



ELECTRONIC GRAIN

BY WILL ACWORTH

When the three main grain exchanges in North America finally bit the bullet in August 2006 and began side-by-side trading of their flagship corn, wheat and soybean contracts, the futures industry was more than ready. Electronic trading had long since swept through the interest rate and equity futures markets, and the physical commodity markets were clearly the next to go.

What did surprise many market participants was the speed of the migration. It took five years of side-by-side trading for the Eurodollar futures contract to pass the 50% mark in terms of how many contracts were matched electronically rather than through the floor. Corn futures needed only two months. Wheat broke through within four months, and soybeans just before the end of December. By year-end, nearly 44% of the grain futures complex at the Chicago Board of Trade was trading electronically.

The migration was slower at the Kansas City Board of Trade and the Minneapolis Grain Exchange, but the trend is moving in the same direction. December's electronic trading averaged 19.2% and 15.1% of total volume in their flagship wheat contracts.

So what does this change mean for brokerage firms? On the one hand, expect an explosion of business as volume rises. Brokers that have prepared for electronic trading will attract new customers migrating from the financial markets and gain economies of scale from adding grains to their electronic platforms.

The flip side is that the business will become more competitive if it follows the same pattern as the financials. Customers will demand lower fees but also more advanced technology. The costs of maintaining the technology may overwhelm some of the smaller brokers. As electronic trading replaces open outcry, the competitive advantage will move from the brokers with the best floor teams to the ones with the best technology.

It is easy to exaggerate the changes, however. The last few years have shown that this is not a zero sum game. Electronic trading makes the market bigger and more diverse. Firms with roots in agriculture will still have an edge with customers that need brokers with an understanding of the fundamentals of the grain market. And if financials are any model, it will take years before the entire set of products go electronic.

Perfect Storm

As it happens, the migration to electronic comes at a time when the entire farm economy is changing. The use of corn-based ethanol has grown so rapidly in the last year or so that they are now competing with the food industry for corn and soy oil. This has driven prices higher, brought new participants to the futures market, and created new demand for risk management services.

The U.S. currently produces approximately 5.5 billion gallons per year of ethanol, according to trade association and analyst estimates. That figure is projected to double by the end of 2008, assuming all the proposed capacity comes online. Virtually all of the ethanol consumed in the U.S. comes from corn, due in part to tariffs on imports of cheaper sugar-based ethanol from Brazil and elsewhere. An estimated 20% of the U.S. corn production went into ethanol in 2006 and helped push cash market prices significantly higher.

The impact is being felt in the corn futures market. More than 2.8 million corn futures changed hands in December, an increase of 61% compared to December 2005. Options on corn futures grew even more rapidly, up 236% to 0.9 million contracts. Several futures industry sources also commented on the build-up of open interest, typically an indication of greater hedging activity. Open interest in corn futures reached 1.4 million contracts at month-end December, up 78% from the end of 2005, while open interest in options on corn futures soared 236% to 1.5 million contracts.

As in other sectors of the energy industry, ethanol producers are hedging their input costs by using futures and options on futures as well as over-the-counter derivatives based on corn prices. Futures are also playing a role in lowering the financing costs for the construction of new ethanol plants by providing greater certainty for cost projections. Tremendous opportunities are opening up for futures brokers with expertise in these markets to provide advice on structuring a hedging program.

Mark Cermak, director of execution services at Fortis Americas and a member of the Chicago Board of Trade's board of directors, says the same trend is now affecting the soybean oil futures market. Large agricultural processing companies such as Cargill and Bunge are looking into the biodiesel market, and he says traders are beginning to see "some correlation" in the prices of soybean oil and diesel fuel.

The other big factor that is independently affecting the grain markets is the tremendous interest in commodities as an asset class. Since 2000, pension funds and other institutional investors have been diversifying into commodities, and one of the principal methods has been to invest in funds or other instruments that track commodity indices. Corn, wheat and soybeans make up only a small part of these indices—approximately 20% of the Dow Jones-AIG index and less than 10% of the Goldman Sachs Commodity Index. But even a small share of the estimated \$100 billion in investments linked to these indices creates a lot of activity in the futures markets.

More recently, investors have begun to focus on specific sectors within the commodity futures markets. In 2005, base metals were the hot commodity; now it is agricultural commodities' turn. Commodity strategists at banks such as Barclays and Deutsche Bank have highlighted the fact that the grain mar-

kets not only have rising prices, they also have a more favorable structure to their forward curves. So as investors move away from energy because of the carrying costs, investments based specifically on grains are attracting more favor.

The Funds Come Marching In

Given all these factors, it's no wonder that hedge funds and proprietary trading groups are streaming into the grain futures markets. Brokers say they are now seeing proprietary trading groups that previously were active only in interest rate and equity futures and options now coming into the ag markets. Many of these groups are purely electronic, and shied away from any markets that still relied on open outcry trading. Others stayed away because there just wasn't enough liquidity. Now both of those issues are going away.

Brad Cole, the head of Cole Partners, a Chicago-based advisory firm focused on alternative investments, says the increase in liquidity is especially important for hedge funds. His firm runs a fund of funds with roughly a dozen funds specializing in agricultural products. "The main issue is capacity, and with volume and open interest rising, the liquidity risk goes down," he says. "Only now are we seeing the potential for scaling up the fund management business in the ag sector."

The transparency and efficiency of electronic trading is a key factor in attracting these types of traders, as is the fact that all the grain exchanges are using the same electronic platform. Although the Kansas City and Minneapolis exchanges continue to operate independently, they moved to side-by-side trading at the same time as the CBOT, and their products are listed on the CBOT's electronic trading platform. The Winnipeg Commodity Exchange, which shut down its floor in December 2004 and went completely electronic, also uses the e-cbot platform.

CBOT officials think the strengths of this platform, which is based on the Connect technology developed by Euronext.liffe, and its worldwide distribution are among the reasons why there has been so much more activity in its grain contracts since August. But the CBOT also poured a lot of energy into preparing the trading community for the transition to electronic trading. Bryan Durkin, the CBOT's chief operating officer, says the exchange had to provide training to acclimate users to the differences in entering

New CFTC Report Shows Index Trader Positions in Ag Markets

A new statistical publication from the Commodity Futures Trading Commission is providing market participants with a detailed look at the role being played by index investors in certain agricultural futures markets. The new publication, a weekly supplement to the agency's Commitments of Traders reports, breaks out open interest held by pension funds and other institutional investors that are seeking broad exposure to commodity prices by using investments linked to commodity indices. The new category also includes swap dealers and other entities that are holding futures and options to offset exposures related to over-the-counter transactions involving commodity indices. The CFTC said it developed the new report to provide greater transparency about activity in the agricultural futures markets.

Like the COT report itself, the new supplement only provides aggregate information, and no individual firms are named. But the supplement does indicate that the overall level of index trader participation can be quite high in certain agricultural futures markets. According to the first issue of the new publication, index traders accounted for just over 47% of the open interest in the lean hogs market at the Chicago Mercantile Exchange as of Jan. 3. That was followed by wheat at the Chicago Board of Trade at 42.4%, live cattle at the CME at 36.4%, and cotton at the New York Board of Trade at nearly 34% of the open interest.

orders. "We organized a lot of training sessions for floor brokers, retail houses and commercials," says Durkin. "And we reached out to the broader base of users, including clients of the brokerage firms, to get them oriented to using the electronic platform," he says.

The CBOT also installed 40 plasma screens around the perimeter of the grain pits to display real-time market data from the electronic marketplace, and developed handheld devices for easy access to electronic trading from the floor. And the exchange reached out to independent software companies as well as trading firms with their own front-end systems and encouraged them to add the electronic grain futures to their systems. Taken together, all these steps accelerated the adoption of electronic trading, preserved the liquidity available on the floor, and encouraged a very active arbitrage between the floor and the screen.

Of course, all these features are only part of the story. Reliability is also crucially important. Since the introduction of side-by-side trading in August, the exchange has been forced on a few occasions to take the e-cbot platform offline temporarily. On those occasions, trading reverted to the floor, inadvertently illustrating one of the benefits of having two trading venues. Despite this, volumes on the electronic platform have continued to climb, with more than 40% of the grain complex as a whole transacted electronically in the month of December.

Infinium Capital Management is one example of the technology-savvy firms that

are taking advantage of electronic trading in the grains. Its founders traded for many years in the Chicago pits, but the firm now relies primarily on computers to execute its trading strategies in a wide range of interest rate and equity futures markets. With respect to the grains, Infinium has traders on the floor as well as facing the screens, and a big part of its trading is arbitrage between the two marketplaces.

"Electronic trading creates another pool of liquidity for us," explains Tom Hanley, one of the firm's officers and a former trader in the MidAm wheat pits. "We are a market-making firm, and it gives us another way to lay off our risk." He adds that Infinium also has an agreement with the Minneapolis exchange to provide liquidity to the hard red wheat options market during the overnight hours, when the only venue available is electronic.

The involvement of these types of trading firms and funds has been one of the main reasons why screen-based volume has taken off so rapidly. But the full impact is still to come. In the CBOT wheat market, for example, the number of non-commercial participants has increased dramatically over the past year, according to statistics gathered by the Commodity Futures Trading Commission. But commercial interests such as elevators, processors and millers still hold well over half of the open interest. The financial funds and prop traders may be the new players in the game, but the market is still dominated by the traditional market participants.

Technology: Boon or Bane?

Futures commission merchants are welcoming the migration to electronic trading, but that doesn't mean that the road ahead is completely rosy. Technology makes trading more efficient, but it also creates new costs. Connectivity to the exchanges needs to be established and maintained. New employees with different skills must be hired to man the customer service desk during the overnight hours and program the computers to handle electronic transactions. Back-office systems must be upgraded to process more transactions, and risk management systems must adjust to much more rapid changes in risk exposures. And the fact that both trading venues continue to exist means that it is hard to offset the new expenses by cutting costs in other areas.

Of course, the agricultural futures market is hardly the first to go electronic, and most brokerage firms have already adapted to electronic trading in other products. But as more and more customers in the agricultural side of the business switch to electronic trading, the firms with the largest IT budgets will gain an edge.

"It requires a massive investment to get the technological infrastructure into place," says Peter Johnson, the Chicago-based co-head of JPMorgan Futures. His firm spent approximately \$75 million on technology worldwide in 2006 and expects to spend more in 2007. "That's why the fringe players drop out, or concentrate on voice execution and other special areas of strength. You need capital to stay competitive, leverage the technology infrastructure and achieve the benefits of scale."

Most of the global brokers are not making a big push into the grain futures business, but there are some exceptions. Last year JPMorgan hired a large number of people who had worked for Cargill Investor Services before its acquisition by Refco. The bank greatly expanded its presence on the grain floors in Chicago, Kansas City and Minneapolis and has been gearing up to promote that execution capability to commercial users of these markets as well as investor clients.

Johnson says the expanded floor presence complements the bank's electronic trading strategy. There are still many customers who prefer to trade in the traditional open outcry environments, he explains, but there are also customers who embraced electronic trading immediately.

He adds that the bank's experience with electronic trading in the interest rate and equity futures markets has made it easier to make the transition with ags. "Electronic trading is asset-class agnostic," he says. "Our electronic platform has access to 27 futures markets around the world. So when the grain exchanges decided to introduce side-by-side trading, all we had to do was add these products to the platform."

The introduction of electronic trading certainly has not caught the smaller firms unawares. Iowa Grain, for example, is a relatively small FCM, with less than \$200 million in customer assets in segregation. But the firm ranks among the top 20 in execution volume in grain futures, and its business strategy is based on the principle that even the most traditional customers want the advantages of electronic trading. The company several years ago developed its own electronic trading system, Oak Trading Systems, and provides connectivity to all the electronic futures markets in North America. The system also can route orders to the floors of the exchanges. More than 90% of its order flow now comes into the firm in electronic form, says John Walls, executive vice president at Iowa Grain.

"We have been waiting for this for years," says Walls. "We designed our business around this."

R.J. O'Brien is another firm with deep roots in agriculture that has embraced electronic trading. Gerald Corcoran, RJO's chief executive officer, says his firm has been investing heavily in technology, not only into providing customers with the ability to trade via a computer screen but also into the back office side of the business. Corcoran stresses the importance of providing trade information to customers in whatever format they need for whatever purpose they desire. The accounting office may want the information in one format, while a chief risk officer needs the ability to sort through the trade data and match risk exposures with other parts of the portfolio. Having these capabilities has allowed RJO to establish partnerships with other, larger futures brokers that have chosen not to build their own presence in the grain markets.

"Technology is the table stake," says Corcoran. "You have to be able to offer a

plethora of platforms and have a deep IT infrastructure to meet the different needs and desires of customers. It will be the firms that provide leading-edge technology as well as other value-added services that will retain and grow market share."

Finding a Competitive Advantage

So how do the smaller firms carve out a niche? One of the most important value-added services, according to several brokerage executives, is research. Here is where the firms with roots in agriculture believe they have an advantage over the global brokers. They have years of experience with the ups and downs of grain markets and can provide their customers with detailed analysis of grain production and consumption trends.

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Iowa Grain, for example, has a dedicated in-house research staff with decades of combined experience producing daily analysis of market data and trading strategy. Iowa Grain's research covers such ag-specific topics as carry calculations, basis levels, commitment of traders reports, supply and demand conditions in South America, and the soybean crush.

"Clearing and execution become commodities," says Walls. "Research is harder to commoditize."

Several brokerage industry sources added that voice brokerage will continue to be important for many traditional ag customers. "Don't underestimate the value of voice execution," said one mid-level executive at a global broker who has worked for many years in the commodity markets. "The voice brokers understand the flows, and how to interpret the workings of the market. They are really valuable guys."

Another example of a firm that has played to its strengths in agriculture is FC Stone. The firm is in a quiet period right now because of the impending initial public offering, but its strategic focus on ethanol is

impossible to miss. FC Stone says that in 2006 it provided risk management for more than 1 billion gallons of ethanol and 400 million bushels of corn. Key to its success has been the complementary relationship between its agricultural futures business and its commercial grain marketing group. FC Stone says it uses cash, futures and over-the-counter products to help minimize risk and maximize profitability for its ethanol customers, and claims that its deep knowledge and proprietary data on the whole spectrum of activities related to ethanol gives it a competitive advantage.

Globalization is another trend that opens up new opportunities and challenges for ag-focused futures brokers. CBOT corn, wheat and soybean prices are already leading benchmarks in the global trading of these commodities, and the introduction of side-by-side trading has the potential to encourage greater international participation in these markets. India and China in particular are seen as huge possibilities, given not only their large and growing populations but also their success in cultivating the trading of commodity futures.

ADM Investor Services is one of the firms that is actively pursuing this potential. Last year it entered into a joint venture with an Indian investment bank to form an equity derivatives and commodity brokerage in India. It also bought Refco's operations in Hong Kong, giving it a potential entry to the Chinese market and its highly active agricultural futures exchanges. Likewise, UBS picked up a large commodity marketing team in London when it acquired ABN Amro Futures, and has just finished integrating that with its own strengths in North American grains.

"We are seeing more and more participants in these markets as the futures industry goes mainstream and achieves greater acceptance in the corporate world as [a means of] risk management," observes Corcoran. "Now that we have electronic distribution, global participation in the CBOT markets will explode." ■

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