

Livestock Price Volatility

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Montana Agriculture in Volatile Times, October 2011

- 1 Update on Livestock Prices**
- 2 Rationale Behind Price Movements**
- 3 What's Next?**
- 4 Managing Livestock Risk**

Feeder Prices are up more than 20% over last year

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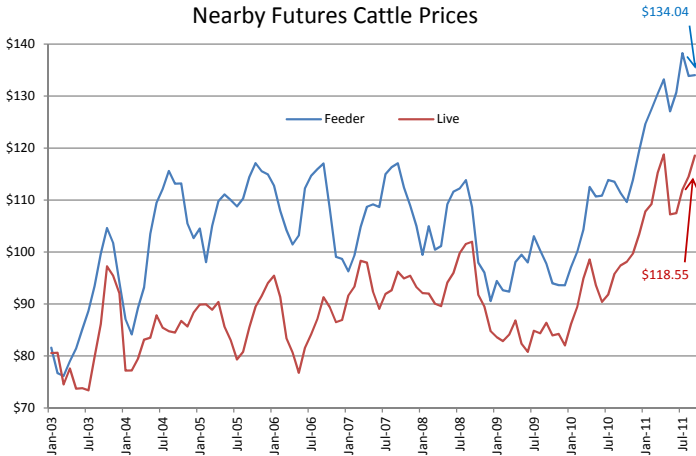
Update on
Livestock
Prices

Rationale
Behind Price
Movements

What's Next?

Managing
Livestock Risk

Nearby Futures Cattle Prices



Source: CME, compiled by LMIC

Volatility has remained relatively stable in cattle market

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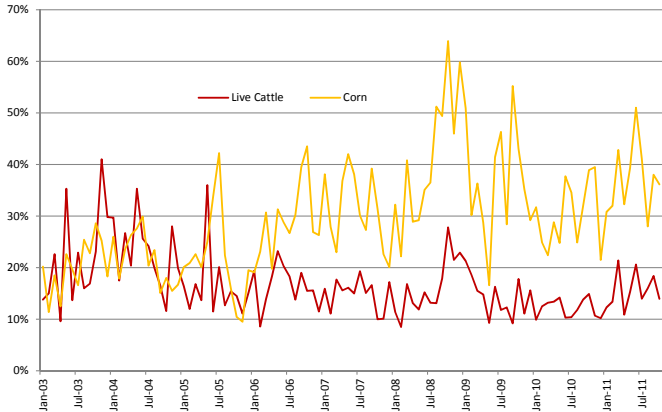
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Monthly Historical Volatility



Source: Chicago Mercantile Exchange

Deseasonalized basis prices

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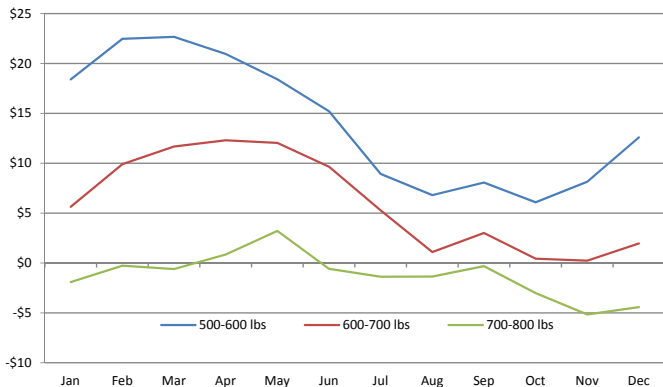
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Average Monthly Basis, By Cwt Steers, Billings 2000 to 2010



Source: Provided by LMIC, compiled by Duane Griffith

Basis risk is relatively calm

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Average Monthly Seasonally Adjusted Basis price, by cwt Steers, Billings

| Yrs | 500-600 lbs | 600-700 lbs | 800-900 lbs |
|-------------|--------------------|-------------|-------------|
| | Mean | | |
| 2003 - 2004 | 1.44 | 1.66 | 1.75 |
| 2005 - 2006 | 5.87 | 2.85 | 1.12 |
| 2007 - 2008 | -4.35 | -3.85 | -2.74 |
| 2009 - Now | 0.80 | 0.36 | -0.51 |
| | Standard Deviation | | |
| 2003 - 2004 | 4.05 | 2.67 | 2.79 |
| 2005 - 2006 | 4.45 | 3.74 | 3.45 |
| 2007 - 2008 | 3.54 | 3.51 | 2.07 |
| 2009 - Now | 3.53 | 3.67 | 2.27 |

What drives cattle price volatility?

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Instability in the cattle market can come from

- Uncertain demand
 - Domestic preferences and consumption
 - Foreign preferences and new consumer markets

⇒ Domestic consumer demand for beef has been solid

⇒ Beef demand is inelastic (not very sensitive to price changes)

⇒ New trade deal with S. Korea

Instability in the cattle market can also come from

- Uncertain supply
 - Input prices (fuel and grains)
 - Weather uncertainty
 - Direct effect through placement shocks
 - Indirect effect through grains price shocks
 - Foreign suppliers (e.g., the TB case in Mexico)

⇒ Fuel and corn prices are volatile (as usual)

⇒ Weather always uncertain (this year,last year,...)

What are current expectations for prices next year?

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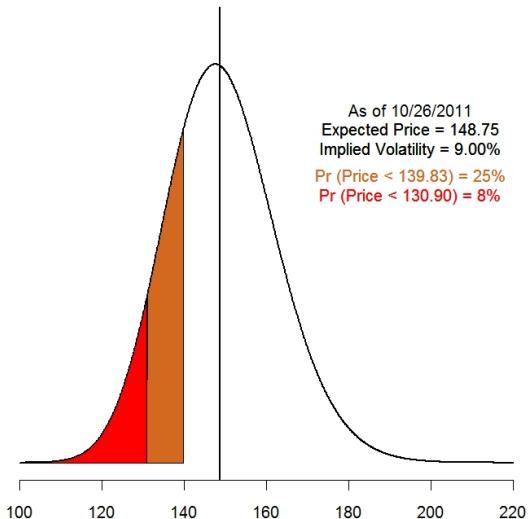
| | March '12 | August '12 |
|------------------------|-----------|------------|
| Cash Price | | 140.06 |
| Feeder Futures Price | 146.95 | 148.75 |
| 20-Day Hist. Vol. | 7.92% | 9.00% |
| Expected Steer Prices | | |
| 500 - 600 | 169.62 | 155.55 |
| 600 - 700 | 158.63 | 149.85 |
| 700 - 800 | 146.34 | 147.39 |
| Expected Heifer Prices | | |
| 500 - 600 | 158.92 | 150.70 |
| 600 - 700 | 149.37 | 144.96 |

Assumes today's futures prices and seasonal basis adjustment

Note: Futures and cash prices as of 10/26

Thinking about prices for next year

Distribution of Expected Feeder Prices (Per cwt) - Aug 2012

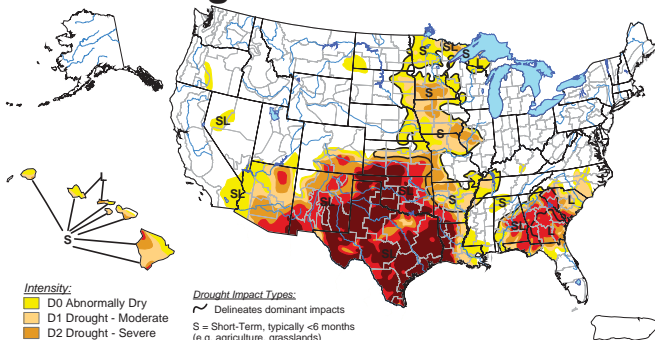


Is the drought over?






U.S. Drought Monitor

October 25, 2011


Valid 8 a.m. EDT



Intensity:

-  D0 Abnormally Dry
-  D1 Drought - Moderate
-  D2 Drought - Severe
-  D3 Drought - Extreme
-  D4 Drought - Exceptional

Drought Impact Types:

-  Delineates dominant impacts
- S = Short-Term, typically <6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically >6 months (e.g. hydrology, ecology)

The Drought Monitor focuses on broad-scale conditions.
Local conditions may vary. See accompanying text summary
for forecast statements.

<http://droughtmonitor.unl.edu/>



Released Thursday, October 27, 2011

Author: David Miskus, NOAA/NWS/NCEP/CPC

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What's Next?

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- Managing Price Risk
 - Futures and options market
 - Put on feeder or live cattle prices
 - Call on corn prices
 - Forward contracting
 - Federal insurance
 - Livestock Risk Protection (cattle price)
- Managing Production Risk
 - Pasture, Rainfall, and Forage (Rainfall index)

Representative MT livestock operation

- 2,000 head herd
- 15% cull rate
- Steers sold at 575 lbs and \$1.50 per lb
- Heifers sold at 535 lbs and \$1.45 per lb
- Compare this case with that of 6% (32% likelihood) and 12% (17% likelihood) reductions in revenue
- Initial cash on hand: \$25,000

A Comparison Using the Case Farm

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| Metric | Scenario | | |
|---|----------|--------|--------|
| | Base | -6% | -12% |
| Revenue (\$M) | 1.46 | 1.41 | 1.32 |
| Current Assets (\$Thousands) | 497.16 | 409.65 | 322.13 |
| Net Cash Flow (\$Thousands) | 202.16 | 114.65 | 27.13 |
| Current Ratio | 3.02 | 2.49 | 1.96 |
| Working Capital (\$Thousands) | 332.49 | 244.97 | 157.45 |
| Rate of Return on Business Equity (%) | 2.01 | 1.06 | 0.09 |
| Net Business Income (\$Thousands) | 308.55 | 221.03 | 133.51 |
| Net Business Income from Operations Ratio | 0.21 | 0.16 | 0.10 |
| Term Loan Credit Score | 1.50 | 1.60 | 1.80 |
| Operating Loan Credit Score | 1.90 | 1.90 | 2.35 |

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Thank you for your time

Send any remaining questions to me at
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