In-depth report: the Australian cattle cycle

22 January 2015

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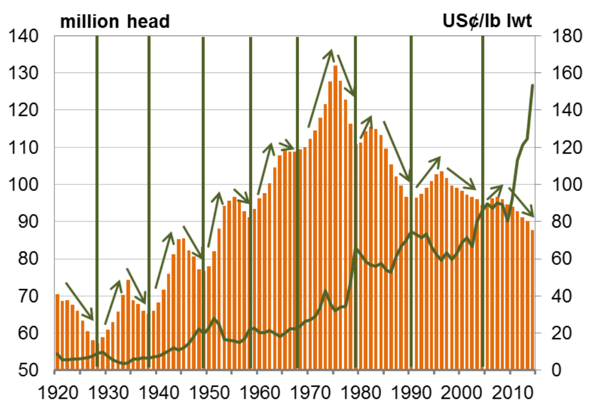
The 'cattle cycle' is a topic of great interest to academics, economists and, producers. Over the break, we were asked to look at the Australian cattle cycle and how it impacts prices. This article will delve into this and look at what's in store for our cattle market based on the findings. If history gives us a reliable precedent for projections, 2015/16 will see the cattle market peak.

Key points

- Cattle markets have distinct long-term structural cycles.
- Production cycles are inversely correlated to price cycles.
- The US cattle cycle is the most appropriated benchmark to analyse price cycles in Australia.
- 2014 likely Year 1 of a new cycle, meaning prices likely to remain strong in the US at least until the end of 2015.
- Aussie cattle markets have a lot to catch up, and should continue to break record levels throughout 2015 and perhaps in early 2016 (season allowing)
- Target price for finished steers in 2015 could be up to 520-600¢/kg cwt if we move back to a normal discount pattern to the US.

Before we narrow the discussion to the finer details, it's critical that we outline two key assumptions needed to understand the analysis. The first one is that livestock production is notoriously cyclical. The second one is that the Australian cattle and beef markets are intrinsically related to the US cattle market. For this reason, we will first look at the US cattle cycle before moving on to what happens in Australia.

Figure 1. US cattle cycle and cattle prices



Source: USDA

Figure 1 shows the US cattle herd numbers and the cattle cycles seen since 1920. As a general rule, the US cycles have lasted between 9 and 14 years, averaging 10 years. Moreover, these cycles have been typically characterised by two main phases, a herd expansion period followed by a liquidation phase.

Arbitrarily, the start of a cycle is defined when the herd reaches a bottom. At that point, breeding stock numbers are low, demand for weaners is robust, slaughter levels are near the bottom and prices are on the rise. Enticed by improved profitability prospects, cow-calf operators retain more cows and heifers, which see available supplies contracting even further to give markets an extra oomph.

Although prices tend to peak in the first or second year of the cycle, the expansion phase generally lasts 6-8 years. Yet, before stock numbers peak, prices start to fall as increases in production generally outpace improvements in demand. By the time the herd reaches a high, slaughter levels surge signalling the beginning of the liquidation phase. This lasts, on average, 2-4 years.

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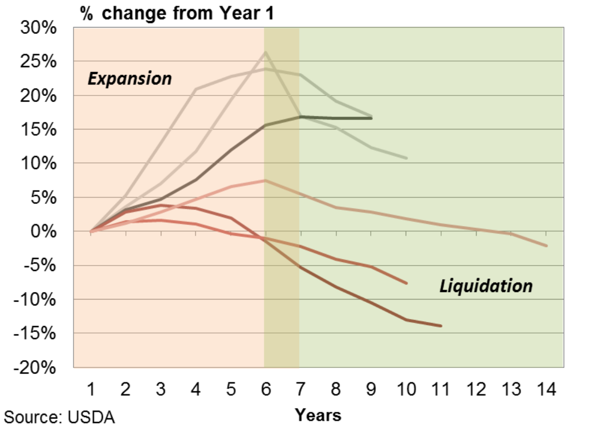
Now that the structure of the cattle cycle has been laid out, we can assess how markets perform at different stages of the cycle. The most important thing to note is that, while the long-term price trend for US cattle markets - in nominal terms – has been up, distinctive price movements can still be observed within a given cycle.

Figure 1 also overlays the herd stats with the average yearly cattle prices in the US, to demonstrate how herd cycles are intrinsically related to price cycles. As a general rule, cattle prices peak in the transition between cycles and coincide with low herd numbers. On the flipside, prices tend to hit a bottom when herd numbers peak, or a year earlier.

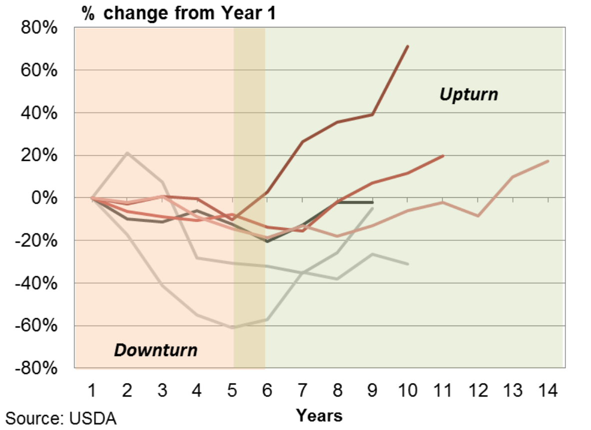
Figures 2 and 3 aim to put this relationship into better context by showing percentage changes in herd size and prices, respectively, from Year 1. As mentioned previously, the period of expansion is associated with a downturn in prices while the liquidation phase is related to an uptrend in cattle prices.

Figure 2. US cattle cycle - Herd



Source: USDA

Figure 3. US cattle cycle - Prices



Source: USDA

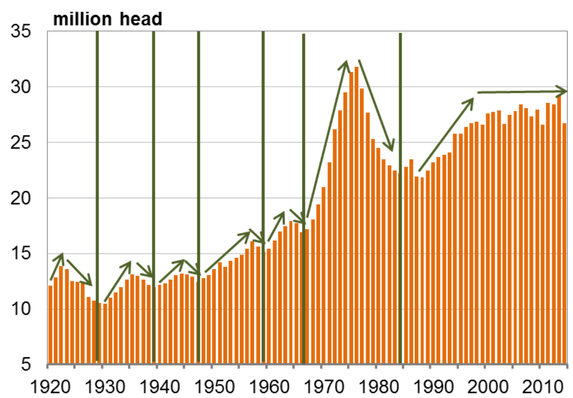
On that note, changes in herd size have been more contained in the last three cycles (shown in red on charts) - to see more restricted price volatility. That said, the strong price rises seen in the last cycle seem to be related to a combination of a tangible improvement in demand with a continual reduction in the US herd to the lowest level since 1951.

But what does this all have to do with the Australian cattle market? Don't we have a cattle cycle of our own?

The answer to the first question relies on the fact that our cattle market is highly correlated with the US cattle market. To be more precise, 86% of the yearly changes in our cattle prices since 1953 can be explained by changes in US prices. As such, understanding structural changes in the herd size in the US, and consequently its price cycle, is vital when trying to interpret long-term price trends for our market.

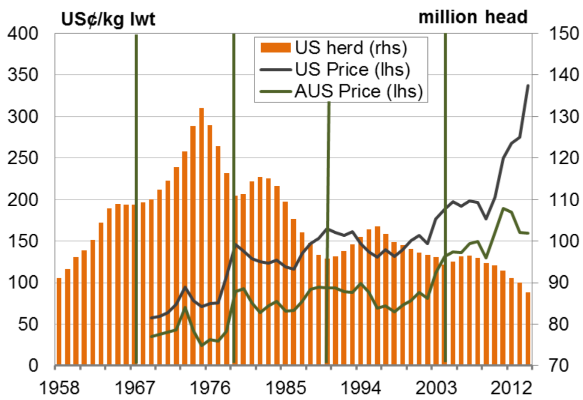
The answer for the second question is, yes and no. While 'mild' cattle cycles have been observed until the late 1980s, the last two decades have been characterised by a lack of, or indistinguishable, cycles (figure 4). In reality, the most obvious pattern seen during the period has been the steady increase in the herd size during the 1990s followed by a plateau over the last 10-15 years. This suggests we may have reached a 'carrying capacity ceiling' under the available biological, technological and financial landscape.

Figure 4. Aussie cattle cycles



Source: ABS

Figure 5. US cattle cycle vs US/AUS cattle prices



Source: USDA, MLA, RBA

In the absence of distinct structural cycles for our herd, the best leading indicator to assess the long-term direction for our market is the US cattle cycle. To test this assumption, figure 5 shows the US cycles along with US and Queensland heavy steer prices (as a proxy for the Australian market). Note that these are quoted in US¢/kg lwt to eliminate currency influences on the price. The results are pretty clear; our market also follows the same inverse correlation between US herd numbers and prices - peak/bottom and bottom/peak.

So what does this all mean?

There are a few take home messages from this article but we will aim to stick with the most important ones - or the ones that have the most impact for strategic decision making.

The first message is that livestock production is notoriously cyclical. Supply is undoubtedly the most distinct price driver for cattle markets within a cattle cycle. Further, production and price cycles run inversely.

The second message is that, whether we fully acknowledge it or not, the Australian cattle market is a small fish in a big pond. In other words, we are small players and price takers in the global beef market. As a result, our long-term price trends tend to be dictated by external forces, in particular the US cattle cycle.

The last point to mention is related to the importance of knowing 'where' in the cattle cycle we stand, at specific points in time. This is of critical importance as it can help us to 'foresee' and anticipate general price trends a few years in advance. That, in turn, can help producers to fine tune their long-term operational and marketing strategies.

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So, where exactly are we positioned in the current cattle cycle? Looking at last year's US cattle herd numbers, the rally in its cattle/beef prices and the remarkable fall in beef cow and heifer slaughter (down 18% and 8% year-on-year, respectively), 2014 ticks all the boxes to grant it the status of 'Year 1' of the cycle.

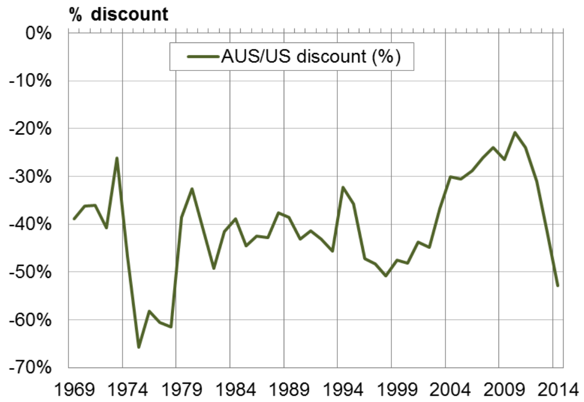
With that in mind, the US cattle market is likely to continue climbing higher in 2015 – albeit only moderately - supported by a continual decline in finished cattle supplies. From 2016 onwards, prices are anticipated to stabilise and start to fall gradually as the cattle throughput starts to increase again.

The implications for our cattle markets are then quite clear for 2015 and 2016 with only a couple of caveats to take note of. Firstly, we are lagging the US market by one year this time because of the drought-induced surge in supplies in 2014. As such, our price peak could be pushed out to 2016 if seasonal conditions allow.

Secondly, we have a lot to catch up this year given the sizeable gains seen in the US cattle market over the last cycle, particularly in 2014. To put things into perspective, US cattle prices have risen 71% in the last cycle (2006-2014) while ours have only gained 16% during the same period in US$ terms. When quoted in A$ terms, our prices have actually finished the cycle 1.5% lower than when they started.

Looking from a different angle, the Aussie cattle market finished 2014 at a 53% discount to the US, the largest discount since 1978 (figure 6). If we go back to the to the discount levels of 20-30% seen between 2004 and 2012 while the US market consolidates the gains of 2014, we expect a target price for finished steers of 525-600¢/kg cwt at some stage in 2015. Although this might look a bit extreme, these levels seem quite plausible under average to good seasonal conditions this year.

Figure 6. Price spread between US and Australia



Source: USDA, MLA, RBA

To conclude, 2015 and 2016 are expected to be bright years for cattle markets with prices anticipated to continue to break new records. For cattle producers, these could also potentially be years of record profit margins.

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