

Trading Trends

Reduce **Basis Risk** with MGEX Index Futures

In late 2004, anyone who bought or sold spring wheat learned all about cash market divergence.

During this period, cash prices soared to historically high premiums when compared to MGEX spring wheat futures. This divergence between cash market prices and futures prices is more often referred to as *basis risk*, and this situation can throw a monkey wrench into even the best-made marketing plans.

Basis, the difference between the local cash price and the corresponding futures price, is attributed to local supply and demand, freight rates and other elements.

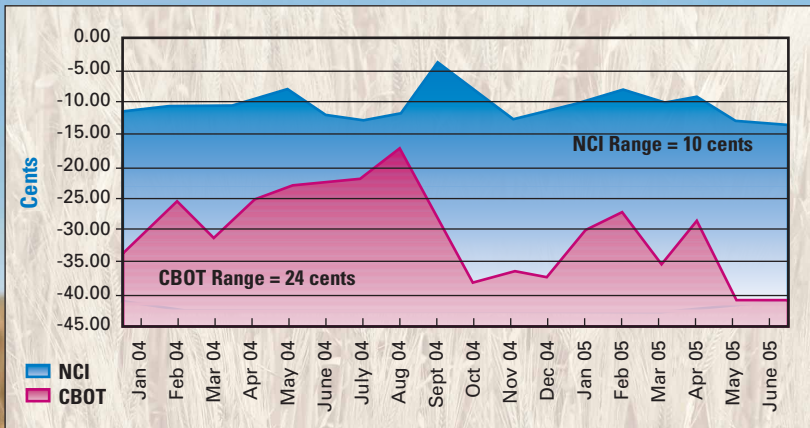
If you use deliverable futures, options on these futures, minimum price contracts, or other similar hedging tools to price your crop, you may find yourself

with an ineffective hedge when your local basis becomes volatile.

Until recently, managing the basis has meant resorting to illiquid paper markets, cash purchases or sales, and even Lady Luck. However, MGEX (Minneapolis Grain Exchange) now offers five futures contracts that promise to reduce the effects of cash market divergence.

These financially settled contracts are based on underlying indexes calculated by Data Transmission Network (DTN) for hard red spring wheat (HRSI), hard red winter wheat (HRWI), soft red winter wheat (SRWI), corn (NCI) and soybeans (NSI). The indexes are a simple average of U.S. elevator bids, so they tend to offer a truer representation of cash prices than traditional deliverable contracts.

CHART 1: North Central Iowa Corn Basis, 2004-2005



For farmers, country elevators, feed mills and others who supply or originate grain in the country, this means better price risk protection when they hedge.

Two recent examples

One primary reason for cash market divergence is fluctuating local supply and demand fundamentals. Futures markets tend to better reflect international pricing, while the price at your elevator may be more influenced by varying local factors.

Dr. Dwight Sanders, assistant professor of agricultural economics at Southern Illinois University, says the corn market has experienced cash market divergence in recent years for another reason: increased use of corn for ethanol.

Demand for corn from ethanol plants has begun to change corn market dynamics, because the Chicago Board of Trade (CBOT) delivery points aren't as affected by this new demand as are country locations.

"Ethanol plants can impact the local corn basis without impacting the Illinois River price that underlies the CBOT contract," he explains. "As the ethanol industry continues to expand, this effect may become more pronounced."

To illustrate the volatility in the corn basis, Sanders refers to a chart of the corn basis in North Central Iowa (Chart 1).

This chart shows that the range (or variability) for the National Corn Index (NCI) corn basis in North Central Iowa is less than one-half that of the basis

for the CBOT corn contract. The CBOT corn basis fluctuated in a range of 24 cents over the past 18 months, while the NCI stayed in a relatively narrow 10-cent range.

"This suggests that hedgers will have a more predictable basis and better hedging results using the NCI," Sanders says.

2004 spring wheat gyrations

Another even more extreme example of basis risk occurred in the spring wheat market during the latter half of 2004. Quality issues with the crop caused a spike in the price of higher protein cash wheat, and as a result, cash prices traded at historically high premiums to the deliverable futures market.

Chart 2 shows just how strong the spring wheat cash market was during this period (as measured by the hard red spring wheat index) when compared with deliverable futures (nearby MGEX hard red spring wheat futures contract). This chart illustrates how the HRSI soared to a substantial premium to MGEX, while during the previous five years HRSI typically traded at a 10 to 30 cent per bushel *discount* to the deliverable futures.

In this instance, as in the corn illustration above, the HRSI basis volatility was about one-half of that for the MGEX spring wheat contract, Sanders points out. "In this case, neither hedge was perfect, but the HRSI still did a better job of tracking the country price."

MGEX index futures and their deliverable counterparts.

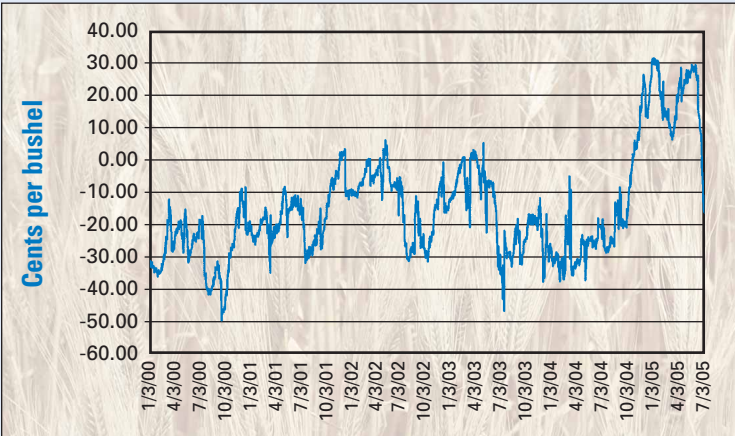
Index

HRWI (Hard Red Winter Wheat Index)
HRSI (Hard Red Spring Wheat Index)
SRWI (Soft Red Winter Wheat Index)
NCI (National Corn Index)
NSI (National Soybean Index)

Deliverable counterpart

Kansas City Board of Trade wheat
Minneapolis Grain Exchange wheat
Chicago Board of Trade wheat
Chicago Board of Trade corn
Chicago Board of Trade soybeans

CHART 2: HRSI Minus Nearby MW Futures



Utilizing index contracts

Repeatedly, research shows that MGEX Index contracts tend to better reflect country prices because of the way they are calculated and the way they are settled.

1. MGEX Index futures are based on a simple average of country elevator prices, offering a truer representation of prices at your elevator.
2. MGEX Index futures settle to a financial value (the three-day average of the cash price of the underlying commodity), which guarantees convergence. As a result, there are no delivery specifications, storage costs, grade differentials or load-out costs. In fact, delivery is not a choice.

When MGEX Index futures and options are used to counteract cash market divergence, the most straightforward use is as a simple hedge. For example, to price ahead, a farmer would sell Index futures contracts or buy an Index put option. That same farmer also could sell cash grain at the local elevator, and then replace that grain on paper by buying Index futures or call options.

A second effective trade to offset cash market divergence is to execute a spread trade. This trade can be particularly effective for farmers who prefer to utilize minimum price contracts or forward contracts.

For example, say a farmer wanted to forward contract a portion of his crop, but at the time the local basis was weak. In this case, the farmer could forward contract to lock in a price for his cash grain, and at the same time buy HRSI futures and simultaneously sell MGEX hard red spring wheat futures. This allows the farmer to create a synthetic basis contract and offset any extreme moves in the cash price.

In this example, because the basis was weak, the farmer would look to create a synthetic long basis position, by **buying MGEX HRSI** futures and **selling MGEX deliverable** hard red spring wheat futures.

Conversely, to create a synthetic **short** basis position, **sell MGEX** index futures and **buy deliverable** futures.

Additional information

For more information on using these innovative new contracts, check with your broker or contact MGEX. We offer information through the Web at www.MGEX.com, or by regular mail to help you better understand how these products may work for your marketing program. For a free information packet call MGEX at 612-321-7101.

New Options Contracts **Promise** to **Save on Premium**

A study completed by Dr. Dwight Sanders, assistant professor of agricultural economics at Southern Illinois University, shows MGEX index-based options can provide a premium savings of 1 to 4 cents (or around 10%) over comparable traditional options. This pricing advantage coupled with operational advantages make MGEX options a preferred hedging vehicle in many instances, the study concludes.

There are a few reasons why MGEX options premiums are lower, Sanders says, but a primary fact is that traditional futures prices include a component in their price to transport the product from the country elevator to the terminal market.

"Options premiums are based in large part on the price of the futures contract," he explains. "Traditional futures contracts include a transportation component (known as the basis), which inflates the price." Because MGEX futures do not include this transportation component, the futures price is lower and the option premium is lower as well.

Sanders further points out that because these options expire monthly and since there is no delivery period (because the contracts are settled financially rather than through deliveries) growers can more closely match an option expiration with cash sales dates, obtaining a better hedge and avoiding purchase of unneeded time value. They also don't need to worry about deliveries.

"For example, assume on May 15 a grower looks to hedge a cash corn transaction expected to occur on September 30," he says. "If the grower used the traditional corn contract, the hedge would be placed in December options because the September options contract expires in August. With NCI options, the September contract is used."

This grower saves money by using the NCI September option because time value is an important component of an option's price, and the further an option is from its expiration, the more it costs.

A link to Sanders' complete study is available on-line at www.MGEX.com.



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