Understanding Risk in Hedge-to-Arrive Contracts

The potential for risk rises dramatically as hedge-to-arrive contracts become complex.

Hedge-to-arrive (HTA) contracts came into use in the Corn Belt in the early 1990s. There are two main types of futures-based HTAs, ranging from a non-roll HTA contract with a relatively simple two-decision version to a slightly more complex intra-year rolling HTA contract that is limited to the typical crop marketing year annually (September 1 through August 31). Thus, September 1 is the start of the new crop marketing year. Since harvest in the Corn Belt typically does not start until late September or early October, farmers using HTA contracts for harvest delivery prices typically utilize December corn and November soybean futures contracts, respectively.

Non-roll HTAs remove price-level risk but involve exposure to basis risk — the risk that the difference between local cash prices and the nearby futures price will move in an adverse direction and lower the producer's net price received. **Basis risk is typically relatively small but can be sizable in times of extreme weather problems, inadequate storage space, transportation problems, and demand shocks. Spread risk (differences in various futures price delivery months) is not involved with these contracts.**

Intra-year HTAs involve exposure to both basis risk and intra-year spread risk. Intra-year spreads (differences in various futures prices delivery months) are more typical in years when supplies are incredibly tight.

Inter-year spreads can be extremely volatile and involve significant exposure to futures prices and spread risk. These contracts are no longer offered by the grain industry. For an explanation of these types of risk, see Commonly Used Grain Contracts, *A2-73/FM 1905*, www.extension.iastate.edu/agdm/crops/pdf/a2-73.pdf.

Non-roll HTAs

These contracts originally were offered as an alternative to basis contracts, in which the basis is set at the start of the contract. Still, the producer is given an extended time to choose his or her price level, as reflected by the futures market. In contrast, non-roll HTAs set the futures price at the start of the contract but leave the basis to be set later. Non-roll HTAs are quite like cash forward contracts, except that the basis is established at a time the producer chooses, but usually before the delivery of the actual grain. The elevator or processor that initiates the contract covers the position by selling futures contracts and is exposed to margin calls if futures prices move in an adverse direction. The producer, rather than the elevator or processor, carries the basis risk. The main difference between non-roll HTAs and forward cash contracts is basis change with its potential for a higher, or lower final cash price received reflecting the final basis accepted.

Non-roll HTAs require a specific quantity and quality of grain to be delivered at a predetermined date and place that cannot be changed. The only decision that's remaining after the contract is signed when to set the basis. **Non-roll HTA contracts for corn and soybeans can be for delivery in the current crop year or delivery of the next two years of crops.** Delivery in later crop years is possible because the Chicago Mercantile Exchange has simultaneous trading of harvest-delivery futures contracts for three different crop years. Hence, an elevator or processer could simultaneously offer non-roll corn HTAs for fall 2020 delivery based on December 2020 corn futures contracts. Also, both 2021 and 2022 corn non-roll HTAs are based on December 2021 and 2022 corn futures contract prices.

Basis risk is the leading market risk for the producer using non-roll HTA contracts. Basis risk is typically much smaller than price-level risk. Like a forward cash contract, non-roll HTAs prevent the producer from benefiting if futures prices rise but protect against declining futures prices. If the basis strengthens from the start of the contract to the time the producer sets the basis, the net price will increase from what was available when the contract

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was initiated. If the basis weakens, the net price to the producer will decline. To effectively use these contracts, the producer must have a good understanding of the local basis and factors affecting it. He or she also must monitor the basis and be able to decide when the basis will be set.

Intra-year rolling HTAs

These contracts are like non-roll HTAs except that the delivery date can be changed to another time within the same crop marketing year (September to August). This flexibility in delivery dates creates exposure to intra-year spread risk, which is usually small. However, caution should be used when rolling old-crop contracts to new crop contract months. Typically, September corn and September soybean futures contracts are the start of a new crop marketing year.

With this type of contract, potential price gains come only from basis improvement or rolling the price up a few cents to a later-delivery old-crop futures month. Neither of these sources of higher prices is guaranteed. Both involve risk, and both can result in lower net cash prices. These contracts lock in a level of futures prices and prevent gaining from a rising futures market.

Intra-year rolling HTAs are more complex than non-roll HTAs because the producer must decide when to set the basis and when to roll the contract. Risk exposure is typically greater because the intra-year rolling HTA contracts include both basis risk and intra-year spread risk.

In spring 1996, the Commodity Futures Trading Commission (CFTC), the regulatory agency for commodity futures markets, issued guidelines discouraging the use of HTAs that allow inter-year rolling. Regulatory review and pending litigation altered the future use of these inter-roll and multi-year inter-roll HTAs. The grain industry no longer provides this type of inter-year roll HTA contracts. In short, considerable risk exposure was involved with inter-year rolling HTA contracts and created a stigma that lasted for decades.

Conclusions

There are two main types of futures-based HTA grain contracts offered by most elevators and processors throughout the Corn Belt. One is a non-roll HTA contract with a relatively simple two-decision process initiating the futures price first and then later fixing the basis. The other is an intra-year rolling HTA contract, which has both basis risk as well as intra-year spread risk.

This particular contract is typically limited by the time frame of a crop marketing year that runs annually from September 1 through August 31.

Disclaimer

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

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