



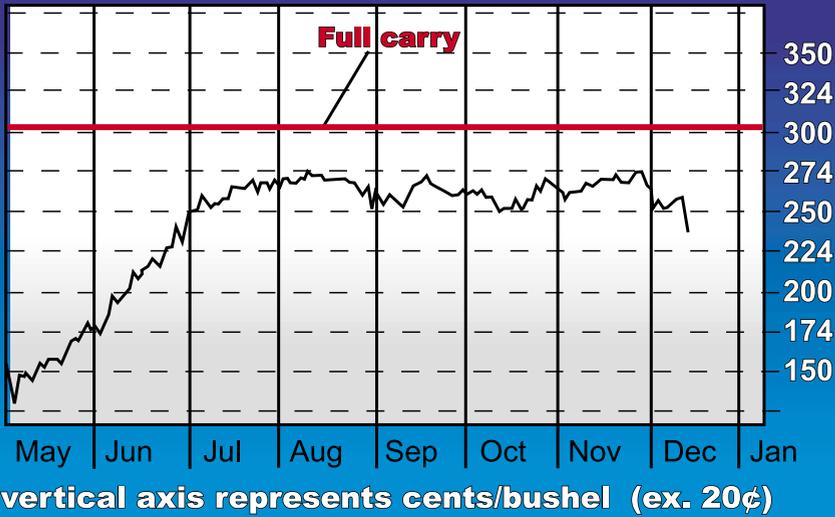
SPREAD *carry*

By Diana Klemme, Vice President, Grain Service Corp., Atlanta, GA

Harvest futures spreads are a key part of most elevators' merchandising programs. Elevators typically buy and hedge a large volume of grain before and at harvest, and look to spreads to pay their costs of carrying the ownership. The challenge is to decide when or at what value to set a carrying charge spread or to move short hedges to a deferred futures month. There's no single answer, and the decision process is partly art, partly science.

First, calculate the maximum potential carry for a spread, the value known as full carry (FC). Second, decide what percentage of FC you're willing to accept if opportunities arise. Is it 65%,

Chart 1 December 2000/July 2001 corn spread



Notice how far from Full Carry the 2001 crop spread is. Using 2000 crop spreads as a guide for this year may prove costly.

75%, or will you gamble, hoping for an even wider carry?

One factor in that calculation has changed for Chicago Board of Trade (CBOT) corn and soybeans. The CBOT recently approved an increase in the daily premium charge for delivery shipping certificates. (The premium charge on a shipping certificate is comparable to a daily storage charge on warehouse receipts.) That rate rises from \$.0010 per day on the Illinois River and at St. Louis (\$.0012 in Chicago and Burns Harbor) to \$.0015 per day for all locations. The new rate starts effective Nov. 1, 2001 for all new or outstanding CBOT shipping certificates. This increases Full Carry on CBOT corn and soybean futures spreads.

All else equal, Full Carry = (All daily costs of ownership + daily expected interest rate return) X number of days of the spread

The December/March corn spread is a three-month spread. A seller can deliver against December futures on December 1, and a long may be forced to take delivery on March 1, a time span of about 90 days. A November/January soybean spread is a two-month spread. When Day 1 of the front

month is reached, FC declines daily as the number of days to the deferred month declines (e.g., Dec. 10 to March 1 = 80 days).

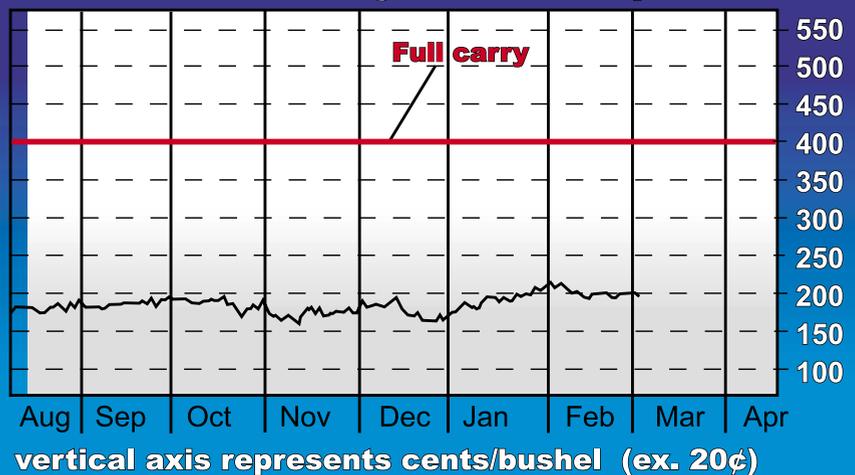
The interest rate to use in estimating full carry for a spread should reflect a realistic maximum return for using the delivery market as a short-term investment vehicle. In English, "At what interest rate would available investment capital flow away from other homes and start taking delivery of futures?"

Assume an investment adviser saw the December/March corn spread at 22¢. The adviser could buy futures, take delivery (even on Dec. 1), pay the 90-days' Premium Charge (storage equivalent) of 13.06¢ and redeliver on March 1. That would leave 8.9¢ return on the money for 90 days, or 35.6¢ for a year. That would be an investment return of 14.2%, far above the market for investments of comparable risk (e.g., 5% to 6% for three-month CDs, or 4.5% for T-Bills).

As a result, it's highly unlikely a 90-day corn spread could reach 22¢, given these parameters. Investment money would flow in, buying December futures and selling March as a spread. This in turn keeps the spread from reaching such wide levels. The three-month LIBOR (London Interbank Offer Rate) + 1/2 to 1% is a commonly used benchmark rate for general FC calculations. In our example, LIBOR was 5.2%, and we used 6.2% for the rate at which the futures delivery market should attract capital.

Keep in mind the impact of both slightly higher interest rates and the higher premium charge: Carrying charges could be larger this year. The new daily CBOT premium charge raises (theoretical)

Chart 2 December 2001/July 2002 corn spread



December 2001/July 2002 corn Full Carry is about 40¢ this year vs. 30¢ last year.

FC 4 1/2¢ per bushel on the December/March corn spread versus last year. It raises FC on the December 01/July 02 corn spread by 10 1/2¢ per bushel.

The reason for the CBOT change was ostensibly to enhance convergence, the coming together of cash and futures during the futures month at the delivery locations. If a spread is near full carry, and nearby cash weakness and selling exceed demand or space, there's another way to stop the cash movement. That is for the nearby basis to collapse to a point where enough people see enough return to shortstop the movement. (e.g., corn is stored on the ground, farmers fill little-used farm bins etc.)

With the higher premium (storage) charge, futures spreads can provide more of the carrying charge instead of making the basis do all the work.

Theoretical example:

	Old rate	Higher rate
Dec/July FC	27¢	35¢ (ex)
Oct basis	-15 Dec	-7 Dec
=	-42 July	-42 July

Note that the October basis, vs. December futures, is higher under the new rate: -7 Dec in this example. Yet the overall merchandising situation is really no different. In

both situations the elevator was buying corn in October at -42 July. Part of the carry just shifted from basis movement to the futures carry.

Another interesting thing is that the higher "storage" rate does increase Full Carry, but it doesn't guarantee the spot basis can't collapse anyway. If selling is heavy enough, the basis has to do whatever the spread can't do. Delivery does not set a floor on the cash basis. (It certainly hasn't in Kansas City Board of Trade wheat in recent years.)

Merchandising risk

For the country merchandiser, this new CBOT premium charge means that all else equal, when the basis is very weak, you should expect greater spread volatility on corn and soybeans, and somewhat less basis volatility.

Last year it was an easy decision to roll short corn hedges from December to March at 12 to 12 1/2¢ carry; that represented 92% of full carry. Waiting offered almost no chance of further gain (in the spread). This year, at 12¢, December/March could widen another 5¢.

Charts 1 and 2 show the December/July spread for 2000 and 2001 crop corn. Notice how far

from FC the 2001 crop spread is.

Merchandisers should already be watching new-crop corn and soybean spreads. Using 2000 crop spreads as a guide for this year may prove costly, however. Don't be quick to lock in spreads at levels because they were great last year. December 01/July 02 corn FC is about 40¢ this year vs. 30¢ last year. Watch the spread as a percentage of FC instead. When there's little left to gain in the spread (near FC), roll short hedges forward or preset the carry.

Be cautious also about assuming last year's basis values, relative to nearby futures, will be a valid barometer for 2001 crop corn and soybeans. All else equal, the potential for wider futures carries means spot basis values could be somewhat stronger relative to the nearby futures month. (e.g., October basis relative to November soybean futures, or December corn futures.)

Note: Spreads prior to Nov. 1 will also reflect this rate change on any portion from Nov.1 forward. For example, September 01/December 01 equals one month under the new rate. 

For more information contact Diana Klemme at (800) 845-7103 or e-mail: diana@grainservice.com.

Full Carry calculation: CBOT corn

		Factor or value	Old rate Example (Dec/March)	2001 Example (Dec/March)
Full carry		Futures price (first month)	\$2.50 (Dec)	\$2.50 (Dec)
	x	Investment interest rate (LIBOR + 1% is typical)	6.2%	6.2%
	÷	360 (days)	\$.000431/day	\$.000431/day
	+	1 day premium charge ("storage" rate)	\$.001/day	\$.0015/day
	=	1 day "Full Carry"	\$.001431/day	\$.001931/day
Full carry	x	Number of days in the spread	90 days	90 days
	+	Any other fixed cost		
	=		12.9¢/ bu.	17.4¢/ bu.

The CBOT increase in daily premium charge for delivery shipping certificates increases Full Carry on CBOT corn and soybean futures spreads.