# How Long Does This Production Model Work?

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Navigating commodity markets, physical or futures, has been nothing short of challenging over the last few years. Sharp and violent moves have been noted recently in hog markets, potentially due to Porcine Epidemic Diarrhea Virus. Additionally, we believe due to surpluses, crude oil has dropped to levels untested since 2008/2009. Interestingly, The U.S. dollar index has pushed into fresh 10 year highs recently on what seems to be anticipation of a higher interest rate environment. As we begin to think about those markets that more directly impact our cattle and beef environment, there was no lack of similar price advances, declines and volatility. Corn futures surged slightly over 50% in 2<sup>nd</sup> and 3<sup>rd</sup> quarter of 2012 and along with strong end-user basis caused extremely high feed cost and subsequently exorbitant feedlot cost of gain, this was followed by an approximate 60% break into the 4<sup>th</sup> quarter 2014 that allowed for cost of gain to ease and cattle to be fed longer in the face of rising replacement cost. Cattle futures and cash markets advanced well beyond what most analyst and producers could have ever imagined and brought about a much needed spell of record profitability across most sectors of the beef industry. Furthermore, the cattle feeder gained leverage over the beef packer resulting from a tight supply and generally good demand situation kept fed cattle basis very positive for all of 2014 (Table 1).

Average Monthly Live Cattle Basis*													
Texas	Year	January	February	March	April	May	June	July	August	September	October	November	December
						4.00							0.00
	2012 2013	0.68 -4.39	0.02 -2.77	0.22 -1.04	1.49 0.49	4.23	1.94 1.15	-3.51 -3.01	-1.15 -1.09	-1.16	0.82 -0.89	-0.01	-2.33
	2013	-4.39 2.63	-2.77	-1.04 4.37	2.09	4.85 7.14	1.15 4.60	-3.01 5.53	-1.09	-3.01 4.76	-0.89	-0.79 0.47	-0.54 0.48
	2014	2.63	4.68	4.37 6.75	2.09	1.14	4.60	5.55	5.00	4.70	0.14	0.47	0.40
AVG:	5 year	0.98	0.64	2.58	1.36	5.41	2.57	-0.33	0.26	0.20	0.02	-0.11	-0.80
AVG.	5 year	0.50	0.04	2.50	1.50	3.41	2.31	-0.55	0.20	0.20	0.02	-0.11	-0.00
Kansas	Year	January	February	March	April	May	June	July	August	September	October	November	December
	2012	0.44	-0.68	0.41	1.86	4.50	1.85	-3.71	-0.59	-1.09	0.71	-1.22	-2.42
	2013 2014	-4.63 2.73	-2.31 0.90	-0.51 4.76	0.83 2.34	5.02 7.47	1.16 4.67	-2.92 6.00	-1.01 3.58	-2.65 4.88	-0.98 -0.14	-1.24 1.60	-0.76 0.48
	2014	2.73 5.23	4.50	4.76	2.34	1.41	4.67	6.00	3.50	4.00	-0.14	1.60	0.40
AVG:	5 year	0.94	4.50	2.88	1.67	5.66	2.56	-0.21	0.66	0.38	-0.14	-0.29	-0.90
AVO.	5 year	0.54	0.00	2.00	1.07	5.00	2.50	-0.21	0.00	0.50	-0.14	-0.25	-0.50
Nebraska	Year	January	February	March	April	May	June	July	August	September	October	November	December
	0040	4.04	0.04	0.05	2.00	5.04	2.00	0.67	4.40	0.00	0.00	0.54	4.74
	2012	1.01	-0.61	0.65	3.09	5.61	3.00	-3.57	-1.40	-2.80	-0.29	-0.54	-1.74
	2013 2014	-3.21 4.43	-2.04 1.76	-0.31 7.40	1.21 5.03	6.04 10.24	2.73 5.89	3.62	5.39 3.63	-2.41 3.61	-0.93	-0.81 0.12	0.15 -0.11
	2014	4.43 5.83	4.81	7.40	5.05	10.24	5.09	6.19	3.03	3.01	-0.84	0.12	-0.11
AVG:	5 year	2.02	0.98	3.91	3.11	7.30	3.87	2.08	2.54	-0.53	-0.69	-0.41	-0.57
AVO.	o year	2.02	0.50			d Avg. Casl				-0.55	-0.03	-0.41	-0.51
			*:			e figured inc				ons			

#### Table 1.

## Sector Profitability

Cattle markets advanced strongly from late 2013 through 2014 and currently remain at lofty levels, however less profitable due to increased calf and feeder cattle cost. Tighter fed cattle supplies due to a

smaller U.S. cow herd were some of the drivers that led to a highly profitable period for the beef industry (Figure 1). The short supply, good demand, and widespread profitability encouraged operators to expand into what is now quickly becoming a unprofitable market, mostly within the post-weaning sector at this time.

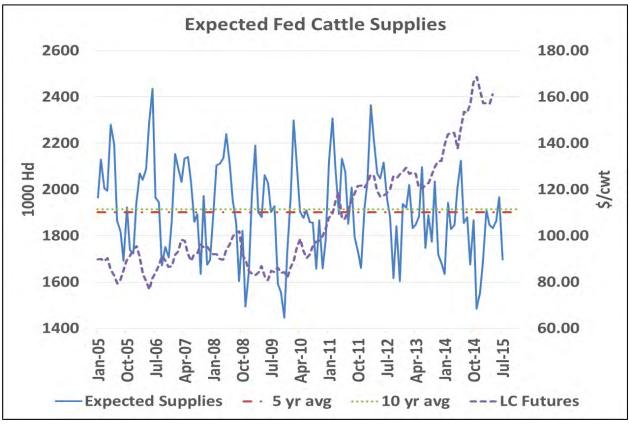


Figure 1.

Cow-calf producers were able to enjoy two-fold increases in profitability versus recent years due to advancing calf markets and downstream profitability (Figure 2). The calf-feeder spread firmed as feeding sector optimism combined with moisture and regionally plentiful forage encouraged grass operators to aggressively bid for light and medium weight cattle (Figure 3). Cattle feeders are estimated to have profited \$140.00 per head on average throughout 2014, but have given some back recently, as we make our way into what could be very a negative margin period through 2<sup>nd</sup> quarter 2015 (Figure 4). Long term averages remind us that cattle feeding is very much a margin business and over time generally comes back to near breakeven (Figure 5). The beef packing sector worked strenuously during to 2014 to manage margin in the face of rapid beef price volatility and what seemed like an unmanageably tight cash fed cattle market (Figure 6). We must keep in mind that measuring and quantifying total packer profitability is most certainly not as simple as comparing spot beef prices to spot cash fed cattle prices.

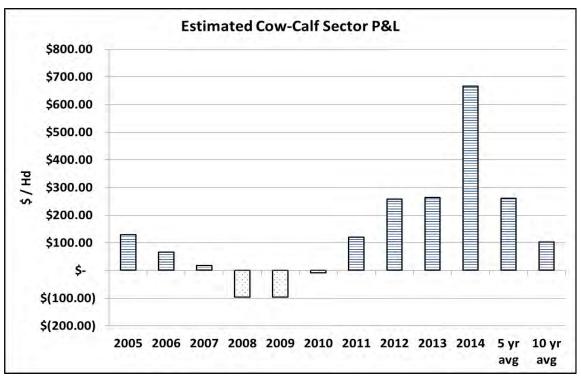


Figure 2.

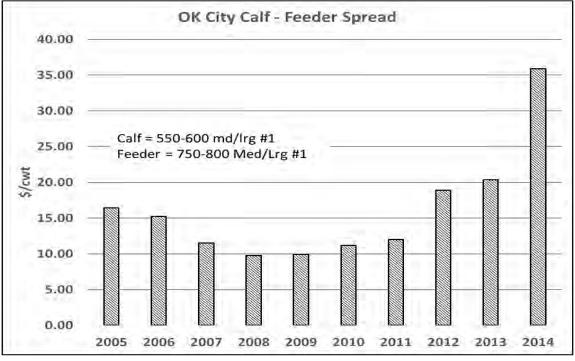


Figure 3.

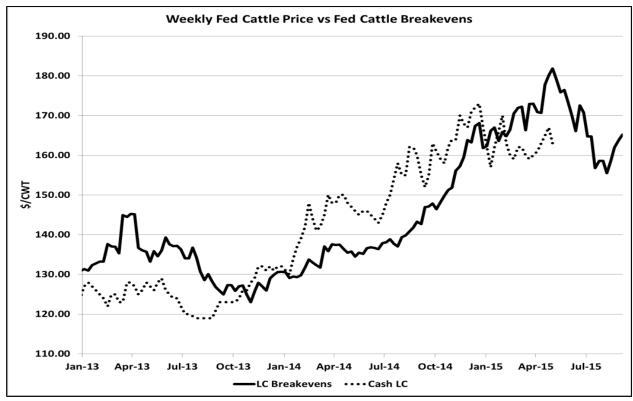
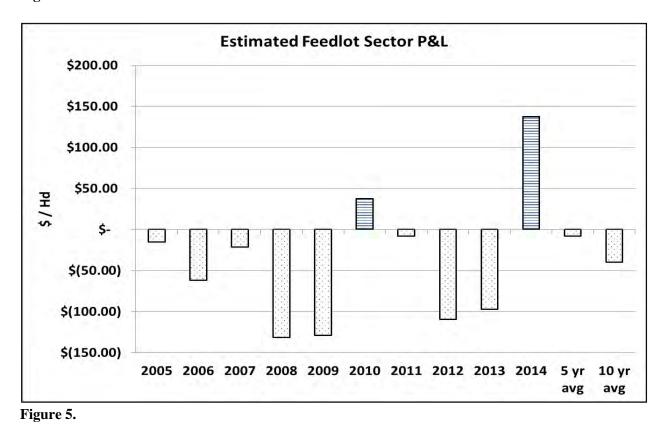
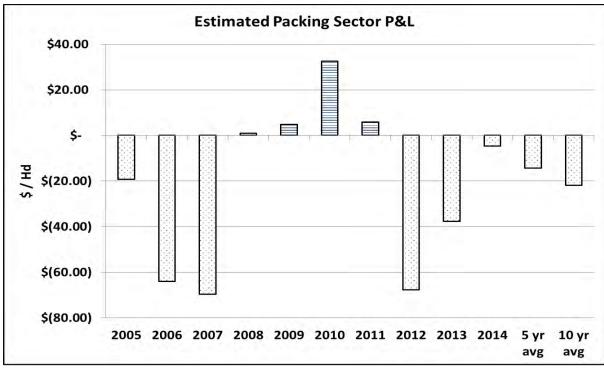


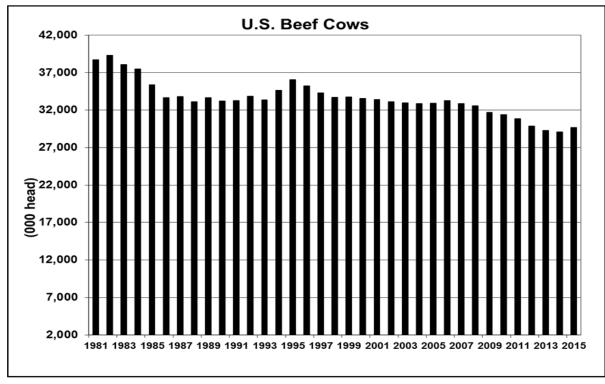
Figure 4.





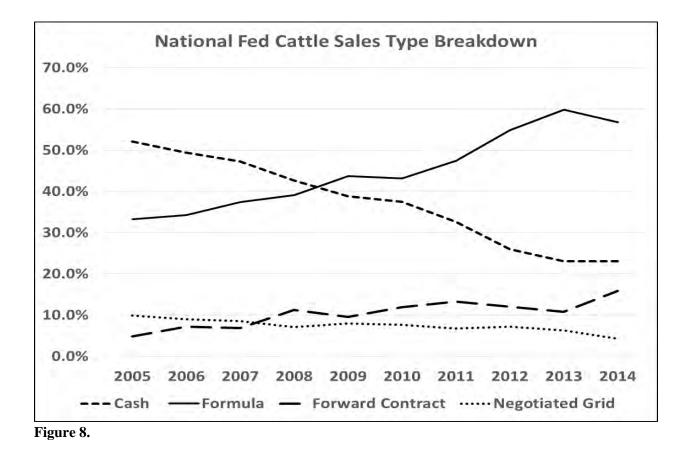


The beef industry will most likely benefit from supported prices for the mid-term, as we are still working off of decreased cattle supplies and enjoying the benefit of robust domestic and international beef demand (Figure 7). Upstream profitability should remain positive for a longer period of time relative to downstream or post-weaning margins. From a producer standpoint, looking at each sector as a margin business and managing that potential margin will be imperative in preserving recent gains in equity or, at the very least reducing excessive losses.



#### **Fed Cattle Marketing**

The past ten years have brought about significant changes in how we market fed cattle to the packer. The majority of fed cattle sold up to 2005 were heavily spot cash oriented. From 2005 through present, the growth in alternative fed cattle marketing techniques has been astounding (Figure 8). Producers in the Texas/Oklahoma/New Mexico region have witnessed the most exaggerated swap in negotiated cash and formula sales (Figure 9). Some challenges that exist in this type of environment are: 1) the total cash fed cattle trade becomes highly leveraged on the very small percentage of cattle marketed through negotiated cash avenues, 2) in some regions there might only be traces or no qualified spot negotiated cash trade, this makes pricing the alternative marketing methods a little less clear and transparent, and 3) this process begins to limit the producer's ability to transparently and efficiently discover price on a consistent basis. As an industry, we will need to monitor and address this situation to prevent markets from becoming increasingly nontransparent and leveraged.



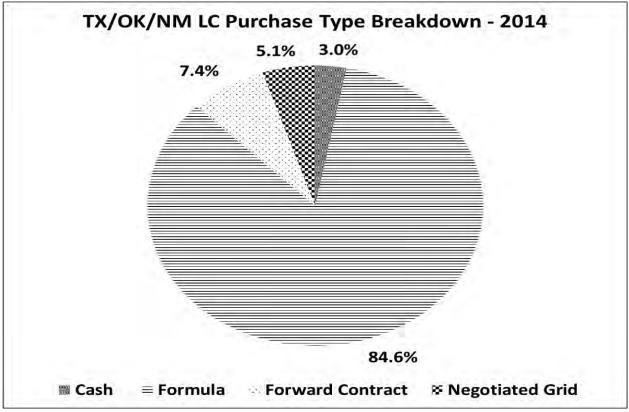


Figure 9.

## **Feeding Regions**

Northern feeding regions have been consistently gaining on southern feeding regions in terms of cattle on feed numbers (Figure 10). Several factors seem to drive this fundamental shift, but corn basis and packing capacity/availability may be the largest. Extremely positive corn basis was paid in the southern feeding regions through much of 2013. This caused feedlot cost of gain to remain unexpectedly high and breakeven prices suffered as a result. The competitiveness of the northern regions are significant in this regard, although some normalization in southern corn basis has been noted recently. Tightening of beef packing capacity and some excess feeding capacity has been another challenge for southern operators. Marketing cattle in a heavily corporate environment requires smaller operators to take on different production strategies. The model of purchasing quality feeder/yearling type animals and consistently managing to produce positive margins is very difficult due to more aggressive and better capitalized competitors. The trend of increasing northern cattle on feed numbers relative to the south is strong and although the southern plains will always have a substantial corporate and private feeding presence, the northern plains may take a decidedly larger lead (Figure 11).

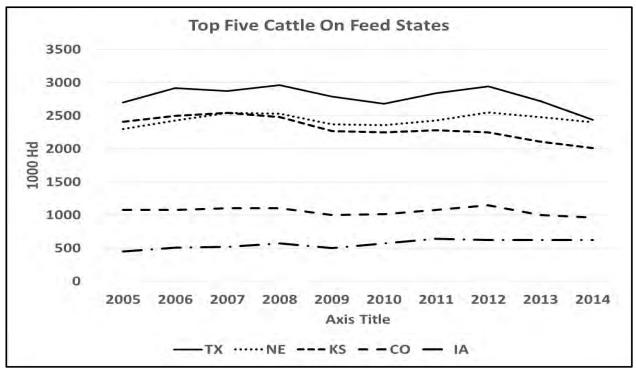


Figure 10.

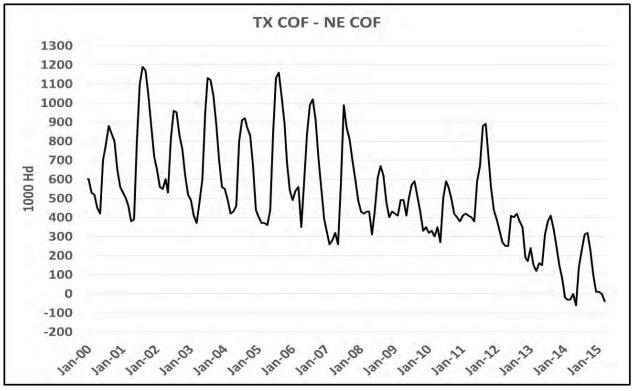


Figure 11.

### **Beef Production Model**

Describing the beef production model cannot simply or briefly be put into a few words or examples. Analyzing the impact of the current model is, in some cases, even more difficult than just looking at supply-demand or fundamental models and outlooks. The traditional cow-calf production model has been generally favorable to producers in recent years. Liquidity in cash calf markets and competiveness among buyers through various marketing avenues aids the structure and allows the producer to spread out risk through sales in an efficient marketplace. As we ponder the post-weaning production models (stocker/backgrounder and feedlot), the production, marketing, and general operating techniques become even less uniform and the platform for marketing cattle becomes slightly less liquid and efficient. This concept of purchasing cattle, grazing or feeding cattle, and marketing at a particular end weight with no intermediate risk controls or management is very difficult and most likely not a business plan that will have longevity. Arguably, it is managing these sectors as a margin business that could be most the advantageous strategy in the long term, and allow for increased opportunities within the marketplace.

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