

# COMMODITY CHALLENGE

## Section II Basic Pricing Tools

### Chapter 11: Forward Contracts and Other Pricing Alternatives

#### Learning objectives

- Learn about other grain pricing alternatives
- Understand the pros and cons of different pricing tools

#### Key terms

**Forward contract:** A cash market transaction in which a seller agrees to deliver a cash commodity to a buyer at some point in the future.

**Hedge-to-arrive contract:** A contract where the futures price is set, but the basis level is set later (typically before delivery). A producer might use this contract when futures prices are good but the basis is not.

**Basis contract:** A contract where basis is set, but futures prices are set later. A producer might use this contract when basis is good but futures prices are not.

**Delayed price contract:** A contract where the producer delivers grain to the buyer with discretion to set the price later, up until the final delayed pricing date (usually giving up title to the grain).

Selling futures contracts is just one way to price grain, and it is far from simple. We started there because futures markets play a central role in establishing prices and in risk management. There are other, simpler, pricing alternatives available to producers. Not all of these alternatives are available to players in Commodity Challenge. We start with the most simple of all pricing alternatives; cash grain sales and storing unpriced grain.

Cash grain sale: Once harvest is completed, there is a lot to be said for a simple cash sale of grain as a pricing choice. Cash grain sales eliminate storage costs and involve no fees. If the price works for you, it's hard to go wrong making a cash sale. The only negative is that once grain is sold, you can no longer enjoy higher prices and revenues, if prices trend higher.

Storing unpriced grain: Another choice after harvest is to store unpriced grain. Grain in storage is both an opportunity (if prices trend higher) and a risk (if prices trend lower). You must also consider the cost to holding grain in storage, which can be 3-8 cents/bu. per month, depending if you store grain on the farm or in a local elevator.

Beyond a simple cash sale or the decision to hold grain in storage, grain producers have a host of other pricing alternatives. These include a forward contract, a hedge-to-arrive contract, the basis contract and a delayed-price contract. When sorting through these alternatives, it helps to have a solid understanding of carrying charges and basis.

**Forward contract:** A forward contract is a cash market transaction in which a seller agrees to deliver a cash commodity to a buyer at a specific time in the future. Grain elevators routinely offer forward contracts to producers. These forward contracts may be an opportunity to establish a harvest price for a crop just planted. They may also be a chance to establish a price for grain stored at harvest, for delivery in the months ahead. For grain producers, the advantages of a forward cash contract include:

- Final price for grain is known
- Size of the contract is flexible (unlike the 5,000 bushel futures contract)
- No need for a margin deposit and no margin calls

The two main disadvantages of the forward contract are institutional risk and the challenge of a poor basis in the forward contract price. Institutional risk is a fancy term for the risk that the grain buyer goes bankrupt before they can fulfill their end of the contract. Bankruptcy is not common, but the risk is there and it is your duty as a producer and a seller to know the party on the other side of your contract.

The challenge of getting a poor basis in the forward contract price is a more common problem. If you are comfortable with handling margins on futures contracts, the pricing choice between a forward contract or hedging with futures contracts is a matter of basis. Basis is the key! Your understanding and expectations about basis in your market should be a deciding factor.

To illustrate the importance of basis, consider this example. It is early June. Planting is complete and you are considering a chance to price new crop corn using a forward contract that calls for delivery at harvest. December (new crop) corn futures are trading at \$5.00/bu. and your local elevator is bidding \$4.60/bu. The new crop basis is 40 cents/bu. “under” the December contract (\$4.60 - \$5.00). The question for you is simple: Is 40 cents under a good basis for harvest delivery? For central Minnesota, 40 cents under is a good bid. For southern Illinois, 40 cents under is a poor bid. Only you can answer this question, and only if you know the basis history in your local market.

If 40 cents under is a good basis in your part of the Corn Belt, you can forward contract at \$4.60/bu. with confidence. If 40 cents under is not good, then forward contracting at \$4.60/bu. may not be very appealing. Your alternative is to hedge with futures contracts, or consider the use of a hedge-to-arrive contract.

Hedge-to-arrive contract (aka futures fixed contract or basis-not-established contract): The hedge-to-arrive (HTA) contract was developed as a hybrid contract that would feature the best aspects of a forward contract with the basis flexibility available to sellers of futures contracts. In an HTA contract, the futures price is written in as the base price, determined when the contract is signed. Basis is set later and typically before delivery.

Mathematically, the HTA contract is just like selling futures, but the brokerage fee is replaced by an elevator fee.

$$\text{futures price (when sold)} + \text{expected basis} - \text{HTA fees} = \text{expected price}$$

The fees charged for an HTA contract vary widely, often depending on how far out the producer wants to price grain. If it is July and you want to use an HTA contract to price new crop soybeans for October harvest delivery, there is a chance that your local elevator will offer that contract at no cost. More likely they will ask for about 5 cents per bushel. If you want to use an HTA contract to price grain one or two years ahead of harvest, the elevator may choose not to offer the contract. Or, if they do, they may ask for 10 cents per bushel or more in fees.

*Commodity Challenge does not offer the opportunity to use HTA contracts.*

Basis contract: With a basis contract, the producer and the elevator agree on the basis for grain delivery in some later period. Futures are set when the producer chooses to price the grain.

The basis contract is not very common, and it is not a very good risk management tool. Keep in mind that of the two pieces that make up a cash price - futures and basis – basis is typically the smallest piece. Finding 15 cents in a favorable basis contract will be small comfort if futures prices fall by \$1/bu. That said, it can be a good alternative when the basis is good and there is reason to believe futures prices will move higher.

*Commodity Challenge does not offer the opportunity to use basis contracts.*

Delayed price contract (aka price later contract): The producer sells the grain but does not set the price (futures or basis). The elevator takes ownership of the grain, often offering free storage to producers as an incentive to use the contract. Delayed price (DP) contracts are most common at harvest, when prices are low and storage scarce. The DP contract allows farmers to move grain to the elevator without locking into a price.

Warning! If a buyer of DP grain has financial difficulties, the producer will soon discover they are an unsecured lender. The DP contract is the "Hail Mary" pass of grain marketing -- the alternative for producers with no other alternatives. It makes sense only if the basis and futures prices are exceedingly weak.

*Commodity Challenge does not offer the opportunity to use delayed price contracts.*

## Basic Pricing Tools

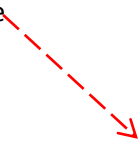
### Chapter 11: Forward and HTA contracts

### **Further reading**

Self-Study Guide to Hedging with Grain and Oilseed Futures and Options (handbook), CME Group, April 2012 <http://www.cmegroup.com/trading/agricultural/self-study-guide-to-hedging-with-grain-and-oilseed-futures-and-options.html>

### **Exercise #11**

A simple matching exercise - connect the function with the correct alternative pricing tool by drawing a line (the basis contract is shown):

- |   |                          |
|---|--------------------------|
| 1. Locks in the difference between the cash and futures price | Forward Contract         |
| 2. Contract that sets the futures price                       | Cash Grain Sale          |
| 3. Established price and basis for immediate delivery         | Basis Contract           |
| 4. Locks in cash price for later delivery                     | Delayed Price Contract   |
| 5. Cash grain is held without price protection                | Hedge-To-Arrive Contract |
| 6. Futures and basis is set later; elevator owns grain        | Storing unpriced grain   |
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### **Basic Pricing Tools**

Chapter 11: Forward and HTA contracts

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