfed beef. The US is considered to be Queensland's main competitor in premium beef exports. As a consequence the Australian market can be largely influenced by US beef production.

When US domestic supply declines (in the years following herd reduction), the US import volumes increase and competition is reduced in key export markets. This translates to export peaks for Queensland grass and grainfed produce.

The US cattle sector follows cycles in the same way that Queensland's does. The US beef cattle herd experienced significant reductions in each of 2011 (-1.6%), 2012 (-2.6%) and 2013 (-1.8%) as a result of prolonged drought conditions.

This reduced herd led to an increase of 317 kt (cwt) of US beef imports in 2014 from 2013 figures and a further increase of 192 kt (cwt) in 2015.

The decreased global supply created favourable conditions for Queensland beef, despite entering a drought period in 2014. As a result, these conditions reduced the impact that increased supply had on market prices, enabling some producers to achieve high prices.

The US herd rebuilding is expected to be completed this year, with production forecast to subsequently increase (OECD/FAO, 2016; USDA data). This will increase supply of both manufacturing and premium beef in global markets, reducing demand for, and exerting downward pressure on Australian export prices in the near term.

## Export demand is impacted by the strength of the Australian Dollar.

With manufacturing beef comprising a significant proportion of export demand, Australian beef is heavily exposed to currency fluctuations, especially with respect to the US dollar as most beef is traded globally in US dollars. Ongoing weakness in South American currencies in recent years has made Australian beef relatively expensive in a market where price is a significant driver of purchase decisions.

Global demand for beef will be driven by three key macro drivers:

### 1 Population growth

The global population is expected to increase by 8% from 2015 to 2022, an increase of 571 million people (BMI Research).

With 41% of this increase attributable to the Asia region.

### 2 Rise of the middle class

By 2022, China will have an additional 19.12 million households with a disposable income greater than US\$35,000. Japan will have an additional 16.65 million households with a disposable income greater than US\$35,000 and 12.03 million additional households earning substantial disposable income (>US\$50,000) (BMI Research). The FAO (2012) states that increasing incomes result in increases in demand for livestock products as a preferential source of calories.

### 3 Increased urbanisation

57% of the population is forecast to live in urban areas by 2022. Urbanisation drives the consumption of livestock proteins through infrastructure development which allows perishable goods to be traded and a more diverse diet to be achieved (Joint WHO/FAO 2003).

## Foreign Investment Review Board (FIRB) oversight

- ▶ Proposed direct investments in agricultural businesses require approval by the FIRB where the value of the investment exceeds \$57 million. An investment will be considered to be “direct” where the investor holds a stake of 10% or more, holds a stake greater than 5% and has entered into a “legal arrangement” (e.g. a strategic alliance) with the investee, or an interest of any percentage where the investor is in a position to influence the management or policy of the investee.
- ▶ Proposed investments in agricultural lands require approval where an acquisition would result in the value of landholdings owned by a foreign individual and their associates (e.g. partners or consortium members) exceeding \$15 million. This threshold does not apply to investors from Chile, New Zealand, Thailand or the United States. All land acquisitions by foreign governments require approval. Approval will not be granted unless it can be demonstrated that the property concerned was “widely marketed” (i.e. the property was publicly advertised and open to bids from domestic investors for at least 30 days).

Source: FIRB 2018



## Efficiencies along the beef supply chain

### The beef cattle supply chain is vulnerable to inefficiencies.

The Queensland beef cattle sector can have a very long physical supply chain. An animal bred in the north of the state, backgrounded in central Queensland and then finished and processed in Southern Queensland will travel thousands of kilometres in its life. Despite having an extensive road network and regulated transport standards these large distances, and often the requirement to engage third-parties mean that any gains in operational efficiency will have a material positive impact on cost.

In addition to the efficiencies lost through physical distances the beef value chain is often opaque with limited data sharing between participants. This can result in producers failing to meet processors requirements for a particular market and limits processors ability to effectively schedule operations.

The fragmentation within the industry demonstrated through the dominance of small family holdings also result in efficiency losses.

Vertical integration affords beef producers greater visibility over their supply chains. Reduced reliance on third parties allows greater control over the timing of product movements. Greater control means producers should be able to drive efficiency improvements. However, internalisation of supply chains also exposes businesses to greater risks within other elements of the supply chain that they could previously avoid.

The significance of supply chain efficiency to the beef cattle sector in Queensland means that it is also an area of focus for innovation. Digital innovation will increase the transparency of the supply chain,

allowing near real time visibility of inventory levels at each stage. Movement of inventory along the supply chain will therefore become more efficient, reducing cost and increasing effectiveness. Increased emphasis on supply chain provenance is both an opportunity for investment and a trend likely to improve the value proposition of Australian beef, with supply chain transparency becoming a highly-prized characteristic in premium export markets.

## Foreign Investment Review

### FIRB examines proposed investments in Australia by foreign businesses, governments and persons.

FIRB advise the Federal Treasurer on the implications of these investments with respect to the *Foreign Acquisitions and Takeovers Act 1975*. FIRB's review process aims to determine whether the purpose and effect of the proposed acquisition align with Australia's economic and security interests (FIRB, 2018).

### Lower thresholds for agricultural assets.

Agricultural assets are subject to different review criteria to other industrial assets. Acquisitions in agricultural businesses with a cumulative worth of \$55 million or involving a stake of at least 10% require FIRB approval. The threshold is set at a 20% stake for other businesses. All acquisitions that result in an investor accumulating agricultural landholdings of more than \$15 million also require approval, regardless of the size of any individual transaction (FIRB, 2018).

Further changes were made to FIRB's review guidelines in February 2018 to address concerns that Australian investors were being excluded from agricultural land sales (Worthington, 2018). Under the new guidelines, foreign investors must be able



to demonstrate that the property they are seeking to acquire has been 'widely marketed' in an 'open and transparent sale process' before approval will be granted. This provision ensures Australian investors have the first opportunity to bid on properties.

## Investment in innovation

**Investment in innovation is expected to create cost savings and productivity benefits.**

Australian producers have embraced innovation, driving greater value across the beef supply chain. Graziers, in particular, are realising the power in data, and have sought to develop a raft of technologies that provide greater oversight of their operations.

Walk-over weighing is being used to accurately record weights on individual cattle, allowing their health to be monitored remotely, and informed decisions to be made with respect to feeding intensity and turn-off (Beef Central, 2017). Industry bodies also play a major role in fostering innovation. The MLA Donor Company (MDC) works to accelerate development of innovative projects to boost productivity and maintain Australian beef's competitive advantage. MDC has or is funding development of a range of productivity-boosting technologies such as livestock mustering robots, animal feeding monitors and even carcass x-ray measurement systems for abattoirs (MLA, 2017). MDC sponsored projects have the additional benefit of the Australian Government matching contributions from the project initiator of up to 50%.

Deployment of technologies such as these are expected to create hundreds of millions of dollars worth of cost savings and productivity benefits (Heath 2018), with full adoption of carcass x-ray measurement systems alone projected to produce a \$420 million annual benefit (MLA 2016).

## Government support for the beef industry

The Australian Government's primary support for the beef industry is through a range of business and industry development programs designed to improve the sector's productivity and viability. The beef industry is also represented by a number of industry bodies, with minimal direct intervention from the Australian Government. Meat & Livestock Australia (MLA) is the peak industry body in terms of marketing and research and development, whilst the Cattle Council of Australia is the primary advocacy group. The State and Federal governments are also active in terms of supporting research initiatives and negotiating market access through diplomatic channels.

## Agricultural Competitiveness White Paper

The Australian Government has recognised the opportunities and challenges facing Australian agriculture in becoming a key exporter in the global food supply chain. The Agricultural Competitiveness White Paper (ACWP), released in July 2015, outlines \$4 billion of initiatives to introduce new farming business models, streamline regulation, reduce the tax burden, improve infrastructure and promote innovation. These initiatives aim to increase farming productivity, simplify farm management and improve market access for Australian exports. Export market access is of particular importance to Australia's beef producers (DAWR, 2015).

**One key initiative to result from the ACWP was \$13.8 million in funding for the development of alternative business models for farm management. Many farmers reported that arcane and unreliable supply chains were impairing their ability to plan and invest. The establishment of co-operatives was identified as a means for individual farmers to increase their economies of scale and improve their bargaining power.**

Farmers are able to boost their profitability without ceding control of their operations or ownership of farmland. The Co-operatives National Law was introduced to support this, which allows co-operatives to operate on a national basis, and improves access to capital, including through leases of co-operatives' land or by selling capital units directly to institutional investors (ACWP). The funding was applied to operate a training course on the establishment co-operative programs and support farmers in their operation (Sampson, 2015).

## Cooperative Research Centres

The Australian Government funds a number of agricultural research projects through Cooperative Research Centres (CRC), which provide grants to the universities and industry to undertake research and promote the commercialisation and adoption of new technologies and farming techniques.

# Northern Australian Infrastructure Facility

**The Northern Australia Infrastructure Facility (NAIF) is an Australian Government program, established in 2016. This program offers up to \$5 billion in concessional financing to complement private investment in infrastructure that will encourage economic and industrial development across northern Australia.**

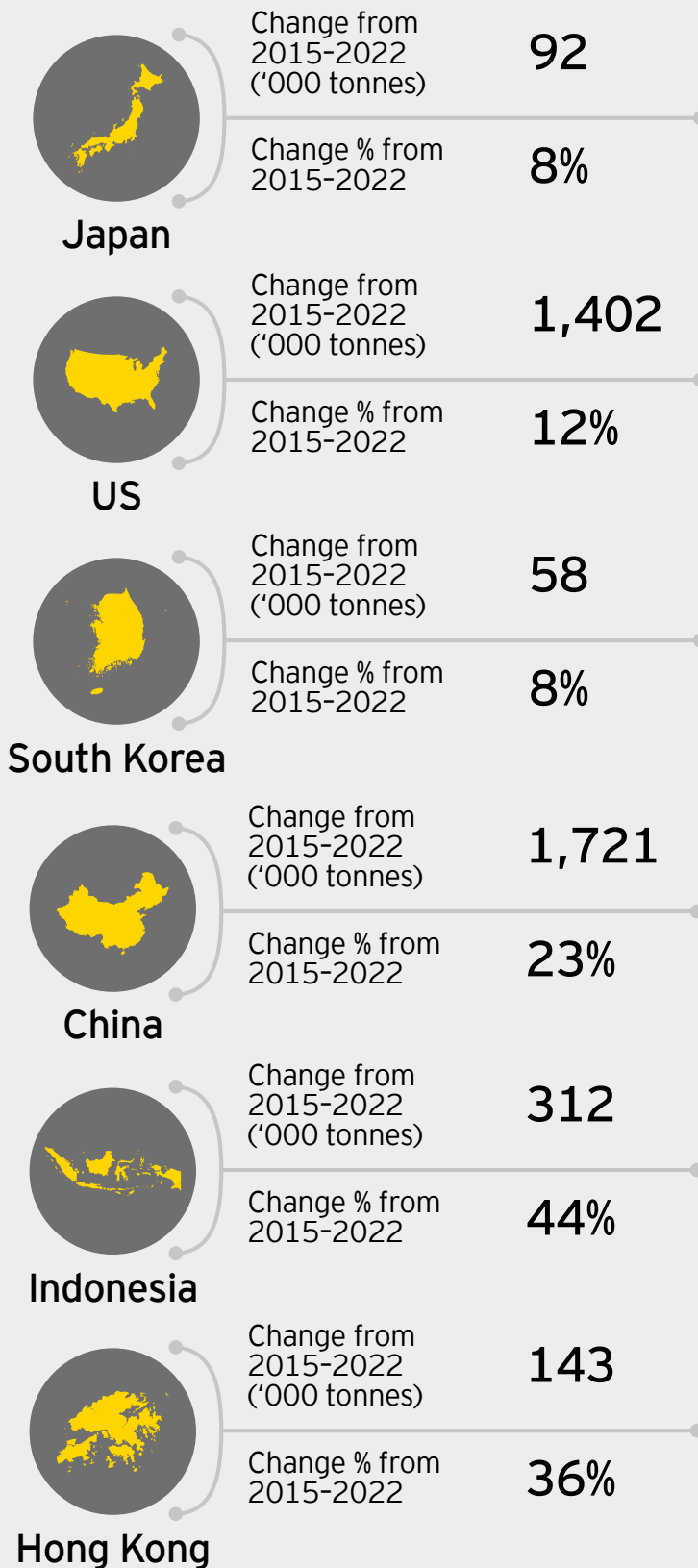
Although financing applications were initially received primarily from energy, mining and transport projects, a decision by the NAIF board to extend the facility's investment mandate to agricultural projects has paved the way for funding on-farm developments, such as water infrastructure upgrades. NAIF's CEO, Laurie Walker, also expressed interest in broadening the facility's eligibility criteria to support applications from co-operatives for on-farm infrastructure projects, thereby circumventing the current scale requirements (Australian Financial Review, 2018).

An independent review undertaken by businessman Tony Shepherd recommended removing limits on NAIF finance as a percentage of total debt financing, further broadening the enabling Act's definition of 'infrastructure', and dispensing the need for applications to prove that the project could not proceed without NAIF funding. These changes will be implemented in 2018, whilst a decision from the Australian Government on allowing NAIF to make equity investments will be made in 2019.

As at April 2018, 33 expressions of interest have been received in respect of agricultural projects, although none have yet proceeded to the due diligence phase (NAIF, 2018).



Future demand for Queensland beef will primarily be driven by the increased protein consumption of the growing middle class in Asia.



Source: BMI Research  
Images: MLA & AMPC





# Queensland Beef Investment Indicators

## Trends and indicators of the Queensland beef supply chain

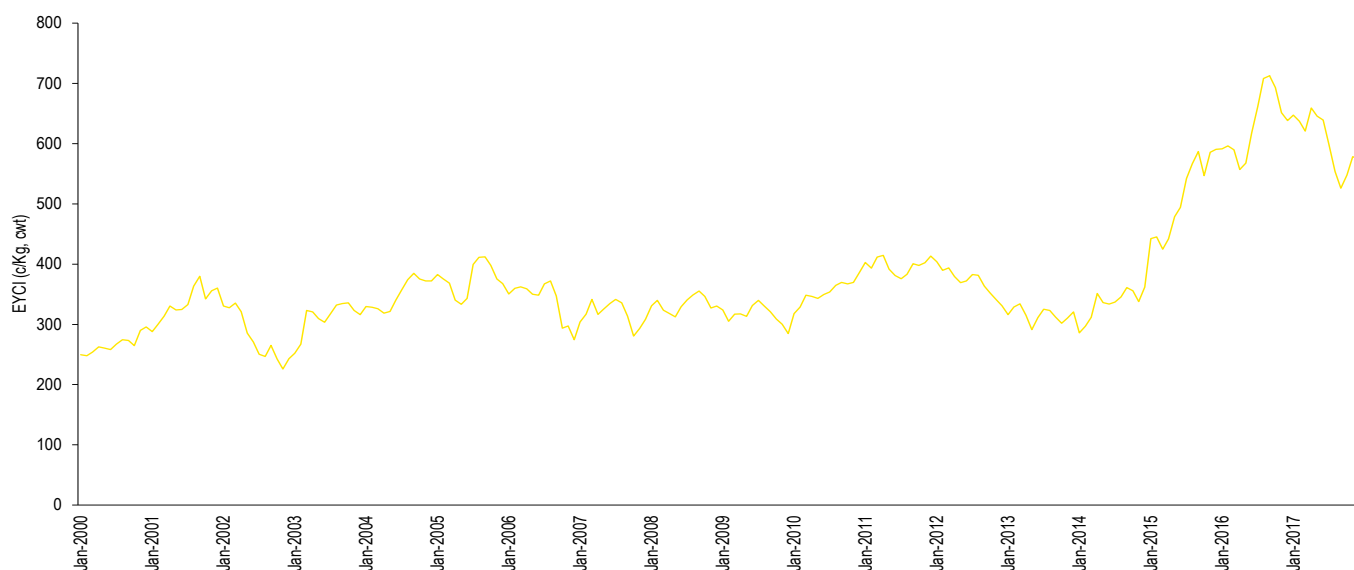
<p>MLA Eastern Young Cattle Indicator (EYCI) (c/kg cwt)</p>	<p>The EYCI is a benchmark for cattle markets determined using saleyard prices from across Queensland, New South Wales, and Victoria. It includes sale data from young cattle, with C2 and C3 (carcass fat) scores and weights between 250-520kgs live weight. The EYCI is measured in cents/kilogram of carcass weight*. It is noted however that the EYCI reflects prices from a limited number of saleyards.</p> <p>* Calculated as the live weight multiplied by dressing percentage</p>	<p>The EYCI increased 79.2% between 2014 and 2017, as turn-off rates fell from their peak during the ongoing drought. The drought constrained supply and inflated market prices.</p>
<p>Herd size</p>	<p>The Australian herd size is generally correlated with the EYCI. Understanding the current state of the Australian herd and its position in the herd rebuilding cycle provides insight into the availability of supply.</p>	<p>Australia's herd is undergoing a rebuilding phase after the 2012 -2016 drought resulted in record turn-off rates (peaking in January 2015). Australia's herd size was 25.0 million in 2016, below the 10-year average of 27.6 million.</p>

<p>Herron Todd White Queensland Grazing Property Index (QGPI)</p>	<p>The Herron Todd White QGPI is an index of median prices for grazing property sales greater than 2,000 ha. It illustrates changes in property values over time, with a base year of 1996.</p>	<p>After increasing five-fold between 1999 and 2009, prices eased significantly in the aftermath of Queensland's resources boom, which inflated land values in prime grazing areas. Although the index has demonstrated volatility in years since, it remains more than 400% higher than 1999.</p>
<p>Live export price</p>	<p>Live export prices give an indication of live export market strength. MLA reports prices at the Port of Darwin and at the Port of Townsville. Live export prices are measured as cents/kilogram of live weight.</p>	<p>Export prices have increased significantly over the past four years. For example, c/kg lwt price of light heifers at Darwin and Townsville growing at an annualised 9.3% and 13.5% respectively.</p>
<p>Grain prices</p>	<p>Grain is a key input to feedlots, accounting for approximately 30% of input costs (IBISWorld A0143). Grain prices can impact turn off rates and profitability. Common grains used as inputs include wheat, barley, corn and soy beans.</p>	<p>Record harvests lowered prices across 2016 and 2017. Markets have since stabilised, trending towards long run values.</p>
<p>Over the Hook (OTH)</p>	<p>Over the hook indicators give an indication of market demand. The MLA OTH indicator is generated using processor cattle grids and weighting them on their daily throughput. There are many different OTH indicators produced by various organisations for specific categories of meat.</p>	<p>As the US herd recovers and market supply has increased, the OTH indicator for Queensland MSA Grainfed 100 day steers has decreased.</p>
<p>Foreign exchange rate</p>	<p>A majority of Australia's beef is sold into export markets, denominated in US Dollars. As such, changes in exchange rates can cause demand fluctuations. A reduction in value of the Australian Dollar against an importing country's currency will mean the actual cost incurred by the importing country will be reduced. This tends to positively impact export demand.</p>	<p>The Australian Dollar has steadily declined since mid 2013. A weaker relative currency has coincided with surging export demand from economies such as China, Japan and the United States.</p>

## Cattle price trends

The Eastern Young Cattle Indicator (EYCI) is the benchmark indicator of Australian domestic market cattle values. The EYCI represents a weighted-average sale price of 24 cattle types from 26 sale yards across Queensland, New South Wales and Victoria over rolling seven day periods.

Figure 2: 10 year EYCI trends



Source: MLA

The EYCI is one of many indicators used to understand market conditions. Predominantly representing the price of store cattle, restockers and some finished cattle. Drought and other weather conditions can have a major influence on the EYCI, this is due to the impact drought and rain has on turn-off rates. Prolonged drought results in increased turn-off rates, with the greater number of cattle on the market reducing prices. The beef industry is complex and market conditions can be influenced by many factors in addition to rainfall.

Figure 2 demonstrates 10 years of the EYCI. It can be seen that below average rainfall from 2013 exerted downward pressure on cattle prices due to increased supply. However, surging export demand from 2014 increased prices despite ongoing de-stocking due to drought. Ongoing export demand and a historic low trough in the Australian herd size (Figure 3) resulted in record breaking prices in 2016.

The Australian herd will need to re-build following this drought period resulting in forecast reduced supply for several years.

Higher than expected turn-off following a dry winter in 2017 exerted downward pressure on market prices, although they remain relatively high. The average EYCI for 2017 was 602.38, compared to an average of 374.66 between January 2010 and December 2017 (MLA, 2018).

The OTH indicator followed a similar trend to the EYCI over this period, also peaking in 2016. This indicates that processors also faced significantly higher costs over the past three years than at any point this century.

A relationship can also be seen between the Australian herd size and Beef export volumes. The Australian herd demonstrates the availability of supply and export volumes tend to follow similar movements with a slight lag (Figure 4).



Figure 3: Herd size and EYCI

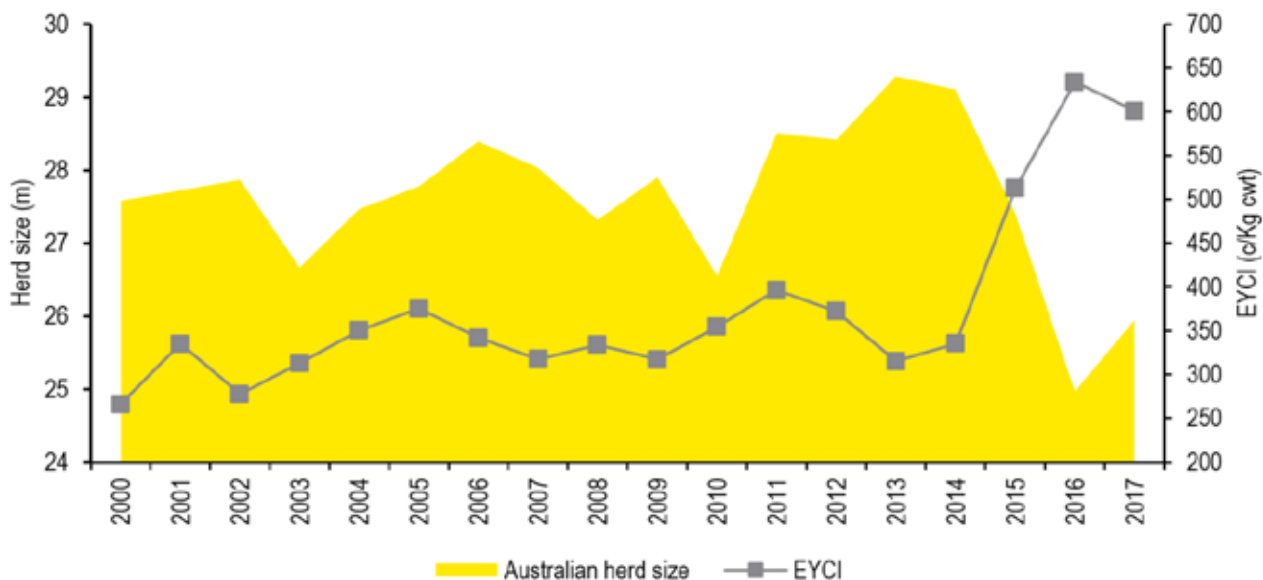
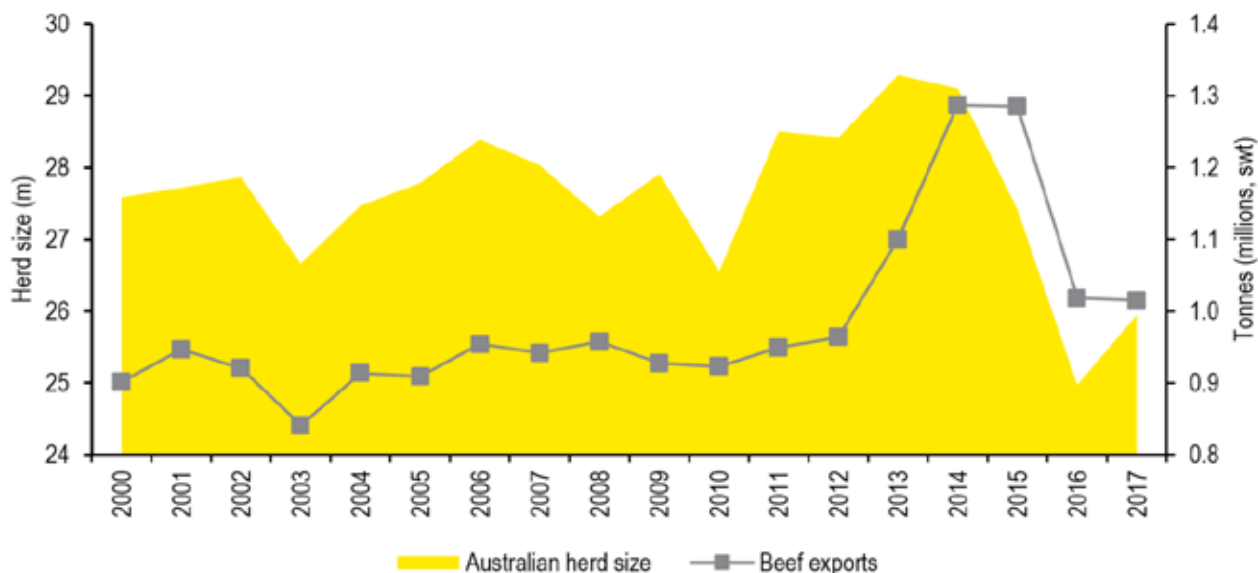


Figure 4: Herd size and beef export volumes



## Property price trends

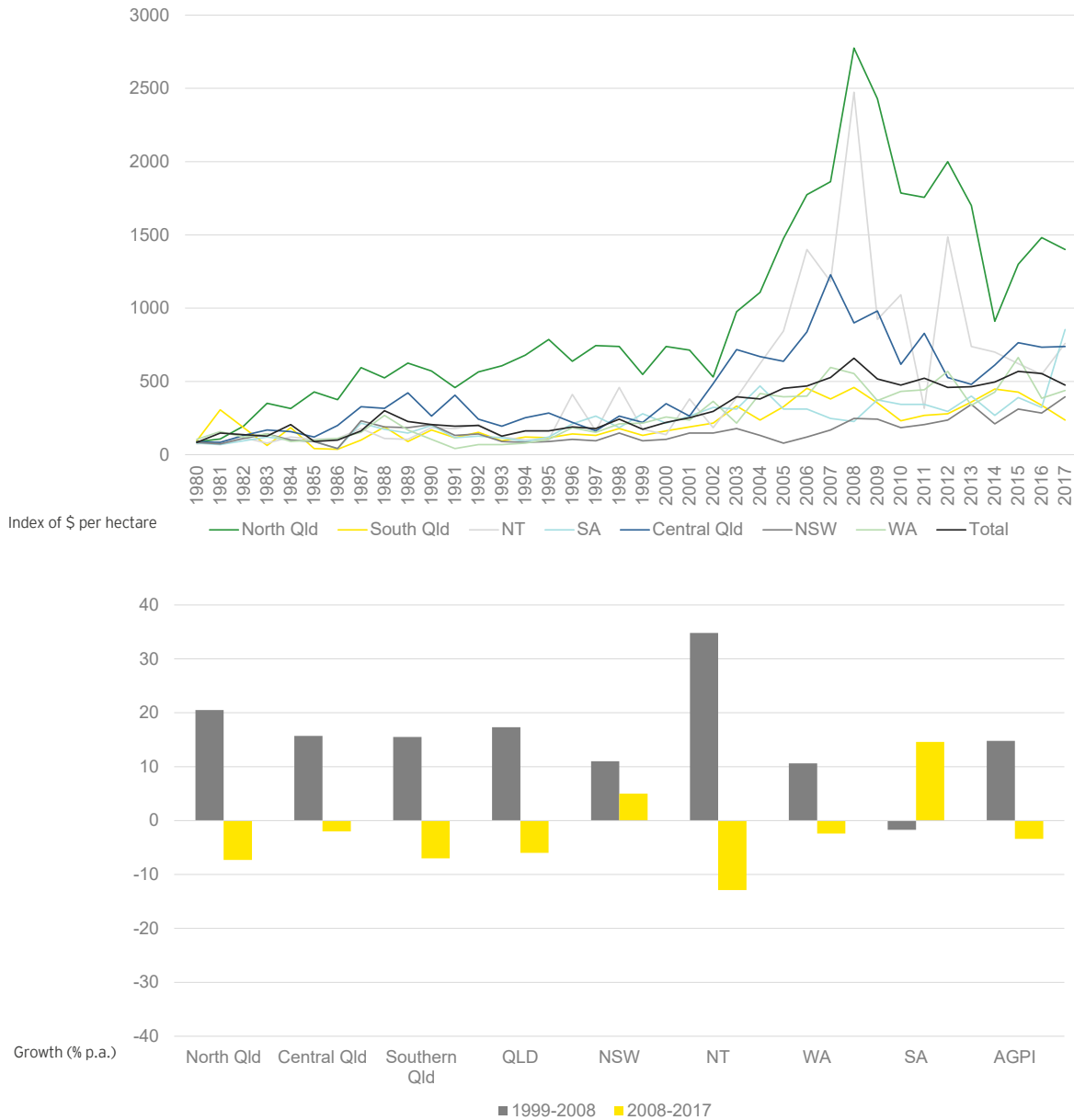
**In North Queensland, booms in key export commodities (coal and natural gas) boosted prices in prime grazing lands towards the end of last decade, peaking in 2009 (Herron Todd White, 2018).**

The global population is forecast to increase at an annual rate of 1.0% through to 2027 (Oxford Economics, 2018). The corresponding growth in food demand, along with continued urbanisation, is expected to support continued growth in farmland values (Savills, 2017).

Since 2001, prices for Queensland grazing have surged, with North Queensland property prices, as represented by the Queensland Grazing Property Index (QGPI) (Figure 5), increasing five-fold by 2009. Prices have experienced greater volatility in the

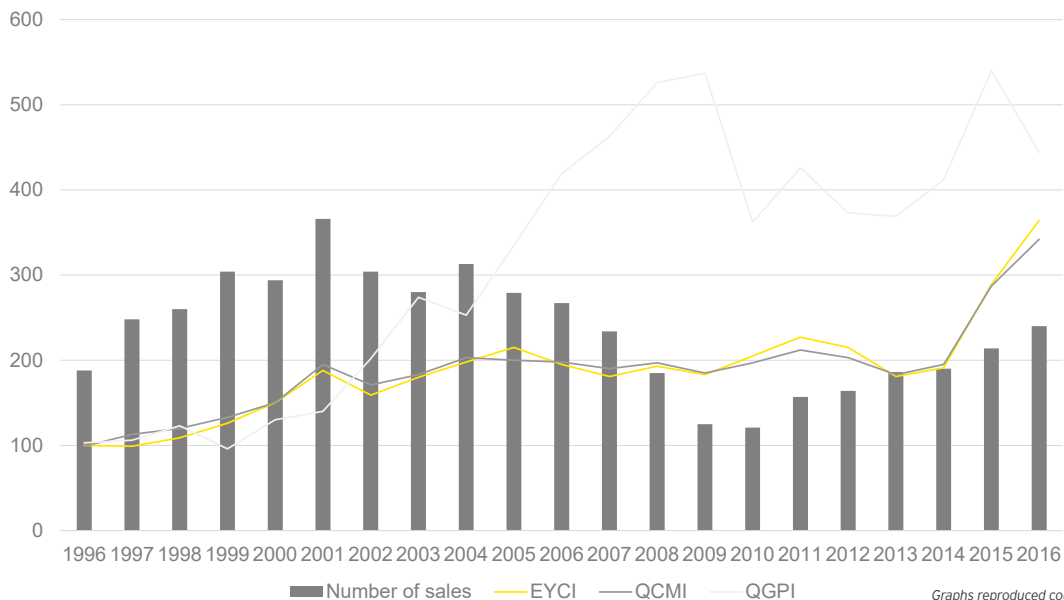
aftermath of the Global Financial Crisis, with the QGPI North and Central Queensland currently sitting at approximately half their 2008-09 peaks (Herron Todd White, 2018). Since 2002, strong property prices has meant the QGPI has become disconnected from cattle prices (as represented by the EYCI), despite previously being a strong relationship (Figure 6)..

**Figure 5: Herron Todd White Australian Grazing Property Index - Properties >2,000 hectares - base of index 1980 = 100**



Graphs reproduced courtesy of Herron Todd White

**Figure 6: Herron Todd White Queensland Grazing Property Index - Properties >2,000 hectares - base of indexes 1996=100**



Graphs reproduced courtesy of Herron Todd White



## Foreign Investment Trends

Agriculture, forestry and fisheries accounted for \$119 million, or 0.2% of total direct foreign investment into Australia in 2016 (ABS). Cumulative foreign investment into agriculture, forestry and fisheries stands at \$2.2 billion as at the end of 2016. This represents 0.3% of aggregate foreign investment, well behind industries such as mining (\$310.6 billion, 39.0%) and financial services (\$67.0 billion, 8.4%) (ABS).

### Current levels of foreign investment in the industry

**\$119  
million**

Foreign direct investment (FDI) into agriculture, forestry and fishing, 2016

**\$2.2  
billion**

Cumulative FDI into agriculture, forestry and fishing (as at 31 Dec 2016)

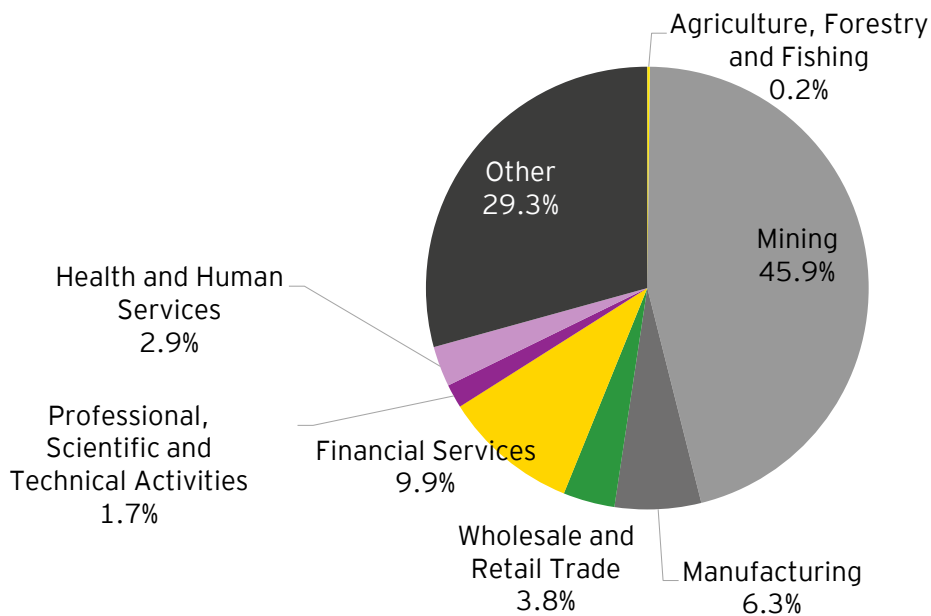
**0.3  
percent**

of cumulative FDI into Australian agriculture, forestry and fisheries industry, as at December 2016.

Agriculture Forestry and Fishing received 0.2% of total inbound direct foreign investment in 2016 (Figure 7). Australia has a number of strengths compared to key export competitors. Whilst Australia's tax rate is relatively high in global terms, Brazil and India – the two largest beef exporters – have tax rates 4% and 5% higher respectively.

Australia's disease-free status and market access create an attractive value proposition for international investors.

Figure 7: Aggregate direct foreign investment in Australia by sector in 2016



Source: ABS Cat. No. 5352.0





## Foreign ownership of beef businesses and properties

In 2016, 99.7% of grazing and grain farming businesses, and 98.0% of feedlot properties nationally were wholly Australian owned, representing little change from the first Agricultural Land and Water Ownership survey in 2010. Although

the amount of grazing and grain farming land subject to foreign ownership has increased since 2010, 86.8% remains wholly Australian owned (ABS).

Table 2: Foreign ownership change

		Sheep, beef cattle and grain farming			Beef cattle feedlots (Specialised)		
		2010	2016	% Change	2010	2016	% Change
Businesses	Total number	88,585	84,469	-4.65%	406.00	271.00	-33.25%
	Wholly Australian owned	87,427	84,252	-3.63%	400	265	-33.75%
	Some level of foreign ownership	1,158	217	-81.29%	6	5	-16.67%
	% Wholly Australian owned	<b>98.70%</b>	<b>99.70%</b>	<b>1.01%</b>	<b>98.50%</b>	<b>98.00%</b>	<b>-0.51%</b>
Land area	Total area (ha)	372,657,787	360,173,891	-3.35%	1,119,825	4,055,862	262.19%
	Wholly Australian owned (ha)	328,667,499	312,644,012	-4.88%	1,076,556	4,015,596	273.00%
	Some level of foreign ownership (ha)	43,990,288	47,529,879	8.05%	43,269	40,266	-6.94%
	% Wholly Australian owned	<b>88.20%</b>	<b>86.80%</b>	<b>-1.59%</b>	<b>96.10%</b>	<b>99.00%</b>	<b>3.02%</b>

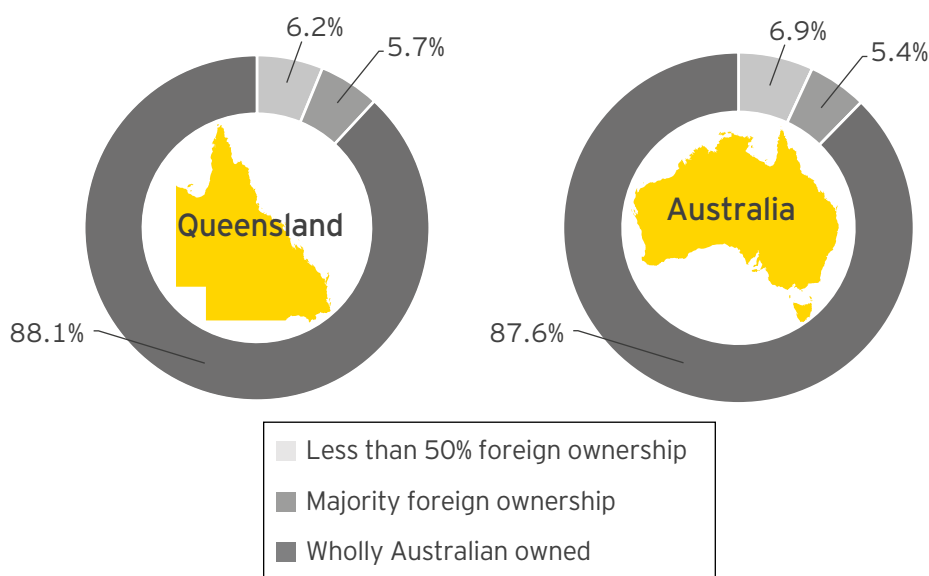


The changes between the 2010 and 2016 surveys indicate that consolidation and foreign investment have been key themes across the agricultural landscape. The number of grazing and grain farming businesses declined by 4.7%, although the number that are wholly Australian owned increased by one percentage point. Conversely, the number of hectares of grazing and grain growing land under some level of foreign ownership increased by 8.0%, despite total area declining by 3.6%. These figures indicate that the average landholding of businesses is increasing at the same time as foreign investment, perhaps suggesting that international investors prefer larger properties. This is evidenced by the strategies of British, Canadian, Danish and Dutch

pension funds financing large property purchases by Australian-based businesses and funds. This trend is also evident in the consolidation of beef cattle properties within a single company by high net worth Australians such as Gina Rinehart and Kerry Stokes.

Landholdings per sector are not available on a state-by-state basis. When considering all types of agricultural land uses, Queensland (5.7%) has the second-highest proportion of majority foreign-owned land amongst Australian states and territories, and higher than Australia as a whole (5.4%). However, Australia's proportion of land subject to any level of foreign ownership (12.4%) is slightly higher than that of Queensland (11.9%) (ABS, 2017).

Figure 8: Percent of agricultural land with some level of foreign ownership



Source: ABS Cat. No. 7127.0

## Sources of foreign investment in agriculture

The *Register of Foreign Ownership of Agricultural Land* (the Register) was introduced by the Australian Taxation Office (ATO) in 2015 to improve transparency regarding foreign investment in Australian agricultural lands. The register indicates that the United Kingdom is the largest agricultural landholder, both in terms of land area subject to

some level of foreign ownership and in terms of equivalent hectares fully owned by foreign investors. However, the area of agricultural land with some degree of Chinese ownership increased nearly nine-fold in fiscal year 2017 (ATO).

Table 3: Foreign agricultural land interests by country

Country	Area of land subject to some level of foreign interests (m ha)		Proportionate area of agricultural land owned by foreign interests*
	2015-16	2016-17	2016-17
United Kingdom	27.5	16.4	9.8
China	1.5	14.4	9.1
United States	7.7	2.7	2.6
Netherlands	3.0	4.7	2.5
Canada	N/A	2.1	2.0
Switzerland	1.1	2.2	1.9
Singapore	1.9	7.8	1.8
Philippines	1.1	1.1	1.1
Saudi Arabia	N/A	N/A	0.7
South Africa	N/A	0.6	0.6
Other countries	6.0	3.7	4.5
<b>Total</b>	<b>52.1</b>	<b>50.5</b>	<b>36.6</b>

\* Calculated as the aggregate of foreign-ownership stake multiplied by property area for all properties subject to some level of foreign ownership.

Source: ATO



11.9% of Queensland subject to some level of foreign ownership



Great Britain is the largest source of foreign foreign-owned Australian land



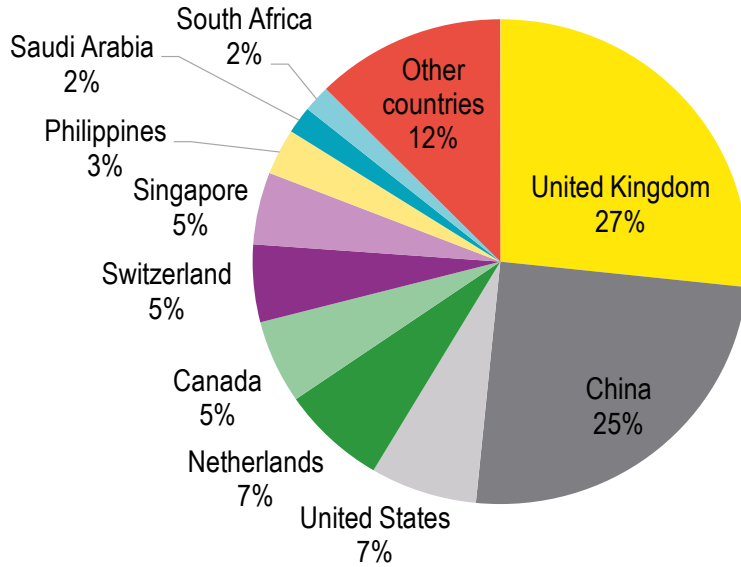
87.6% of grazing and grain farming land is wholly Australian owned

In terms of equivalent hectares fully foreign owned, the United Kingdom holds 27%, slightly ahead of China's 25%. However, the insights that may be gleaned from the Register are limited. The Register only records investments where an entity owns at least 20% of a property (or 40% for trusts, such as pension funds). The area of land subject to ownership by British investors slumped 40.2% in fiscal year 2017, due in part to QIC's acquisition of

NAPCo reducing the British-based Foster family's stake below 20%. The dramatic rise in Chinese ownership resulted from a handful of major transactions in which Chinese investors acquired a minority stake, most notably the sale of S. Kidman & Co to Hancock Prospecting and Shanghai CRED, where the latter gained a 33% share in Australia's largest private landowner.

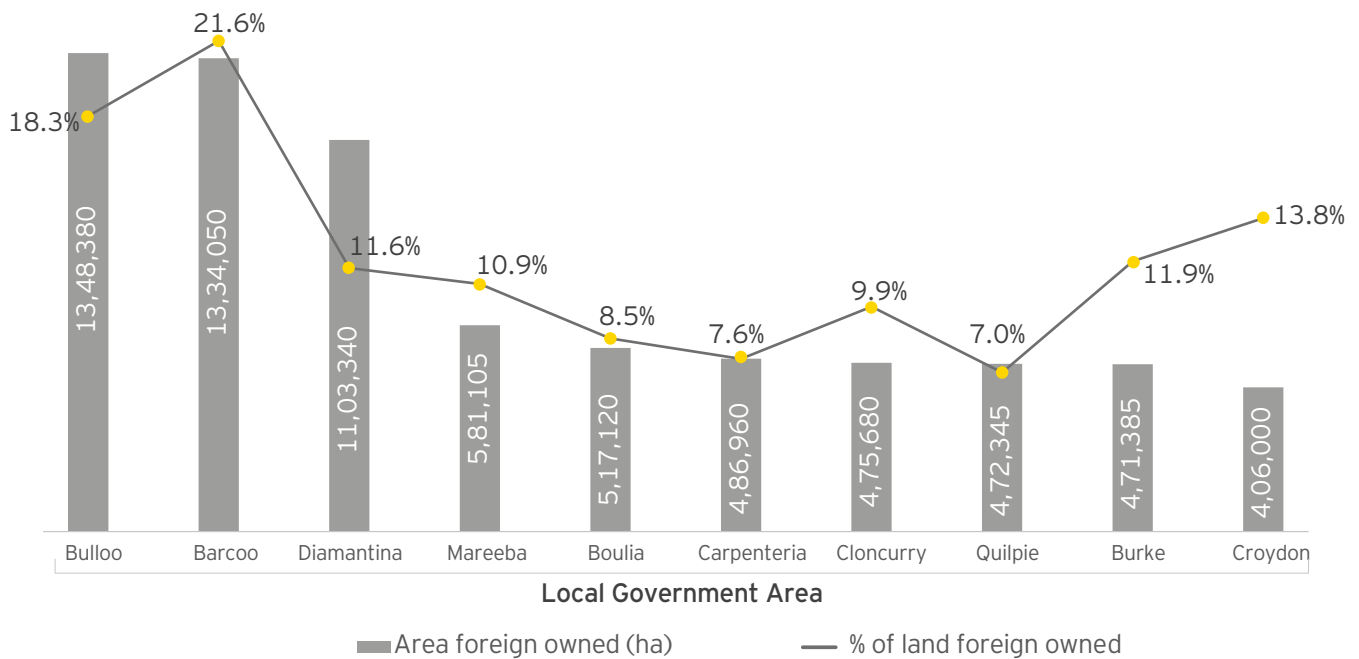


Figure 9: Equivalent hectares fully foreign owned



Source: ATO

Figure 10: Foreign ownership of Queensland Local Government Areas by foreign-owned land areas



Source: Queensland Department of Natural Resources and Mines

Queensland's Foreign Ownership of Land Register, released in October 2017, revealed that the local government areas with the largest areas of foreign-owned land were Bulloo, Barcoo and Diamantina – three key grazing and finishing regions in the State's beef supply chain (DNRME, 2017).

**International investors have been active across the Queensland beef supply chain. A range of foreign institutions, from beef producers to pension funds, have acquired grazing properties in recent years.**

Nearly one-quarter of reported Australian grazing property sales between 2010 and 2017 were to foreign or foreign-backed investors, at an average price of \$55 million (Capital IQ; EY analysis). This has been headlined by purchases of flagship properties by producers with the backing of foreign pension funds, including the sales of Strathblane and Pegunny Stations in Queensland to Canadian-backed Hewitt Cattle.

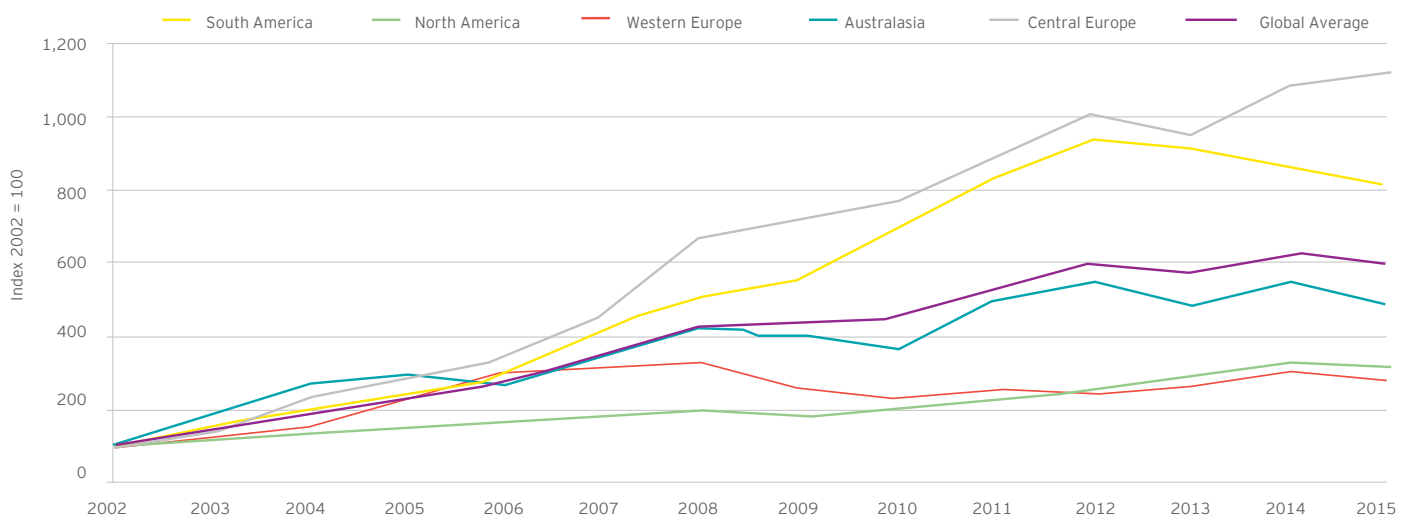
Multinational beef processors have also been active in acquiring feedlots and abattoirs in recent years. Brazilian JBS and United States-based Cargill have both significantly expanded their Australian presence since 2010. Their acquisitions have been aimed at streamlining their supply chains and increasing their market scale by integrating the operations of their processing facilities with the feedlots and abattoirs they acquired. Although few details are available regarding most transactions, Shandong Delisi's \$284 million acquisition of Bindaree Beef, and New Hope Investment's acquisition of Kilcoy Pastoral Company – a Sunshine Coast-based premium meat exporter – demonstrate the value and growth potential international investors see in Australia's premium beef products.

## Recent pricing trends

**Global agricultural land values have boomed since the turn of the century, increasing more than six-fold from 2002 through 2015 (Savills, 2016).**

This relentless pace has been driven by the ever-rising demand for food production as well as competition for prime rural lands from natural resource extraction. Although Australasian land values declined briefly in the aftermath of the Global Financial Crisis, Savills' Global Farmland Index shows values up nearly 500% since 2002, slightly below the global average. Land values in South America - home to several key rival exporters - increased more than eight-fold since 2002 on the back of technology enabled productivity in cropping through to 2012. Australia's comparatively gentle growth (annualised 5.5% between 2010 and 2015) indicates it is a more mature market where quality assets fetch competitive prices. North America - another key export rival - has experienced relatively minor growth (approximately 300% increase since 2002) as farm profits have come under increased pressure.

Figure 11: Savills' Global Farmland Index



Source: Savills



Image: CCA

# Queensland Property Transactions

## Trends in Queensland's agricultural property values

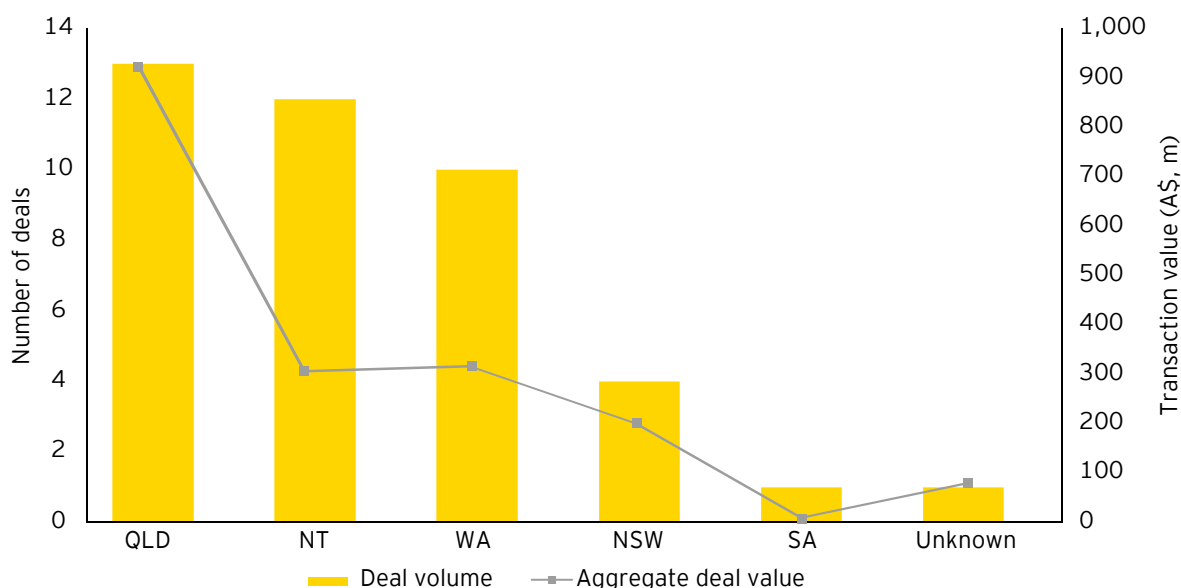
### Grazing property transactions

Interest in beef assets spiked between 2013 and 2016, with more than \$1.5 billion worth of reported grazing property sales during this time. Transaction activity peaked in 2016, with 10 major deals being completed at an average value of \$90 million.

Queensland has been by far the biggest beneficiary

amongst states and territories of the investment upturn, receiving 50% of total recorded property sales by value between 2010 and 2017. Thirteen deals were completed in Queensland across this period at an average price of \$71 million, representing 32% of total transaction volume.

Figure 12: Reported Australian cattle property transactions



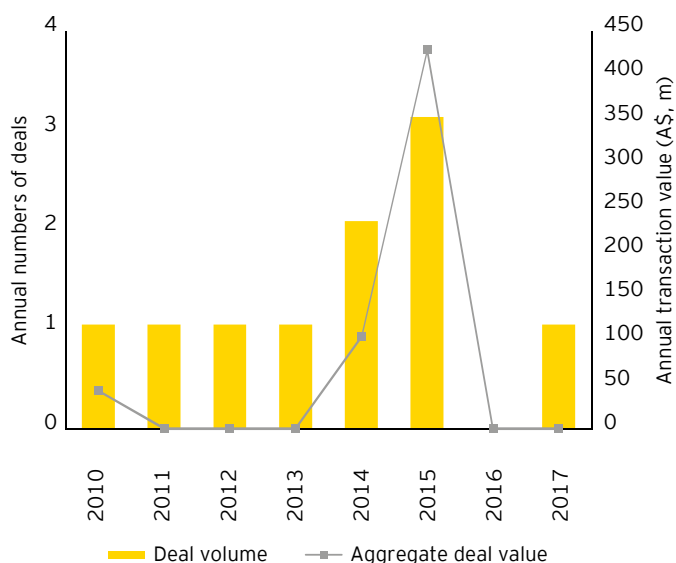
Source: Capital IQ; EY analysis

Notes:

- Properties and holdings were considered to be in the State in which the greatest portion of the land holdings exist.
- South Australia value not available

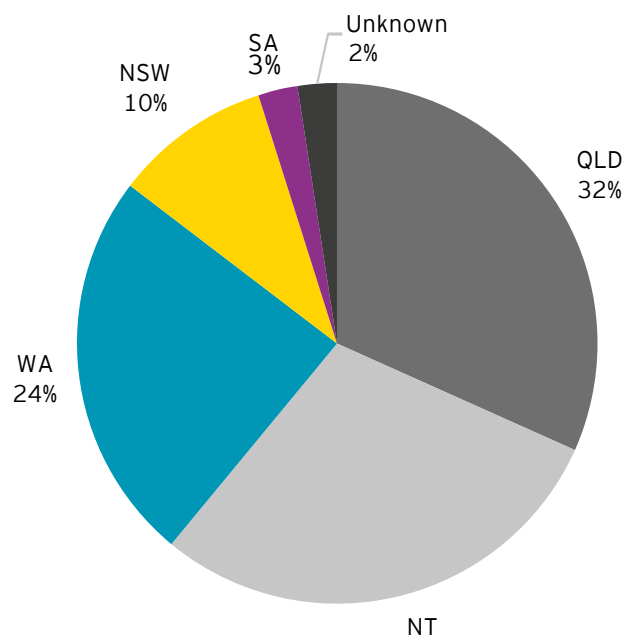


**Figure 13: Reported Australian meat processing transactions**



Source: CapitalIQ; EY analysis  
 Note: Some values not available

**Figure 14: Grazing property sales by State, 2010-2017**



## Feedlot and processor transactions

The pace of transaction activity for feedlots and processors has been slow in comparison to grazing properties. There were eight reported transactions involving feedlots between 2010 and 2017.

This includes QIC's acquisition of NAPCo and the sale of a minority stake in AACo by Felda IFFCO, which represent sales of vertically integrated beef businesses. Of the other six feedlot only transactions, three involved acquisitions by beef processors, and the other three, sales to beef producers. The average sale price for feedlot only transactions with reported values was \$26 million (CapitalIQ; EY analysis, 2018).

Sales of processors were dominated by intra-industry acquisitions. Industry leader JBS expanded its presence through local acquisitions, American trading house Cargill established a joint venture with major Australian producer Teys Brothers, whilst other parties such as exporter Wellard and producer Hewitt Cattle added processing capacity to their supply chains. Transaction activity peaked in 2015, with three deals worth \$411 million completed (CapitalIQ; EY analysis, 2018). This was headlined by Shandong Delisi Food, China's largest meat processor, acquiring Inverell based Bindaree Beef for \$284 million. Bindaree had been seeking a strategic investor to fund a capacity expansion to capitalise on rapidly

expanding Chinese demand (AFR, 2015). In total, ten transactions worth \$551 million were completed between 2010 and 2017 at a median value of \$79 million.

## Vertically integrated business models

A trend towards vertical integration in Australia's beef sector has emerged in recent years. At one end of the scale, investor activity from pension funds and private equity firms has centred on vertically-integrated operations, as exemplified by QIC's acquisition of NAPCo and PSP's joint venture with Hewitt Cattle. At the other end, producers and processors have been responsible for all feedlot acquisitions over the past eight years, whilst an exporter and a producer both purchased processing capacity. In recent years vertical integration has been favoured as a means of stabilising productivity and output to insulate companies' revenues and profitability against the industry's pronounced cycles (Farm Online, 2017).

As the primary drivers behind the branded beef trend, processors have been active in acquiring feedlots and properties to ensure both security of supply and consistent quality. These factors also serve to lower costs by reducing exposure to market forces and allowing supply chains from farm to consumer to be optimised.



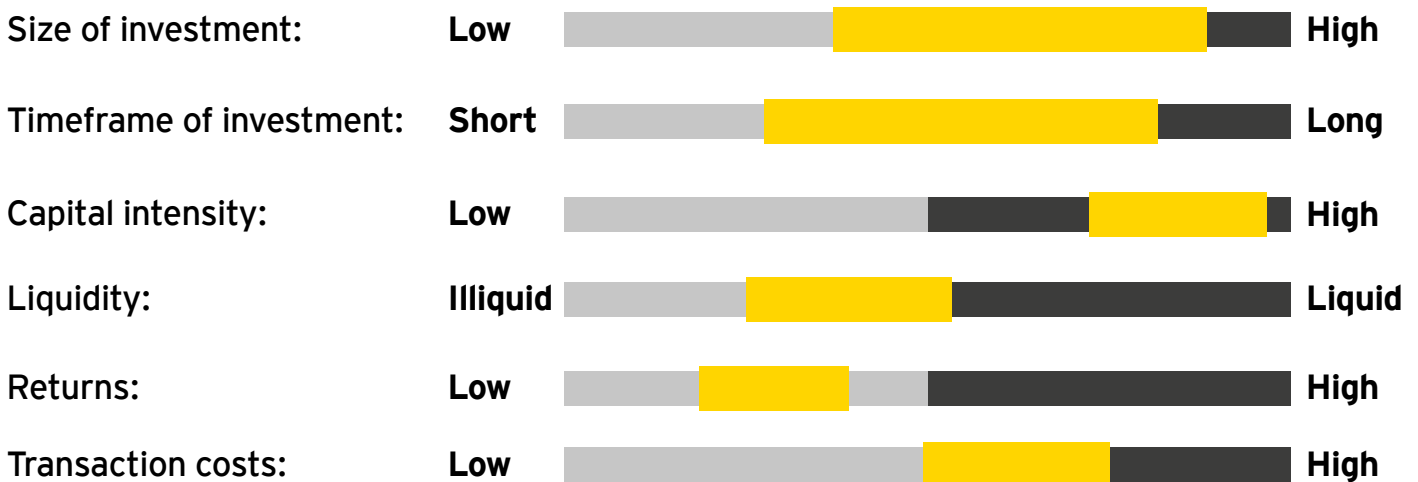
# Characteristics of the Beef Supply Chain

This section summarises investment characteristics commonly associated with transactions at each level of the beef supply chain. Ratings are relative to investments in other sectors.

The characteristics of the beef supply chain have been described in relation to:

- ▶ Breeding and grazing
- ▶ Feedlotting
- ▶ Processing
- ▶ Agribusiness services
- ▶ AgTech

## Breeding and grazing



Cattle property transactions are multi-million dollar undertakings, especially for larger or more productive properties that appeal to financial institutions and private equity firms. In addition to spending tens of millions of dollars acquiring the land, significant further investment may be required to upgrade on-farm infrastructure to meet modern

productivity and quality standards. Bank debt to fund property acquisitions and infrastructure upgrades is often difficult to access if it is intended that the debt component represent greater than 50% of total asset value.

Large, single-use assets are illiquid by nature, and generally considered long-term investments.

However, the recent spike in investor interest, especially in respect of high-quality assets, has seen some investors exit after less than a decade at a significant premium. Strong returns are available from high quality operations, although they are contingent on a range of factors, from market conditions to weather and trade relations. Queensland beef farms earned a return on equity of 2.7% in FY17 (10-year average return of 1.0%), with an average profit of \$131,169 across 7,403 farms

(ABARES, 2017). The need to conduct operational due diligence over vast areas means that transaction costs are relatively high.

Transaction activity in beef properties has spiked in recent years, with 34 deals worth more than \$1.5 billion closed between 2013 and 2016, including the sale of S. Kidman & Co, Australia's largest private landholder. Since 2010, 41 major transactions worth an average \$30 million have been completed (CapitalIQ; EY analysis, 2018).

### Transaction values for Australian beef properties, 2010-17



<b>Taxation features</b>	Graziers will generally qualify for primary producer tax incentives.
<b>Suitable business models</b>	Sole traders and companies are the most common models. Joint ventures and trust structures may also be used to enable investors to fund producers without the latter relinquishing control of the land.

#### Key opportunities

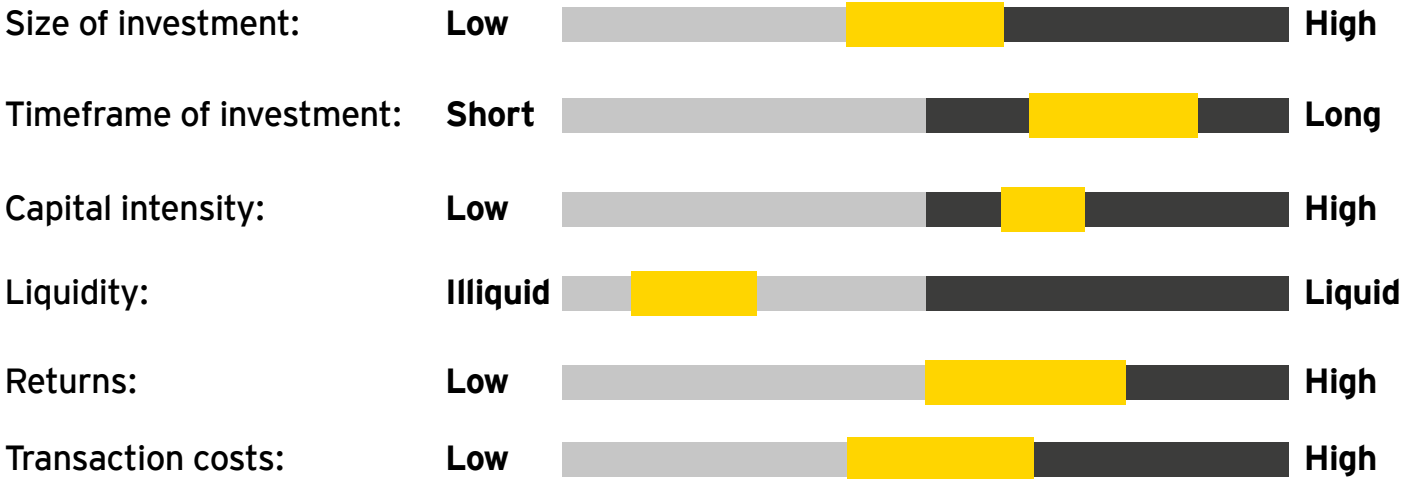
- Key opportunities for producers to improve their value proposition include:
  - Supply chain integration – either through vertical acquisitions across their supply chain, or by using digital solutions to improve oversight.
  - Live export market – breeding cattle that comply with import specifications for key markets.
  - Supply chain assurance – adoption of technologies, including blockchain, to improve supply chain transparency and quality assurance.
  - Genetic breeding initiatives – programs that improve the characteristics and suitability of cattle produced for different climates and markets.

#### Key risks

- Key risks to productivity and viability include:
  - Vulnerability to market conditions - these risks may be mitigated by corporate strategies, such as vertical integration and product differentiation.
  - Vulnerability to climate and weather patterns - can be combated with long-term planning and strategies such as geographic diversification, allowing herds to be relocated to better pastures when necessary.
  - Trend towards consolidation is resulting in large supply contracts being awarded to higher-capacity producers.



# Feedlotting



Feedlots cover a smaller range of transaction values relative to properties, as they cover significantly smaller land areas. Capital expenditure in feedlots is high in absolute terms due to the extensive infrastructure needed to manage feeding requirements, hygiene standards and meet animal welfare requirements. Feedlots' value often lie in their strategic location within the supply chain. As a result, the number of potential buyers is often limited to those with complementary positions in the supply chain. The growing prominence of high-value beef products means that returns available

for feedlots are increasing. Australian feedlots posted an average profit margin of 13.1% in FY17 (IBISWorld, 2017). Feedlot scale is a key component of profitability, and thus returns are skewed towards the larger feedlots owned by vertically-integrated processors.

Feedlots have been included in vertical integration transactions since 2010, including QIC's acquisition of NAPCo and Felda IFFCO's minority divestment of AACo. Six feedlot only transactions closed between 2010 and 2017, at an average value of \$43 million.

**Taxation features**

▶

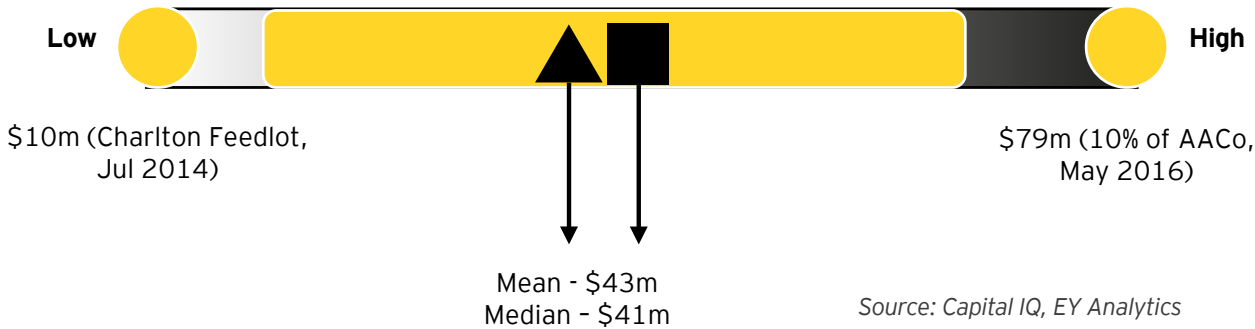
Feedlots qualify for primary producer tax incentives where beef production and grazing is their primary business activity (ATO TR 93/95).

**Suitable business models**

▶

Feedlots are mostly operated by family businesses and companies. Many are owned by processors or other vertically-integrated beef producers, such as AACo and NAPCo.

## Transaction values for Australian feedlots, 2010-17

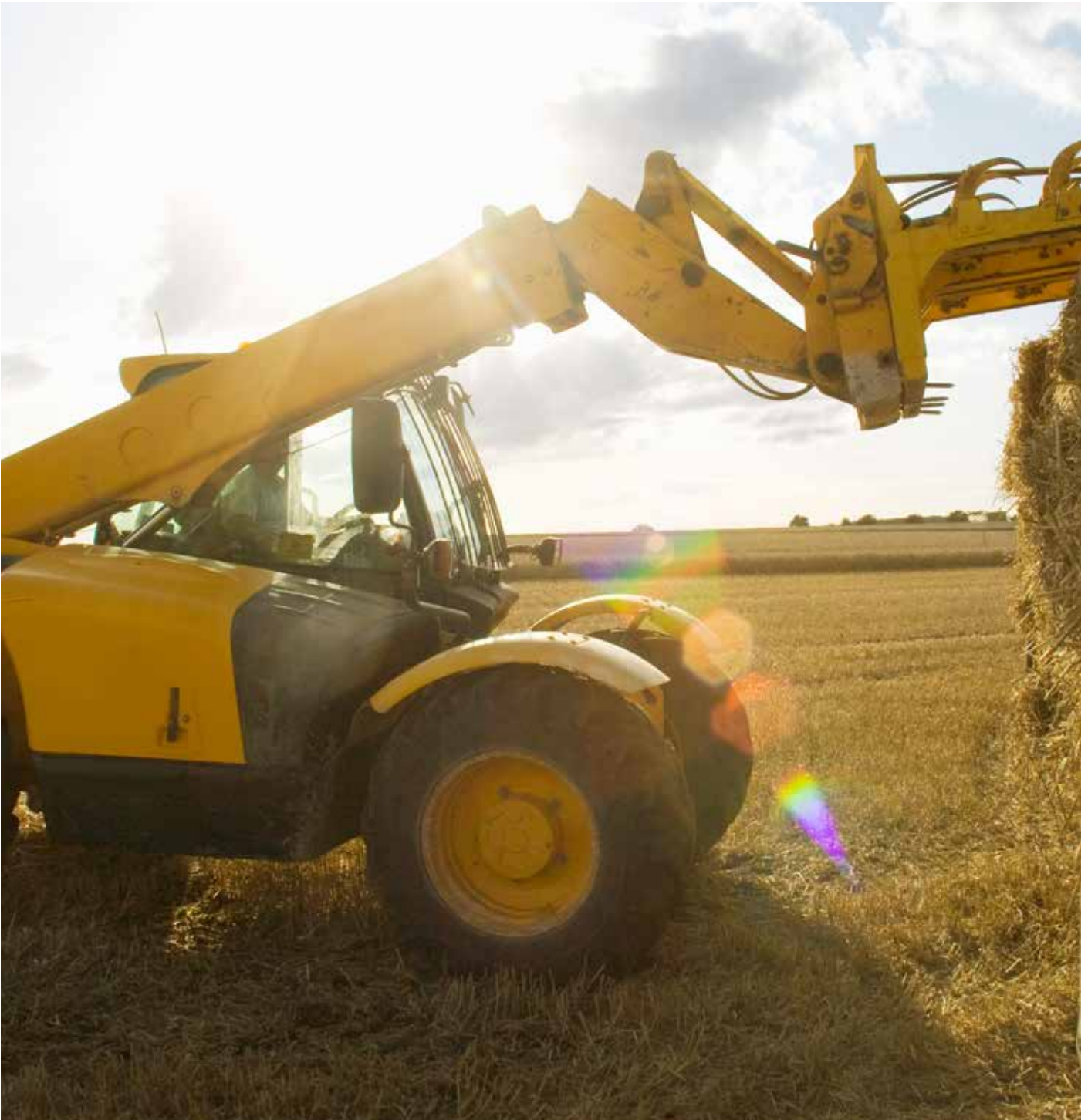


## Key opportunities

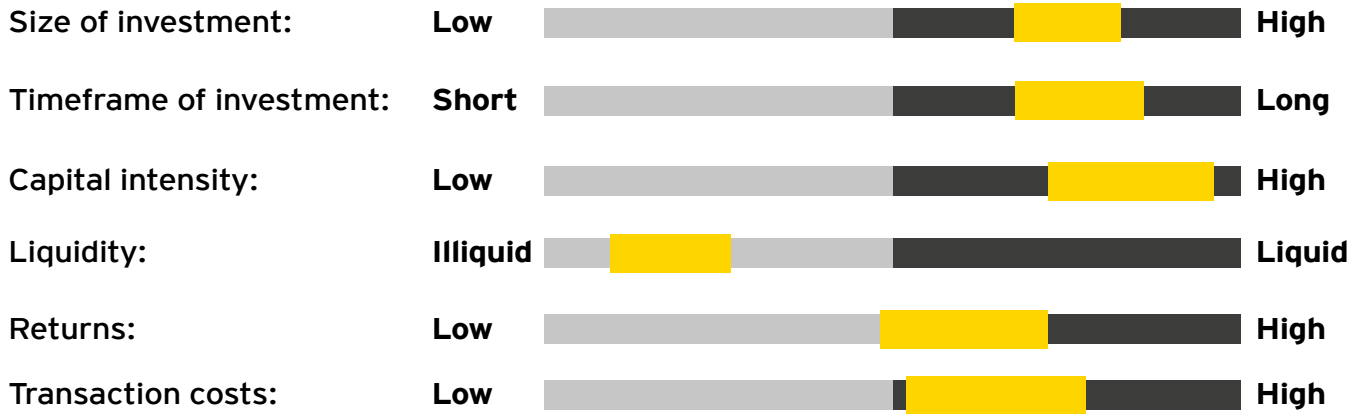
- Vertical integration – feedlots are playing an increasingly important role in the higher-value, branded beef market segment.
- Supply chain technologies – greater use of technology to monitor animal health and weight, enabling better compliance with export specifications.
- Automation – significant scope to reduce labour intensity of feedlot operations.

## Key risks

- Key risks to productivity and viability include:
- Feedlots are subject to extensive regulatory requirements in terms of hygiene, disease control and community impact.
  - Ability and costs of sourcing grain may be negatively impacted by climactic conditions.
  - Vertical integration and the beef branding trend is consolidating the range of potential suppliers.



# Processing

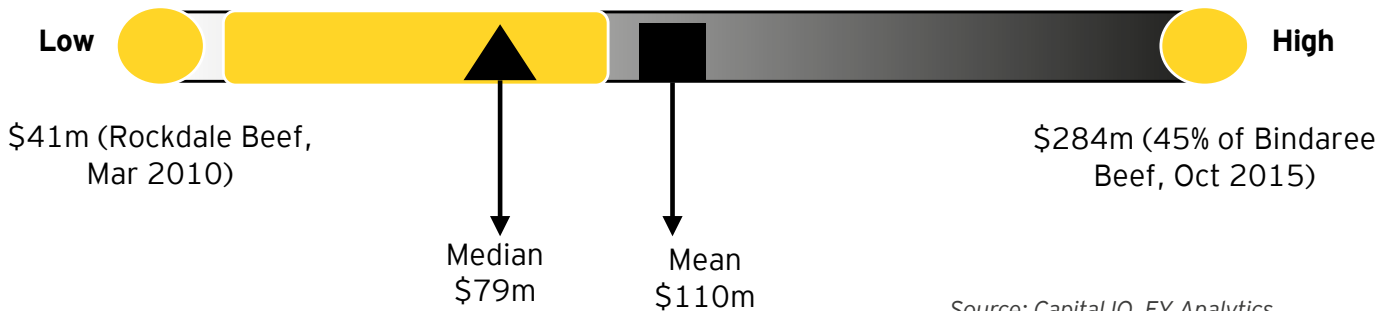


Processing facilities come in a range of capabilities and sizes. Although price is often linked to capacity and proximity to grazing properties and feedlots, the quality of meat produced has emerged as a key driver of value. The small number of processing facilities across the State means that capital intensity is high and liquidity is low. As the brand identity of Australian exports is strong, processors are capturing the greatest value from the demand boom for quality meat. However, returns are contingent on market factors, with margins declining recently as supply constraints saw cattle costs surge.

The average profit margin of 9.8% is forecast for Australian processors in FY18 (IBISWorld, 2017), with the larger, better capitalised processors taking a greater share through the use of productivity-driving technology. Rising export demand and higher domestic beef prices have boosted margins since FY15.

Nine transactions closed between 2010 and 2017. The average price amongst deals with reported values was \$110 million (CapitalIQ; EY analysis, 2018).

## Transaction values for Australian processors, 2010-17



Source: Capital IQ, EY Analytics





## Taxation features

Processors are not captured within the definition of 'primary producers' for the purposes of primary producer tax incentives. Investments in the development of technology may be capitalised if commercialisation is considered feasible.

## Suitable business models

Australian processors are almost exclusively companies, with many multinationals such as JBS and Cargill present in the local market.

## Key opportunities

- Premium beef – the booming market for premium beef products has created greater scope for processors to generate value, particularly in products for export markets.
- Blockchain – supply chain integrity will become an increasingly important source of value in exported beef products.
- Vertical integration – a number of feedlots and grazing properties have been acquired by processors in order to streamline and minimise volatility in cattle supply.

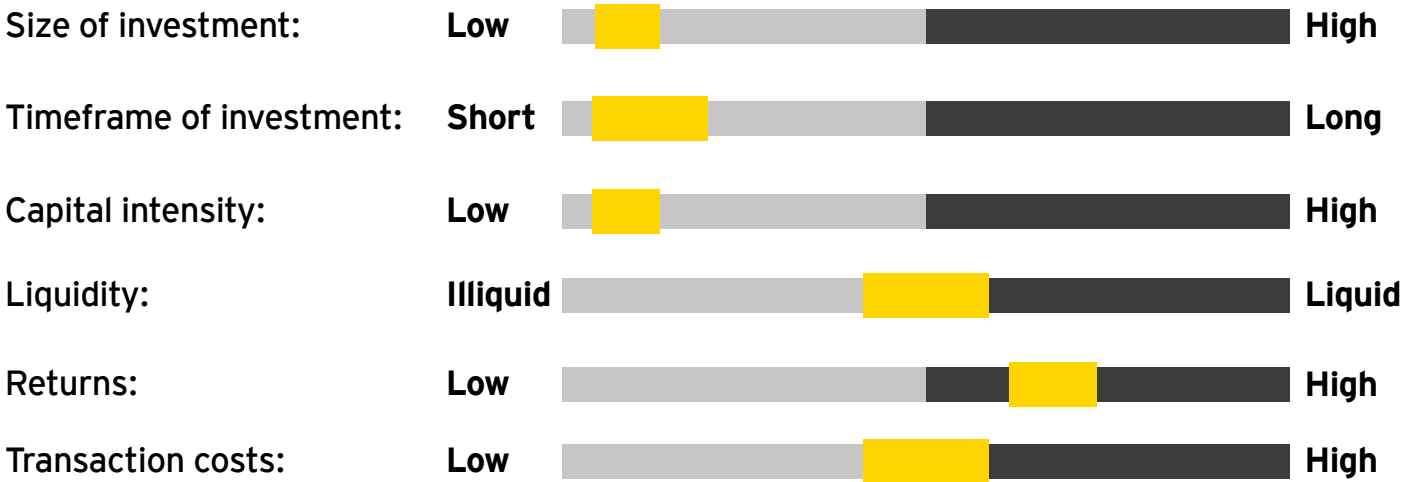
## Key risks

- Key risks to productivity and viability include:
- Exposure to climatic risks causes inconsistent supply - droughts result in greater throughput, whilst herd rebuilds under normal rainfall may curtail supply.
  - Variability in supply and prices (including seasonality) may impact on viability.
  - Facilities that are not part of vertically-integrated supply chains may face difficulties in consistently sourcing cattle supplies as total demand continues to increase.





# Agribusiness Services



Agribusiness services, especially consulting services (including accounting, tax, economics and operational advisory services), have experienced significant growth in recent years. The size of investment is related to the market for services and availability of expertise. Although there are numerous providers, from large professional services firms to sole traders, the average practice size is quite small. Whilst consulting businesses are relatively easy to establish, other agribusiness services, such as banking, are capital-intensive due to the large amounts of money involved in

financing farming equipment and infrastructure. Other services, including veterinary services, sit somewhere in between these extremes.

There is insufficient evidence available in respect of liquidity and transaction costs for services businesses, although the due diligence process for professional services firms is often complex and lengthy, especially where a partnership structure is involved. In the context of consulting, strong returns are available as the usually rural-based firms have relatively low overhead costs.

<b>Taxation features</b>	There are no specific tax benefits available to agribusiness services providers.
<b>Suitable business models</b>	Sole traders and partnerships are common for consulting firms, but companies are otherwise the dominant form.

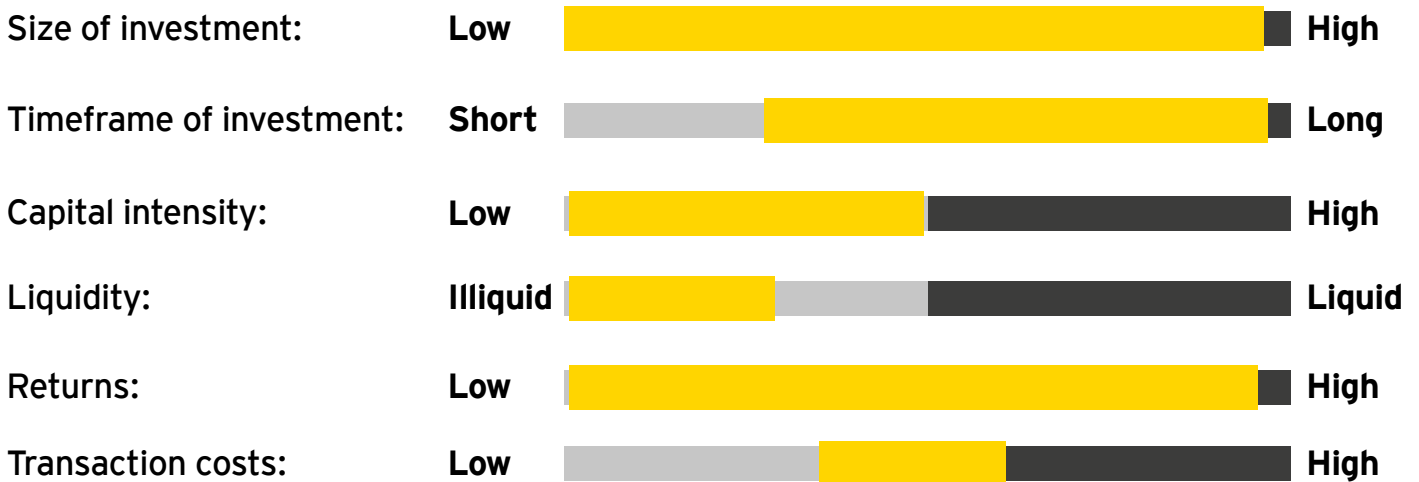
## Key opportunities

- Growing market – the range of services and number of providers is continuing to grow.
- Innovative culture – emerging technologies are producing new avenues for creating value in agriculture. This is generating a new need for consultants, especially technology and supply chain specialists.
- Increased service need – moves to increase agricultural productivity espoused by recent beef investors are driving a greater need for services such as finance, M&A and veterinary services.

## Key risks

- Key risks to productivity and viability include:
- The market for consulting services is still somewhat underdeveloped.
- The application of many advanced technologies to agriculture remains in the development phase and restricted to large more sophisticated operators.

# AgTech



The development of new technologies for agricultural application is advancing rapidly. As with any technology-focussed business, there is a broad array of projects with different investment levels chasing varying returns. Many technologies, such as cattle tracking and animal health sensors have been developed over relatively short time frames and have reached the commercialisation stage. However, more

complex technologies, such as those seeking to use blockchain for supply chain assurance and greater logistical oversight, have a longer gestation period. Many of these technologies are being pioneered by, or with the assistance of, research organisations such as universities and the CSIRO. As a result, there has been insufficient transaction activity to establish liquidity and transaction costs.

## Taxation features

Businesses developing technological solutions in Australia can capitalise some of their development costs if they can demonstrate that commercialisation of the product is feasible. Significant tax offsets may be available under the R&D Tax Incentive if eligibility criteria are met.

## Suitable business models

The risks inherent in research-intensive businesses means that limited liability structures, namely companies, are most suitable for technology development.

## Key opportunities

- There are significant opportunities for technology to drive productivity – hardware solutions such as sensors, and software solutions such as blockchain, will underpin productivity gains in areas from logistics to supply chain assurance.
- Connected objects and enhanced data analytics techniques will provide ever greater insights into the efficiency of on-farm operations and supply chains.
- Decision support systems – larger data sets and machine learning capabilities will provide graziers with the information they need to make the best use of prevailing market and weather conditions, in terms of breeding, turn-off and land management decisions.

## Key risks

- Many technologies remain in development, and have not been sufficiently stress-tested.



# Investment Models

This section outlines the types of investor models that have been used to make acquisitions in Australia's beef industry in recent years. Each investor type has strengths and weaknesses based on the needs of the seller and the risk appetite of investors.

A number of case studies outline the high-profile acquisitions, the types of investors involved and the rationale for each transaction. The case studies represent the spectrum of investor sophistication, ranging from high net worth individuals through to international financial institutions and private equity firms with hundreds of millions of dollars of assets under management.

## High net worth individuals

Australia's beef industry has a history of high net worth individuals amassing extensive cattle property portfolios. In the 1980's and 90's, Kerry Packer built Consolidated Pastoral Company into one of the country's largest landholders and cattle owners. More recently, Gina Rinehart and Kerry Stokes have acquired a string of properties in Queensland,

Western Australia and the Northern Territory.

The reasons for building privately-owned cattle empires vary. Both Rinehart and Stokes have invested heavily in improving the productivity of their properties. Rinehart is also investing in a vertically integrated Live Export Production System (Schwartz, 2017).

### Strengths

- ▶ Increased capital expenditure to improve productivity.
- ▶ High net worth investors tend to retain experienced managers.
- ▶ Improve market access through increased scale and vertical integration.

### Weaknesses

- ▶ Potential for loss of scale and efficiency where large holdings are broken up and sold to multiple individual interests.
- ▶ Risk that high net worth investors lack the knowledge and experience to effectively manage pastoral assets.

## Acquisition of S. Kidman & Co by Hancock Prospecting and Shanghai CRED

- ▶ Hancock Prospecting (Gina Rinehart's investment vehicle) and Shanghai CRED, a Chinese real estate developer, formed a joint venture to acquire the Sidney Kidman empire – Australia's largest private landholder – for \$387 million in October 2016.
- ▶ S. Kidman's holdings cover 10.1 million hectares, supporting 185,000 cattle.
- ▶ Ms. Rinehart's motivation was to diversify her business away from its dependence on iron ore, and a belief that Chinese exports represent a significant growth and profit opportunity.
- ▶ Shanghai CRED's rationale was to increase its live export capacity to the Chinese market, in which it already has well-developed supply chains (Koziol, 2017).
- ▶ The transaction was successful because the joint venture partners were aligned on the strategy to pursue the opportunity presented for Chinese exports. FIRB had twice previously blocked the sale of Kidman and Co to Chinese investors, however, it was approved with the involvement of an Australian investor (Koziol, 2017).

## Cattle station acquisitions and investment by Brett Blundy

Brett Blundy is an Australian retail billionaire. In 2010, he expanded his interest to cattle, underwriting a \$36 million loan to the Dunnicliff Family to upgrade infrastructure at the Beetaloo Station in the Barkly Tablelands.

At a time when private equity firms and foreign pension funds were reluctant to invest, Mr. Blundy was one investor with the foresight to see the value of beef exports to China. Infrastructure upgrades included expanding the station's network of watering points, ensuring that cattle were never more than 2 km away from a trough. This investment significantly improved productivity. With cattle no longer gathering in the vicinity of more centralised watering points, the property's more remote areas were better utilised. Cattle were gaining weight by eating more and expending less energy in seeking water (Neales, 2014).

The investment produced significant results in a short timeframe, with calving rates increasing more than 60% and the cattle herd quadrupling in a four year period.

Beetaloo has now become a model for infrastructure investment for other northern cattle stations. Mr. Blundy's investment vehicle has since taken equity stakes in two other pastoral assets, seeking to derive similar productivity and profitability gains to those achieved at Beetaloo.

- ▶ BB Retail Capital (Mr. Blundy's investment vehicle), together with Bullwaddy Pastoral, acquired Amungee Station from the Zlotowski Family, for \$6.5 million in March 2014. The property covered 300,000 ha. (Fitzgerald, 2015). The property's water infrastructure and fencing has since been significantly upgraded.
- ▶ BB Retail Capital, together with the Brown Family, acquired the Walhallow and Creswell Downs stations from Pawaray Pastoral for \$100 million in December 2015. The properties covered 1 million hectares and support 60,000 cattle. Significant water infrastructure upgrades are currently underway that will eventually lift the station's carrying capacity to 140,000 cattle (Fitzgerald, 2017).



# Family Businesses

Family businesses remain the largest owners of Australian cattle properties. Family businesses generally operate on a reduced scale to other investor types, and usually lack the funds to undertake significant infrastructure upgrades on the scale that financial institutions and private equity firms can.

Grazing families often build their holdings by acquiring adjacent or near adjacent properties as they become available. This is because they expect to utilise the adjacent land to increase economies of scale without needing to boost capital expenditure or staffing levels (Rowley, 2015).

## Strengths

- ▶ Often the lowest-cost method of expanding operations.
- ▶ Lower fixed costs-to-area or fixed costs-per-head ratios.
- ▶ Improves graziers' economies of scale.
- ▶ Often considered a means of preserving family legacies.
- ▶ Allows properties to remain under the control of experienced managers.

## Weaknesses

- ▶ Families often lack the capital to build productivity-enabling infrastructure without external financial backing.
- ▶ May increase debt burdens on families already under mortgage stress.
- ▶ Family businesses often lack the market access and supply chain capabilities associated with intra-industry acquisitions or institutional buyers.

## Case Study

### Acquisition of Glenprairie Station by Camm Agricultural Group

- ▶ Camm Agricultural Group (Camm) acquired Glenprairie Station from Sir Graham McCamley for \$28 million in June 2013.
- ▶ The property covers 27,000 hectares.
- ▶ Camm's purchase was motivated by the quality of the property on offer, rather than any specific plan to expand operations.
- ▶ Sir Graham McCamley's sale was part of his estate planning, after his descendants decided to move into other industries.
- ▶ A sale to another grazing family was ideal because the property may have lacked the scale to interest institutional investors.

## Case Study

### Acquisition of Arcadian Organic & Natural Meat by Hewitt Cattle Co

- ▶ Hewitt Cattle Australia Pty Ltd (Hewitt) acquired a 15% stake in Arcadian Organic & Natural Meat Co (Arcadian) for approximately \$50 million in October 2017 (CapitalIQ).
- ▶ Arcadian is a relatively small processor, focusing exclusively on organic beef and lamb.
- ▶ The deal included a 28,000ha property near Augathella.
- ▶ The acquisition was motivated by Hewitt's desire to gain a foothold in the lucrative organic cattle market (Beef Central, 2017).
- ▶ The transaction suited Arcadian's desire to boost exports to the United States and expand to key export markets in Asia.

# Intra-industry groups

An intra-industry sale involves the acquisition of one company involved in the beef supply chain by another similarly-engaged company. These transactions may involve either a horizontal or vertical integration:

- ▶ Horizontal integration – a merger with, or acquisition of another business at the same point of the supply chain. It may be executed to

improve a producer’s scale, and/or bargaining power and boost its influence over the broader industry’s supply chain.

- ▶ Vertical integration - merging with, or acquiring another business operating at a different point of the supply chain. Vertical integrations create efficiencies and reduce costs by enhancing control over supply chains.

## Strengths

- ▶ Generate synergies – in terms of scale and quality of inputs.
- ▶ Greater scale may lead to improved market access – both domestically and into key export markets.
- ▶ Company and assets remain under management of investors with sector-specific knowledge and expertise. This means that investment decisions are made with an eye on sustainability, and an understanding of how to best manage the risks inherent in a cyclical industry and best allocate new capital to mitigate those risks. This is especially true of joint-ventures, where investors can rely on the accumulated knowledge of the assets previous owners to identify potential efficiencies.
- ▶ A sale to an international buyer may provide access to foreign markets that would otherwise be difficult and time consuming to obtain.
- ▶ The knowledge and expertise of two distinct businesses can be pooled to improve the combined company’s service offering and efficiency.

## Weaknesses

- ▶ Concentration of market share may act as a disincentive to innovation.
- ▶ Investors from outside the industry may be best placed to innovate and improve productivity.
- ▶ Consolidation may increase dependence on a single sales channel. In the context of export, this makes producers vulnerable to a change in trading relations or domestic policy.

## Australian Country Choice acquisition of Acton Land & Cattle

### Case Study

- ▶ Australian Country Choice (ACC) acquired a 51% stake in Acton Land & Cattle (Acton), a large vertically-integrated beef producer, for an undisclosed amount. ACC and Acton will operate Acton's pre-transaction assets under a joint venture arrangement (CapitalIQ). Acton's assets comprise of 135,000 head of cattle (including 70,000 breeders) spread across 1.5 million hectares in Queensland, including backgrounding country and feedlots.
- ▶ The transaction allowed ACC to pursue continued growth with greater assurance regarding its internal supply chains (ABC News, 2015).
- ▶ Acton was able to redefine its strategic direction and reduce debt.
- ▶ An intra-industry sale was appropriate as the primary aim of the transaction was to expand ACC's existing backgrounding and feedlot operations. Synergies were generated from the combination of compatible assets and supply chains. It was unlikely that an operational restructuring of the business would have produced the returns sought by a financial sponsor (e.g. private equity firms).

## New Hope Investment acquisition of Kilcoy Pastoral Company

### Case Study

- ▶ New Hope Investment (New Hope), a large Chinese agribusiness company, acquired Kilcoy Pastoral Company (KPC), a Queensland export abattoir, for approximately \$100 million in December 2013.
- ▶ New Hope's rationale was to capitalise on growing demand for high quality Australian beef by leveraging its extensive domestic supply chains to increase market access for, and profitability of, Australian beef in China.
- ▶ This aligned with KPC's desire to pursue growth in emerging Asian markets. New Hope's investment has since created 130 new jobs at KPC, and opened new markets in China and elsewhere (Courtney, 2017).
- ▶ An intra-industry sale to an international buyer enabled improved access to a key export market. New Hope's domestic supply chains created efficiencies that would be very difficult to replicate for an Australian trade buyer or private equity firm.



# Real Estate Investment Trusts

Properties underpinning any part of the beef supply chain may be owned or operated by a trust. Real Estate Investment Trusts (REITs) are structured similarly to mutual funds, with investors purchasing units (that are usually publicly traded). The aggregated funds of multiple investors are then applied to purchase higher value properties than individual investors otherwise could.

REITs must invest in properties primarily for the purpose of deriving rental income in order to receive flow-through tax treatment (meaning the trust itself is not liable for taxation). Income earned on investments is generally fully distributed, as undistributed income is taxed at 46.5%, higher than

Australia's top marginal tax rate.

The emergence of agricultural focused funds in the late 1990's saw REITs emerge as a potential investment vehicle for purchasing cattle stations.

REITs may also be associated with sale and leaseback arrangements, where a trust purchases cattle stations and then returns management rights to the former owners on long-term leases.

## Strengths

- ▶ Aggregated capital enables larger scale investments.
- ▶ Low barriers to entry for investors provides greater pool of potential capital.
- ▶ Provides an effective vehicle for sale and leaseback arrangements, enabling graziers to sell their property but maintain operational control.
- ▶ Attractive tax structures for retail and institutional investors.
- ▶ REITs are generally "closed-ended", providing greater stability than open-ended investor funds (such as private equity funds) and protection against enmasse redemptions.
- ▶ Emergence of agricultural-focused funds is improving investor access to cattle properties.

## Weaknesses

- ▶ Pass through tax treatment is only available where funds are invested primarily to earn rental returns – this may act as a disincentive to invest in improving on-farm infrastructure.

## Acquisition of Camm Agricultural Group by Rural Funds Group

- ▶ Rural Funds Group (RFG), an agriculture-focused REIT, acquired the Natal Downs, Longton and Narellan cattle properties from Camm Agricultural Group (Camm) for \$50 million in October 2017. The properties cover 390,000 hectares.
- ▶ Under a sale and leaseback arrangement, Camm retained management rights over the three properties through a 10-year lease (AFR, 2017).
- ▶ RFG's investment rationale was to gain exposure to export focused producers in order to capitalise on rising beef demand from Asia's emerging middle class (AFR, 2017).
- ▶ Camm's sale was motivated by the opportunity to sell at a good price, whilst gaining access to the capital needed to improve on-farm productivity, with an additional \$17.5 million being made available under the terms of the deal to assist with financing and infrastructure upgrades.

## Case Study



## Financial institutions

Acquisitions by financial institutions are transactions where a firm involved in the financial services industry buys an asset with the intention of holding it across an extended investment horizon. The investors are usually insurance companies or pension/superannuation funds, whose mandates require long-term, sustainable yields, as opposed to the shorter-term out-sized returns sought by private equity firms.

Pension funds from Canada, Denmark and the Netherlands amongst others have become key investors in recent years, buying up several large cattle properties, often in partnerships with prominent Australian cattle producers. This has unfolded in spite of the reluctance of Australian superannuation firms to invest in agriculture.

Sales to foreign institutions, above specific thresholds, must be reviewed by FIRB.

### Strengths

- ▶ Long term investment horizon.
- ▶ Access to large, stable capital bases.
- ▶ Willingness to invest in on-farm infrastructure to improve productivity.
- ▶ Tendency to retain experienced management.

### Weaknesses

- ▶ Investments from most countries must be reviewed by FIRB if the deal value is above \$15 million.
- ▶ Restrictions imposed under the *Foreign Acquisitions and Takeovers Act 1975* limit the scale and scope of allowable investments by many foreign funds.
- ▶ Some reluctance of foreign firms to invest in operational beef and sheep stations due to the regulatory burden associated with maintaining livestock (Cranston, 2016).
- ▶ High minimum investment value threshold limiting the number of assets that qualify for investment.

## Acquisition of three Queensland cattle stations by Hewitt Cattle and Public Sector Pension Investment Board (PSP)

- ▶ Hewitt Cattle, backed by Canadian pension fund PSP, acquired Strathblane, Wybara and Scotts Creek cattle stations from Australia Pacific LNG (APLNG) for an undisclosed amount in December 2015.
- ▶ The transaction covered 41,100 hectares and approximately 9,000 cattle.
- ▶ PSP's rationale was a desire for stable, long-term returns from a sector it saw as offering significant growth opportunities. PSP recognised the complexity of operating cattle stations and managing supply chains, and so partnered with Hewitt due to its extensive experience in the sector and region, the depth of its relationships, its desire to expand its operations and its track record of success.
- ▶ APLNG was motivated to sell as it was unnecessary to own the property for the production phase of its LNG extraction.
- ▶ This transaction structure made sense because both the investor and its partner-producer shared a vision for a long-term investment and increased productivity. Partnering with Hewitt gave PSP access to the knowledge, insight and relationships needed to successfully operate the properties.
- ▶ PSP has used this initial investment in the beef cattle sector as its platform to expand its exposure to the sector to meet its minimum investment thresholds.

### Case Study

# Private equity

A private equity investment involves the acquisition, and subsequent management, of a company by a private investment fund. Private equity funds typically invest on behalf of high net-worth individuals and institutions, gaining control of targets and de-listing them (if publicly traded). Funds seek to implement managerial and operational changes to enhance efficiency and profitability, before exiting the investment after 5-10 years.

Private equity funds have become increasingly active in Australia's agricultural sector in recent years, acquiring two of Australia's five largest non-government landholders in the past decade. This interest is expected to continue as the global drive to increase agricultural output to match population growth creates new investment opportunities (Manning, 2015), especially in digital applications, such as data analytics (Valoral Advisors, 2014.)

## Strengths

- ▶ Expertise in identifying and delivering increased operational efficiencies.
- ▶ Access to capital.
- ▶ Experience in the technology sector, which is likely to disrupt agricultural production in the medium term.

## Weaknesses

- ▶ Short investment horizon may be unsuitable for an industry where market cycles last many years.
- ▶ Short investment horizon may act as a disincentive to sustainable investment and operation.

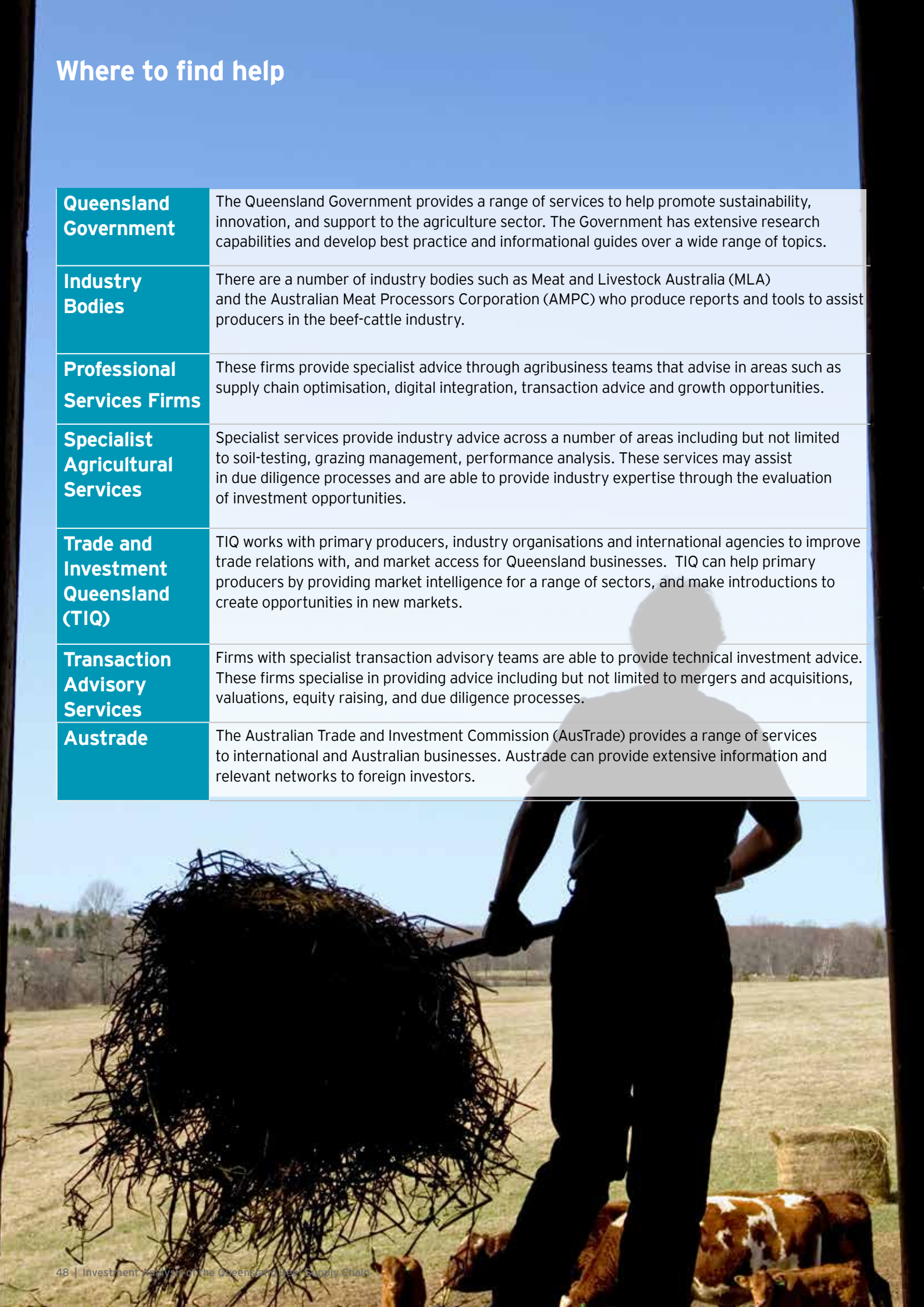
## Queensland Investment Corporation's acquisition of the North Australian Pastoral Company

- ▶ Queensland Investment Corporation (QIC) acquired an 80% stake in the North Australian Pastoral Company (NAPCo) for approximately \$300 million in May 2016 (Beef Central, 2016). NAPCo's holdings include 5.8 million hectares of property supporting nearly 180,000 cattle.
- ▶ QIC's investment rationale was the rapidly growing appetite for beef, especially premium products, in Asia (Beef Central, 2016). NAPCo was identified as an ideal target due to its strategically-located assets and the strength of its management team.
- ▶ MP Evans' (the vendor) sale was motivated by a desire to refocus on its core business in managing Indonesian palm oil plantations (Financial Times, 2016).
- ▶ QIC's acquisition was successful because the fund respected the knowledge and experience of the existing management team (who retained a 20% stake). The investors supplied the capital, and allowed the people who best understood the business to use it productively.
- ▶ The private equity model was suitable for this transaction because it aggregated funds from, and provided exposure to agriculture for, a group of investors that historically had not invested in the sector, including superannuation and sovereign wealth funds.

## Case Study

## Where to find help

<b>Queensland Government</b>	The Queensland Government provides a range of services to help promote sustainability, innovation, and support to the agriculture sector. The Government has extensive research capabilities and develop best practice and informational guides over a wide range of topics.
<b>Industry Bodies</b>	There are a number of industry bodies such as Meat and Livestock Australia (MLA) and the Australian Meat Processors Corporation (AMPC) who produce reports and tools to assist producers in the beef-cattle industry.
<b>Professional Services Firms</b>	These firms provide specialist advice through agribusiness teams that advise in areas such as supply chain optimisation, digital integration, transaction advice and growth opportunities.
<b>Specialist Agricultural Services</b>	Specialist services provide industry advice across a number of areas including but not limited to soil-testing, grazing management, performance analysis. These services may assist in due diligence processes and are able to provide industry expertise through the evaluation of investment opportunities.
<b>Trade and Investment Queensland (TIQ)</b>	TIQ works with primary producers, industry organisations and international agencies to improve trade relations with, and market access for Queensland businesses. TIQ can help primary producers by providing market intelligence for a range of sectors, and make introductions to create opportunities in new markets.
<b>Transaction Advisory Services</b>	Firms with specialist transaction advisory teams are able to provide technical investment advice. These firms specialise in providing advice including but not limited to mergers and acquisitions, valuations, equity raising, and due diligence processes.
<b>Austrade</b>	The Australian Trade and Investment Commission (AusTrade) provides a range of services to international and Australian businesses. Austrade can provide extensive information and relevant networks to foreign investors.



## Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AACo	Australian Agricultural Company
ABARES	Australian Bureau of Agricultural and Resource Economics
ABS	Australian Bureau of Statistics
ACC	Australian Country Choice
ACWP	Agricultural Competitiveness White Paper
ASEAN	Association of Southeast Asian Nations
ASEL	Australian Standards for the Export Livestock
ATO	Australian Taxation Office
Camm	Camm Agricultural Group
ChAFTA	China-Australia Free Trade Agreement
CRC	Cooperative Research Centres
CSIRO	Commonwealth Scientific and Industrial Research Organisation
Cwt	Carcass weight – The weight of an animal's carcass
DAWR	Department of Agriculture and Water Resources
ESCAS	Exporter Supply Chain Assurance System
EYCI	Eastern Young Cattle Indicator
FIRB	Foreign Investment Review Board
Grainfed	Meat from animals that are fed grain-based diets during the finishing process
ha	Hectare
Intra-industry sale	The acquisition of one company involved in the beef supply chain by another similarly engaged company
JAEPA	Japan-Australia Economic Partnership Agreement
KAFTA	Korea-Australia Free Trade Agreement
Kt	Kilotonnes
m	Million
MDC	MLA Donor Company
MLA	Meat & Livestock Australia
NAIF	Northern Australia Infrastructure Facility
NAPCO	National Australian Pastoral Company
OTH	Over the hook
PSP	Public Sector Pension Investment Board
QGPI	Queensland Grazing Property Index
QGSO	Queensland Government Statistician's Office
QIC	Queensland Investment Corporation
REITs	Real Estate Investment Trusts
RFG	Rural Funds Group
Shipped weight	The weight of beef aboard a shipment
TPP	Trans-Pacific Partnership
Turn-off	The number or rate of livestock sold to market
USDA	United States Department of Agriculture





# References

- ABARES 2018, *Farm survey data for the beef, slaughter lambs and sheep industries*, 28 April 2018.
- ABARES 2018, *Quantity of Australian exports of beef, veal and live cattle, by destination*, 1 March 2018.
- ABARES 2018, *Red meat export stats 2017*, available at: <http://www.agriculture.gov.au/export/controlled-goods/meat/statistics/red-meat-stats-2017#december>.
- ABS Cat. No. 5352.0 - International Investment Position, Australia.
- ABS Cat. No. 5512.0 – Government Finance Statistics.
- ABS Cat. No. 7127.0 - Agricultural Land and Water Ownership.
- Australian Government, Pipeline Information, Northern Australia Infrastructure Facility, available at: <http://www.naif.gov.au/application-process/pipeline-information/>.
- Australian Taxation Office, Register of Foreign Ownership of Agricultural Land, October 2017.
- Barbour, L. 2016, *UK tops list of foreign investments in Australian farmland; China owns 0.5%*, ABC News, 7 September 2016.
- Beef Central, 2016, *QIC takes 80pc stake in North Australian Pastoral Co*, 6 May 2016.
- Brann, M. 2018, *AACo abattoir and beef business under review as profits slide*, ABC News, 4 April 2018.
- Capital IQ, available at [www.capitaliq.com](http://www.capitaliq.com)
- Cook, R. 2018, *World Cattle Inventory: Ranking of Countries*, Beef2Live, citing USDA, 5 April 2018, available at: <http://beef2live.com/story-world-cattle-inventory-ranking-countries-0-106905>.
- Courtney, P. 2017, *New Hope Group backs Australian agriculture, plans to invest \$1b by 2020*, ABC News, 2 February 2017.
- Cranston, M 2015, *Canadians join race to buy up Australian farm land*, Australian Financial Review, 2 March 2015.
- Cranston, M. 2016, *Public Sector Pension Investment Board has \$500m for cattle and fish farms*, Australian Financial Review, 17 January 2016.



Deloitte Access Economics 2017, *Market opportunities for Queensland agribusiness from FTA with Japan*, 2017, available at: <https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-economics-product-profiles-qld-agribusiness-ftas-japan-060317.pdf>.

Department of Agriculture and Water Resources (DAWR) White Paper at a Glance, available at: <http://agwhitepaper.agriculture.gov.au/white-paper/white-paper-at-a-glance>.

Department of Foreign Affairs and Trade (DFAT) 2014, *Korea-Australia Free Trade Agreement*, available at: <http://dfat.gov.au/trade/agreements/in-force/kafta/Pages/korea-australia-fta.aspx>.

Department of Natural Resources, Mines and Energy 2017, 2016-17 Annual report – Foreign Ownership of Land Register Act 1988.

FIRB, 2018, Foreign Investment Review Board, available at: <https://firb.gov.au/investment/agricultural/>.

Fitzgerald, D. 2015, *Major development continues at Amungee Mungee Station, one year on from purchase*, ABC News, 17 April 2015.

Fitzgerald, D. 2017, *Massive water development underway at Top End station with hopes to run 140,000 cattle*, ABC News, 11 September 2017.

Goodwin, S. 2017, *Vertical integration the answer to big changes ahead for beef*, Farm Online, 5 August 2017.

Heath, R 2018, 'An Analysis of the Potential of Digital Agriculture for the Australia Economy', *Farm Policy Journal*, Vol. 15, No. 1, Autumn Quarter, Australian Farm Institute.

IBISWorld A0142, 2017, *Beef cattle farming in Australia Industry Report*.

IBISWorld A0143, 2017, *Beef cattle feedlots in Australia Industry Report*.

IBISWorld C1111, 2017 *Meat processing in Australia Industry Report*.

Koziol, M. 2016, *Scott Morrison knocks back Chinese bid for massive S. Kidman & Co farm portfolio*, Sydney Morning Herald, 29 April 2016.

MLA 2018, Cattle Projections, Meat and Livestock Australia, available at: <https://www.mla.com.au/prices-markets/Trends-analysis/cattle-projections/MLA 2016, DEXA technology, MLA Factsheet, Meat and Livestock>



## References continued

MLA Market snapshot – Beef, Japan, Meat and Livestock Australia, February 2017, available at: <https://www.mla.com.au/globalassets/mla-corporate/prices--markets/documents/os-markets/red-meat-market-snapshots/mla-japan-beef-snapshot-2017.pdf>.

MLA Market snapshot – Beef, Korea, Meat and Livestock Australia, February 2017, available at: <https://www.mla.com.au/globalassets/mla-corporate/prices--markets/documents/os-markets/red-meat-market-snapshots/mla-korea-beef-snapshot-2017.pdf>.

MLA Red meat safety and quality, Meat and Livestock Australia, available at: <https://www.mla.com.au/about-mla/Cattle-sheep-goat-industries/cattle-sheep-industry-information/red-meat-safety-and-quality/>.

Neales, S. 2014, *\$40 million pumped in to create mega-station*, The Australian, 3 December 2014

Polansek, T. and Waters, T. 2017, *Brazil beef scandal leaves fewer options for global buyers*, Reuters, 21 March 2017.

QGSO 2018, *Trade data – overseas exports by commodity*, available at: <http://www.qgso.qld.gov.au/products/tables/trade-data-overseas-exports-commodity-sitc/index.php>.

Sampson, A. 2016, *Co-operatives championed at Farm Co-operatives and Collaboration Pilot Program Launch*, Weekly Times, 29 August 2016.

Savills 2016, *Global Farmland Index*, 27 June 2016, available at: [http://www.savills.co.uk/research\\_articles/196910/204108-0](http://www.savills.co.uk/research_articles/196910/204108-0).

Schwager, R. 2017, *Angus brands meet high demand*, The Land, 17 February 2017.

Thompson, S. *Shandong Delisi to take stake on Bindaree Beef*, Australian Financial Review, 16 September 2015.

OECD, Organisation for Economic Co-Operation and Development database, available at: <https://data.oecd.org>.



OIE, World Organisation for Animal Health, available at: <http://www.oie.int/animal-health-in-the-world/official-disease-status>.

Oxford Economics, Oxford Economics database, available at: <https://www.oxfordeconomics.com/>.

Worthington, B. 2018, *Australian farmland to be offered to local buyers first under new rules introduced by Federal Government*, ABC News, 7 February 2018.







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