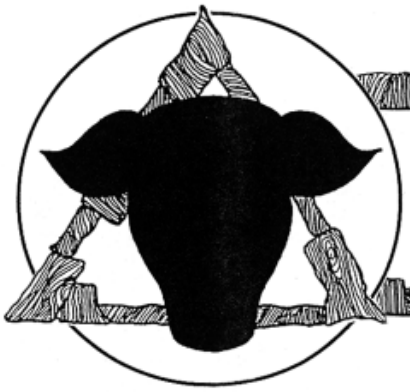


Managing for Today's Cattle Market and Beyond

Evaluating Forward Prices With Basis

By
Don Nitchie, Colorado State University

An essential element of understanding marketing and successfully executing strategies is developing a good working knowledge of basis. Basis is simply a measure of the relationship of two different markets for the same product. This measurement is determined by studying the historical price differences between the two markets. For example, the price paid for cattle in Billings, Montana is usually (historically) different than the price paid for cattle in Dodge City, Kansas. Over time, you would expect this price difference to equal the cost of transportation between the two markets. Price differences can occur because of, the location of markets, product quality differences, and time of delivery. All of these factors represent differing supply and demand forces affecting the two markets.

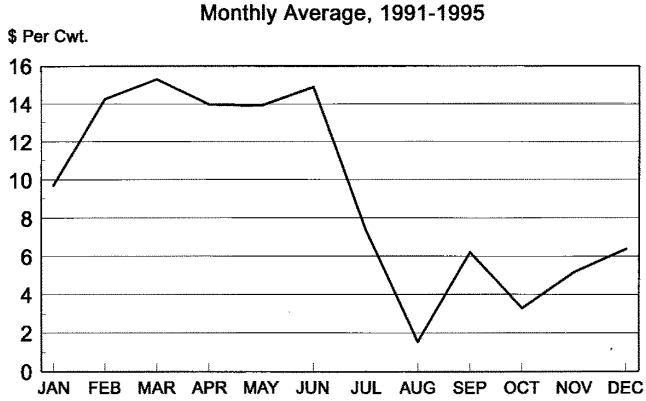
Basis affects all forward pricing activity. Most forward cash contracts are based on futures market prices. Futures market prices reflect national supply and demand expectations for future deliveries of a commodity. If a local feedlot is offering to purchase yearling steers for October delivery for $70 per hundredweight, and if cash prices for the last three to five years locally have usually been $1 per hundredweight less than the expiring October futures contract and the October futures contract is trading at $71 per hundredweight, then the previously mentioned forward cash contract is probably being offered at a reasonable basis. In April, if a producer were to consider hedging an October sales directly by selling a October futures contract, they would need to estimate what an October futures price means in terms of an estimated local hedge price. This would be accomplished by utilizing a historical basis estimate. Historical basis data needs to have been evaluated for that location, type and size of cattle and season of the year. You would want to know what the difference normally was between local cash market prices and the expiring futures contract. By using the previously mentioned minus $1 per hundredweight, a producer would for instance; estimate that if they sold an October Futures contract today, in April, at $65 per hundredweight, they would likely realize a local hedge price of $64 per hundredweight when they sell cattle locally in October and buy back the futures contract. A $65 per hundredweight futures price minus a $1 per hundredweight estimated local basis equals an estimated hedge price of $64 per hundredweight.

Location - Basis may vary from one location to another. Occasionally one region is short on supply or may have several large orders to fill. This will create opportunities between local cash markets, if a producer is fast to act and understands transportation costs.

Seasonal Variation - Basis is not the same all year long. In livestock, basis is usually most negative during the time period when the offspring of the breeding herd from the previous calving are coming to market. Basis is usually stronger, (more positive) in the spring. So, use the correct basis for the time of year that you will normally be selling.

MONTANA 500-600 LB. FEEDER STEER BASIS

Monthly Average, 1991-1995

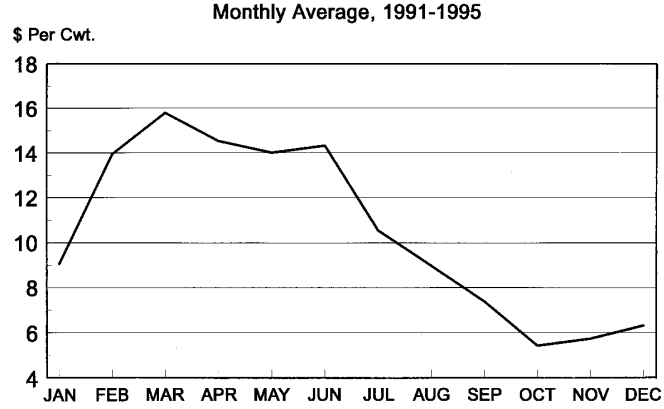


Quality or Grade - These differences are most apparent in livestock. Choice slaughter steers sell for a higher price and stronger basis, than lower grade slaughter steers. Medium frame #1 feeder steers trade for more than medium frame #2 steers.

Commodity Type and Uses - Steer prices are different than heifer prices. For example 700 pound steer prices are different then 500 pound steer prices. As a result, the basis for each will be different.

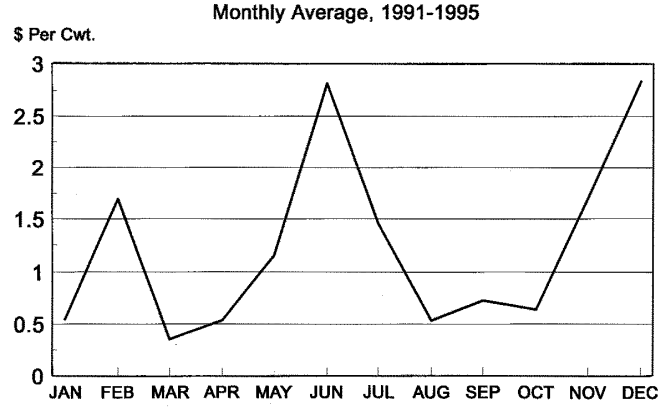
OKLAHOMA CITY 500-600 LB. FEEDER STEER BASIS

Monthly Average, 1991-1995



OKLAHOMA CITY 700-800 LB. FEEDER STEER BASIS

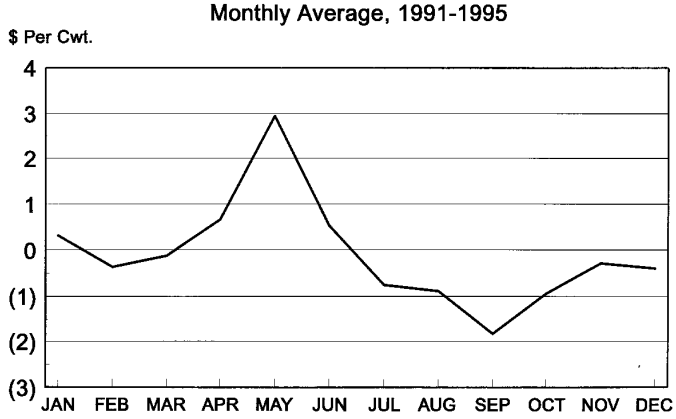
Monthly Average, 1991-1995



Developing and Understanding Basis - It is necessary to be a student of basis in the major products you produce. This knowledge is as important as knowing the cost of production. A producer can keep their own historical basis data by recording local cash prices and recording and subtracting futures prices from: the

AMARILLO FED STEER BASIS

Monthly Average, 1991-1995



radio, newspaper, local elevator or auction barn. Doing this once a week for 3-5 years would provide you adequate basis data. Some brokers and cattle buyers may provide basis data. Some universities also maintain basis data. When recording your data, you should be very honest regarding the typical quality of your product+especially in livestock production. Subtract futures prices from the same day's cash market prices. Uniformity of the group of cattle being marketed in size and quality impacts cash prices and therefore basis. The closer the quantity merchandized is to that preferred by primary buyers, the better basis realized will be.

How to Use Basis

In addition to evaluating futures contract prices by localizing them for hedging purposes, basis can be used in the following ways:

1. Evaluating Forward Cash Contracts - As previously discussed, a working knowledge of the historical basis for the seasons of the year in which you typically sell product is very helpful for evaluating the fairness of cash contract offers by local livestock buyers. Cash contract offers that are higher than the appropriate futures contract price minus the historical basis estimate are good. Offers significantly less than this price, may not be so good and should be scrutinized.

2. Completing Hedge Transactions and Managing Basis Variation - When a hedge is about to be completed, the only price risk remaining is basis variation differing from the initial estimated basis. When it is time to actually sell your product in the cash market and buy back your futures contract, you will realize a higher hedged price than expected if these transactions are completed when basis is stronger (more positive), than expected. You will realize a lower hedge price

than expected, if basis is weaker (more negative), than expected. The basis impacts when utilizing options are the same as when hedging with futures contracts.

Variation in actual basis at the time of cash sales, from what you estimated would occur according to history, can effect your forward pricing results with practically any marketing tool. It is important to understand these impacts. The following examples are based upon futures contract hedges. Futures contract hedges are utilized because virtually all forward pricing tools, cash market trading and merchandising are based on futures market prices. This is true because a futures price is a national price based on national or even world-wide supply and demand expectations. Additionally, anyone involved in the cash market of a commodity can utilize a futures contract to create a "risk-reduced" market position.

As an example, suppose a producer sells in a November feeder cattle futures contract to hedge their 500 pound November calf sales at $64 per hundredweight. They expect a local basis in November of a positive $6 per hundred weight based on past history. Therefore, their expected hedge price is $70 per hundredweight, ($64/cwt. + $6/cwt).

In November when their calves are ready to sell and the hedge needs to be liquidated, (buying the same futures contract month and selling in the cash market locally), the;

#1 Actual (realized) basis is the same estimated basis;

If Nov. Futures Are	Gain or Loss From Futures		Local Cash Sale		Realized price	Actual Basis Cash-Futures
$69	$5	+	$75	=	$70	$6
$64	$0	+	$70	=	$70	$6
$59	$5	+	$65	=	$70	$6

#2 Actual (realized) basis is stronger (more positive) than estimated basis;

If Nov. Futures Are	Gain or Loss From Futures		Local Cash Sale		Realized price	Actual Basis Cash-Futures
$69	$5	+	$76	=	$71	$7
$64	$0	+	$71	=	$71	$7
$59	$5	+	$66	=	$71	$7

#3 Actual (realized) basis is weaker (more negative) than estimated basis;

If Nov. Futures Are	Gain or Loss From Futures		Local Cash Sale		Realized price	Actual Basis Cash-Futures
$69	$5	+	$74	=	$69	$5
$64	$0	+	$69	=	$69	$5
$59	$5	+	$64	=	$69	$5