The road to revenue

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Elevator owners often spend years making modest returns. Occasionally the market offers chances to make significant merchandising revenue, and firms should think hard before passing on such opportunities. It may entail taking on positions that others may shun — carrying hedged grain across crop years, for example — or shorting delayed price inventory. These opportunities could be a result of extreme basis swings, or of modest basis moves and wide futures spreads (carries or inverses). Spreads and basis are, after all, two sides of the same coin: The market carry.

The grain industry has now seen several years of good long-basis revenue opportunities in wheat and corn. The returns in many areas are as high as what elevators earned from CCC stocks in the mid-1980s. Futures spreads have played a large part in this run of success. (See Graphs 1 - 3 on page 66.)

Figure one: *Full carry example*

CBOT corn: *December 2000/March 2001 spread*
Time: *3 months, (December 1 to March 1)*
Interest rate: *LIBOR +1%, estimated 7.8% total*
Price: *December corn = $2.00*
Costs: *"Storage" 3¢/month (10/100¢/day) on the Illinois River*
Delivery cost varies by brokerage firm, estimated 1/2¢ total

Full carry calculation (Illinois River locations):

Interest = ($2.00 x 7.8%) / 12 x 3 months	*= 3.9¢*
Delivery cost/commission	*= .5¢ estimated*
"Storage" = 3¢ x 3 months	*= 9¢*
"Full carry" at 7.8% interest	*= 13.4¢ December/March*

Figure two: *Example TXG hard wheat basis (holding from 7/98 until 7/00)*

Time	Basis	Basis gain (cumulative)	Futures carry (cumulative)	Interest cost (approximate)	Net return	Return/month
7/98	+28 July 98					
11/98	+38 Dec 98	+10¢	23¢ Jul 98/Dec 98	9¢	24¢	4.8¢
7/99	-0- July 99	-28¢	56¢ Jul 98/Jul 99	28¢	-0-	-0-
2/00	+35 March 00	+7¢	99¢ Jul 98/Mar 00	44¢	62¢	3.3¢
7/00	+20 Sep 00	-8¢	129¢ Jul 98/Sep 00	57¢	64¢	2.7¢
11/00	est. +35 Dec 00	+7¢	143¢ Jul 98/Dec 00	67¢	76¢	2.7¢

**Excluding bin costs and hedging expense. Interest figured at 9.5% until 2000, and 11% this year.*

Soybeans seldom offer sizable net returns for long-term basis ownership, but often provide good short-term trading opportunities. Owning hedged soybeans for four to eight weeks after harvest generally pays well, and selling delayed price inventory can generate serious profits in some years.

Graphs 1 through 3 (on page 66) reflect cumulative crop year futures spreads on first notice day of each contract month, e.g., the last business day of November for December/March corn, excluding hedging costs. For example, Kansas City July 1999/September 1999 wheat was a 10-cent carry. The light blue section at the top of each bar is the old-crop/new-crop portion of the 12-month crop year. The 1999 crop Kansas City wheat futures carries totaled 63 cents (July 1999/July 2000). Interest might cost a typical elevator 22 cents to 23 cents for the 1999 crop; spreads offered more than 40 cents above that, excluding any basis appreciation!

In recent years, Western elevators could have owned wheat for over two years and done very well. Unfortunately, some managers don't like holding wheat for long periods, but empty bins generate nothing. Figure 2 is an illustration of how hard red wheat ownership has performed since 1998, using published basis bids, and rolling hedges on first notice day.

The returns of 2.7 cents to more than 3 cents/month bring in 31 cents to 42 cents/year after interest, substantially higher than most elevators earn from farmer storage. An elevator that held 500,000 bushels of hedged wheat from July 1998 until February 2000 earned $310,000 for the facility, after interest. (Soft red wheat returns are even more impressive than hard red wheat.) Not all facilities have space to hold both wheat and corn, or to hold more than one crop; but there have been excellent merchandising opportunities for firms with space and money.

Rules of the road

Graphs 1 through 3 show spreads on "first notice day," but opportunities (and risks) exist

every day. Elevator managers often struggle to decide when to roll hedges, or when to preset any spread opportunities. Managers want to capture as large a carry as possible; yet you face the risk a futures carry will narrow or invert suddenly, removing the return for holding hedged inventories. This can trap elevators if the nearby basis is weak, or if transportation is not available, and unravel a long-term merchandising plan.

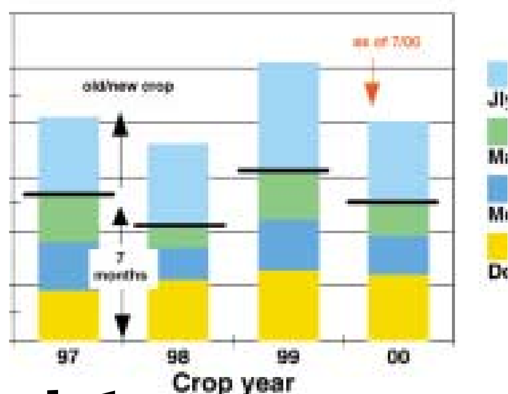
There are two important guidelines to remember:

1. There is no limit to how far a futures spread can invert (nearby month higher than deferred).

2. There is a reasonably definable limit to a futures carry ("full-carry").

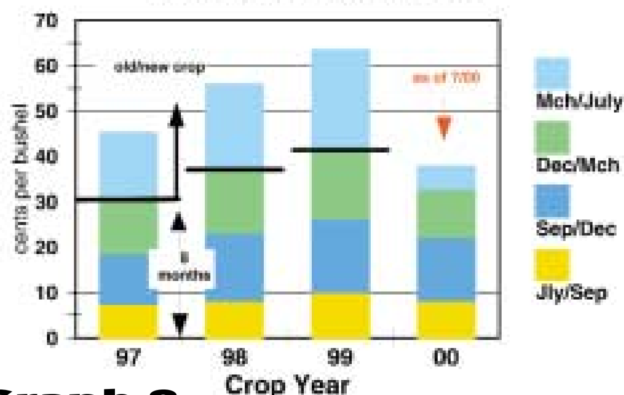
The "full-carry" concept refers to the futures spread value where all costs are covered and a competitive market-interest rate for secure instruments can be earned. There is no defined interest rate to use, but 1% over LIBOR (London Interbank Offered Rates) is a reasonable choice. You could also use a 1% to 2% premium over 90-day T-bills for approximate calculations. Full-carry is calculated from the first possible day to take delivery to the first possible day the warehouse receipts or shipping certificates could be redelivered against the next futures month. See Figure 1 for an example on page 63. (For quick calculations this example assumes 30-day months.)

Futures Carries
First Notice Day: CBOT Corn



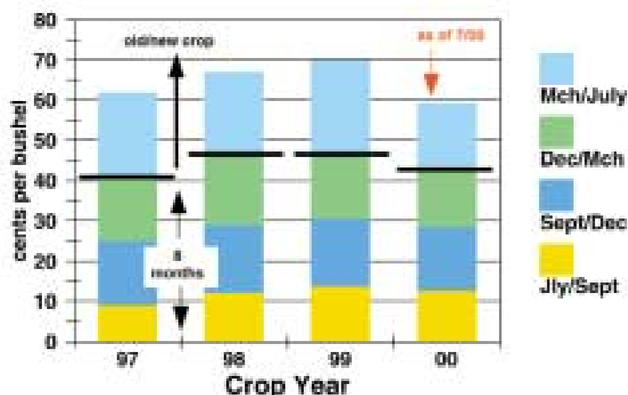
Graph 1

Futures carries
First Notice Day: KC Wheat



Graph 2

Futures Carries
First Notice Day: CBOT Wheat



Graph 3

When to act

As a spread nears full-carry, holding short hedges in nearby futures exposes you to unmeasurable risk for little possible gain. Consider several factors in deciding when to lock in a carry:

- Time remaining until the delivery month. On Nov. 15, there are only two weeks of "risk" in waiting on a December/March spread. In July, you have more than five months of "time risk."
- Consider the general direction of price and interest rates. Higher prices and/or higher market interest rates can push full-carry slightly higher.
- Consider the general fundamental situation: If stocks are abundant and a big crop is coming, time-risk may pose little *probability* of a spread narrowing, but the risk does exist.

The most conservative approach is to protect any spread if you're developing a long-term merchandising plan where the success depends on the futures spread.

2000 crop

December 2000 to March 2001 corn at 12 cents in July 2000 is already within 1/2 cent of current full carry. The only thing that could increase full carry here is if (1) futures rally, or (2) interest rates rise sharply. Elevators that plan to acquire and hold large quantities of corn past harvest should strongly consider locking in new-crop corn spreads when there's little left to gain by waiting. Locking in December 2000 to July 2001 at more than 25 cents to protect a long-term plan is another alternative. Rolling corn hedges via sequential spreads might earn an extra few cents over time for folks who are willing to gamble a little, but it is a classic "bird in the hand vs. two in the bush" trade-off.

Elevators that have large amounts of space can still make nice returns by buying and carrying hedged wheat and letting the futures carries cover their out-of-

pocket costs. Post-harvest basis appreciation can provide the icing on the cake. Moving wheat hedges forward into July 2001 won't obligate you to keep the inventory that long; it only offers a safe harbor by covering your interest costs if you choose to hold wheat. As corn harvest approaches, you can choose which commodity to carry if space becomes limited.

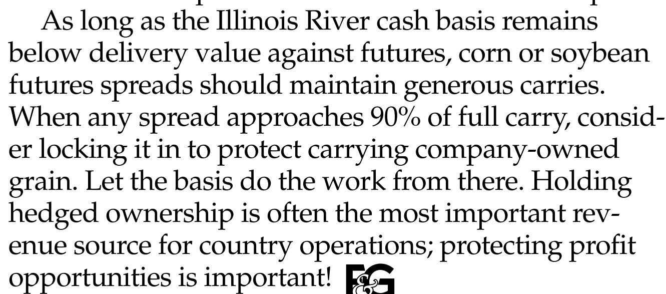
New guidelines for spreads in Chicago

The CBOT's new Illinois Waterway Delivery System (IWDS) has now been in effect on corn and soybean futures since January 2000. Under this system, delivery is made via shipping certificates rather than warehouse receipts, and the "storage rate" is slightly lower for river locations than in Chicago (10/100 cents/day vs. 15/100 cents before). All else equal, this slightly reduces full carry. On the other hand, under the new system, spreads have been able to approach full carry. With Chicago/Toledo warehouse receipt delivery in-store, corn futures seldom exceeded 70% to 75% of full carry. In the first few delivery cycles of the new IWDS, corn spreads have offered carries wider than seen in most years. December 2000/March 2001 was already trading at 90% of full carry in July.

Some industry people believe the storage rate for CBOT deliveries should be increased. Although this could allow for wider futures carries at times, it doesn't mean an elevator's overall cash carry must increase. Raising CBOT storage rates might shift some of the carry out of basis volatility and into spread volatility.

For the typical elevator the net economic impact should be negligible, although most country hedgers are better basis traders than spread traders and are not likely to favor greater spread volatility. (Companies that own delivery market space on the Illinois River, on the other hand, would certainly appreciate earning a higher 'storage' rate on the CBOT shipping certificates they issue.) In any case, any futures rate change could not be implemented until into the 2002 crop.

As long as the Illinois River cash basis remains below delivery value against futures, corn or soybean futures spreads should maintain generous carries. When any spread approaches 90% of full carry, consider locking it in to protect carrying company-owned grain. Let the basis do the work from there. Holding hedged ownership is often the most important revenue source for country operations; protecting profit opportunities is important!



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