

In The Cattle Markets

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Basis and Options

Basis, the difference between a cash price and a futures price, is commonly calculated and discussed with futures as the focus and the nearby contract prices as the default for discussion. For example, the basis for live cattle to be sold in July is calculated against the nearby August live cattle futures price. This makes sense given that futures expire at the end of the listed trading month and there are only live cattle futures listed for even months. A hedge would be lifted in July and any basis risk would occur in July with the August contract as the underlying or reference instrument. Cattle that would be sold in August would also use the basis relative to the August futures contract.

Shifting from futures to options has the added complication that regular live cattle options settle or have the last trading date on the first Friday of the futures month. For example, the August 2022 option has its last trading date on August 5, 2022. A hedger using options and selling in July would still compare a July cash price to the average futures price observed during July. However, for cattle with an August target date that are hedged using options, the hedger will likely use the October futures for a reference basis. This highlights a potential source of basis risk. For futures hedging, the odd months of the year tend to have more basis risk than the even months of the year. The standard deviation of basis, computed monthly, is generally higher for odd versus even months. This is because the odd months are one to two months from settlement while the even months are zero to one months from settlement. For options, the situation is different, as the lowest basis risk generally occurs in odd months, as the even months are two to three months from [futures] settlement.

Would using serial options make a difference? Serial options settle to a nearby contract in months without a regular option. For live cattle these are odd-month options. For example, the September 2022 options have a first trade date of July 5, 2022, with a last trade date of September 2, 2022. The September options settle to the value of the October futures price at that time. Thus, a hedger using options would be lifting a hedge in August regardless of using a regular October or a serial September option.

Serial options have a cost advantage for very short run situations, as the time value is one month less than for regular options. However, serial options are only listed for about two months. The implication is that when hedging an even month, a regular option would need to be used first, then rolled to a serial option with added transaction costs. Savings would come from lower interest expenses on the equity committed to the difference in option premiums. However, with current exchange fees and interest rates, the premium difference is not large enough to justify the effort.

The Markets

The cattle markets finished mixed for the week. In the cash trade, fed cattle were higher on a live basis but lower on a dressed basis. Feeder cattle prices were mixed on limited volume. On the futures side, live cattle were mostly steady while deferred feeder cattle were sharply higher. Cash corn was lower while on the futures side new-crop prices were sharply lower. The dramatic shift in corn (and other feed prices) does not seem to be fully reflected in feeder cattle futures yet. One tempering factor is the continued high price for hay. Hay acres have increased nationally in 2022, which may eventually pressure prices, strengthening the prices for lighter feeders.

<i>Data Source: USDA-AMS Market News</i>		Week of 7/1/22	Week of 6/24/22	Week of 7/2/21
5-Area Fed Steer	all grades, live weight, \$/cwt	\$146.16	\$144.55	\$123.89
	all grades, dressed weight, \$/cwt	\$233.96	\$235.22	\$198.27
Boxed Beef	Choice Price, 600-900 lb., \$/cwt	\$265.70	\$266.05	\$290.83
	Choice-Select Spread, \$/cwt	\$23.62	\$20.25	\$21.84
700-800 lb. Feeder Steer	Montana 3-market, \$/cwt	\$165.25	\$167.00	\$157.92
	Nebraska 7-market, \$/cwt	\$191.21	--	\$155.36
	Oklahoma 8-market, \$/cwt	\$167.78	\$169.44	\$148.65
500-600 lb. Feeder Steer	Montana 3-market, \$/cwt	--	\$176.78	--
	Nebraska 7-market, \$/cwt	\$227.49	--	\$168.06
	Oklahoma 8-market, \$/cwt	\$191.29	\$186.61	\$169.61
Feed Grains	Corn, Omaha, NE, \$/bu (Thursday)	\$7.49	\$8.02	\$6.81
	DDGS, Nebraska, \$/ton	\$222.50	\$230.00	\$172.50