WESTERN AUSTRALIAN **MEAT INDUSTRY**

Overview for Potential Investors and Other Stakeholders

July 2017

CORIOLIS FOR Department of Primary Industries and Regional Development
GOVERNMENT OF WESTERN AUSTRALIA

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Who and why?

This research seeks to provide a high-level guide to where investment is most needed in the meat supply chain

When looking at opportunities for investment in the Western Australian meat production system, one must consider by whom? If you were to judge purely from the popular press, you would believe Western Australia agriculture was totally controlled by billionaires and foreign speculators. Nothing could be further from the truth.

The largest farmer, the largest farmland owner, the largest investor, the largest employer and the largest agrifood research funder in Western Australia (WA) is the government. The government is also the largest builder of the infrastructure used by the industry. At the same time, the government invests in food safety systems, biosecurity systems, trade negotiations, training, education, contract enforcement and a whole range of other services to industry. That it could achieve more, or do many of these things better, is not disputed. But any discussion of investment in the Western Australian meat industry, must begin with the largest participant. And remember that government is just the collective will of the people.

The second largest investor in the WA agrifood system is the 11,177 farmers, including the more than 6,000 farmers with livestock. They own or lease the land and equipment. They have the skills, do the work, and take the risk. They also collectively own one of the largest sheep processors (WAMMCO cooperative), as well as invest in a wide range of activities down the chain. All these farmers are silently, invisibly investing regularly and constantly. The third largest investor in the WA agrifood system are the private enterprises that use, process, package, sell, export, and retail its raw material ingredients. These firms range from private individuals and small investor consortiums through to very large national and multinational firms. As one example, Coles, Woolworths and IGA are easily the largest ultimate sellers of Western Australian meat to consumers. It is their sales that flow back to the farm gate.

The fourth largest investor in the WA agrifood system is large scale professional investors, including retirement superfunds and private equity firms. They invest both directly, through buying firms and farms, and indirectly, through investing in others. While most of this investment is Australian in origin, global sovereign wealth funds and pension funds also participate in the WA opportunity.

Finally, the smallest group of investors is global "hot money." This class of investor is not always committed, often does not add a lot of value, and is not a major component of the industry. While a handful of high profile billionaires make the news and noise, they represent only a small percent of total investment (ca. 5%).

It is important to keep this relative ranking and importance in mind while accessing, absorbing and using this material.

This project does not seek to duplicate or replace existing roles provided by the market. Real Estate Agents can market farms. Investment Bankers can sell larger businesses. Share Brokers can evaluate shares in listed firms. Internal Analysts can model and measure infinite details about business segments. Therefore, this work stops short of outlining or profiling specific transactional opportunities immediately or currently present.

What this project instead seeks to do is set the scene for investment. It seeks to provide a preliminary, high-level introduction and overview of the Western Australian meat industry, with a focus on sectors that are currently export focused. It takes a longer term point-of-view, looking at long term trends, rather than being month-to-month or quarterly focused.

It seeks to present a relatively neutral, fact-based analysis of the state's meat industry. It seeks to present this analysis at 'board-level,' in a business friendly format, style and tone.

It does all of this to channel available investment to where it is most needed. This is typically where growth is occurring. This is also where employment is being created.

The intended primary audience for this research is investors, those seeking investment and government (in all its roles). However, the experience of other regions globally with similar research is that it will be useful to a much wider ranging set of stakeholders, including research institutions, journalists, industry bodies and many others.

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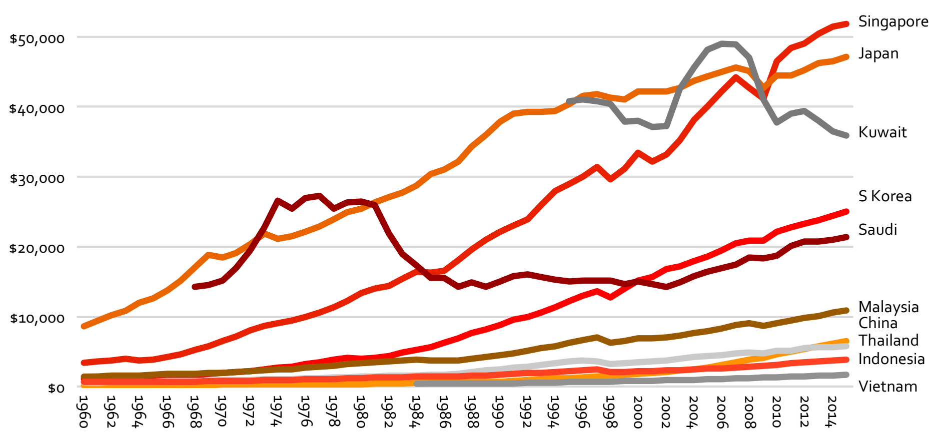
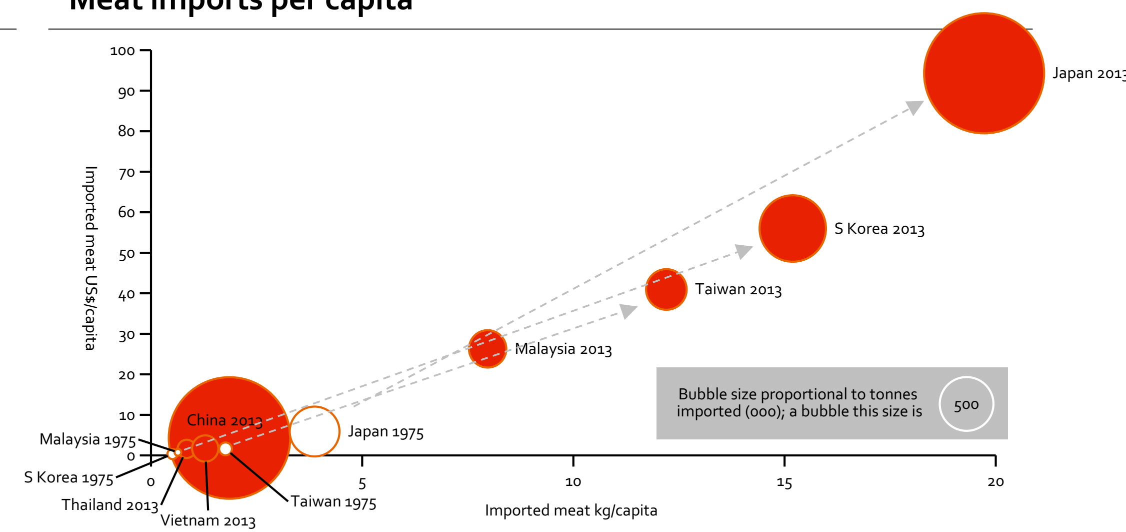
Increasing demand for imported meat in Asia

Growing income in Asia and the Middle East is increasing demand for imported meat

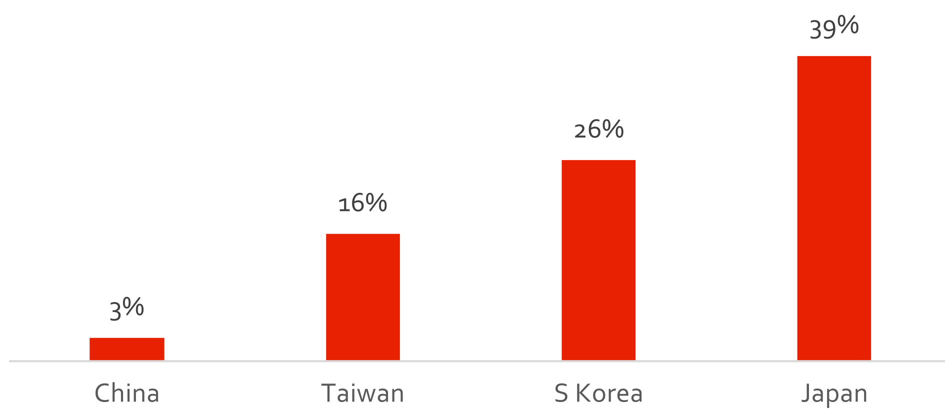
GDP per capita (constant 2010 US$)



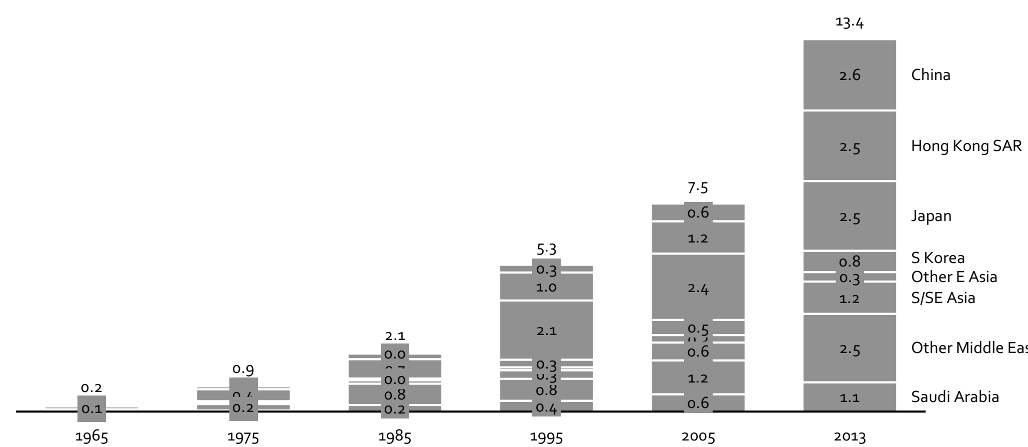
Meat imports per capita



Imports as a % of countries total meat supply



Total meat import volume (t; m)

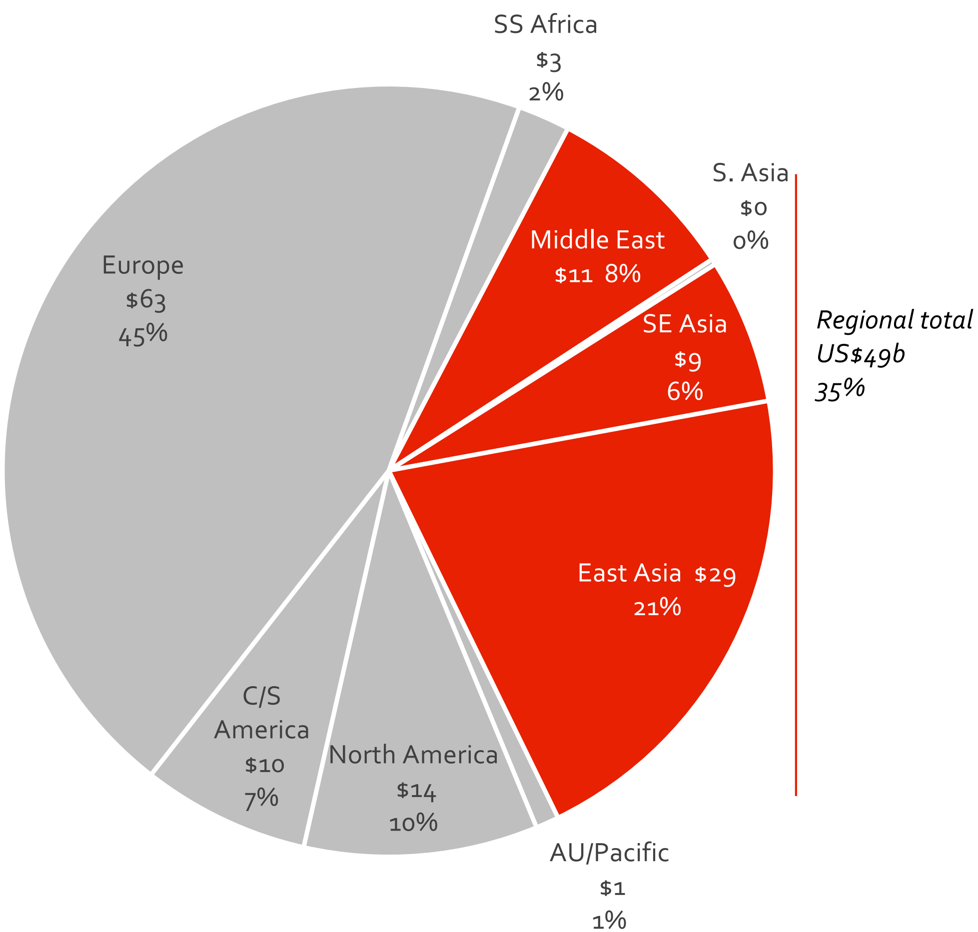


Source: World Bank; United Nations; FAO; Comtrade; Coriolis analysis

Targeting a large and growing market

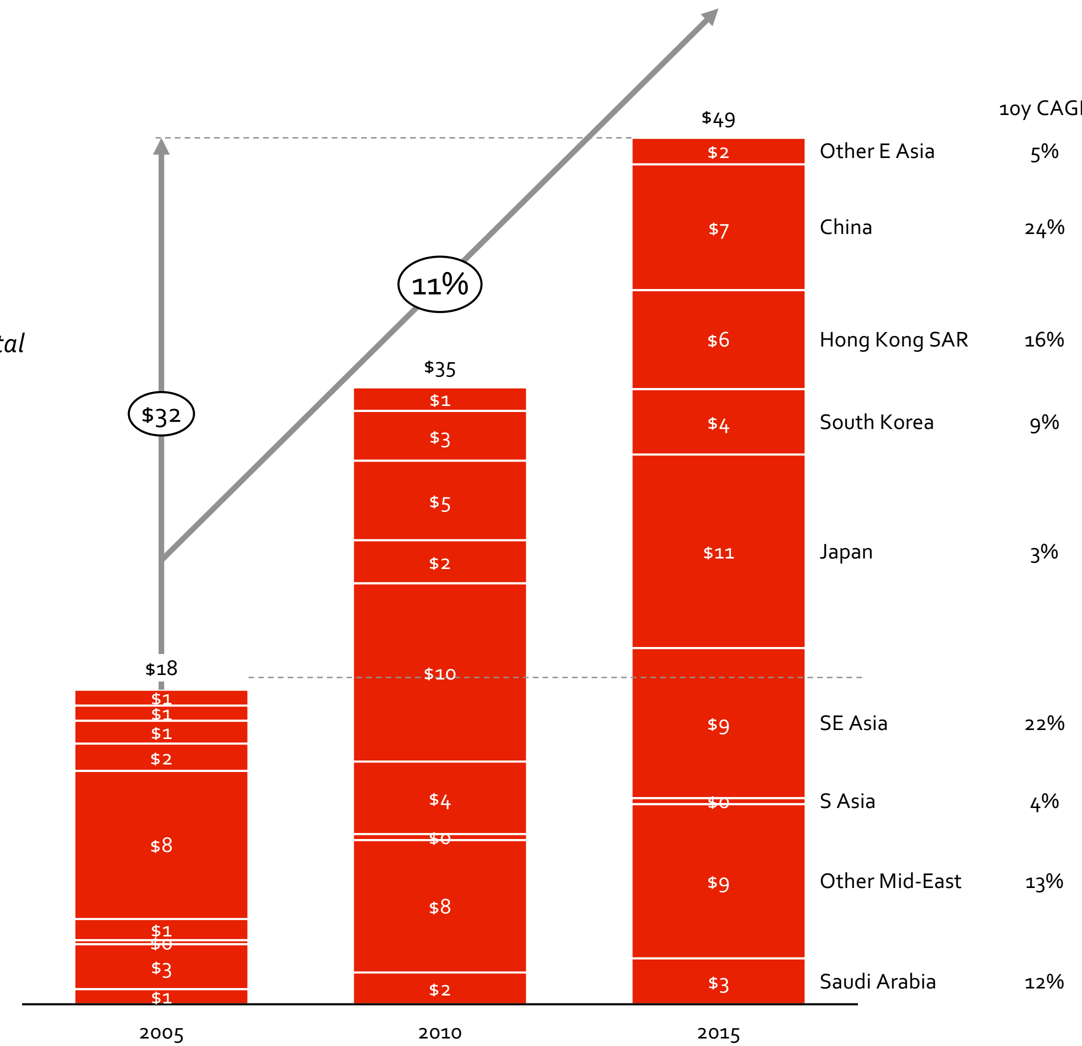
Asia now accounts for more than a third of the global meat trade, with many markets growing at double-digit rates; +US$32b growth in aggregate regional demand for imported meat in the last decade

Regional meat import value (US$; b; 2015)



Total = US$139 billion

Regional meat import value (US$; b; 2005-2015)

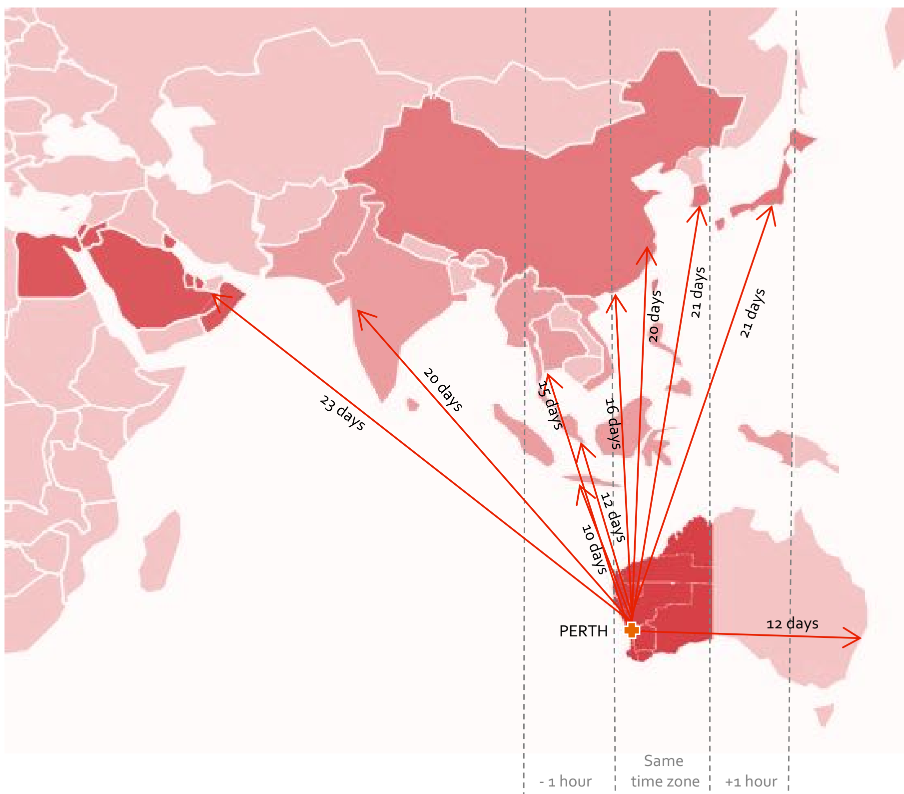


Source: United Nations; Comtrade; Coriolis analysis

Well positioned to deliver

Western Australia is the closest, most accessible broadacre, rangelands and Mediterranean climate zone to Asia; it is in the same time zone as Beijing, Manila, Hong Kong and Kuala Lumpur

Shipping times and time zones from Perth

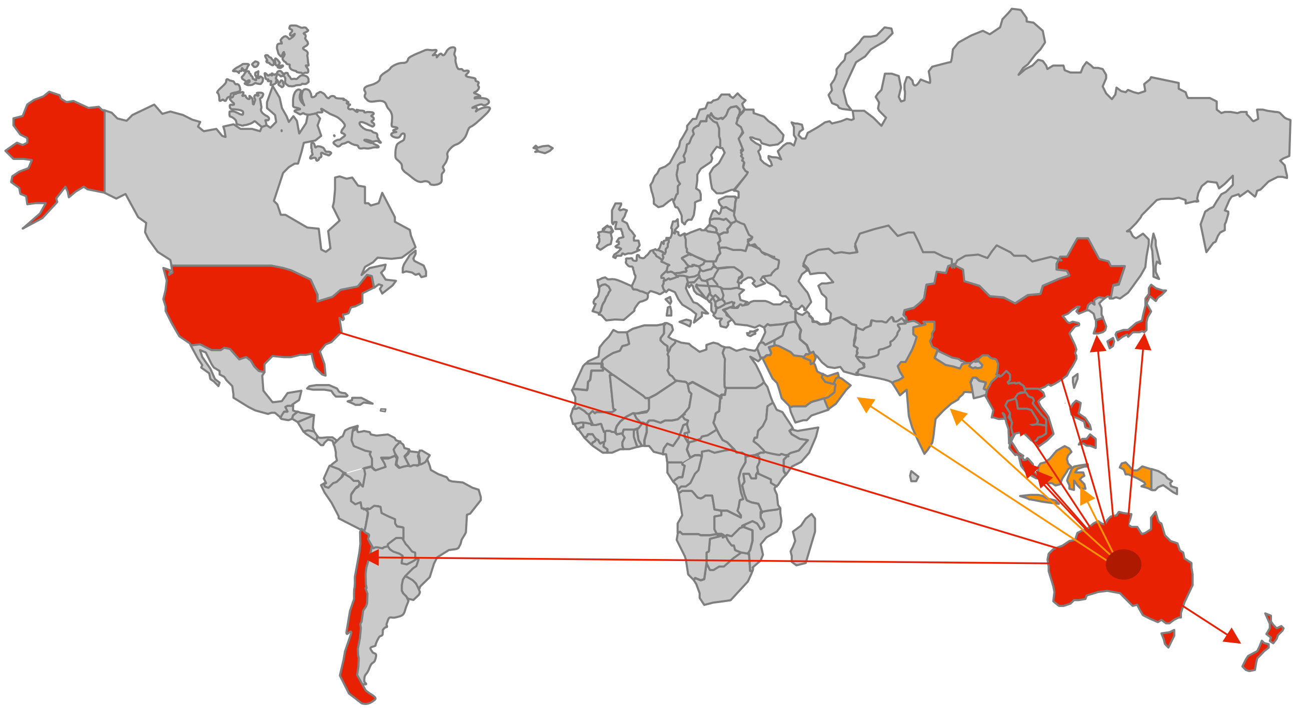


- "The advantage of Western Australia is the close proximity to SE Asia. The geographic location is a windfall. We get a good logistics advantage." Regional Director, multinational agribusiness
- "Some of SE Asia is easier to service out of WA - freight distances, timeframes. Indonesians work later in the day and are still in office at 9pm, that is 10pm here. East Coast it's midnight no one is answering the phone." Director, value added processor, medium
- "There is an advantage in WA's close location to South East Asia, especially to the expat communities in Singapore." Senior Manager, industry body
- "We have a freight and time advantage into Singapore from Western Australia." Chief Financial Officer, diversified agribusiness, large
- "Location is the one clear advantage. With close proximity to large, emerging markets. That is our advantage, not our product. We can put lamb carcasses on a midnight flight to Qatar and it arrives at 7am." Director, livestock agent, large
- "WA is the perfect location to supply into Asia. We can fly meat, produce and milk directly into Asian markets." Executive, cattle company, large

Source: SeaRates.com; Coriolis interviews and analysis

Excellent trade access

Western Australia has excellent trade access into many of the key markets through Australia's Free Trade Agreements



Current FTAs:

- NZ (ANZCERTA)
- Singapore (SAFTA)
- US (AUSFTA)
- Thailand (TAFTA)
- Chile (ACIFTA)
- ASEAN-NZ (AANZFTA)
- Malaysia (MAFTA)
- Korea (KAFTA)
- Japan (JAEPA)
- China (ChAFTA)

FTAs under negotiation (select):

- Gulf (GCCFTA)
- India (AICECA)
- Indonesia (IACEPA)

- "The [lamb] tariff into China is reducing to zero within 6 years. That will definitely help us to be more competitive." Manager, meat processor, large

- "As tariffs reduce we are more competitive. We need to compete on a level playing field." Chief Executive Officer, diversified agribusiness, large

Note: current as of May 2017; Source: Department of Foreign Affairs and Trade; Coriolis analysis

Offering three export meats

Western Australia has two export focused meats – sheep and beef

KEY EXPORT MEATS

SHEEP

- Low cost/low intensity system
- Falling domestic consumption; large surplus available for export
- Falling animal numbers
- Major global sheep trader (live and processed)
- Consistently Australia's largest exporter
- Opportunities for industry consolidation
- Live trade primarily Mid-East with falling numbers
- Historically strong UK market presents a real opportunity for profitable growth with Brexit

BEEF

- Low cost/low intensity system
- Small local population; large surplus available for export
- Secondary Australian producer overall
- Growing animal numbers
- Major live exporter from north of state
- Opportunities for improvement
- Opportunities for expansion of organic and Wagyu production
- Industry consolidating; likely further deals ahead

DOMESTIC

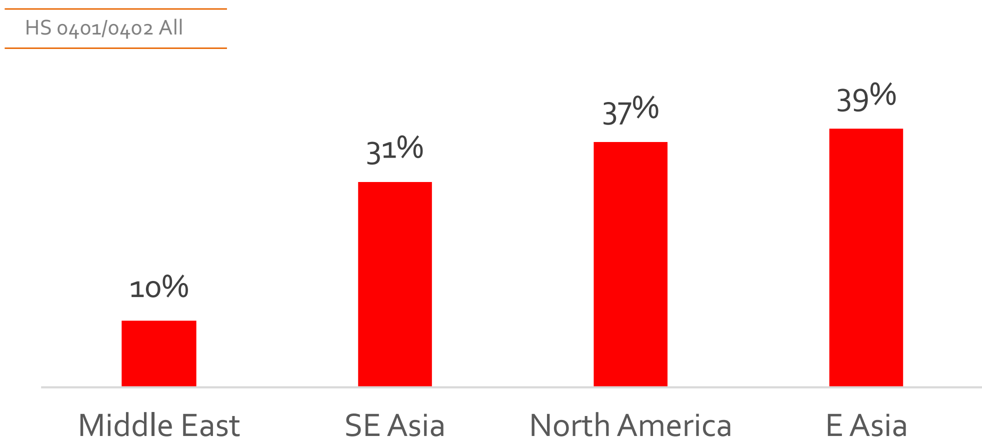
CHICKEN

- Insulated from fresh imports by biosecurity
- Modern, well developed industry
- Using global genetics (Ross/Cobb)
- Recent investment for growth targeting state shortage
- Exports minor

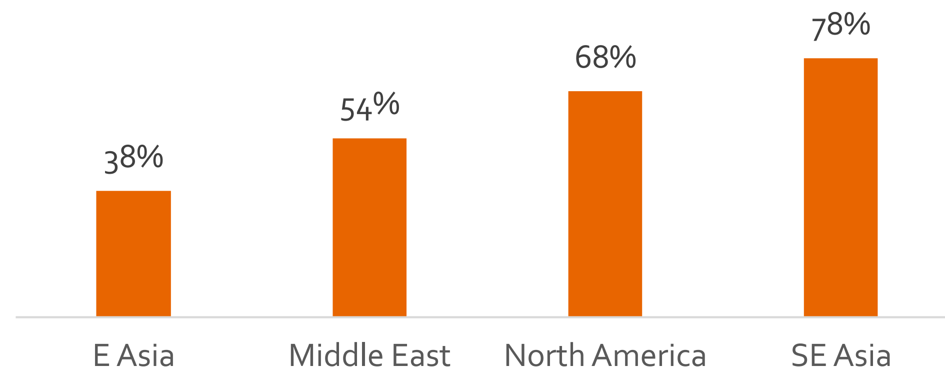
Strong share of meat in key meats

Australia has a strong position in regional markets in beef and lamb

Australia beef meat market share (% of value; 2015)



Australia sheep meat market share (% of value; 2015)



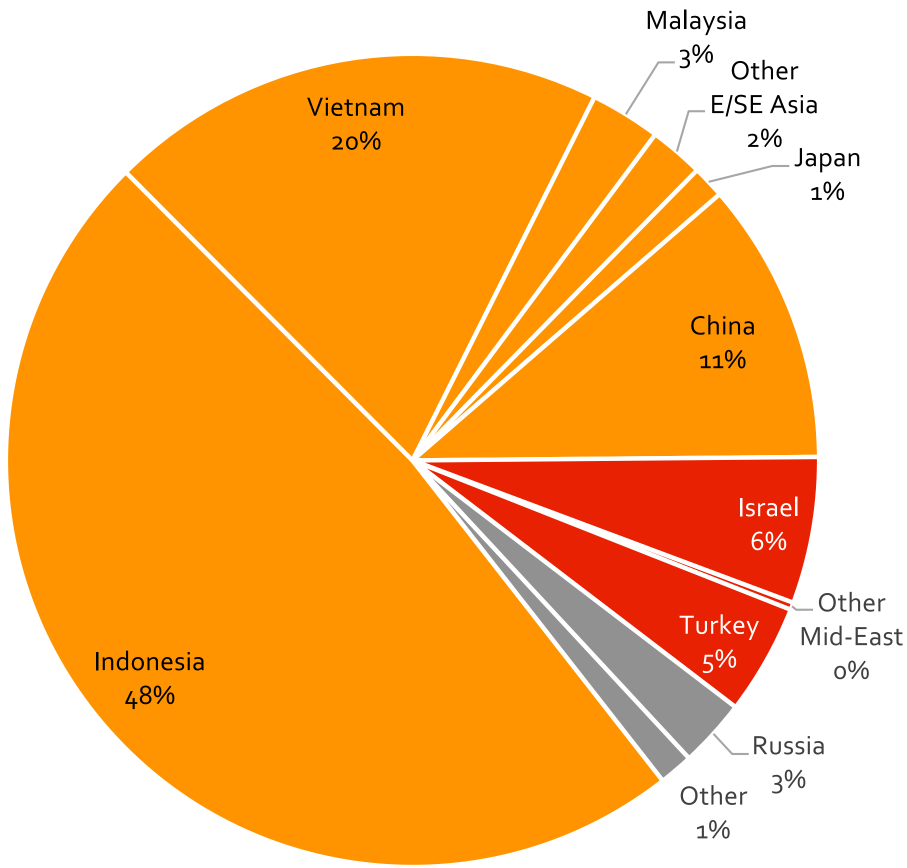
Australia offal market share (% of value; 2015)

Source: Comtrade; Coriolis analysis

Live cattle & sheep to Asia & Middle East

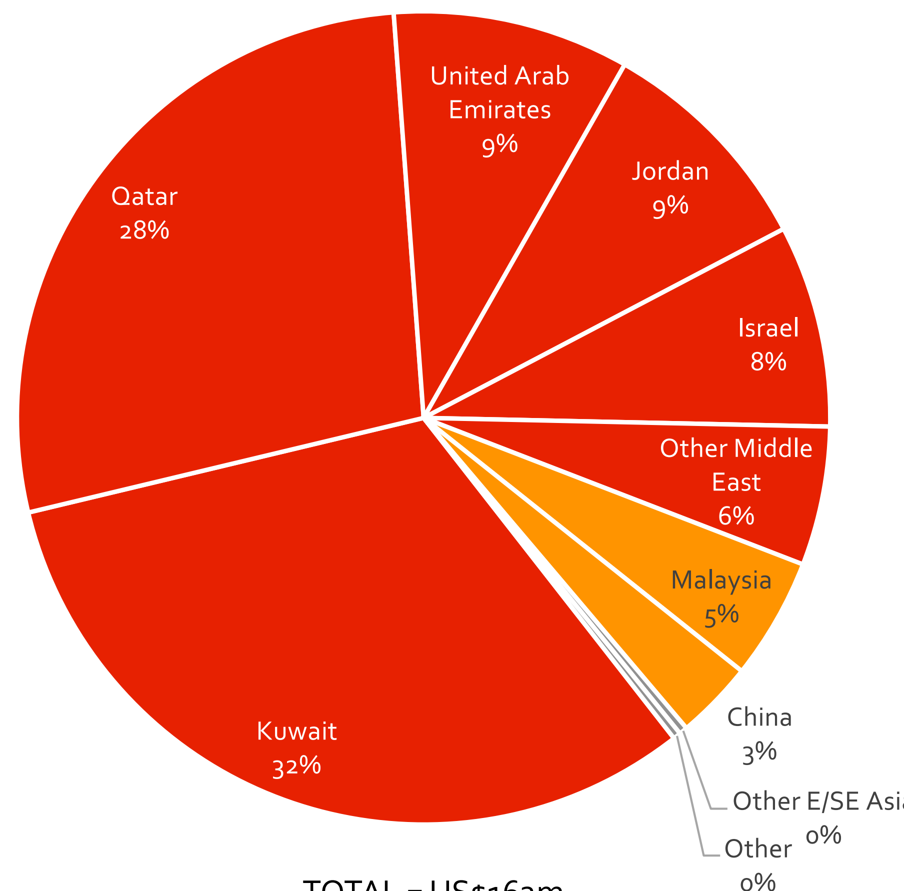
Australia also has a strong position in the live meat animal trade, predominantly to Indonesia, Vietnam, China and the richer countries of the Middle East

AU live cattle export value by destination (%; 2016)



TOTAL = US$2.2b

AU live sheep export value by destination (%; 2016)



TOTAL = US$162m

Source: UN Comtrade; Coriolis analysis

Macro drivers support market growth

High level macro drivers support solid export market demand for beef and moderate demand for lamb

Demand	Global production growth	Global consumption growth (all forms)	Global trade number/volume growth	X	Global trade price growth	=	Global trade value growth	Trade
Global beef demand	1.1%pa	-0.4%pa	Global trade number growth 1.5%pa (0 to 3%)	X	Global trade price growth 5.2%pa (4 to 7%)	=	Global trade value growth 6.8%pa (6 to 8%)	Live cattle trade
			Global trade volume growth 3.7%pa (3 to 5%)	X	Global trade price growth 3.7%pa (3 to 5%)	=	Global trade value growth 7.5%pa (6 to 9%)	Beef meat trade
Global sheep demand	1.4%pa	-0.1%pa	Global trade number growth 0%pa	X	Global trade Price growth 2%pa	=	Global trade value growth 2%pa	Live sheep trade
			Global trade volume growth 1.4%pa	X	Global trade price growth 2.6%pa	=	Global trade value growth 4.0%pa	Sheep meat trade

Note: see related sections for details; Source: United Nations; FAO; Comtrade; Coriolis analysis

2. Current Industry Situation

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Situation – key takeaways

Western Australia has real comparative advantage in the production of free-range, grass-fed animals in low intensity systems

SUITED FOR GRAZING

Large area of land well suited to high quality, grass-fed meat production

- Size of Western Europe with the population of Jamaica
- A dry Mediterranean climate
- Rain-fed areas that do not require irrigation

Experienced and efficient livestock farmers

- Large farming units by global scale
- Large production per farming unit
- Modern industry with solid systems
- Deep pool of experienced farm operators
- No agricultural subsidies

SAFE SUPPLY

- Western Australia (WA) produces a range of high quality, safe, eco-friendly, ethically produced livestock and meat products. WA livestock have high animal health status, free from major transmissible diseases, backed by supply chain assurance programs and an effective biosecurity system which includes mandatory traceability and surveillance.

CLOSE TO KEY MARKETS

Mid-sized producer but major exporter

- Small local population with flat consumption
- Industry focused on exports for 100+ years

Historically, most regions produced most of the meat they needed. However, rapid economic and population growth of parts of Asia - and "Westernisation" of the diet - has increased their demand for "Western" meat (e.g. beef). Growing regional production of intensively produced meat is insufficient to meet total demand, driving imports.

Western Australia is the natural and logical supplier of grass-fed meat to the tropical climate countries of South-East Asia and well positioned to supply East Asia and the Middle-East.

LIVE ANIMALS

Unlike most developed countries, Western Australia exports large numbers of live animals by ship to markets in South East Asia and the Middle East.

LIVE CATTLE

A large percent of the cattle produced in the north of the state are exported live. This is due to (1) the high cost to transport these animals south, (2) the low population density of the north making northern processing very challenging and (3) demand for live cattle for finishing in-market (e.g. Indonesia). The majority of WA cattle are produced in the Blue Tongue Virus Free Zone, with ports throughout the state that are available to load live stock for a myriad of export destinations. There is strong competition for cattle in the north.

LIVE SHEEP

The live sheep trade to the Middle East emerged in the 1970's driven by oil wealth and a strict reading of the Koran. Four forces are now moving against the industry, (1) competition from closer, low cost producers (e.g. Sudan), (2) a shift in most markets to imported, processed meat, (3) falling lamb numbers in Western Australia, and (4) the ongoing animal rights movement.

Situation – key takeaways

Western Australia has real strengths in beef and sheep meat into Asia and a niche position in other meats

FOCUSED ON THREE PRODUCTS

The Western Australian meat production system focuses on two key export meats where it has clear comparative advantage: sheep and beef. Goat and a range of other meats form a second tier of emerging opportunities.

BEEF

Global demand for imported beef is growing. Australia is the largest global beef supplier and is growing with the market. Western Australia is a significant beef producer, achieving long-term growth in stock numbers. Western Australia exported A$160m in beef (YE Mar-17), representing 2.2% of total Australian beef exports; the state has been achieving moderate export growth across the cycles. Western Australian beef exports go predominantly to East and South East Asia.

SHEEP MEAT

Australia and New Zealand dominate the global sheep meat trade. The market is growing moderately; chilled is more valuable than frozen and showing stronger growth. North America, Middle East and China are major destinations. Western Australia has the second largest flock behind New South Wales, but flock numbers continue to decline rapidly. Processing numbers are not declining as rapidly, however the trajectory for the future is unclear.

OTHER MEATS

Western Australia has interesting opportunities in other meats that may suit some investors. Chicken production is growing; replacing imports from the eastern states. Many in the industry see goat as an opportunity in the future.

Opportunities & challenges

Western Australia has a strong position overall in meat, with real opportunities going forward, but the industry is not without its challenges

Western Australian meat industry SWOT analysis (Strengths/Weaknesses/Opportunities/Threats)

Strengths

- Low cost, grass-fed beef and sheep production systems
- Growing production of intensively produced meats (poultry)
- Picturesque region, partially located in the temperate climate zone, with functioning environmental regulations and rule of law (i.e. "clean and green image")
- Long experience exporting sheep and beef
- 100+ year track record of supplying key markets with meats
- Well located for chilled and live exports to Asia
- In the same-or-similar time zone as most East and South-East Asian countries
- Strong regulatory systems and reputation for food safety
- High standards for animal welfare; trusted production conditions
- Strong biosecurity rules and regulations leading to low presence of key diseases such as foot and mouth disease, BSE (sheep, beef, chicken)
- Capabilities in breeding and growing cattle suited to the dry tropical north but with variable eating characteristics

Weaknesses

- Cattle throughput in processing sector flat-to-declining
- Sheep numbers in long-term decline
- Low processing scale relative to some other competitor regions
- High biosecurity levels prevent or limit access to some new global genetics
- Perceptions of high regulatory burden and/or slow processes and systems
- Significant trade/tariff barriers limit access into some markets
- Limited experience with high value, branded and processed meats & meal solutions
- Arable grain industry not currently optimised for feed grain production; feed costs higher than some competitors
- Majority of northern cattle currently destined for low value markets
- Lack of population and infrastructure in northern regions
- Lack of ready or reliable population of "guest workers" (vs. Spain or California)

Opportunities

- Ongoing negotiations of high quality Free Trade Agreements and access protocols
- Growing middle class across developing world particularly Asia
- Improving access for Western Australia meat in Chinese market
- Genetic improvements to increase animal productivity and feed conversion
- Increased demand for named breeds in key markets (e.g. Wagyu, Angus)
- Improved feed-lotting systems
- Increased use of technology
- Processing plant automation
- Ongoing performance improvements across the total supply chain
- Consolidation/rationalisation in beef and sheep processing
- Improved consumer facing export branding in lamb and beef
- Increased productivity on cattle stations and large pastoral leases
- Better systems and infrastructure to move cattle from North to South (nearer to feed, large processors, labour and "food grade" ports)

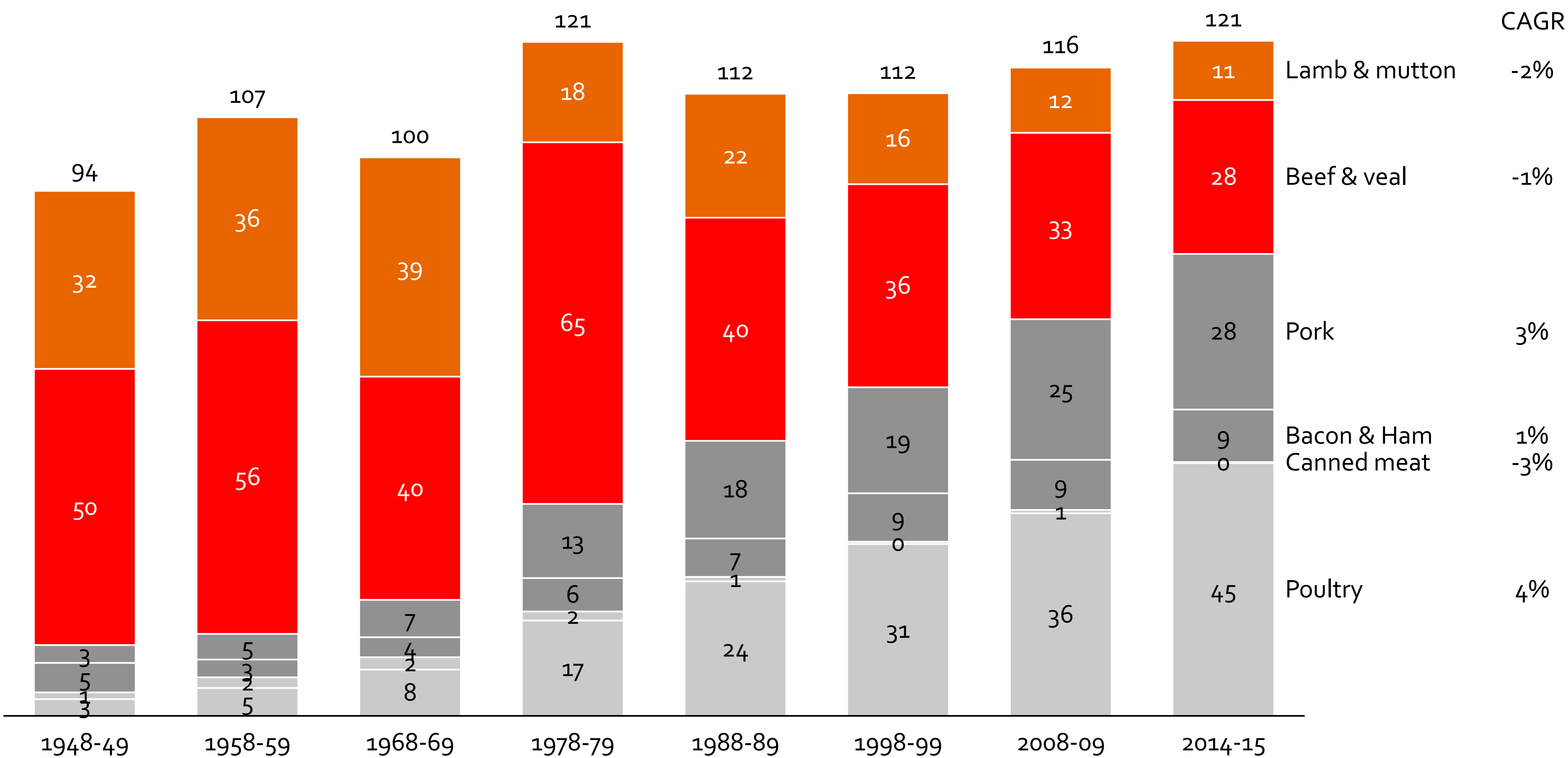
Challenges or Threats

- Limited water available in some regions of the South (e.g. processing, feedlots)
- Ongoing "animal right revolution" and protesters in the streets against live trade
- USA and Brazil gaining share in key markets
- Regional politics and corruption impacting market access
- Continued decline in consumption in lamb in developed markets
- Potential for disease outbreak impacting industry or trade access
- Climate change; increased inter-year variability; increased drought risk
- Increasing costs of electricity and water
- High cost of labour overall
- Low pool of labour in rural areas; lack of skilled seasonal labour
- Sustained rise in grain prices increasing feed costs

Shifting domestic consumption enabling export

Australian consumers are shifting away from beef and lamb freeing up volume for export

Average Australian meat consumption per capita (kg/person; 1949-2015)

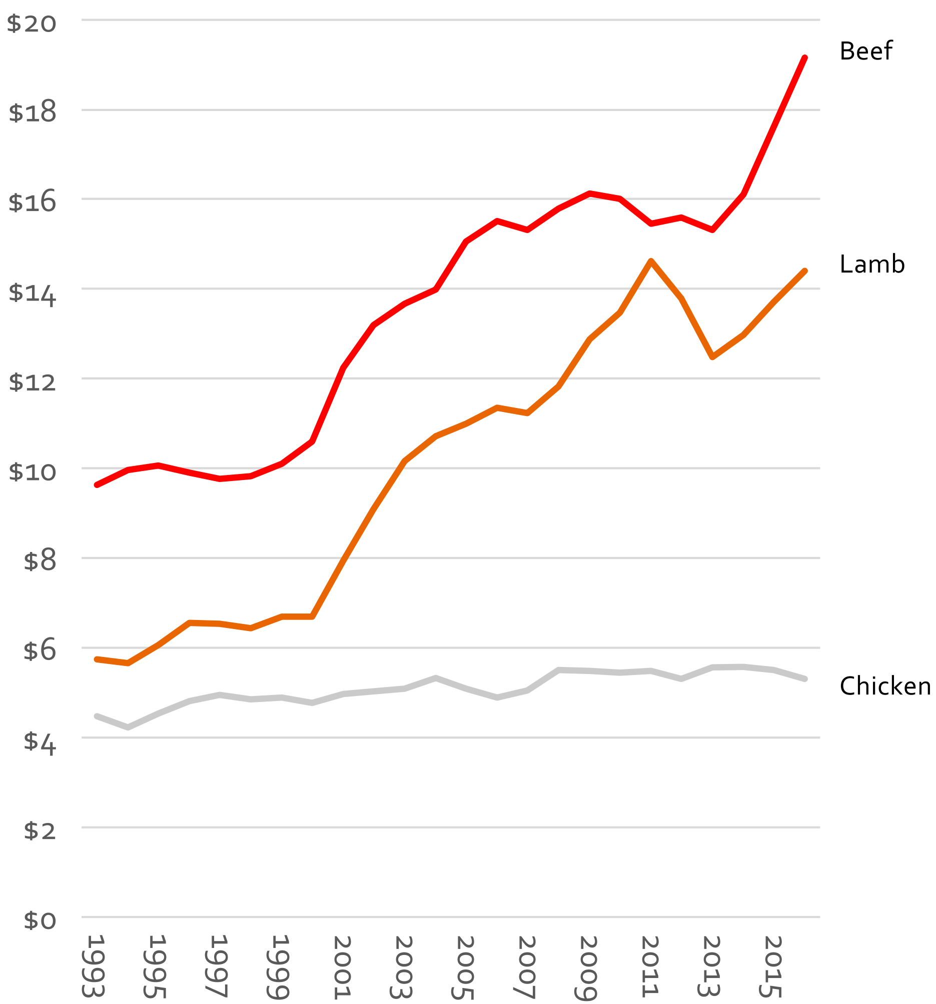


Source: ABS; MLA; DAWR; ABARES; Coriolis analysis

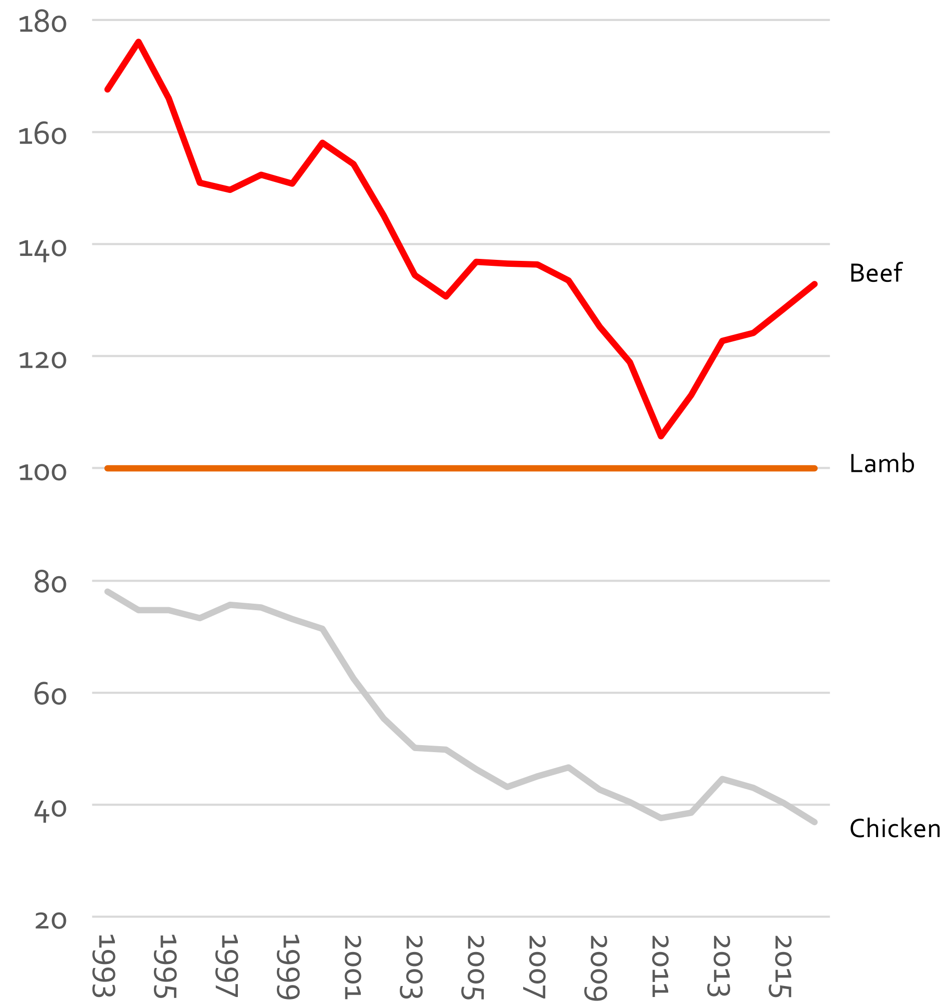
Transitioning to premium prices

Beef and lamb are transitioning from everyday to premium price meats driven, in part, by growing export demand

Australian retail prices of meat per kg (inflation adjusted; $A)



Average price per kg indexed to sheep meat (sheep=100; $A)



Source: ABARES; Coriolis analysis

Using three different production systems

Western Australia has three distinct meat production systems

FREE-RANGE GRASS-FED

- Animals graze freely on open land for whole of life
- Low cost, low intensity system
- Leverages Western Australia's large amounts of land
- Primarily sheep, cattle and goats
- May use some amounts of seasonal supplementary feeding
- Described and marketed as premium, but currently receives no premium in the market (in most cases)
- Opportunities to certify more land as organic (as it basically is already); organic meat sells at a premium

GRASS-FED THEN FEEDLOT

- Animals graze freely on open land and then moved to contained feeding prior to slaughter
- Primarily cattle, though some sheep
- Most feedlot operations are small by global standards
- Unit size partially a function of regulations and water pricing system
- Cyclical industry returns
- Industry needs strategy to access more low cost feeds

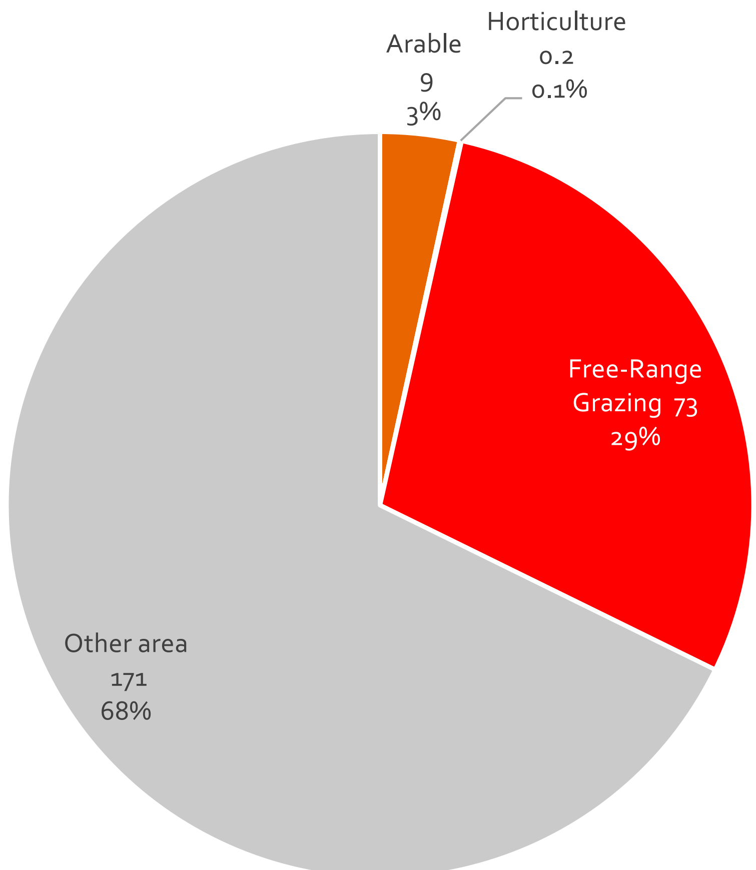
INTENSIVE FEEDING SYSTEMS

- Animals housed in contained production units
- Using modern high input/high output production systems
- Primarily targeted at domestic markets
- Exports minor; opportunities in specific niche markets
- Key meats protected from global competition by biosecurity (hence profitable)
- Poultry growing strongly

Changing land use impacting production

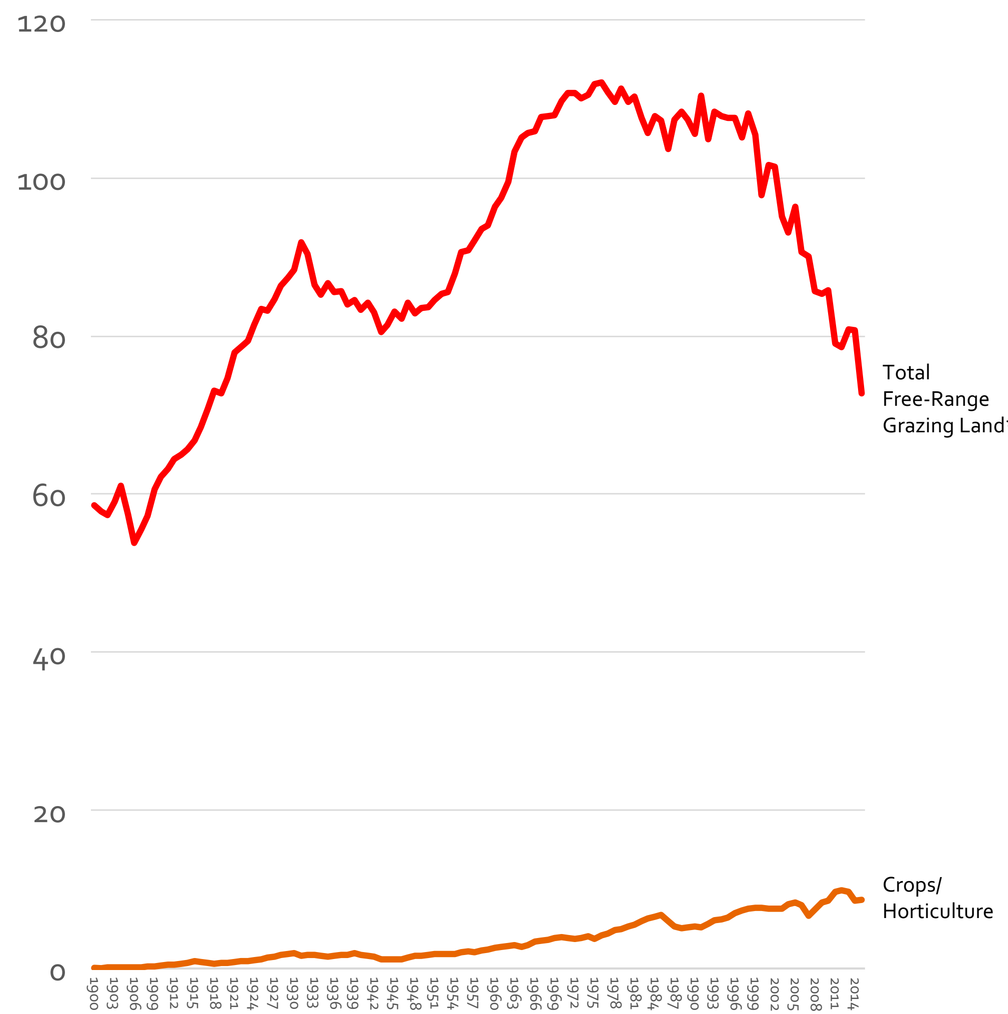
The total area used for free-range/grass-fed production systems is declining gradually, driven by high level government decisions; arable crop use only 3% of the available land and is growing

WA land use by type (ha; m; 2015)



TOTAL = 253m hectares

WA land use by type (ha; m; 1900-2015)

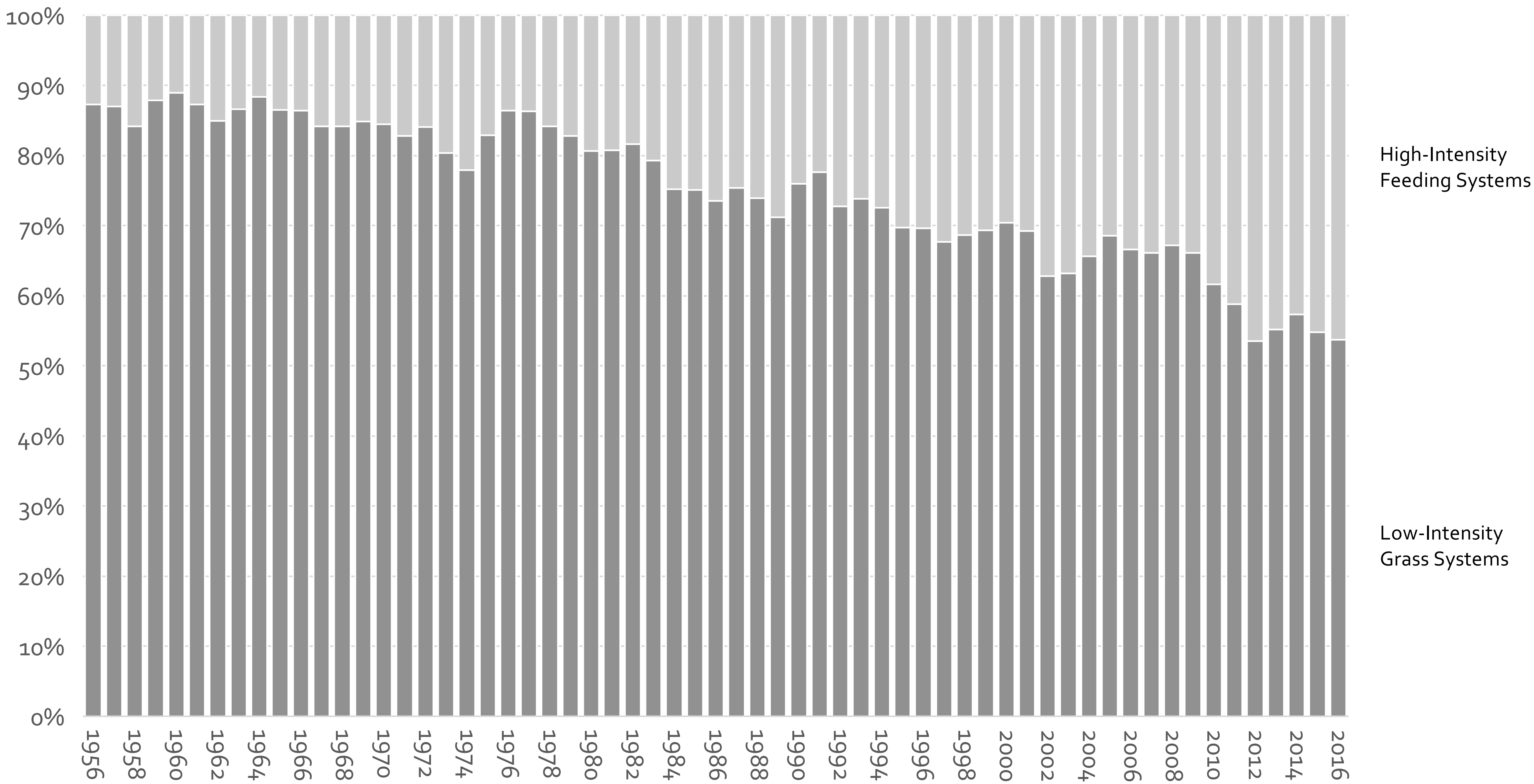


* includes "other" land on agricultural properties; Source: various ABS publications and reports

Shifting to intensive

Western Australian meat production is undergoing a long-term shift to intensive systems

Share of Western Australian meat production (excluding live exports) (% of tonnes; 1956-2016)

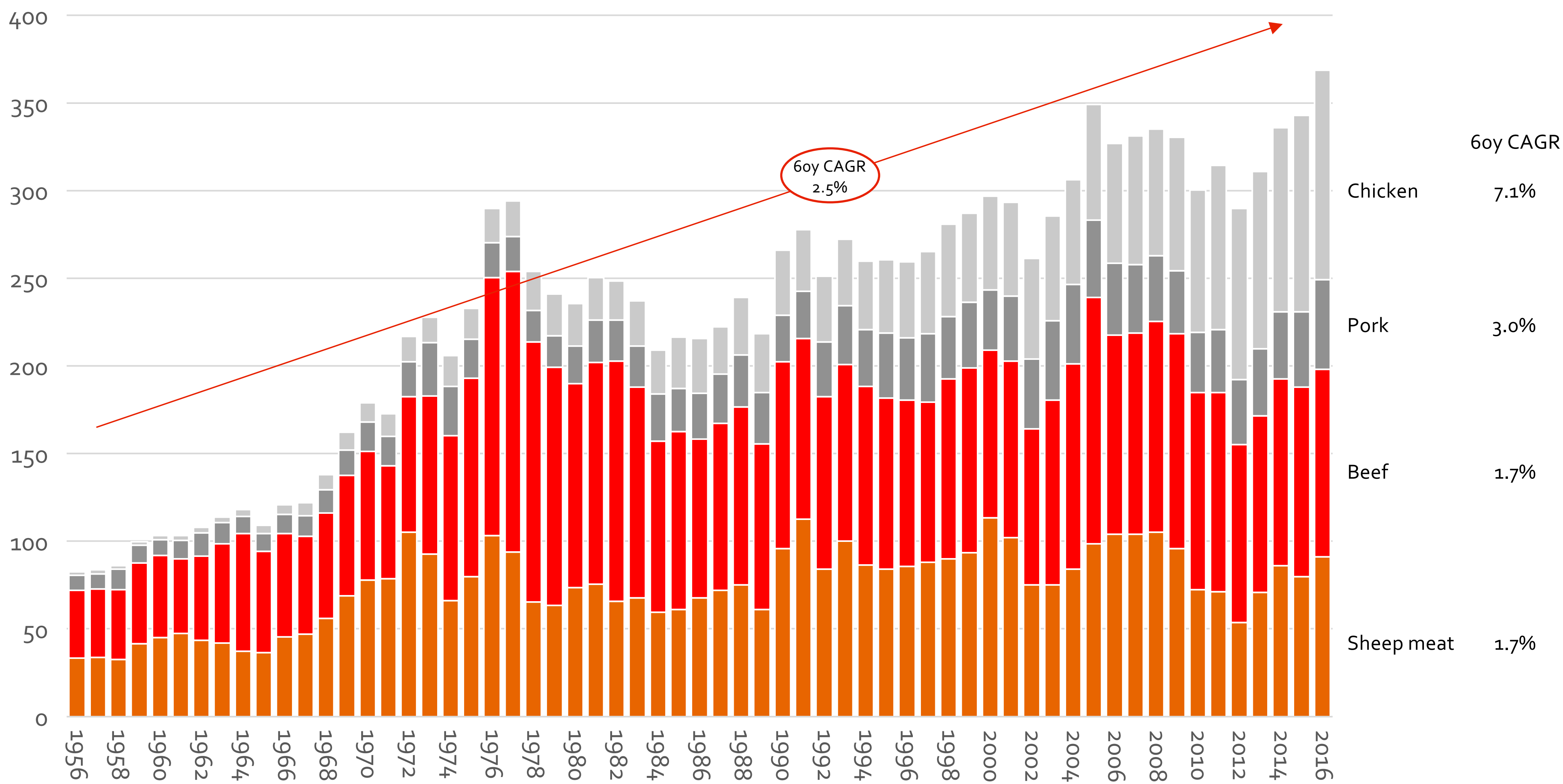


Source: ABS; MLA; ACMF; Coriolis estimates (extrapolation of missing data)

Growing meat processing production

Western Australian meat production is growing, driven by chicken (7.1%)

Western Australian meat production (excluding live exports) (t; 000; 1956-2016)

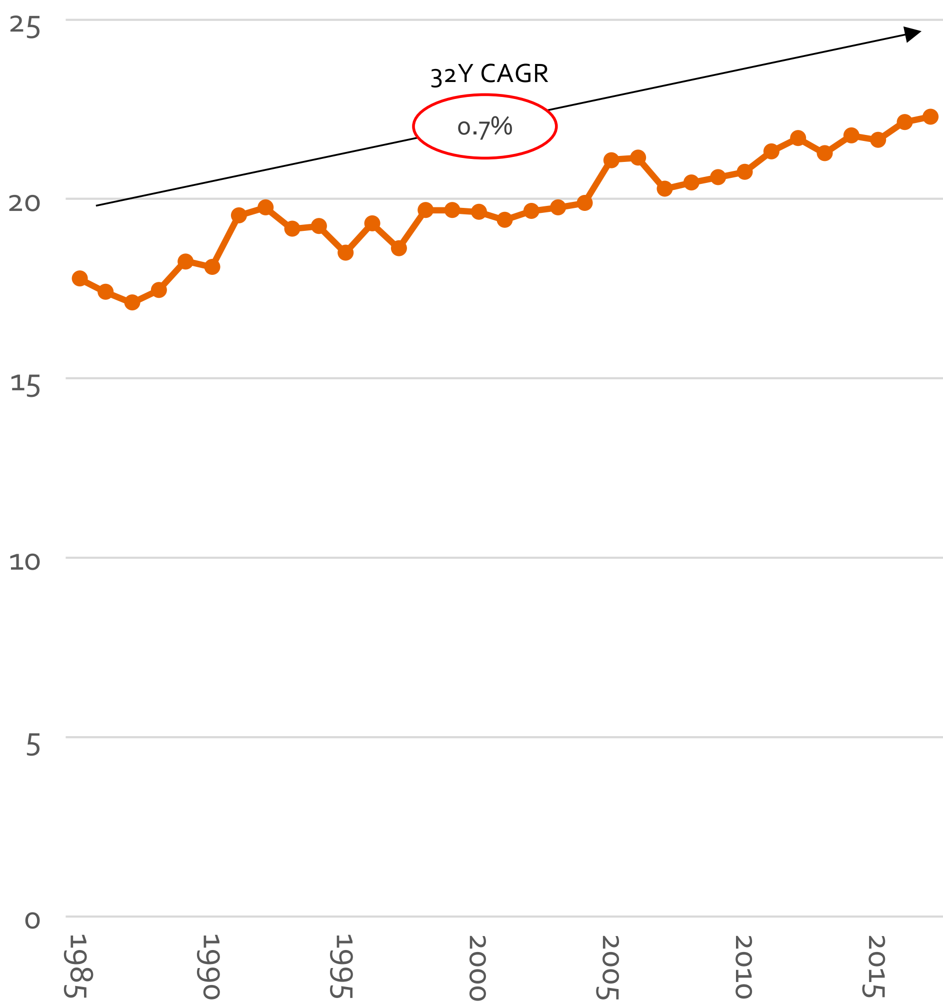


Source: ABS; MLA; ACMF; Coriolis estimates (extrapolation of missing chicken data)

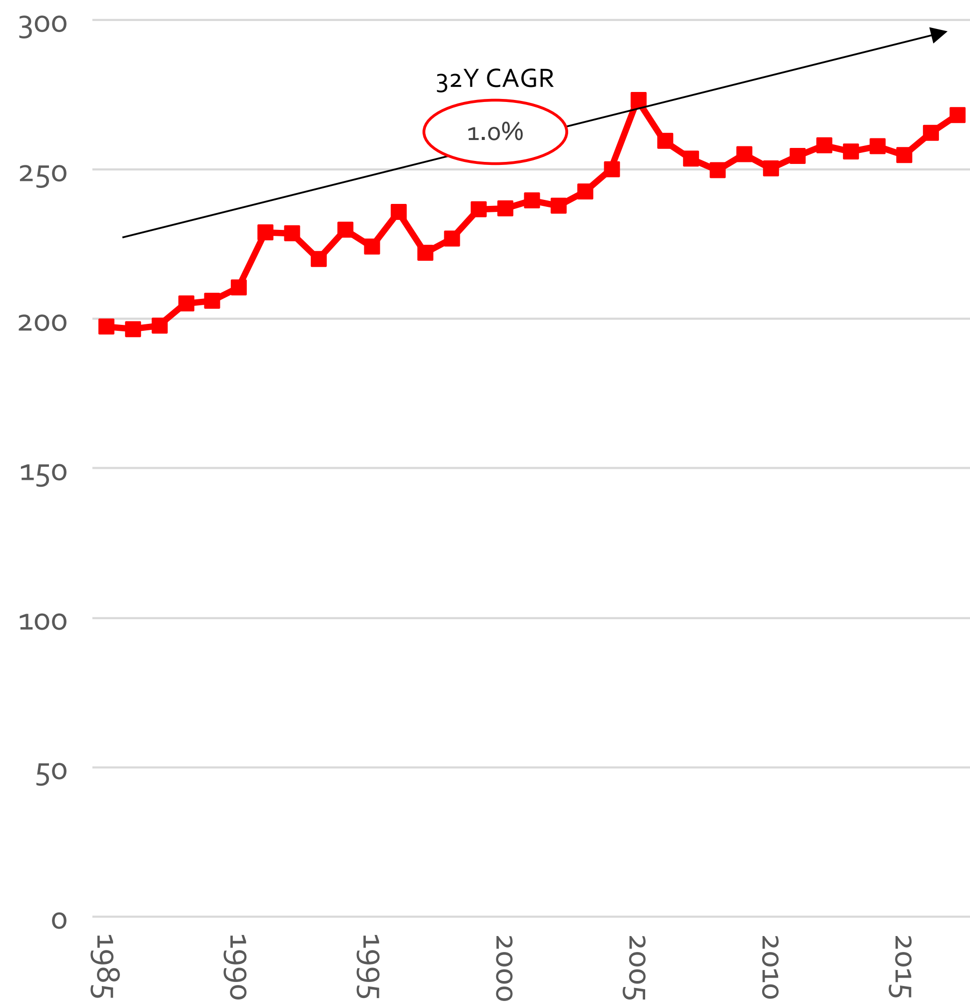
Slaughter weights increasing

Slaughter weights are showing consistent growth over time

WA sheep meat yield per carcass (kg/animal; 1925-2016; 2017p)



WA beef meat yield per carcass (kg/animal; 1925-2016; 2017p)

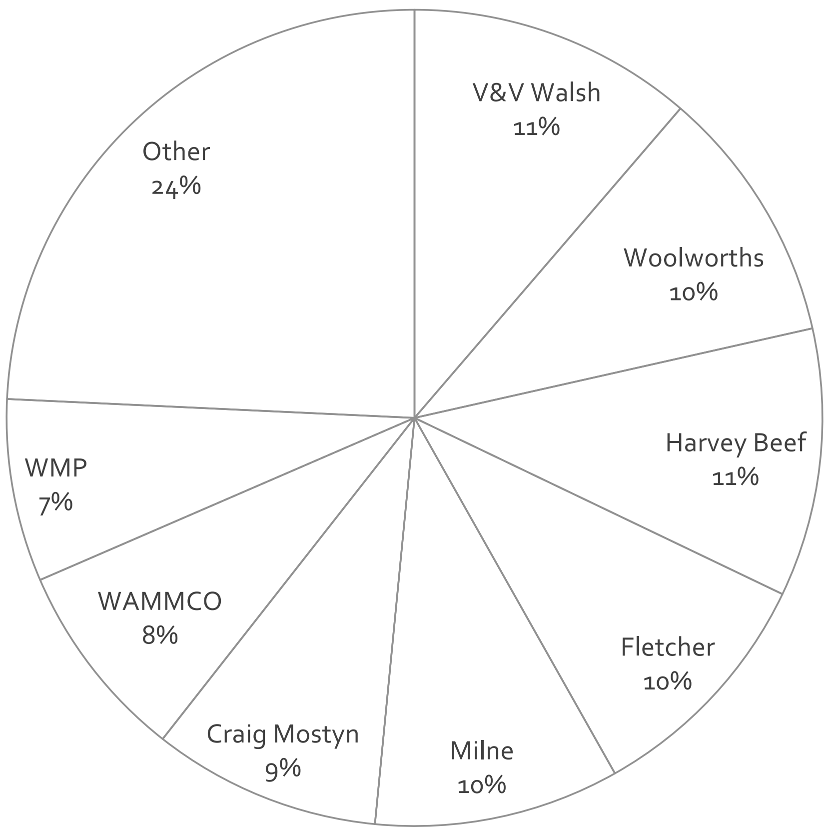


Source: various ABS publications and reports; Coriolis analysis

Stable employment across total industry

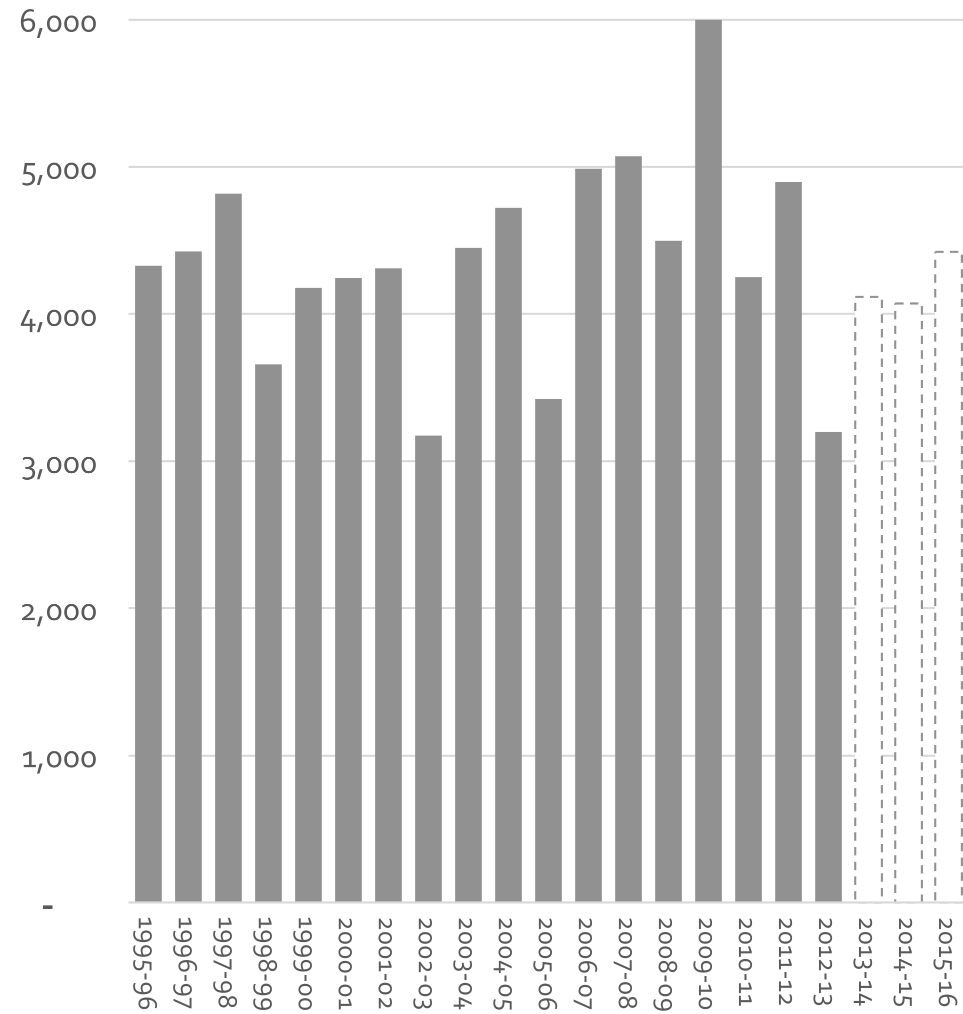
Employment in the total meat processing sector (including poultry and BHS*) is stable, though cyclical

Western Australian meat processing employment (#; 2016)



TOTAL = 4,400

Meat processing employment in Western Australia (#; 96-16)

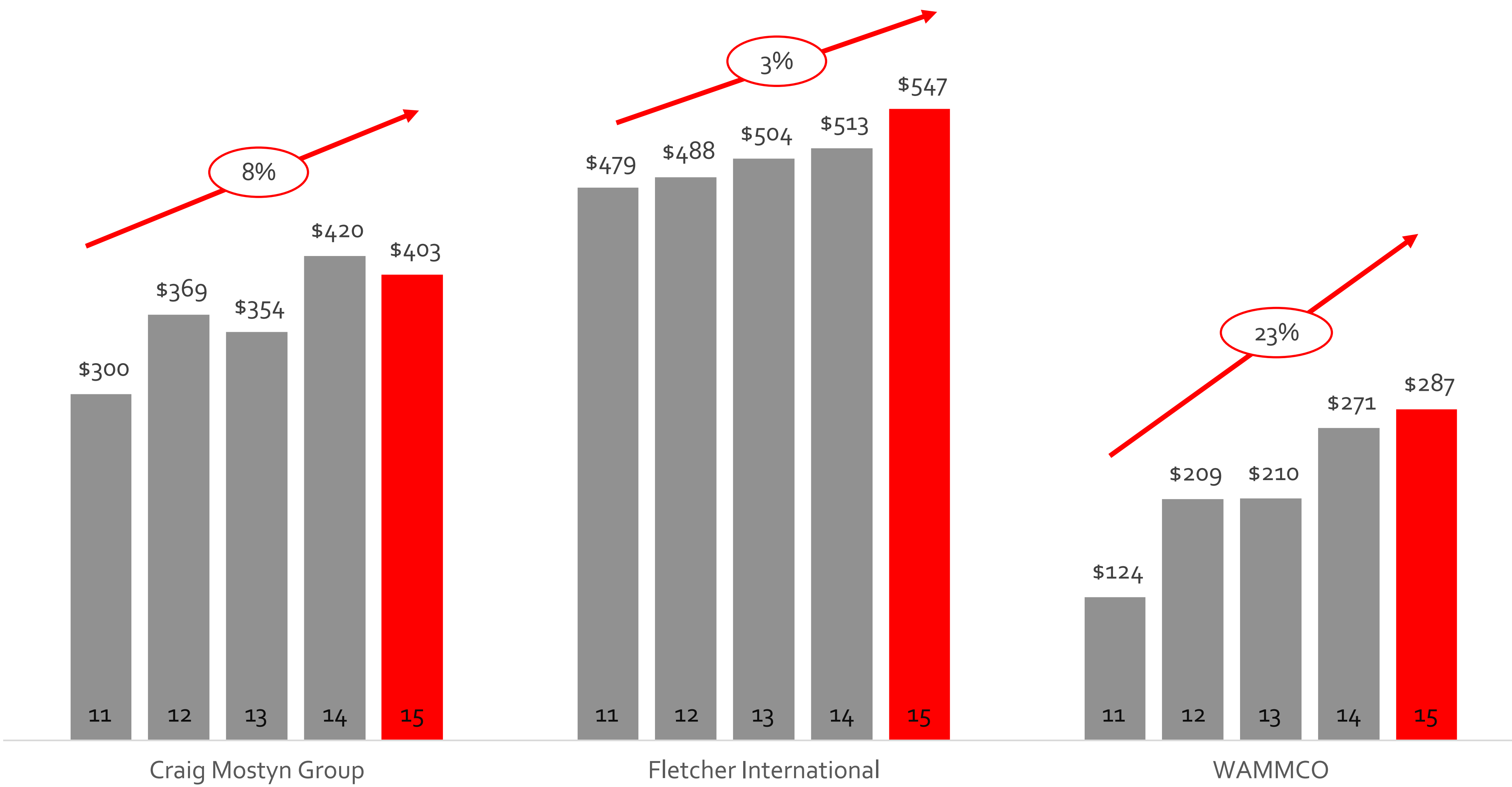


Note: data includes chicken & *BHS (bacon, ham and smallgoods); Source: DAWR; ABS; various company reports and websites; Coriolis interviews; Coriolis estimates

Leaders growing revenue

Leading Western Australian meat processing firms are achieving revenue growth

Five year revenue growth: select firms with significant WA meat activities (A$; m; 2011-2015)

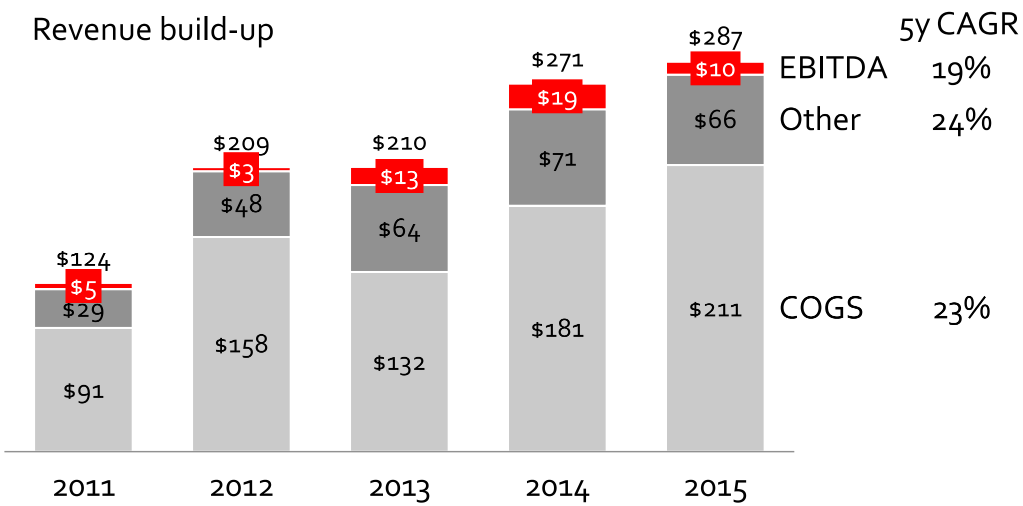


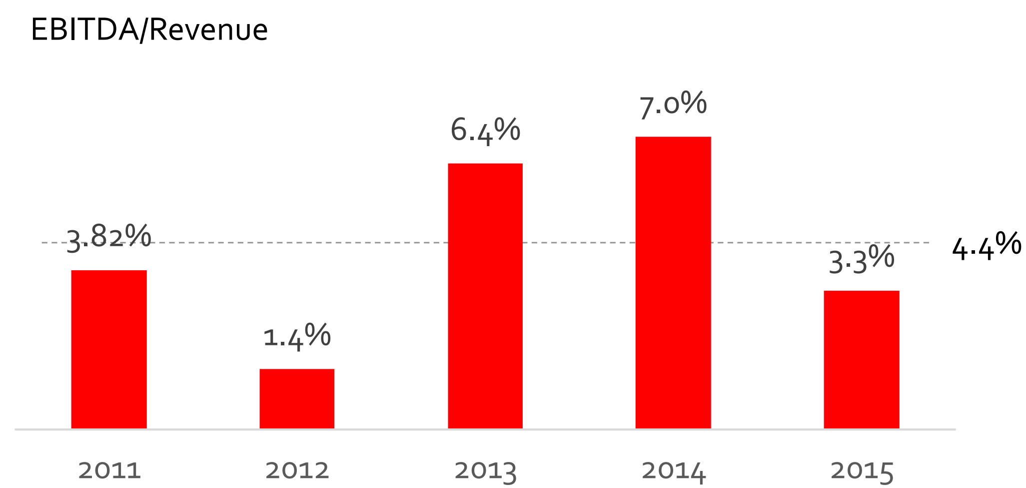
Note: both WAMMCO and Fletcher have an additional plant on the East Coast; Source: ASIC filings; firm annual reports; IBISWorld; Coriolis research and estimates

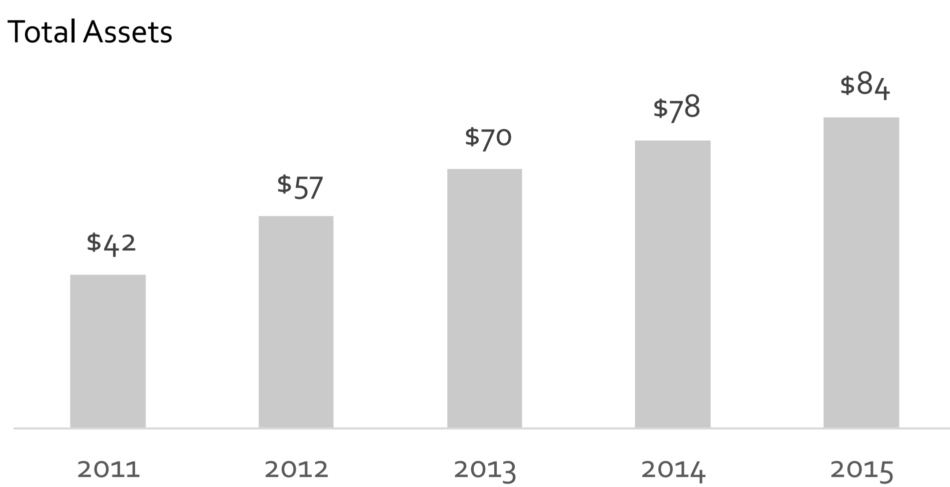
Profitable

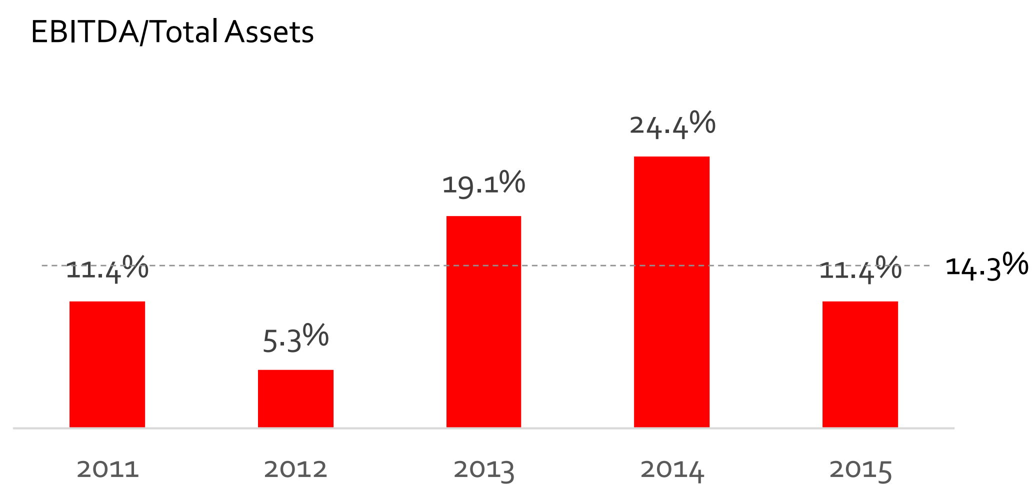
Western Australian meat processors can be profitable

EXAMPLE: Financial performance of Western Australian Meat Marketing Co-operative (A$; m; 2011-2015)







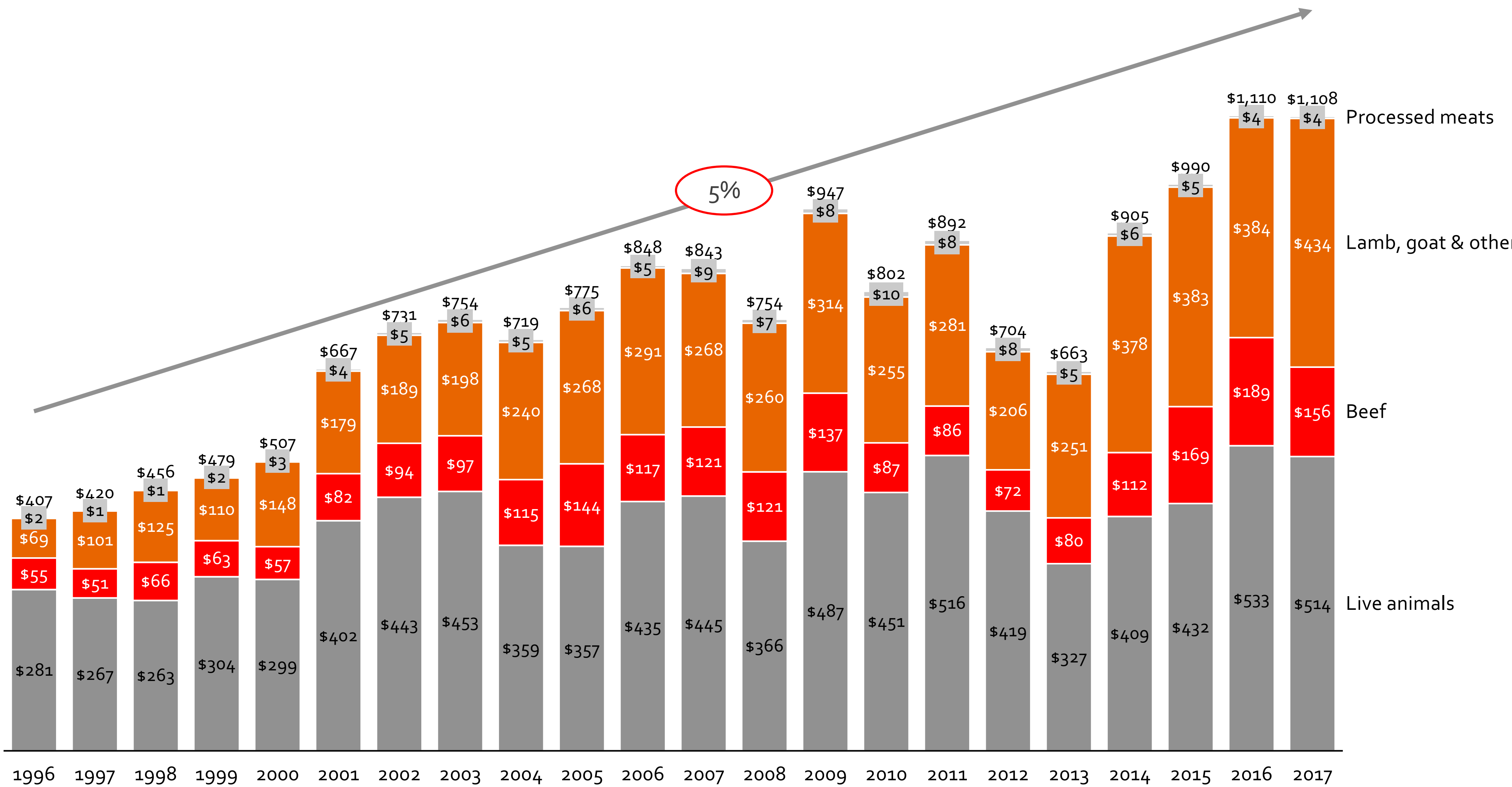


Note: WAMMCO purchased a plant on the East Coast during the period; Source: ASIC filings; firm annual reports; IBISWorld; Coriolis research

Growing exports

Western Australia is achieving meat export growth

Western Australian meat and live animal export value (A$; m; 1996-2017*)

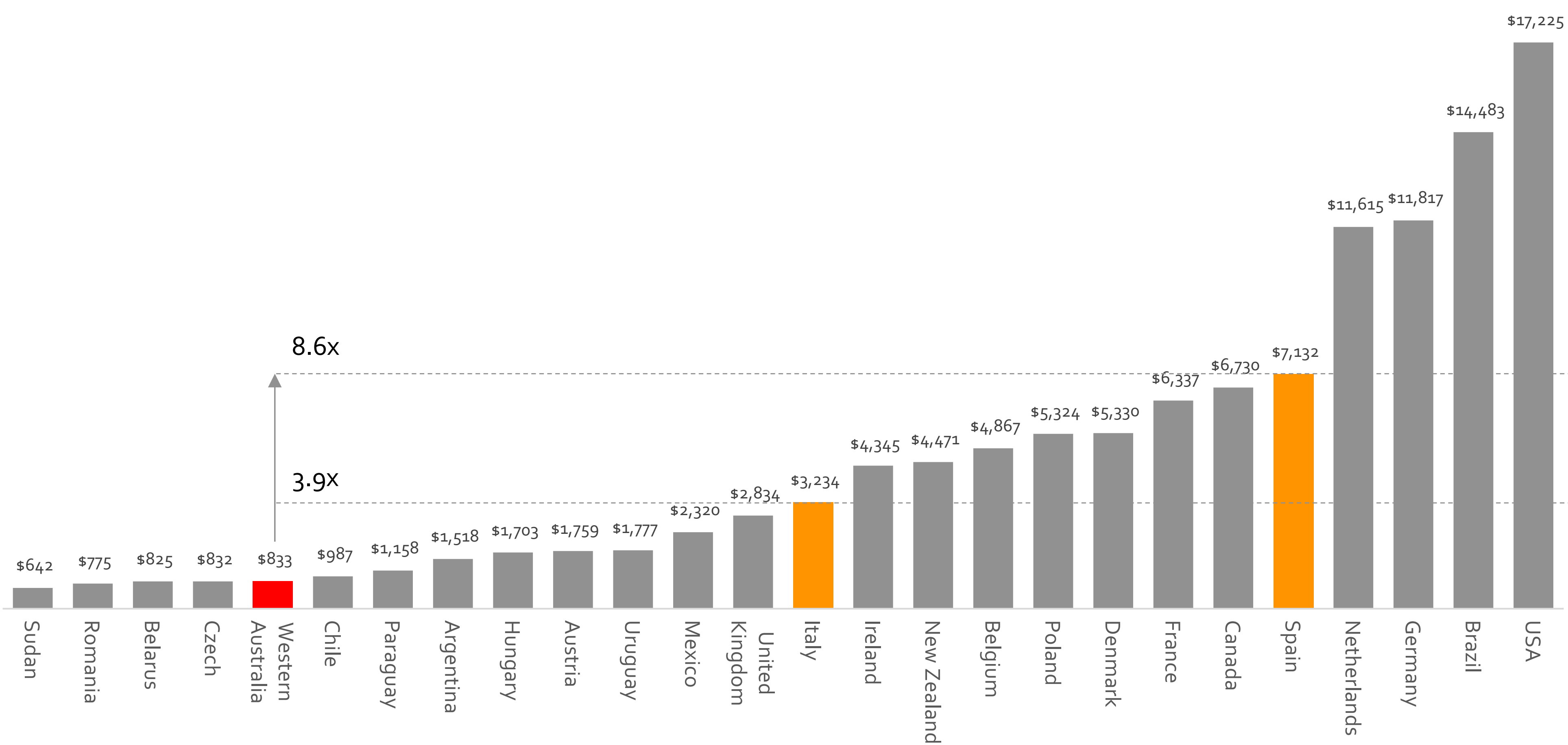


* 2017 uses TTM 4/16; all others YE June; Source: ABS; Coriolis analysis

Further export growth is possible

A wide ranging peer group suggests Western Australia can export more

Meat & live animal export value (US$; m; 2016*)



* or as available; WA uses A$1=US$0.75; Source: ABS; Comtrade; Oanda; Coriolis analysis

Western Australia can produce more

Western Australia has the resources, skills, systems and reputation needed for further success in meat

Resources

Huge land area
(the size of Western Europe)

Only limited amount of land currently farmed to any extent

Only 3% farmed in crops

Small local population to feed
(2.6m people)

Major grain & feed exporter

Skills & Systems

Educated population

Modern farming systems

High productivity

Deep pool of capacity

Efficient logistics

TRUE AUSSIE BEEF&LAMB

Reputation

"Brand Australia" recognised in key markets

Lack of key animal diseases

Strong biosecurity

High levels of food safety

Modern processing plants

Photo credit: Courtesy Graham Laitt; True Aussie

Well organised with a strong voice

The Western Australian meat industry is well organised, with a robust industry structure that gives it a strong voice with government

KEY NATIONAL ORGANISATIONS

KEY STATE ORGANISATIONS

KEY REGIONAL ORGANISATIONS

Source: Coriolis interviews and analysis

3. Investment Themes

This report is designed to flow from the high level "big picture" (macroeconomic) through to market and product details (microeconomic) and then to details about specific companies and specific transactions (firm). Both the total document and individual products sections are organised this way.

page 4 — 1. Core Opportunity

page 13 — 2. Current Industry Situation

page 31 — 3. Emerging Investment Themes

page 61 — 4. Live Cattle

page 82 — 5. Beef

page 106 — 6. Live Sheep

page 128 — 7. Sheep Meat

page 153 — 8. Other Meats

page 162 — 9. Key Firms Profiled

page 193 — 10. Appendix

Attracting global investment

Western Australia meat and livestock industry is attracting international investment, particularly from Asia and the Middle East

SHANGHAI CRED REAL ESTATE STOCK CO., LTD.

Agrium

HIJAZI & GHOSHEH

FANDA AUSTRALIAN LIVE CATTLE INDUSTRIAL

FULIDA GROUP

KUALA LUMPUR KEPONG BERHAD

terra firma

AL HOMAIZI GROUP

ZHEJIANG TIANMA BEARING GROUP OF COMPANIES
TMB

CK Life Sciences Group

Investment along supply chain

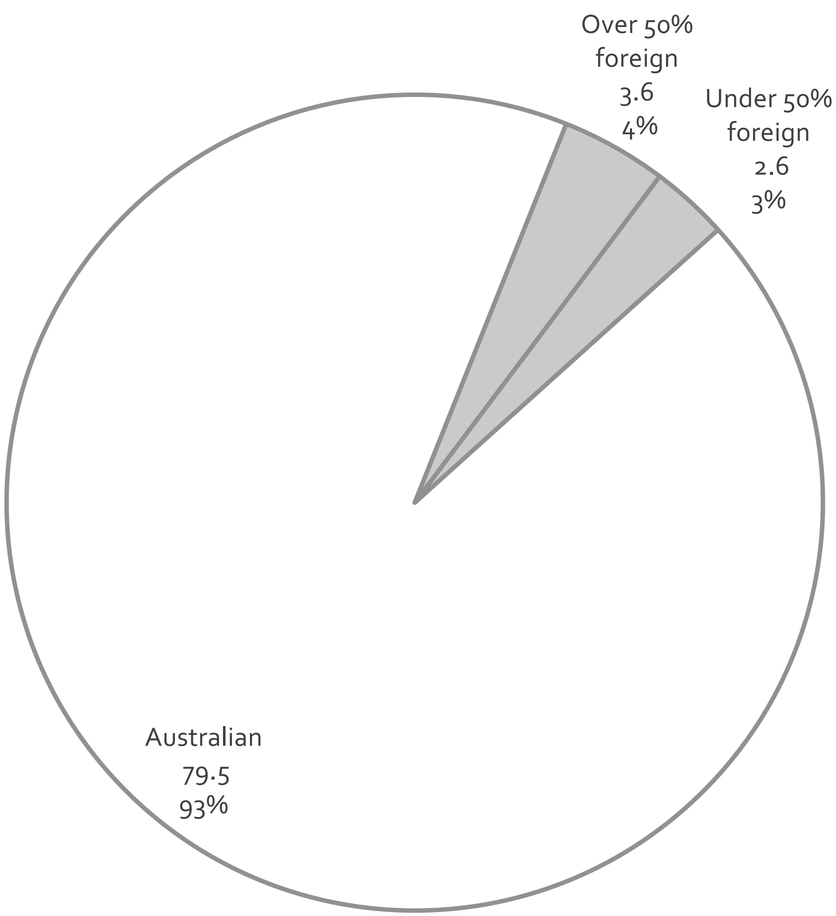
Western Australia's meat sector has a broad range of firms investing across the entire supply chain

Note: overlap exists, especially in processing; Source: various company websites; Coriolis analysis

Primarily local ownership

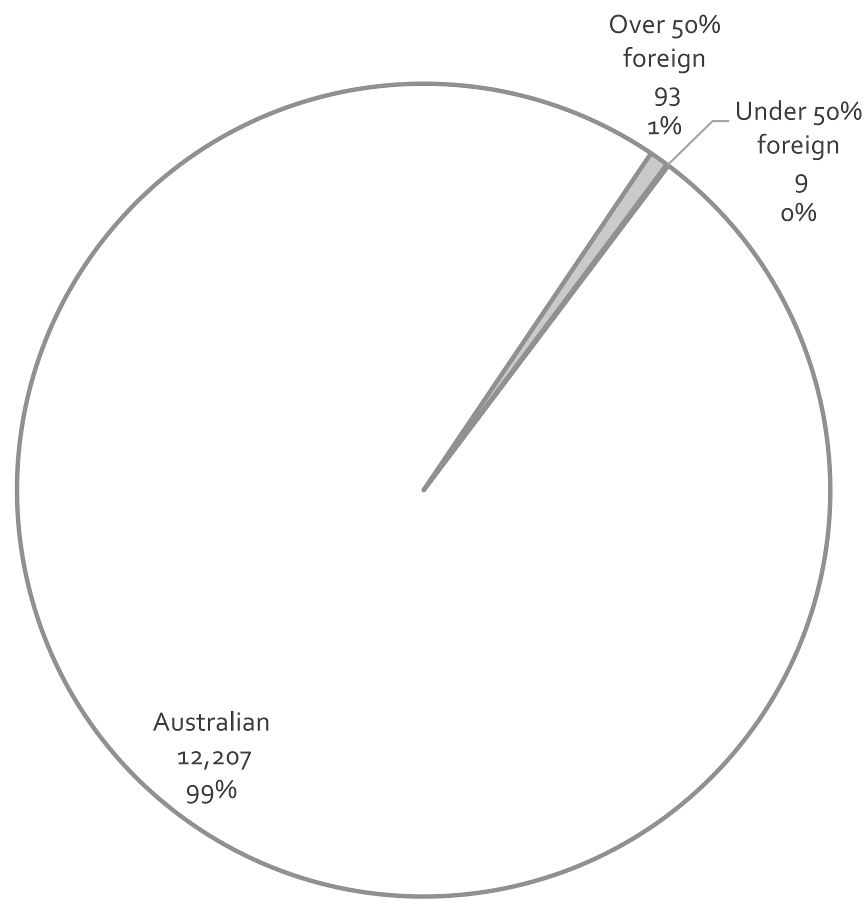
Most Western Australian agricultural land and agricultural businesses are controlled by Australians; limited foreign investment to date accounts for 1% of businesses and 7% of land (both owned and leased)

Total WA agricultural area by control (ha; m; 2013)



TOTAL = 85.8m hectares

Number of WA agricultural businesses by control (2015)



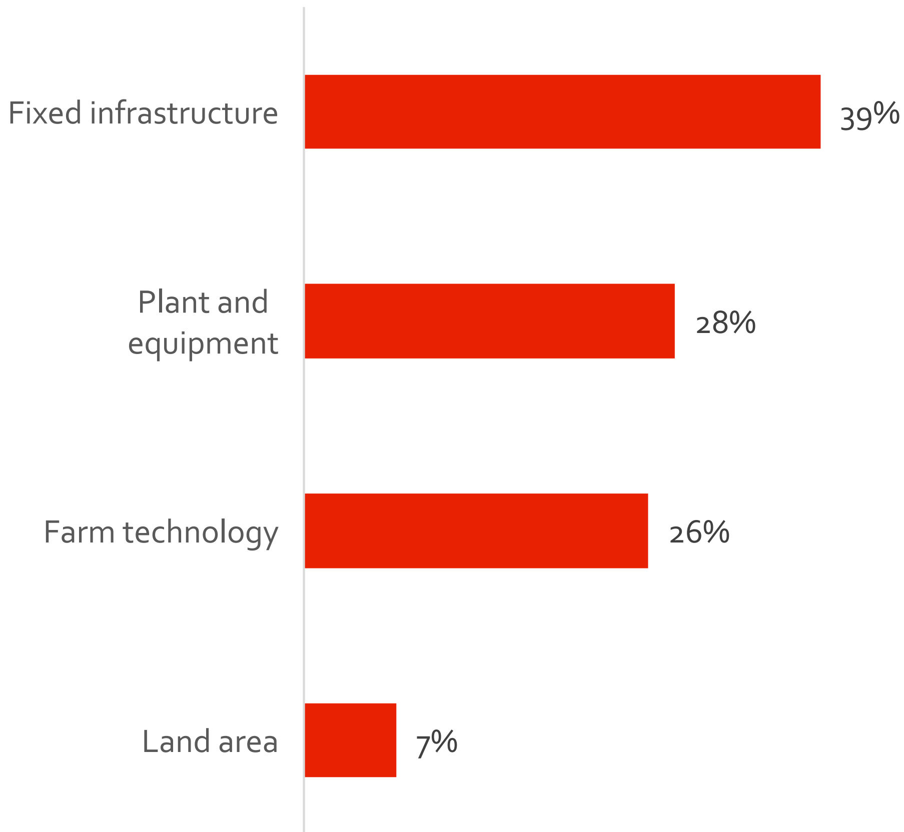
TOTAL = 12,309 agricultural businesses

Note: data is control of land not ownership; land may be long-term lease; 2013 is latest available data; "Australian" includes government; Source: ABS (7127.0)

Investment in farm operations

Western Australian farmers are constantly investing in their businesses to increase capacity and improve productivity

WA farmers' investment intentions (intend to invest; 2017)



"To get productivity increases we have **invested** in our stations. By increasing water points, improving pasture management, fencing and genetics, we can turn off more cattle." Executive, cattle company, large

"We expanded by buying out the neighbours. Consolidation continues as the drivers of scale are just as strong as ever." Sheep & grains producer, large

"Put it this way, I'm not coming across anyone who is NOT **investing.**" Industry advisor

"We have **invested** a lot to fully utilise our pasture. Investing in water is important. A bore is $20,000, then the controllers and storage $80,000, but you can get another 500 head and payback is 5-6 years." General Manager, cattle company, large

Note: survey includes all types of farming; Source: CommBank Agri Insights, May 2017; Coriolis interviews and analysis

High-profile Australian investment in WA farming

Western Australia farming operations have proved attractive to both established operators and new investors

INVESTOR	OWNERSHIP	DESCRIPTION	WA OPERATIONS
Australian Capital Equity	Kerry Stokes	Cattle operations in SA and WA; 780,000 ha; 60,000 head of cattle, currently restocking	Mt House Station – 370,000 ha; acquired in 2016; $20m Napier Downs – 400,000ha; acquired in 2015; $30m
CC Cooper & Co	Cooper family	Grain, hay and sheep operations based in Jamestown, South Australia; interests also in NSW	Madura Plains – 712,000 ha; 33,000 head of sheep; acquired in 2016 from Jumbuck Pastoral; $10m
Dunkeld Pastoral Co	Allan Myers QC	Sheep and beef operations in Western Victoria, NT and WA; 8,800 ha over 16 parcels of land	Kimberley aggregation – 770,000 ha
Hancock Prospecting	Gina Rinehart	Mining company based in WA; owned by Australia's richest woman; recent expansion into beef, wagyu and dairy operations across Australia; now one of biggest cattle producers in Australia	Fossil Downs; 400,000 ha; acquired in 2015; $30m Liveringa – 265,000 ha; acquired 50% in 2014 Nerrima – 203,000 ha; acquired 50% in 2014; $40m for both, later acquired remaining 50%
Heytesbury Cattle Co.	Paul Holmes a Court	Part of Heytesbury Group which includes Vasse Felix winery; 6 stations covering 2.5m ha across NT and WA; one of Australia's largest cattle producers	Flora Valley – 824,000 ha; 42,000 head of cattle; managed in conjunction with Gordon Downs and Nicholson Stations
Jumbuck Pastoral	MacLachlan family	Sheep operations across 8 stations; SA, NSW and WA; 320,000 merino sheep across 4.5m ha; includes 2 of the largest sheep stations in Australia; 3 cattle stations in WA and NT across 1.5m ha; 85,000 Brahman cattle	Blina/Ellendale – 404,685 ha; cattle; acquired in 1991 Meda Station – 505,850 ha; cattle Rawlinna – 1,011,714 ha; sheep; acquired in 1960's
minderoo	Andrew Forrest	Five stations in Pilbara region; 1.2m ha; 35,000 head of cattle; Harvey Beef operation	Brickhouse Station – 225,315 ha; acquired in 2015 Minilya Station – 275,000 ha; acquired in 2015; $7m* Nanutarra/Uaroo – 163,000 ha; acquired in 2012 Minderoo Station – 240,000 ha; acquired in 2009; $12m Urala Station - subleased

* Industry estimate, figure not disclosed; Source: various published articles; company annual reports; Coriolis analysis

Foreign investment in WA farming

Western Australia farming operations have proved attractive to foreign investors

INVESTOR	OWNERSHIP	DESCRIPTION	WA OPERATIONS
Australian Outback Beef (AOB)	67% Hancock Prospecting, 33% Shanghai CRED	Joint venture formed to acquire S. Kidman & Co cattle stations for $386.5m; 10 operations covering 10.1m ha across SA, WA, NT, QLD; capacity of 185,000 cattle	Ruby Plains – 950,100 ha; capacity 264,000 cattle (includes Sturt Creek outstation); acquired in 2016
Consolidated Australian Pastoral Holdings	JV Investment group – Kimberley cattle family, Chinese investors	Investment fund run by Agrify (former Elders executive Dale Champion and Shanghai based Michael Wadley)	Moola Bulla – 402, 000 ha Mount Amhurst – 258,000 ha Beefwood Park – 205,000 ha Shamrock Station – 178,000 ha Acquired from SAWA Pastoral in 2016; $100m; 47,000 head of cattle
CPC	Terra Firma Capital (UK) majority shareholder Established 1983	Australia's largest privately owned beef producer; 5.5m hectares; 16 properties; 367,500 cattle carrying capacity; QLD, NT, WA; 80% interest in Juang Jaya Abdi Alam which owns and operates 2 feedlots in Indonesia	Argyle Downs – 72,022 ha; acquired in 1992 Auvergne Station – 414,200 ha; acquired in 1992 Newry Station – 246,700ha; acquired in 1992 Carlton Hill Station – 475,745 ha; sold to KAI in 2016 with leaseback of 90% of property to CPC for 10 years to run 50,000 cattle
KUALA LUMPUR KEPONG BERHAD	Public Malaysian multinational	Core business is oil palm and rubber plantations, resource based manufacturing (chemicals); property development, retailing (personal care products, toiletries and fine foods); KLK Farms is Australian subsidiary; $7.1m loss FY16 on revenue of $19.1m	6 farming properties in WA; 49,349ha Northampton – 16,189 ha; grains; acquired in 2012 Mingenew – 5,290 ha; grains and sheep; acquired ~40 years ago Dandaragan – 14,418 ha; grains and cattle; acquired in 2013 York – 4,927 ha; grains and sheep; acquired in 2013 Williams – 5,119 ha; grains and sheep; acquired ~30 years ago Arthur River – 3,406 ha; grains and sheep; acquired in 2015
Shanghai Zenith (AU subsidiary)	Shanghai CRED (Gui Guojie)	Cattle operations in Kimberley, Goldfields and edge of Wheatbelt; $25m for 10 properties; Goldfields stations cover over 1.2m hectares; tourism and other land production plans Exporting live cattle to China processing in-market under "Alland" brand; distributing through S.CRED shopping malls	Yakka Munga – 189,000 ha; acquired in 2016 from Buru Energy; $8.75m Mt Elizabeth Station – 200,000 ha; acquired in 2016 Melita, Jeedamya, Kookynie – acquired in 2016; $2m; from Yeeda Pastoral Company Mertondale, Riverina, Perrinvale, Clover Downs – acquired in 2016 Marvel Loch – 14,000 ha; acquired in 2016
TBG Agri Holdings	Xingfa Ma	Cattle operations in WA, NT and QLD; Ferngrove winery acquired in 2011; Stonehaven winery (SA)	Balfour Downs & Wandanya Stations – 634,000 ha; acquired 2014; $18m Emu Downs – 8,000 ha
Shanghai Zhongfu Group	China	Diversified property developer from China agreed to invest $700m in 2012 in expanding the Ord and building infrastructure	Ord River – sorghum, chia Carlton Hill Station, Kimberley, 367,500ha acquired 2016; A$100m, 50,000 cattle

Source: various published articles; company annual reports; Coriolis analysis

Continuing to invest

Firms are showing confidence in the Western Australian meat industry by investing

COMPANY	DATE	VALUE	ACTIVITY	RATIONALE
WAMMCO	2017	$4m	Upgrading meat processing facilities at Katanning; new water recycling, vacuum packing equipment; capacity up 100,000 hd/yr	Growing scale and efficiencies
Hancock Prospecting	2017	N/A	Signed MOU with Zhejiang provincial government to establish new cattle feedlot, quarantine & meatworks facility; partners New Hope Group; looking to export 800,000 cattle/year	Support growth in demand of protein; lower costs of production in China
Sino Marine Livestock Shipping Company	2017	$66m	Converted two vessels for livestock; capacity 5,500 cattle or 18,000 sheep; initially sheep to ME and SE Asia; consortium of 3 companies	"The boats size suits the Chinese market in the short to medium term." Steve Meerwald
Trevor Hinck	2017	N/A	Installed 15 suspended shade canopies to cover length of cattle feedlot pens; first in WA; invested in increasing capacity by third	Prevent heat load events when high temperatures slow cattle's feeding rates
Kamarah Piggery	2017	N/A	Expanded operations to 22,000 pigs; supply to Westpork	Growing scale
Harmony Agriculture and Food (HAFFCO)	2016-2017	$50m	Acquired grazing block Esperance (WA), feedlot at Kalannie (WA) and 6,400 ha property (VIC) in partnership with Hopshun Australia (part of Sino Marine consortium)	"Develop a supply chain that was focused on customer needs, was efficient…and rewarding for all participants." Steve Meerwald
WAMMCO	2016	$11.6m	Invested in new freezing block; quick freeze to allow hot boning	More processing flexibility; improved shelf life
Harvey Beef	2016	$25m	Upgraded beef processing plant at Harvey, new retail-ready packing facility	Upgrade to new value-added lines and capacity to support export growth
GD Pork	2016	$25m	Expanded Kojonup fattening facility (9 sheds, plus mill silos); expansion of Pinjarra breeding operations, increasing pigs to 70,000/year	Increase scale to gain efficiencies, reduce costs
Yeeda Pastoral Company/ Kimberley Meat Company	2016	$40m	Built abattoir between Broome and Derby; first abattoir in WA's far north in 22 years; 300 cattle/day initial capacity; export to SE Asia	Initially complementary to live export, sourcing secondary cattle that are outside specification
Craig Mostyn Group	2016	$13m	Approval to expand Mogumbar piggery from 26,000 to 50,460 pigs	Growing scale
Craig Mostyn Group	2015-16	$20m	Invested in new freezer, chiller, dispatch, value-added room automation, packing, palleting automation	Increase plant efficiencies and reduce costs
Wellao JV	2015	$20m	Joint venture between Fulida and Wellard to export beef, design and construct a series of feedlots and abattoir in China; now 100% Wellard	Feed cattle in-market and process in-market
International Livestock Export	2015	N/A	Acquired 2,600 ha of grain and grazing property, Toodyay Part of $48m investment in Australian industry and agriculture (ships, feedlots etc.)	Support feedlot operations; ongoing vertical integration

Source: various annual reports; published articles; Coriolis analysis

Further investments in planning stages

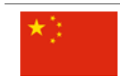
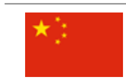
There are also numerous investments currently in the planning stages

COMPANY	DATE	VALUE	ACTIVITY	RATIONALE
V&V Walsh	Planned 2017	$30m	Upgrade to abattoir and freezer	Improve efficiency and product expansion
Westpork	Planned Mar 2017	$21m	Planning permission received to develop piggery at Moora; 68,000 pig capacity; breeding to finish operation; later expansion of 34,000 pigs	Growing scale
GD Pork	Planned 2017	$16m	Expansion/rebuild of Australind piggery	Growing scale
WAMMCO	Proposed 2016	$9m	Robotics for Katanning abattoir; x-ray technology	Reduce labour cost; improve return on carcass
Ingham's	Planned 2017-20	$70m+	Constructing new feed mill near Muchea; completed 2020; relocation of existing facility in Wanneroo; currently sourcing site for hatchery	Growing production volumes in WA
Western Riverlands Poultry	Proposed 2016	$35m	Proposed broiler operation in Mogumber; 6 farms, 46 sheds; contract growing for Ingham's; 12m birds per year; partners with specialist shed builders Santrev	Growing demand for WA produced poultry by Ingham's

Source: various annual reports; published articles; Coriolis analysis

Ongoing acquisitions

Acquisitions are occurring, both from existing operations expanding and from new investors arriving

COUNTRY	ACQUIRER	TARGET	DATE	VALUE	DESCRIPTION	RATIONALE
	TBD	Giovi (formerly Wellard Agri Ltd)	2017	~$85m (on market)	Selling 16,000ha grain and livestock operation 'The Grange' and 7,830ha grain and sheep farms in Kojonup (+$30m)	Reorganisation of agricultural interests
	Zhoushan Fanda AU Cattle Industrial Co and current mngt	North Australian Cattle Company (NACC)	June 2017	N/A	Acquired Elders live export arm; current manager to be director and equity partner	Expansion of live export trade into China
	Fulida Group Holdings	Wellard (24.5%)	May 2017	N/A	Acquired additional shares taking stake to 130m shares & majority shareholder; Wellard placed 25m new shares, issued US$20m in convertible notes to raise funds	Access to cattle into China
	Black Crane Capital	Wellard	Apr 2017	N/A	Share placement and entitlement offer $52m; Underwritten in part by Black Crane, Fulida, Heytesbury and Giovanna Boventi Faroni)	Capital raising
	Heytesbury Pty (Paul Holmes a Court)	Wellard (10%)	Mar 2017	N/A	Acquired 10% stake in Wellard	Hedging investment across cattle supply chain
	Consolidated Australian Pastoral Holdings (CAPH)	SAWA Pastoral	Nov 2016	$100m	Investment fund acquired four stations; 1m ha; 47,000 head of cattle	Agricultural investment
	Fulida Group Holdings	Wellard (16.6%)	Sept 2016	N/A	Acquired 66.32m shares from WGH Holdings; allow payment of 'separation debt' to Wellard of $15.8m plus interest; WGH also owed Fulida $33.3m; WGH maintains 20% stake	Access to cattle into China
	Shanghai Zhongfu (KIA)	Carlton Hill Station (CPC)	Aug 2016	$100m	Acquired beef station in the Ord, Kimberley; running 50,000 cattle, aim to invest in additional new irrigating cropping	Acquire irrigated cropping land
	Westpork	Tralka Piggery	2015	N/A	Acquired pig farm operations	Achieving scale
	Pardoo Beef Corporation (Bruce Cheung)	Pardoo Station	2015	$13.5m	Acquired Pardoo station including 5,800 head of cattle	Agricultural/cattle investment

Source: Wikimedia commons; various annual reports; published articles; Coriolis analysis

Case study: Harvest Road Group ongoing investments

Minderoo Group acquired Harvey Beef (Western Australia's largest abattoir and meat processor); and moved rapidly to expand their landholdings

TRANSACTION OVERVIEW: HARVEY BEEF

Date announced:	May 2014
Seller:	Pacific Alliance Group (Singapore)
Transaction:	A$40m*

RATIONALE

- "By increasing margin capture across the supply chain we have the ability to give returns to Australian farmers – to make it more sustainable and consistent." John Hartman, Director Harvest Road Group
- "We have undertaken a significant capital expansion program including new packaging facilities and a new grain feeding program." John Hartman, Director Harvest Road Group

RATIONALE

- Western Australia's only accredited beef exporter to China
- Largest beef abattoir in Western Australia
- Provide confidence in the industry to reinvest in stock numbers
- Create a sustainable vertically integrated business model
- Upgrade the facility and raise capacity to meet demand for grass and grain-fed beef
- Vision to expand Australian agricultural trade into emerging markets and secure Australia's position as a safe and trusted suppler

INVESTMENT ACTIVITY IN WA

- Acquires Minderoo Station (Pilbara) in 2009 for $12m (240,000 hectares)
- Acquires Nanutarra/Uaroo stations (Pilbara) in 2012 (163,000 hectares)
- Acquires Harvey Beef in 2014 for $40m+
- Acquires Brickhouse Station (Gascoyne) in 2015 (225,315 hectares)
- Acquires Minilya Station (Gascoyne) in 2015 for $7m* (275,000 hectares)
- Significant investment on-farm in central pivots, water sources and genetics
- Harvey Beef invests $25m in upgrading new retail ready packing facility
- Harvey Beef launch new branding and range in 2017

* Industry estimation, figure not publicly disclosed; Source: interview, published articles; Coriolis analysis

Potential areas for further investment

Opportunities for new and/or external investment primarily for those with transferrable skills and networks

FARMLAND

- Two sources of returns: ongoing rent/lease income and capital gains on land
- Solid, stable, if low return investment when undertaken on a long-term time horizon
- Strong rule-of-law, clear system and liquid market create investment security

FARMING OPERATIONS

- Growing demand from developing country middle-class for key export meats
- Undergoing long-term shift from large number of small to small number of large operations
- Traditionally low tech, particularly for herding and grazing ruminants
- Intensive operatives continue to increase scale and productivity
- New technologies emerging for herding but relatively low uptake
- Highly competitive; long tail of marginal cost operators
- Supply sector most exposed to the commodity cycle
- Only investors with transferable skills or strong appetite for short-term volatility should participate

PROCESSSING

- Highly competitive
- Industry undergoing long term consolidation
- Handful of major processors for all meats
- Key firms appear to have committed owners
- Investment needed to further automate processing to counteract high wages
- New entry would only suit firms with existing networks, deep pockets and new systems
- Potentially a "roll up" strategy opportunity of smaller beef and lamb processors

LIVE EXPORTING

- Live sheep exports declining
- Live cattle trade growing out of arid north of state; solid business case for further growth

VALUE ADDED PROCESSING

- Western Australia exports large quantities of live animals and minimally processed meat
- Local meat based processing growing long term; emerging successes include small goods, beef jerky, gourmet terrine and pates
- Further opportunities for investment in primary processing of meat where it makes sense
- Widespread opportunities for investment in meat based production systems and processed foods and beverages
- Premium pet food stands out as an untapped opportunity

Three Investment themes

Three broad investment themes exist for creating growth in the Western Australian meat industry

I. Differentiated Product	II. Increased Plant Efficiency	III. Improved Value Chain
Develop a sustainable point-of-difference	Drive down processing cost	Bring new thinking to a traditional industry
Improved Genetics	Plant Consolidation	Intensification
Free-Range/Grass-Fed	Increased Automation	Improved Supply Chain Co-ordination
Organic	Transition Live/Increase Throughput	Improved Information Flow
Wagyu		

I. Differentiated Products

First, there are opportunities to develop a differentiated product with a sustainable point-of-difference

I. Differentiated Product

Situation causing opportunity	Potential investment themes	What you would need to believe
• Sheep and beef genetics are not as concentrated as poultry or other meats	Improved management and delivery of high performance genetics	• Pastoral grazing farmers will change • Management and systems are the key challenge
• Most WA cattle and sheep are raised in free-range and grass-fed conditions • Free-range/grass-fed meat currently sells at a discount to feedlot produced • Grass-fed meats are more healthy • Free-range production systems are "more natural" and animal-friendly	Certify, brand and market meat as free-range/grass-fed	• Branding, marketing and positioning are the causes of the current lack of an overall consumer premium
• Australia has the most organic farmland of any country; primarily rangeland • WA has very little organic land • WA rangeland is primarily government owned and not certified organic	Transition large areas to organic beef	• Cattle can be produced organically under Western Australian conditions • The organic premium (ca. 20%) exceeds any additional production costs
• Wagyu beef receives a premium • Wagyu is one of the few recognised premium beef breeds, particularly in Asia	Increase Wagyu production	• High grade Wagyu cattle can be produced economically in Western Australia • Wagyu genetics can be sourced

Opportunities exist to improve genetics

Opportunities exist to improve livestock genetics in sheep, beef and other meats

- "The biggest opportunities in sheep is through moving into specialties with **improved breeding** husbandry" Industry stalwart
- "There are good genetic systems for sheep in Australia. Breeding for lean meat yield and intramuscular fat is available now, but needs to be utilised." Professor, research institution
- "I see robotics as becoming important in retail packaging, particularly with lamb. This will have implications for **breeding** as it will require consistency in the lamb." Director, livestock agent, large
- "We need to match the right **genetics** with the right properties, so we can all get a better price." Director, meat company, large
- "The feedback loop of data from the processors needs to include the seedstock breeders, so that we get the right **genetics.**" Professor, research institution
- "We use the right species for the conditions and send it to the market who wants it. We come from our breeder base, that drives productivity. Fertility is the biggest driver. The more cattle we get, the more money." General Manager, cattle company, large
- "The trend is definitely towards composites for the the beef industry. **Genetic improvements** will continue." Senior Manager, industry body
- "We are investing in **genetics** in the Pilbara and Gascoyne with Angus, Brangus and Ultra Blacks. We have shown that it can work. They can either come straight off the land or be part of the feedlot programs." Director, meat company, large
- "If you are keen on genetics, it's not hard to increase productivity." Industry guru

Source: Coriolis interviews and analysis

Opportunities exist to better market free-range/grass-fed

Opportunities exist to better market Western Australia's free-range, grass-fed meats to consumers

- "Demand for grass-fed beef has grown at an **annual rate of 25-30 percent** for the past decade at the same time that per capita beef consumption for traditional beef products continues to decline. A recent study determined that grass-fed beef demand in several major US metropolitan markets is 3 to 6 percent of the total beef market share." Forbes
- "Australia will be one of the last **grass-fed**, grass finished production systems in the world… The USA is all grain, Brazil is moving that way. If consumers value the grass fed argument, then Australian beef value will increase. We are seeing a move towards that." Chief Financial Officer, meat company, large
- "If it is organic or certified **grass-fed**, or if you are producing at scale, then you can make a retail brand work as producer. Otherwise it's hard to differentiate." Industry researcher
- "We need more promotion of the **grass-fed** beef. With our meat there is no human intervention; they are pure grass fed, with no confinement. There is a premium in that." Professor, agriculture institution
- "I believe that '**grass-fed**' is the best opportunity for using provenance to differentiate our product. Producers need to work out what value you can extract from the certification, such as PCAS from the US. You saw a **30% premium** in the US market last year for certified grass fed beef." Professor, research institution
- "There should be **branding**. The consumer wants to know the story. So long as it is genuine, it should be told." Director, livestock agent, large
- "You can also get a great premium in export markets for "free-range" or "sustainable" or "grass-fed," but it must be third party audited." Co-Founder, organic beef supplier, Australia
- "The key is differentiation or a customer who will help you scale up. You must have competitive advantage or it doesn't work. You can't compete against the large multinationals if you have no point of difference." Chief Executive Officer, diversified agribusiness, large
- "The international market is very competitive, everyone wants to get into it. They see the opportunity for **branded** product." Manager, meat processor, large

Source: Coriolis interviews and analysis

Opportunities exist to produce more organic meat

Opportunities exist to certify more of Western Australia's low intensity grazing land as organic

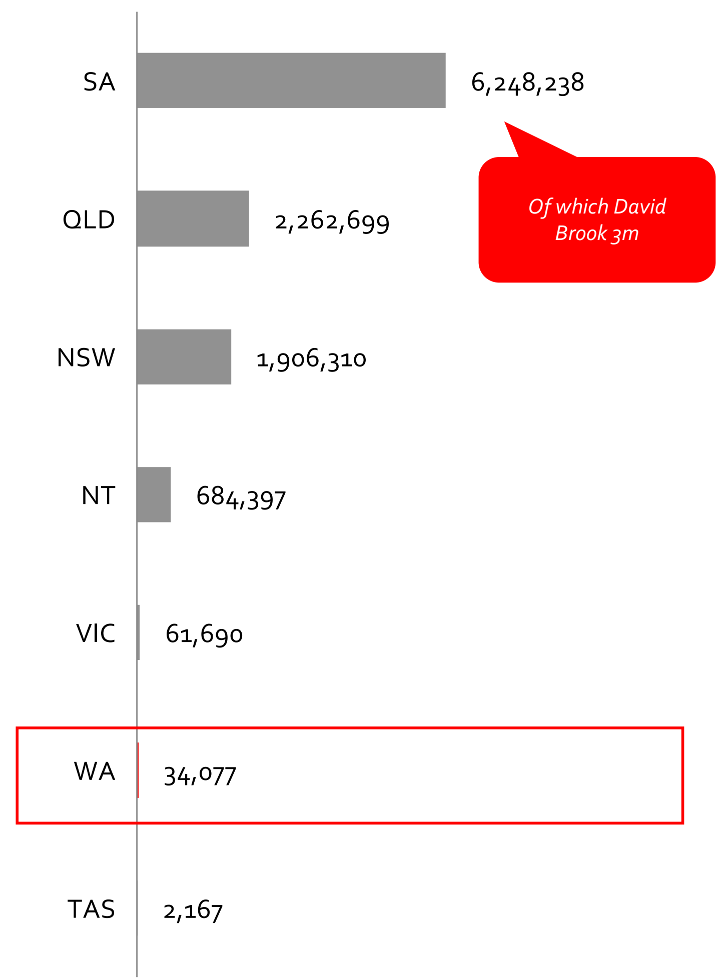
- "UK **sales of organic red meat are on a high**, boosted by a belief that it is healthier than conventionally produced meat, according to the Soil Association. The UK's organic certification body, the Soil Association, believes sales of organic meat have been boosted by a scientific study published in the British Journal of Nutrition earlier this year which suggested organic meat contains up to 50% more omega-3 fatty acids than conventionally produced meat." FOOD navigator.com

- "Organic beef premium fluctuates between 15-20% in Australia. This is pretty stable… Grass-fed and organic beef is huge in the USA, they are showing huge growth and they have a lot of money. Asia is growing as they learn more about it. They see "organic" and "clean and green" as the same thing." Co-Founder, organic beef supplier, Australia

- "At the end of the day we have the same cuts as everyone else, so we have to add value through enhanced **branding** and positioning. We have an antibiotic free product and positioning **with third party certification**. It costs more for the full auditing process but the premium is worth it. Chief Executive Officer, meat processor, large

- "If you are able to create a **brand** and develop a real point of difference and be unique then you can get a premium, but it will be niche." Chief Financial Officer, diversified agribusiness, large

Total organic area (ha; 2011)



Source: Coriolis interviews and analysis

Opportunities exist to produce more Wagyu

Opportunities exist to produce more Wagyu beef

- "Wagyu beef from Japan and Australia… are popular in the high end of the Hong Kong market, which accounts for nearly 70 per cent of the food consumed there, while Brazil and other suppliers provide large quantities of beef to the mass market. But it is the niche markets that farmers seek out, because the prices they receive are at premium levels." RACONTEUR
- "Many of Australia's end markets are seeking a point of difference… Wagyu beef was not expected to saturate demand by 2020. The big emerging trend is that as incomes increase, consumers are more likely to expect greater taste and more enjoyment from eating beef and Wagyu clearly has a big role to play in that." BEEF CENTRAL
- "Australia's richest woman Gina Rinehart… launched her wagyu brand 2GR… with the first shipment of the frozen boxed beef loaded and ready for export to China… For Mrs Rinehart's boxed beef brand, the 12-tonnes of frozen full-blood wagyu is bound for top-end restaurants in Shanghai and Beijing, where premium steaks can sell for up to $400." ABC NEWS
- "When the beef stakes are high, Wagyu beef steak prices are generally even higher. Such is the demand for the breed whose popularity is now so great it commands its own commodity grouping – separate to beef – at major international trade shows. And experts remain upbeat about its future… Wagyu beef now sits squarely at the top of menus at high-brow restaurants, has become an industry leader in genetics and performance, and continues to deliver record prices to producers." The WEEKLY TIMES
- "We are continuing to invest in agriculture… putting the land already purchased to use developing a beef cattle operation, producing both feed for Wagyu cattle, and Wagyu cattle for the domestic and international markets… Market conditions are now more conducive to Wagyu than particular dairy products for one market." John Klepec, Chief Development Officer, Hancock Prospecting, Nov 2015
- "[With Wagyu] there has been between 25% and 30% annual growth since 2012. This rate of growth is forecast to continue unabated until 2020 and demand will not saturate the supply for many years… 90 percent of Wagyu meat produced in Australia is exported for prices much higher than Australians are willing to pay." Graham Truscott, CEO, Wagyu Australia

Source: Coriolis interviews and analysis

II. Increasing Plant Efficiency

Second, plant efficiency can be increased to drive down processing costs

II. Increased Plant Efficiency

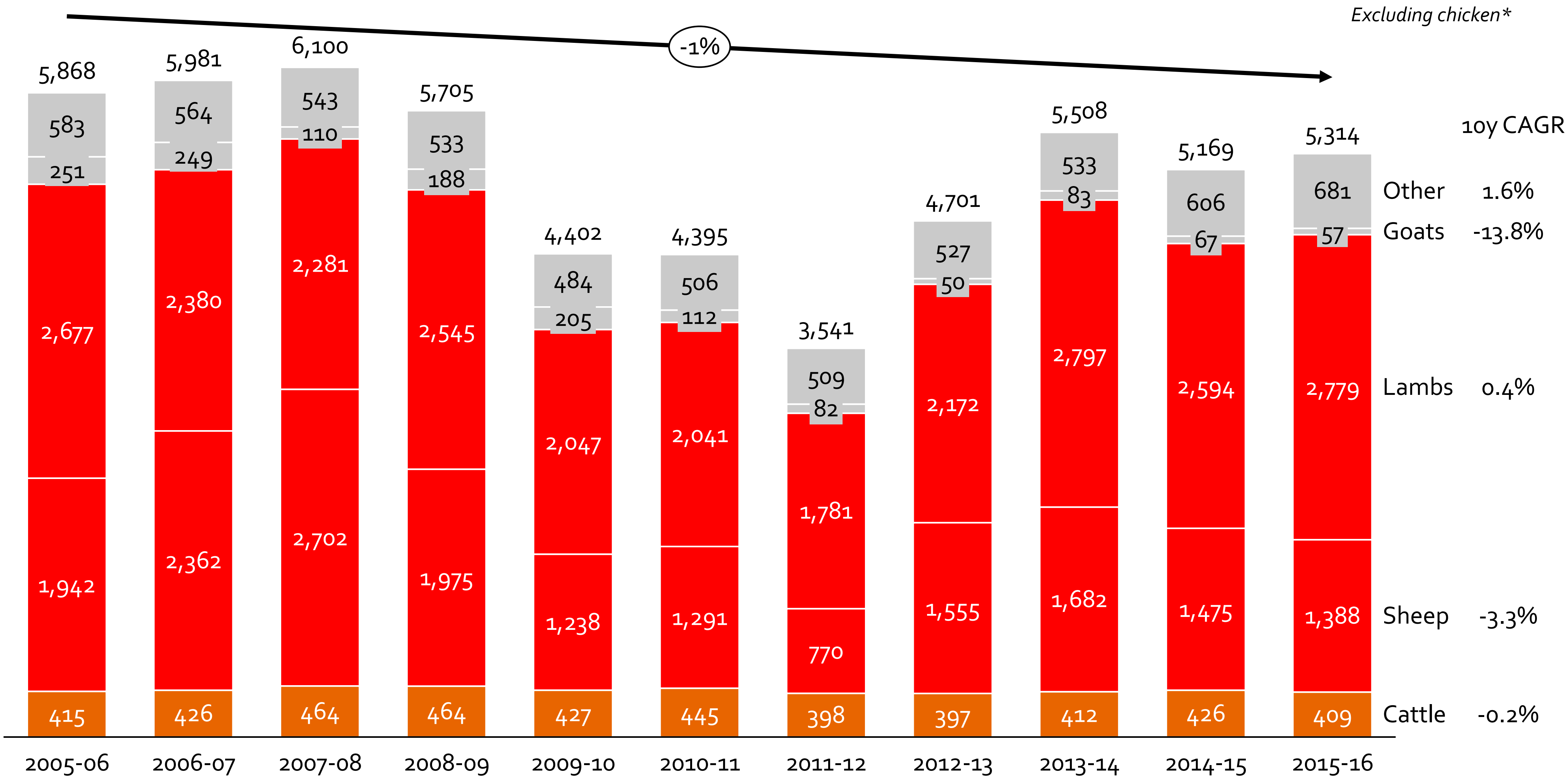
Situation causing opportunity	Potential investment themes	What you would need to believe
• Flat sheep and cattle processing animal numbers across the cycle • Falling sheep inventory • WA meat plants small by global scale	Drive further meat plant consolidation across beef and sheep	• Key firms willing to sell or merge • WA can stabilise and then grow processing numbers • Can achieve needed scale to payback investment • Further consolidation would improve relative scale economics and competitiveness
• High wage structure • Growing use of robotics in meat processing	Increase Automation	• Can achieve needed scale to payback investment • Technology is mature/works for sheep
• Live sheep exports emerged in 70's oil boom and are highly dependent on a handful of oil-rich Mid-East states • In sheep, competition has increased from Somalia, Sudan, Iran and others • WA live sheep exports falling • Northern live beef is primarily low value animals to lower countries • Protestors on the streets in Australia	Transition live volumes to processed to increase plant throughput (where economic)	• Declining live sheep exports are market driven • Local processors can pay required prices • Local processors have available capacity

II. Increased
Plant Efficiency

Experiencing flat-to-declining throughput

The Western Australian meat industry is experiencing flat-to-declining head throughput in total

Western Australian head throughput of cattle/sheep/goats/other (head; 000; YE June; 2005/06-2015/16)

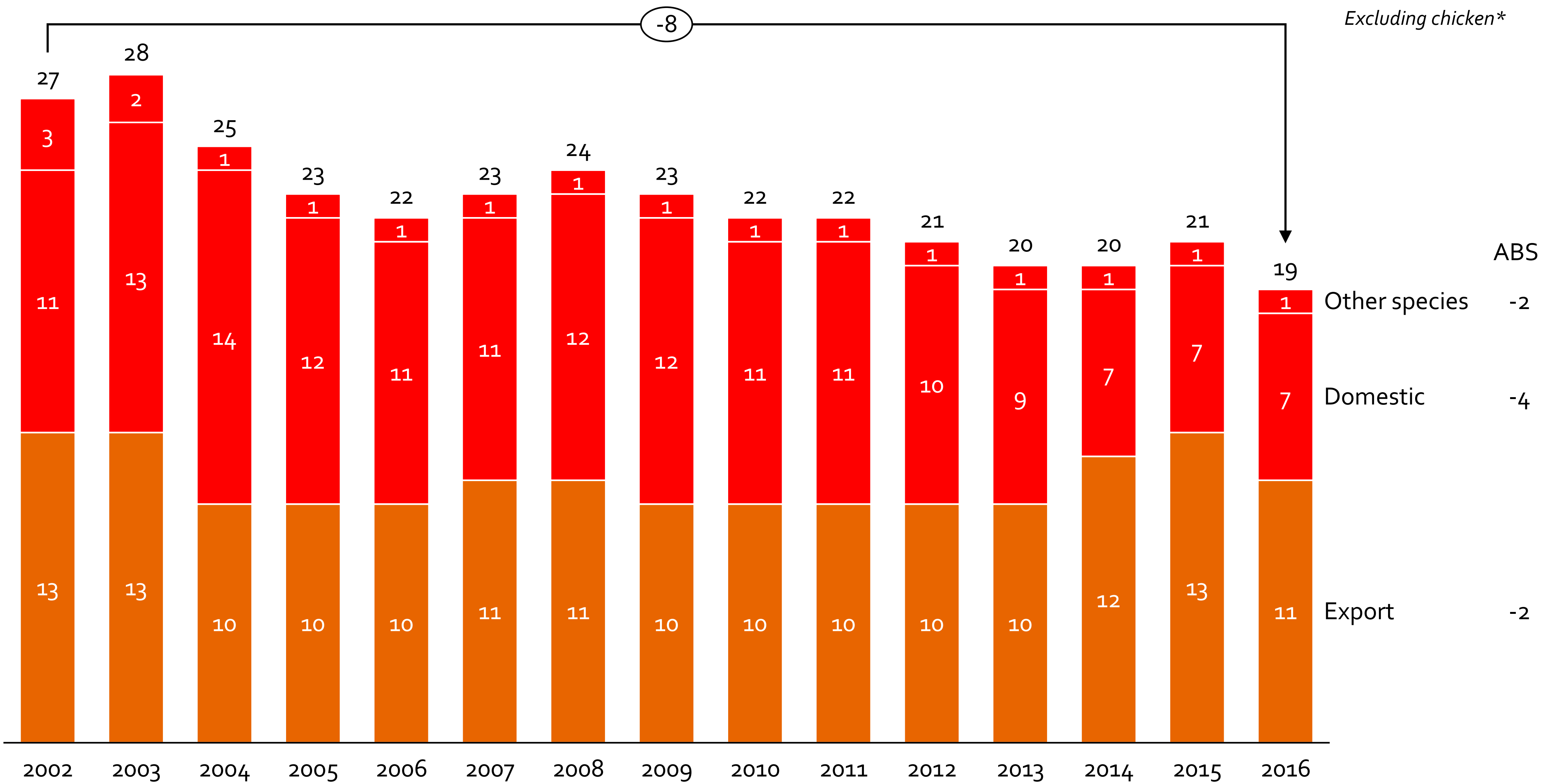


* not collected; Source: Western Australian Meat Industry Authority annual report (various years); Coriolis analysis

Experiencing ongoing plant consolidation

Western Australian meat plants are consolidating

Number of government approved cattle/sheep/goats/pigs abattoir in Western Australian (units; YE June ; 2002-2016)



* not collected; note: other species is rabbit (and others historically); 2005 is estimate from available data; excludes colleges & prisons;

Source: Western Australian Meat Industry Authority annual report (various); Coriolis analysis

Excess processing capacity available

Abattoirs are currently operating under capacity due to livestock prices being at cyclical high levels

- "The big issue at the plants is that they are not operating at **capacity.**" Industry expert

- "Abattoir **capacity** levels are very cyclical. No one is at **capacity** in Australia at present. We have been killing like crazy for the last few years, now we are at the low in the cycle." Senior Manager, industry body

- "No one in the industry is running at maximum **capacity**. The smaller processors have stopped processing altogether – Geraldton Meat Exporters, the Gingin and Esperance abattoirs." Manager, meat processor, large

- "We have gone down to killing every second day, and the season is short." Manager, meat processor, large

Source: Coriolis interviews and analysis

Opportunities for further automation in processing

Opportunities exist for automation and new technologies in meat processing to drive down costs

- "You have expensive staff costs and higher electricity costs. It's expensive to run an abattoir in Australia." Chief Financial Officer, meat company, large
- "We need ongoing investment in the processing and manufacturing. The more scale there is the more the need for **automation**. The processing could be more automated with genetics that allowed for less variability in the carcass size and shape." Managing Director, meat company, medium
- "We need to be investing more in volumes, increasing efficiencies and **robotics**. The high cost of labour makes this necessary." Chief Executive Officer, meat processor, large
- "We need to improve our abattoirs. We need to use improved technology in them." Professor, agriculture institution
- "A 3,000 head per day abattoir can run with **robotics**. The scale doesn't have to be massive." Senior Manager, industry body
- "Western Australia has good companies; they just lack the resources of the likes of the big guys like JBS, Tey's, etc." Professor, research institution
- "Sheep is looking after itself at the moment. We have got airfreight for the smaller lambs, WAMMCO doing the heavier lambs and V&V Walsh with the supermarket contracts." Director, livestock agent, large

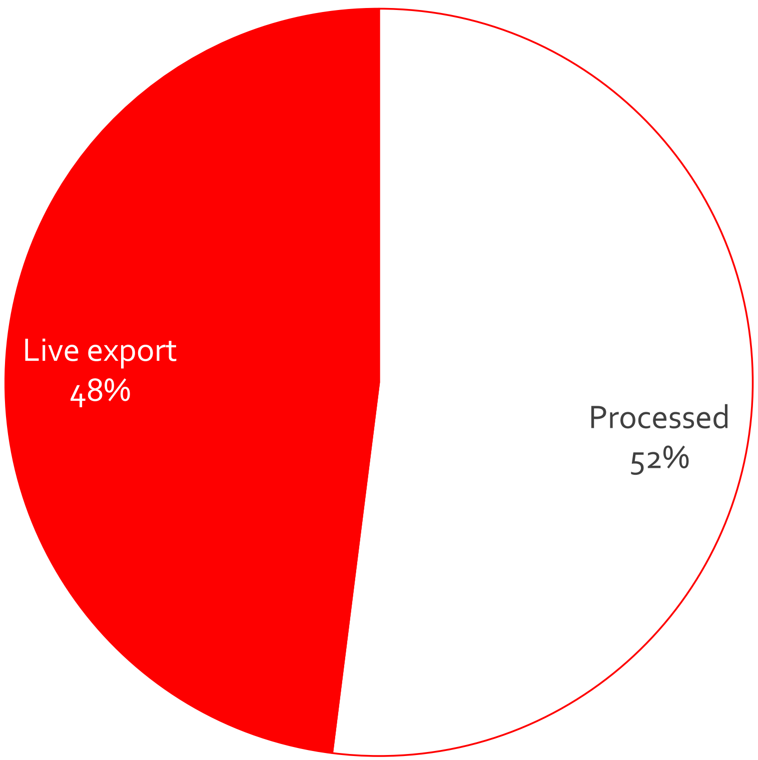
Source: Coriolis interviews and analysis

Opportunities to transition live volumes

Opportunities exist to transition some of the animals that are currently exported live to processing

Share of WA beef head output (% of head; 2016)

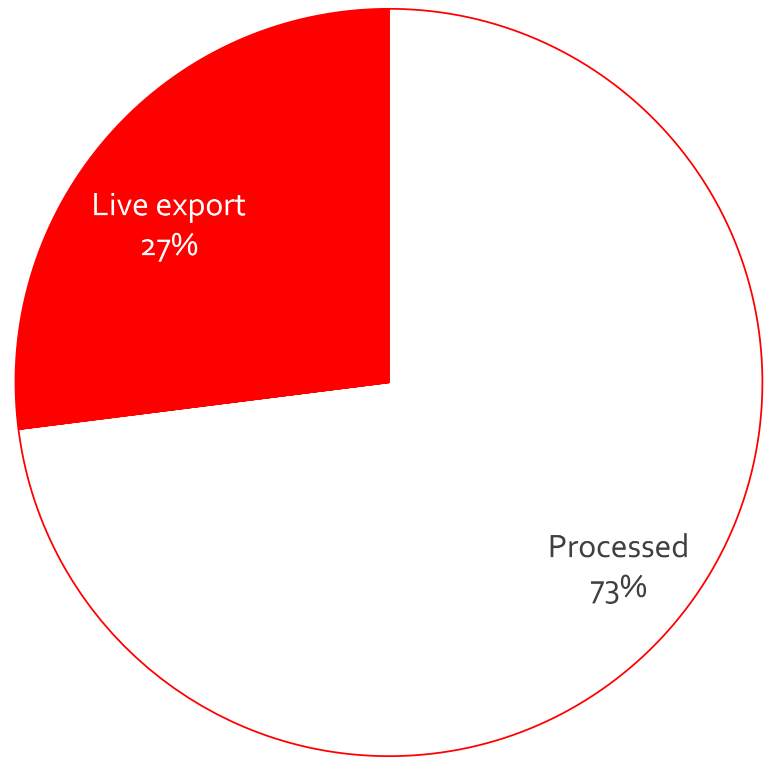
DIRECTIONAL



TOTAL = 750k head

Share of WA sheep head output (% of head; 2016)

DIRECTIONAL



TOTAL = 5.9m head

* opened in Sep 2016, closed for wet season, ~500/wk when operating, % of capacity estimated on weekly production rate; Source: ABS; MLA; interviews; Coriolis research and estimates

III. Improved Value Chain

Third, new value chain models can bring new thinking to a traditional industry

III. Improved
Value Chain

Situation causing opportunity	Potential investment themes	What you would need to believe
• WA currently uses a very low intensity system in beef and lamb • Farmers exiting sheep (esp. grain farmers) • Farm-gate price per kg of lamb is high relative to other meats • Issues appear to be production cost and effort related • WA feedlots typically small and underdeveloped relative to competitors	More intensive beef and sheep production systems	• Concepts or ideas from intensive systems would transfer to sheep (e.g. farmers as contract growers paid for performance) • Key issues are systemic not biological • Intensive production is economical under WA conditions and cost structures • Secondary land is available to produce more low cost feed grains • Water exists and is accessible in attractive regions for more intensive production
• Market prices are relatively stable • Processor/producer prices are volatile • Incentives of processors are not aligned with those of farmers	Improve supply chain coordination	• Farmers can be coordinated and organised ("herding cats") • Farmers want more stable returns • Processors will commit to forward contracts
• Information does not easily flow back and forth along the supply chain • Decisions made at one stage can impact results elsewhere	Improve information flows to reduce inefficiencies	• Simple, "off-the-shelf" tools and systems exist that can address this issue • Industry leaders and management can maintain focus on delivery across a longer time span

The Western Australian meat industry is ready for change

Leaders believe the Western Australian meat industry is ready for change

- "We want farmers to be part of the dream and part of the process, really feeling they are part of the whole process." Manager, meat processor, large
- "The way we have worked historically isn't good enough going forward. It's **time for change**. The new young farmers see that there is money to be made." Manager, meat processor, large
- "Any real growth will come from **changes in business model** and structure of the industry." Industry advisor

- "Moving to equity share off take agreements rather than adversary, trade opportunity type management would provide opportunities for growth." Senior Manager, industry body
- "There is strong consumer demand for lamb and a total lack of effort. We need to **redefine the production model** so it's not so difficult. People need to change the way they think and their cultural practices." Chief Executive Officer, diversified agribusiness, large
- "The processors hold the keys to **industry change**." Industry stalwart

- "A **change in management style** on farm is required. Need to change from the old model of getting paid by the kilo to a more integrated model." Manager, meat processor, large
- "You can either capitalise the production sector and amplify the cycles or **move to better understand the marketplace** and deliver a value proposition that differentiates your product." Senior Manager, industry body

Source: Coriolis interviews and analysis

Opportunities exist for more intensive production systems

Opportunities exist in beef and sheep for new production systems that adopt more of the lessons of intensive poultry and other meats systems

- "This industry needs a demand pull and incentives along the supply chain to increase [sheep] flock numbers. The volatility in the prices needs to smoothen. They need more feedlotting to **apply the chicken and pork production methods** to the industry." Chief Financial Officer, diversified agribusiness, large

- "If we can start to treat the cattle more **like they do chickens and pigs**, we will be improving the genetics and the profitability of the industry." Chief Executive Officer, cattle company, medium

- "The sheep industry needs to **adopt pork industry type protocols** in order to deliver a more standardised product." Industry stalwart

- "We need a more integrated model using **feedlotting** and planning across all the farms." Manager, meat processor, large

- "In the last five years there has been a move to year-round **feedlotting**. All major processors have an 100 day grain-fed program. But these are arrangements locked in with feedlot operators – no one bought a feedlot themselves." Industry researcher

- "When an animal comes on the **feedlot**, we can predict the weight, the grade, the quality and price in 16 weeks time. The abattoir know the price and volumes which benefits them. Our calculations are within a kilo or cents on average." Chief Executive Officer, cattle company, medium

- "The **feedlotting** sector allows for constant quality product available to the market. Steps are heading in that direction. Large volumes at a tight spec is important to the market. We need the counter party to invest in that industry, a demand pull." Chief Financial Officer, diversified agribusiness, large

- "We need to **adjust the existing lamb feedlots** and develop new locations in strategic locations. This will allow for the ongoing supply of lambs." Manager, meat processor, large

- "There is a move towards **feedlots** to finish and improve weights. Need to have the feedlots close to the processing or it doesn't work." Director, meat company, large

Source: Coriolis interviews and analysis

Opportunities exist to improve supply chain coordination

Opportunities exist to improve supply chain coordination and align incentives

- "Continuity of **supply** is vital for processors with an export focus or a major retailer supply contract." Chief Executive Officer, meat processor, large

- "Current system in processing is the producers are paid an average for the 'lot.' So the good farmer doesn't get the advantage and the incentives aren't aligned." Chief Executive Officer, cattle company, medium

- "Farmers would love to have a more secure **supply** chain. It would allow for better forward planning." Industry champion

- "The lack of vertical integration in the red meat industry is deliberate – it shares the risk." Industry advisor

- "We really all need to work together across the **supply** chain to make it work. We need to lower our costs of production. We could collaborate more. We don't need to to be adversaries." Director, meat company, large

- "The opportunity is in managing **supply**, not necessarily owning land. Looking at locking in forward contracts and controlling quality." Industry researcher

- "Producers would absolutely like to have **supply** contracts. There is too much volatility in meat prices. Producers have no surety of sale at the end of supplementary feeding. A more vertically integrated model is the only way." Industry guru

- "The meat industry is traditionally a very fragmented **supply** chain. Only a few operations are vertically integrated in Australia, fragmentation of the supply chain is most common system. The return on vertically integrated structures is not necessarily there. You need capital and the right skill set. The big opportunity is complementation between the value chain rather than the capital investment in vertical integration." Senior Manager, industry body

- "Getting consistency along the **supply chain** is the biggest opportunity. You are more able to attract investment with stable returns, not with an industry with huge fluctuations. Investors need predictability." Chief Financial Officer, meat company, large

Source: Coriolis interviews and analysis

Uptake of technology is required

Increased uptake of new farming technologies is required to retain and improve competitiveness

- "You don't need a dog fence, you need a virtual fence, laser technology, smarter use of drones with baits, traps and rifles, robotic or automated fencing. Better than spending a load of money on a physical barrier." Chief Executive Officer, cattle company, medium

- "The industry needs to look at ways to encourage young ones back to sheep. Why do they leave? What don't they like? They need labour saving **technology** – ways to make their jobs easier. Equipment to reduce the hard work like shearing, vaccinating, crutching. If there is machinery around, get out and promote it." Manager, meat processor, large

- "We need to invest in productivity. Laser fencing, geotagging, automatic gates, feeding, watering points. This is where investment should be." Chief Financial Officer, meat company, large

- "There are **technological** advances, stock tracking, laser fencing, automated paddocks for efficient feeding and less labour requirements. If you are really serious then you are looking at significant investments to increase productivity, to increase volume and gain additional opportunities." Chief Financial Officer, meat company, large

Source: Coriolis interviews and analysis

Opportunities exist to improve information flows

Opportunities exist to improve information flows to reduce inefficiencies

- "The lack of **information** flowing from the processors to the farmers is a real issue. Don't get me wrong, they supply data on weights, etc., but not feedback on what we should be breeding for the future, on what the market needs. Instead the abattoirs are getting bodies and carcasses that they don't really want." Director, livestock agent, large

- "There is a lot of value being lost out of the supply chain. The traditional narrow focus on domestic specification products, where there is no premium for it in export markets, is a mistake. We need to listen to the market." Industry researcher

- "We need to improve our abattoirs… We need to better **connect data** from the abattoir back to the breeders for the high end of the market." Professor, agriculture institution

- "The old standard of grading by threshold is not the most efficient way to extract value across the carcass. It is better to grade "cut by cook". There are market research studies proving consumer willingness to pay. We need to better utilise the MSA standards with the consumer." Professor, research institution

- "You can't improve productivity if you don't know what you are producing." Industry guru

- "**Data feedback** varies depending on enterprise. Some share their information, some don't. Some beef enterprises do it well. Sheep is still traditionally just weight and fat. We definitely could do with improvement across the board." Senior Manager, industry body

- "You need to understand what the retailer needs and then meet those needs." Senior Manager, industry body

- "We need to **communicate** across the supply base, so farmers know the specs and quality required to succeed." Director, meat company, large

- "It's important to share **information** back along the supply chain in a transparent feedback system, so that all areas can be improved. The feedback is vital. If it helps with the producers' decision-making, then it gains loyalty." Chief Executive Officer, cattle company, medium

Source: Coriolis interviews and analysis

4. Live Cattle

This report is designed to flow from the high level "big picture" (macroeconomic) through to market and product details (microeconomic) and then to details about specific companies and specific transactions (firm). Both the total document and individual products sections are organised this way.

page 4 — 1. Core Opportunity

page 13 — 2. Current Industry Situation

page 31 — 3. Emerging Investment Themes

page 61 — 4. Live Cattle

page 82 — 5. Beef

page 106 — 6. Live Sheep

page 128 — 7. Sheep Meat

page 153 — 8. Other Meats

page 162 — 9. Key Firms Profiled

page 193 — 10. Appendix

4.1 Global live cattle market situation

Live cattle exports are a small part of the global meat trade where most product goes to the closest neighbour

- High level macro drivers indicate flat volume demand (1.5%), but rising prices (5.2%), suggesting success will come from larger animals (increased weight/head) from low-cost producers (profit per head)

PRODUCTION

- Most cattle are processed in their country of origin by local firms; just under 4% of head cross borders, a share that has fluctuated within a narrow range (3-4%) over the past fifty years

DEMAND

- Top 25 live cattle importing countries vary significantly in market dynamics
- Market is a mixture of large consumers seeking incremental volume "just-over-the-border" (e.g. Venezuela from northern Brazil) and small countries on-shipping (e.g. Croatia)
- Most countries typically import live cattle from one or more of their closest neighbours

TRADE

- Global live cattle trade is almost flat (10y CAGR 1.5%), but has ups and downs, while achieving increasing prices (10y CAGR 5.2%), leading to solid (10y CAGR 6.8%) value growth; market is price sensitive

Macro drivers support market growth

High level macro drivers indicate flat volume demand (1.5%), but rising prices (5.2%), suggesting success will come from larger animals (increased weight/head) from low-cost producers (profit per head)

Total beef

Global production growth

1.1%pa

Global consumption growth (all forms)

-0.4%pa

Live cattle trade

Global trade number growth

1.5%pa
(0 to 3%)

X

Global trade price growth

5.2%pa
(4 to 7%)

=

Global trade value growth

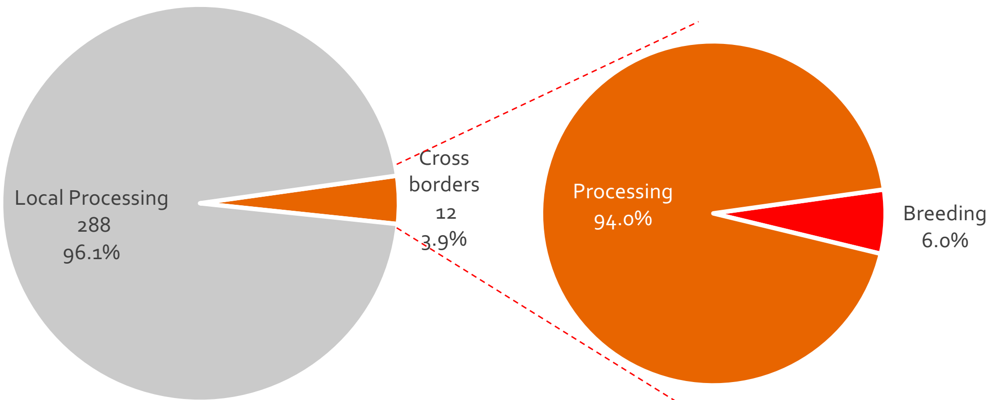
6.8%pa
(6 to 8%)

Note: see related sections for details; Source: United Nations; FAO; Comtrade; Coriolis analysis and estimates

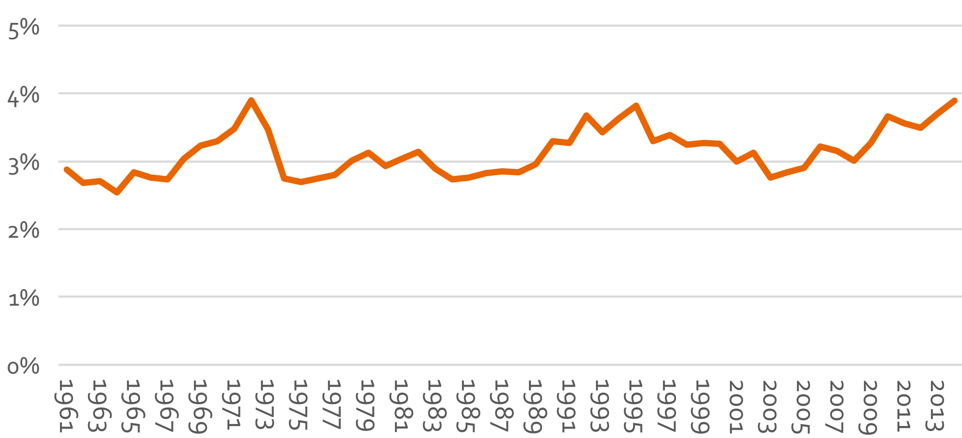
Four percent

Most cattle are processed in their country of origin by local firms; just under 4% of head cross borders, a share that has fluctuated within a narrow range (3-4%) over the past fifty years

Global cattle disposition by type (head; m; 2014)



% of cattle that cross-borders (% of head; 61-14)



Note: global cattle processed not yet available for 2015; Source: UN FAO; UN Comtrade; Coriolis analysis

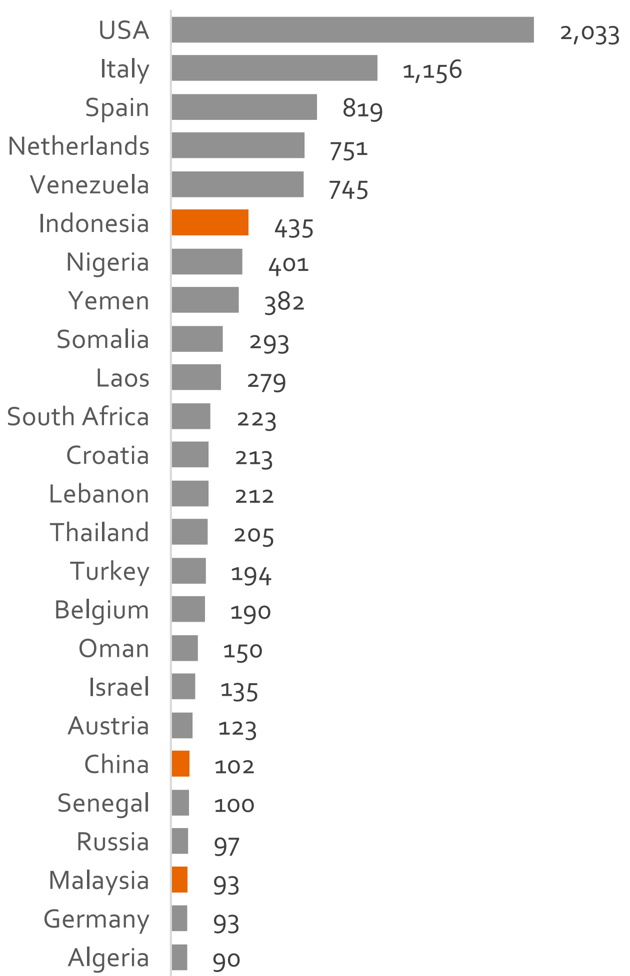
Development & Drivers

- Moving cattle long distances is costly (transport costs, feed, weight loss)
- Moving cattle long distances can also impact meat quality (stress, loss of condition on the journey)
- In most cases (in a functioning market economy), the nearest meat processor will be able to pay the highest price to the farmer; therefore the vast majority of animals are processed locally
- However, where the nearest meat processor is over the border, animal will go there (e.g. Portuguese farmers near the border with Spain; Canada to the US)
- "Over the border" processors may also have lower costs, due to having lower wage rates, more automation or larger, more efficient plants with lower overhead per unit
- In some regions, political instability, corruption and the lack of a rule of law may preclude investment in large scale, export quality meat processing facilities, such that live animals are exported to neighbouring stable countries (e.g. out of the Horn of Africa)
- Civil war and conflict can also trigger cross border movements of mobile assets, such as cattle (e.g. Syria, Iraq, Yemen)
- Only a small percent (6%) cross borders as breeding stock

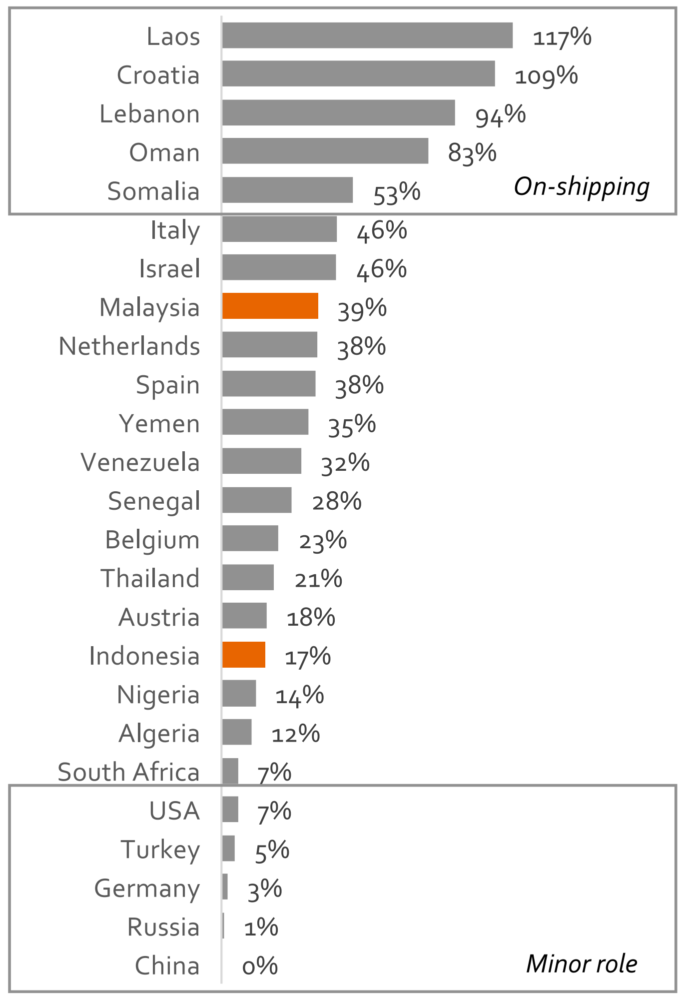
Varying market dynamics

Top 25 live cattle importing countries vary significantly in market dynamics; mixture of large consumers seeking incremental volume "just-over-the-border" (e.g. Venezuela/Brazil) and small countries on-shipping (e.g. Croatia)

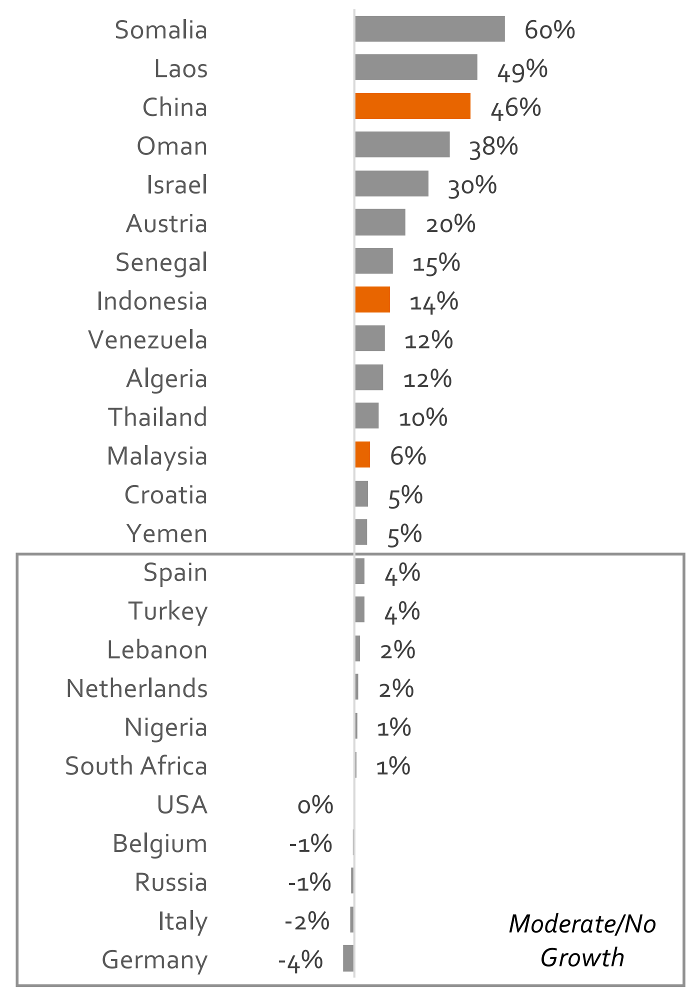
Top 25 live cattle importers (head; 13)



% of total head processed (% head; 13)



20y CAGR head imported (%; 93-13)



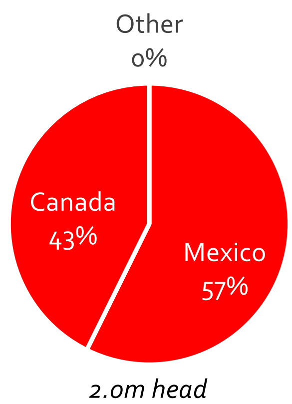
Note: 2013 is most recent available globally; data is not final destination; some small countries (e.g. Croatia) will on-export; Source: UN FAO; UN Comtrade

Typically a few suppliers

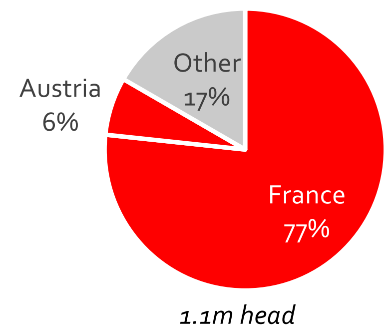
Most countries typically import live cattle from one or more of their closest neighbours

Share of head by source

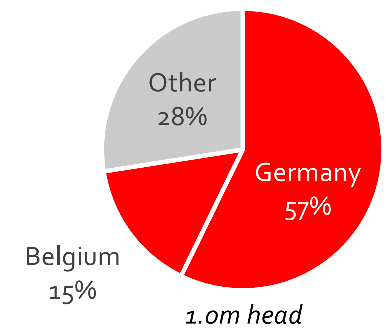
USA



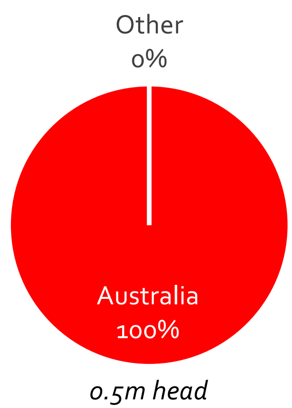
Italy



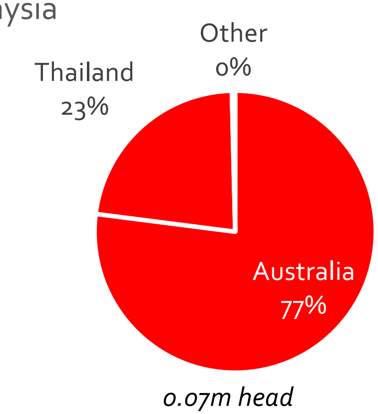
Netherlands



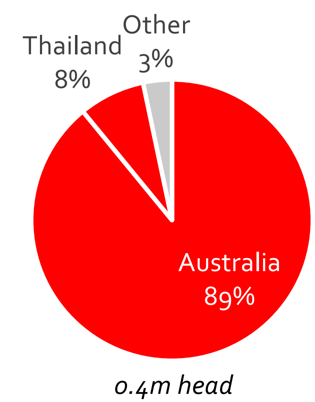
Indonesia



Malaysia



Vietnam

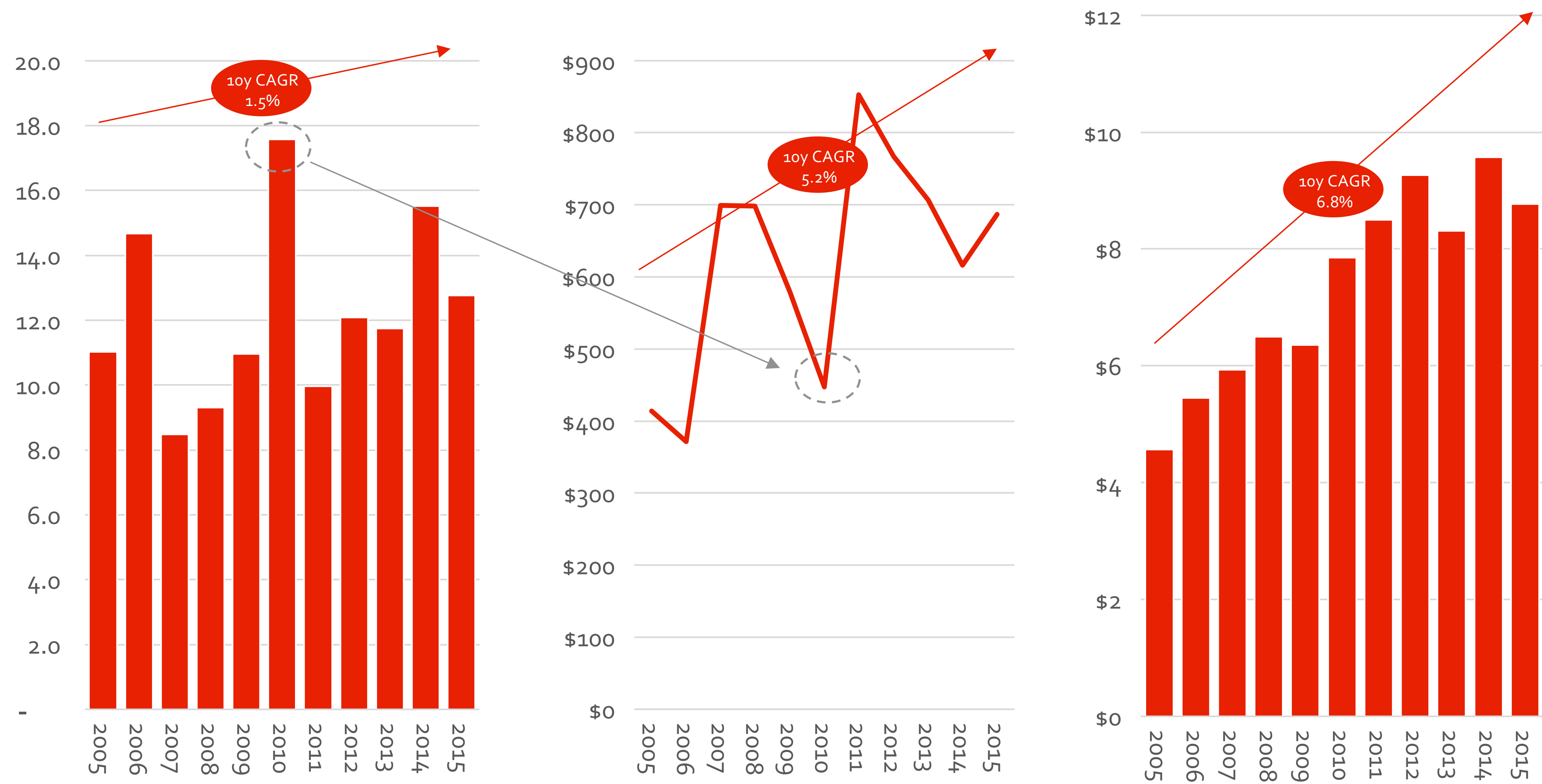


Source: UN FAO; UN Comtrade; Coriolis analysis

Flat export head but growing export value

Global live cattle trade is almost flat (10y CAGR 1.5%), but has ups and downs, while achieving increasing prices (10y CAGR 5.2%), leading to solid (10y CAGR 6.8%) value growth; market is price sensitive

Global export head (head; m; 05-15) | **Average global price (US$/head; 05-15)** | **Global export value (US$; b; 05-15)**



Source: UN Comtrade

4.2 Western Australia live cattle export situation

Western Australia has a significant live cattle trade

- Macro drivers for WA live cattle trade present a moderate growth environment going forward

PRODUCTION

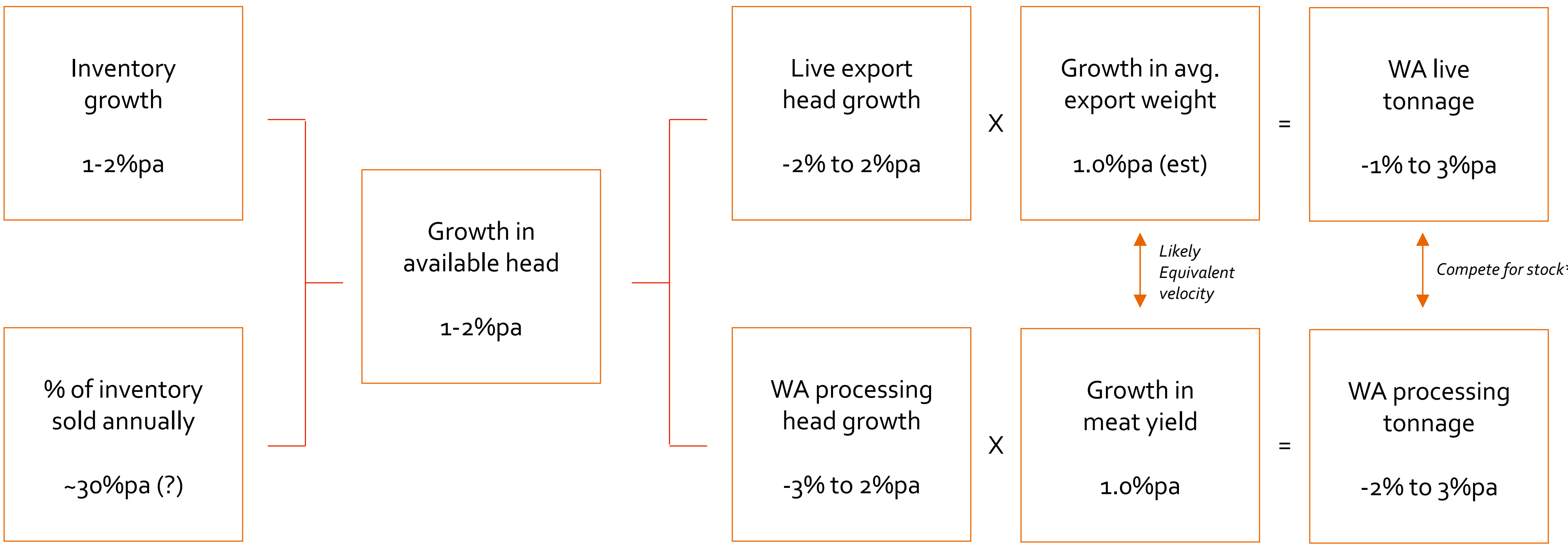
- Live exports play a role in the Western Australian beef industry, particularly in the North of the state
- The Western Australian meat industry is somewhat unique in that it has two very different cattle production systems located in two very different climates: the temperate South and the arid tropical North
- Due to animal welfare issues, the live trade has declining public support (aka. "social license")
- Western Australia can continue to grow total cattle numbers in the future
- Opportunities exist to increase carrying capacity of rangeland properties, particularly in the North

EXPORTS & MARKETS

- The Australian live cattle export trade is achieving moderate growth, however inter-year variations occur
- Australian live cattle exports have largely gone to Indonesia since the volume surge in the early 90's; China & Vietnam have come on recently
- The value of Australian live cattle exports is growing long term

Macro drivers support moderate growth

Macro drivers for WA live cattle trade present a moderate growth environment going forward; the key challenge is competition for stock (to some degree) with domestic beef processors



* at some level; not in all locations; See related sections for details; Source: United Nations; FAO; Comtrade; Coriolis analysis and estimates

Live cattle important for the North

Live exports play a role in the Western Australian beef industry, particularly in the North of the state

- "Australia has such high animal welfare standards for the **live trade**. We instigated the technology around live trade and we are competitive in livestock exports. We have invested in the fleet. We get economies of scale with big ships, we get an advantage. We need to really sell our position as a leader in this space." *Chief Financial Officer, meat company, large*

- "If you are making money sending live stock out of the **North**, why wouldn't you do it? It's the only option really at the moment. The abattoirs are a good back up for the live trade." *Industry expert*

- "We focus on cattle production and live export. We are one of the largest stations in the **North** and have a different focus to others. We keep things simple, no complications. If you keep it simple, you make money; if it gets complicated, you don't." *General Manager, cattle company, large*

- "The infrastructure in the **North** is limited. Options for turning off stock are limited. Generally the current model of putting cattle on a truck and trucking them south will lose you money. Live export is the life blood." *Chief Financial Officer, meat company, large*

- "There is opportunity for improved preparation of livestock for **live trade** by the farmers. Incorporating QA programs that feed the data back to farmers so they can supply livestock at the prefect specifications." *Professor, research institution*

- "The predominant markets for Brahman are Indonesia, Vietnam and the Philippines. They just won't pay a premium for Angus. They want the leaner meat with no fat. They want cheaper meats." *Chief Financial Officer, meat company, large*

Source: Coriolis interviews and analysis

Effectively two separate sectors

The Western Australian meat industry is somewhat unique in that it has two very different cattle production systems located in two very different climates: the temperate South and the arid tropical North

Centres of Western Australian cattle production

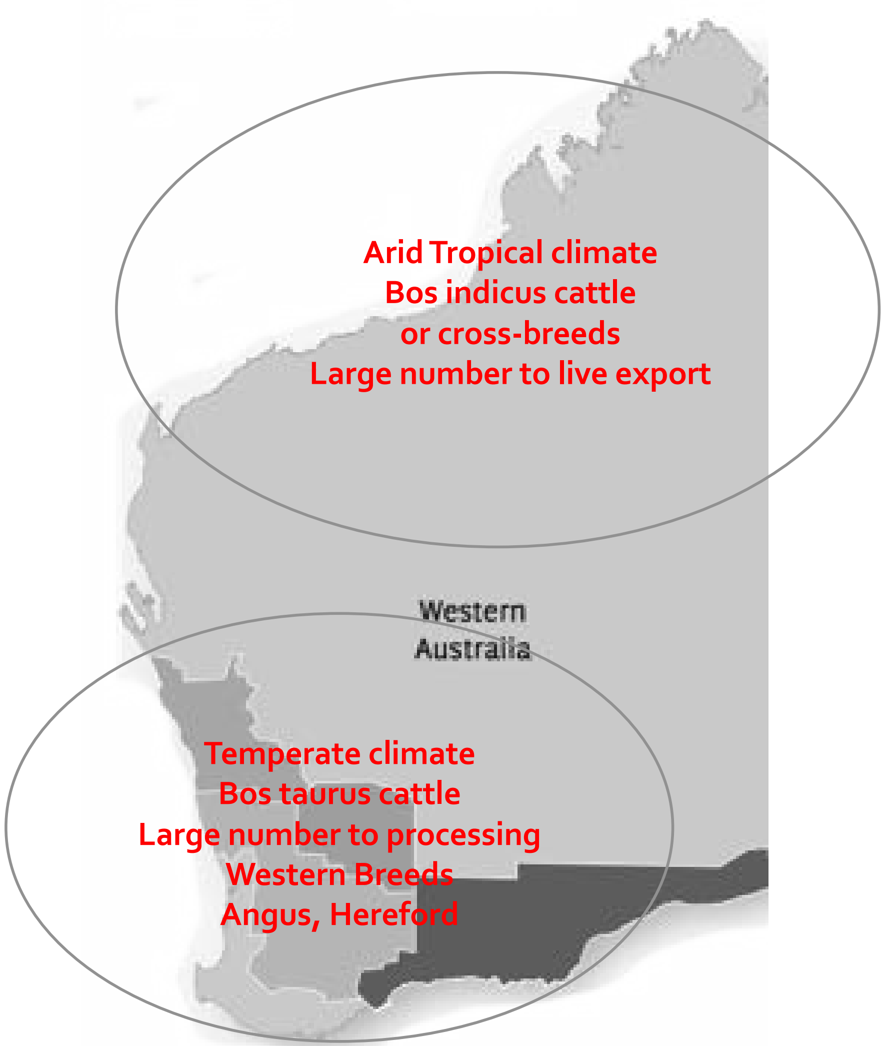


Photo credit: modified from AEGIC map

Situation

- The Western Australian meat industry can be seen as two almost separate sectors

THE SOUTH

- The temperate South, comprised of private, freehold land, produces traditional Western cattle breeds, including Angus and Hereford; some growth in Wagyu
- Animals are kept on fenced and managed properties and may be feedlotted for 50-120 days before processing
- These animals flow into the major meat processors located in this region; relatively few are exported live

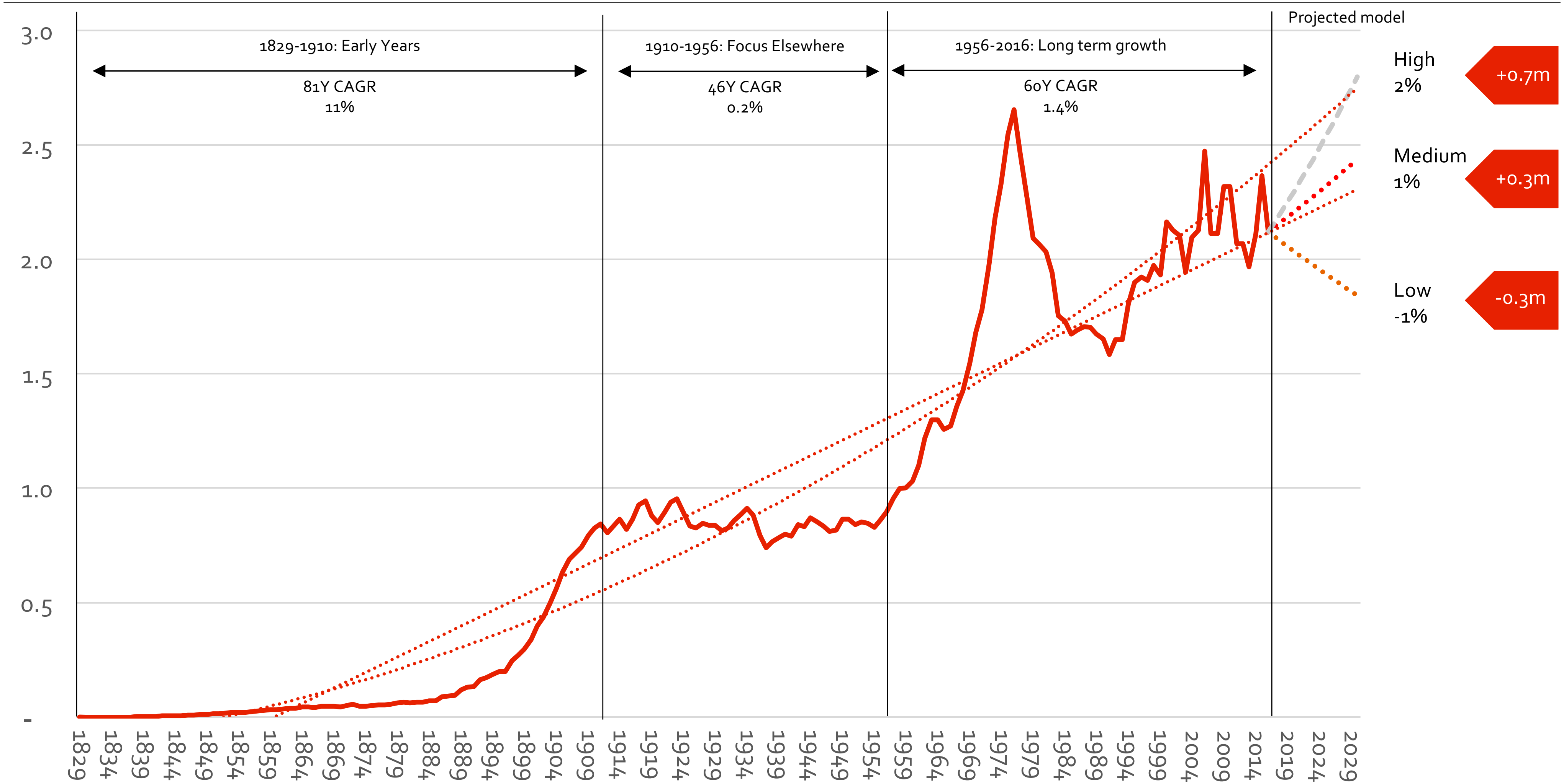
THE NORTH

- The arid tropical North, comprised of government owned land operated under long-term leases by cattle farmers, produces climatically suited bos indicus cattle and cross-breeds
- Animals wander across large areas of land eating the native vegetation and are rounded up seasonally and culled
- Government rules have effectively banned the production of supplementary feed (landuse restrictions)
- These animals predominantly flow into the live cattle trade and are exported across the Timor Sea to Indonesia and beyond

Continued cattle headcount growth

Western Australia can continue to grow total cattle numbers in the future

Number of cattle in Western Australia (headcount; point-in-time inventory; m; 1829-2015; 2016-2030p)



Source: various ABS publications and reports; Coriolis modelling

Northern beef is an opportunity

Opportunities exist to increase carrying capacity of rangeland properties, particularly in the North

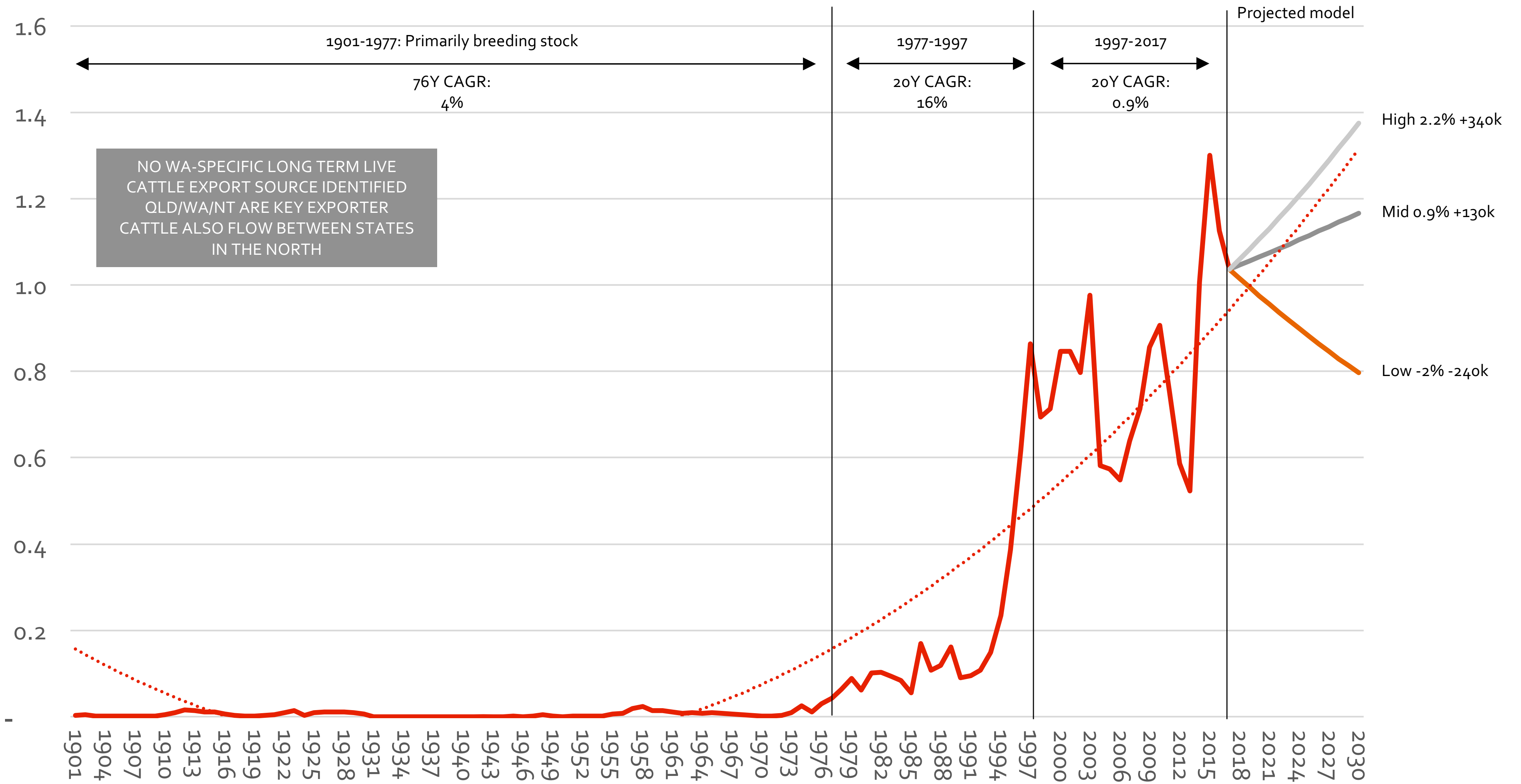
- "There is opportunity with Northern beef production with the new irrigation precincts. We need to be looking at exotic pastures, with cut and carry or stand and graze systems." *Senior Manager, industry body*
- "Northern WA is untapped and under-utilised. We need to get expert agronomists and hydrologists in to advise industry and to understand how to best use the soil and water resources. We need to throw out the old practices up there. Productivity could be increased very quickly. The genetics are very good already." *Director, livestock agent, large*
- "Investing in water is important. We need to be putting down pipes and storage to increases the **capacity** and productivity of the land. At the moment 80% of the land is under-utilised. There is a lot more capacity there." *General Manager, cattle company, large*
- "Biggest opportunity is bringing Northern beef south. By doing this we could **double the turnoff**." *Chief Executive Officer, diversified agribusiness, large*
- "The Yeeda concept of value added products and feeding in that area makes good sense. In that area. On the coast with water available." *Chief Financial Officer, meat company, large*
- "Whatever we can do to **increase productivity** is vital… Need to invest in productivity." *Chief Financial Officer, meat company, large*
- "Historically in the Pilbara, they build up stock numbers in the good seasons, then have 3-4 years of drought when they sell them all off, including the breeders. Then they have to build back up. Hamersley Agricultural Project have provided feed all year round, so they don't have the spikes. They are able to sustain and grow the number of cattle. If you can grow the right feed, it can be sustainable." *Chief Executive Officer, cattle company, medium*
- "There are innovative business models emerging in the Northern beef industry. External money – from institutional, mining, media origins outside the industry – is coming in. It is all underpinned by investment in property. The result is intensification of carrying **capacity**." *Senior Manager, industry body*
- "Opportunities exist to develop the unproductive land into higher grade, higher efficiency areas. That will require capital in fencing, water, etc.." *Chief Financial Officer, meat company, large*
- "Investments on the stations are ongoing. We need to increase stock numbers. Low stock numbers are the biggest constraint at the moment. Infrastructure is required. We could double the **capacity** off our stations." *Director, meat company, large*
- "The best way to export feed and fibre is in the weight of a cow. We could **increase turnoff numbers** significantly." *Chief Executive Officer, diversified agribusiness, large*

Source: Coriolis interviews and analysis

Australian live cattle exports growing erratically

The Australian live cattle export trade is achieving moderate growth, however inter-year variations occur

Total number of live cattle exported from Australia (head; m; 1901-2017*; 2018-2030p)



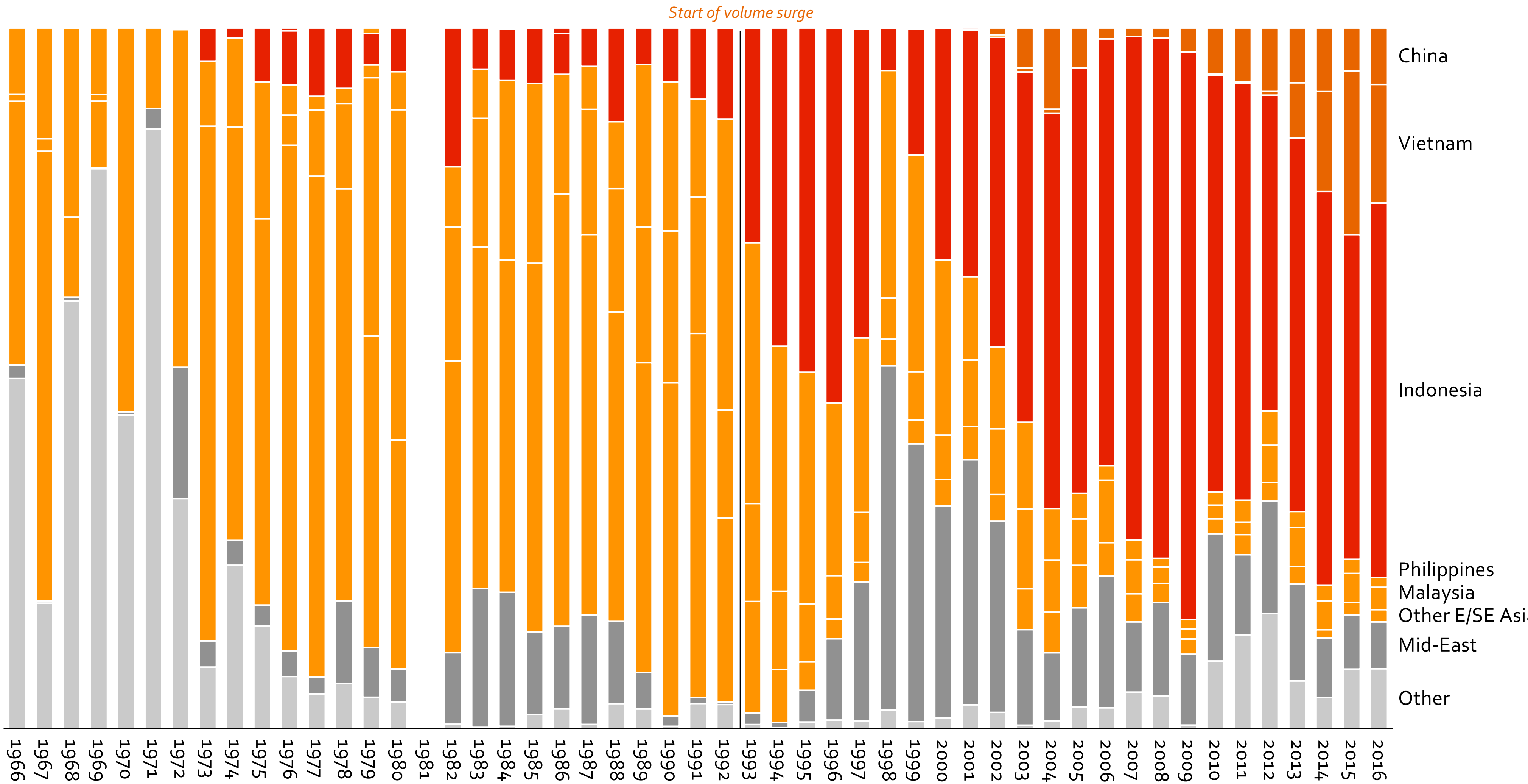
* 2017 uses TTM 12/16; all others YE June; Source: various ABS publications and reports; Coriolis modelling

Indonesia, Vietnam & China key markets

Australian live cattle exports have largely gone to Indonesia since the volume surge in the early 90's; China & Vietnam have come on recently

NO WA-SPECIFIC LONG TERM SOURCE IDENTIFIED
WA/NT ARE KEY EXPORTER

Share of Australian live cattle exports by market (% of total head; 1966-2017*)

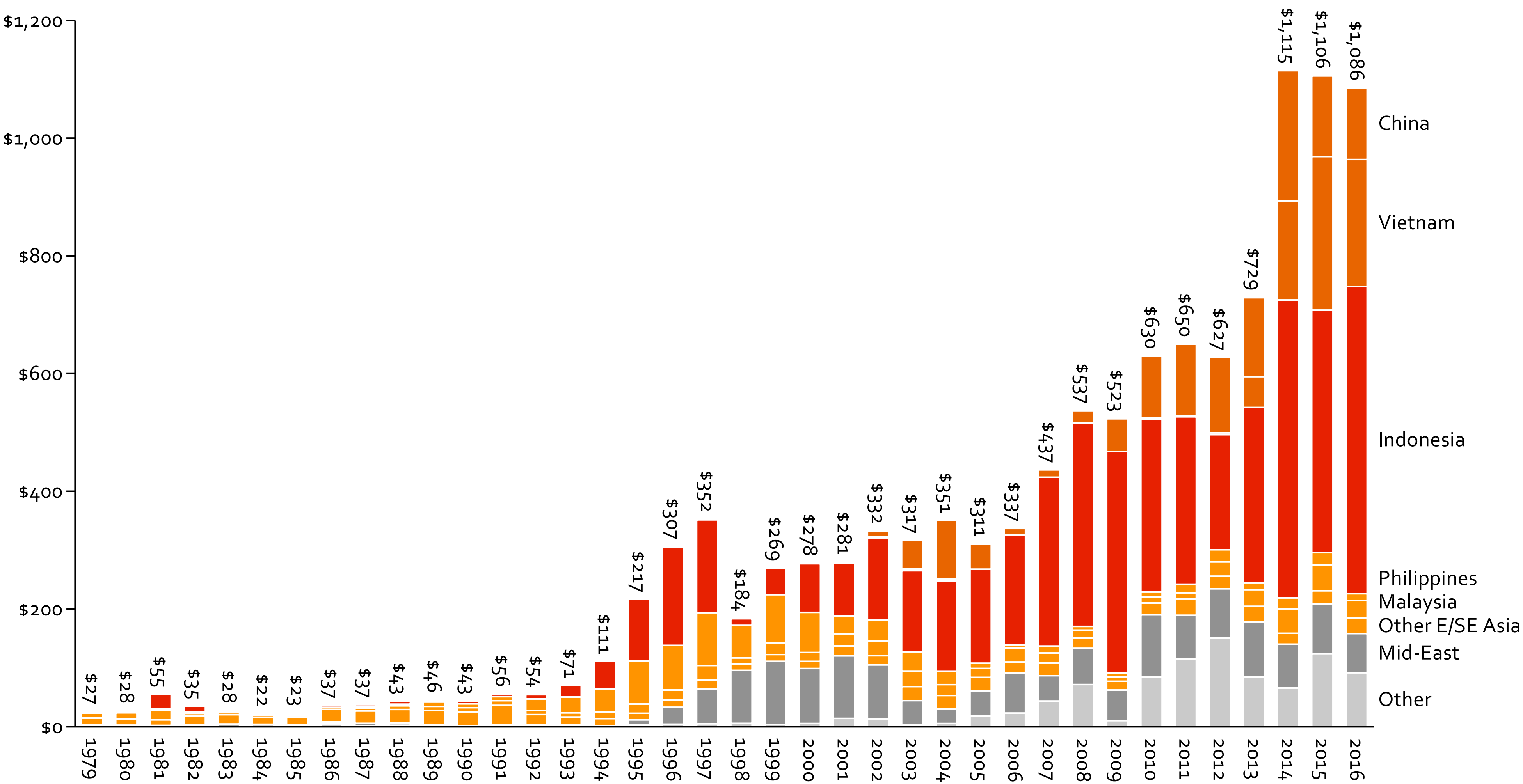


* 2017 uses TTM 12/16; all others YE June; Note: 82-99 uses % of export weight; Source: various ABS publications and reports; Coriolis analysis

Export value growing long term

The value of Australian live cattle exports is growing long term

Live cattle export value (US$; 000; 1979-2016)



Note: 82-99 uses % of export weight; Source: various ABS publications and reports; Coriolis analysis

4.3 Western Australia live cattle firm activity

Western Australia has a robust live cattle trade

- The live cattle supply export chain is reasonably straightforward in Western Australia
- A range of live cattle exporters operate out of Western Australia
- The three major live exporters accounted for two thirds of all cattle going out of WA ports in 2016
- Investment and acquisition is occurring across the live beef supply chain, on-shore and off-shore

Live cattle export supply chain

The live cattle export supply chain is reasonably straightforward in Western Australia

Farming Operations

- Heytesbury Cattle Co.
- Minderoo
- Hancock Prospecting
- Yeeda
- Pardoo Station
- Jumbuck Pastoral
- CPC
- Irongate
- Australian Capital Equity
- Dunkeld Pastoral Co
- Hamersley Agriculture
- Harmony agriculture & food co
- *Other beef operations*

→

Agents

- Elders
- Landmark
- Primaries
- Ruralco Holdings Limited
- Westcoast Livestock Sheep and Cattle
- *Other agents*

→

Live Exporters

- Wellard
- international livestock export
- Livestock Shipping Services Pty Ltd
- Frontier International Agri
- Landmark International
- Harmony agriculture & food co
- Halleen
- Seals
- *Other live exporters*

→

Markets

Indonesia

Israel

Vietnam

Malaysia

China

Russia

Mauritius

Pakistan

Thailand

Other markets

Source: industry interviews, Coriolis analysis

Live cattle exporters

A range of live cattle exporters operate out of Western Australia

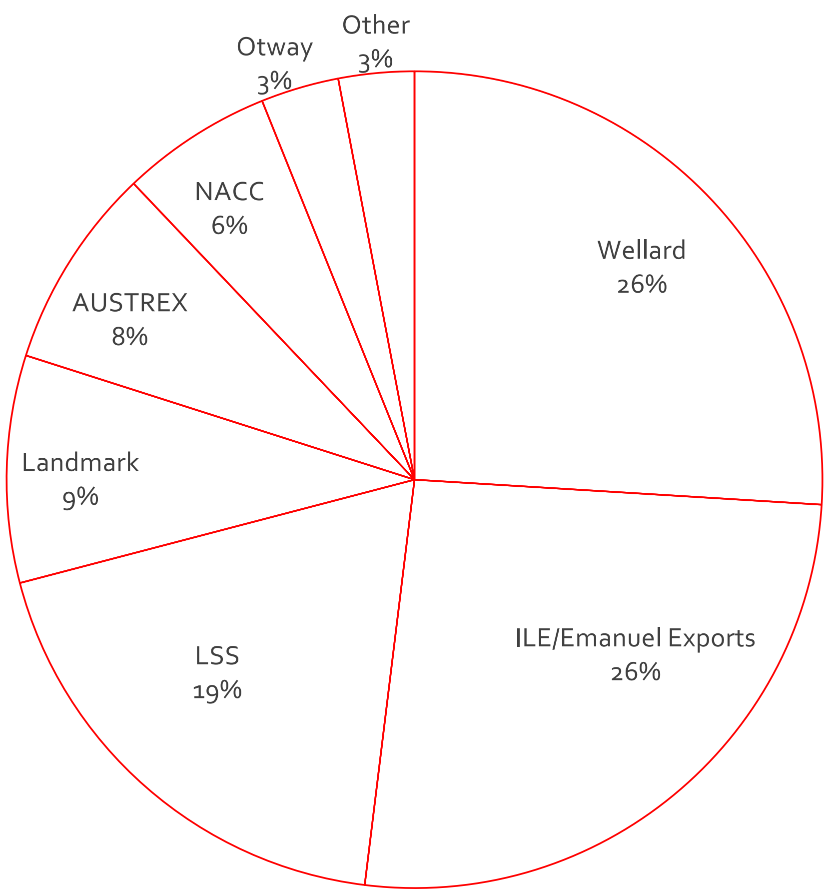
FIRM	YEAR EST.	DESCRIPTION	VESSELS	VOLUMES	WA OPERATIONS
Wellard	1980	Live exports, sheep and goat meat, #1 exporter of cows to Indonesia; ship owner; facilities in WA, QLD, NT; recently sold MV Ocean Outback vessel to Israeli company Dabbah Slaughterhouse for $35m	Owned	~95,000 cattle out of WA ports in 2016*	HQ Perth; Wellard Feeds in Wongan Hills; La Bergerie pre-export facility (80,000 sheep capacity); Stirling Yards pre export facility (1,200 cattle); BRM abattoir
international livestock export	1989	Live exporters of cattle, sheep and goats; South East Asia and Middle East; exports Awassi sheep; includes Emanuel Exports	Partnership	~95,000 cattle out of WA ports in 2016*	Perth based; sourcing stock in WA; two feedlots in Broome and Perth
LSS Livestock Shipping Services Pty Ltd	1998	Live exporter, sheep, cattle, camels; supply hubs around the world; access to one of worlds largest livestock transport fleets of 11 vessels; 4 vessels trading from Australia; Middle East, Russia, Kazakhstan, Turkey; facilities in WA and SA	Owned	~67,000 cattle out of WA ports in 2016*	Amberley quarantine facilities (100,000 sheep), Narrogin quarantine facility (10,000 cattle), Serpentine-Jarrahdale holding yards (5,000 cattle); Hillside Abattoir
Landmark International	2008	Live exporting arm of Landmark; cattle, bovine embryos, semen; exports to Canada, USA, Uruguay, ME, China, Japan, Russia, NZ; owned by Agrium	No	~32,000 cattle out of WA ports in 2016*	Sourcing cattle in WA; shipping out of northern WA ports
Austrex	1973	Live exporter; cattle, breeding sheep, goats, buffalo, genetics; based in Brisbane; offices in Russia, China, Uruguay, Turkey, Indonesia, NZ, Pakistan, Kazakhstan; uses 5 Vroon vessels	Leased	~28,000 cattle out of WA ports in 2016	Sourcing cattle in WA; shipping out of northern WA ports
North Australian Cattle Company (NACC)	2003	Live exports; formerly owned by Elders, acquired by Zhoushan Fanda Australian Cattle Industrial Co and management; focus on South East Asia, developing China; yarding facilities across Northern Australian ports; long term lease of specialist vessels	Leased	~20,000 cattle out of WA ports in 2016*; mainly to Indonesia and Vietnam	Sourcing cattle in WA; shipping ~15% of their shipments out of northern WA ports
Otway Livestock Exports	1995	Victorian based live exporter; expanding operations in WA; cattle and sheep	No	~12,000 cattle out of WA ports in 2016*	Sourcing cattle in WA; shipping out of northern WA ports
SEALS	1996	Northern Australia live exporters of cattle; use ports of Townsville, Mourilyan, Weipa, Karumba, Darwin, Broome, Wyndham, Port Hedland, Geraldton; Fremantle and Portland as required; exports to SE Asia; three long term charters on specialist livestock vessels	Leased	~10,000 cattle out of WA ports in 2016*	Offices in Perth; sourcing cattle in WA; shipping out of northern WA ports
Frontier International Agri	2013	Live exporter; cattle, breeding sheep; sourcing relationships in NZ and South America; exports to India, China, Korea, Japan, SE Asia; Ruralco JV with 7 former Elders executives	No	~8,600 cattle out of WA ports in 2016*	Key agent supply partners in Perth, Karratha and Broome, sourcing cattle in WA; shipping out of northern WA ports
Halleen	1983	Live exporter; cattle by sea and air; agribusiness management and consulting services; SE Asia focus	No	~7,000 cattle of WA ports in 2016	Based in Perth; sourcing cattle in WA; shipping out of Geraldton port

* includes some out of other states, some shipments co-shared with other exporters; Source: DAWR; various published articles; company annual reports; Coriolis analysis

Live cattle exporting consolidated but competitive

The three major live exporters accounted for two thirds of all cattle going out of WA ports in 2016

Share of WA live cattle exports* (% of head; YE Dec 16)



TOTAL = 360,000 head

Head of cattle exported out of WA ports* (head; YE Dec 16)

Firm	Exported 2016
Wellard	~95,000
International Livestock Export/Emanuel Exports	~95,000
Livestock Shipping Services	~67,000
Landmark Operations	~32,000
AUSTREX	~28,000
NACC	~20,000
Otway Livestock Exports	~12,000
Other	~11,000
TOTAL WA	360,000

* includes some out of other states, some shipments co-shared with other exporters; some Dec 2016 shipments are included in 2017 report to parliament resulting in discrepancy to MLA annual figures; Source: DAWR; various published articles; company annual reports; Coriolis analysis and estimates

Investment in the sector continues

Investment and acquisition is occurring across the live beef supply chain, on-shore and off-shore

S. Kidman & Co	Hancock Prospecting	NACC
- Acquired S. Kidman & Co cattle stations in 67% JV with Shanghai CRED, 'Australian Outback Beef' - $386.5m - 10 operations, 10.1m ha across Northern Australia	- Signed MOU with Zhejiang provincial government to establish new cattle feedlot, quarantine and meatworks - Partners New Hope Group - Ambitions of live exporting 800,000 cattle/year	- Acquired Elders live export operations - Fanda Australian Cattle Industrial Co and current management partnership - 130,000 cattle transported in 2016, mostly to Indonesia and Vietnam
DRIVER	DRIVER	DRIVER
- Growth in demand for protein - Diversification into agriculture from mining	- Growth in demand for protein - Lower costs of processing in China	- Growth in demand for protein - Secure supply

Source: interviews; published articles; Coriolis analysis

5. Beef

This report is designed to flow from the high level "big picture" (macroeconomic) through to market and product details (microeconomic) and then to details about specific companies and specific transactions (firm). Both the total document and individual products sections are organised this way.

page 4 — 1. Core Opportunity

page 13 — 2. Current Industry Situation

page 31 — 3. Emerging Investment Themes

page 61 — 4. Live Cattle

page 82 — 5. Beef

page 106 — 6. Live Sheep

page 128 — 7. Sheep Meat

page 153 — 8. Other Meats

page 162 — 9. Key Firms Profiled

page 193 — 10. Appendix

5.1 Global beef market situation

Global demand for imported beef is growing

- High level macro drivers suggest flat consumption growth, but increasing trade volume (3.7%) and rising prices (3.7%), leading to good global trade value growth (7.5%)
- Beef (cattle meat) is one of the three major global meats, accounting for 20% of global meat production; beef production is growing slowly (40y CAGR 1.1%), leading to a gradual decline in per capita consumption
- Global beef trade is growing, driven by growing volume (10y CAGR 3.7%) and growing average prices (10y CAGR 3.7%) leading to growing trade value (10y CAGR 7.5%)
- Beef meat is traded in a range of forms, however boneless dominates; frozen currently growing above the market
- Beef is sold across a wide range of markets; however, value growth is coming from E/SE Asia and the Middle East
- Australia is the largest global beef supplier and growing with the market

Macro drivers support market growth

High level macro drivers suggest flat consumption growth, but increasing trade volume (3.7%) and rising prices (3.7%), leading to good global trade value growth (7.5%)

Total beef

Global production growth

1.1%pa

Global consumption growth (all forms)

-0.4%pa

Beef meat

Global trade volume growth

3.7%pa
(3 to 5%)

X

Global trade price growth

3.7%pa
(3 to 5%)

=

Global trade value growth

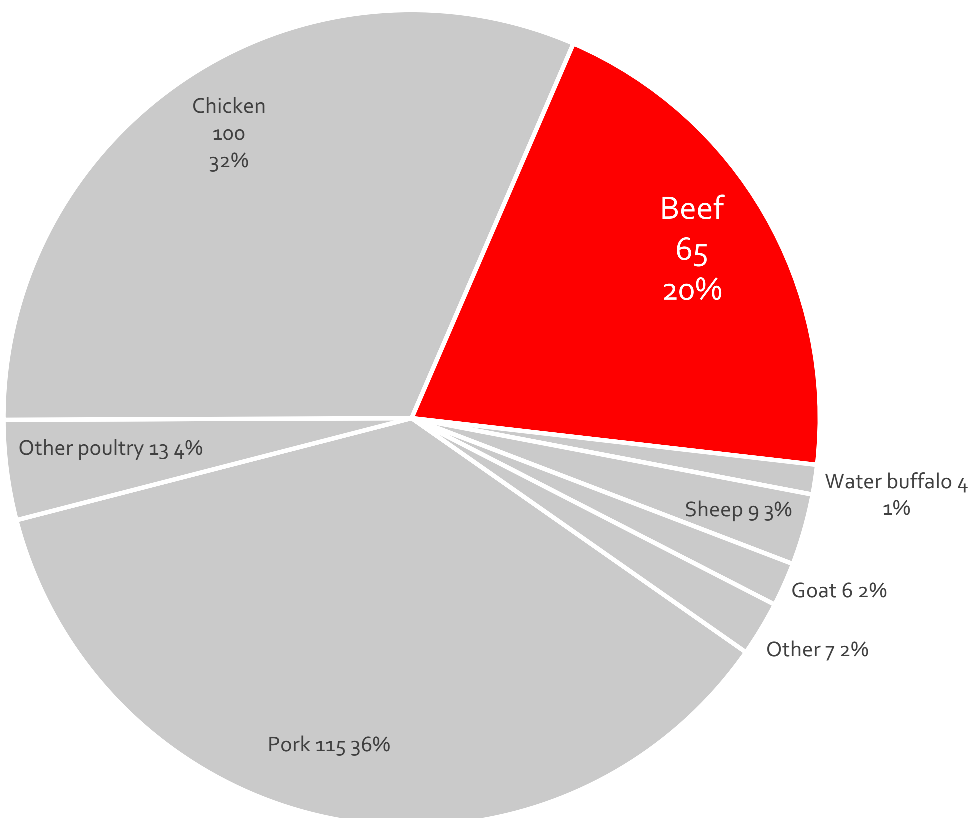
7.5%pa
(6 to 9%)

Note: see related sections for details; Source: United Nations; FAO; Comtrade; Coriolis analysis and estimates

Top three meat

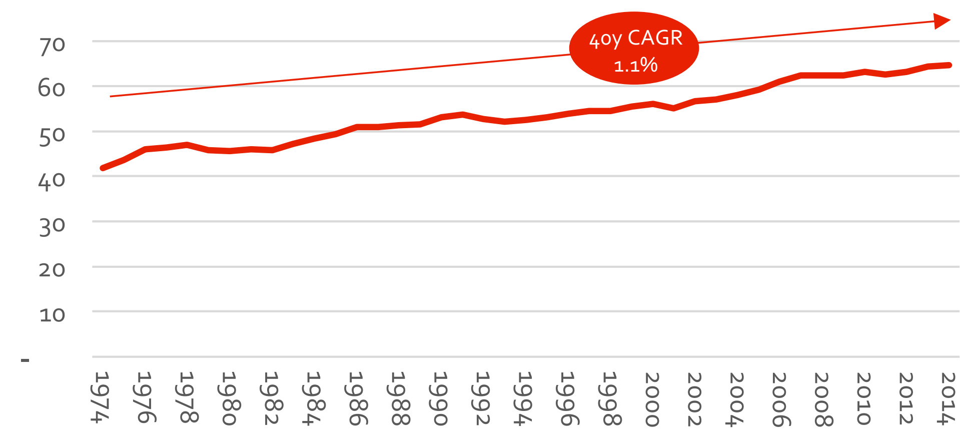
Beef (cattle meat) is one of the three major global meats, accounting for 20% of global meat production; beef production is growing slowly (40y CAGR 1.1%), leading to a gradual decline in per capita consumption

Global meat production by type (t; m; 2014)

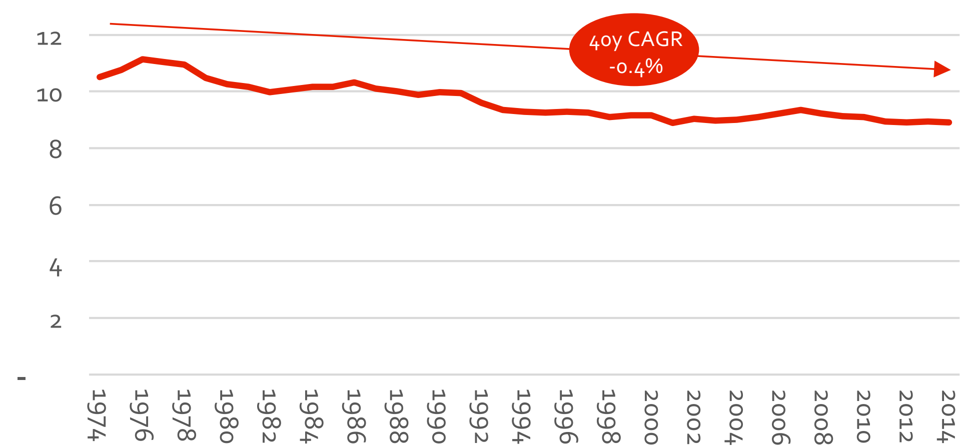


TOTAL = 318m tonnes

Global beef production (t; m; 74-14)



Global beef consumption per capita; all forms (kg; 74-14)

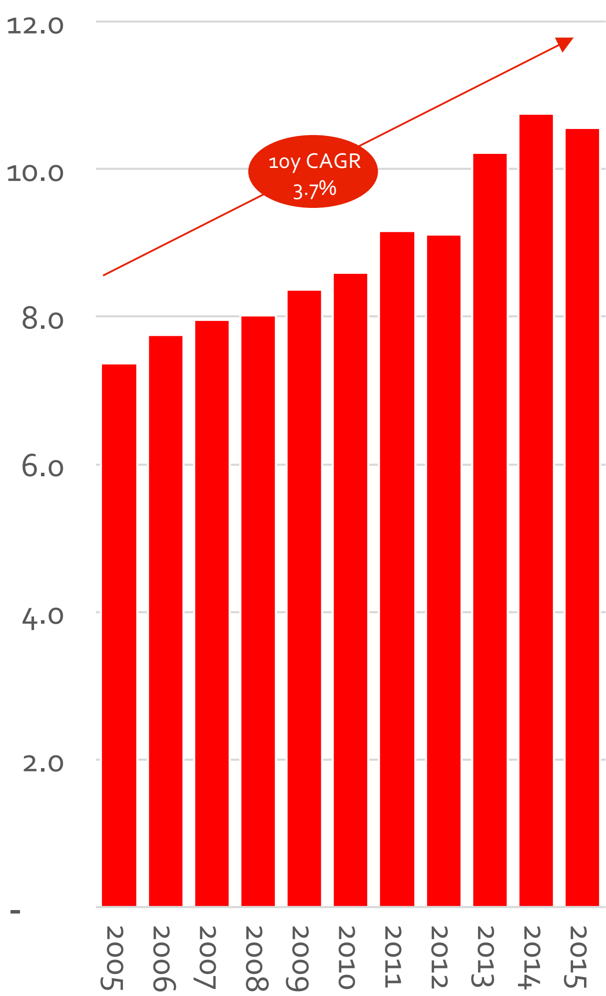


Source: FAO; Coriolis analysis

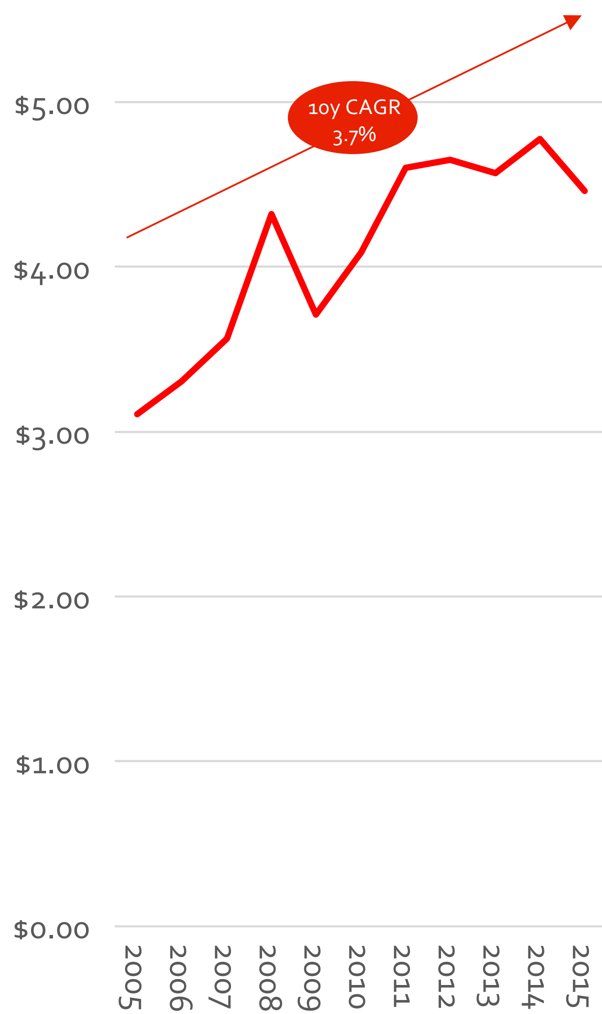
Growing beef trade

Global beef trade is growing, driven by growing volume (10y CAGR 3.7%) and growing average prices (10y CAGR 3.7%) leading to growing trade value (10y CAGR 7.5%)

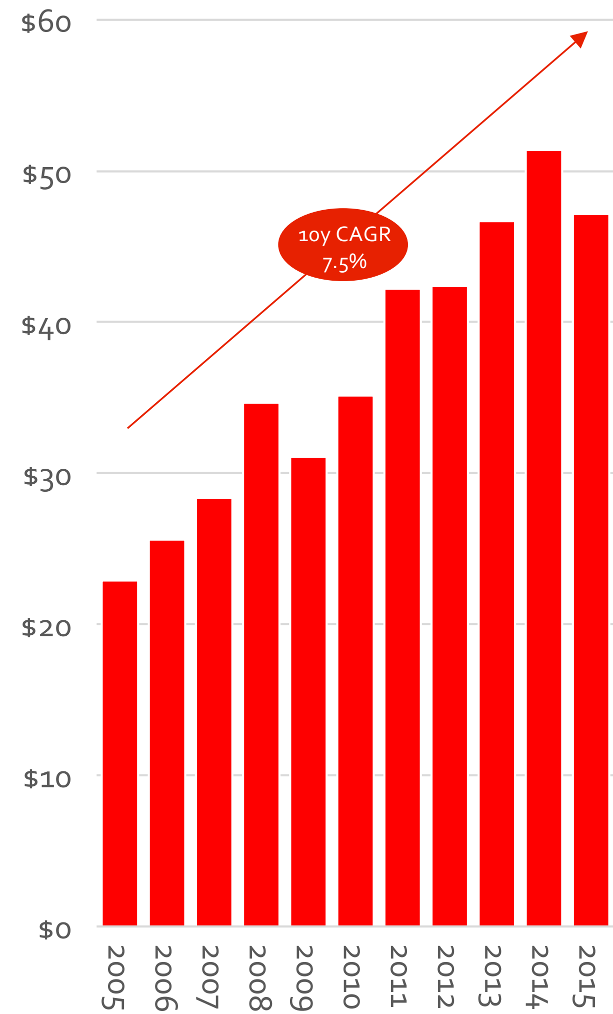
Global export volume (t; m; 05-15)



Average global price (US$/kg; 05-15)



Global export value (US$; b; 05-15)

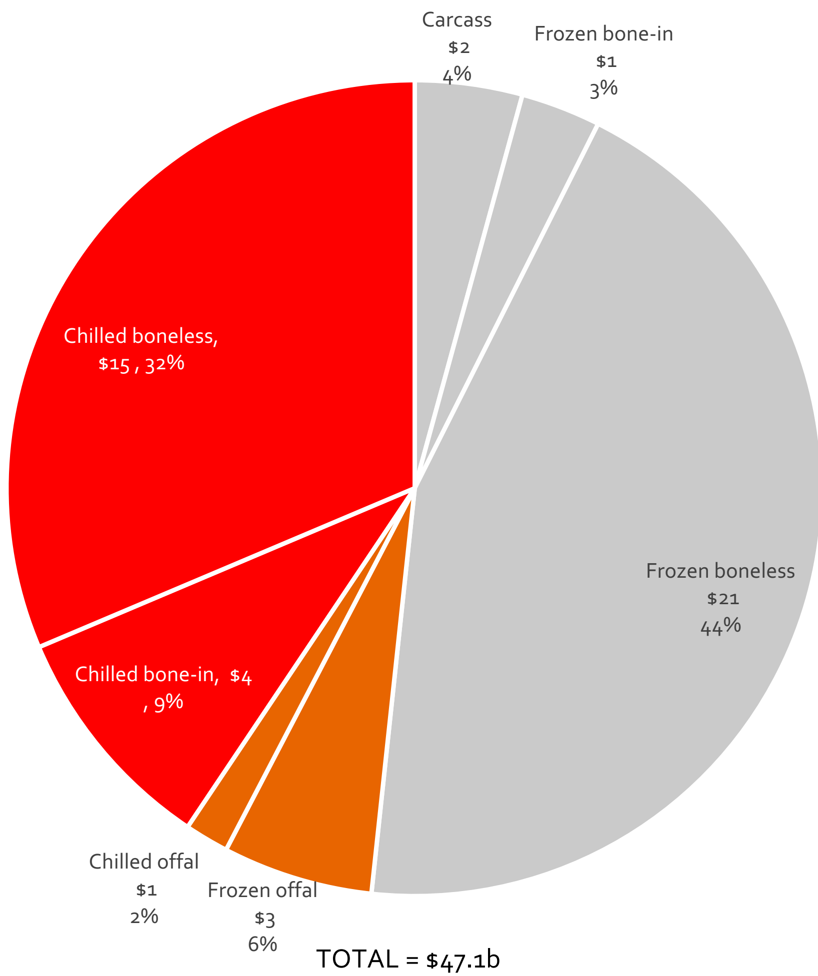


Source: FAO; Coriolis analysis

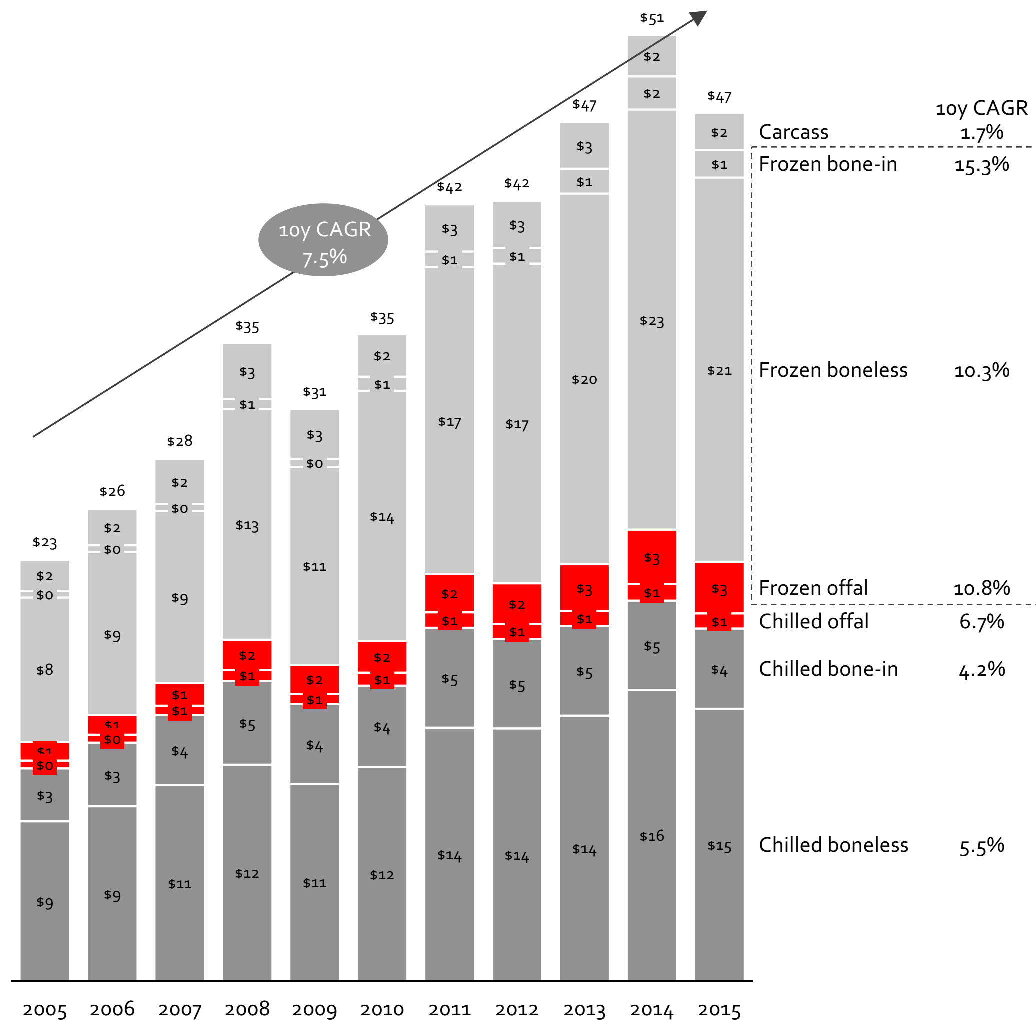
Chilled worth more

Beef meat is traded in a range of forms, however boneless dominates; frozen currently growing above the market

Global beef meat exports by product (US$; b; 2015)



Global beef meat exports by product (US$; b; 05-15)

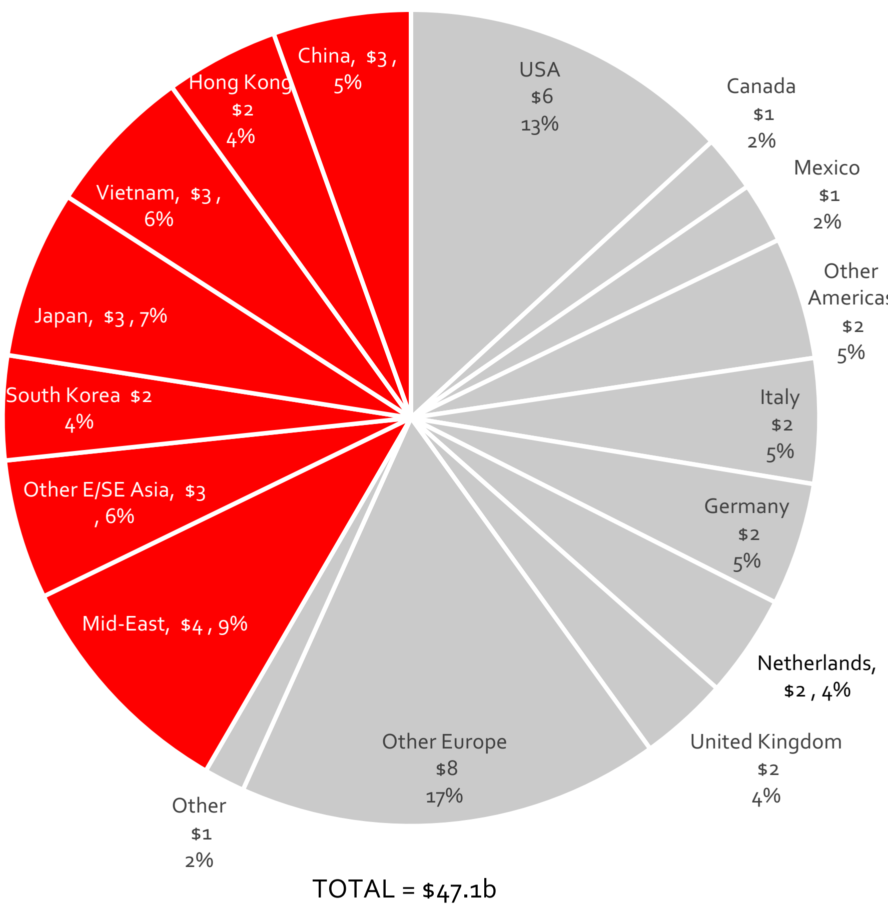


Source: FAO; Coriolis analysis

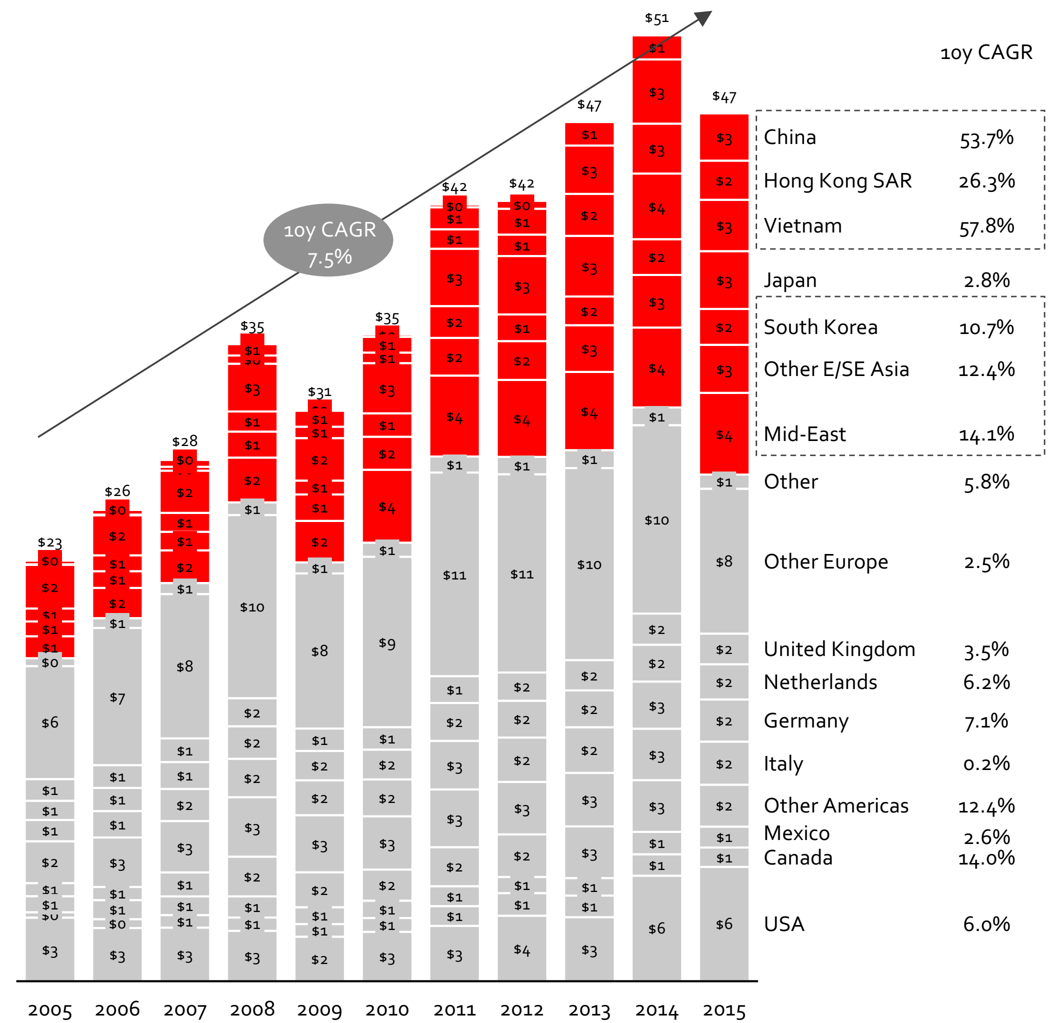
Wide range of markets

Beef is sold across a wide range of markets; however, value growth is coming from E/SE Asia and the Middle East

Global beef meat imports by buyer (US$; m; 2015)



Global beef meat imports by buyer (US$; m; 05-15)

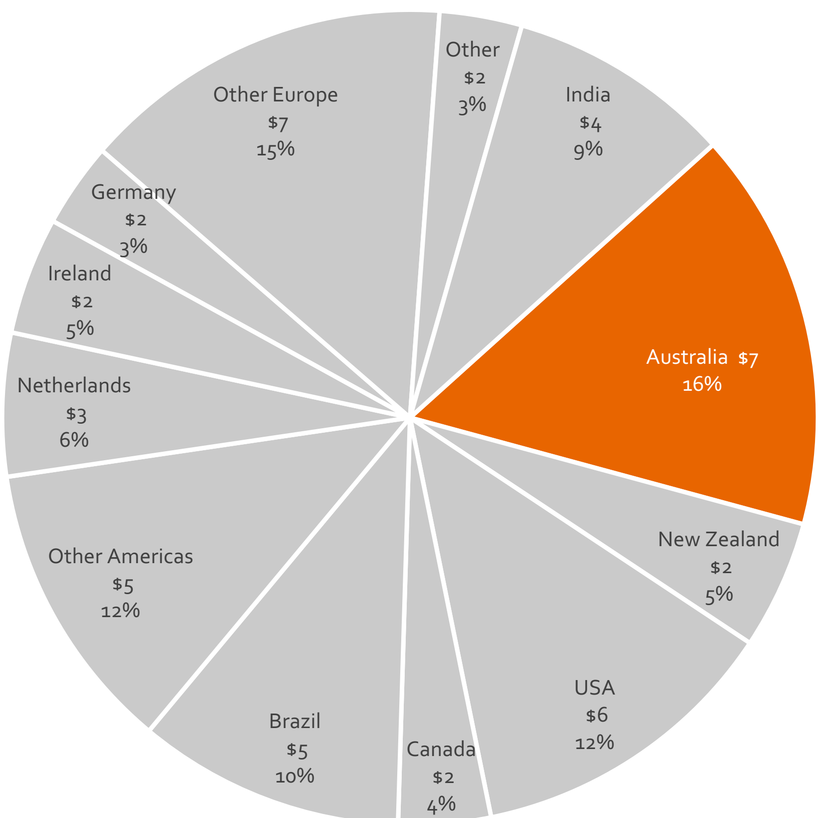


Source: FAO; Coriolis analysis

Strong and growing number one

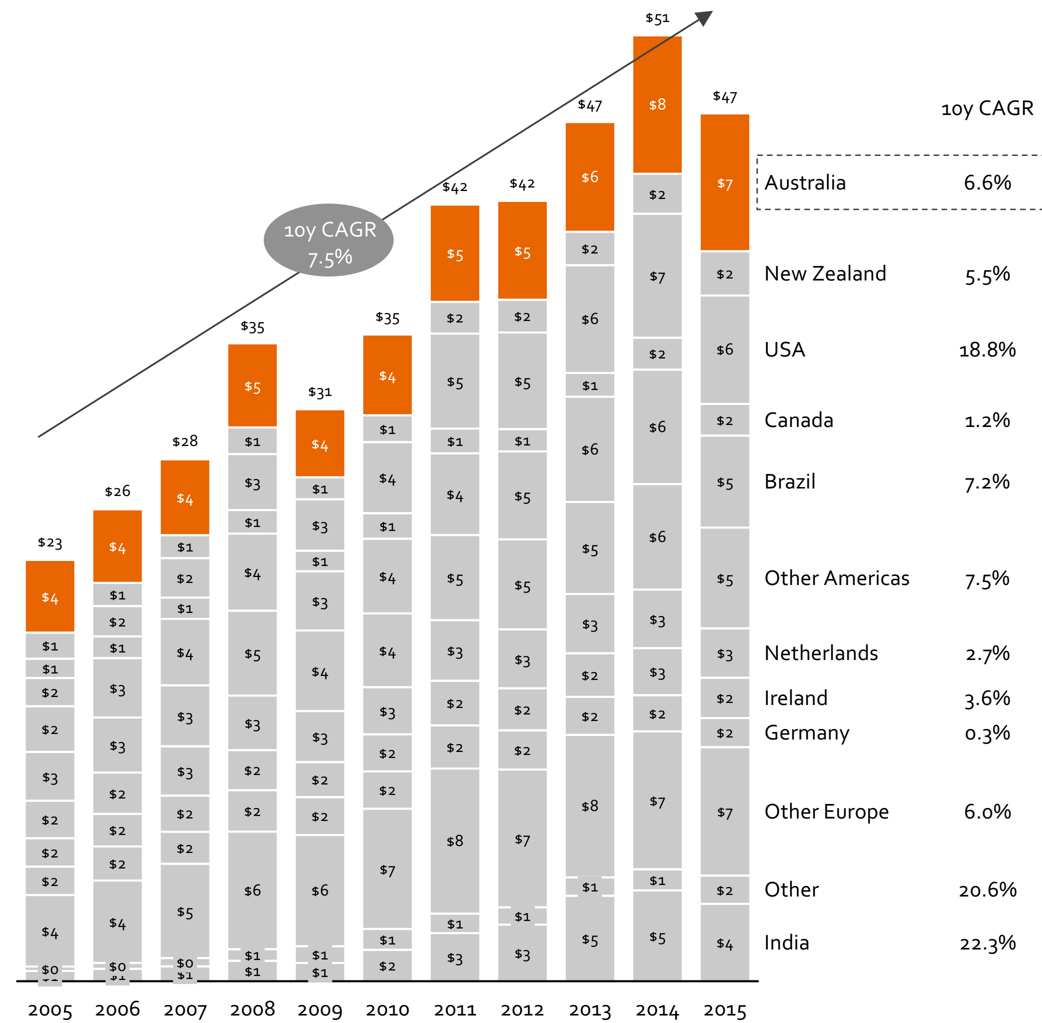
Australia is the largest global beef supplier and growing with the market

Global beef meat exports by supplier (US$; b; 2015)



TOTAL = $47.1b

Global beef meat exports by supplier (US$; b; 05-15)



Source: FAO; Coriolis analysis

5.2 Western Australia beef situation

Western Australia is a significant beef producer achieving long-term growth in animal numbers

- Macro drivers for WA beef industry present a moderate growth environment going forward

PRODUCTION

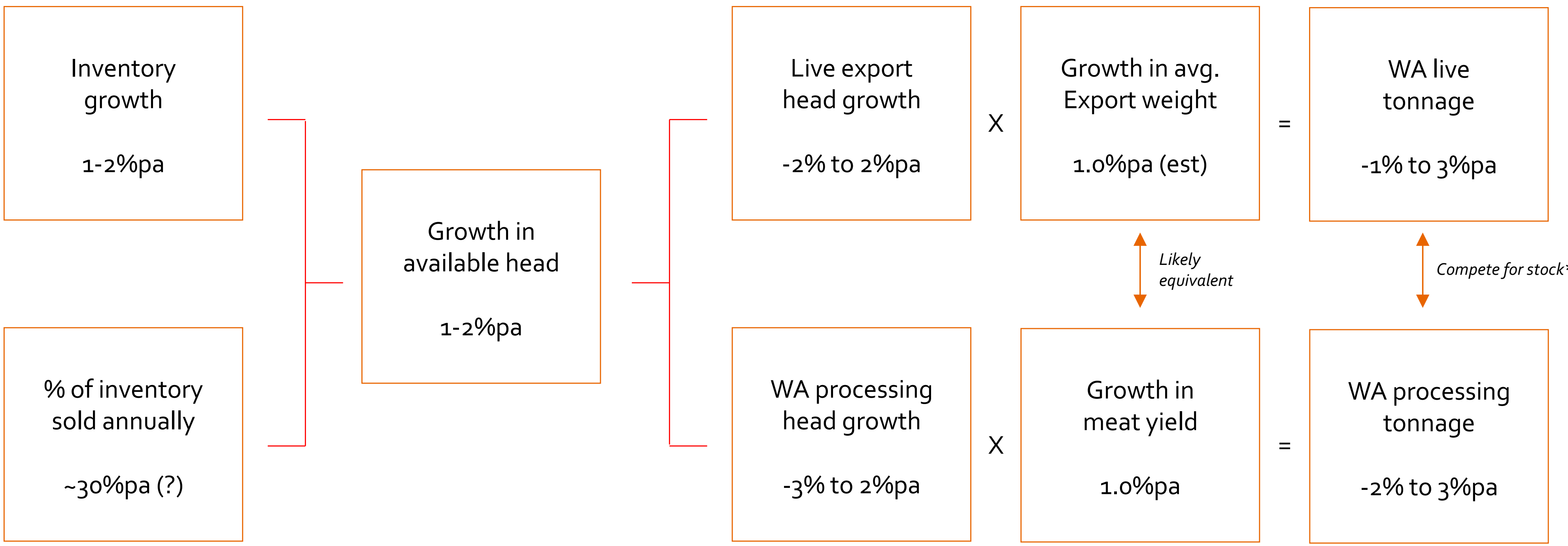
- Western Australia can continue to grow total cattle numbers going forward
- However, trajectory for number of cattle processed is unclear as the industry competes (to some extent) with live exports for stock
- Western Australia has achieved long-term beef yield growth of 1%pa (32y CAGR) since the mid 1980's
- Peers suggest Western Australia can continue to increase beef yields in the future
- Western Australia can potentially continue to increase beef production going forward

TRADE

- Western Australia exported A$160m of beef (YE Mar-17), representing 2.2% of total Australian beef exports; the state has been achieving moderate export growth across the cycles
- Western Australian beef exports go predominantly to East and South East Asia

Macro drivers support moderate growth

Macro drivers for WA beef industry present a moderate growth environment going forward

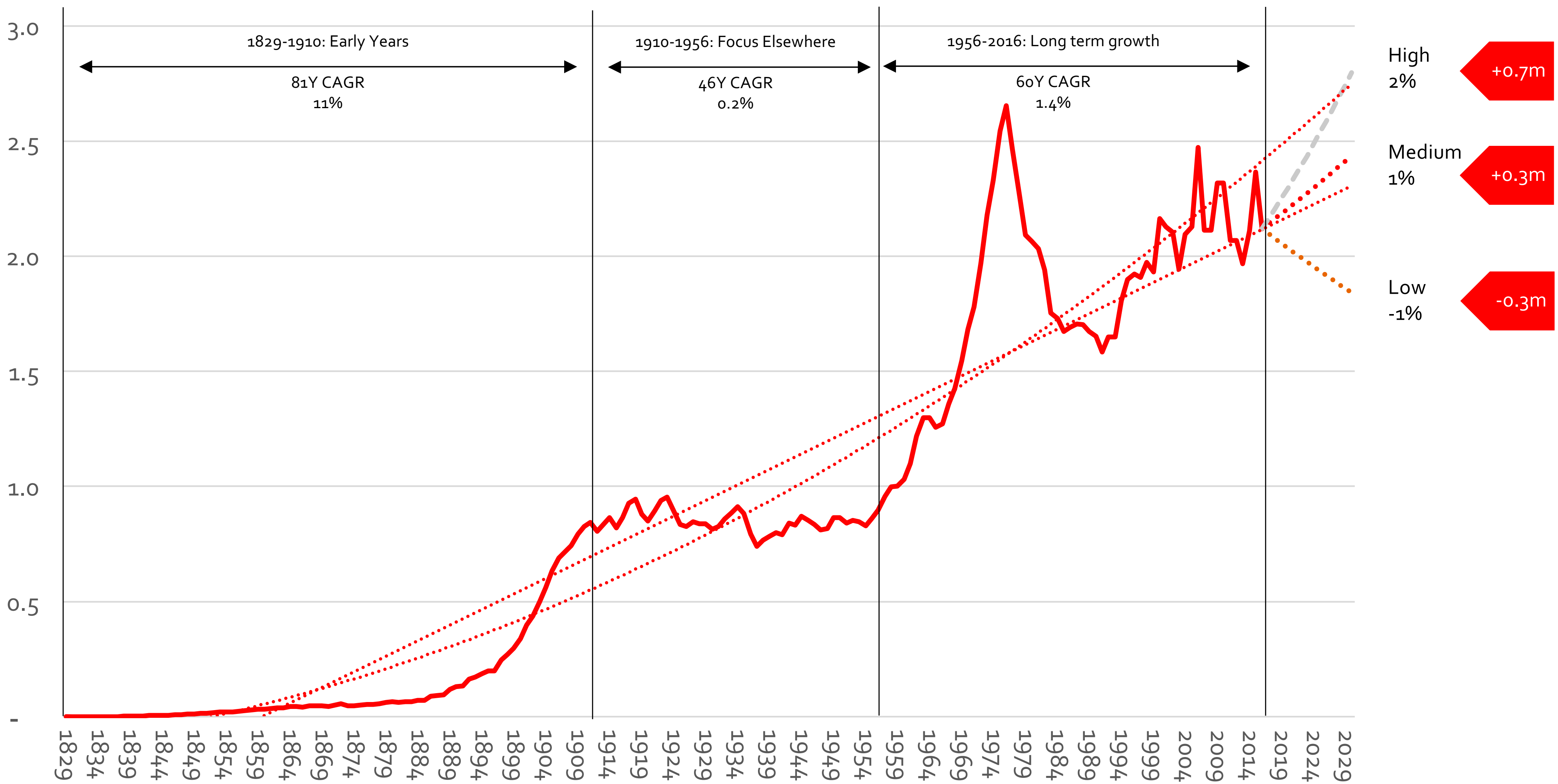


* at some level; not in all locations; see related sections for details; Source: United Nations; FAO; Comtrade; Coriolis analysis and estimates

Continued growth in cattle numbers

Western Australia can continue to grow total cattle numbers going forward

Number of cattle in Western Australia (headcount; point-in-time inventory; m; 1829-2015; 2016p; 2017-2030m)

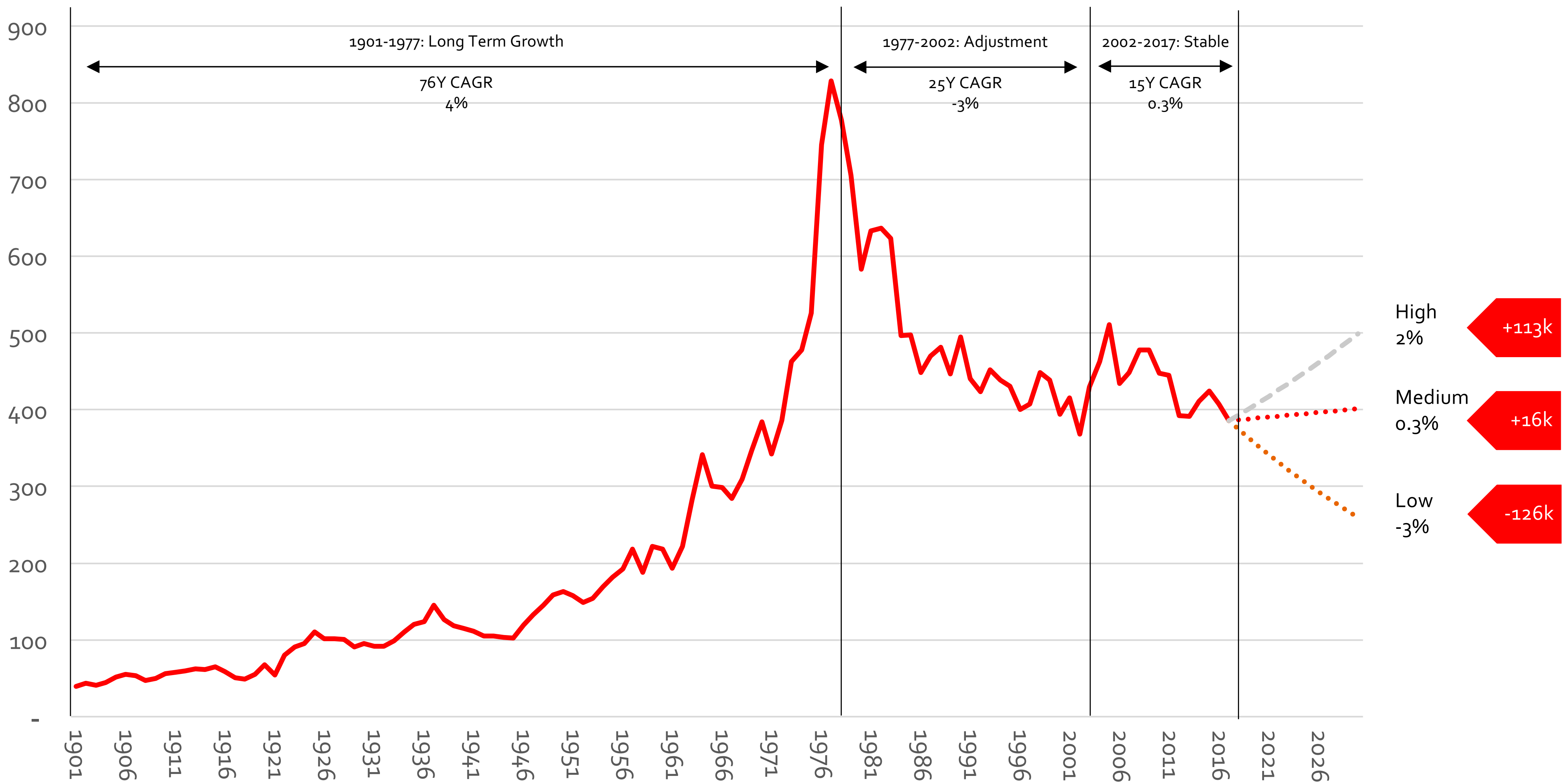


Source: various ABS publications and reports; Coriolis modelling

Continued growth in head processed

However, trajectory for number of cattle processed is unclear as the industry competes (to some extent) with live exports for stock

Number of cattle processed (annual head processed; 000; June years 1901-2016; YE Jan 17; 2018-2030m)

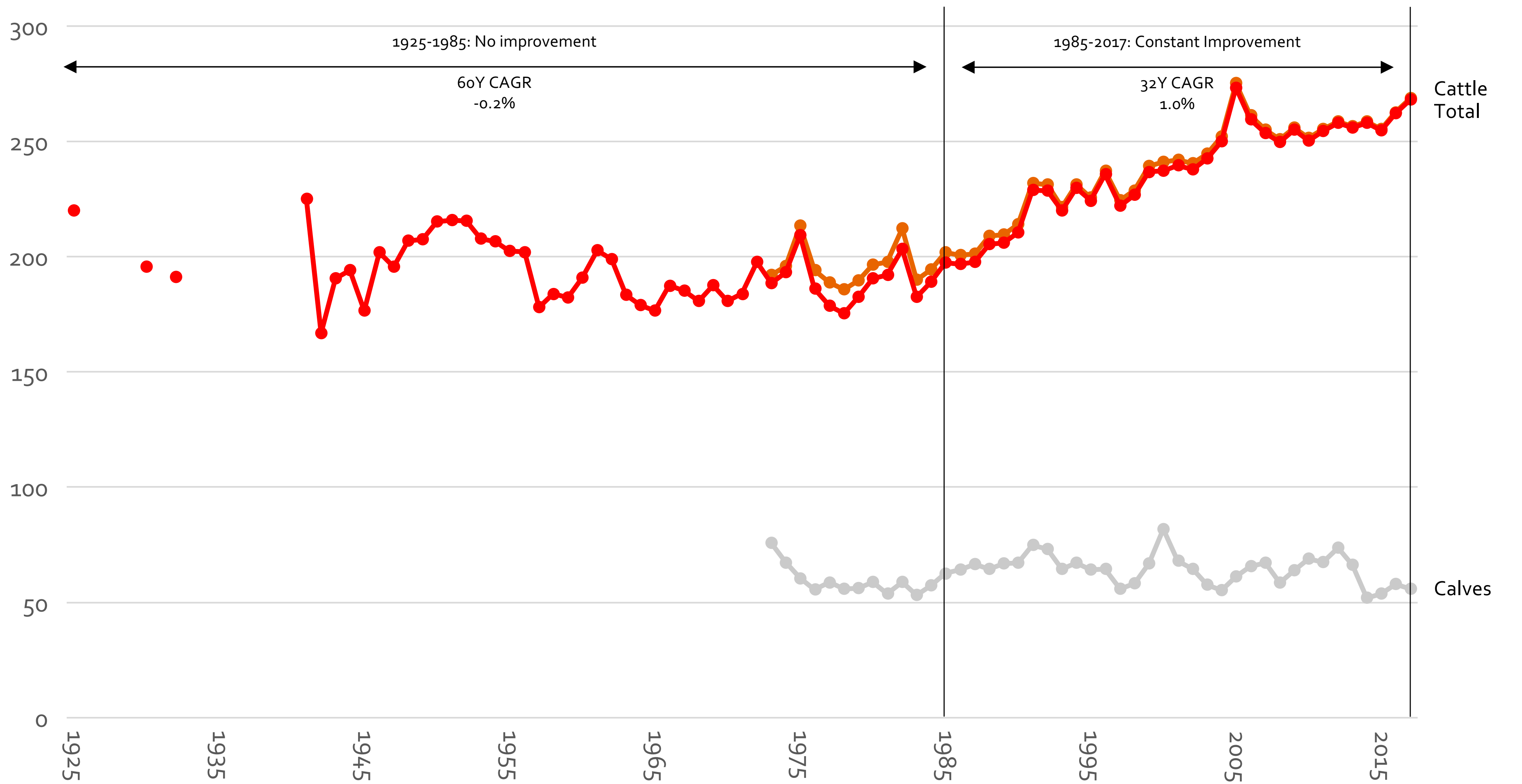


Source: various ABS publications and reports; Coriolis modelling

Achieved yield growth

Western Australia has achieved long-term beef yield growth of 1%pa (32y CAGR) since the mid 1980's

WA beef yield per carcass (kg/animal; 1925-2016a; 2017p)

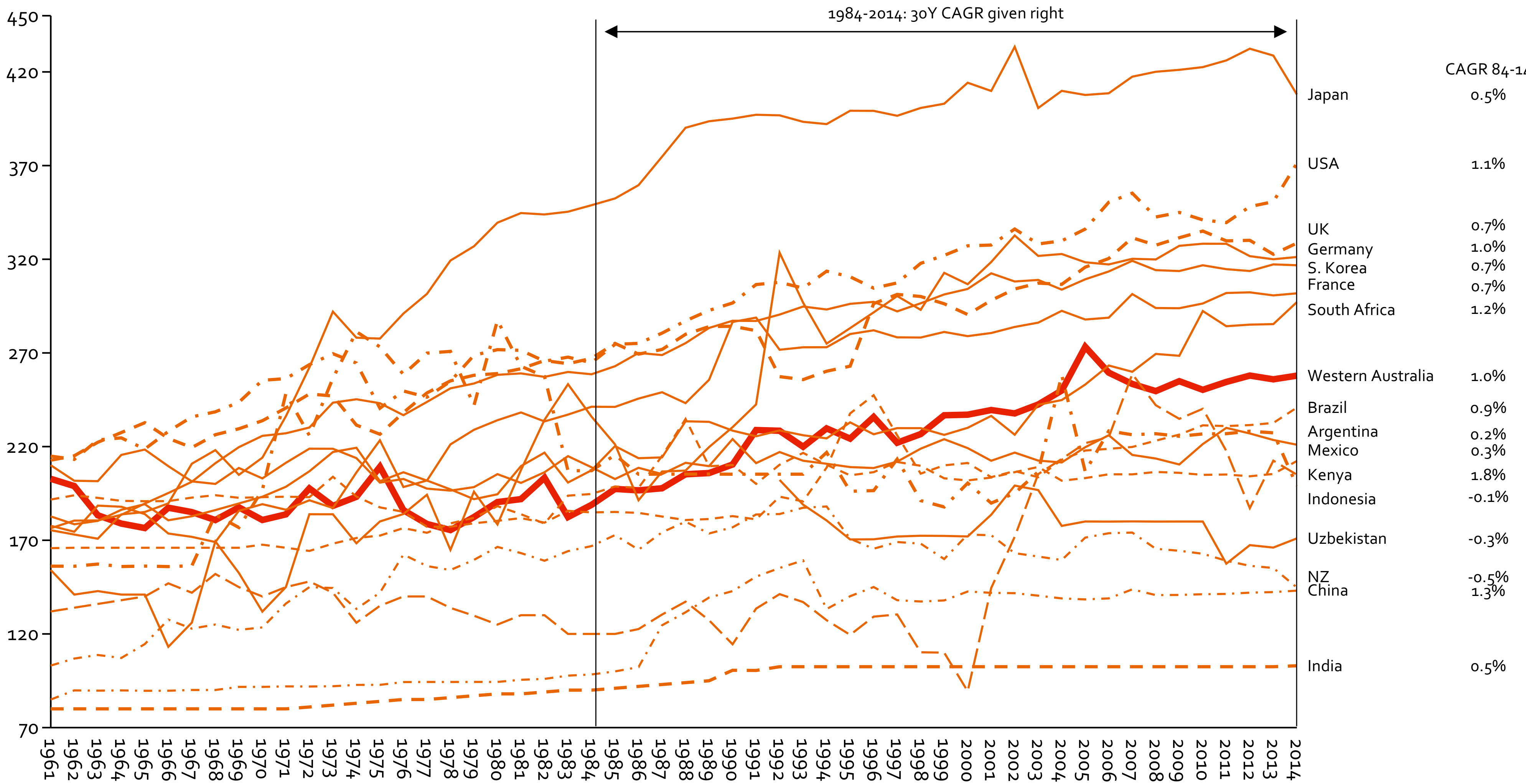


Note: includes estimation of missing data in some earlier years; Source: various ABS publications and reports; Coriolis analysis

Limited yield improvements possible

Peers suggest Western Australia can continue to increase beef yields in the future

Average beef yield per carcass (kg/head; 61-14)

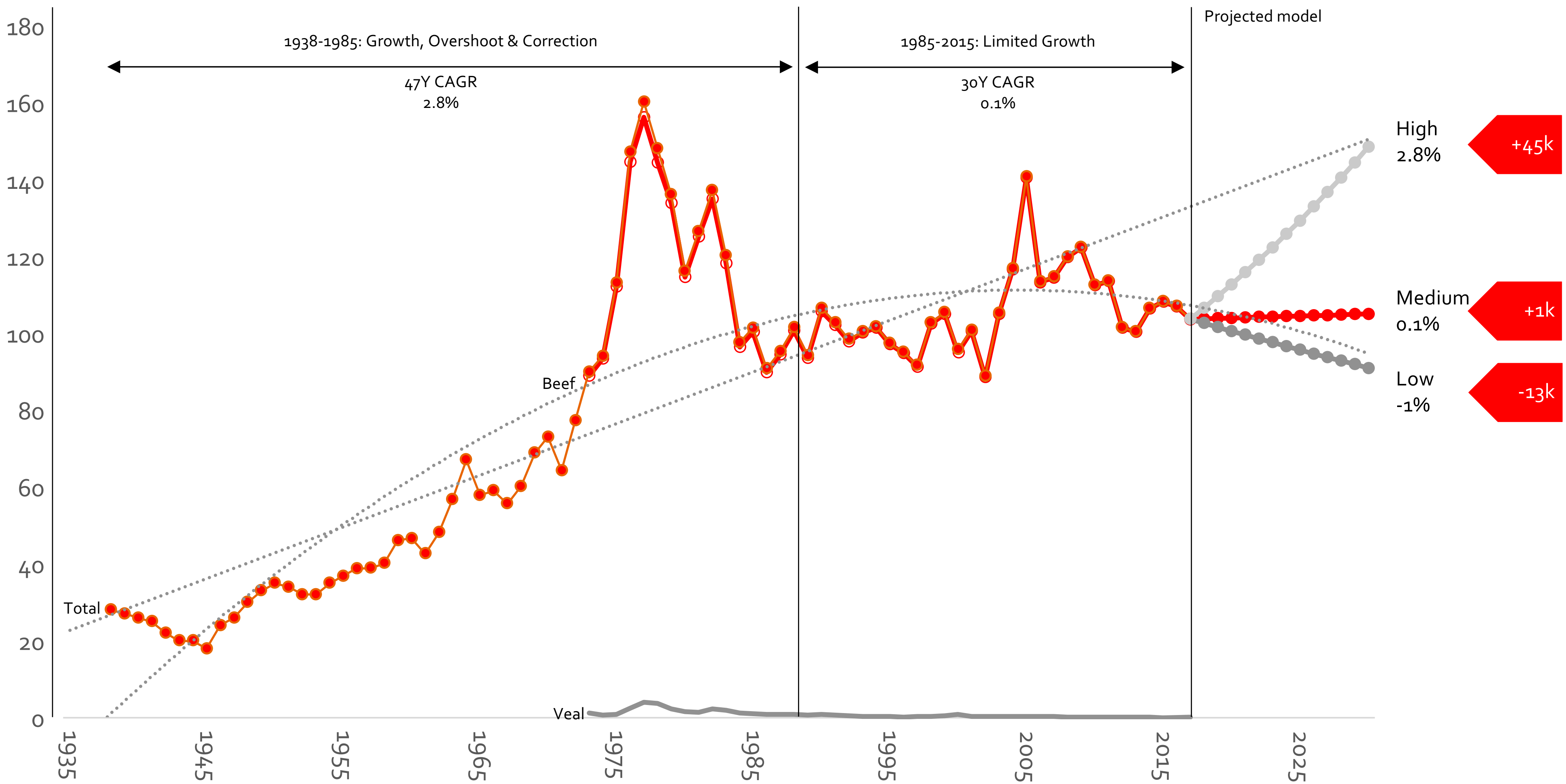


Note: 2014 is the latest available globally; Source: United Nations FAO; various ABS publications and reports; Coriolis analysis

Production growing

Western Australia can continue to increase beef production going forward

Cattle meat production in Western Australia (t; m; 1938-2015a; 2016-2030p)

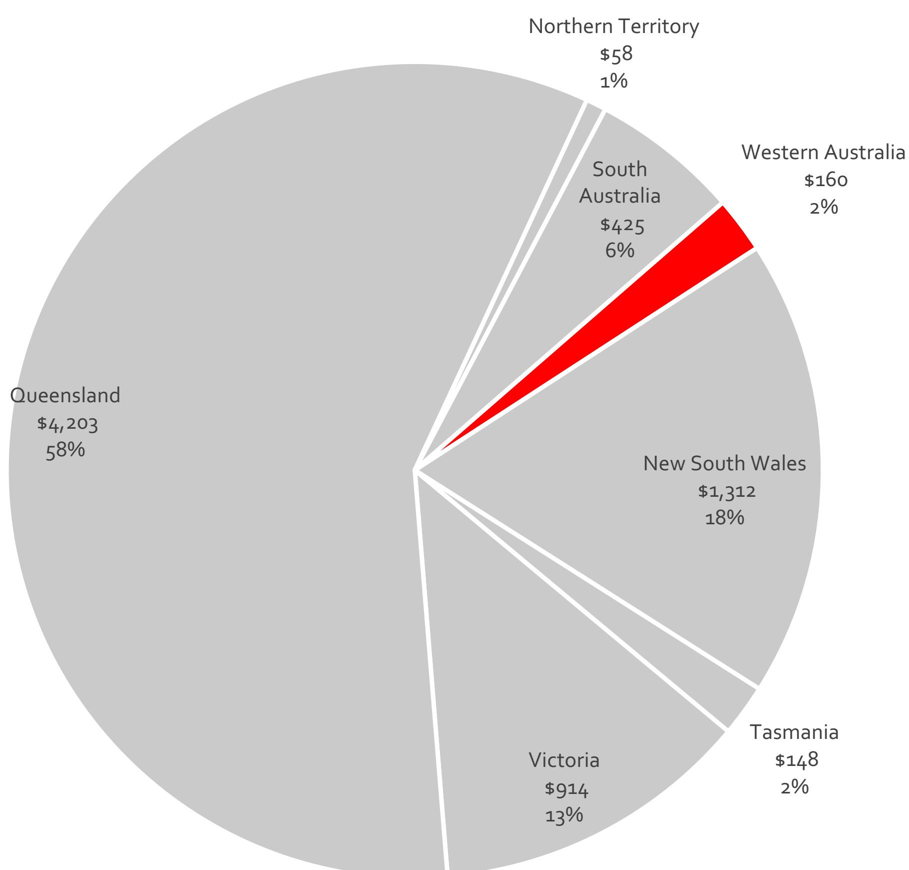


Note: includes estimation of missing data in some earlier years; Source: various ABS publications and reports; Coriolis analysis and modelling

Growing beef exports

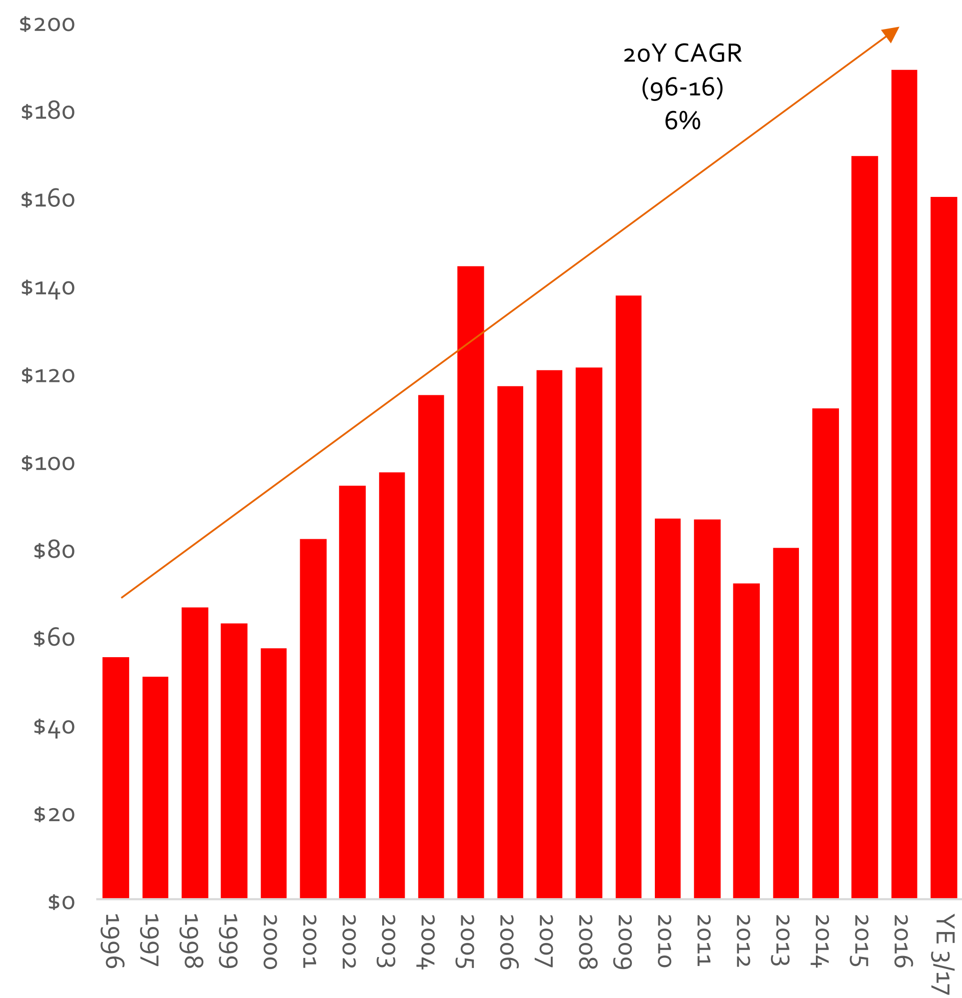
Western Australia exported A$160m of beef (YE Mar 17), representing 2.2% of total Australian beef exports; the state has been achieving moderate export growth across the cycles

Australian beef export value by state (A$; m; YE Mar 17)



Total = A$7,234m

WA beef exports (A$; m; YE Jun 96-16; YE Mar 17)

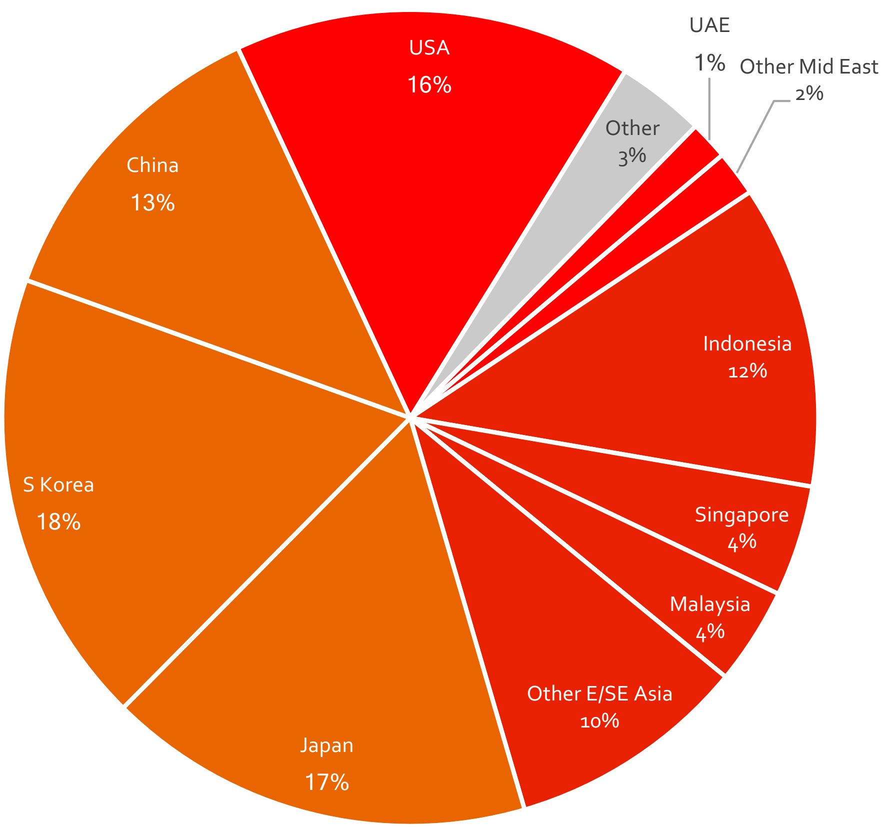


Source: ABS; Coriolis analysis

East & South East Asian Markets

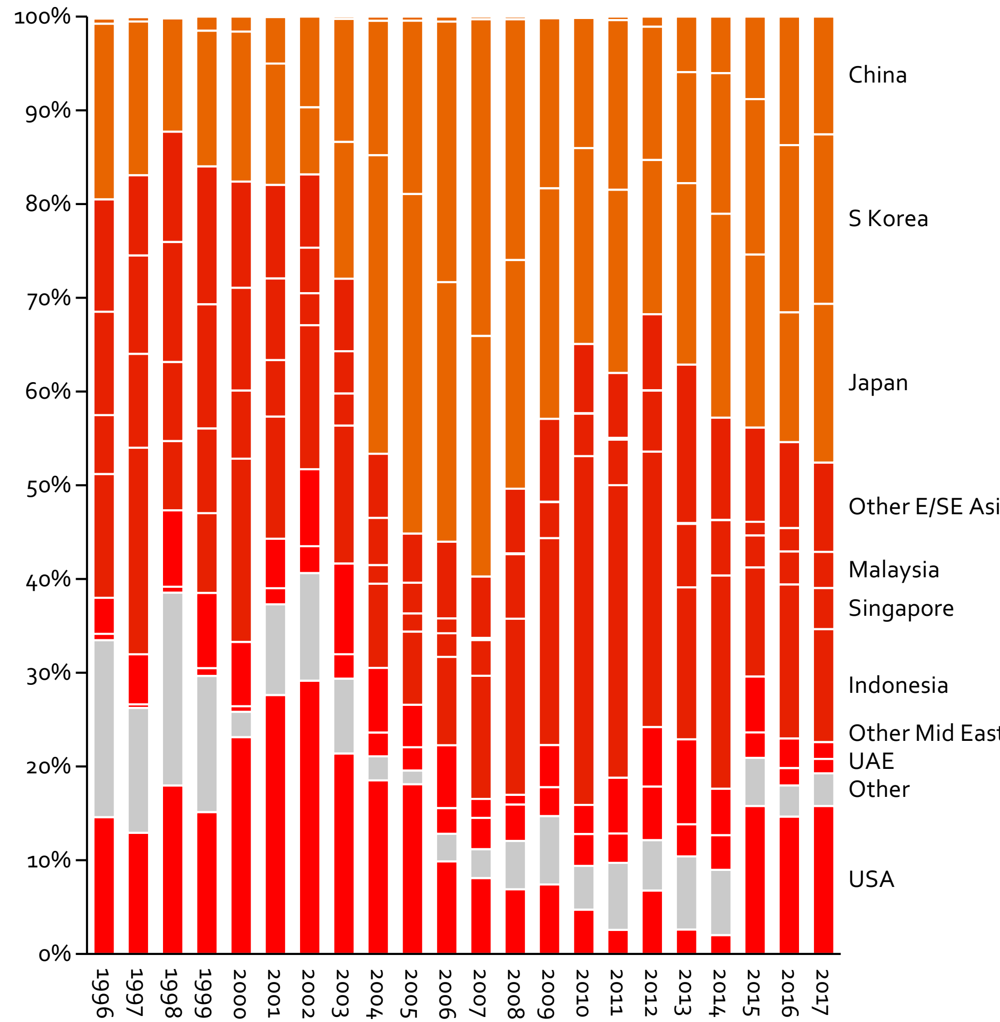
Western Australian beef exports go predominantly to East and South East Asia

WA beef exports by destination (%; YE Mar 17)



Total = A$160m

WA beef exports (%; YE Jun 96-16; YE Mar 17)



Source: ABS; Coriolis analysis

5.3 Western Australia beef processing firm activity

Western Australia has a robust and modern beef processing industry

- The beef supply chain is reasonably straightforward in Western Australia
- There is a range of firms operating in Western Australia, across the entire beef supply chain
- Western Australia has a range of accredited abattoirs, clustered around production areas
- Four key firms process most of Western Australian beef meat; about half exported live
- Investment is occurring across the beef supply chain
- There are a number of potential acquisition targets in the Western Australian beef industry, particularly among the smaller firms

Beef – a multistage supply chain

The beef supply chain is reasonably straightforward in Western Australia

Farming Operations

Other beef operations

Agents

Primary Processing

Live exports

Secondary Processing

Other processors

Retail & Foodservice

Independent supermarkets

Independent butchers

Foodservice

QSR, restaurants, bars, hotels, clubs, etc.

Beef/beef products exports

Source: industry interviews, Coriolis analysis

Firms across the beef supply chain

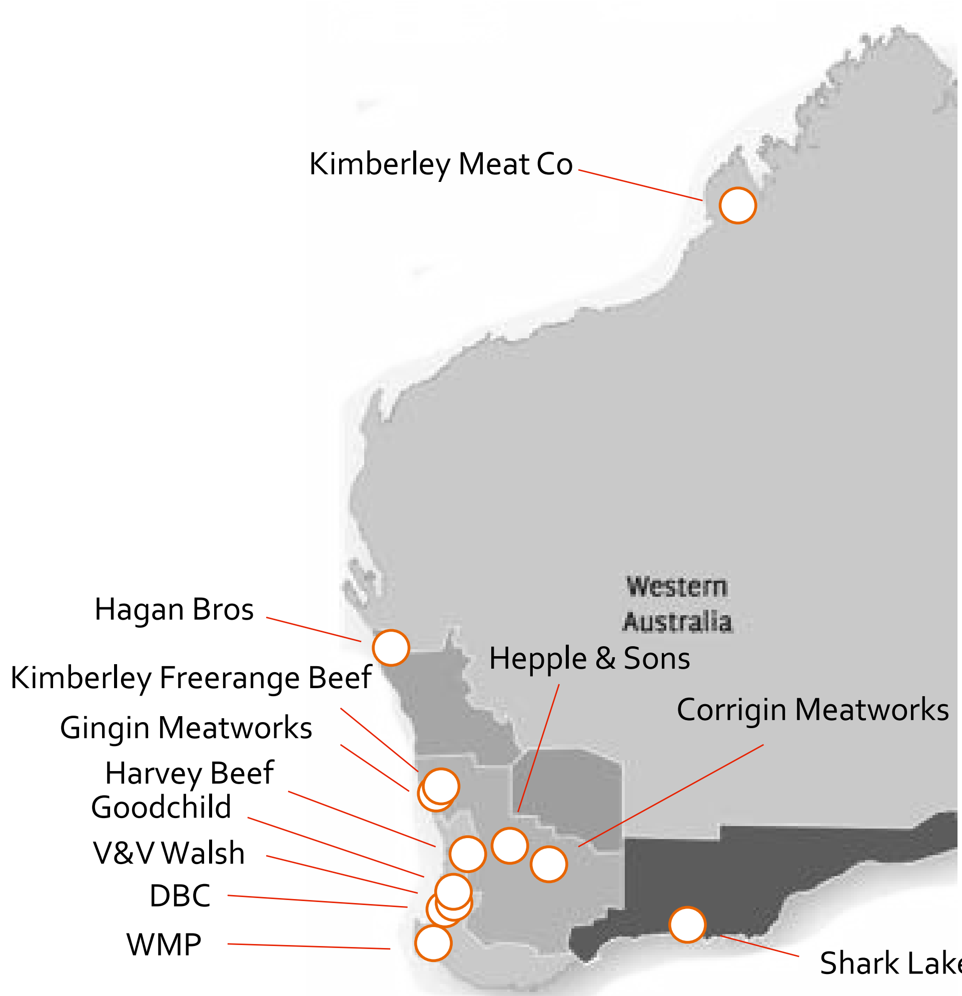
There is a range of firms operating in Western Australia, across the entire beef supply chain

Firm	Description	Farming & feedlotting	Primary processing	Secondary processing	Exporting	Branded product
Kylagh Cattle Co	Cattle producer; one of largest feedlotting operations in WA	✓				
Butterfield Beef	Angus and Angus cross beef producer; feedlotting and grain operations	✓				✓
Kerrigan Valley Grass Fed Beef	Backgrounder and feedlot in Hyden, WA	✓				✓
Blackwood Valley Beef	Organic beef producer; processed at V&V Walsh, further processing by Ryan's Quality Meats	✓				✓
Dandaragan Organic Beef	WA's largest organic beef producer	✓				✓
Gingin Beef	Grass fed beef producer; own and other farmers supply; free range, chemical free; supplies independents	✓				✓
Irongate Wagyu	Wagyu beef producer; farm near Albany; angus and wagyu; stud sales	✓				✓
Pardoo Beef Corp	Cattle station in Pilbara; establishing Wagyu herd; processed at V&V Walsh	✓				✓
MR Premium Meat Exports	Wagyu beef producer and marketer; largest herd of purebred Wagyu in WA	✓			✓	✓
Harmony	Vertically integrated cattle co; farming, sourcing cattle, feedlotting, breeding, live and processed exports	✓			✓	
Yeeda/Kimberley Meat Co	Cattle station and abattoir in northern WA; live export and domestic food service supply	✓	✓		✓	
Avon Valley Beef	Cattle farmer, abattoir in Northam, processing plant in Malaga; retail butchers sold in 2016	✓	✓	✓		✓
Harvey Beef/Minderoo	Vertically integrated beef company; Minderoo Pastoral stations; #1 beef processor and exporter	✓	✓	✓	✓	✓
V&V Walsh	Meat processor based in Bunbury; specialise in lamb and beef; chilled export license to China		✓		✓	✓
WMP	Meat processor; export licensed abattoir in Cowaramup, processing facility in Osborne Park		✓	✓	✓	✓
Goodchild Meats	Abattoir and boning room operations; wholesale butchers with retail store at boning room site		✓	✓		
Borrello Group	Family owned bulk beef and processed meats wholesaler; abattoir in Gingin, boning room in Hazelmere		✓	✓		✓
DBC	Multi species abattoir and value added processing; wholesale and retail butcher stores			✓		✓
Milne AgriGroup	Vertically integrated agribusiness; pork, chicken, retail ready processing for beef, lamb, goat, animal feed			✓		✓
Ryan's Quality Meats	Wholesale and retail butchers; further processing and distribution for number of WA beef producers			✓		✓
Organic & Biodynamic Meats WA	Co-op of organic and biodynamic meat growers in WA; marketing entity; South West growers					✓
Scrupulicious Farming	Process, pack and distribute products from organic, biodynamic, sustainable farms in South West of WA					✓

Beef abattoir location

Western Australia has a range of accredited abattoirs, clustered around production areas

CATEGORY	ABATTOIR
EXPORT	Harvey Beef
	Western Meat Processors (WMP)
	V & V Walsh
	Shark Lake Food Group (closed)
	Gingin Meatworks
	Kimberley Meat Company
	Kimberley Freerange Beef (closed)
DOMESTIC	Hepple and Sons
	Dardanup Butchering Company
	Corrigin Meatworks
	Goodchild Abattoirs
	Hagan Bros

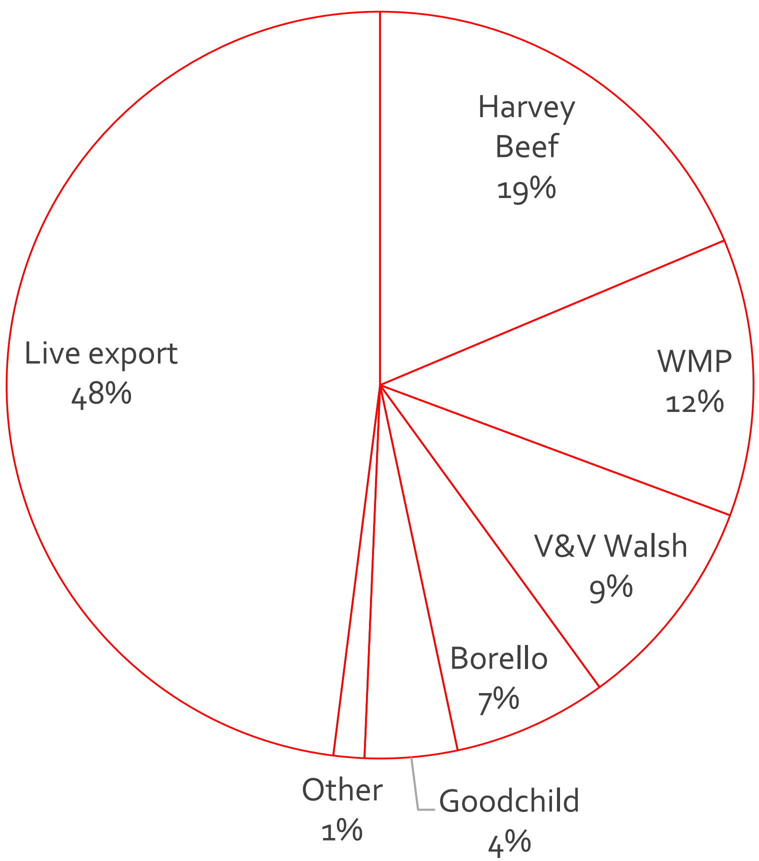


Note: current as at May 2017; Source: WAMIA annual report; Coriolis analysis

Four key beef processors

Four key firms process most of Western Australian beef meat; about half exported live

Share of WA beef head output (% of head; 2016)



TOTAL = 750k head

Production build-up in head killed (head; 000; YE Mar 17)

Firm	Capacity (head/week)	% of capacity	Throughput 2016
Harvey Beef	4,000/wk 200k/yr	70% (est.)	140k
Western Meat Packers	2,000/wk 100k/yr	90% (est.)	75-100k
V&V Walsh	2,000/wk 100k/yr	70% (est.)	70k
Borrello Group	1,250/wk 65k/yr	80% (est.)	45-55k
Goodchild	750/wk 39k/yr	77% (est.)	30k
Kimberley Meat Co	1,500/wk 72k/yr	33%* (est.)	5-8k*
Other	-	-	5-10k
TOTAL Processed			390k
Live export			360k
TOTAL			750k

*opened in Sep 2016, closed for wet season, ~500/wk when operating, % of capacity estimated on weekly production rate; Source: ABS; MLA; interviews; Coriolis research and estimates

Investment in the sector continues

Investment is occurring across the beef supply chain

Kimberley Meat Company

- Invested +$40m in new beef abattoir and boning room in the Kimberley
- 300 cattle a day capacity
- First abattoir to operate in the Kimberley since 1993
- Boxed beef exports shipped out of Fremantle initially

DRIVER

- Vertically integrate operation
- Supplement live trade

Harvey Beef

- Invested $25m upgrading new packing and retail ready facility

DRIVER

- New value added product lines
- Increase capacity to support domestic and export growth

MAP WA

- Retail ready facility specialising in case ready meats
- "Millions spent to date"
- Proposed automated warehousing, portion control cutting and packaging equipment investment

DRIVER

- Increase production and range
- Improved speed, efficiencies, shelf life

Source: interviews, published articles; published presentations; Coriolis analysis; Photo credit: Map data: Google

Acquisition targets

There are a number of potential acquisition targets in the Western Australian beef industry, particularly among the smaller firms

Potential to acquire key Western Australian beef processors

Firm	Current Owner	Operations	Species	Potential for outside investment?
Harvey Beef	Andrew Forrest	1 plant (Harvey)	Beef	Low; family firm; vertical integration with cattle stations
Western Meat Packers	Rod & Shana Russell	4 plants (Cowarump, Perth, Coogee) Finishing (Bunbury)	Beef Sheep	Low; family firm; turned down approach by CMG in 2014
V&V Walsh	Walsh family	1 plant (Bunbury)	Beef Sheep	Low; family firm; has had multiple approaches Some form of JV a possibility
Kimberley Meat Co	Jack Burton	2 plants (Derby, Gingin)	Beef	Low; recent investment; vertical integration with cattle station operations; stated publicly long term investment Gingin plant for sale/mothballed
Borrello Group	Borrello family	2 plants (Gingin, Hazelmere)	Beef	Medium; family firm; rejuvenated after death of founder in 2010; sold feedlot and retail operations, expanded into chilled boxed beef in 2014
Goodchild Meats	Goodchild family	2 plants (Bunbury, Coogee)	Beef Sheep	Medium; family firm; long established business
Hagan Brothers	Hagan family	1 plant (Greenough)	Beef Sheep Pork	Medium; family firm; small plant
Shark Lake Food Group	In receivership (Rami Koyu, others)	1 plant (Esperence) 1 partial plant (Cataby)	Sheep Beef	Very high; firm in receivership owing creditors
Geraldton Meat Exports	Tang family	1 plant (Geraldton)	Goats Sheep	Very high; mothballed plant that has been on the market; advertised as being able to be converted to cattle

6. Live Sheep

This report is designed to flow from the high level "big picture" (macroeconomic) through to market and product details (microeconomic) and then to details about specific companies and specific transactions (firm). Both the total document and individual products sections are organised this way.

page 4 — 1. Core Opportunity

page 13 — 2. Current Industry Situation

page 31 — 3. Emerging Investment Themes

page 61 — 4. Live Cattle

page 82 — 5. Beef

page 106 — 6. Live Sheep

page 128 — 7. Sheep Meat

page 153 — 8. Other Meats

page 162 — 9. Key Firms Profiled

page 193 — 10. Appendix

6.1 Global live sheep export situation

The live sheep trade is concentrated in the Middle East and the market is highly competitive

- High level macro drivers indicate flat volume demand (0%pa), and price increases at or under inflation, suggesting tough market conditions

PRODUCTION

- While sheep are spread across the planet, key centres for production are primarily the arid regions of Australia, parts of Europe, North Africa, the Middle East and China
- The Middle East, Africa and China are growing sheep numbers; Australia has falling animal numbers

TRADE

- Most sheep are processed in their country of origin by local firms; just under 3% of head cross borders, a share that has fluctuated in a narrow range over the past fifty years (other than a late 70's – 00's "OPEC surge")
- A handful of key Middle East markets make up the bulk of the global live sheep trade
- Global live sheep trade is now predominantly into the rich Arabian Gulf oil states, where the market is stable-to-growing, but shrinking elsewhere
- Most countries typically import live sheep from their neighbours; some Middle Eastern countries also receive sheep from Australia
- Global live sheep trade is flat (10y CAGR 0%), though with ups and downs, and achieving low price growth (10y CAGR 2%), leading to low (10y CAGR 2%) value growth

Macro drivers flat

High level macro drivers for the live sheep trade indicate flat volume demand (0%pa), and price increases at or under inflation, suggesting tough market conditions

Global production growth

1.4%pa

Global consumption growth (all forms)

-0.1%pa

Live sheep

Global trade head growth

0%pa

X

Global trade price/head growth

2%pa

=

Global trade value growth

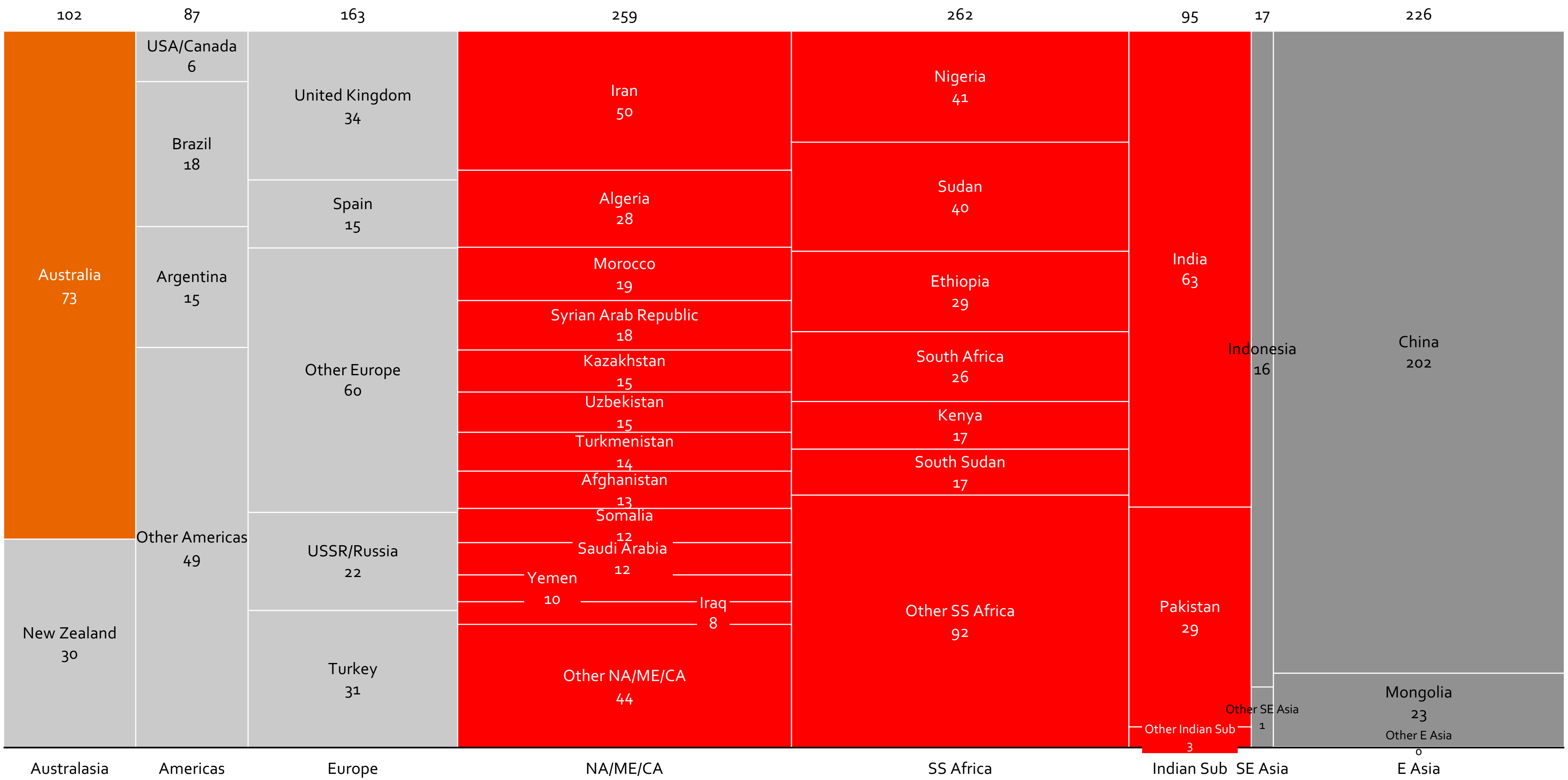
2%pa

Note: see related sections for details; Source: United Nations; FAO; Comtrade; Coriolis analysis and estimates

Spread across the planet

While sheep are spread across the planet, key centres for production are primarily the arid regions of Australia, parts of Europe, North Africa, the Middle East and China

Distribution of global sheep inventory (head; m; 2014)

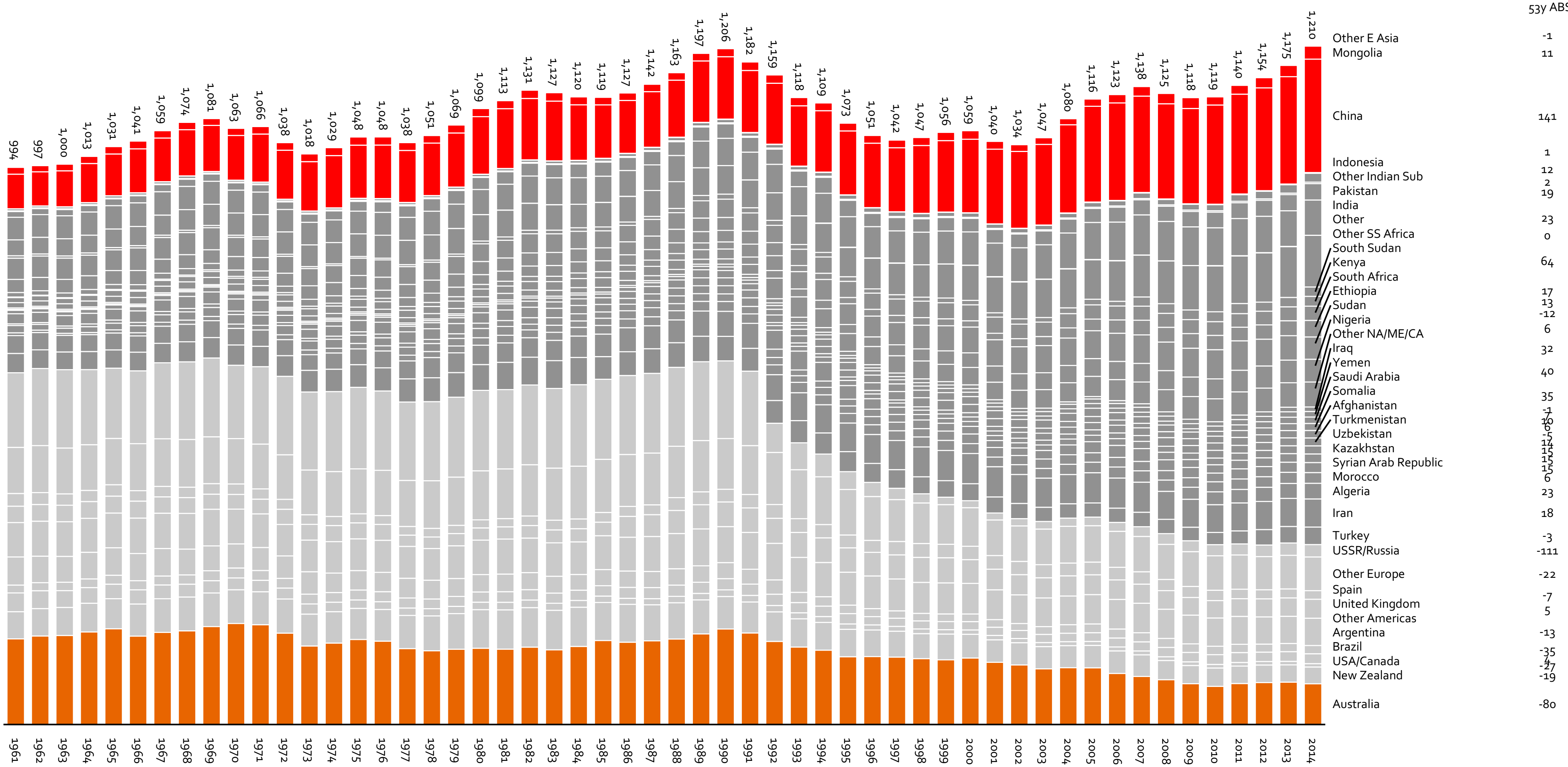


Note: NA/ME/CA = North Africa/Middle-East/Central Asia; SS Africa = Sub Saharan Africa; Source: UN FAO; UN Comtrade; Coriolis analysis

Shifting to dry regions and China

The Middle East, Africa and China are growing sheep numbers; Australia has falling animal numbers

53 year distribution of global sheep flock (head; m; 1961-2014)

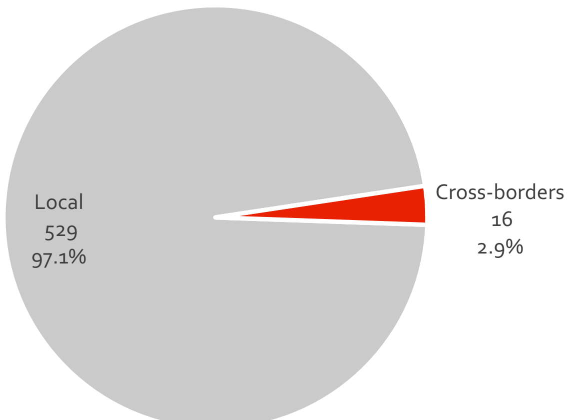


Note: NA/ME/CA = North Africa/Middle-East/Central Asia; SS Africa = Sub Saharan Africa; Source: UN FAO; UN Comtrade; Coriolis analysis

Three percent

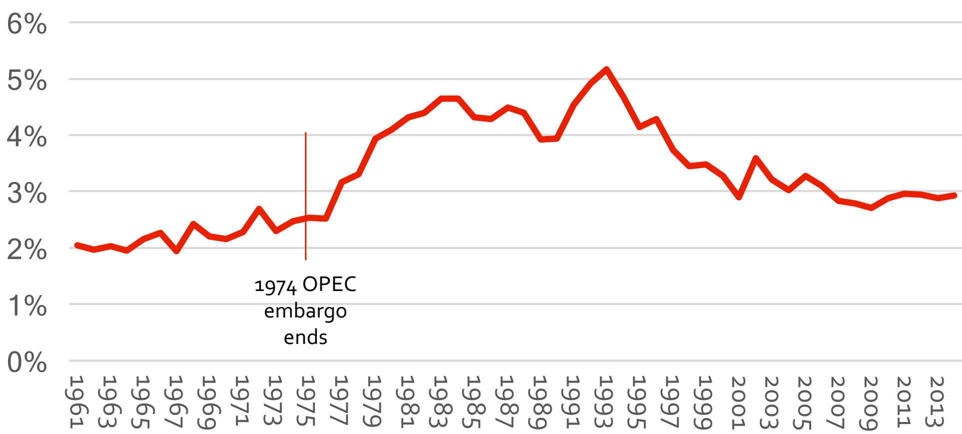
Most sheep are processed in their country of origin by local firms; just under 3% of head cross borders, a share that has fluctuated in a narrow range over the past fifty years (other than a late 70's – 00's "OPEC surge")

Global sheep disposition by type (head; m; 2014)



TOTAL = 545m head

% of sheep that cross-borders (% of head; 61-14)



Development & Drivers

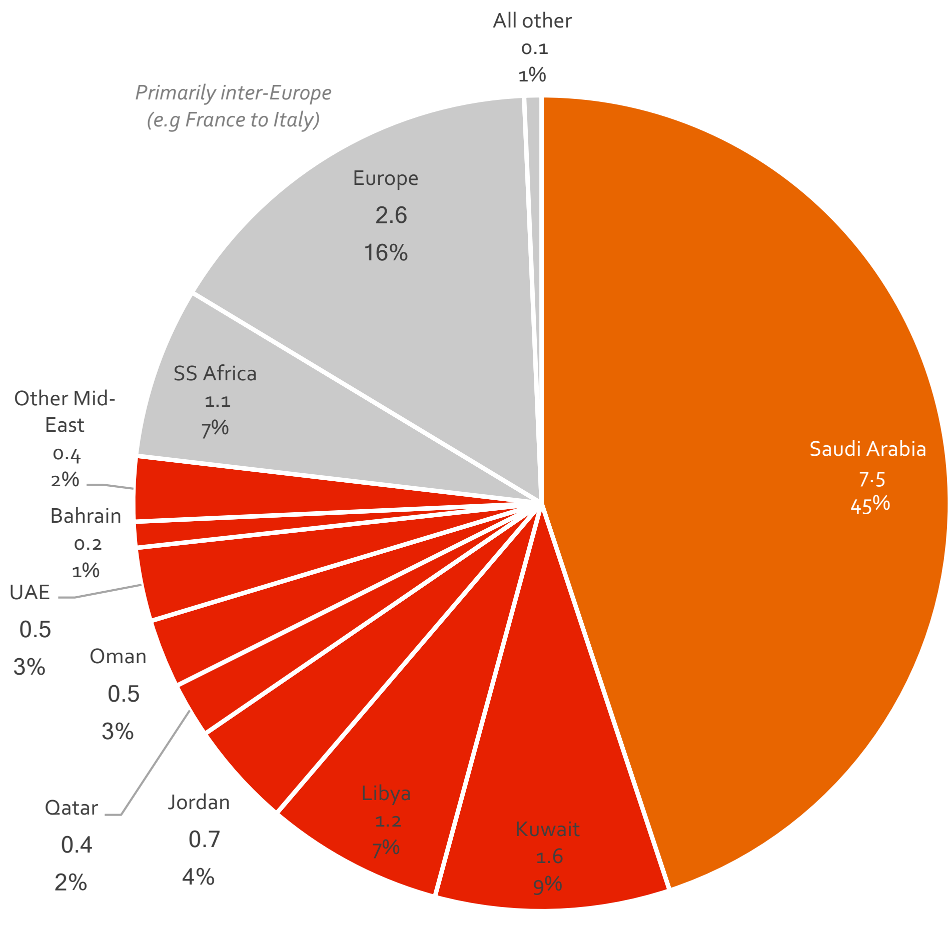
- In raw number terms, most sheep are in the developing world and are killed locally, typically by a herder for his extended family or village
- In developed countries, in most cases, the nearest meat processor will be able to pay the highest price to the farmer; therefore the vast majority of commercially processed sheep occurs in the region of production
- Moving sheep long distances is costly (transport costs, feed) and can impact meat quality (stress, loss of condition)
- However, where the nearest meat processor is over the border, animals will go there (e.g. Portuguese farmers near the border of Spain; Canada to the US)
- "Over the border" processors may also have lower costs, due to having lower wage rates, more automation or larger, more efficient plants with lower overhead per unit
- In some regions religious reasons drive the requirement for in-market processing
- In some regions, political instability, corruption and the lack of a rule of law may preclude investment in large scale, export quality meat processing facilities, such that live animals are exported to neighbouring stable countries (e.g. out of the Horn of Africa)
- Civil war and conflict can also trigger cross border movements of mobile assets, such as cattle (e.g. Syria, Iraq, Yemen)
- Only a small percent that cross borders as breeding stock

Note: global sheep processed not yet available for 2015; Source: UN FAO; UN Comtrade; Coriolis analysis

Handful of key markets

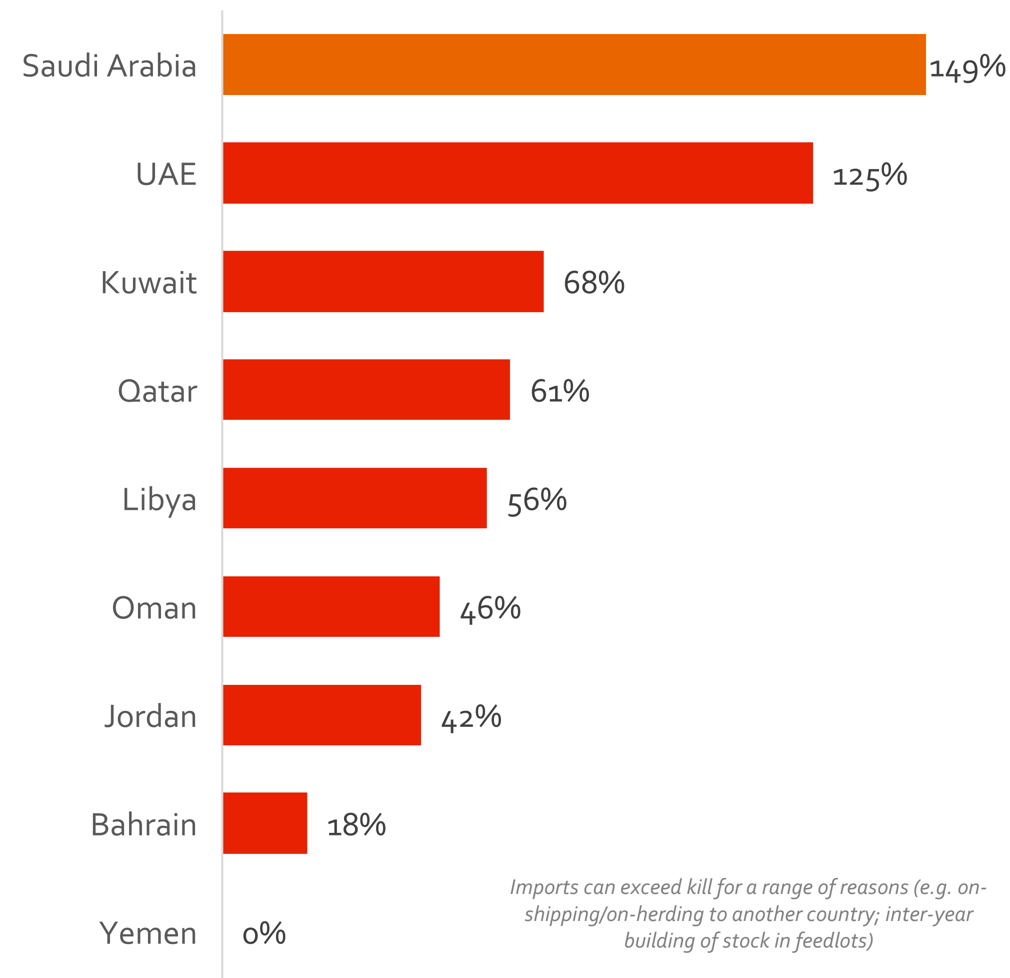
A handful of key Middle East markets make up the bulk of the global live sheep trade

Global live sheep import head by market (head; m 2015)



Total = 16.7m

Imported sheep head as a percent of total kill (2015)



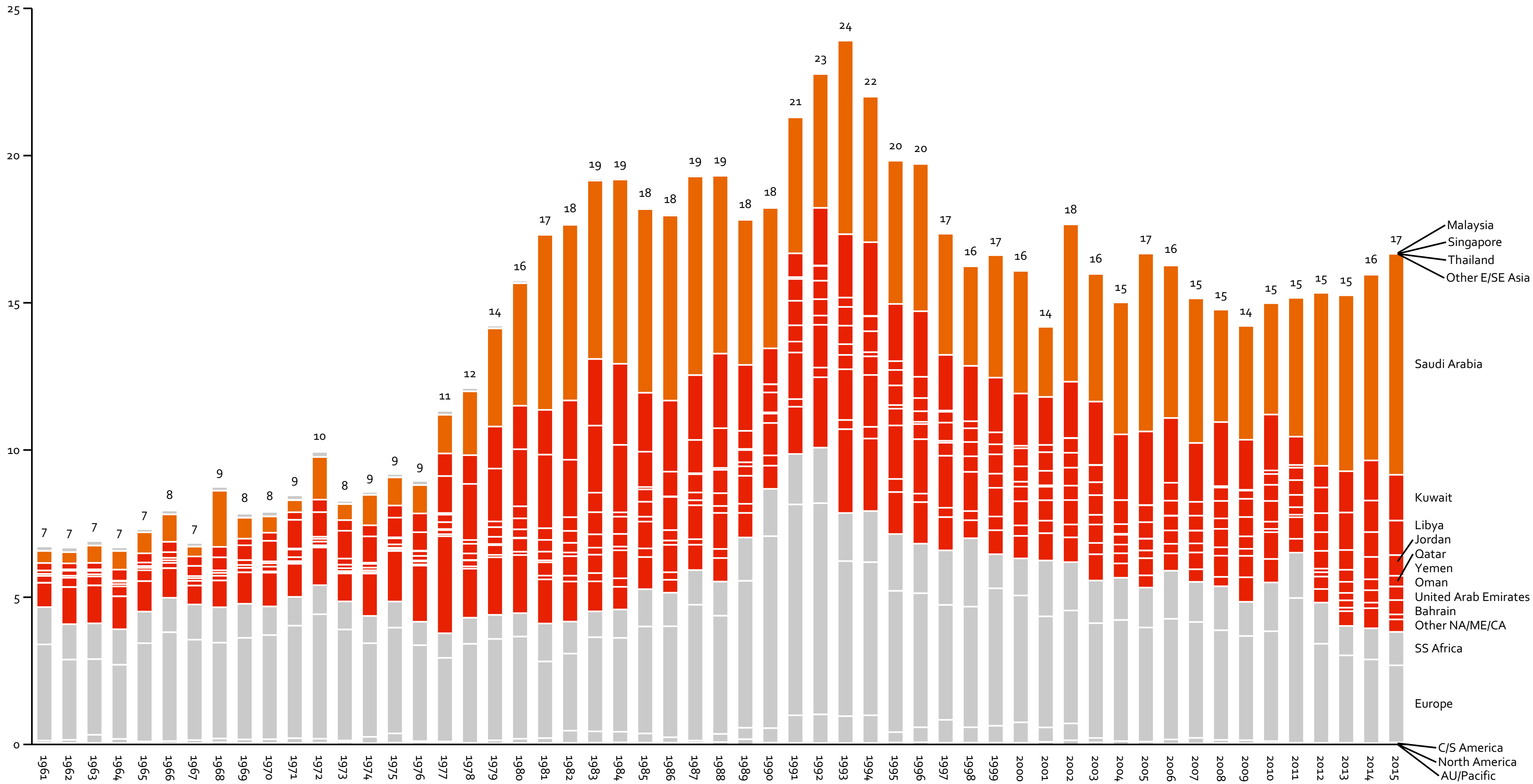
Imports can exceed kill for a range of reasons (e.g. on-shipping/on-herding to another country; inter-year building of stock in feedlots)

Source: UN Comtrade; UN FAO; Coriolis analysis

Live sheep market is the Gulf states

Global live sheep trade is now predominantly into the rich Arabian Gulf oil states, where the market is stable-to-growing, but shrinking elsewhere

Global live sheep imports by key markets (head; m; 1961-2015)

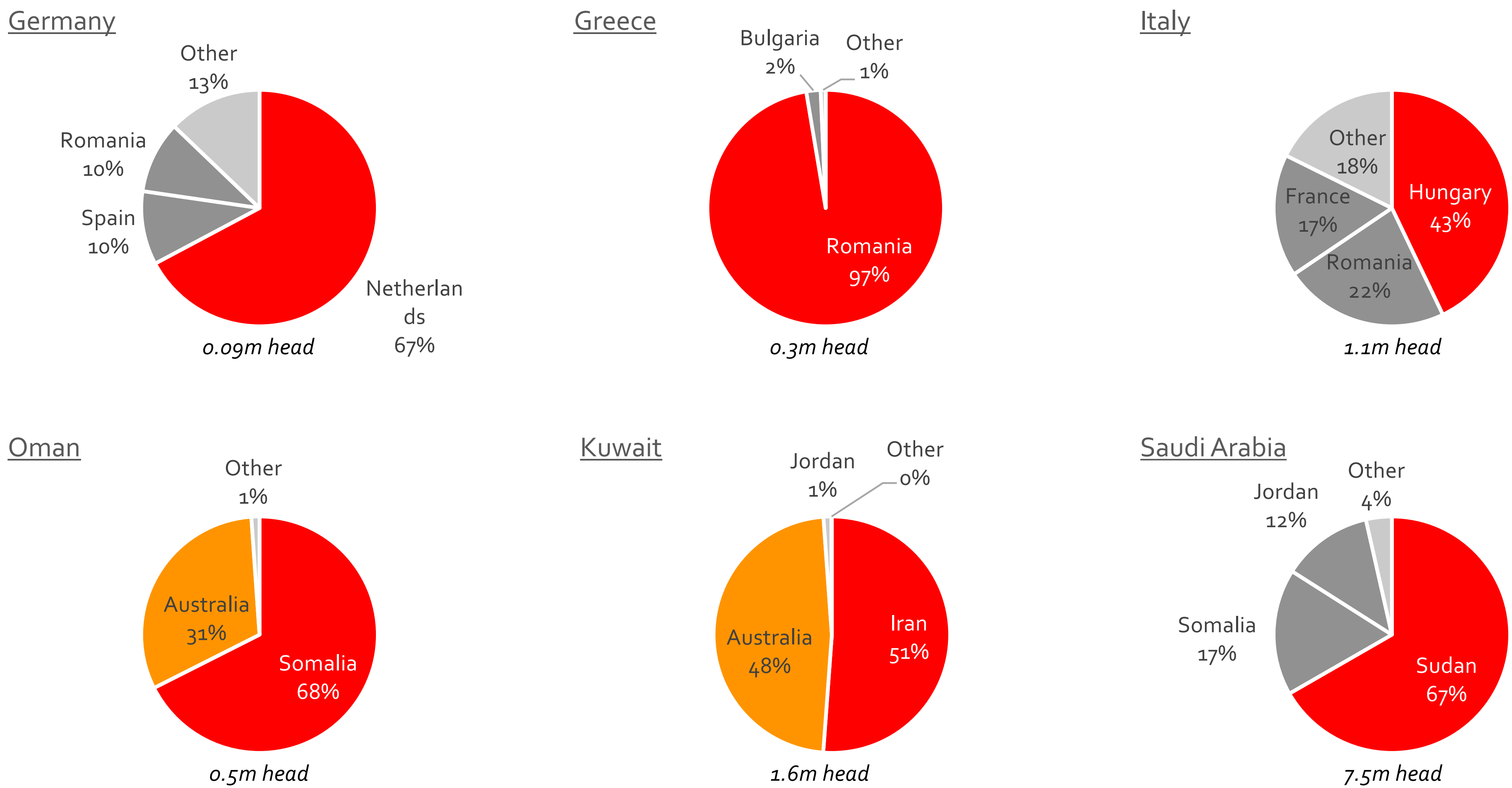


Source: UN FAO; UN Comtrade; Coriolis modelling (missing data)

Typically a few suppliers

Most countries typically import live sheep from their neighbours; some Middle Eastern countries also receive sheep from Australia

Share of imported live sheep head by source (% of head; 2015)

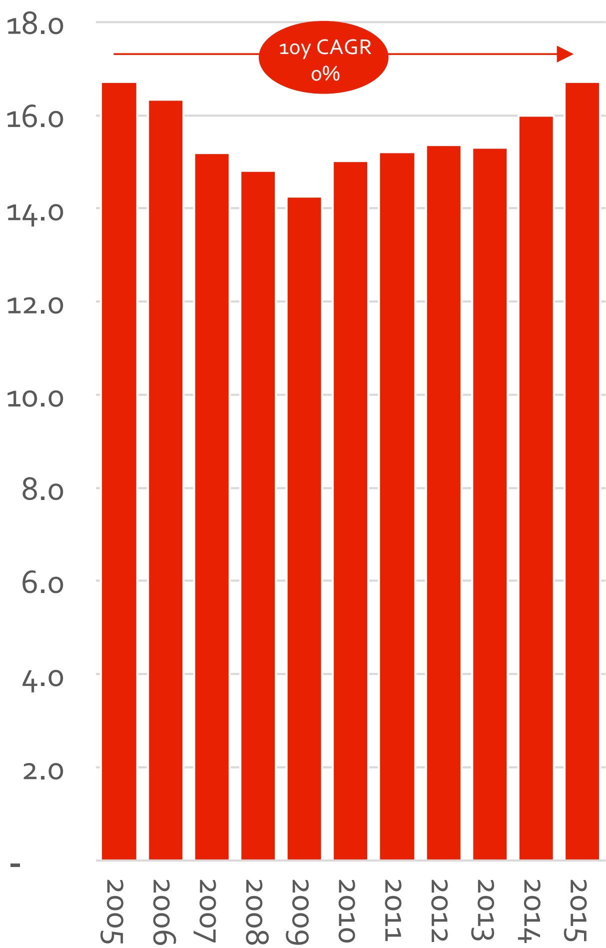


Source: UN FAO; UN Comtrade; Coriolis analysis

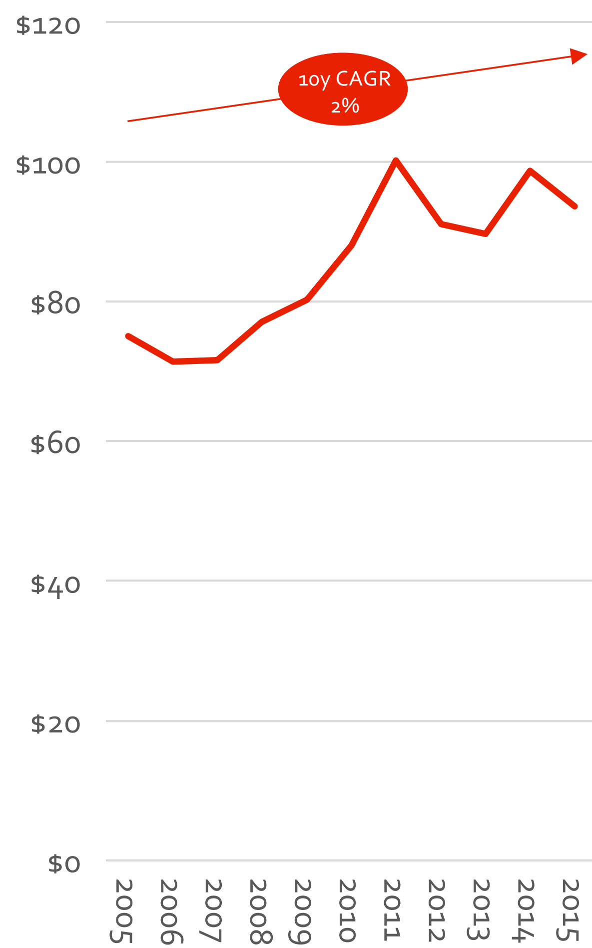
Flat export head but growing export value

Global live sheep trade is flat (10y CAGR 0%), though with ups and downs, and achieving low price growth (10y CAGR 2%), leading to low (10y CAGR 2%) value growth

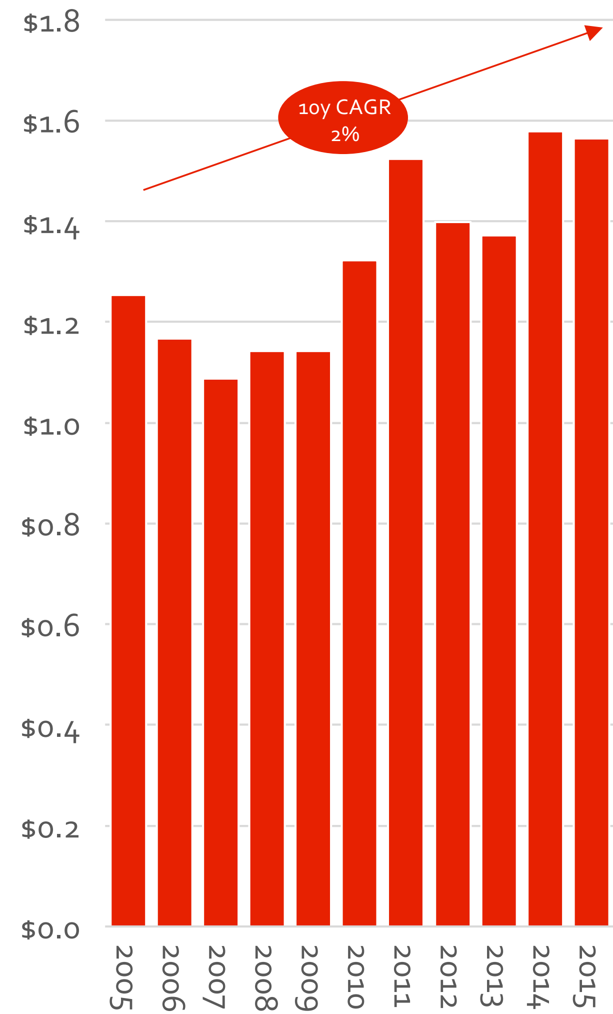
Global export head (head; m; 05-15)



Average global price (US$/head; 05-15)



Global export value (US$; b; 05-15)



Source: UN Comtrade; Coriolis analysis

6.2 Western Australian live sheep export situation

Western Australia has a declining live sheep trade under multiple pressures

- Macro drivers for WA sheep industry present a challenging environment going forward
- Western Australia will likely continue to experience falling sheep inventory
- Various potential approaches to the challenge of falling sheep numbers were identified
- The Australian live sheep export trade is in long term decline
- Key live sheep markets are not generating substantial long term value growth

Macro drivers challenge growth

Macro drivers for WA sheep industry present a challenging environment going forward

Inventory growth

-1% to -3%pa

% of inventory sold annually

~45%pa

Growth in available head

-2% to -3%pa

Live export head growth

-2% to -7%pa

X

Growth in avg. Export weight

0.7%pa (est)

=

WA live tonnage

-1% to -6%pa

WA processing head growth

-2% to 2%pa

X

Growth in meat yield

0.7%pa

=

WA processing tonnage

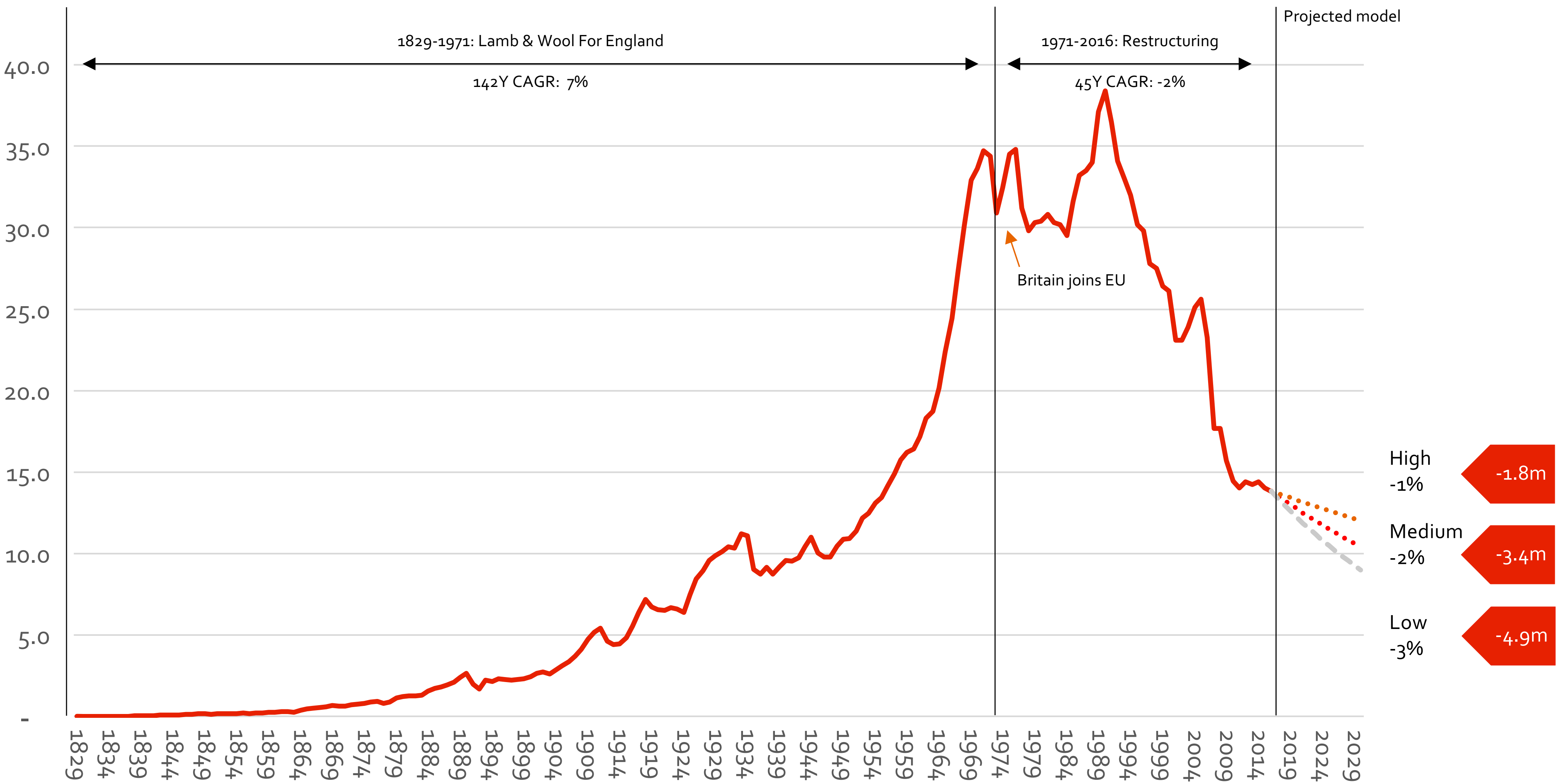
-1% to 3%pa

Note: see related sections for details; Source: United Nations; FAO; Comtrade; Coriolis analysis and estimates

Continued inventory decline

Western Australia will likely continue to experience falling sheep inventory

Number of sheep in Western Australia (headcount; point-in-time inventory; m; 1829-2015; 2016p; 2017-2030p)



Source: various ABS publications and reports; Coriolis modelling

Sheep numbers need increasing

Various potential approaches to the challenge of falling sheep numbers were identified

- "We need to **get the message out** there that prime lamb production is good money. You don't need the best production system for lambs anymore, because we can take them and finish them elsewhere. The dynamics have changed. We now need lambs all year round to go into feedlotting. The demand for sheep is already there. That egg has been laid. Now need to increase production." Director, livestock agent, large

- "You could have a lot of sheep where there are currently none. There is money in sheep, we just need to **recreate the farming models**." Chief Executive Officer, cattle company, medium

- "When the price of wool and lamb is appealing, then farmers will move back into lamb. We need to **spread the word** to the cropping farmers that there is good money in lambs. We need to raise the profile of lamb and make it more attractive." Manager, meat processor, large

- "Sheep numbers will have a natural synchronicity with the market price for sheep meat" Professor, research institution

- "There is a strong market sentiment that high sheep meat prices will continue in the next 1-5 years." Sheep & grains producer, large

- "Non incumbents are perhaps the answer. The industry needs to encourage livestock as a "portfolio change". We need to help match new comers to opportunities to produce livestock." Senior Manager, industry body

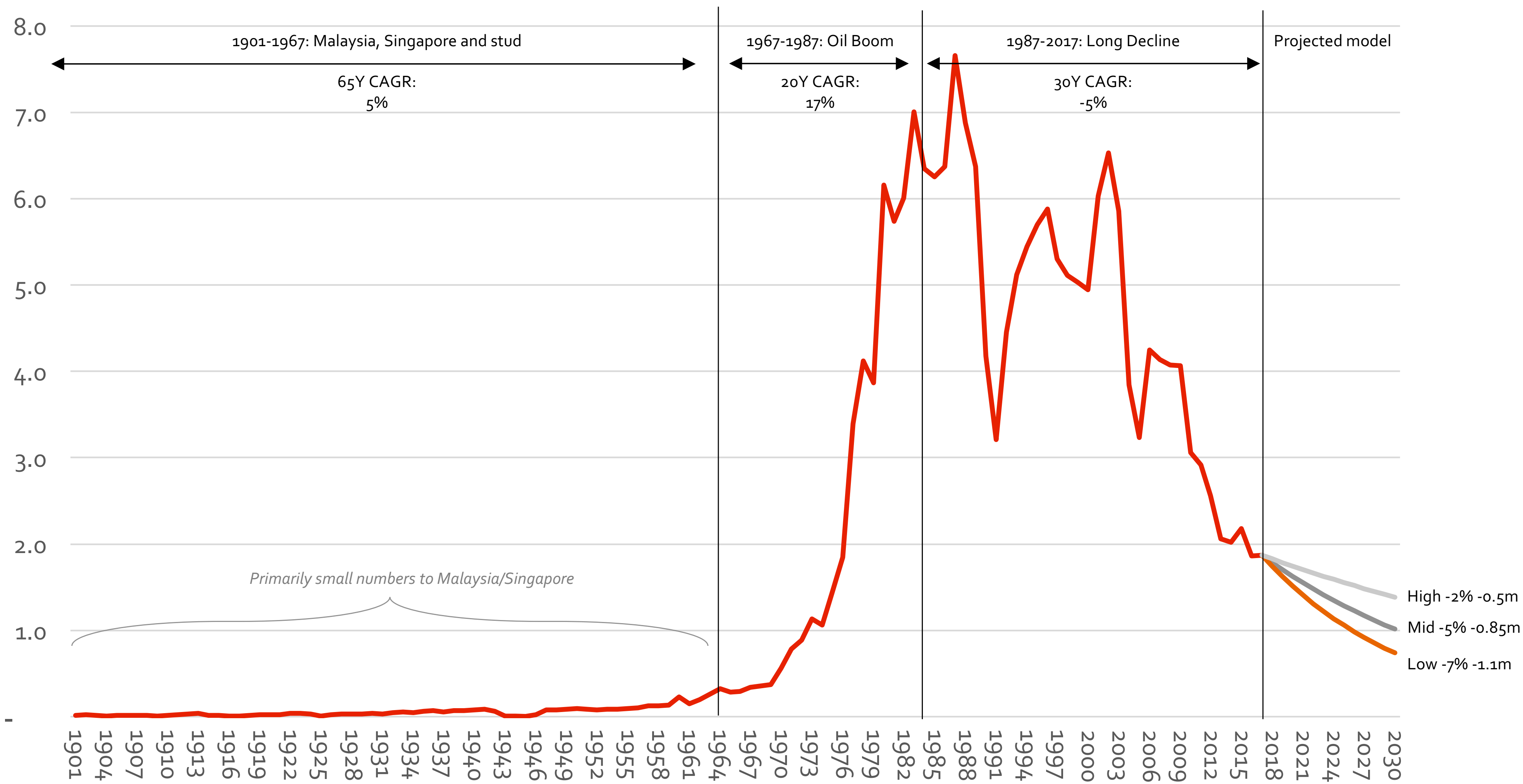
Source: Coriolis interviews and analysis

Australian live sheep exports in long term decline

The Australian live sheep export trade is in long term decline

NO WA-SPECIFIC LONG TERM SOURCE IDENTIFIED
WA IS MAIN EXPORTER

Total number of live sheep exported from Australia (head; m; 1901-2016*; 2017-2030p)

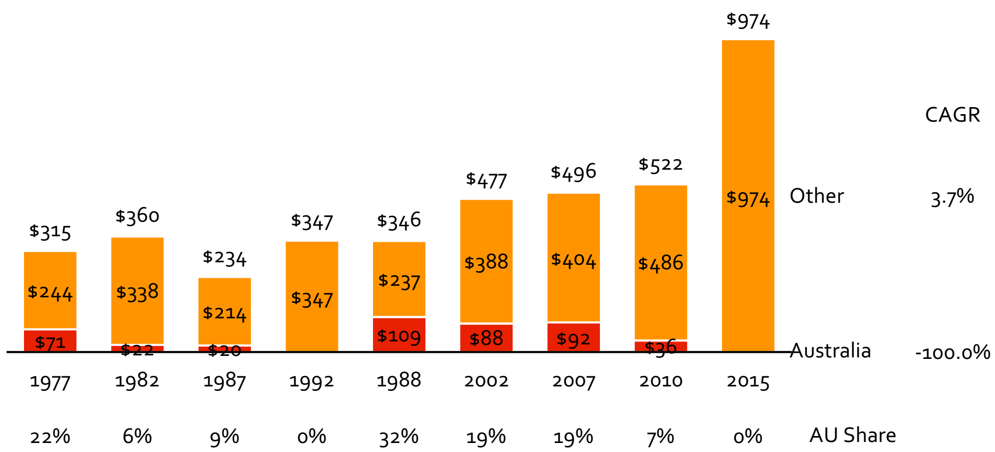


* 2017 uses TTM 12/16; all others YE June; Source: various ABS publications and reports; Coriolis modelling

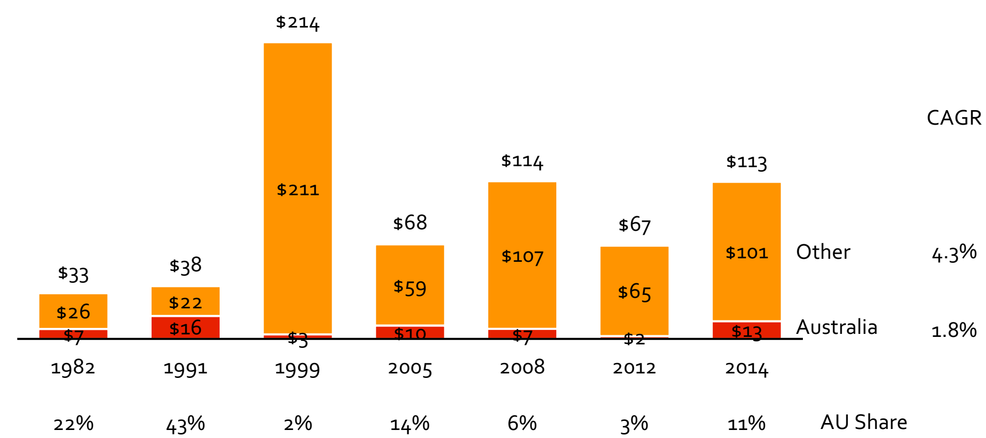
Australia failing to grow

Key live sheep markets are not generating substantial long term value growth

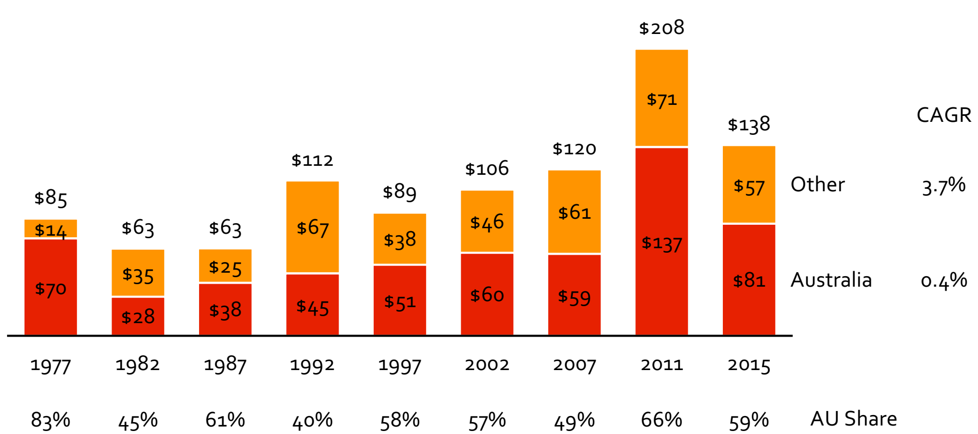
Saudi Arabia: Live sheep import value (US$; m; non-infl. adj.)



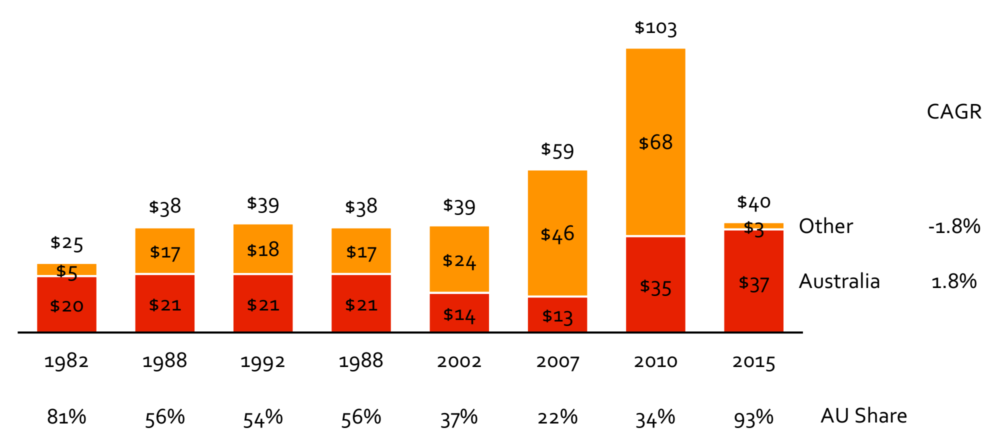
UAE: Live sheep import value (US$; m; non-inflation adj.)



Kuwait: Live sheep import value (US$; m; non-inflation adj.)



Qatar: Live sheep import value (US$; m; non-inflation adj.)

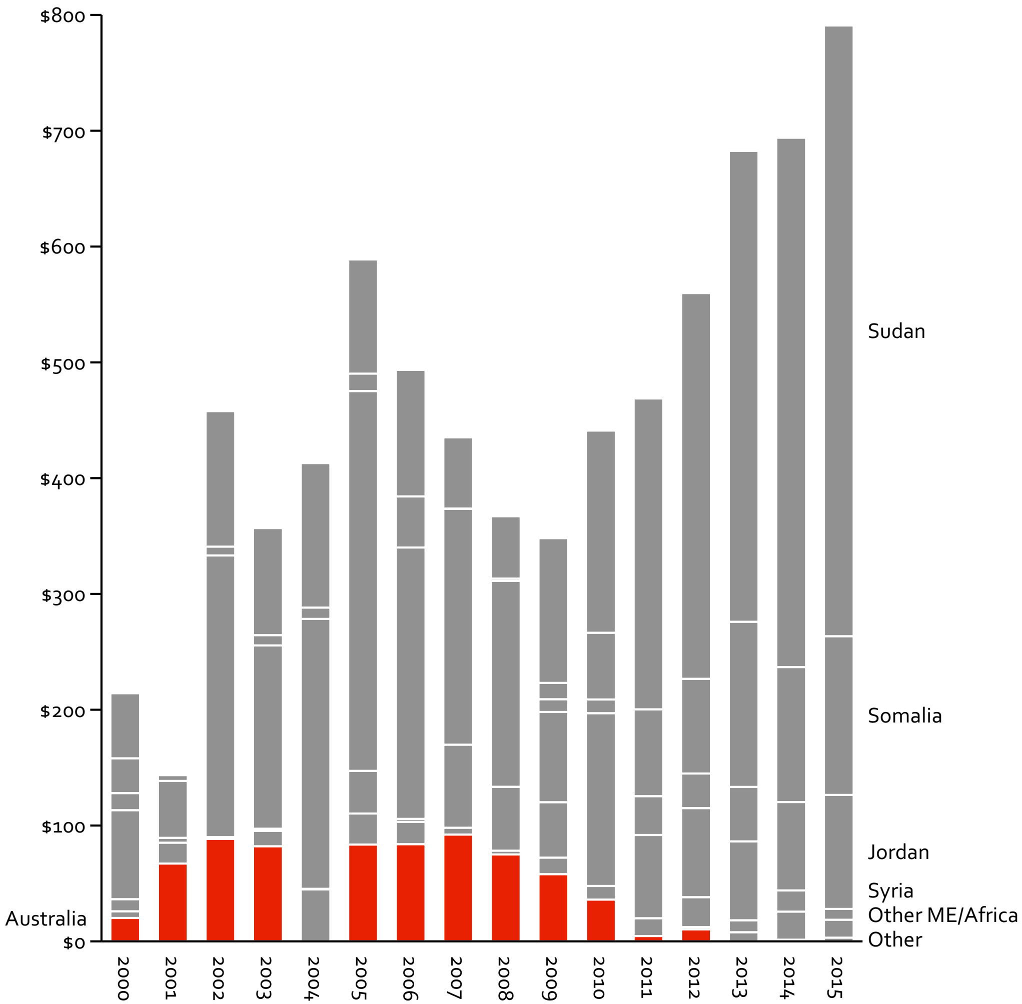


Source: UN Comtrade; Coriolis analysis

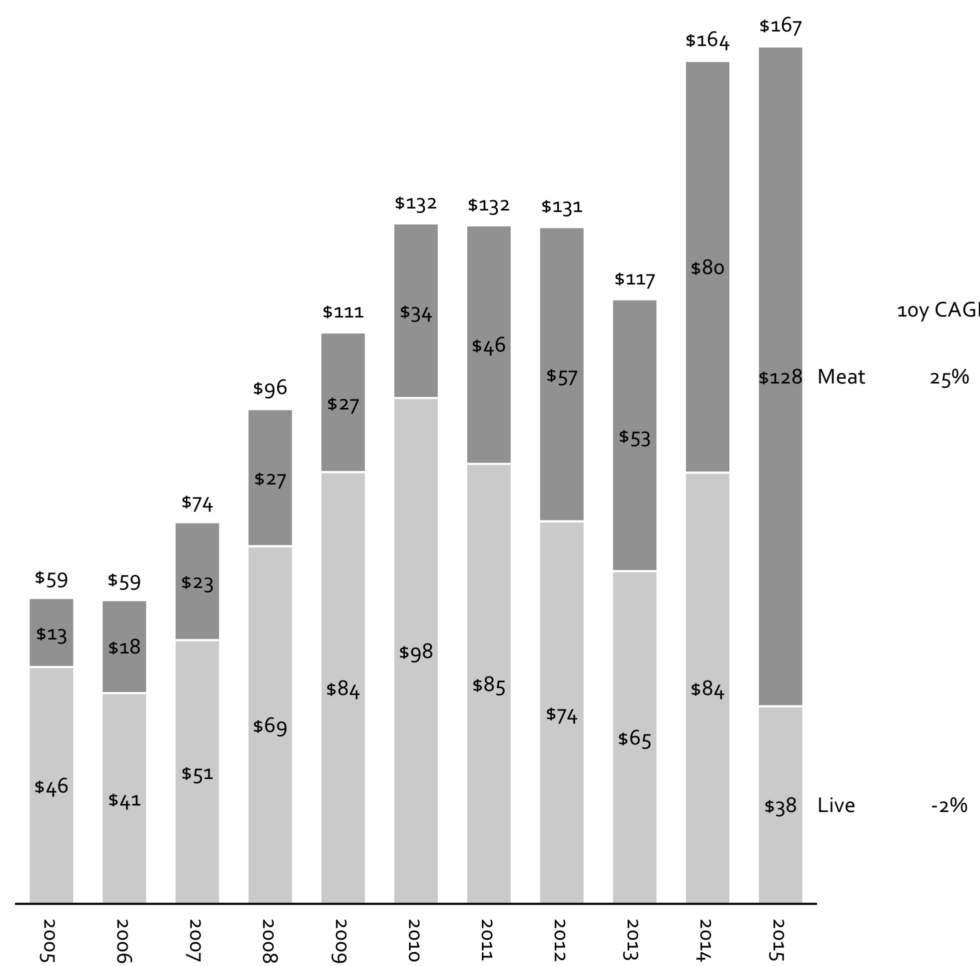
Markets shifting

Traditional markets for live sheep are either shifting to closer suppliers or shifting to importing pre-processed halal meat

Saudi Arabia live sheep export value by source (US$; m)



Qatar live sheep and meat imports by type (US$; m)



Source: UN Comtrade; Coriolis analysis

6.3 Western Australia live sheep firm activity

Western Australia has a robust set of live sheep exporters

- The live sheep export supply chain is reasonably straightforward in Western Australia
- A range of live sheep exporters operate out of Western Australia
- The two largest live exporters are dominating the WA market with 84% share
- Investment is occurring across the live sheep supply chain

Live sheep export supply chain

The live sheep export supply chain is reasonably straightforward in Western Australia

Farming Operations

- Kuala Lumpur Kepong Berhad
- Jumbuck Pastoral
- Giant Agriculture
- Harmony agriculture & food co
- *Other sheep operations*

→

Agents

- Elders
- Landmark
- Primaries (a Ruralco business)
- Ruralco Holdings Limited
- Westcoast Livestock (sheep and cattle)
- *Other agents*

→

Live Exporters

- international livestock export
- LSS Livestock Shipping Services Pty Ltd
- Wellard
- Landmark International
- Harmony agriculture & food co
- Fares Rural
- *Other live exporters*

→

Markets

Kuwait

Bahrain

Qatar

United Arab Emirates

Jordan

Oman

Libya

Egypt

Israel

China

Malaysia

Other markets

Source: industry interviews, Coriolis analysis

Live sheep exporters

A range of live sheep exporters operate out of Western Australia

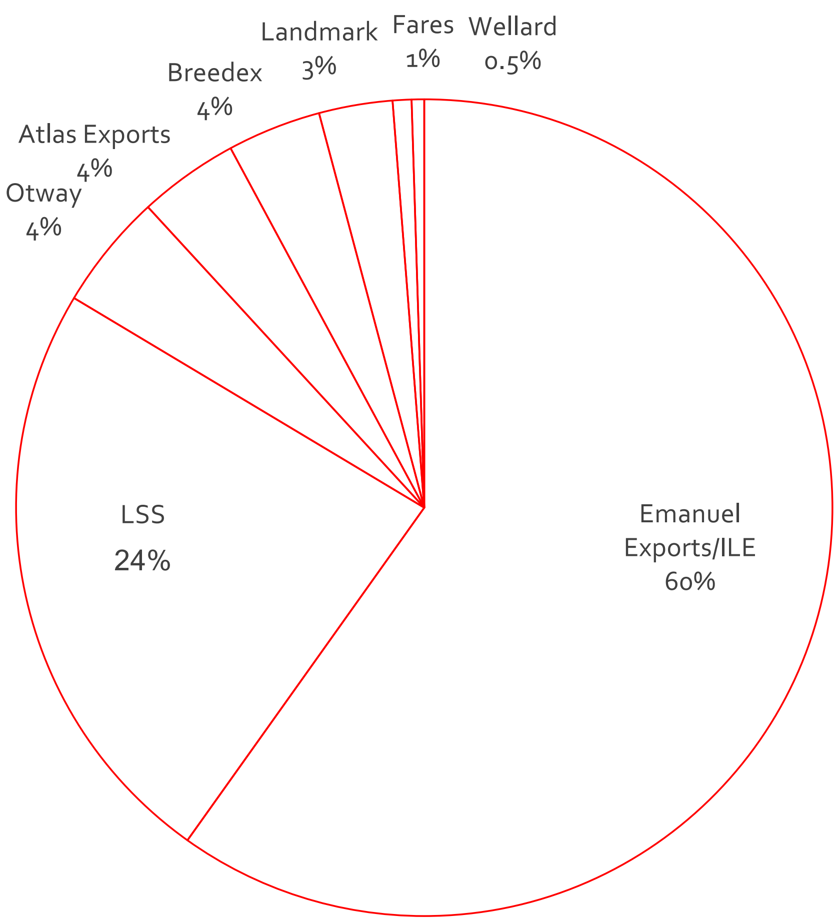
FIRM	YEAR EST.	DESCRIPTION	VESSELS	VOLUMES#	WA OPERATIONS
international livestock export	1989	Live exporters of cattle, sheep and goats; South East Asia and Middle East; exports Awassi sheep; Emanuel Exports	Partnership	~966,000 head of sheep out of Fremantle in 2016*	Perth based; sourcing stock in WA; two feedlots in Broome and Perth
LSS Livestock Shipping Services Pty Ltd	1998	Live exporter, sheep, cattle, camels; supply hubs around the world; access to one of worlds largest livestock transport fleets of 11 vessels; 4 vessels trading from Australia; Middle East, Russia, Kazakhstan and Turkey; facilities in WA and SA	Owned	~383,000 sheep out of Fremantle in 2016*	Amberley quarantine facilities (100,000 sheep), Narrogin quarantine facility (10,000 cattle), Serpentine-Jarrahdale holding yards (5,000 cattle); Hillside Abattoir
Otway Livestock Exports	1995	Victorian based live exporter; expanding operations in WA; cattle and sheep	No	~74,000 sheep out of Fremantle in 2016*	Sourcing livestock; shipping out of WA
HARMONY agriculture & food co	2001	Integrated agribusiness; live export operations Breedex, formerly Central Pacific Livestock; sea and airfreight; HQ in Melbourne; involvement with Sino Marine live trade vessels	Partnership	~60,000 sheep out of Fremantle in 2016*	Office in Perth; sourcing livestock; shipping out of WA
LANDMARK INTERNATIONAL	2008	Live exporting arm of Landmark; cattle, bovine embryos and semen, sheep; exports to Canada, USA, Uruguay, Middle East, China, Japan, Russia, NZ; owned by Agrium	No	~47,000 sheep out of Fremantle in 2016*	Sourcing livestock; shipping out of WA
FARES RURAL	1970s	Agribusiness incorporating carbon sequestration, eucalyptus oil production and livestock and red meat; sheep and cattle; MV Nada vessel; pioneers of the live trade into Middle East, Mexico; receivership in 2003, proposed $56m land acquisitions for live trade supply in 2015 on hold	Owned	~12,000 sheep out of Fremantle in 2016*	Sourcing livestock; shipping out of WA
Wellard	1980	Live exports, sheep and goat meat, #1 exporter of cattle to Indonesia; ship owner; facilities in WA, QLD, NT; recently sold MV Ocean Outback vessel to Israeli company Dabbah Slaughterhouse for $35m	Owned	~8,000 sheep out of Fremantle in 2016*	HQ Perth; Wellard Feeds in Wongan Hills; La Bergerie pre-export facility (80,000 sheep capacity); Stirling Yards pre export facility (1,200 cattle); BRM abattoir

* includes some out of SA/VIC, some shipments co-shared with other exporters; # some Dec 2016 shipments are included in 2017 report to parliament resulting in discrepancy to MLA annual figures: Source: DAWR; various published articles; company annual reports; Coriolis analysis

Live sheep exporting consolidated but competitive

The two largest live exporters are dominating the WA market with 84% share

Share of WA live sheep exports* (% of head; YE Dec 16)



TOTAL = 1.6m# head

Head of sheep exported out of WA ports* (head; YE Dec 16)

Firm	Exported 2016
Emanuel Exports/International Livestock Export	~966,000
Livestock Shipping Services	~383,000
Otway Livestock Exports	~74,000
Atlas Exports	~64,000
Breedex (Harmony Agriculture & Food Co)	~60,000
Landmark Operations	~47,000
Fares Rural	~12,000
Wellard	~8,000
TOTAL WA	1.6m#

* includes some out of SA, some shipments co-shared with other exporters; # some Dec 2016 shipments are included in 2017 report to parliament resulting in discrepancy to MLA annual figures; Source: DAWR; various published articles; company annual reports; Coriolis analysis and estimates

Investment in the sector continues

Investment is occurring across the live sheep supply chain

SINOMARINE

Sinomarine Livestock Shipping Co

- Consortium of three Chinese companies (including Hopshun Shipping, Sino Marine)
- $66m to repurpose two vessels (Yangtze Harmony, Yangtze Fortune) for live export (sheep and cattle)
- Maiden voyage in April 2017; 12,500 sheep to Oman

DRIVER

- Medium sized vessels to suit developing market in China
- Growing demand for protein

HARMONY agriculture & food co

Harmony Agriculture & Food Co

- JV with Hopshun Australia (China)
- $50m on grazing and feeding assets in Australia
- Grazing block near Esperance
- Feedlot at Kalannie
- Grazing block in Victorian Western Districts
- Future role in Sino Marine shipments

DRIVER

- Integrate supply chain for domestic and international livestock, red meat sales
- Embracing technology and analytics to drive productivity efficiency

Source: interviews, published articles; Coriolis analysis; photo credit (courtesy Harmony Agriculture and Food Co.)

7. Sheep Meat

This report is designed to flow from the high level "big picture" (macroeconomic) through to market and product details (microeconomic) and then to details about specific companies and specific transactions (firm). Both the total document and individual products sections are organised this way.

page 4 — 1. Core Opportunity

page 13 — 2. Current Industry Situation

page 31 — 3. Emerging Investment Themes

page 61 — 4. Live Cattle

page 82 — 5. Beef

page 106 — 6. Live Sheep

page 128 — 7. Sheep Meat

page 153 — 8. Other Meats

page 162 — 9. Key Firms Profiled

page 193 — 10. Appendix

7.1 Global sheep meat market situation

The global mutton & lamb meat trade is dominated by two countries: Australia and New Zealand

High level macro drivers suggest flat per capita consumption (0%), low volume growth (1.4%) and moderate price increases (2.6%), leading to some value growth (4.0%)

PRODUCTION

- Sheep meat is a secondary meat overall, accounting for 3% of global meat production
- Global production is growing slowly (40y CAGR 1.4%), leading to a gradual decline in per capita consumption (40y CAGR -0.1%)

MARKET GROWTH

- Global sheep meat trade is growing moderately, driven by low volume growth (10y CAGR 1.4%) and growing moderate price increases (10y CAGR 2.6%) leading to growing trade value (10y CAGR 4.0%)

- While sheep meat is traded in a range of forms, chilled lamb is more valuable than frozen
- Stronger volume growth is coming from offal and chilled boneless

EXPORTERS

- Australia is the number two global supplier and growing almost twice as fast as the market (7.6%)

IMPORTERS

- While sheep meat is sold across a range of markets, North America and Europe account for almost two thirds; however, absolute value growth has come from China and the Middle East

Macro drivers flat

High level macro drivers suggest flat per capita consumption (0%), low volume growth (1.4%) and moderate price increases (2.6%), leading to some value growth (4.0%)

Global production growth

1.4%pa

Global consumption growth (all forms)

-0.1%pa

Sheep meat

Global trade volume growth

1.4%pa

X

Global trade price/head growth

2.6%pa

=

Global trade value growth

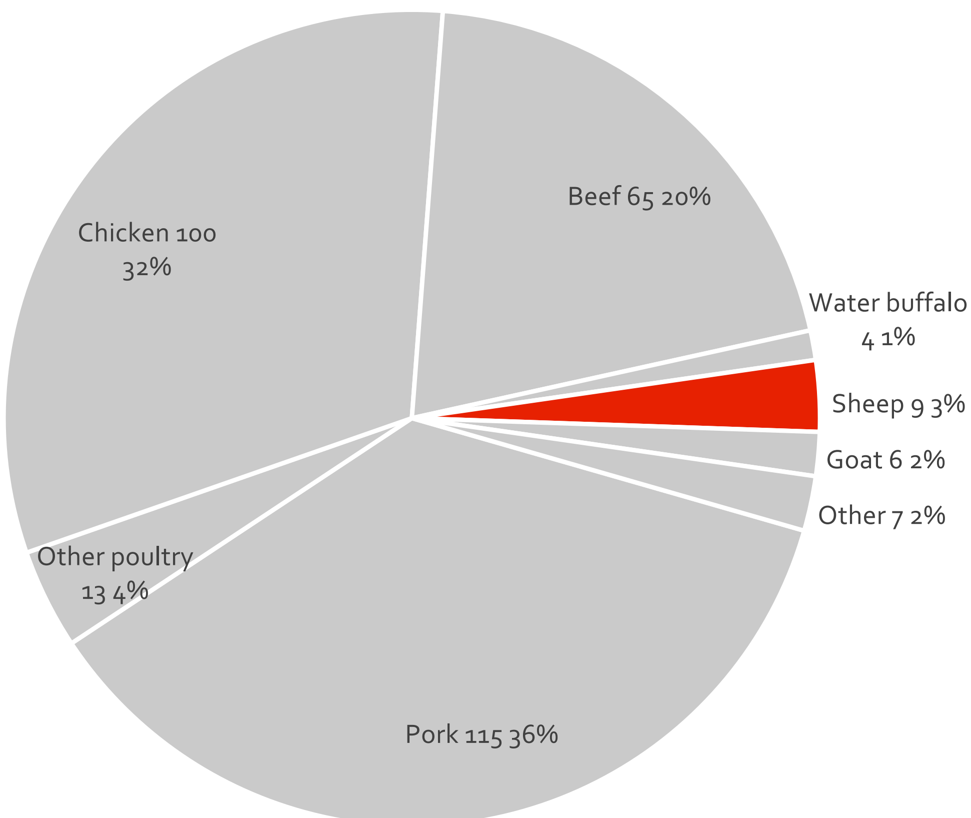
4.0%pa

Note: see related sections for details; Source: United Nations; FAO; Comtrade; Coriolis analysis and estimates

Secondary meat overall

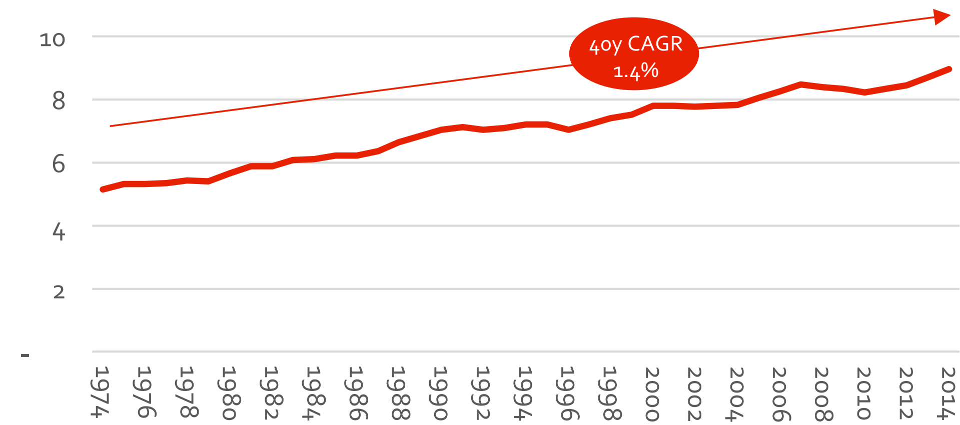
Sheep meat is a secondary meat overall, accounting for 3% of global meat production; global production is growing slowly (40y CAGR 1.4%), leading to a gradual decline in per capita consumption (40y CAGR -0.1%)

Global meat production by type (t; m; 2014)

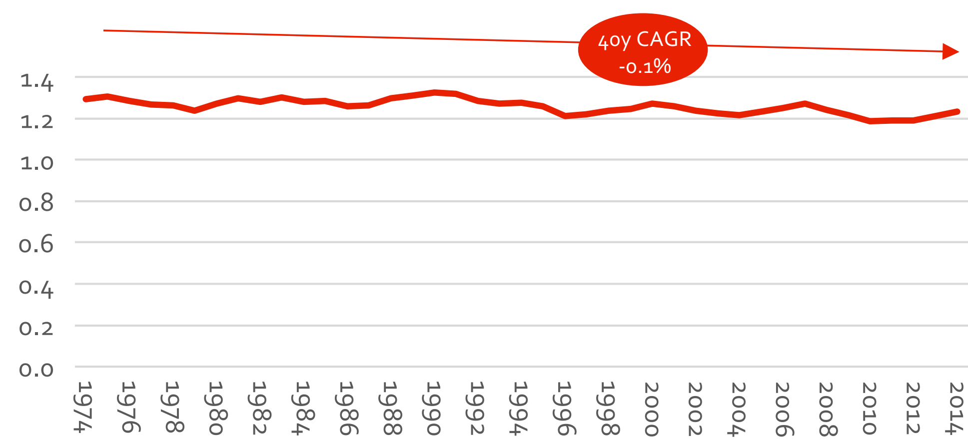


TOTAL = 318m tonnes

Global sheep meat production (t; m; 74-14)



Global sheep meat consumption per capita (kg; 74-14)

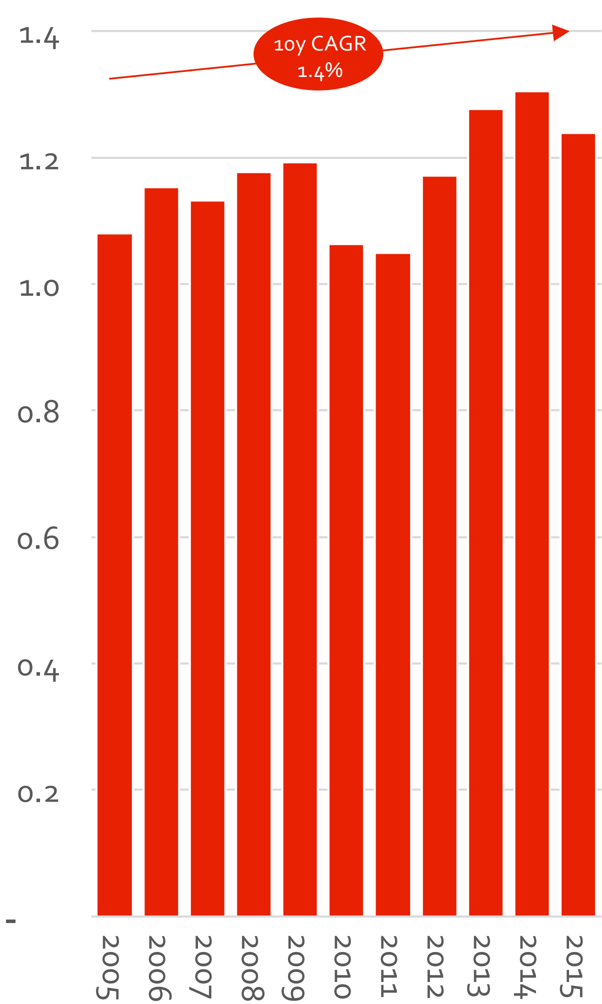


Source: FAO; Coriolis analysis

Growing sheep meat trade

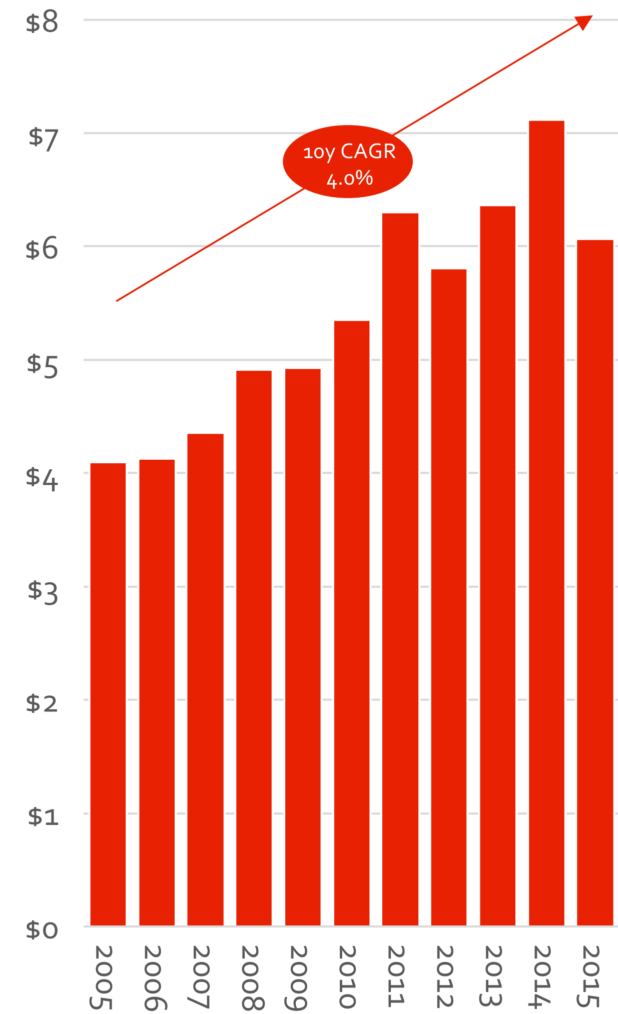
Global sheep meat trade is growing moderately, driven by low volume growth (10y CAGR 1.4%) and growing moderate price increases (10y CAGR 2.6%) leading to growing trade value (10y CAGR 4.0%)

Global export volume (t; m; 05-15)



Average global price (US$/kg; 05-15)

Global export value (US$; b; 05-15)

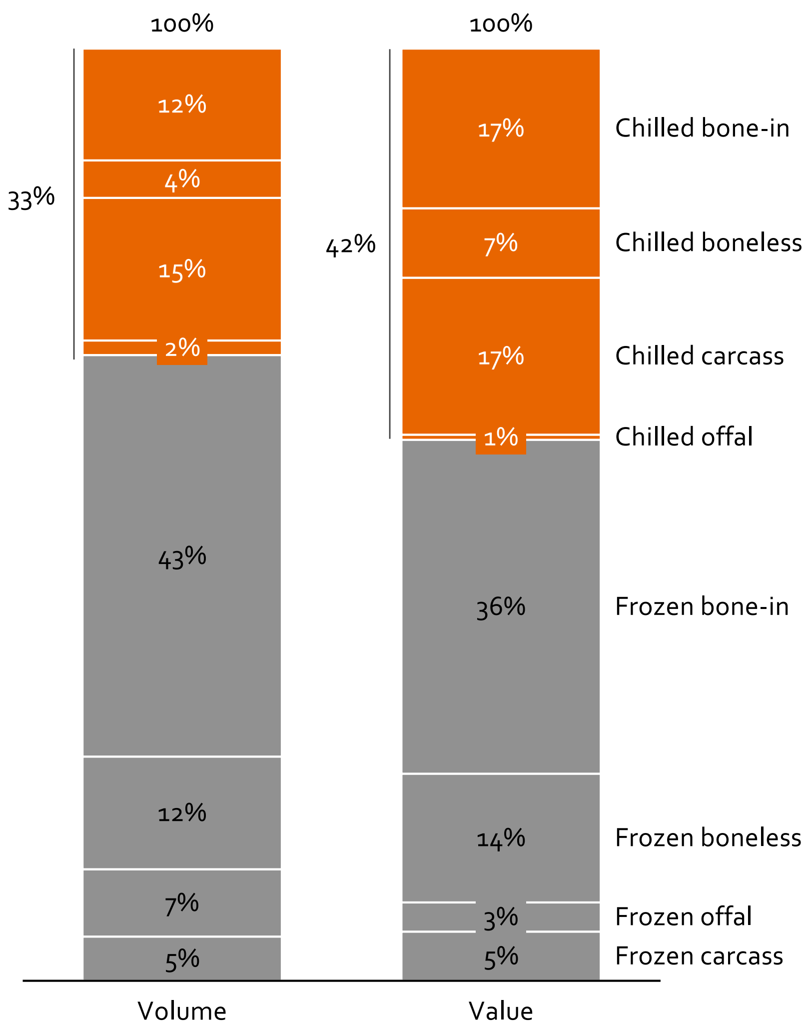


Source: FAO; Coriolis analysis

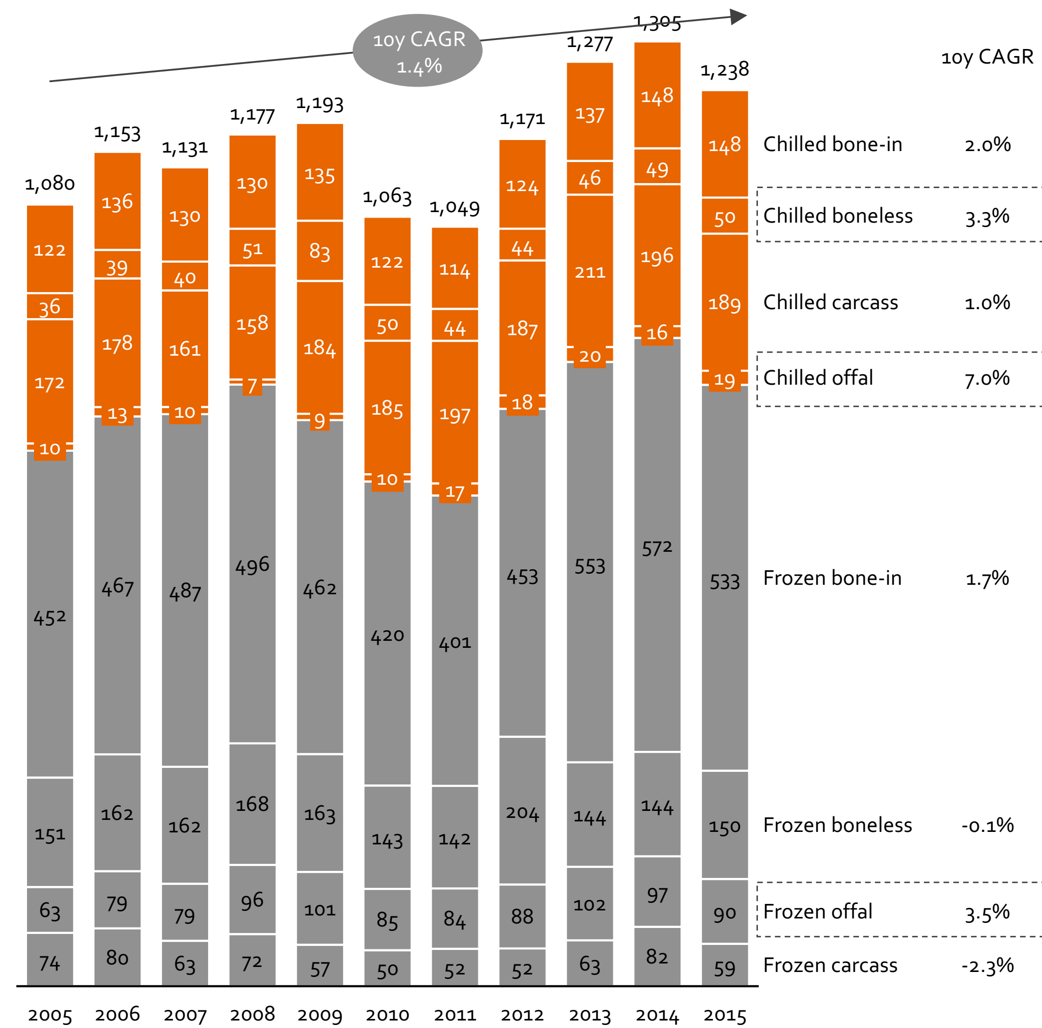
Chilled worth more

While sheep meat is traded in a range of forms, chilled lamb is more valuable than frozen; stronger volume growth is coming from offal and chilled boneless

% of global sheep meat trade by product (2015)



Global sheep meat volume by product (t; 000; 2005-2015)



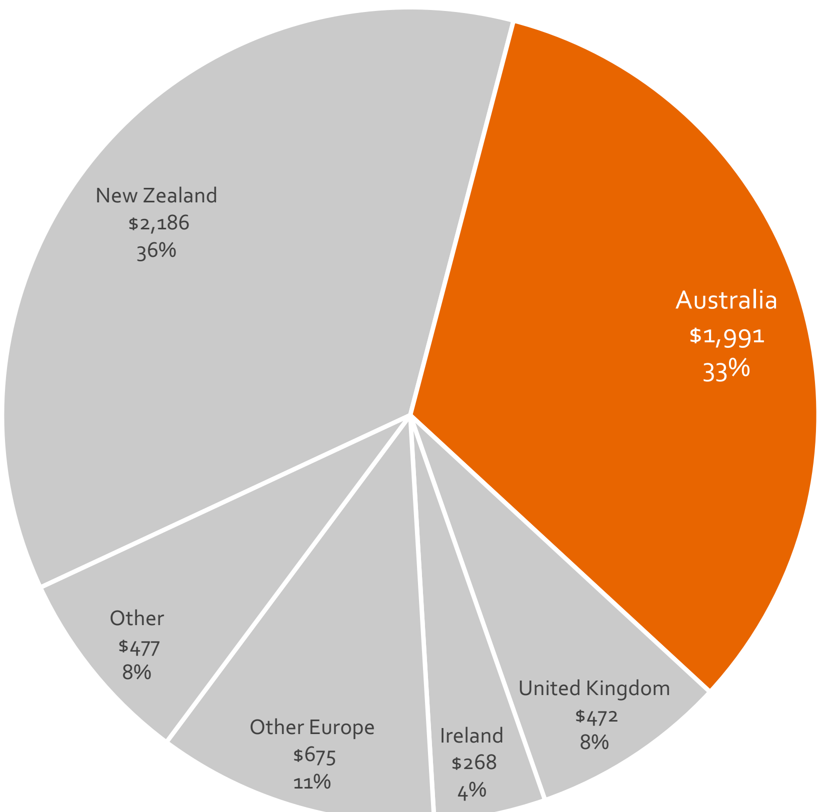
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Chilled bone-in	122	136	130	130	135	122	114	124	137	148	148
Chilled boneless	36	39	40	51	83	50	44	44	46	49	50
Chilled carcass	172	178	161	158	184	185	197	187	211	196	189
Chilled offal	10	13	10	7	9	10	17	18	20	16	19
Frozen bone-in	452	467	487	496	462	420	401	453	553	572	533
Frozen boneless	151	162	162	168	163	143	142	204	144	144	150
Frozen offal	63	79	79	96	101	85	84	88	102	97	90
Frozen carcass	74	80	63	72	57	50	52	52	63	82	59
Total	1,080	1,153	1,131	1,177	1,193	1,063	1,049	1,171	1,277	1,305	1,238

Source: FAO; Coriolis analysis

Strong and growing number two

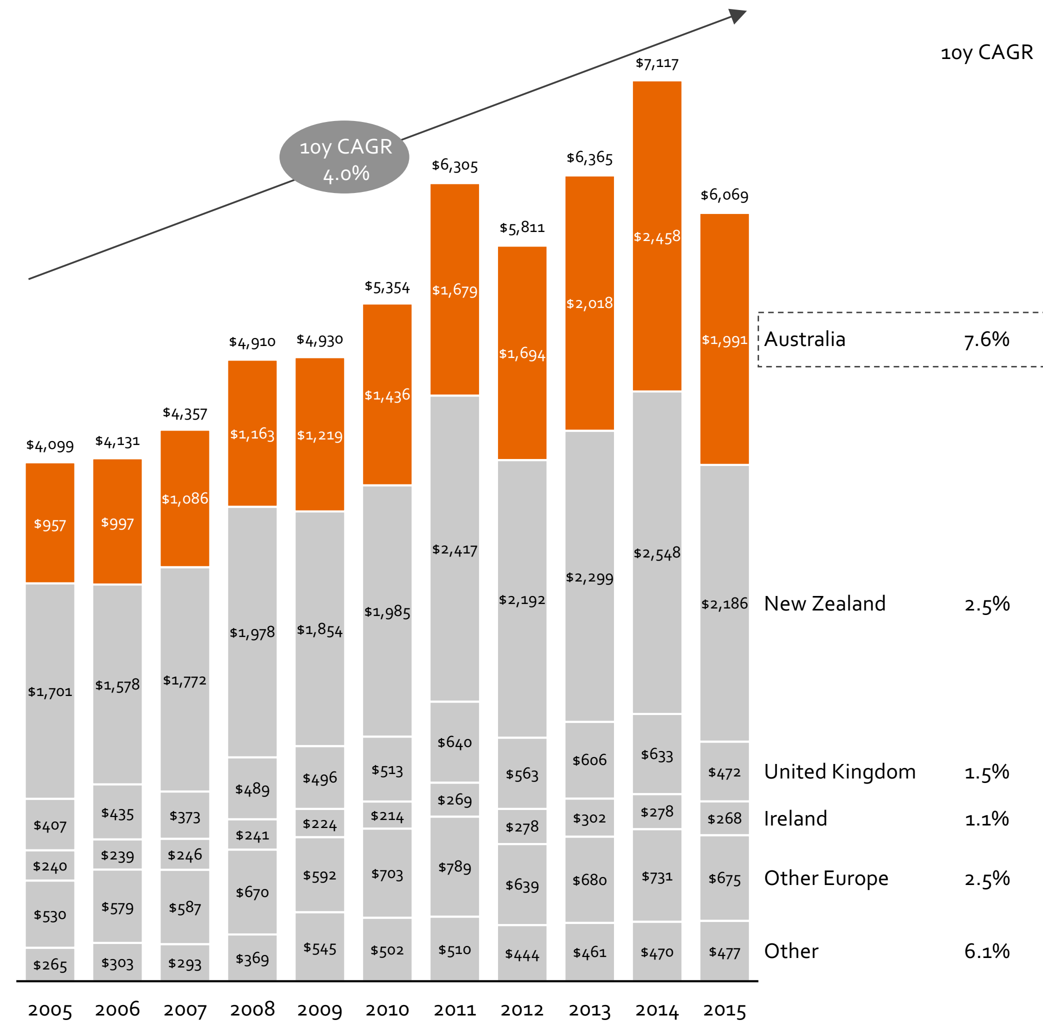
Australia is the number two global supplier and growing almost twice as fast as the market (7.6%)

Global sheep meat exports by supplier (US$; m; 2015)



TOTAL = $6,069m

Global sheep meat exports by supplier (US$; m; 05-15)

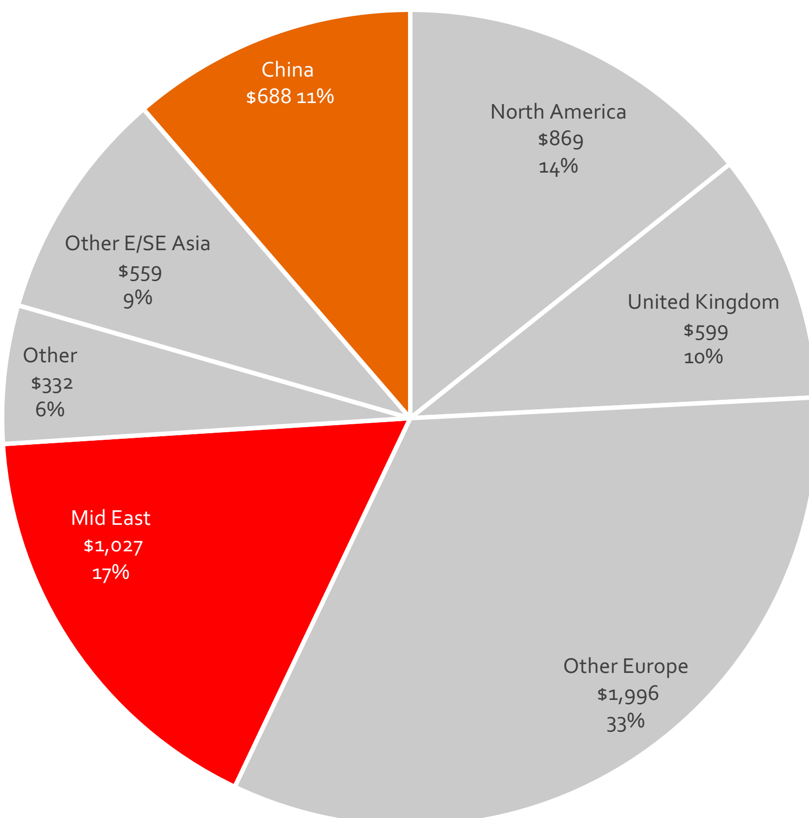


Source: FAO, Coriolis analysis

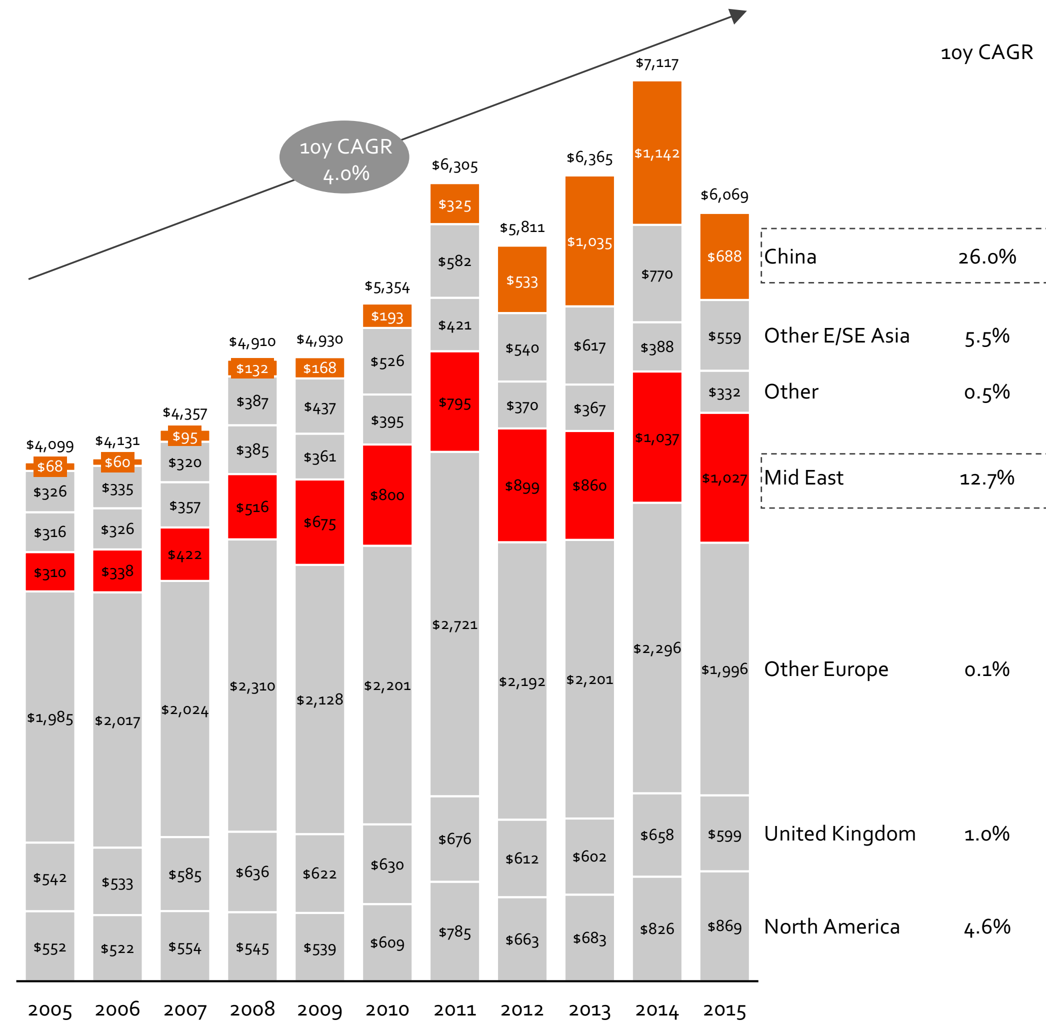
Traditional large; emerging growing

While sheep meat is sold across a range of markets, North America and Europe account for almost two thirds; however, absolute value growth has come from China and the Middle East

Global sheep meat exports by buyer (US$; m; 2015)



Global sheep meat exports by buyer (US$; m; 05-15)



Source: FAO; Coriolis analysis

7.2 Western Australian sheep meat situation

Western Australia has the potential to produce more sheep meat for export, however the trajectory for the industry depends on market demand

ANIMAL NUMBERS

- Western Australia has the second largest sheep flock in Australia and the most sheep per person
- Western Australia's sheep inventory is declining, with live exports declining faster
- To date, sheep meat processing has not seen the same dramatic declines as live exports
- The processing sector has maintained throughput by processing a larger percent of the flock annually, by shifting the mix from sheep to lamb
- The state has experienced growing lamb processed numbers and declining sheep processed numbers; the trajectory for number of sheep processed is unclear

MEAT YIELD & MEAT PRODUCTION

- Western Australia has achieved long-term sheep yield growth of 0.7%pa (32y CAGR) since the mid 1980's
- Western Australia already achieves relatively high sheep meat yields, but some peers suggest further growth is possible
- Western Australia may continue to increase sheep meat production going forward

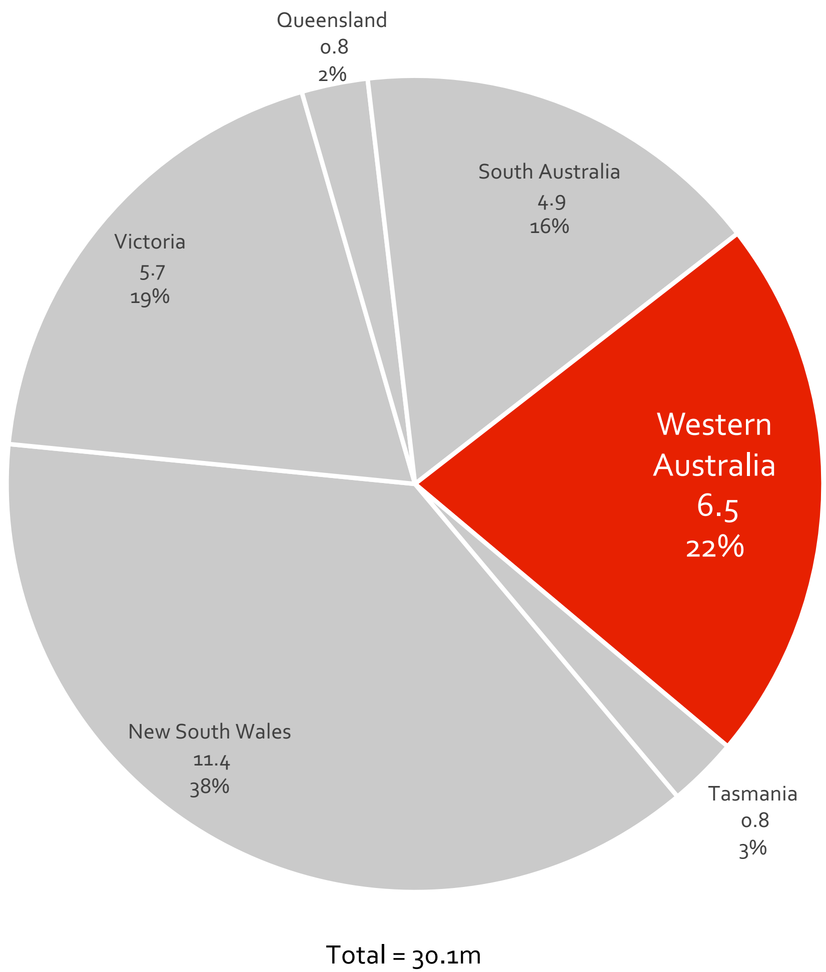
MARKETS

- Australian sheep meat exports go to East/South East Asia, the Mid East and North America

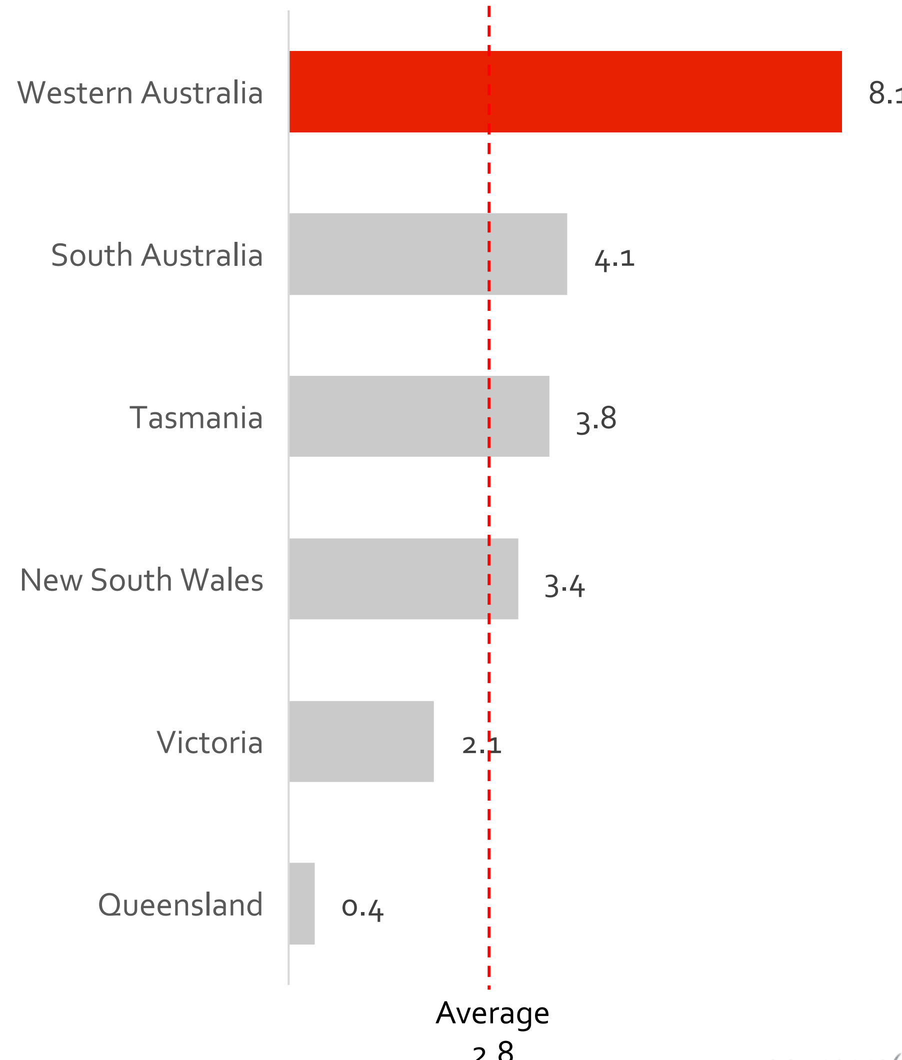
Most sheep per capita in Australia

Western Australia has the second largest sheep flock in Australia and the most sheep per person

Australian sheep numbers by state (head; m; 2015/16)



Sheep per capita by state (head inventory per person; 2016)

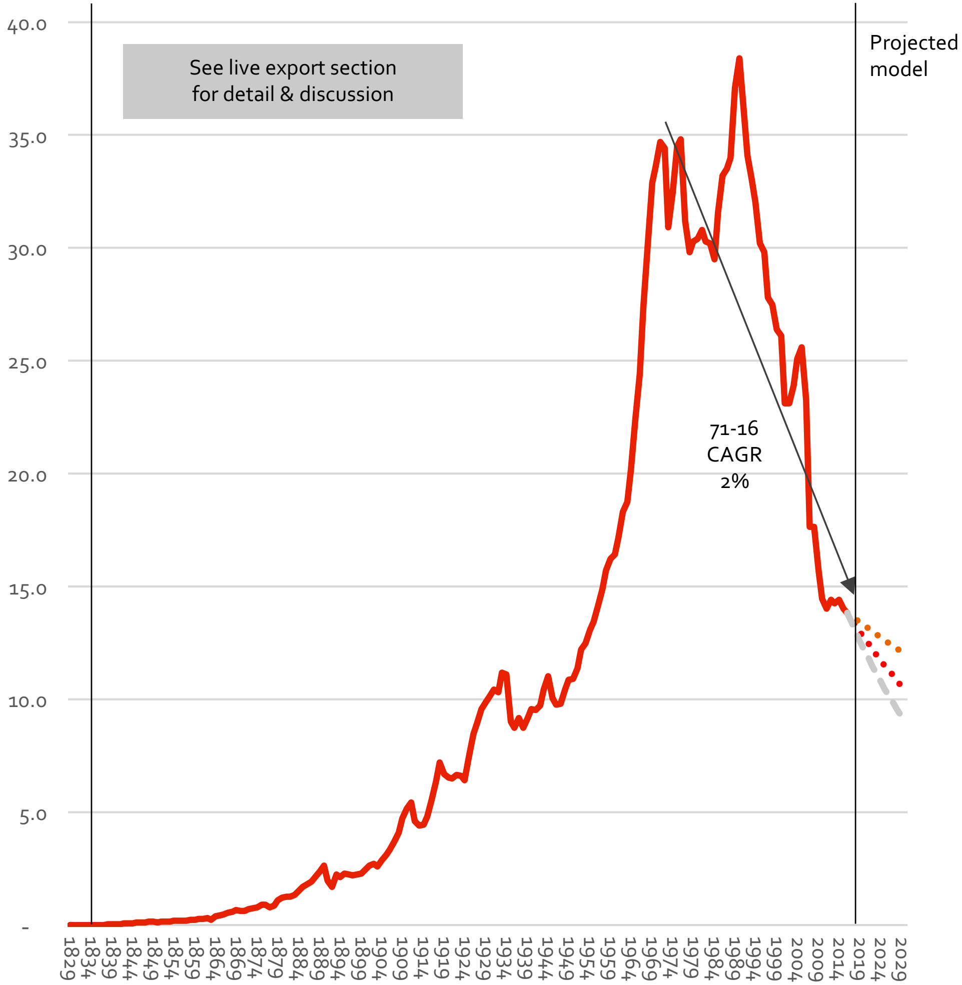


Source: ABS; Coriolis analysis

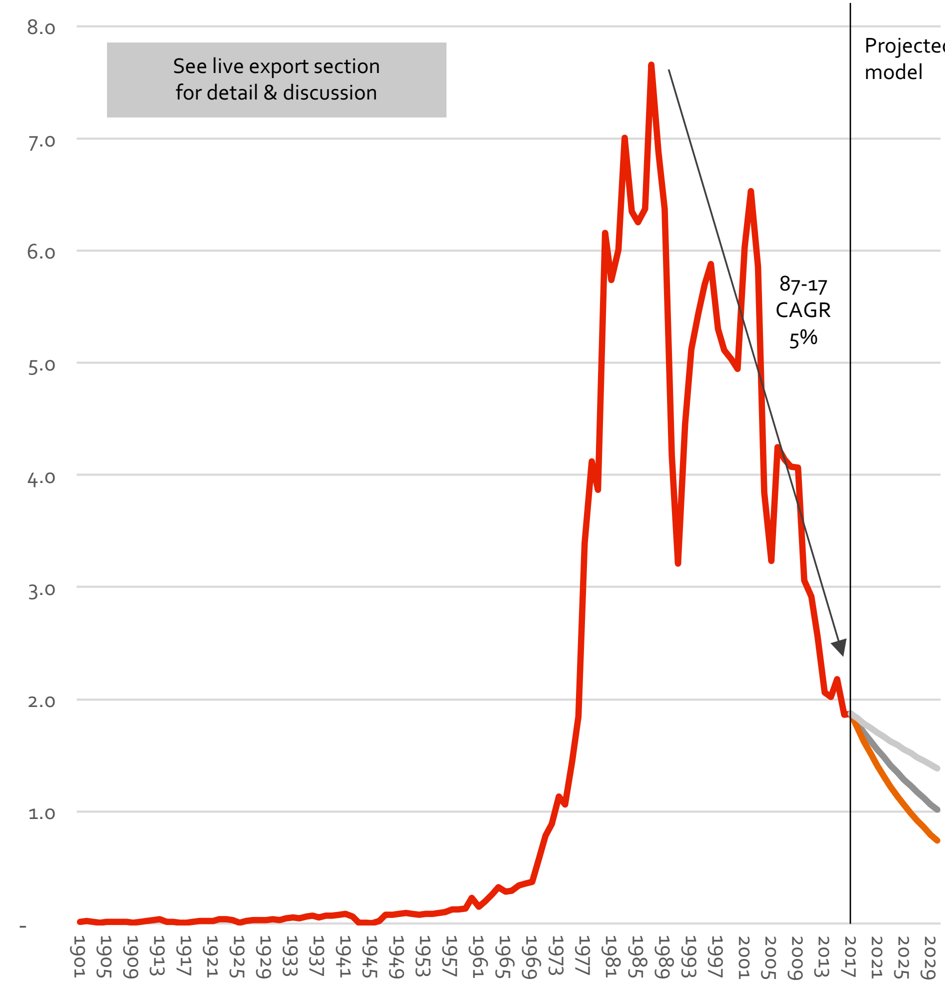
Inventory & live exports declining

Western Australia's sheep inventory is declining, with live exports declining faster

Number of sheep in Western Australia (headcount; point-in-time inventory; m; 1829-2015; 2016p; 2017-2030p)



Total number of live sheep exported from Australia (head; m; 1901-2016*; 2017-2030p)

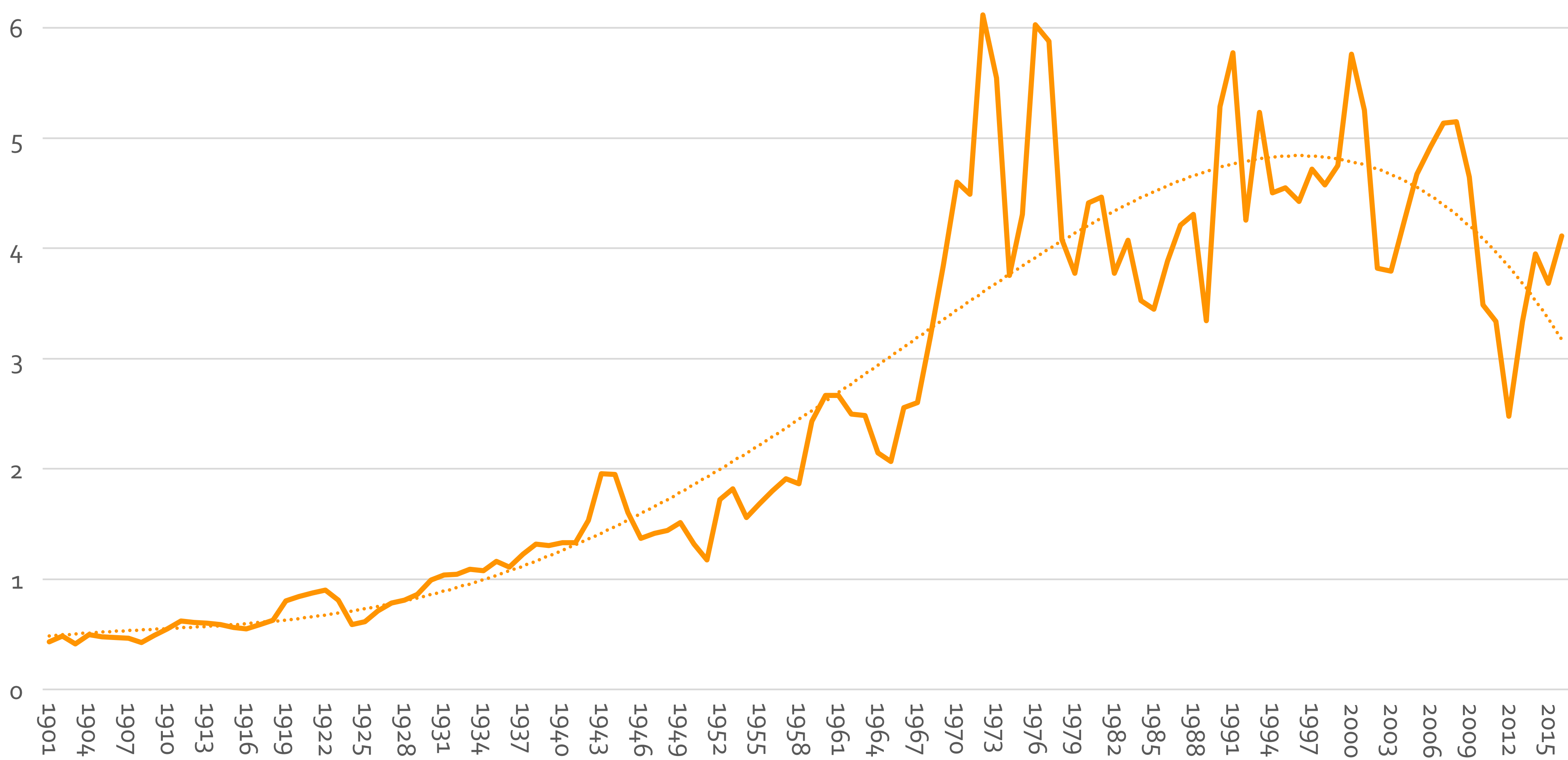


* 2017 uses TTM 12/16; all others YE June; Source: various ABS publications and reports; Coriolis modelling

Processing not declining as rapidly

To date, sheep meat processing has not seen the same dramatic declines as live exports

Number of sheep/lamb processed in WA (head; m; 1901-2017*)

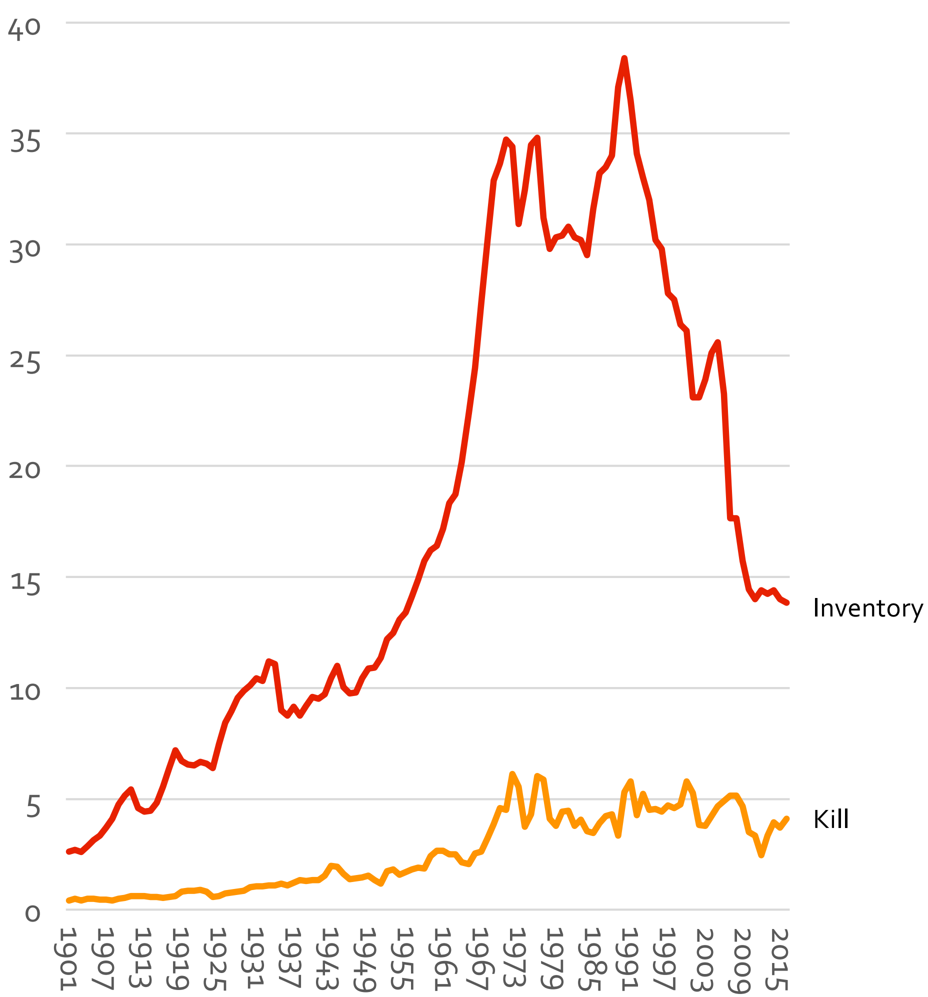


* 2017 uses TTM 12/16; all others YE June; Source: various ABS publications and reports; Coriolis modelling

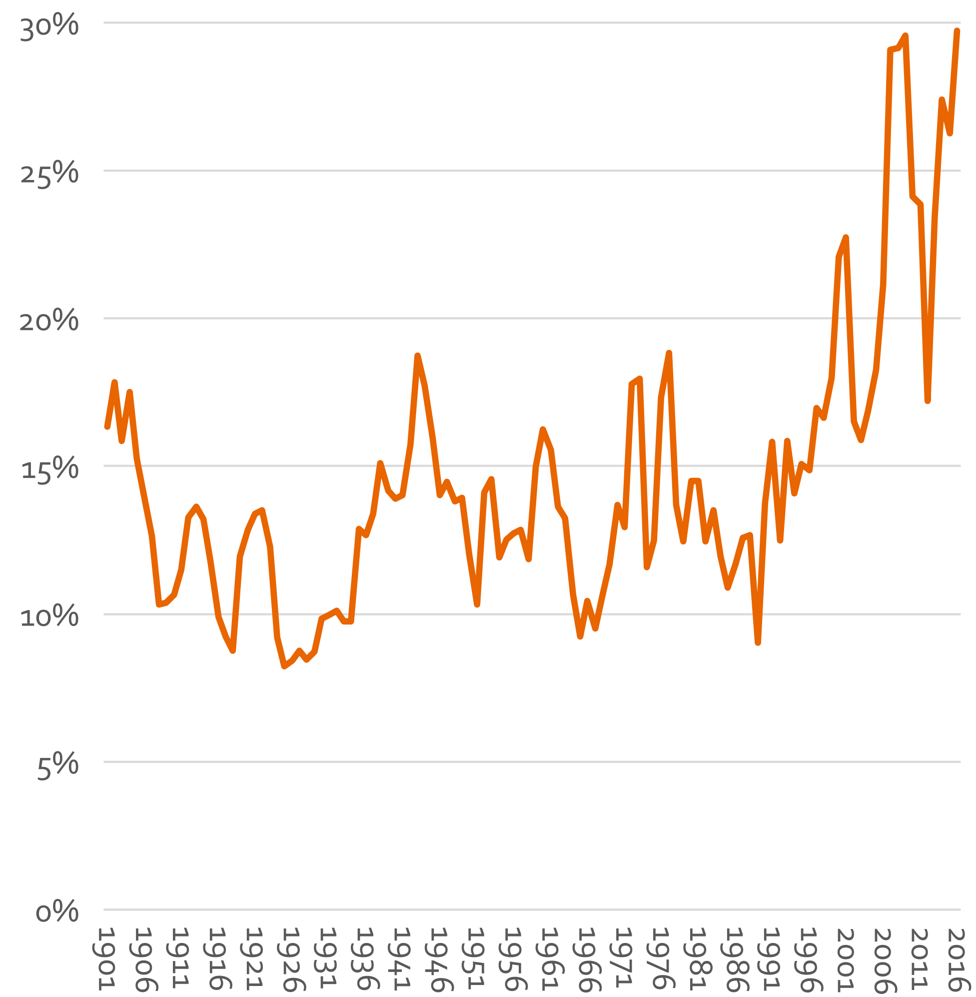
Growing % of flock processed

The processing sector has maintained throughput by processing a larger percent of the flock annually, by shifting the mix from sheep to lamb

Number of sheep/lamb in WA in inventory and processed (head; m; 1901-2017*)



% of sheep inventory processed (% of head; 1901-2016)

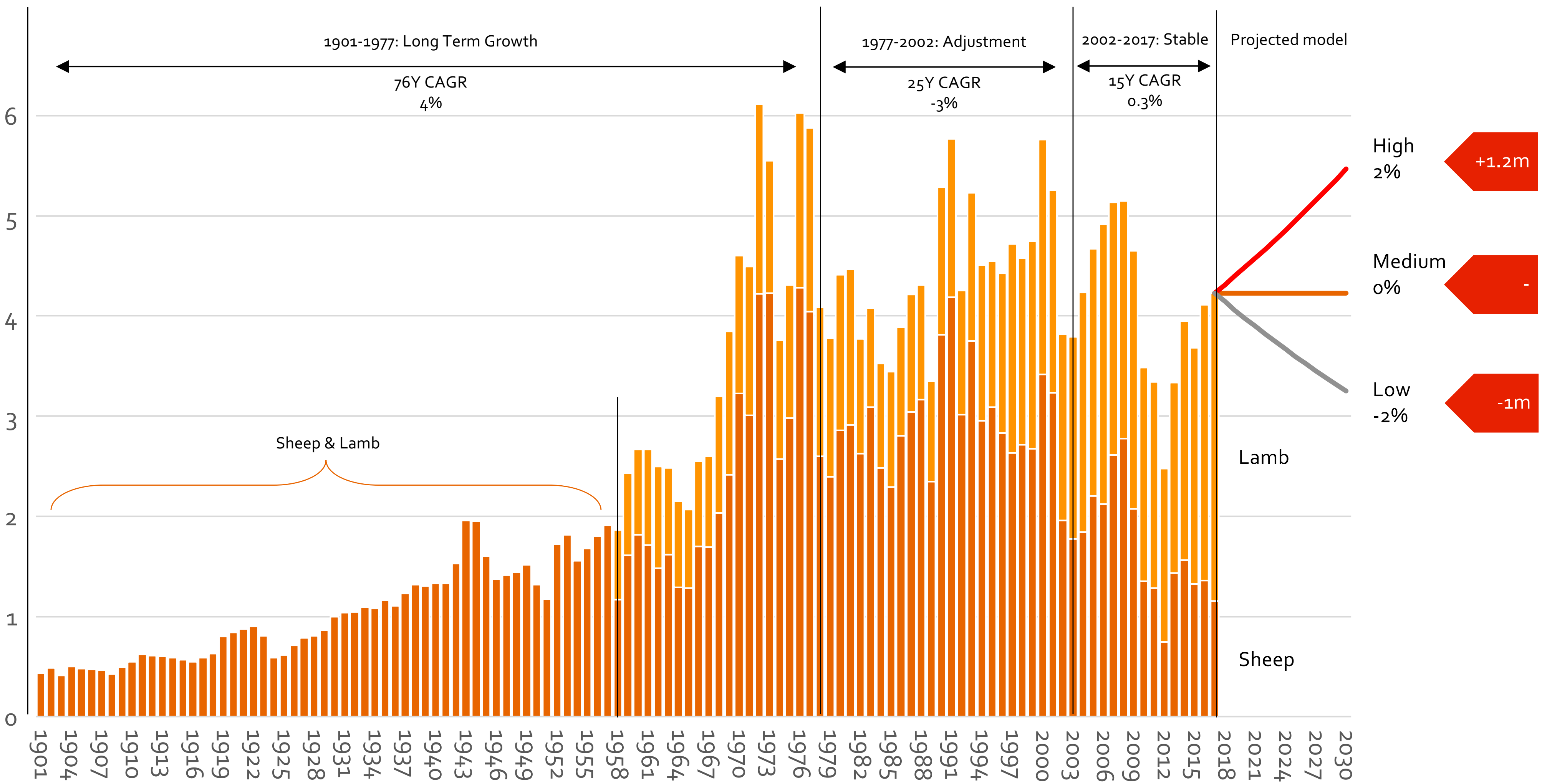


* 2017 uses TTM 12/16; all others YE June; Source: various ABS publications and reports; Coriolis modelling

Unclear trajectory for head processed

The state has experienced growing lamb processed numbers and declining sheep processed numbers; the trajectory for number of sheep processed is unclear

Number of sheep/lamb processed (annual head processed; m; June years 1901-2016; YE Jan 17; 2018-2030p)

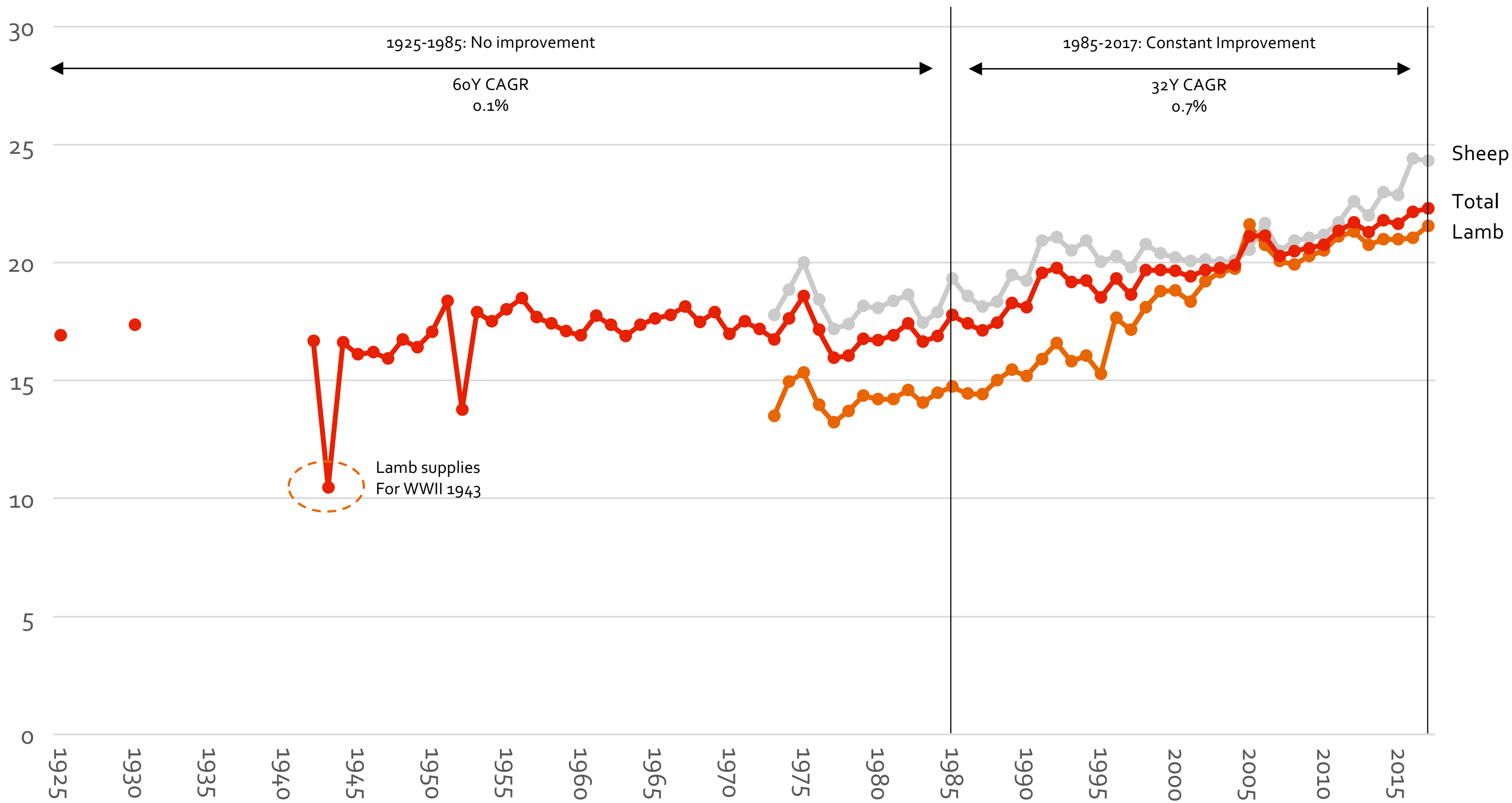


Source: various ABS publications and reports; Coriolis modelling

Achieved yield growth

Western Australia has achieved long-term sheep yield growth of 0.7%pa (32y CAGR) since the mid 1980's

WA sheep meat yield per carcass (kg/animal; 1925-2016a; 2017p)

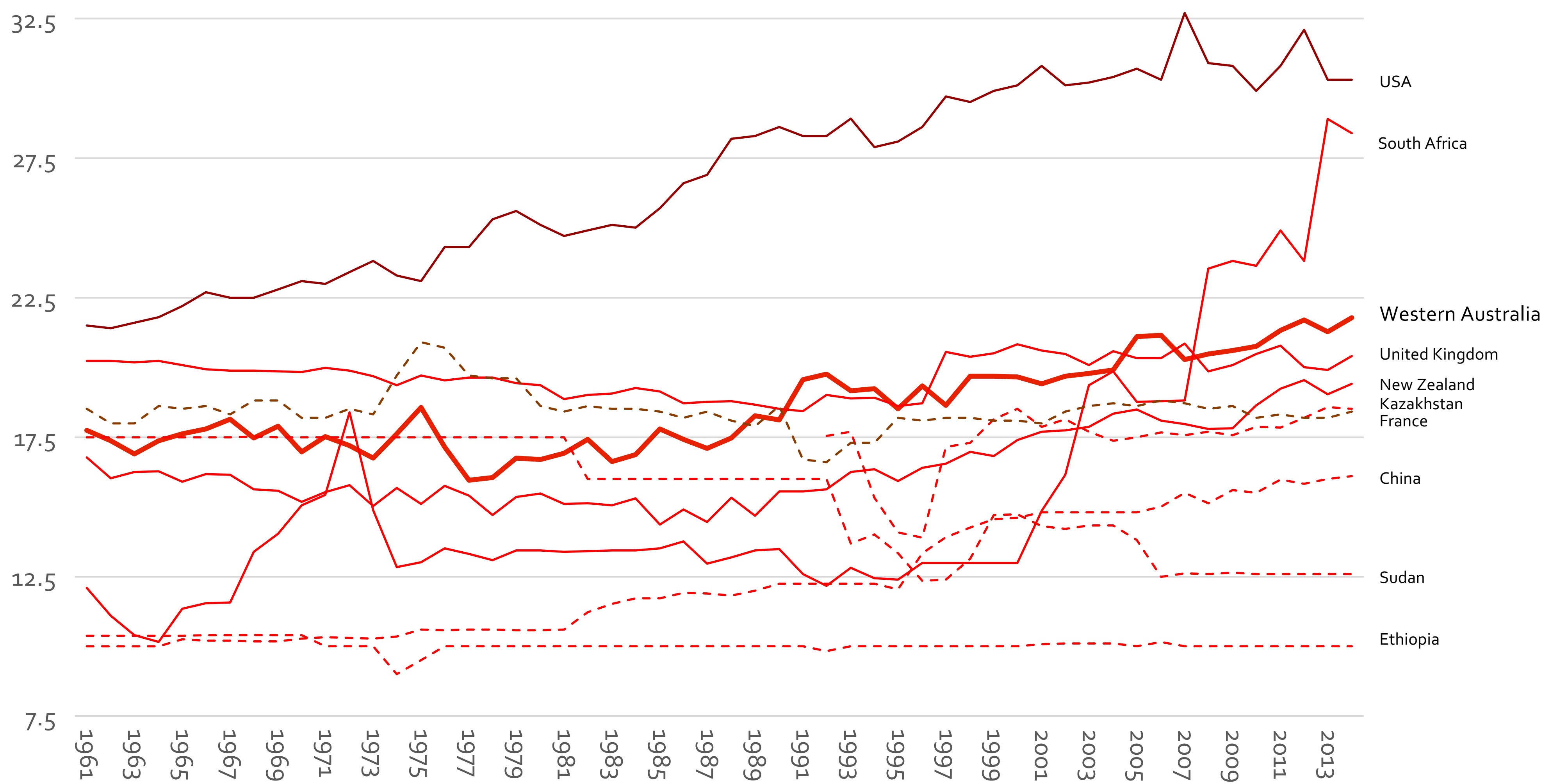


Note: includes estimation of missing data in some earlier years; Source: various ABS publications and reports; Coriolis analysis

Limited yield improvements possible

Western Australia already achieves relatively high sheep meat yields, but some peers suggest further growth is possible

Average sheep/lamb meat yield per carcass (kg/head; 1961-2014)

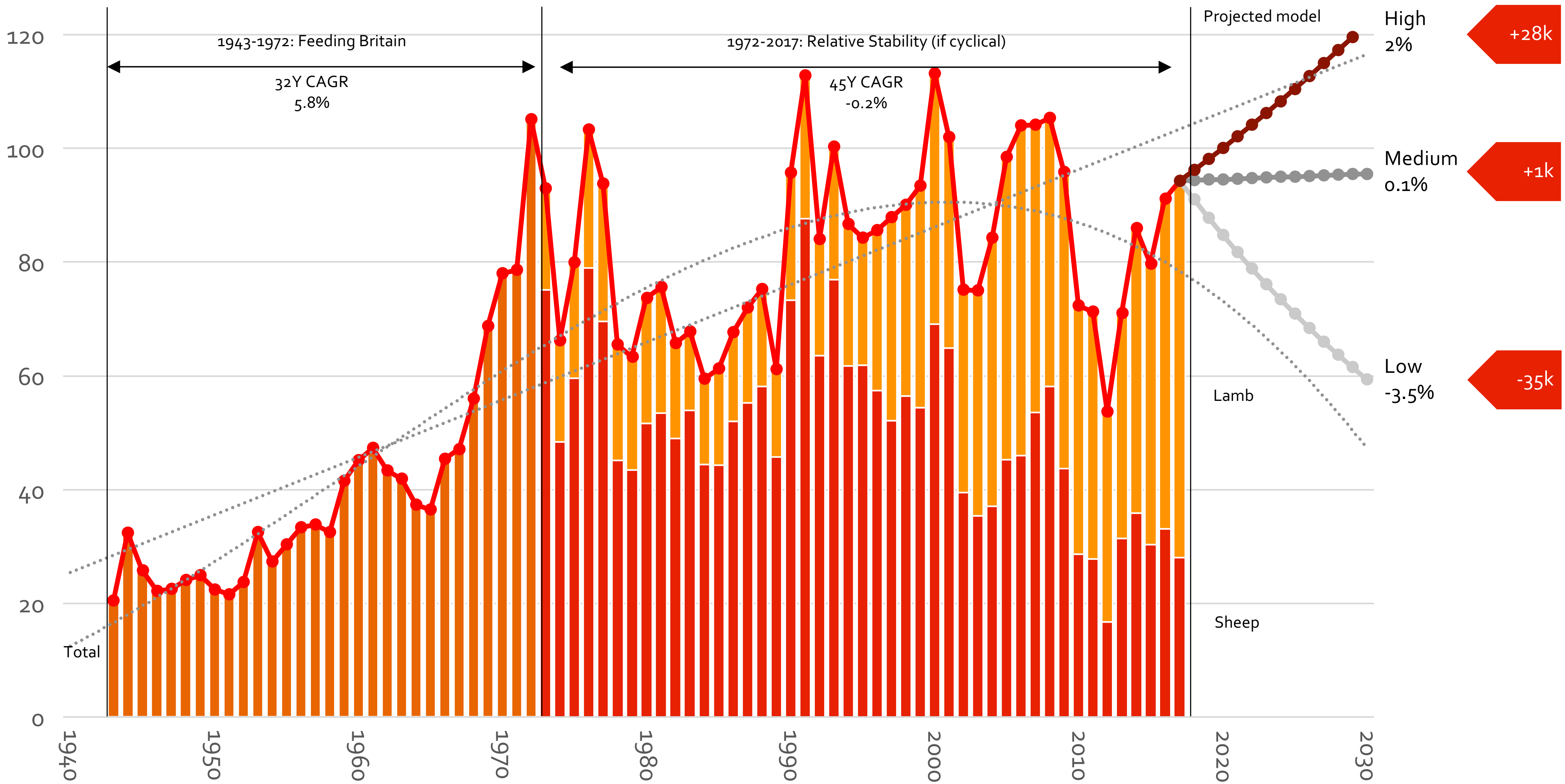


Note: 2014 is the latest available globally; Source: United Nations FAO; various ABS publications and reports; Coriolis analysis

Production growing

Western Australia may continue to increase sheep meat production going forward

Sheep/lamb meat production in Western Australia (t; 000; 1943-2015a; 2016p; 2017-2030p)

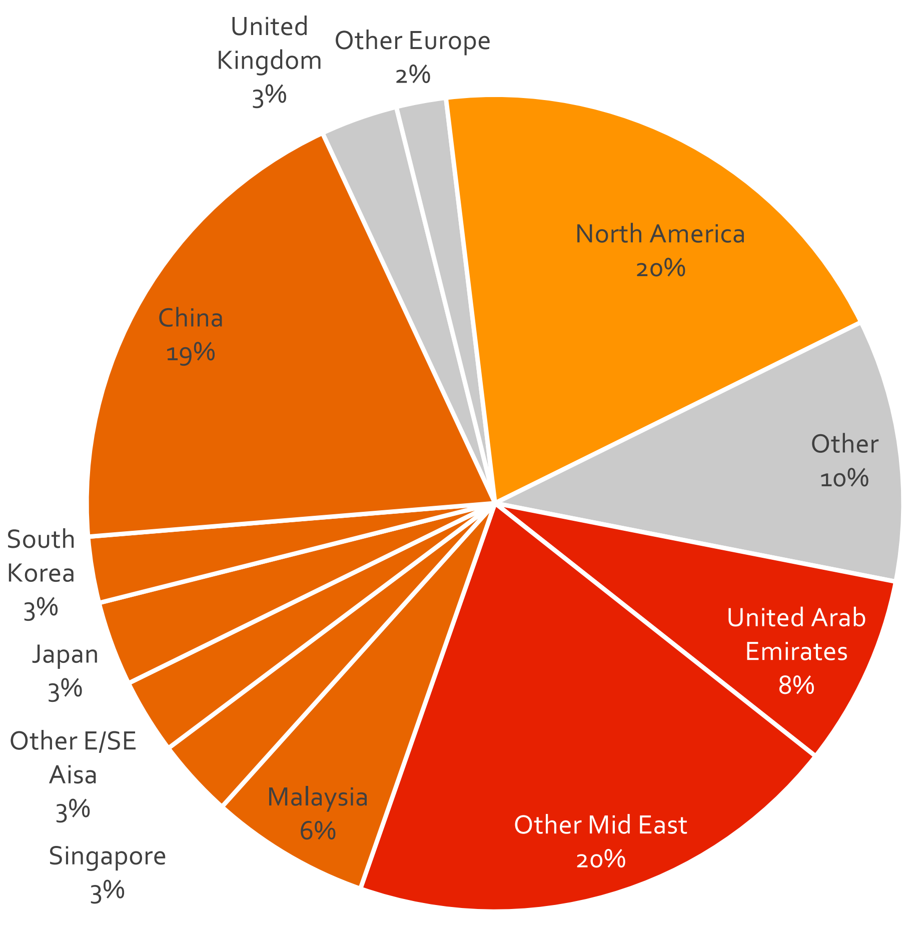


Note: includes estimation of missing data in some earlier years; Source: various ABS publications and reports; Coriolis analysis and modelling

East & South East Asian Markets

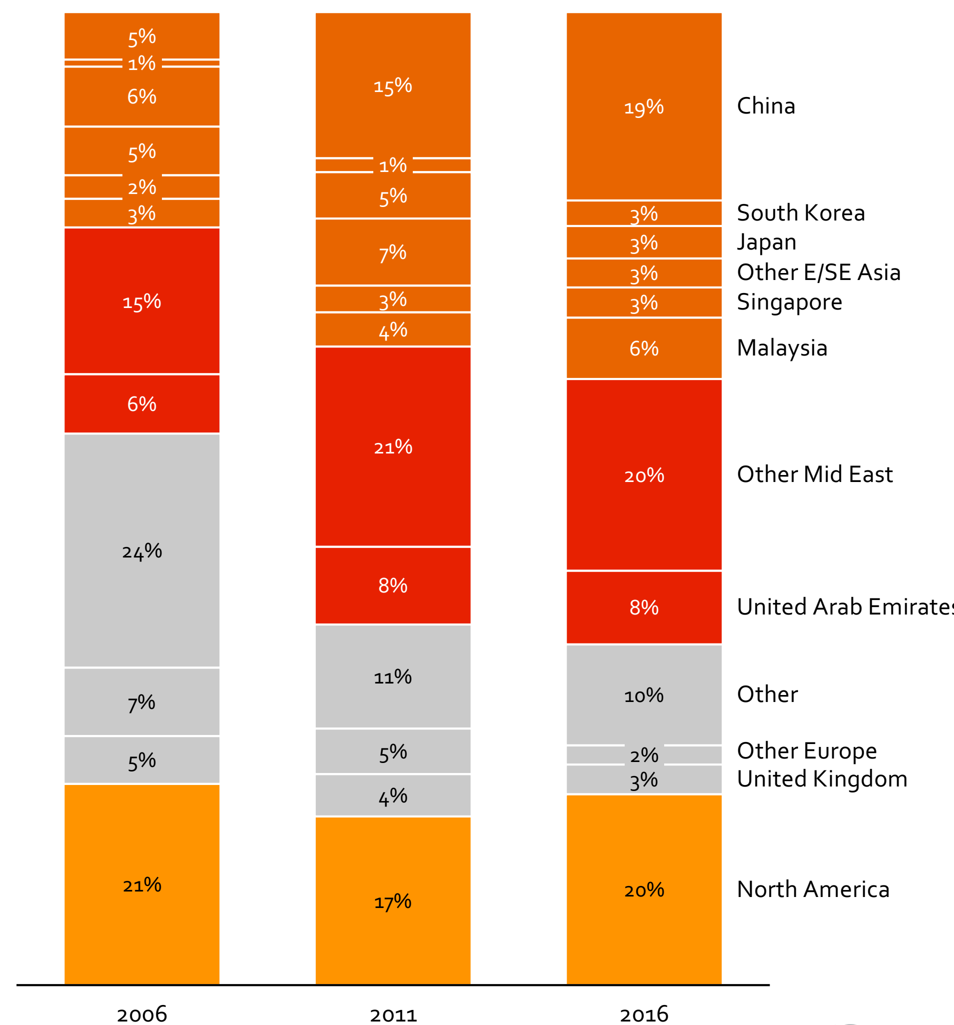
Australian sheep meat exports go to East/South East Asia, the Mid East and North America

AU sheep meat exports by destination (t; m; 2016)



Total = 415m tonnes

% of AU sheep meat exports by destination (% of t; 06-16)



Source: UN Comtrade; ABS; Coriolis analysis

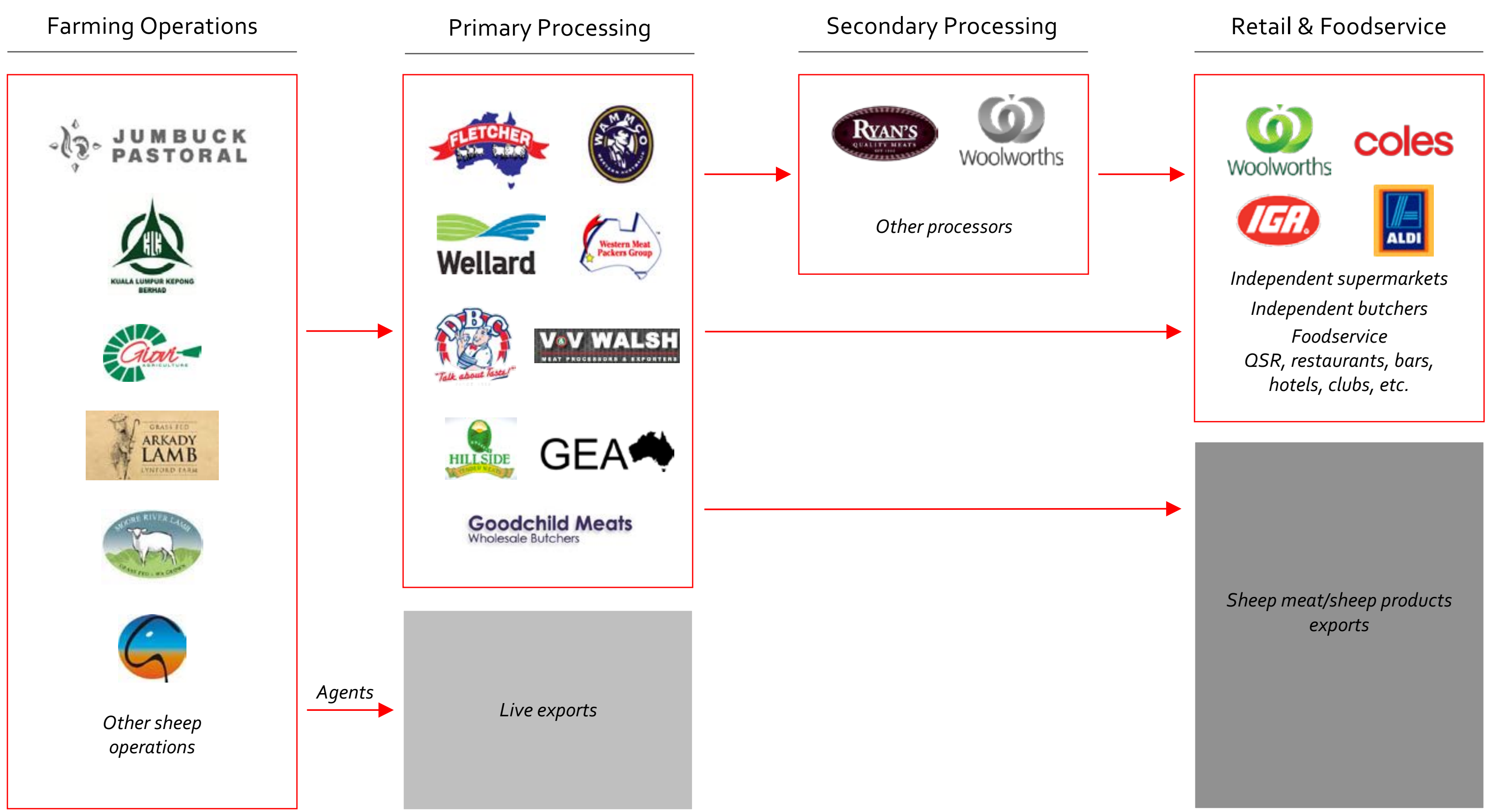
7.3 Western Australia sheep meat processing firm activity

Western Australia has a robust sheep meat industry with a capable set of firms involved

- The sheep supply chain is reasonably straightforward in Western Australia
- A range of firms operate in Western Australia, across the entire sheep supply chain
- Western Australia has a range of approved abattoirs, clustered around production areas
- Three key firms process more than half of Western Australian sheep; almost a third exported live
- Investment is occurring across the sheep supply chain with investments in processing and branding
- There are a number of potential acquisition targets in the Western Australian sheep meat industry, particularly among the smaller firms

Sheep – a multistage supply chain

The sheep supply chain is reasonably straightforward in Western Australia



Source: industry interviews, Coriolis analysis

Firms across the sheep supply chain

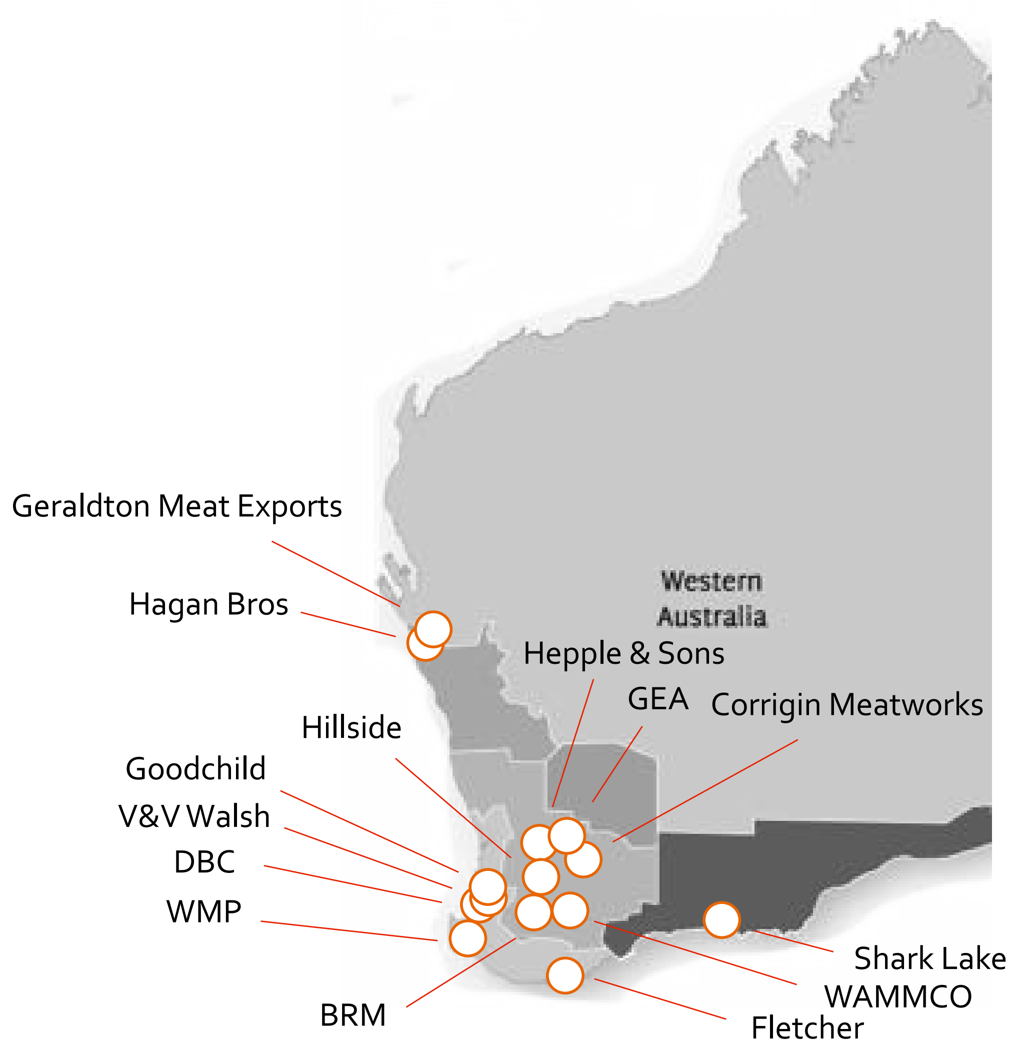
A range of firms operate in Western Australia, across the entire sheep supply chain

Firm	Description	Farming & feedlotting	Primary processing	Secondary processing	Exporting	Branded product
Giovi Agriculture	Mixed enterprise farms; 37,801 ha owned, further 7,000 ha leased; formerly part of Wellard	✓				
Arkady Lamb	Partnership between Lynford Farm and The Farm House Margaret River; British breed grass fed lambs	✓				✓
Gimlet Grove Dorper Lamb	Boutique Dorper lamb producer in Kulin; 8,000 head; restaurants and direct sales; free range, grass fed eggs	✓				✓
Moore River Lamb	Boutique sheep meat producer in Koojan; dry aged, organic, grass fed lamb	✓				✓
Westone/Great Eastern Abattoir	Abattoir in Tammin; sheep and goat focus		✓			✓
Hillside Meat Processors	Abattoir in Narrogin; subsidiary of LLS live exporters		✓		✓	
Fletcher	Integrated processor and exporter of lamb and sheep meat products; pastoral holdings across AU; WA & NSW operations		✓		✓	✓
Wellard	Beaufort River Meats abattoir; capacity of 2,500 sheep per day; Sheep farm and feedlotting	✓	✓		✓	
WAMMCO	Producer owned and controlled co-op; processor and exporter of chilled and frozen lamb		✓		✓	✓
V&V Walsh	Meat processor based in Bunbury; specialise in lamb and beef; chilled export license to China		✓		✓	✓
WMP	Meat processor; export licensed abattoir in Cowaramup, processing facility in Osborne Park		✓	✓	✓	
Goodchild Meats	Abattoir and boning room operations; wholesale butchers with retail store at boning room site		✓	✓		
DBC	Multi species abattoir and value added processing; wholesale and retail butcher stores		✓	✓		✓
Milne Agrigroup	Vertically integrated agribusiness; pork, chicken, retail ready processing for beef, lamb, goat, animal feed			✓		✓
Ryan's Quality Meats	Wholesale and retail butchers; further processing and distribution for number of WA beef producers			✓		✓
Dorper Lamb	Dorper Lamb marketers and exporters; 26 farmer suppliers; own distribution in WA; distribution for MR Premium Meat Exports wagyu beef				✓	✓
Organic & Biodynamic Meats WA	Co-op of organic and biodynamic meat growers in WA; marketing entity; South West growers					✓

Sheep abattoir location

Western Australia has a range of approved abattoirs, clustered around production areas

CATEGORY	ABATTOIR
EXPORT	Beaufort River Meats (Wellard)
	Fletcher International
	Geraldton Meat Exports (closed)
	Hillside Meat Processors
	Western Meat Processors
	V&V Walsh
	WAMMCO International
	Shark Lake Food Group (closed)
	Great Eastern Abattoir
DOMESTIC	Hepple and Sons
	Dardanup Butchering Company
	Corrigin Meatworks
	Goodchild Abattoirs
	Hagan Bros

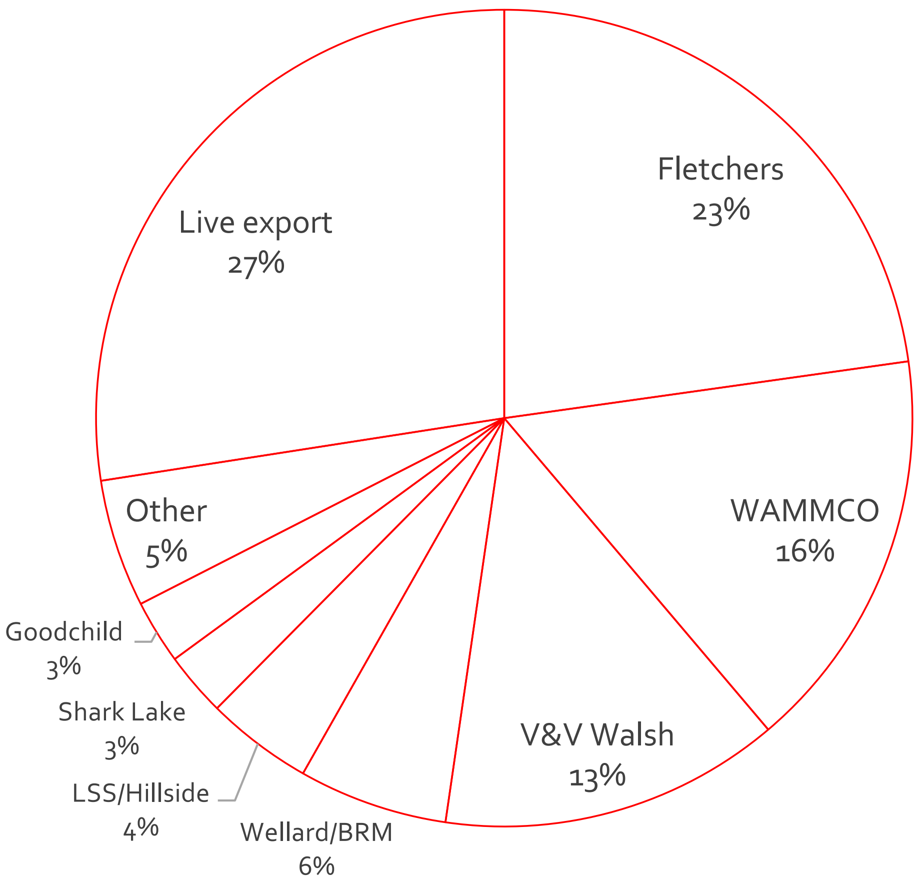


Note: current as at May 2017; Source: WAMIA annual report; Coriolis analysis

Three key sheep meat processors

Three key firms process more than half of Western Australian sheep; almost a third exported live

Share of WA sheep & lamb head output (% of head; YE Mar 17)



TOTAL = 5.9m head

Production build-up in head killed (head; 000; YE Mar 17)

Firm	Capacity (head/week)	% of capacity	Throughput 2016
Fletchers (Narikup)	45,000/week 2.34m/year	55-60% (est)	1.3-1.4m
WAMMCO (Katanning)	23,000/week 1.2m/year	83% (est)	1m
V&V Walsh (Bunbury)	20,000/week 1.04m/year	80% (est)	0.8m
Wellard (Beaufort River)	12,500/week 650k/year	50% (est)	0.3-0.4m
LSS (Hillside/Narrogin)	7,500/week 390k/year	65% (est)	0.2-0.3m
Shark Lake (Esperence)	6,000/week 312k/year	50% (est)	0.1-0.2m
Goodchild (Australind)	5,000/week 260k/year	50% (est)	0.1-0.2m
Other (GEA, Hagen, DBC, others)	-	-	0.2-0.4m
TOTAL processed			4.3m
Live exports			1.6m
TOTAL WA			5.9m

Source: DAFWA (2011); ABS; MLA; various company websites; interviews; Coriolis research and estimates

Investment in the sector continues

Investment is occurring across the sheep supply chain with investments in processing and branding

WAMMCO

- $11.6m invested in new freezing block in 2016
- $4m for new water recycling and upgrades in 2017
- $9m investment in robotics and xray technology proposed at 2016 AGM

DRIVER

- Increase plant efficiency and flexibility of product range
- More efficient carton loading
- Increase shelf life through less handling
- Increase returns on carcass ($3/carcass from using robotic cutting)

V & V WALSH

- Investing in brand development
- Launched 'Amelia Park' brand in Hong Kong and China
- Brand ambassador Executive Chef Neal Jackson
- First shipments of chilled lamb airfreighted to China in June 2017

DRIVER

- Develop market for branded product (focus on high end retail and food service)
- Increase returns and market share

Source: interviews, published articles; Coriolis analysis; Photo credit: Map data: Google

Acquisition targets

There are a number of potential acquisition targets in the Western Australian sheep meat industry, particularly among the smaller firms

Potential to acquire key Western Australian sheep meat processors

Firm	Current Owner	Operations	Species	Potential for outside investment?
WAMMCO	Farmer-owned cooperative	2 plant (Katanning, WA. Goulburn, NSW)	Sheep	Very low; organisation is former government agency; now farmer-owned cooperative
Fletcher International Exports	Roger Fletcher, Founder	2 plants (NSW & WA) 4.5m sheep/year capacity 100,000ha land	Sheep	Low; current owner founded firm in 1967 and has had multiple approaches
V&V Walsh	Walsh family	1 plant (Bunbury)	Beef Sheep	Low; family firm; has had multiple approaches Some form of JV a possibility
Hillside	Livestock Supply Services (LSS) (Hijazi and Ghosheh Group)	1 plant (Narrogin)	Sheep	Medium; firm is non-core to parent and acquired 2012 out of liquidation; parent is major live exporter owned out of Jordan
Great Eastern Abattoir (GEA)	Ernest Davies, others	1 plant (Tammin)	Sheep Goats	Medium; acquired in 2010 out of administration
Beaufort River Meats	Wellard (ASX-listed)	1 plant (Beaufort River)	Sheep	Very high; acquired in 2012; parent Wellard experiencing financial challenges following stock exchange listing; recently sold vessel Fulida is a Wellard shareholder and a likely buyer in case of sale BRM sale process in 2017, not sold
Shark Lake Food Group	In receivership (Rami Koyu, others)	1 plant (Esperence) 1 partial plant (Cataby)	Sheep Beef	Very high; firm in receivership owing creditors
Geraldton Meat Exports	Tang family	1 plant (Geraldton)	Goats Sheep	Very high; mothballed plant that has been on the market

9. Other Meats

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Western Australia chicken processing firm activity

Western Australia's chicken industry is dominated by the large national players

- Western Australia has three main chicken abattoirs; national operators Inghams and Baiada in Osborne Park and Mt Barker in the South West
- The two national firms process over three quarters of Western Australia's chickens
- Limited number of potential acquisition targets in the Western Australian poultry industry

Chicken processing location

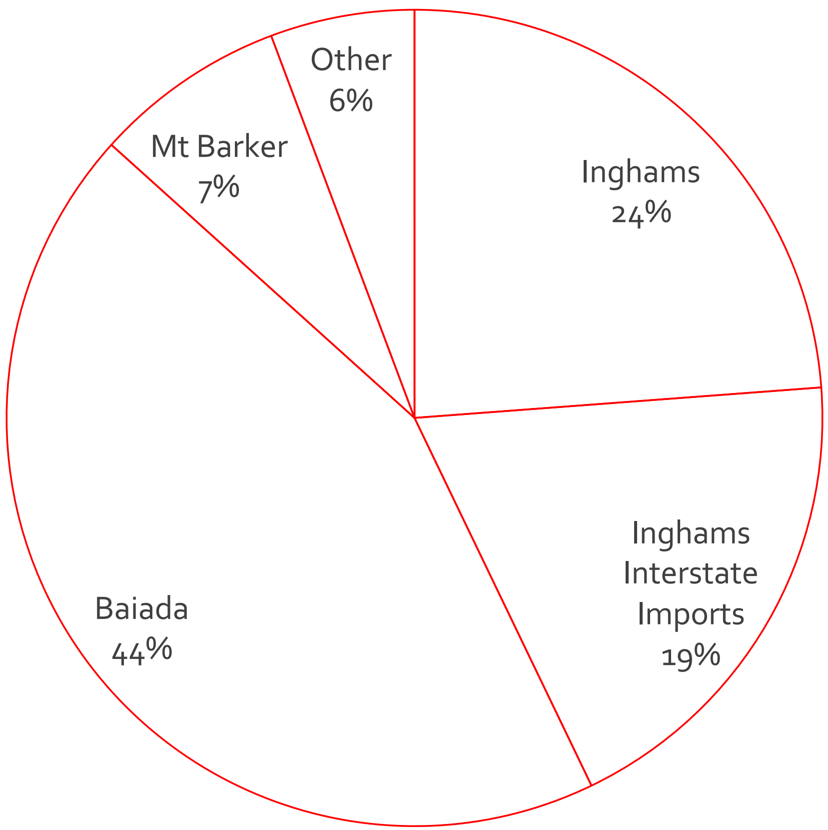
Western Australia has three main chicken abattoirs; national operators Inghams and Baiada in Osborne Park and Mt Barker in the South West

Note: current as at May 2017; Source: DER; various published articles; company websites; Coriolis analysis

Three key poultry processors

The two national firms process over three quarters of Western Australia's chickens

Share of WA chicken sales (%; YE Mar 17)



TOTAL = 110-115,000 tonnes

Production build-up in poultry killed (Birds; t; production; YE Mar 17)

Firm	Tonnes/ year	% share	Throughput 2016
Baiada Poultry	46,000t	37-39%	22-24m
Ingham's Enterprises	25,000t	37-39%	12-13m
	20,000t (imported into WA)		10m (into WA)
Mt Barker (Milne AgriGroup)	7-9,000t	6-8%	5m
Other	5-6,000t	4-6%	2-3m
TOTAL WA	110-115,000t	100%	46m*

*estimates; Source: ACMF; ABS; DER; various company websites; interviews; Coriolis research and estimates

Acquisition targets

Limited number of potential acquisition targets in the Western Australian poultry industry

Potential to acquire key Western Australian poultry processors

	Current Owner	Operations	Species	Potential for outside investment?
Ingham's Enterprises	Public, TPG Capital	Hatchery Feedmill Processing plant (Osborne Park)	Chicken	Low; listed on ASX in 2016; major stake private equity out of USA; largest poultry processor in Australia and New Zealand Planned $70m investment in WA
Baiada Poultry	Baiada family	Hatchery Processing plant (Osborne Park)	Chicken	Low; family firm; established in 1950s; second largest poultry processor in Australia
Mt Barker (Milne Agrigroup)	Graham Laitt	Contract breeders Abattoir (Mt Barker) Processing plant (Rockingham)	Chicken Pork Beef/sheep	Low; family firm; vertically integrated, low capital structured, diversified agribusiness
Catambo Spring/ Westland Riverland Poultry	Tony Young	Broiler farms	Chicken	Low; large expansion project planned in partnership with Santrev shed builders (Mogumber); contract grower for Ingham's
Flown (formerly The Meat & Poultry Company)	Robbie Forrest, Brett King	1 plant (Wanneroo) 1 retail outlet	Chicken	Very high; in administration in 2016; acquired out of liquidation in 2015

Unique species available

Beyond the big four, Western Australia offers a unique mix of high profile, signature, specialty meats

Crocodile

Emu

Kangaroo

Ostrich

Camel

Goat

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Other meat opportunities

Many in the industry see goat as an opportunity in the future

- "The goat sector is an opportunity for the future. They have good birthing rates, low maintenance, and it's the most eaten red meat on the planet." Industry expert
- "The industry is underestimating the potential with goats. Don't know why, people seem to consider them vermin. There is an opportunity with boxed goat." Director, livestock agent, large
- "We have moved into taking goats. They complement the sheep. The process is the same through the plant and we need to keep the processor open. So we process a few thousand goats." Manager, meat processor, large
- "Some farmers are moving out of cattle and into goats. They are easier to run. The biggest issue is the wild dogs." Manager, meat processor, large
- "Australia air freights live goats to Malaysia. It's small but has grown over the last ten years and doubled in volume. Goat meat exports have doubled in value in the last five years." Director, livestock agent, large

Source: Coriolis interviews and analysis

Growing value added meats

Beyond raw materials and primary products, Western Australia has growing production of a range of value added meat products

Beef Jerky

Pate/Terrine

Meat-Based Convenience Meals

Note: see Asia Market Success reports for further information; Photo credit (purchased or creative commons); images under license from shutterstock.com

Growing value adding industry

Opportunities exist to adding more value to Western Australia's meat exports

- "Improved value in the beef sector will come from moving up the value chain from carcasses to **retail ready packs** with the associated quality assurance, traceability and branding." Industry stalwart

- "The Chinese will be quickly educated into the benefits of clean, green, chilled meat." Professor, agriculture institution

- "WA can't afford to continue to give away all that value by pushing them out the farm gate and state as commodities." Sheep & grains producer, large

- "Markets will continue to grow. There will always be the opportunity for **value added** and branded product, particularly from Australia." Chief Executive Officer, cattle company, medium

- "We are naturally export competitive in the beef industry, with the right genetics and the rangelands. We have enormous potential. **Adding value** to beef is an opportunity. Australia is highly regarded, with low diseases and close to key markets. It would be nice to see more value added branded products, that is where the margins and returns are. This is the space to invest." Chief Financial Officer, diversified agribusiness, large

- "The biggest opportunity is in **value-added**, retail ready." Executive, meat company, large

- "The future will be more **valued-added**, retail ready products, both domestically and internationally." Director, meat company, large

Source: Coriolis interviews and analysis

10. Key Firms Profiled

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HEYTESBURY CATTLE CO.

Paul Holmes a Court – Owner

HEYTESBURY
CATTLE CO.

METRICS

Turnover: $30-40m* Stations (2016)
$64m Group (2015)

# of emp: 80 (stations)

DESCRIPTION

Own and manage six northern cattle stations; total 2.5m hectares; live export focus; parent Heytesbury own Vasse Felix winery, investment in Wellard

CATEGORIES

- Cattle Stations
- Live export

DETAILS

Address: 1/464 Murray Street,
Perth,
WA 6000

Phone: +61 8 6217 2600

ABN: 90 009 134 507

Year est: 1923

Website(s): www.heytesburycattle.com.au
www.vassefelix.com.au

OPERATIONS

- Six cattle station (6 stations; WA & NT; 160,000 brahman)
- Majority of turnoff (80%) 40,000 head to live export (Indonesia and Vietnam) via Northern ports

BRANDS

HEYTESBURY
CATTLE CO.

OWNERSHIP

Type: Private

Country: Australia

Owner: Paul Holmes a Court

ACTIVITIES

- 2008 Paul Holmes a Court took sole ownership of the company
- 2016 Acquired Humbert River (1,090ha) Victoria River District (NT); includes Yarralin leases
- 2016 Invested in Wellard; $8m shares (9.5%) from Tariq Butt

MARKETS

- Domestic
- Live export

*Coriolis estimate; Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

YEEDA PASTORAL COMPANY

Jack Burton – Director

YEEDA

METRICS

Turnover:	$15-30m*
# of emp:	40 (excl. abattoir)

DESCRIPTION

Vertically integration meat producer based in Kimberley; 1.2m hectares across 7 properties; recently commissioned abattoir in Kimberley

CATEGORIES

- Beef
- Sheep
- Goat

DETAILS

Address:	Great Northern Highway, Derby, WA 6728
Phone:	+61 8 9192 5812
ABN:	16 094 819 717
Year est:	1990's
Website(s):	www.yeeda.com.au

OPERATIONS

- Stations; 80,000 cattle in Kimberley; 20,000 sheep in Goldfields; 5,000 goats in Goldfields
- Abattoir and boning room between Derby/Broome; initially 300 cattle/day capacity

BRANDS

KIMBERLEY MEAT COMPANY

YEEDA

OWNERSHIP

Type:	Private
Country:	Australia
Owner:	46% Beachline Holdings (AU), 33% Kilto Station - Burtons (AU), 20% Fitzroy River Ltd (USA), others (Singapore)

ACTIVITIES

- Yeeda Pastoral Company formed with Burton's Taberer and Keys families
- 2015 ADM Capital (HK) loans Yeeda $23m
- 2015 Gingin abattoir for sale $4.5m (purchased 2012 700/day capacity.)
- 2016 Built abattoir on Yeeda Station; $40m

MARKETS

- Export
- Domestic into food service

*Coriolis estimate; Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

HANCOCK PROSPECTING

Gina Rinehart - Owner

HANCOCK PROSPECTING

METRICS

Turnover:	$1.68b (2016) total operations
# of emp:	70 total operations

DETAILS

Address:	28-42 Ventnor Avenue, West Perth, WA 6005
Phone:	+61 8 9429 8222
ABN:	69 008 676 417
Year est:	1955
Website(s):	www.hancockprospecting.com.au

OWNERSHIP

Type:	Private
Country:	Australia
Owner:	Gina Rinehart, Hope Margaret Hancock Trust

DESCRIPTION

Resources company expanding into cattle and beef production; top 3 beef producers in Australia

OPERATIONS

- 67% of Australian Outback Beef (AOB) – JV with Shanghai CRED to acquire S.Kidman & Co; 10 operations covering 10.1m ha across SA, WA, NT, QLD; capacity of 185,000 cattle; $386.5m
- 4 stations in WA owned directly – Fossil Downs, Liveringa, Nerrima, Mulga Downs
- Collectively 300,000 head of cattle
- Wagyu beef brand, 2GR Fullblood Wagyu
- Fullblood and F1 wagyu operations in NSW, QLD
- Phoenix Park, live export depot near Katherine
- Feedlot at Liveringa, WA
- Interest in Bannister Downs Dairy

ACTIVITIES

- 2016 Acquired S.Kidman & Co; 67% in JV; $386.5m
- 2017 First shipment of 2GR boxed wagyu
- 2017 Acquired Aroona station, NT; $24m
- 2017 Vision to export 800,000 live cattle

CATEGORIES

- Cattle
- Beef
- Wagyu beef

BRANDS

MARKETS

- China

Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

HAMERSLEY AGRICULTURE

David Hansen – Chief Executive Officer

METRICS

Turnover:	N/A
# of emp:	10

DESCRIPTION

Fully integrated premium beef production operation in Western Australia through the acquisition of pastoral properties, cattle and farms.

CATEGORIES

- Beef
- Cattle

DETAILS

Address:	Suite 8, 232 Churchill Avenue, Subiaco, WA 6008
Phone:	+61 8 6424 9130
ABN:	76 606 426 484
Year est:	2014
Website(s):	www.hamersleyagriculture.com.au

OPERATIONS

- Raising, backgrounding, processing and selling premium quality branded beef and cattle
- Target of 100,000 cattle turn-off annually
- Partners with processors – chilled beef to China

BRANDS

OWNERSHIP

Type:	Private
Country:	Australia
Owner:	Tomkins Turner Corporate Advisory

ACTIVITIES

- 2016 successful launch a branded chilled beef in Shanghai, China
- 2017 cemented relationship with a leading distributor of Australian beef in China
- 2017 secured offtake agreements with Chinese customers

MARKETS

- Domestic and Asia
- China
- Asia

Source: company website; company supplied; various published articles; Coriolis analysis and estimates

PARDOO BEEF CORPORATION

Bruce Cheung – Owner

METRICS

Turnover: N/A

# of emp: 39

DESCRIPTION

Cattle station in Pilbara, Pardoo Station; over 198,000ha; runs 5,700 head of cattle and a tourist operation;

CATEGORIES

- Wagyu and Wagyu Cross
- Tourism

DETAILS

Address: L5, 189 St Georges Terrace,
Perth,
WA 6000

Phone: +61 8 9322 5888

ABN: 56 601 968 165

Year est: 2014

Website(s): www.pardoo.com

OPERATIONS

- Cattle Station with Santa Gertrudis and Wagyu
- 12 pivot irrigators (540ha) crops for animal feed – (bores for 11 pivots); hope for 60 pivots
- Increasing stock of wagyu to raise 11,000 weaners/yr
- Agistment agreement with Mowanjum Station, Derby
- Farms in the Perth Hills
- Cattle processed at V&V Walsh

BRANDS

OWNERSHIP

Type: Private

Country: Australia

Owner: Boden Holdings Australia (Bruce Cheung)

ACTIVITIES

- 2015 Acquired by Bruce Cheung (Singapore) $13.5m
- 2015 Acquired 3 farms north of Perth
- 2016 Expanded pivots and build new cattle conditioning complex
- 2016 Established wagyu agreement to buy with 6,000 breeders and 6,000 calves (F5) over three years
- 2016 Won the AWA grand champion prize for branded beef
- 2017 Bronze medal at AWA Wagyu branded beef competition

MARKETS

- China

Source: company website; company supplied; various published articles; Coriolis analysis and estimates

WESTPORK

Neil Ferguson – Chief Executive Officer

METRICS

Turnover: $61.7m [AR16]

# of emp: N/A

DESCRIPTION

Largest pig producer in Western Australia; breeder farms and piggeries across four locations; 40% WA production

CATEGORIES

- Pork

DETAILS

Address: 1/7 Foundry Street
Maylands WA 6051

Phone: +61 8 9271 2844

ABN: 90 009 148 789

Year est: 1985

Website(s): -

OPERATIONS

- Pig farms located at:
- Breeder farm at Gingin 5,500 animals
- Piggery at Wannamel 65,000 animals
- Piggery at Bokal 4,400 animals
- Piggery at Hopeland 8,800 animals
- Piggery at Gingin contracted to grow 9,000 animals (expanding to 22,000 animals)
- CMG – Linley Valley Pork- kills and processes pigs
- Supply pork to major suppliers

BRANDS

OWNERSHIP

Type: Private

Country: Australia

Owner: D'Orsogna, others

ACTIVITIES

- 1985 Formed JV with farmers and D'Orsogna (major shareholder) to supply pork for processing (B,H SG) – 400 sows
- 2016 14,000 sows

MARKETS

- Domestic
- Export (Singapore)

Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

GD PORK

Torben Soerensen – Managing Director

METRICS

Turnover:	$15-20m (2017) [supplied]
# of emp:	25 [supplied]

DESCRIPTION

Pig farmers with piggeries at West Pinjarra (breeding), Kojonup (grower/finisher) and Kemerton (breeding); supply pork to CMG

CATEGORIES

- Pork

DETAILS

Address:	PO Box 600, Pinjarra, WA 6208
Phone:	+61 8 9534 1150
ABN:	84 126 978 685
Year est:	2007
Website(s):	www.gdpork.com.au

OPERATIONS

- Pork farms an hour south of Perth, approximately 6% of WA pork production
- Expansion at Kojonup and Pinjarra ($25m), 9 new sheds plus feed; pig numbers to increase to 28,500 (SPU's) ~70,000 pigs per year
- Kemerton piggery expansion plans on hold

BRANDS

OWNERSHIP

Type:	Private
Country:	Australia
Owner:	Soerensen; two Danish partners

ACTIVITIES

- 2007 Established initial two farms
- 2016/17 Process to upgrade Kemerton and Pinjarra (breeding), $25m investment, including capturing methane for biofuel production

MARKETS

- Domestic
- Exports - Singapore

Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

Name	Giovi Agriculture
Address	1A Pakenham Street, Fremantle, WA 6160
Phone	+61 8 9432 2800
ABN	14 133 835 766
Founded	2015
Website	www.giovi.com.au
Turnover	$55m [BusinessNews]
Employees	N/A
Ownership	Private; Australia (Balzarini family)
License	-
Species	Sheep Cattle
Capacity	37,801 ha prior to 2017 sales
Notes	Separated from Wellard prior to IPO; selling properties in 2017 Sold Watheroo 13,350ha in 2017 to Westchester for $15m

Name	Margaret River Premium Meat Exports
Address	104 Pinjarra-Williams Road, Pinjarra, WA 6208
Phone	+61 8 9531 1086
ABN	79 105 326 887
Founded	2003
Website	www.mrpme.com.au
Turnover	$5-10m*
Employees	10-20*
Ownership	Private; Australia (McLeod)
License	-
Species	Wagyu beef
Capacity	11 farms supply; consolidating to new Esperance property; looking to grow to 10,000 head
Notes	Exports to 15 countries

Name	Consolidated Pastoral Company
Address	2/72 Newmarket Road, Windsor, QLD 4030
Phone	+61 7 3174 5200
ABN	22 010 080 654
Founded	1983
Website	www.pastoral.com
Turnover	$86m [AR15]
Employees	220 [BusinessNews]
Ownership	Private; Australia (Terra Firma (Private Equity; UK) via Lake Woods Holdings)
License	-
Species	Cattle Live exports
Capacity	4 stations; one leased in WA; 1.2m ha total
Notes	Australia's largest privately owned beef producer; 5.5m hectares; 16 properties; 400,000 cattle carrying capacity across northern Australia (including 2 feedlots in Indonesia)

Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

Name	KLK Farms
Address	L 2 39 Stirling Highway, Nedlands, WA 6009
Phone	+61 8 9389 8433
ABN	71 008 713 611
Founded	1906/1968
Website	www.klk.com.my
Turnover	$16m WA [BusinessNews] RM13.6b [AR15]
Employees	11 WA*
Ownership	Private; Australia (Kuala Lumpur Kepong Berhad (Public; Malaysia); MYX:2445)
License	-
Species	Cattle Sheep
Capacity	6 properties in WA Wheatbelt; 50,000 ha; mixed enterprises
Notes	Australian subsidiary of large Malaysian multinational

Name	Kylagh Cattle Co
Address	2 Ryan Road, North Tammin, WA 6409
Phone	+618 9635 3228
ABN	13 164 228 139
Founded	1925
Website	-
Turnover	N/A
Employees	9
Ownership	Private; Australia (Rogers family)
License	L8547/2011/1
Species	Cattle
Capacity	4,200ha mixed farm; 13,000 cattle/yr through feedlot
Notes	Feedlotting enterprise in Tammin; supplies Coles; processed at Harvey Beef; director at Taurindi Beef

Name	Irongate Wagyu
Address	1157 Dempster Road, Albany, WA 6330
Phone	+61 8 9846 4217
ABN	92 108 493 689
Founded	2004
Website	www.irongatewagyu.com
Turnover	N/A
Employees	N/A
Ownership	Private; Australia (Gilmour family)
License	-
Species	Wagyu & angus beef Breeding cattle
Capacity	1,000 ha; 2,500 head; 7 partner breeding properties
Notes	Peter Gilmore president of Australian Wagyu Association; partnership with Butterfield Beef feedlot

*Coriolis estimate; Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

Name	Blackwood Valley Organic
Address	McLarty Road, Boyup Brook, WA 6244
Phone	+61 8 9765 2121
ABN	39 083 655 461
Founded	1920
Website	www.blackwoodvalleybeef.com.au
Turnover	N/A
Employees	N/A
Ownership	Private; Australia (Pensini family)
License	-
Species	Beef (organic, grass fed) Lamb (organic, grass fed)
Capacity	1,640 ha Supply partnership with Kanandah Station
Notes	Organic beef and lamb producer; processed at V&V Walsh for developing export market, further processing by Ryan's Quality Meats

Name	Butterfield Beef
Address	Daniel's Well, Borden, WA 6338
Phone	+61 427 279 237
ABN	25 328 213 778
Founded	1998
Website	www.butterfieldbeef.com.au
Turnover	N/A
Employees	N/A
Ownership	Private; Australia (O'Meehan family)
License	NFAS accredited feedlot
Species	Beef
Capacity	3,300 head feedlot; team of 40 beef producers
Notes	Grass raised, feedlot finished beef production; distributed by Ryan's Quality Meats

Name	Dandaragan Organic Beef/Noondel Grazing Co
Address	3377 Dandaragan Road, Dandaragan, WA 6507
Phone	+61 8 9651 4022
ABN	55 227 376 252
Founded	1900's
Website	www.dandaraganorganicbeef.com.au
Turnover	N/A
Employees	N/A
Ownership	Private; Australia (Cook family)
License	-
Species	Beef (organic, grass fed)
Capacity	7,300 acres 2,000 head of cattle
Notes	WA's largest organic beef producer; processed at organic certified Gingin Meatworks

Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

Dorper Lamb

Name	Dorper Lamb
Address	Suite 50-15 Labourchere Road, South Perth, WA 6151
Phone	+61 409 685 952
ABN	76 114 846 383
Founded	2005
Website	www.dorperlamb.com.au
Turnover	N/A
Employees	N/A
Ownership	Private; Australia (Howie family)
License	-
Species	Dorper lamb
Capacity	26 farmer suppliers; retail outposts in Malaysia, Singapore, Hong Kong
Notes	Dorper Lamb marketers and exporters;; own distribution in WA; distribution for MR Premium Meat Exports wagyu beef

Name	Gimlet Grove Dorper Lamb/ Jilakin Downs Dorper and White White Dorpers Stud
Address	1693 Carmody Road, Jilakin, WA 6365
Phone	+61 427 804 053
ABN	66 056 563 172
Founded	2004
Website	www.jilakindowns.com.au
Turnover	N/A
Employees	N/A
Ownership	Private; Australia (Wilson family)
License	-
Species	Dorper lamb
Capacity	8,000 head; 8,000 ha property
Notes	Boutique Dorper lamb producer in Kulin; 8,000 head; restaurants and direct sales; free range, grass fed eggs

Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

WELLARD GROUP

Mauro Balzarini – Chief Executive Officer

METRICS

Turnover:	$574m [AR16] Livestock $536m, Process $38m Profit: $3.7m [AR16]
# of emp:	176 AU [prospectus; excl. ships]

DESCRIPTION

Live meat, sheep meat and grain exporter, #1 exporter of cattle to Indonesia; ship owner; operations cover entire export chain; sources: AU, NZ, Brazil, Uruguay

CATEGORIES

- Live cattle, sheep, dairy cow exports
- Sheep and goat processing (chilled and frozen sheep meat),
- Animal feed (internal use)

DETAILS

Address:	1A Pakenham Street, Fremantle, WA 6160
Phone:	+61 8 9432 2800
ABN:	53 607 708 190
Year est:	1979
Website(s):	www.wellard.com.au www.wellardgroup.com

OPERATIONS

- Operations in Australia, Philippines, Indonesia, Sri Lanka, Brazil, other
- Four carriers (+ 1 under construction)
- Beaufort River Meats abattoir (capac. 9,000, [2,500] sheep/day);
- 8 centres (sheep, cattle, grain);
- 5 quarantine facilities;
- Developed a large air-freight chilled carcass trade to ME;
- Farming operations changed name to Giovi and kept private under family ownership

BRANDS

Wellard

Beaufort River Meats

OWNERSHIP

Type:	Public (ASX: WLD)
Country:	Australia
Owner:	Fulida, Balzarini, Heytesbury, others

ACTIVITIES

2009 Built two livestock shipping vessels
2010 Purchased The Grange, 14,500 hectare
2012 Purchased the Beaufort River Meats abattoir
2015 JV with Fulida Group (China) to supply and market Australian cattle and beef in China;
2015 Acquired land (NT) for pre-export quarantine facility
2015 IPO of 215m shares (54%) to raise $299m
2016 425,000 cattle shipped
2016 Launched livestock vessel
2017 Put BRM sheep processor up for sale – no sale
2017 Acquired pre-export quarantine facility VIC
2017 Additional investment from Fulida and Heytesbury

MARKETS

Export globally

Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

LANDMARK OPERATIONS

Leon Giglia – WA & National Livestock Director

METRICS

Turnover:	$1,769m [AR16] Profit: $122m retail only AU [AR16]
# of emp:	2,000 (AU)

DETAILS

Address:	380 La Trobe Street, Melbourne, VIC 3000
Phone:	+61 3 9209 0001
ABN:	61 100 419 317
Year est:	1860's
Website(s):	www.landmark.com.au www.agrium.com

OWNERSHIP

Type:	Private
Country:	Australia
Owner:	Agrium (Public, NYSE: AGU)

DESCRIPTION

100% subsidiary of Agrium Inc., world's largest retail distributor of crop nutrients, crop protection, seed, merchandise retail and services in North America, Australia and South America; Agrium turnover US$13,665m [AR '16]

OPERATIONS

- 2 formulation facilities in AU, WA and VIC
- Landmark stores – 45 in WA (~180 total)
- Livestock marketing and auction
- Financial services
- Canola breeding program Horsham, VIC
- Live exporting cattle and sheep out of WA

ACTIVITIES

- 2013 Acquired Viterra's retail stores from Glencore; 13 locations
- 2015 Discussion around selling AU arm
- 2016 Parent merges with Potash Corporation creating US$36b company

CATEGORIES

- Crop fertiliser
- Seeds
- Retail
- Livestock marketing
- Live export

BRANDS

MARKETS

- Global

Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

HARMONY AGRICULTURE AND FOOD CO

Steve Meerwald – CEO

METRICS

Turnover:	$50-$100m (2016) [supplied]
# of emp:	43 (WA 30, VIC 13)

DESCRIPTION

Vertically integrated cattle and sheep company; grazing farms, supply chain management specialists, backgrounding, feedlotting and exporting processed and live sheep and cattle

CATEGORIES

- Beef
- Sheep meat
- Live cattle (breeding, feeder and slaughter)
- Live sheep (breeding and slaughter)

DETAILS

Address:	114 Forrest Street, Cottesloe, WA 6011
Phone:	+61 8 6230 4298
ABN:	27 604 517 099
Year est:	2016
Website(s):	www.haafco.com

OPERATIONS

- 15,000 livestock across properties
- Grazing and feeding cattle at Kylagh Feedlot and Cattle Co., WestBeef feedlot (Tamin/Kalannie; 1,030ha (7,000 head capacity); Rancho East farm (Esperance; 1,600ha grazing (2,000 head capacity) and feedlot (4,000 head capacity); Mount Fyans farm (Victoria; 5,908ha, gazing for 10,000 head)
- Sister companies – breeding, cattle and sheep, shipping associated businesses (Harmony Marine (Singapore), Indago Solutions, Phoenix Exports and Breedex)

BRANDS

OWNERSHIP

Type:	Private
Country:	Australia
Owner:	Dalian HeSheng Holdings (China) 51% (via Hopshun Australia); others (AU) 49%

ACTIVITIES

- 2014 Established Taurindi Beef (management)
- 2015 Invested $50m in assets at WestBeef, Rancho East and Mount Fynes)
- 2016 Established Harmony Agriculture and Food
- 2016 Partnership with Hopshun Australia (establish grazing blocks and feedlots) and export to ME/SE Asia
- 2017 Yangtze Harmony maiden voyage to Oman 12,500 sheep

MARKETS

- Domestic
- Export SE Asia, Middle East, China

Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

ELDERS LIMITED

Mark Allison – Chief Executive Officer & Managing Director

METRICS

Turnover:	$1,425.2m [AR16] EBIT*: 56.2m (Total); $22.5m WA [AR16]
# of emp:	1,800 total [Company]

DETAILS

Address:	Level 10, 80 Grenfell Street, Adelaide, SA 5000
Phone:	+61 8 8425 4000
ABN:	34 004 336 636
Year est:	1839
Website(s):	www.elders.com.au

OWNERSHIP

Type:	Public (ASX: ELD)
Country:	Australia
Owner:	Public

DESCRIPTION

Agribusiness involved in livestock sales, feedlots, abattoir, wool, grain, production advice, farm supplies, insurance & finance

OPERATIONS

- Agency – sourcing and trading livestock, grains and wool
- Feed and processing services - Killara Feedlot NSW, Elders Indonesia (abattoir and red meat distribution) and Elders China (red meat distribution)
- Retail – farm supplies and fertiliser
- Real Estate – sales and property management
- Financial Services – Agricultural financing and insurance
- Digital and Technical Services – fee for service agronomy, Auction Plus online livestock sales, Elders Weather platform

ACTIVITIES

- 1993 Acquired AACo.
- 1990s Acquired feedlots in VIC, NSW
- 2000 Launched Elders Rural bank
- 2001 Launched Elders Webster (TAS)
- 2009 Exits stake in AACo.
- 2010 Invests in upgrading Elders Fine Foods
- 2013 Exits forestry (KKR) and automotive business
- 2015 Sent first live beef cattle shipment to China
- 2015 Expanding cattle feedlot in Indonesia and scoping expansion for Killara feedlot (Killara)
- 2016/2017 Exits live export
- 2017 Sells NACC

CATEGORIES

- Cattle, Sheep, Wool, Grain
- Retail products (farm supplies and fertilisers)
- Financial services (finance and insurance)
- Real Estate

BRANDS

MARKETS

- Global operations

*Underlying EBIT; Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

INTERNATIONAL LIVESTOCK EXPORT/EMANUAL EXPORTS

Michael Stanton – Managing Director

METRICS

Turnover: $267m (2015) [BusinessNews]

# of emp: 32 Co.]

DETAILS

Address: Level 4, 72 Kings Park Road, West Perth, WA 6005

Phone: +61 8 9322 0400

ABN: 54 009 400 846

Year est: 1989

Website(s): www.internationallivestockexport.com.au

OWNERSHIP

Type: Private

Country: Australia

Owner: Private

DESCRIPTION

Vertically integrated cattle and sheep export companies, grain growing and grazing, feedlotting cattle and sheep (domestic and export); Awassi Fattail genetics.

OPERATIONS

- Broome Common service Assembly depot 10,000 head capacity
- 2,600ha grazing and grain growing property Toodyay vertically integrated to supply the Gingin feedlot
- Cullalla feedlot Gingin capacity 10,000 head
- Grazing property Kynock South Australia
- Nasser Sheep and cattle feedlot South Australia capacity 100,000 sheep and 8,000 cattle
- Compost and fertilizer operation for sustainable farming

ACTIVITIES

- 1994 Introduction of the commercial Awassi breed for grower participation
- 2002 development of the Broome Common Assembly depot and holding facility capacity 10,000 head
- 2010 completed development of new 10,000 head cattle Feedlot Cullalla Gingin
- 2014 Maiden voyage June, repurposed 22,500 m² cattle and sheep carrier (Awassi Express) for the Middle East and Saudi market
- 2015 Purchase of 2600 ha Grain and grazing property Toodyay
- 2016 ~966,000 sheep, ~95,000 cattle out of WA

CATEGORIES

- Cattle, Sheep, Goats

BRANDS

international livestock export

emanuels

Wild Cross Pty Ltd

cullalla FEEDLOT

MARKETS

- Global operations
- Middle East

Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

Name	Australian Rural Exports (AUSTREX)
Address	Level 8, 10 Eagle Street, Brisbane, QLD 4000
Phone	+61 7 3041 2800
ABN	49 009 933 831
Founded	1973
Website	www.austrex.com.au
Turnover	N/A
Employees	N/A
Ownership	Private; Australia (Management, Catapult)
License	-
Species	Cattle Sheep Goats, buffalo, horses
Capacity	~28,000 cattle out of WA ('16) 120,000 head per annum total 5 Vroon livestock vessels leased
Notes	Based in Brisbane; offices in Russia, China, Uruguay, Turkey, Indonesia, NZ, Pakistan, Kazakhstan; one of Australia's largest live cattle exporters; formerly owned along with CPC by Packer family

Name	Livestock Shipping Services
Address	28A Charles Street, South Perth, WA 6151
Phone	+61 8 9368 1933
ABN	12 084 806 404
Founded	1998
Website	www.livestockshipping.com.au
Turnover	N/A
Employees	120 AU (2014)
Ownership	Private; Australia (Hijazi and Ghosheh Group (Jordan))
License	Export abattoir (Hillside) Quarantine facilities in WA & SA
Species	Sheep Cattle Camels
Capacity	~383,000 sheep out of WA (2016) ~95,000 cattle out of WA (2016) 4 vessels operating out of AU
Notes	Live exporting from Australia for over 15 years; supply hubs around world; exports to Middle East, Russia, Kazakhstan, Turkey

Name	North Australian Cattle Company (NACC)
Address	56 Marina Boulevard, Larrakeyah, NT 0820
Phone	+61 8 8981 4033
ABN	40 009 644 679
Founded	2003
Website	-
Turnover	N/A
Employees	N/A
Ownership	Private; Australia (Fanda Australia Cattle Co (China), management (Australia))
License	-
Species	Cattle Sheep
Capacity	~20,000 cattle out of WA (2016)
Notes	Elders live export subsidiary until sold in 2017; short haul operations, shipping cattle to Indonesia, Vietnam and Malaysia, flying cattle and sheep to China

Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

Name	Otway Livestock Exports
Address	L10/276 Flinders Street, Melbourne, VIC 3000
Phone	+61 3 5222 4122
ABN	14 070 299 302
Founded	1995
Website	-
Turnover	N/A
Employees	N/A
Ownership	Private; Australia (Schmidt)
License	-
Species	Cattle Sheep
Capacity	~12,000 cattle out of WA ('16) ~74,000 sheep out of WA ('16)
Notes	Based in VIC; expanded WA operations in 2015

Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

WAMMCO INTERNATIONAL

Coll MacRury – Chief Executive Officer

METRICS

Turnover:	$287m [AR15] Profit: $10.5m [AR15]
# of emp:	410 [supplied]

DESCRIPTION

Producer owned and controlled Co-op, production and export of premium quality chilled and frozen lamb products

CATEGORIES

- Lamb
- Mutton
- Offal
- Skins
- By-products

DETAILS

Address:	1/3 De Vlamingh Avenue, East Perth, WA 6004
Phone:	+61 8 9262 0999
ABN:	54 048 449 698
Year est:	1971/1999
Website(s):	www.wammco.com.au www.southernmeats.com.au

OPERATIONS

- Manage and operate Southern Meats, Goulburn (NSW) plant and Katanning plant (WA)
- 2m+ head between plants

BRANDS

OWNERSHIP

Type:	Co-op
Country:	Australia
Owner:	Farmers

ACTIVITIES

- 1971 Western Australian Lamb Marketing Board (WALMB) established by WA government
- 1999 single-desk export marketer Industry deregulation
- 1999 formed WAMMCO from WALMB
- 1999 purchased WA assets of Metro Meat (2 abattoirs)
- 2011 assumed "management" of Goulburn NSW plant
- 2016 significant plant improvements coming online

MARKETS

- North America #1 market in 2014
- Supplier to Costco

Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

MILNE AGRIGROUP

Graham Laitt – Chief Executive Officer

METRICS

Turnover:	$146m [AR16] Profit: $19.1m [AR16] / EBIT: $2.5m
# of emp:	430 [Business News]

DESCRIPTION

Vertically integrated agribusiness operating in the value added retail-ready proteins and animal feeds

CATEGORIES

- Pork (Free range, value added, retail ready)
- Chicken (Free range, value added, retail ready)
- Valued added (Retail ready processing for other proteins: beef, lamb, goat)
- Animal pellets/nutrition

DETAILS

Address:	2 Alumina Road, East Rockingham, WA 6168
Phone:	+61 8 9351 0726
ABN:	92 008 919 579
Year est:	1911/1980
Website(s):	www.milne.com.au www.plantagenetpork.com.au www.mtbarkerchicken.com.au

OPERATIONS

- 8 farmers supply ~1,200 pigs for slaughter each week
- Pork, all contract grown, supply arrangements; killed by CM Group
- Value added meat processing plant
- Model moving away from land/stock ownership (recently sold Liveringa Beef Station) - Stock brought south and finished on farms to improve quality
- Animal Feed plant #1 ruminant mill and processing

BRANDS

OWNERSHIP

Type:	Private
Country:	Australia
Owner:	Graham Laitt via Dowford Investment

ACTIVITIES

- 2002 Merges Milne Feeds (Mt Barker Poultry, AU Natural Pork), Liveringa Pastoral Co , Laitt's farms to form Milne AgriGroup
- 2003 Invests $4m to develop feeds business and upgrade chicken business
- 2003 Acquires Jaloran, Cheviot Hill farms in Wagin
- 2013 Increases chicken production 40% (800,000/wk)
- 2014 Sells 50% of Liveringa, Nerrima cattle stations to form JV with Hancock Group 'Liveringa Station Beef; $40m
- 2014 Sells Welshpool location (leased back), opened new protein manufacturing facility in Rockingham
- 2014 Wins Coles AU contract for free range pork 2016 Sells remaining 50% of Liveringa Station land to Hancock Group

MARKETS

- Export markets for Feeds
- Meats primarily domestic
- Key contracts to supply free range pork WA and East Coast - Coles 4 yr contract (pork processed by CMG, carcasses sent to Coles on the East coast for processing)

*Coriolis estimate; Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

CRAIG MOSTYN GROUP

Patrick Walsh – Chief Executive Officer

METRICS

Turnover:	$300m
# of emp:	555 (FTE)

DETAILS

Address:	Level 1, 6 Short Street, Fremantle, WA 6160
Phone:	+61 8 9335 6244
ABN:	52 000 047 745
Year est:	1923/1940
Website(s):	www.craigmostyn.com.au www.linleyvalleypork.com.au

OWNERSHIP

Type:	Private
Country:	Australia
Owner:	Mostyn family

DESCRIPTION

Craig Mostyn Group is one of Australia's leading diversified food and agribusiness companies, producing fresh pork and seafood. Rendering operations processes meat by-products and trades tallow and meat meals to the animal feed sector and industrial clients.

OPERATIONS

Linley Valley Pork is Western Australia's leading fully integrated pork producer with farm, abattoir and boning operations. Three breeder farms, supported by owned grow-out and eight contract growers produce around one-third of WA's pigs, with over 86,000 pigs on hand. Abattoir processes animals sourced from owned farms, other suppliers and service customers with over 12,500 pigs per week. Boning, value-added and retail-ready production is undertaken for LVP brands and under service contracts

Talloman rendering processes by-products from meat works across the pork, beef, lamb and poultry sectors in WA. Protein Trading business based in Melbourne sources and trades meat and protein meals for Australian and international clients

Seafood includes abalone aquaculture farms located in Victoria and Tasmania and lobster business processing wild caught Southern Rock lobster from facilities in Tasmania

ACTIVITIES

Over $70 million investment activity in the past five years:

- New state-of-the-art sow stall free, tunnel ventilated pig farm at Mogumber with breeder and grow-out units
- Purchase of free range pork breeder farm in Albany
- Expansion of the Linley Valley Pork processing facilities to increase refrigeration capacity, improve animal handling and extend value-added capabilities.
- Expansion of the Talloman rendering plant capacity
- Acquisition of the Jade Tiger Abalone aquaculture business in Victoria and two farms for grow-out in Victoria and Tasmania
- Acquisition of lobster facilities in Bicheno and Dover , Tasmania

CATEGORIES

Fresh Fresh pork and offal (domestic and export)

Rendering (all proteins)

By-products (Talloman operations)

Seafood, wild catch (lobster, Tasmania)

Seafood, farmed (abalone, Victoria and Tasmania)

BRANDS

MARKETS

Pork:

- Domestic market for fresh and frozen pork sold to small goods manufacturers, restaurants, butchers and Australia's leading supermarkets
- Export via air-freight of fresh pork to Singapore, with growing export markets in other regions

Rendering and Protein Trading:

- Domestic animal feed customers
- Export to over 25 countries

Seafood:

- Domestic restaurants and wholesalers
- Export of lobster (live) and abalone (live, canned and frozen) to Asian customers

Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

HARVEST ROAD

John Hartman – Director

HARVEST ROAD

METRICS

Turnover:	$300-$350m Group* (2016) $265.5m Harvey Industries [AR16] Gross Profit: $13.1m Harvey Industries [AR16]
# of emp:	500 total (470 Harvey Beef)

DETAILS

Address:	31 Cliff Street, Fremantle, WA 6159
Phone:	+61 8 9729 0000
ABN:	64 117 597 985/169 138014
Year est:	1919
Website(s):	www.harvestroadgroup.com www.harveybeef.com.au www.hrdairy.com www.minderoo.com.au

OWNERSHIP

Type:	Private
Country:	Australia
Owner:	Minderoo Trust
	(Andrew and Nicola Forrest)

DESCRIPTION

Harvest Road Beef is a vertically integrated beef company including Minderoo Pastoral stations and Harvey Beef processor (Harvey); #1 beef exporter in WA, accredited to supply China; milk exported under Harvest Road brand

OPERATIONS

- Abattoir in Harvey processing 140,000 cattle /yr, wide beef rail system with boning capacity of 620 bodies/day = 3,100/wk; exporting 50% processing production
- Cattle from Kimberley and Pilbara
- Minderoo has 1.2m hectare and 30,000 head of cattle
- Grainfed program of Bos breeds, angus crosses
- Live exports of beef

ACTIVITIES

- 2014 Minderoo acquires Harvey Beef from Pacific Alliance Group +$40m
- 2015 Obtained China accreditation at plant and license to export beef; WOOFIE
- 2015 Minderoo acquired two more cattle stations in Gascoyne; Brickhouse and Minilya Stations
- 2016 $25m upgrades in new packing facility
- 2016 Launched new branding
- 2017 Restructured organisation, Harvey Beef and Minderoo Pastoral sit under Harvest Road Group

CATEGORIES

- Beef cuts, 100 day grain-fed, organic, marinated,
- Co-products (blood & bone meal, tallow, hides, pharmaceutical lines)

BRANDS

HARVEY BEEF WESTERN AUSTRALIA

EST. 1878 Minderoo PASTORAL

minderoo

HARVEST ROAD

MARKETS

- China
- Indonesia
- USA
- Canada
- Malaysia
- 40 markets in total

*supplied; Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

V&V WALSH

Peter Walsh – Chief Executive Officer

METRICS

Turnover:	<$200* (2016)
# of emp:	500 (+ 450 WWX site) [supplied]

DESCRIPTION

One of the largest meat processors in AU based in Bunbury, WA; specialise in lamb and beef; office in China; lamb and beef chilled and frozen license to China; currently exporting 20% production

CATEGORIES

- Lamb (prime carcass and part-carcass)
- Mutton (frozen boneless, bone-in)
- Beef (grass-fed, grain-fed, full and part-carcass)
- Skins (lamb, mutton, cattle)
- By-products (tallow, meat meal, B&B)

DETAILS

Address:	South Western Highway, Bunbury, WA 6230
Phone:	+61 8 9725 4488
ABN:	66 258 009 281
Year est:	1957
Website(s):	www.vvwalsh.com.au www.ameliapark.com.au

OPERATIONS

- Process 3,500 lambs/day, capacity for 4,000 (780,000 head processed, capacity for 1m) plus 400 cattle/day (100,000 annual capacity, currently 70,000)
- Shedded feedlot for lamb supply
- Chilled export license to CN; relationship with Grand Farms (CN)
- Peter Walsh also co-owns Amelia Park Wines
- Supply adjacent Woolworths facility 800,000 cases/wk

BRANDS

OWNERSHIP

Type:	Private
Country:	Australia
Owner:	Walsh family

ACTIVITIES

- 2015 Established Grand Farm partnership
- 2015 Granted Chinese import license for chilled beef, sheep and goat
- 2015 Invested in packaging and equipment for chilled export
- 2016 Dispatched first chilled export shipments of lamb and beef to China (airfreight from Perth)

MARKETS

- Meat exports: China, Indonesia, South Korea, Japan, Hong Kong, Mauritius and The Philippines
- Exports skins: China, Russia, Turkey, France, Belgium, Germany, New Zealand

*Coriolis estimate; Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

WESTERN MEATPACKERS GROUP

Andrew Fuda – Chief Executive Officer

METRICS

Turnover: $100-150m* (2016)

# of emp: 300+*

DESCRIPTION

Export cattle abattoir and processing operations; offices in Thailand and South Korea; Perth Hide & Skin Exports; abattoir in Cowaramup truck up to Perth facility for processing

CATEGORIES

- Beef
- Lamb
- Veal
- Ready ready meat cuts e.g. Corned silverside

DETAILS

Address: 37 King Edward Road, Osborne Park, WA 6017

Phone: +61 8 9241 4600

ABN: 23 196 601 962

Year est: 1983

Website(s): www.wmpg.com.au

OPERATIONS

- Processes 1,800 cattle/week across operations
- Shagay Pty Ltd abattoir in Cowaramup, 600 sheep/wk;
- Processing facility at Osborne Park (2011) 400 cattle/day
- Retail-ready packing facility
- Cattle finishing and back-grounding property at Brunswick, Bunbury
- Perth Skin and Hides business at Coogee
- Western Cold Storage

BRANDS

OWNERSHIP

Type: Private

Country: Australia

Owner: Russell family

ACTIVITIES

- 1983 Founded by Rod Russell next to retail butcher shop
- 2014 CMG acquisition offer turned down

MARKETS

- Domestic
- International

*Coriolis estimate; Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

FLETCHER INTERNATIONAL EXPORTS

Roger Fletcher – Director

METRICS

Turnover:	$550-$600m* AU $150-$200* WA
# of emp:	1,250 AU / 430 WA

DESCRIPTION

Integrated abattoir, processor and exporter of lamb, sheep meat products; pastoral holdings across AU, grain, cotton handling, marketing, rail freight NSW

CATEGORIES

- Lamb and sheep meat
- Offal products,
- Wool tops, sheep skins
- By-products
- Pet food
- Grains/pulses

DETAILS

Address:	520 Settlement Road, Narrikup, WA 6326
Phone:	+61 8 9892 4000
ABN:	64 003 213 652
Year est:	1986
Website(s):	www.fletchint.com.au

OPERATIONS

- Two processing plants
- Albany, WA – 1.1m head 30% lamb – road train to Fremantle
- Dubbo, NSW
- +90,000 capacity/week = 4.5m/year;
- NSW – pastoral holdings; 204,000 acres (100,000 cropping, 8,000 irrigated, 96,000 grassland)

BRANDS

OWNERSHIP

Type:	Private
Country:	Australia
Owner:	Fletcher

ACTIVITIES

- 1988 Developed greenfield abattoir at Dubbo, NSW
- 1998 Developed greenfields abattoir and processing facility, Narrikup
- 2001 Purchased farm holdings, NSW
- 2005 Purchased property in NSW for lamb and agriculture production
- 2007 Major plant upgrade at Narrikup
- 2009 Established Fletcher Grains
- 2015 Commencement of freight train service in NSW
- 2015 Renewable energy initiative at Narrikup plant
- 2016 Expanded grain and intermodal facility (NSW)

MARKETS

- Export to 90 markets

*Coriolis estimate; Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

	Beaufort River Meats	Hillside Meat Processors	Shark Lake Food Group
Name	Beaufort River Meats	Hillside Meat Processors	Shark Lake Food Group
Address	46 Macri Road, Beaufort River, WA 6394	148 Boxsell Road, Narrogin, WA 6312	Lot 21 Coolgardie Highway, Myrup, WA 6450
Phone	+61 8 9862 5055	+61 8 9881 1016	+61 8 9076 1245
ABN	73 592 322 076	12 084 806 404	71 129 816 360
Founded	1994	1998/2012	1998/2008
Website	www.beaufortrivermeats.com.au www.wellard.com.au	livestockshipping.com.au www.hillsideabattoirs.com.au	www.sharklake.com.au www.centralmeatexports.com
Turnover	N/A	N/A	N/A
Employees	100 BRM [company website]	60 Plant (2012) [article]	50FT/60 casual (as or March 2017) [article]
Ownership	Public; Australia (Wellard (ASX: WLD)	Private; Australia (Livestock Shipping Services; Hijazi and Ghosheh Group (Jordan))	Private; Australia (Rami Koyu, others) in receivership
License	Export; Aus-Meat Halal	Export/Aus-Meat Halal	Export
Species	Sheep (250k+)	Sheep (1,000-1,100/day) Goat	Beef Sheep Goats
Capacity	Sheep (2,500/day)	Sheep/goat (1,500/day)	6,000 sheep/week 7,350t (live weight) (ERA) 5,000 (HSCW) (ERA)
Notes	Major live exporter Abattoir (Beaufort River) Acquired in Sept 2012 JV with Fulida to develop feedlot & abattoir in China Sale process in 2017; no sale	Abattoir (Narrogin) Acquired in liquidation 2012 Parent is major live exporter	Closed March 2017 In receivership (May/June 17)

*Coriolis estimate; Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

GEA

Name	Westone/Great Eastern Abattoir
Address	1 Great Eastern Highway, Tammin, WA 6409
Phone	+61 8 9637 1100/411 959 528
ABN	39 140 230 726
Founded	2009
Website	www.geaexports.com
Turnover	N/A
Employees	N/A
Ownership	Private; Australia (Davies,York, others)
License	Export / Aus-Meat Halal
Species	Sheep Goat
Capacity	N/A
Notes	Abattoir in Tammin

BORRELLO GROUP

Name	Borrello Group/Witan Holdings/ Gingin Meatworks
Address	195 Cockram Road, Gingin, WA 6503
Phone	+61 8 9352 8599/9575 2166
ABN	64 058 604 363
Founded	1993
Website	borrellobeef.com.au
Turnover	N/A
Employees	40*
Ownership	Private; Australia (Borrello family)
License	Export
Species	Beef
Capacity	N/A
Notes	Meatworks in Gingin Office in Perth (High Wycombe)

KIMBERLEY MEAT COMPANY

Name	Kimberley Meat Company
Address	Lot 210, Great Northern Highway, Derby, WA 6728
Phone	+61 438 709 888
ABN	64 159 933 392
Founded	2012
Website	www.yeeda.com.au
Turnover	N/A
Employees	25 (Sep 2016); targeting 80
Ownership	Private; Australia (Yeeda Pastoral Company; Jack Burton, Merv Keyes , others)
License	Export
Species	Beef
Capacity	Beef (1500/week)
Notes	Abattoir (Derby/Yeeda Station) Opened in Sept 2016 First abattoir in Kimberley region in two decades

*Coriolis estimate; Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

Name	Goodchild Meats Trading/ Australind Abattoir/Shadout
Address	189 Rosamel Road, Parkfield, WA 6233
Phone	+61 8 9797 4110
ABN	84 008 904 078
Founded	1983/2000
Website	goodchildmeats.com.au
Turnover	$12m*
Employees	70 abattoir 115 total [company website]
Ownership	Private; Australia (Goodchild family)
License	Domestic/Aus-Meat Halal
Species	Sheep (5,000/week) Beef (750/week)
Capacity	Sheep (5,000/week) Beef (750/week)
Notes	Abattoir (Parkfield) Boning (Hamilton Hill) Retail store at boning site

Name	D & K Hagan Bros
Address	394 Chapman Road, Bluff Point, WA 6530
Phone	+61 8 9923 1545
ABN	78 008 919 079
Founded	2000
Website	-
Turnover	N/A
Employees	N/A
Ownership	Private; Australia (Hagan family)
License	Domestic
Species	Beef Sheep Pig
Capacity	N/A
Notes	Small abattoir

Name	P.R. Hepple & Sons/Avon Valley Beef
Address	35 Truganina Road, Malaga, WA 6090
Phone	+61 8 9248 4440
ABN	12 061 009 381
Founded	1989/1991
Website	www.avonvalleybeef.com.au
Turnover	$25m [article]
Employees	100+ (2012 incl. retail)
Ownership	Private; Australia (Peter Hepple)
License	Domestic
Species	Beef
Capacity	Beef (300 head/week in 2014)
Notes	Abattoir (Northam); acquired in 2000 (Roediger Bros) Recently sold three retail meat stores (to IGA owner Peter Grant) Seeking to sell abattoir (Aug 16)

*Coriolis estimate; Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

Name	Dardanup Butchering Company (DBC)
Address	Wimbridge Road, Picton, WA 6229
Phone	+61 8 9780 6000
ABN	89 869 494 617
Founded	1948/1950/2000
Website	www.dbctalkabouttaste.com.au
Turnover	$60-70m*
Employees	200+ (incl. retail)
Ownership	Private; Australia (Panizza family)
License	Domestic
Species	Sheep Pigs
Capacity	N/A
Notes	Small multi-species abattoir Three retail stores Supply foodservice

Name	Food Security Int./Corrigin Meatworks/The Butchers Block/Livestock Solutions
Address	5 Campbell Street, Corrigin, WA 6375
Phone	+61 8 9063 2113 / +61 8 906 32054
ABN	39 151 908 593
Founded	2011
Website	www.blacklabelberkshire.com
Turnover	N/A
Employees	12
Ownership	Private; Australia (Batt family)
License	Domestic
Species	Multi-species
Capacity	N/A
Notes	Small operation w/ retail; pig farm operations; National Livestock Solutions operates Wyndham cattle yards, stock feed business

Name	Inghams Enterprises
Address	9 Baden Street, Osborne Park, WA 6017
Phone	+61 8 9441 4200
ABN	20 008 447 345
Founded	1918
Website	www.inghams.com.au
Turnover	$2.3b (2014) [article]
Employees	8,000 AU [company website]
Ownership	Public; Australia (ING:ASX) TPG Capital major shareholder
License	L7477/2001/9 Abattoir
Species	Chicken
Capacity	~45% market share WA
Notes	Largest poultry processor in WA; recently announced $70m investment building capacity in WA, new feedmill and hatchery; contract growers building new sheds

*Coriolis estimate; Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

Name	Baiada Poultry
Address	116 Howe Street, Osborne Park, WA 6017
Phone	+61 8 92420 6040
ABN	96 002 925 948
Founded	1943
Website	www.baiada.com.au www.steggles.com.au
Turnover	$1.48b (14) Bartter Holdings only [article]
Employees	5,000 AU [company website]
Ownership	Private; Australia (Baiada family)
License	L7475/2000/9 Abattoir
Species	Chicken
Capacity	~30% market share WA
Notes	Second largest processor in WA; Steggles, Lilydale brands; based in NSW

*Coriolis estimate; Source: company website; company annual reports; various published articles; Coriolis analysis and estimates

APPENDICES

Scope & Coriolis brief

This project was completed following the outlined scope and project brief

BACKGROUND

The Department of Agriculture and Food Western Australia (DAFWA) is committed to growing Western Australia's world class agriculture and food industries through excellence and innovation. DAFWA and industry have established the Agrifood 2025+ initiative, which seeks to double the real term value of sales from the agrifood sector by 2025.

Significant investment into the sector is required to achieve Agrifood 2025+, with estimates of investment needs ranging from $3 – 6 billion. If this level of investment is realised the transformation of the sector could contribute $6 – 12 billion additional value to the State's economy.

Attracting investment into the WA agrifood sector is not without challenges; the Western Australian (WA) agrifood sector is one of a multitude of investment opportunities across the globe, and WA businesses need to compete to gain this investment. To compete WA needs a compelling story which demonstrates why investment in the WA agrifood sector is a good strategy.

The development of comprehensive, investor ready information, which can be provided to prospective investors is a tactic successfully used elsewhere in the sector. The development of a similar package of information for WA agrifood industries will position businesses within the State to compete for this investment.

OUTCOME

The requested outcomes are designed to address the information gap in investment information within the agrifood sector.

The WA Government, through the Royalties for Regions (RfR) Seizing the Opportunity initiative, is investing over $300 million to support the transformation of the agrifood sector.

This investment information will span the gap between the operational aspects of the various RfR Projects, and the goal of bringing significant investment into WA businesses.

Specifically, the project will develop investment guides for the meat industry (including live) industry.

In achieving the above, the Coriolis designed to build on the work of the Target Market Opportunities and Investment Ready Reports under the Asian Market Success RfR project, and the Pathways to Competitiveness Report under the Agricultural Sciences R&D RfR project, as well as other work completed by DAFWA.

REQUIREMENTS

An investment guide will be developed for the meat industry. The investment guide will be structured as appropriate for their target audience and should address the following:

1. Develop a compelling, evidence based, investment story for the identified industries.
2. Provide an in-depth analysis of the identified industries, including macro-economic, micro-economic and firm level analysis.
3. Undertake analysis of production/processing across the supply chain for the identified industries, including the presentation of the supply chain.
4. At least one case study per industry of recent investment activity (within the previous 18 months).
5. WA firm profiles relevant to the identified industries (key WA companies by sector listed by annual turn-over ($sales/annum)).

Project process

This project combines data analysis with widespread stakeholder engagement

Industry stakeholder interviews

Further stakeholder inputs & interviews

Preliminary data collection & analysis

Situation & Opportunities

Report

Launch & Public Release

April - June 2017

August 2017

Stakeholder engagement

We thank the stakeholders who kindly provided their time and energy to the project

Stakeholders interviewed

- Adrian Haywood, Export Manager, V&V Walsh
- Andrew Clark, State Manager, WA, National Australia Bank
- Brad Gosling, Chief Operating Officer, Wellard
- Coll MacRury, Chief Executive Officer, WAMMCO
- Crawford Taylor, State Manager, WA, Rabobank
- Graham Laitt, Chief Executive Officer, Milne AgriGroup
- Greg Cross, Plant Manager, Fletcher International
- Hugh Barnet, General Manager, Heytesbury Cattle Company
- John Stevenson, Chief Financial Officer, Wellard
- John Hartman, Head of Investment, Minderoo (Harvey Beef)
- Josh Whelan, Senior Manager, MLA
- Julie Cox, Chief Financial Officer, Craig Mostyn Group
- Leon Giglia, National Livestock Director, Landmark
- Matt Bull, CEO Australia, Westchester Asset Management
- Peter Trefort, VC Group, WA Beef Council, MLA Board
- Prof. David Pethick, Murdoch University
- Prof. Kadambot Siddique, Institute of Agriculture, UWA
- Steve Meerwald, Chief Executive Officer, Harmony Agriculture and Food
- Tony York, Farmer and President, WA Farmers
- Torben Soerensen, Managing Director, GD Pork
- Troy Bungey, Regional Asset Manager, Westchester Asset Management
- John Caitlin, Regional Director Singapore, DSD
- Manus Stockdale, Industry specialist, DAFWA
- Andrew Duff, Policy Officer, DAFWA
- Pat Page, Industry specialist, DAFWA

Project sponsors

- Peter Metcalfe, Executive Director, Grains & Livestock, DPIRD
- Courtney Draper, Director, Food and Industry Development, DPIRD
- Liam O'Connell, General Manager, WA Open For Business

WAOFB – Business Development Managers support

- Susan Hall
- Nijaz Brkich
- Terry Burnage

Interviews & analysis

- Virginia Wilkinson, Research Director, Coriolis
- Tim Morris, Director, Coriolis
- Nicki Hall, Consultant, Coriolis
- Professor David Hughes, "Dr. Food", Imperial College, London

Acronyms

ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
AR	Annual Report
b	billion
CAGR	Compound Annual Growth Rate
DAFWA	Department of Agriculture and Food, Western Australia
DSD	Department of State Development
EU	Europe
FAO	UN Food and Agricultural Services
FOB	Free on Board
FTA	Free Trade Agreement
m	Million
MLA	Meat & Livestock Association
mt	Metric tonne
NSW	New South Wales
NT	Northern Territory
pa	Per annum
QLD	Queensland
ROW	Rest of World
SA	South Australia
t	Tonne
USA/US	United States of America
WA	Western Australia
WAOFB	Western Australia Open for Business
YE	Year End