

By Diana Klemme

Wheat: The road to convergence

Staring ahead while standing on a railroad, it appears the rails converge on the horizon. But as we walk forward, we find the convergence is an illusion and the rails remain as far apart as where we started. That separation is fine if you're running a railroad. It's not fine if you're hedging wheat, anticipating that cash and futures prices will come together; converge, when you reach the futures delivery month. Soft red wheat basis in many markets has resembled those railroad tracks for nearly two years — convergence remains elusive.

In the old days, hedgers expected the price of cash wheat in Chicago and Toledo in December, for example, would tend to be close to the December futures price. Convergence was less clear-cut at locations removed from Toledo and Chicago, influenced by other markets, quality issues and transportation. For the most part, hedging works because reasonable and reasonably predictable correlations have long existed between cash prices and futures. Lenders also count on this correlation and convergence to protect the relative value of the hedged collateral.

New factors

Investment money has increasingly moved into long commodity futures and options in recent years as a new asset class, for diversification and as a hedge against inflation. The strategies invest in an array of commodities from sugar to soybeans. But Chicago wheat is a much smaller futures market than corn or soybeans. Investment buying in wheat futures can proportionally have a much greater influence on price than in corn. By early 2008, index funds in CBT wheat owned over 1.1 billion bushels, 50% of *all* wheat longs, and three times the size of the entire U.S. soft red wheat crop! Little wonder wheat futures were significantly higher than cash.

(Note: There is minimal investment ownership in KC or Minneapolis wheat futures due to the low volume and liquidity in those markets.)

Wheat fundamentals also pushed CBT wheat futures higher during 2007 and 2008. U.S. ending

stocks of 2007 crop soft red wheat fell to 13% of usage, just 57 million bushels. By the fall of 2007, wheat futures had soared to \$9 and U.S. farmers responded with a surge in winter wheat acres. But production soared overseas as well, and demand for U.S. exports slowed. Domestic SRW cash prices declined to capture some export business and to price wheat into feed markets. Worse, significant quality problems in U.S. SRW lowered its value. Despite this new glut of wheat, investment money continued to tug futures higher. By mid 2008, cash basis plummeted to -\$1.50 and lower. U.S. farmers were furious with cash prices so cheap relative to futures, and country elevators faced significant basis losses on early wheat purchases.

Solutions?

Complaints mounted and legislators pressured the CBT and CFTC for solutions to bring cash and futures prices closer together. The cash price of any commodity is a function of demand for that item, however, and legislators can't pass a law to raise the value of cash wheat. But it is possible to change the cash/futures relationship somewhat.

The CBT raised the quality standard for the wheat futures contract to make the delivery product more attractive to mills. The exchange also reduced the quantity of contracts a financial entity can buy and take delivery on for purposes of earning the carry. CBT also raised the monthly storage rate for holding delivery shipping certificates. Another step was to add a number of additional locations as approved for delivery.

Despite these changes, CBT wheat futures have stubbornly maintained a wide premium over cash and the pressure has intensified for CBT to fix this misalignment.

The next step

In August the CBT laid out a draft proposal for a new concept known as the Variable Storage Rate (VSR). The essence of VSR is that the storage rate for holding delivery certificates can change with each

delivery cycle. When cash basis is weak and the futures carry is above a set threshold, the VSR would rise for the next delivery cycle (e.g., December to March). This would increase Full Carry, and allow wider futures carries to develop. If cash basis rises to where futures carries decline below a minimal threshold, the VSR would be automatically *reduced*.

Steadily rising storage rates should, in time, inflict a substantial financial cost for investment money that has to roll long futures in ever-wider carries. The expectation is that this cost will, in time, realign investment money and allow nearby futures to move lower and closer to cash values. Convergence could be possible!

Sound confusing?

Using a Dec/March spread as an example, the VSR would expand or contract delivery storage charges based on the carry implied by the nearby futures market spread.

- Full (futures) carry is calculated daily for the nearby contract to the next futures month. Full carry (FC) would be calculated as a running average on Dec/March from the 18th calendar day of the expiring September delivery month until the November 20 option expiration date on December options.
- (FC) would be calculated daily based on defined parameters, tentatively:
 - A) 2% over 1-month LIBOR
 - B) Futures price: settlement for the nearby (Dec) contract month

C) Daily storage: current daily rate ($FC = \# \text{ days} * ((\text{Interest}/360 * \text{Futures Price}) + \text{daily storage})$)

- Assuming the running average Dec/March carry on the final day, November 20 in this example, exceeds 80% of the calculated FC, storage on delivery certificates would increase by 10/100ths of a cent per day, about 3¢/month. This increase would start on the 18th calendar day of expiration (e.g. December 18).
- Should the running average Dec/March spread be 50% or less of FC after the option expiration, storage would decrease by 10/100 of a cent/day for that delivery cycle.
- Storage rate would never decline below 16.5/100, nearly 5¢/bushel/month.
- There would be no cap on how high daily storage rates could go as long as the running average spread continues to exceed 80% of FC on the designated dates.
- Changes would be cumulative.

CBT would calculate and post both Full Carry and the running average of the actual spread on the CME website each day.

Illustration using present storage costs:

Dec9/March10 wheat spread = 20¢ carry
 Calculated Full Carry = 21¢
 Dec/March = 95.2% of Full Carry

The impact

The VSR change seems minor: How could raising storage by a

maximum of 3¢/bu/month impact convergence? It's like compound interest, which really adds up over time. Assume a scenario where the running average spreads consistently remain above 80% of full carry. Storage costs would rise as follows:

Full carry, the maximum futures carry, would rise with each cycle in this example. By the 5th cycle, Sept/Dec FC would reach 60¢ + interest cost. Presently it's about 20¢ total.

Investment longs in front-month futures could "lose" up to \$1.68 plus interest if wheat futures spreads are always at Full Carry for a year. Would that cost be sufficient to discourage longs?

There must be some drawbacks

The major issue is that despite the cost over time, VSR still can't force convergence and can't do it quickly. Investment money may ignore the holding costs and buy wheat futures anyway. Producers and legislators may chafe if convergence is slow coming.

Another long-term consideration is that if futures carries widen under VSR in times of surplus, significantly higher deferred prices may give farmers misleading signals to increase acres, and perpetuate surpluses. If VSR does bring convergence, there's a chance the solution could also result in "no-risk" opportunities. High storage rates would encourage country elevators to build bins with the idea of carrying wheat for years, at costs well below the futures carry, because convergence is all but assured.

Sharply higher storage rates on

CBT wheat could also distort the value of space for wheat relative to corn and soybeans. This has some analysts urging a VSR program for corn and soybeans.

VSR could impact producers and elevators outside the SRW areas. KC and Minneapolis have not proposed a VSR program, which could create increased

| Storage costs | Present | VSR |
|---|-----------------------|-----------------------|
| 1st cycle (Dec/Mch) | 5¢/month ¹ | 8¢/month ¹ |
| 2nd cycle (Mch/May) | 5¢/mo | 11¢ |
| 3rd cycle (May/Jly) | 5¢/month | 14¢ |
| 4th cycle (Jly/Sept) | 8¢/month ² | 17¢ |
| 5th cycle (Sept/Dec) | 8¢/month ² | 20¢ |
| Cumulative Dec/Dec | 75¢ | \$1.68 |
| ¹ assuming equal, 30-day months. | | |
| ² Present regulations provide that July/Aug/Sept/Oct/Nov seasonal storage is at 8¢/bu/month. VSR would supercede that. | | |

arbitraging between the wheat classes, profitably or not. It also could shift some HRW acres to SRW.

Elevators that handle SRW would be glad to see basis again converge with futures. But volatility and

risk won't disappear; it will shift from basis to futures spreads. Some hedgers would prefer the volatility remain in basis which is affected more by local conditions. Spreads are centralized and affected by diverse factors. And the global wheat surplus that weighs on basis today may vanish with one failed crop.

CBT wheat spreads currently reflect the market's opinion the VSR concept will be implemented, trading wider than the current "full carry." But spreads are well below the carries they could reach if VSR is implemented. SRW hedgers need to be cautious about setting "good" carries; it looks likely the game's going to change.

VSR may not be a cure-all, but overall it is a solid step forward to resolving a thorny problem. ■



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