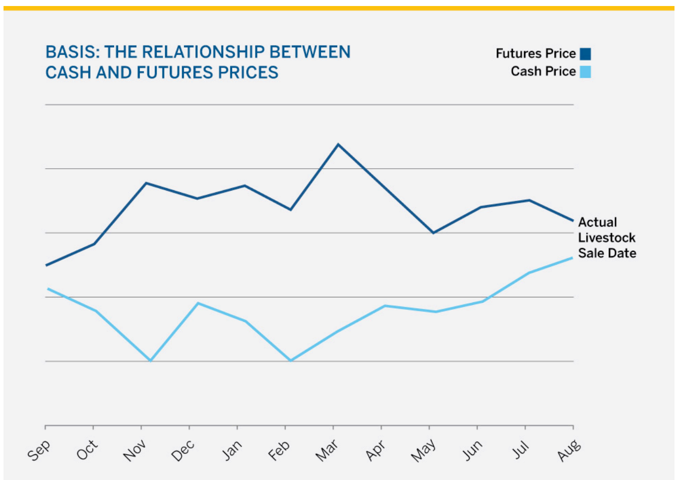
THE IMPORTANCE OF BASIS

What is Basis?

The relationship of the local cash market price and the futures price at marketing time is called basis. Knowing the likely basis makes it possible to translate an available futures price for deferred delivery into an expected cash price that will result from a hedge. The basis is calculated by subtracting the price of the appropriate futures contract from the local cash market price.

BASIS = CASH PRICE – FUTURES PRICE (when livestock are marketed)

For example, if the cash price for lean hogs is \$78/cwt. and the futures price is \$80/cwt., then the basis is \$78 – \$80 = –\$2, or \$2 under. With a cash price of \$79.50 and a futures price of \$78.50, the basis is \$79.50 – \$78.50 = \$1, or \$1 over.



Why is Basis Important?

Hedgers use their knowledge of the expected basis to translate a given futures price (for a deferred delivery period corresponding to when they expect to bring their livestock to market) into a likely cash price at that time. If they decide the futures price is favorable, they will establish a futures position as a hedge and maintain that hedge until the livestock actually move to market. They reduce their total price risk by the amount which the actual basis differs from the expected basis.

The short and long hedge examples presented later in this booklet show how important basis is to the price you receive or pay for livestock. You will need to forecast what the basis will be at the time you offset the hedge and sell or purchase livestock in the cash market.

For the short hedger, the more positive (stronger) the basis when the hedge is offset, the greater the actual price received for livestock. For the long hedger, the more negative (weaker) the basis when the hedge is offset, the lower the actual price paid for livestock.

Basis and the Hedger

	Short Hedger	Long Hedger
Stronger Basis	Higher price received	Higher price paid
Weaker Basis	Lower price received	Lower price paid

How Does Basis Differ Between Cash-Settled Contracts and Deliverable Contracts?

The Lean Hog and Feeder Cattle futures contracts are settled in cash, not livestock. That means if buyers or sellers do not offset their positions prior to the expiration of these contracts, the positions will be settled in cash to the current index for that commodity. Positions can be held until expiration without the worry of delivery.

Because the futures price converges to the cash index, perfect convergence occurs. Producers still have to compare the quality of their own livestock and their local market conditions to the CME Group contract specifications to determine their own basis.

The Live Cattle contract is a deliverable contract. Cattle meeting contract specifications can be delivered to anyone of several stockyard locations or, at the request of the buyer, directly to the packing house for slaughter on a grade and yield basis. The delivery costs for the cattle include transportation and marketing costs such as commissions, yardage and weight shrinkage.

The possibility of delivery on the futures contract generally causes the futures price during the delivery month to align with the cash price at the futures delivery locations. Basis differs from one location to another. Depending on the circumstances of the local market and its distance and direction from the futures delivery points, the basis may be consistently positive (over) or negative (under). The quality of the cattle delivered in relation to the par specifications also can vary your basis.

What is the Local Basis?

Livestock producers and processors find that the best way to predict local basis is to compile a local history of it themselves. They keep records of local cash prices for the months they normally sell livestock and compare that price to the current corresponding futures price, the nearby contract. By doing this for several years and averaging the results, they develop a valuable history of basis information that localizes the futures market to their own livestock markets. If local cash market conditions change – if local packing plants open or close, for instance – then they need to adjust historical basis averages accordingly.

There are, of course, ways to find out average historical basis without having to record it for several years. County extension offices and some local hedge brokers track historical basis information for their locations and types of livestock. Market advisors and lenders may also provide it. It is also possible to glean a basis estimate from available cash forward contracts or basis contracts. Keep in mind that operations that offer such forward contracts may estimate the basis conservatively.

Sources of Local Basis Information

- Personal records over several years
- County extension offices
- Local brokers, lenders and market advisory services
- Comparisons of cash forward contract prices and basis contracts to futures prices for like delivery periods

Key Points

1. Basis is the cash market price minus the futures price at the completion of production.

2. For a short hedger, the more positive (stronger) the basis, the higher the price received for livestock.

3. For a long hedger, the more negative (weaker) the basis, the lower the price paid for livestock.

4. Knowing the expected basis enables a hedger to translate a futures price into an expected local cash price, compare that to the expected breakeven price and decide whether or not to hedge.