



## **Commodity Futures Trading Commission**

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# **Statement**

## **Written Statement by Jeffrey H. Harris, Chief Economist, Agricultural Markets Roundtable, Commodity Futures Trading Commission Headquarters**

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I am, Jeff Harris, Chief Economist of the CFTC and I am here today with Dr. Kunda from the University of Illinois to focus more closely on issues related to hedging in agricultural futures markets. The Office of the Chief Economist works closely with the Division of Market Oversight (DMO) in providing analysis and advice in matters that relate to the oversight and examination of trading in futures markets. We have seen, from John Fenton's earlier presentation, that the CFTC is keeping close contact with agriculture markets on a daily basis during these unprecedented times.

My role today is to introduce you to the topic of convergence in futures markets. Along the way I will discuss the relations between spot and futures prices and forward contracting in agricultural markets. Although surely I could talk at length on these topics, I will keep us on schedule by relating convergence to price discovery in the futures markets. Well functioning futures markets serve a price discovery role. Because futures prices are publicly available, private agents can make decisions that incorporate the information and insights from the great number of experts who trade in our markets. The textbook example of this is a farmer making his or her planting decisions at the beginning of a crop year. In those instances, the price signal from corn markets is useful in allotting acreage to that crop. Similarly, co-operatives can use those price signals as a basis for committing to purchase the produce of their members. Such forward contracting alleviates the price risks that individual farmers would otherwise bear. Likewise, futures markets enable dealers to offer swap contracts for the risk management needs of large-scale commercial operations. Each of these very valuable services depend on the efficient price discovery role of futures markets.

Convergence between spot and futures prices is an issue because many believe the lack of convergence is symptomatic of a poorly functioning futures market. I'll quote from one of the many letters the Commission has received on this topic: "The less that futures serve as an accurate proxy for cash, the greater the risk for elevators and others involved in the grain business"

I agree that incomplete convergence of futures and cash prices as contract expiration approaches can indicate a poorly functioning market. But an apparent lack of convergence can indicate other issues as well. After all, convergence is simply a matter of the Law of One Price—that is to say, the prices for identical items in the same place and time must equal one another. That Law is fully operative at the moment of contract expiration. The commodity delivered according to a future contract can command no more or less than the current spot price. Prior to expiration, convergence is a matter of four variables and one activity. The four variables are: the spot price at that instant, the cost of storing the commodity, the value of having immediate access to the commodity and the cost of delivering the commodity according to the contract. The activity is arbitrage. All are crucial to obtaining convergence.

I'll omit the value of immediate access because that narrows the basis—our mail indicates that not to be a problem (but DMO charts showing positive bases at the Gulf highlight the value of location). High storage costs such as can be expected when storage facilities are scarce will widen the gap between futures and cash prices. Likewise, a high cost of delivery can create an apparent convergence failure. I say apparent because delivery on a contract incurs both the cost of the commodity and the cost of moving it. As noted by my colleague John Fenton, diesel costs and Illinois River barge freight rates are at historical highs for this time of year. The futures price, because it reflects these costs, will appear to converge less strongly as a result. Despite that appearance, the Law of One Price does apply--the all-in cost reflected in futures should converge to the cash price. I emphasize storage *and* delivery costs because our reports indicate both may be contributing to weaker convergence.

Lastly, but also crucial to convergence is arbitrage activity. Arbitrage consists of examining the four variables I mentioned for profit potential. Figure 1 illustrates using the persistent negative basis in soybeans at expiration during 2007. The negative basis results from futures prices that exceed spot prices. If this represented true mispricing, arbitrageurs would short futures and buy in the spot market to deliver on these contracts. Any costs of buying the spot asset to deliver against a short futures position, however, will impede this arbitrage and will result in a relatively weak (negative) basis. Increases to freight and storage costs (as we have seen in recent years) exacerbate this situation.

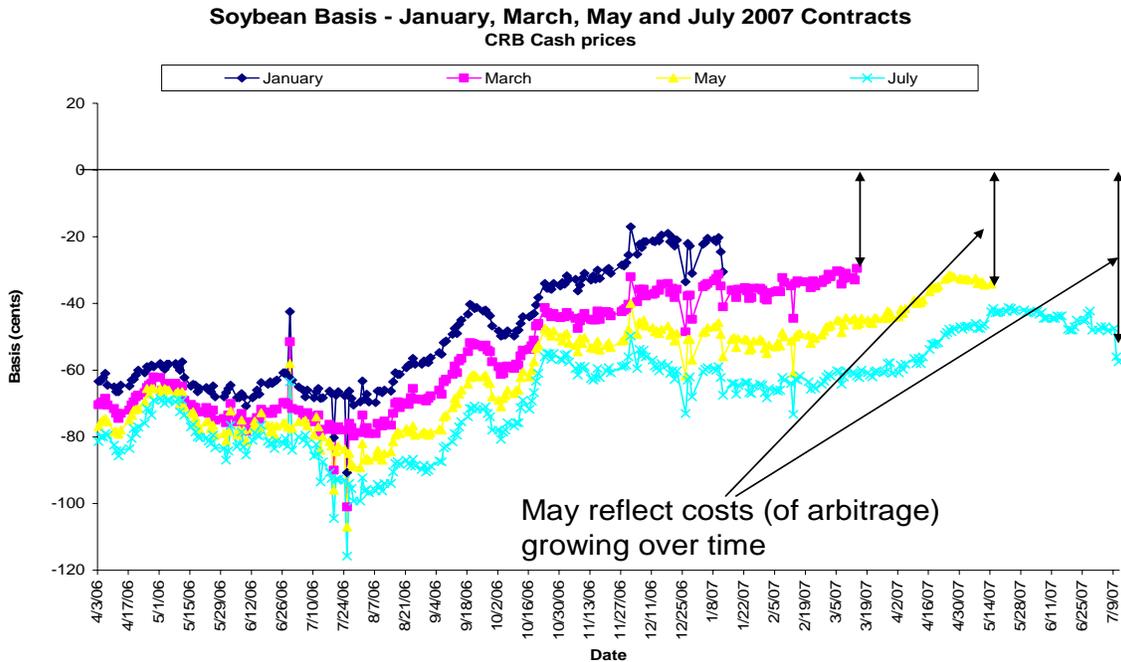


Figure 1. The Basis in 2007 Soybean Contracts

Of course, the prospects that arbitrage is impeded by some other factor is a concern to market participants. The CFTC has been closely monitoring new entrants such as commodity index traders, hedge funds and other managed money traders in the agricultural markets. As highlighted by John Fenton earlier, the 2007-08 price increases in agricultural commodities have occurred largely under relatively stable participation by managed money traders (which include hedge funds). As noted earlier, we do witness an increase in net long positions by index traders, but this increase has only marginally increased in terms of market share, since overall open interest has been growing concurrently.

Profit opportunities result in the buy and sell pressures that bring about convergence. Increased costs of executing arbitrage trades inhibit arbitrage activities. Absent evidence that particular traders might artificially or intentionally impede arbitrage in agriculture markets, the Office of the Chief Economist would caution against policy choices that might further raise the cost of conducting arbitrage activities. Such policies can have negative consequences for convergence. Among the more crucial policy choices are regulations that raise trading costs or those that limit the extent of arbitrage that can be conducted.

On that note, I will turn it over to my colleague from Illinois, Dr. Kunda.