Section I

Introduction to Futures and Options Markets

Chapter 3: The evolution of futures trading

Learning objectives

- The evolution of futures trading in the U.S.
- Understand the role of the clearinghouse
- Pit trading vs. electronic trading (the evolution continues)

Key terms

Clearinghouse: Every commodity exchange has a clearinghouse, which every day collects funds from traders who lost money (futures contract sellers when prices are higher, futures contract buyers when prices are lower) and pays funds to traders who made money.

Mark-to-market: Typically done daily, mark-to-market (or marked-to-market) is how we put a value on all open positions. The clearinghouse makes payouts and collects funds on all positions "marked-to-market," based on closing prices.

Long: An ownership position in a commodity. Buyers are said to be "long the market." For example, a trader who has bought 5 contracts of Minneapolis May wheat futures is said to be long the market by 25,000 bushels.

Short: A sellers position in a commodity. Sellers are said to be "short the market." For example, a trader who has sold 8 contracts of Kansas City July wheat futures is said to be short the market by 40,000 bushels.

Open position: A trade that has been established but not yet to be closed out with an offsetting trade. An open position can be long (ownership) or short (sell). The position remains open until an offsetting trade is made.

Offset a position: To make an equal but opposite futures trade which eliminates an open position and delivery obligation. For example, a trader who is short 3 contracts of November soybean futures can offset the position by placing an order to buy 3 contracts of November soybean futures.

Futures Trading Evolved from Cash Markets

The evolution of futures trading began in the growing market for Midwest corn, oats and wheat. In 1848, the frontier city of Chicago opened the Illinois-Michigan Canal. This canal (still in operation) connected the Illinois River with Lake Michigan, and made possible the shipment of grain from central and southern Illinois, through the city of Chicago, and into Lake Michigan. From the port of Chicago, grain moved by vessel through the Great Lakes to population centers on the East Coast. This was before railroads, and all movement of grain into Chicago was by wagon or barge.

Marketing practices at this early date were very different from today. Because of difficult road conditions, farmers often hauled grain by wagon or sleigh in the winter. They brought their production to grain dealers on the Illinois River. These dealers had constructed cribs along the river to hold grain. The dealers stored grain, sometimes for months, before shipping it on barges in the spring.

The time delay between the purchase of grain from farmers and the shipment of grain to buyers in Chicago was a big problem for grain dealers. First, they had to find financing for the purchase of grain stocks. This was difficult due to a second problem; price risk. How could a dealer assure a banker that the grain purchased in winter would be worth the same or more by spring? They couldn't. Grain dealers traveled to Chicago, searching for someone to put a price on grain for spring delivery. They were looking to make a forward contract, known then as a time contract, which allowed them to hedge their price risk and secure financing.

The 1848 opening of the Illinois-Michigan Canal allowed the productive bounty of the Corn Belt to reach population centers on the East Coast.

The earliest known time contracts involved corn and date back to 1851. The use of time contracts increased rapidly during the 1850's. These early contracts were typically informal, with buyers and sellers negotiating a quantity, price, and time of delivery. Quality specifications were vague.

In what would become the next evolutionary step, merchants began to actively trade time contracts. Speculators – individuals without merchandising or processing facilities – began entering the picture, buying and selling contracts in the hope of making profits. The evolution continued as grain dealers and speculators alike understood that trading would be much easier if the contract terms were the same. Contract standardization began to form with respect to the number of bushels, delivery in a specified month and payment terms.

The Chicago Board of Trade established rules governing trading in time contracts in the 1860's. The evolution to futures trading was completed in the mid-1870's, with the development of the futures contract, and the clearing of these contracts through a clearinghouse.

The Clearinghouse

Every organized futures market has a clearinghouse, and it plays a central role in futures trading. Once price is agreed upon, the clearinghouse steps between buyer and seller. In essence, the buyer has bought from the clearinghouse, and the seller has sold to the clearinghouse. As prices change each day, the clearinghouse "marks-to-market" all open positions - determining gains and losses on all outstanding contracts. When market prices rise, the clearinghouse collects funds from sellers of contracts ("shorts") and pay funds to buyers of contracts ("longs"). When market prices fall, the clearinghouse collects funds from longs and pays funds to shorts.

By paying out gains and losses each day, the clearinghouse serves two important functions. First, the clearinghouse reduces the risk of default to one days price change. Second, the clearinghouse makes it easy for a trader (hedger or speculator) to reverse a futures position. A buyer of 10 futures contracts, for example, does not need to seek out the original seller of the contracts. To "unwind" or "offset" his position, the buyer simply has to make an equal sale of 10 contracts in the futures market.

The clearinghouse simplified the process of offsetting a futures transaction. This opened the door to speculators, individuals without physical handling facilities. Trading in futures contracts and clearing through a clearinghouse enabled grain merchants to transfer price risk to speculators, without an actual change in ownership.

Pit trading vs. electronic trading – the evolution continues

Futures trading often occurs in a trading pit, where traders engage in "open outcry" – shouting and using hand gestures to openly express bids and offers. This form of trading is colorful and somewhat mysterious. Why does buying or selling futures contracts need to be so messy and loud? Open outcry serves a specific purpose; it offers all traders in the pit an equal opportunity to respond to bids and offers. The system is messy, loud... and fair.

"A flurry in wheat at the Chicago Board of Trade" - Harper's New Monthly Magazine, October 1880

The trading of futures and options contracts is rapidly moving away from the pit and towards electronic trading. For agricultural commodities, Globex is the most important electronic market place. Where they compete side-by-side, electronic trading is a clear winner, accounting for 90% or more of the total volume in grain futures contracts (though most options trades remain in the pit). Many exchanges, including the MGEX and ICE, have gone exclusively to electronic trading. While the history and tradition of pit trading is colorful, electronic trading makes orders easier to manage and transactions easier to complete, monitor, clear, and settle.

Whether it occurs in the pit or electronically, futures trading has survived and expanded because it continues to serve an important purpose in price discovery and risk management.

Further reading

Irwin, Harold S., Evolution of Futures Trading, Mimir Publishers Inc., 1954. (see Appendix I for a concise evolution of corn and wheat futures trading from 1848 to the early 1870's) http://www.farmdoc.illinois.edu/irwin/archive/books/Ev-of-Futrs-Tradng/Ev-of-Futrs-Tradng_appendix.pdf

Santos, Joseph., "A History of Futures Trading in the United States" EH.Net Encyclopedia, edited by Robert Whaples. March 16, 2008. http://eh.net/encyclopedia/article/Santos.futures

Exercise #3

Learn how to offset an existing futures position.

Commodity Challenge includes easy methods to offset a position. Earlier, in Exercise #2 of Chapter 2, you placed a limit order to sell futures contracts and this established a sold (short) position in the market. If your order was not filled, cancel the order and place a new order to sell "at the market" (be patient – you may need to wait 15 minutes or more for the order to be completed and recognized in Commodity Challenge). You need an open futures position to practice your "offset."

Now that you have an open futures position, find that position in the **Transactions** tab. Make sure you have found the right commodity and quantity. Look to the far right of that position and you will see the word **OffSet**.

There is another way to offset a futures position. Click the **Futures** tab and select the **Commodity** you want to offset. Under **Action to Take** you will see a choice to **Offset**. The next step (**Select Contract**) will list your choices of positions to **Offset.**

Make sure you know the specific position (# of contracts) to continue to offset the position. Commodity Challenge will offset the position for you.