NCI Storage Hedge

Can grain merchandisers use the National Corn Index (NCI) futures contract to place a storage hedge? Hedgers rely on predictable basis levels and a reliable convergence between cash and futures markets to make merchandising decisions. Specifically, a predictable cash-futures convergence is necessary for hedgers to profit from a strengthening basis when placing harvest-time storage hedges.

Here we utilize the 2000-2006 period to compare the NCI and CBOT basis. Historically, the spot NCI has provided a very stable basis in major growing regions, such as North Central Iowa. Figure 1 shows the historical basis levels for both the NCI and the CBOT corn in North Central Iowa. As shown, the NCI basis is fairly stable with North Central Iowa cash prices usually 10 to 20 cents under the spot NCI. The CBOT basis generally has a larger range of 20 to 40 cents, or more.

**Figure 1. North Central Iowa Corn Basis, 2000-2006***

A storage hedge entails a long cash position (grain in storage) hedged with a short futures position. The merchandiser essentially has a long basis position, and the appreciation in the basis is the return to storage. Figure 2 shows the basis appreciation for a storage hedge placed in the November NCI futures contract during the first part of October, 2006 and held through November, 2006. This period is chosen because there was active trading in the NCI.

As expected from Figure 1, the expiration-time basis is close to -10 cents. The basis strengthened by nearly 20 cents, providing the merchandiser with a reasonable return to the two-month storage hedge. Because of the stability of the NCI basis (see Figure 1), the merchandiser can have considerable confidence in the outcome of the NCI futures hedge.
As a comparison, Figure 3 shows the basis pattern for a storage hedge place in the December CBOT corn futures.

The CBOT corn futures also resulted in a steady increase of the North Central Iowa basis of 15-20 cents per bushel. The NCI futures provided essentially the same return to the storage hedge as the CBOT futures; however, it did so with less overall basis risk (uncertainty) as shown in Figure 1.
As shown in Figure 4 for the years 2007-2011, the spot NCI has continued to have a fairly stable basis in the -10 to +10 range for North Central Iowa. Over the same time period, the CBOT basis generally has been more volatile with a larger range from -10 to -60. The NCI has a history of stable and consistent basis patterns. This suggests merchandisers can utilize the NCI futures for storage hedges that are just as profitable as those in the CBOT contract but with a more certain outcome.

Figure 4. North Central Iowa Corn Basis, 2007-2011

Because they are financially-settled, the NCI futures contracts provide long or short hedgers with a more stable and predictable basis. Merchandisers, in this instance, should consider adding the NCI futures to their risk management program.

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