ABOUT GRAIN CONTRACTING

Understanding Risk in Basis Contracts

Basis contracts involve downside risk as well as upside price potential.

Basis contracts are marketing instruments that establish the basis (the difference between the local cash price and futures price) used to determine the price paid for grain or soybeans at a later time. That is the only component of price risk that basis contracts establish or lock in for the producer. The producer or other seller bears the risk of any changes in price level over the life of the contract as reflected by nearby futures prices. He or she also bears any relevant spread risk that may develop over the life of the contract if it uses a later futures delivery month than the nearby contract.

In other words, basis contracts let a producer lock in a basis that he or she believes is more favorable than one that will exist later. At the same time, basis contracts allow the decision on establishing a price level to be delayed until a later time. In post-harvest basis contracts, the grain typically is delivered to the elevator, and title is transferred to the buyer at that time. These contracts allow the seller to retain the opportunity to benefit from a possible rise in the level of prices later, while avoiding storage.

Users of basis contracts should keep in mind that price movements can be very difficult to predict, and that downside risk as well as upside price potential exists with these contracts. Hence, as a risk management tool, basis contracts manage only one relatively small component of price. Users of these contracts also should be aware that part of the normal rise in cash prices from harvest to the spring planting season is due to a strengthening basis. While basis contracts eliminate storage costs, if used in the fall, they also eliminate this usual source of gain in cash prices.

Differences between basis and price-later contracts

Basis contracts have one or sometimes two important differences from price-later (or delayed price) contracts. First, basis contracts establish the basis when the contract is signed; price-later contracts do not do this—thus, price-later contracts do not let producers separate out the individual components of cash price movements. Both basis contracts and price-later contracts allow producers the opportunity to delay the pricing decision until later, while avoiding storage. But in a price-later contract, the elevator's cash price to the producer, less a service charge, is determined at a later time set by the producer.

The other difference often found in basis contracts is that elevators or processors may pay a portion of the value of the grain at the time it is delivered to the buyer. Since basis contracts are credit-sale contracts, the partial payment reduces the producer's risk exposure in case of an elevator bankruptcy. The extent of risk exposure with financial failure of the elevator may vary from state to state, with differences in laws and indemnity funds.

Potential uses for basis contracts

If producers are experienced and knowledgeable in analyzing the basis, these contracts can help them manage basis movements. Basis contracts may be a logical choice when:

- the local basis is considerably stronger than the average of recent years,
- the seller feels there is a high probability that the level of prices will rise later on, and
- the seller is willing and able to bear the risk of declining prices.

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If used at harvest, basis contracts would usually (but not always) lock in one of the weakest basis levels of the year, and often would be a disadvantage to producers. A more logical time for using basis contracts is after harvest, when the basis has strengthened. Occasionally a grain buyer may offer pre-harvest basis contracts for fall delivery. At times when the new-crop harvest-delivery basis is unusually strong and futures prices appear to have upside potential, there may be favorable opportunities to price with basis contracts.

With these market conditions, however, producers should be aware that a few cents gain in basis could be quickly offset by a drop in the level of prices. Producers who use basis contracts should be aware that a similar position would exist if they sold grain and retained ownership through futures contracts.

The futures market equivalent would be to sell the grain, and buy futures contracts for later delivery, for example, July futures contracts. Using the futures purchase alternative:

- the producer would get 100 percent of the value of the grain at time of delivery to the buyer, thus eliminating risk exposure in case of later bankruptcy of the elevator, and
- the producer rather than the elevator would be responsible for margin deposits and margin calls on the futures position. Because of basis differences, these positions will not exactly follow local cash price movements.

Details to look for in a basis contract

Typical contract details apply to basis contracts. (See *About Grain Contracting: Commonly Used Grain Contracts*, PM-1697a.) At a minimum, the written contract should specify:

- the quantity of grain sold,
- the time and place it was or will be delivered,
- its grade,
- the formula to be used in establishing the net price, and the futures contract month to be used for pricing,
- the length of time the seller has to choose his or her price,
- signatures of both the buyer and the seller, and
- the date the contract was signed.

If the grain has not yet been delivered, procedures for adjusting the price for quality variations also should be included. Contract provisions may vary from one elevator or processor to another, and may include other items not listed here. Some states require a statement related to risk exposure because of the credit-sale nature of these contracts.

Basis contracts sometimes include details on a partial advance payment to the producer at the time the grain is delivered to the buyer. The size of the cash payment or whether one is made at all may depend on the buyer and market volatility. Advance payments of 60 to 70 percent or more of the value of the grain sometimes have been made on these contracts. Also, some buyers may have a service charge on basis contracts. For others, costs of providing this service may be built into the basis that will be used to determine the net price.

Cautions in basis contracts

Basis contracts allow the producer to protect only a small part of the price risk, namely the basis. The net position is nearly identical to that from purchases of an equal amount of futures contracts. In basis contracts, the elevator holds the futures position for the producer, but the producer is obligated for financial losses in the futures position.

Spread risk is involved if the producer expects a basis contract entered into at harvest and placed in July futures to precisely follow movements in cash prices. In years of tight supplies, nearby futures can rise above July futures, thus increasing the cash price but not necessarily the basis contract price. This situation is known as an inverted market, and is not a desirable market environment for use of basis contracts.

Occasionally basis contracts are rolled forward to provide a longer period for producers to wait for higher prices. (See example 1.) When these contracts are rolled to later delivery months than originally specified, exposure to additional spread risk can be involved. If the rolls are from one crop year to the next, risk exposure can be large. Risk exposure occurs when nearby futures and cash prices do not follow the movement of distant futures prices. For example, in June 1996, if a basis contract had been moved from July to September or December futures, it would have been unable to match the strong old-crop cash price movements during the summer.

Conclusions

Basis contracts add flexibility to producer marketing of grain and soybeans. While they are not useful every year, basis contracts can be a helpful marketing tool at times when the basis is much stronger than normal and when market conditions suggest a further rise in prices is quite likely.

Example 1. Rolling a basis contract

On September 26, a producer sold early-harvested soybeans on a basis contract.

- Cash price was $7.70 per bushel; basis was $0.21 under November futures
- Futures prices were November, $7.91; January, $8.00; July, $8.01
- Elevator buys July futures, $8.01/bu.
- Producer enters basis contract at $0.25 under July futures; has until June 20 to select price
- Producer takes partial cash payment, 80% of current contract price of $7.76 ($6.20/bu.)

The December 26 cash price was $6.71 per bushel.

- January futures price was $7.02; July, 6.90
- Contract price (if priced December 26), $6.65

Note: the basis contract would yield $0.06 less than the cash market, $1.11 less than the September 26 contract value, and $1.05 less than the September 26 cash price. The $0.06 less than the current cash price would be due to January-July spread deteriorating (from +$0.01 in September to –$0.12 in December), partially offset by a stronger contract basis than current cash basis

- Spread deteriorated by $0.13; current spread was –$0.12
- Contract basis was –$0.25 vs. –$0.31 for cash basis (a gain of $0.06 vs. cash market)
- Net vs. cash price (–$0.12 spread + $0.06 better basis = –$.06)

On June 20, the producer wanted to delay pricing, waiting for the summer weather market.

- Cash price was $6.70
- Producer rolled contract to September futures, has until August 20 to choose price
- Elevator sold July futures at $6.90, has loss of $1.11 on trade ($8.01–$6.90=$1.11)
- Elevator bought September futures, $6.70 (July-September spread, –$0.20)

On August 18, the producer priced the soybeans and the elevator sold September futures at $6.20, for a loss of $0.50.

Elevator's net futures position

–$1.11	Loss on July trade
–0.50	Loss on September futures
–$1.61	Combined loss on futures

Elevator's cost of beans

$5.95
+$1.61
$7.56*

*Per bushel, $0.20 below previous September contract value because of July-September spread at –$0.20, which was not expected when contract was signed

On August 18, the producer priced out the contract.

- Cash soybeans at $7.00 because of tight old-crop supply
- September futures at $6.20 because of expected early harvest

Producer's net contract price

$6.20
–0.25
$5.95**

**Per bushel, $0.25 below the partial payment received the previous September; producer owes elevator $0.25 (plus any charge for rolling the position)

If you use basis contracts, be aware of your exposure to price risk and risk on the unpaid value of the grain in case of a possible elevator financial failure. In fact, in a highly volatile market, your risk exposure can include part of an advance payment on these contracts if an advance was made. *Before* you sign the contract, be sure you understand the pricing formula to be used and the futures contract month that will be used to determine your net price.

If you run into an unusual situation where rolling of basis contracts is allowed, be aware of the price and spread risks involved *before* you roll. Finally, keep in mind that basis contracts manage only one of the three components of price risk—the basis.

Price-level risk typically is much greater than basis risk, and spread risks can also be far greater than basis risk, depending on market conditions and the length of time you as a seller are given for selecting your price.

To a small degree then, basis contracts are a risk management tool. To a much larger degree, they involve risks inherent in storing unpriced grain. In some cases, risks on these contracts can exceed those from unpriced storage.

Disclaimer

This pamphlet provides educational information to help you understand risk-management features of grain contracts. It is neither a legal document nor an endorsement of any type of contract. Contract details vary. Some contracts may have provisions not included here. Understand a contract *before* you sign it. Seek professional assistance if there are details you do not understand. Before entering into the contract, each individual should evaluate his or her risk exposure with extreme market movements.

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