



## The history of Australian cattle prices since 1970

### AUSTRALIAN CATTLE PRICES

The recent peak in the Eastern Young Cattle Indicator, at 451.25¢/kg cwt on 3 February 2015, poses the question: are farm gate prices the highest they have ever been? The short answer is "yes" in nominal terms, but "no" in real terms.

Figure 1 plots the quarterly national average yearling steer price in Australia between 1970 and 2014 in real (2014 dollars) and nominal terms. Even though yearling prices have begun 2015 on a strong note, averaging between 400¢ and 450¢/kg cwt, they are not high enough in real terms to match the peaks during the 1970s.

That said, the low points of 2013, due to widespread drought conditions causing a huge influx of cattle onto the market, did not dip as low as the troughs of the 1970s. Additionally, through increased investment in trade and consumer marketing globally, volatility in cattle prices has decreased markedly in recent years, greatly reducing the price risk of being a participant in the industry.

This report outlines a brief history of cattle prices from 1970 to the present and examines the key factors that influenced the industry over that time.



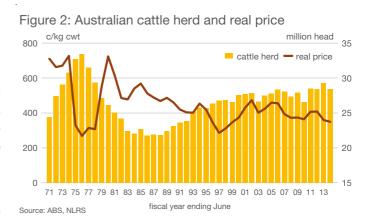
#### 1970 – 1985: IN AND OUT OF THE GLOBAL BEEF SLUMP

Prior to the 1960s, Australian beef exports were almost exclusively supplied to Britain – a result of a 15-year agreement which was established after World War II. In the late 1960s, genetic improvement and rising export demand saw Australian cattle numbers grow rapidly, reaching a peak of 33.4 million head in 1976, as illustrated in Figure 2. The proportion of Australian beef production that was exported averaged 17% in the 1950s, increasing to 28% during the 1960s, and further to 33% in the 1970s.

Until 1973, beef prices were rising due to strong demand growth, and herds were expanding around the world, particularly in the US and South America.

Australia's agreement with Britain broke down in 1973, when the UK became part of the EU. It was at this point in time that the US became the dominant market for Australian beef, and trade transitioned from the "British era" to the "US era", which continued through the 1980s.

Very high world beef production in the early 1970s coincided with a global economic downturn



(triggered, in part, by the 1973 oil price shock). This led to oversupply in the US and other major cattle industries around the world, and rapid herd liquidation began in 1974. The repercussions caused a significant demand shock through beef markets around the world – cattle prices in the US and around the world plummeted and export demand for Australian beef became virtually non-existent. The EU and Japan ceased trading with outside markets, both the US and Canada became very protective of their industries and prices declined further.

With severe trade restrictions placed on all Australia's major export markets, supplies of beef on the domestic market increased markedly, which saw retail prices fall to extremely low levels and Australian beef consumption spike to over 60kg per person per annum.

In real (2014) terms, Australian prices dropped 63% in two years, from the highs of 1973, when real yearling cattle prices averaged 726¢/kg cwt, down to 529¢/kg cwt in 1974, and then to a low of 267¢/kg cwt in 1975.

When the cattle industry "crash" occurred in 1974, seasonal conditions were quite good in Australia, which resulted in a lag before the liquidation phase began, as producers held onto stock, hopeful of a price recovery.

Australian cattle prices, however, remained low and the herd size entered a phase of rapid contraction. By 1980, with the Australian cattle herd having reduced by almost 6 million head, the industry regaining confidence and overseas markets again open for trade, cattle prices rapidly bounced back to near 1973-levels.

It was not long, though, before Australia was in the grip of a severe drought, which again sent cattle prices on a downward trajectory. Beginning in April 1982, widespread drought conditions set in across eastern and southern Australia and continued until February 1983, with the heatwave conditions which culminated in the Ash Wednesday bushfires (BOM). For those 11 months, almost all of the eastern two-thirds of the country registered rainfall totals that were in the driest 10% on record.

Consequently, the Australian cattle herd declined 2.1 million head, to 22.1 million, by 1984, and real yearling cattle prices hit a low point of 435¢/kg cwt. Fortunately, the weather pattern changed in 1983, with several months of 'above-average' rainfall across much of the country, and prices recovered with the return of favourable growing conditions (though well short of the peaks of 1973 and 1979/1980 in real terms).

#### THE 1990s: A TIME TO REBUILD

After bottoming out in 1986, the Australian cattle herd gradually rebuilt throughout the 1990s. The cattle industry was supported by a depreciating Australian dollar, average seasonal conditions through much of the decade, Korean and Japanese trade liberalisation and solid productivity gains.

Beef farm Total Factor Productivity (TFP), as indicated in Figure 3, while fluctuating with seasons, trended up from the late 1980s (ABARES) to 2000-01. This was attributed to the eradication of brucellosis and tuberculosis in the northern herd; improved reproductive performance, genetic selection and mortality rates; the expansion of the feedlot sector and live export trade and a transition to Bos Indicus breeds in the northern herd (ABARES). Part of the improvement in genetics can be attributed to industry investment, the

benefits of which, between 1970 and 2001, were estimated at an accumulated value of \$9.4 billion (2001 dollars) against a total investment of \$340 million (MLA and its predecessors accounted for 25% of total investment)<sup>1</sup>.

As such, northern beef producers have, on average, received productivity gains of 0.9% per annum since 1977-78, with most of these gains occurring between 1985 and 2001. In contrast, their southern counterparts improved 0.1% per annum since 1977-78. Furthermore, national average carcase weights have also steadily grown since the 1980s, increasing 1.3% per annum on average<sup>2</sup>.

The productivity gains supported beef supply growing, on average, 2.6% per annum over the decade as illustrated in Figure 4. Strong supply growth put downward pressure on prices throughout the 1990s, with real farm gate prices falling 19% over the decade, as other sectors of the supply chain and consumers shared in the benefits of improved on-farm productivity.

Seasonal conditions for much of the 1990s were average, allowing many producers to maintain or expand their herd. The end of the decade saw three consecutive years (1998-2000) of above average rainfall, except in Victoria and Tasmania.

Figure 3: Productivity in the Australian beef industry

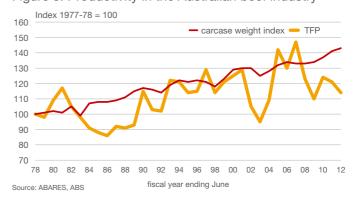
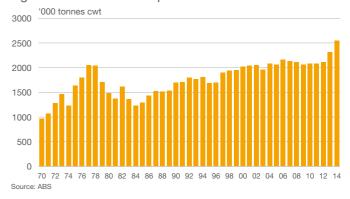


Figure 4: Australian beef production



The A\$ depreciated against the two major beef trading partners throughout the 1990s – the A\$ declined 35% against the yen and 17% against the US\$ between 1990 and 1999.

The benefits of trade liberalisation in Japan and Korea were also evident in the Australian cattle market. In 1988, Japan, the US and Australia reached an agreement, under which the restrictive quotas would be increased, then phased out and replaced by tariffs. This was confirmed and extended in the 1994 Uruguay Round GATT agreement.

<sup>&</sup>lt;sup>2</sup> TFP is a measure of total outputs relative to total inputs and does not take into account the value change which is likely to have been more significant for the south.



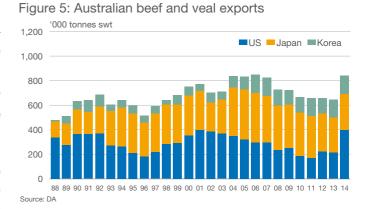
<sup>&</sup>lt;sup>1</sup> Farquharson, R. J., Griffith, G. R., Barwick, S. A., Banks, R. G., & Holmes, W. E. (2003). Estimating the returns from past investment into beef cattle genetic technologies in Australia. Economic Research Report, (15), 3.

In 1991, the tariff on beef imports into Japan was 70%, but this was reduced to 50% by 1993, and continued to fall to 38.5% by 2003 (see Magellan Project report<sup>3</sup>). Similar changes were also evident in Korea, where the quota, which was initially 58,000 tonnes swt in 1990, increased almost four-fold, to 225,000 tonnes swt, by 2000, after which it was removed and replaced with a tariff.

Australia was more readily able to capitalise on Japanese market liberalisation in the 1990s, and exports increased 64% over the ten years, as illustrated in Figure 5. The changes to the Korean trade import regime were not

initially as clean or significant as their Japanese counterpart and, hence, did not result in to strong Australian beef export gains until after 2000 – between 1990 and 2000 exports did not change considerably, but had almost doubled by 2010.

The two key animal disease and food safety events of the 1990s both occurred in 1996 – the announcement of human deaths in the UK, linked to Bovine Spongiform Encephalopathy (BSE), and a major E. coli incident in Japan. In addition, 1996 was a peak year in the US production cycle. US slaughter, in 1996, increased for the fourth



consecutive year, to 36.6 million head, and, consequently, US cattle prices continued to decline – feeder steers fell from 88US¢/lb lwt in 1990, to 61US¢/lb lwt in 1996 (USDA). Combined, these events contributed to the trough in Australian real cattle prices in that year, but the impact receded quickly from 1997.

While productivity gains put downward pressure on real prices throughout the first half of the 1990s, trade liberalisation in Japan and Korea, three years of favourable seasonal conditions and a depreciating A\$ put upward pressure on real farm gate prices late in the decade – between 1997 and 2000 real cattle prices increased 34% and continued to rise to a peak in 2001.

# THE 2000s: A DECADE OF DROUGHTS AND BSE TRADE IMPACTS

What was described as a "1-in-100 year drought" occurred in 2002-03 and then again in 2006-07, causing the cattle herd to fall by around 1 million, or 4%, on each occasion. These severe drought years, and lack of above average rain in between, created a dry decade, preventing any further gains in productivity (despite growth in lot feeding) and resulting in a 1 million head fall in the national cattle herd over the ten years.

Respite was finally received at the end of the decade, with much of the country receiving well above-average rain in 2010 and 2011, but this was then followed by two drought years, 2013 and 2014, during which the cattle herd fell by an estimated 2.5 million, or 8.5%.

BSE had servere implications for trade flows throughout the 2000s. First, Japan demand for beef fell sharply (but recovered quickly) following the discovery of BSE in Japanese dairy cattle in September 2001. Then BSE was discovered in Canada in May 2003 and in the US in December 2003. Japan quickly banned all beef imports from the US and Canada.

As a result, Australian beef exports to Japan lifted from 279,000 tonnes swt in 2003 to 405,000 tonnes swt in 2005 (DA). In December 2005, the US ban was lifted on cattle younger than 21 months of age, and this was lifted, again, to 31 months in February 2013. While the US did get back into the Japanese market, albeit restricted, Australia's foothold and reputation saw exports remain strong up until 2012.

The three significant droughts, from 2000 onwards, saw real prices collapse about 12% year-on-year on each occasion but in the two wet years of 2010 and 2011, real prices lifted 4% and 11% year-on-year, respectively. The increased share of the premium Japanese market in 2004 supported farm gate returns and prices lifted 3% year-on-year in 2004 and 6% in 2005.



<sup>&</sup>lt;sup>3</sup> CIE, Global beef liberalisation: the state of play and who gains, The Magellan Project Phase 1 commissioned by MLA, 2001.

The lifting of the ban on beef from US cattle less than 21 months occurred at the same time as the 2006 drought, but as exports were maintained and the US was still hamstrung, the price fall could have been a lot more severe. A similar scenario occurred in 2013, when, in the midst of an Australian drought, the Japanese ban on US imports was lifted on cattle below 31 months of age. However, again, the impact of the change in policy on real prices was not severe due to the strong import demand in the US, China, South East Asia, and the Middle East, among others. Additionally, strong live export demand also alleviated supply pressure.

#### WHERE DO CATTLE PRICES STAND NOW?

In real terms, current prices are lower than the highs of the 1970s but they are also higher than the troughs. So far in 2015 (up to March 12), yearling steers have averaged 419¢/kg, 9% above the real 10-year March quarter average, 11% above the 20-year average and 4% above the 30-year average.

The considerable degree of market volatility has been tempered by an increased diversification of export markets and WTO trade agreements (see Appendix A) limiting the ability of key export markets to move to protective measures when faced with falling domestic prices. In fact, before 1987 the standard deviation, (a measure of volatility) of real cattle prices was 160¢/kg cwt while after 1987 it was 54¢/kg cwt. While real prices have fallen over the past four decades, so has the price risk of being a participant in the industry.

Furthermore, focusing on post-1987, while farm gate returns fluctuated with seasonal conditions and trade developments, long term real prices have remained relatively flat, as illustrated in Figure 1. Current prices, at around 400-450¢/kg cwt (2015 dollars), are roughly in line with the real returns received in the late 1980s.

Looking at the beef cattle business as a whole, farm input costs, while increasing over time, have kept pace with inflation – Figure 6 illustrates the northern and southern beef producer input price index (BPIPI)<sup>4</sup> and the consumer price index (CPI) since 1988.

While indicative farm incomes have fluctuated with cattle prices, input costs and productivity, they have had a relatively flat trend in the long term, as illustrated in Figure 7. Beef producer farm cash incomes have averaged about \$94,000 per annum in the north and \$70,000 per annum in the south (ABARES), in real terms (2013-14 dollars), over the last 20 years. Hence, while real prices aren't what they once were, in the long term, farm cash income<sup>5</sup> has not been significantly eroded.

Australian cattle prices are expected to improve further once Australia phases out of drought,

Figure 6: Beef cost of production

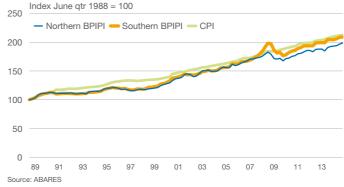
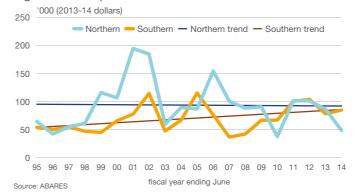


Figure 7: Beef producer farm cash income



especially given the current high prices in the US and strong international demand. Cattle prices would have to increase to around 750¢/kg cwt to be comparable to the highs of the 1970s – an unlikely event. However, if real prices were to exceed 500¢/kg cwt, it would be for only the third time in 25 years.

<sup>&</sup>lt;sup>5</sup> Farm cash income = total cash receipts – total cash costs; where total cash receipts = total revenues received by the business, and total cash costs = payments made by the business for materials and services and for permanent and casual hired labour (excluding owner-manager, partner and family labour) (ABARES)



<sup>&</sup>lt;sup>4</sup> The BPIPI is a weighted average index of the prices paid for inputs by beef producers. Please note, interest rates are included in the calculation of the BPIPI.

## APPENDIX A

Australia's existing trade agreements		
Year completed	Agreement	Outcome for Australian beef
1983	Australia – New Zealand Closer Economic Relations Trade Agreement (ANZCERTA)	■ Reaffirmed free trade
1993	World Trade Organization (WTO) Uruguay Round	<ul> <li>USA: quota lifted from 301,600 tonnes to 378,214 tonnes</li> <li>Canada: global quota replaced with a 42,000 tonne TRQ - subsequently reduced to 35,000 tonnes in 1997</li> <li>Japan: tariff reduced from 50% to 38.5%</li> <li>Korea: minimum import quota increased then converted to a tariff of 41.2% in 2001 and subsequently reduced to 40%</li> </ul>
2003	Singapore-Australia FTA (SAFTA)	■ Reaffirmed free trade
2005	Thailand-Australia FTA (TAFTA)	■ Tariff immediately reduced from 50% to 40% and phased to 0% by 2020
2005	Australia-United States FTA (AUSFTA)	<ul> <li>Additional 70,000 tonnes added to 378,214 tonne (WTO) quota over 18 years</li> <li>In quota tariffs (US4.4c/kg) eliminated</li> <li>Over-quota tariff (26.4%) phased out over years 9-18</li> </ul>
2009	Australia-Chile FTA	<ul><li>Elimination of 6% tariff</li><li>Recognises AUSMEAT language</li></ul>
2010	ASEAN-Australia-New Zealand FTA (AANZFTA)	■ Tariffs bound at 0% or reduced to 0% over various implementation periods
2012	Malaysia-Australia FTA (MAFTA)	■ Reaffirmed zero tariffs and bound free trade
2014	Korea-Australia FTA (KAFTA)	■ 40% tariff eliminated over 15 years
2014	Japan-Australia Economic Partnership Agreement (JAEPA)	■ Tariff on frozen beef falls from 38.5% to 19.5% over 18 years ■ Tariff on chilled beef falls from 38.5% to 23.5% over 15 years
2014	China-Australia FTA (ChAFTA)  Yet to be ratified	■ 12-25% tariffs eliminated over 9 years

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