

## **Market Advisor**

by JOHN MICHAEL RILEY, Mississippi State University

## **Higher market volatility**

So much of the recent news in this publication series and elsewhere has revolved around the record level of prices and the implications for herd expansion. Typically, record prices are joined at the

hip with increased price risk (the highrisk, high-return phenomenon). How does the market picture look as we wave goodbye to 2014?

Not surprisingly, market risks have moved higher along with prices. Fig. 1 provides a lengthy history of implied volatility for feeder and live-cattle futures. The timeline begins

just after the high prices experienced in 2003 and the ensuing price decline following the case of bovine spongiform encephalopathy (BSE). Implied-volatility

values were in the 20%-33% range in early 2004 for live cattle and 12%-23% for feeder cattle.

The increased volatility in 2008 and 2009 is also easily identifiable in Fig.

1 as implied volatility raced up to 25% for both live and feeder cattle. Recently, this measure began to decrease in mid-2012, falling to about 7% one year ago. However, as prices have increased, so has volatility, with feedercattle futures price implied volatility at about 12% and live-cattle futures price volatility at about 14%.

Specifically, looking more closely at feeder-

cattle price volatility for contract months in 2015, this phenomenon is no different. As time passed and as contracts became available in 2014,

35%
30%
25%
20%
10%
10%
5%
0%
Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14

Fig. 1: Market-implied volatility of feeder- and live-cattle futures prices

As prices have

increased, so has

volatility, with feeder-

cattle futures price

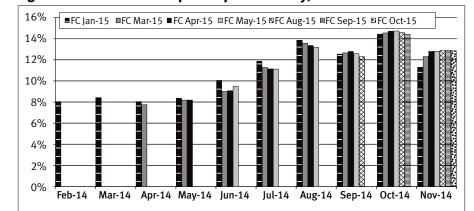
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implied-volatility measures increased along with prices. These peaked in August 2014, ranging from 12% to 14% depending on the contract.

Interestingly, the January 2015 contract carried more risk (i.e., a larger implied-volatility value) than the more deferred contracts, but this has since been reversed. Keep in mind that these deferred contracts typically traded below nearby months. In other words, futures-market participants hesitated to push prices in very distant months to the high levels of those in more current months.

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In retrospect, market volatility is lower now than it is has been in the past. Nevertheless, the extremely strong bull market that has been in place in 2014 has pushed market price uncertainty higher. When considering risk-management strategies tied to options (puts, calls and LRP insurance), this led to higher premiums relative to what would have been seen in less-risky times. On the positive side, the current decline in implied-volatility measures is noticeable in the premiums prices.

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Editor's Note: John Michael Riley is extension agricultural economist with the Department of Agricultural Economics at Mississippi State University. He is a contributing writer to the Livestock Marketing Information Center (LMIC), which offered permission to reprint this article. For more information, visit http://lmic.info.