Opening Statement of Senator Carl Levin

Before

U.S. Senate Permanent Subcommittee on Investigations

On

Excessive Speculation in the Wheat Market

July 21, 2009

For more than five years now, this Subcommittee has been taking a hard look at how our commodity markets function. In particular, we have examined how excessive speculation in those markets has distorted prices, overwhelmed normal supply and demand factors, and can push up prices at the expense of consumers and American business.

In 2006, for example, the Subcommittee released a report which found that billions of dollars in commodity index trading on the crude oil market had pushed up futures prices in 2006, caused a corresponding increase in cash prices, and were responsible for an estimated $20 out of the then $70 cost for a barrel of oil. A 2007 report showed how a single hedge fund named Amaranth made huge trades on the natural gas market, pushed up futures prices, and increased natural gas prices for consumers and American business.

At today's hearing, our focus is on wheat. Using the wheat market as a case history, we show how commodity index trading, in the aggregate, can cause excessive speculation and price distortions. As in our prior investigations, this examination has taken us into the upside down world of financial engineering that we find ourselves in today, where instead of talking about supply and demand affecting wheat prices, we have to talk about the impact of complex financial instruments like commodity indexes, swaps, and exchange traded funds, and what happens when speculators buying these derivative instruments begin to dominate a futures market instead of the commercial businesses buying futures to hedge against price changes.

These are complicated issues. It took the Subcommittee an entire year to compile and analyze millions of trading records from the three U.S. futures markets where wheat is traded, including the largest exchange of the three in Chicago. We also interviewed numerous experts, researched the issues, and released a 247 page report explaining our findings. Our report, which was issued by myself and Senator Coburn last month, concludes that the huge number of wheat futures contracts being purchased by derivative dealers selling commodity index instruments have, in the aggregate, constituted excessive speculation in the Chicago wheat market, resulting in unwarranted price changes and an undue burden on commerce.

Our report presents a variety of data in support of its findings, but, necessarily, I can highlight only a few key points here. The first point is the huge growth in commodity index investments over the past five years. According to estimates by the Commodity Futures Trading Commission (CFTC), about $15 billion was invested in commodity indexes in 2003. By mid-2008, that figure had grown to $200 billion, a thirteenfold increase.

Commodity indexes are mathematical constructs whose value is calculated from the value of a specified basket of futures contracts for agricultural, energy, and metals commodities. When the prices of the selected futures go up, the value of the index goes up. When the futures prices go down, the index value goes down.

Speculators don't invest directly in a commodity index, since the index itself is nothing more than a number that constantly changes. Instead, they buy financial instruments – derivatives – whose value is linked to the value of a specified commodity index. In essence, speculators place bets on whether the index value will go up or down. They place those bets with derivative dealers, usually by buying a financial instrument called a "swap" whose value is linked to the commodity index. The derivative dealer charges a fee for entering the swap, and then effectively holds the other side of the bet. When the index value goes up, the speculator makes money from the swap. When the index value goes down, the derivative dealer makes money from the swap.

Most derivative dealers, however, don't like to gamble on these swaps; instead they typically hedge their bets by buying the futures contracts on which the index and related swaps are based. Then if their side of the swap loses value, they offset the loss with the increased value of the underlying futures. By holding both the swap and the futures contracts upon which the swap is based, derivative dealers are protected from financial risk whether futures prices go up or down. By taking that position, derivative dealers also avoid becoming pure speculators in commodities, instead facilitating the speculative bets being placed by their clients, while making money off the fees paid for the commodity index swaps.

Since 2004, derivative dealers buying futures to offset the speculative bets made by their clients have begun to dominate U.S. commodity markets, buying a wide range of futures for crude oil, natural gas, gold, corn, wheat and other commodities. This chart, Exhibit 1, shows the impact on the Chicago wheat futures market alone. It shows that derivative dealers making commodity index trades have bought increasing numbers of wheat futures, with their aggregate holdings going from 30,000 wheat contracts in 2004, to 220,000 in 2008, a sevenfold increase in four years. Derivative dealers making commodity index trades now hold nearly half of the outstanding wheat futures (long open interest) on the Chicago exchange.

Derivative dealers seeking to offset the speculative bets of their clients have created a new demand for futures contracts. Their objective is simple: to buy a sufficient number of futures to offset their financial risk from selling commodity index swaps to clients. Their steady purchases of futures to buy wheat have had a one-way impact on futures prices – pushing the prices up. In addition, their purchases have created a steady demand for wheat futures, without creating a corresponding demand in the cash market. The result in recent years has been Chicago wheat futures prices which are routinely much higher than wheat cash prices, with a persistent and sizeable gap between the two prices.

The next two charts show how this gap has grown over time. The first chart, Exhibit 2, looks at the day-to-day difference between wheat futures and cash prices in the Chicago wheat market over the last nine years. It shows that, from 2000 to 2005, the average daily difference between the average cash and futures price for wheat in the Chicago market, also called the basis, ranged between 0 and 50 cents. In 2006, that price gap or basis began to increase, in sync with the increasing amount of commodity index trading going on in the Chicago wheat market.

By mid 2008, when commodity index traders held nearly half of the outstanding wheat futures (long open interest) on the Chicago exchange, the price gap had grown to between $1.50 and $2 per bushel, a huge and unprecedented gap.

The next chart, Exhibit 3, shows the same pattern when the Chicago wheat futures contracts expired. Wheat futures contracts are available in only five months of the year, March, May, July, September, and December. This chart looks at the expiration date for each of those five contracts from 2005 to 2008, and shows the gap between the final futures price and the cash price on that date. The data shows that this gap, or basis, grew from 13 cents per bushel in 2005, to 34 cents in 2006, to 60 cents in 2007, to $1.53 in 2008, a more than tenfold increase in four years, providing clear evidence of a dysfunctional market. And again, this increasing price gap took place at the same time commodity index traders were increasing their holdings to nearly half of the wheat futures contracts on the Chicago exchange.

To understand the significance of this price gap, we need to take a step back and focus on the purpose of commodity markets. Commodity markets have traditionally had two primary purposes: first, to help farmers and other businesses establish a price for the delivery of a commodity at a specified date in the future, and, second, to help them hedge against the risk of price changes over time.

Futures prices are the result of numerous traders making individual bids to buy or sell a standard amount of the commodity at a specified date in the future. That date can be one month, six months, or even years in the future. At the same time this bargaining is going on to establish prices for the future delivery of a commodity, businesses are also bargaining over prices for the immediate delivery of that commodity. A price for the immediate delivery of a commodity is referred to as the cash price. Traditionally, futures prices and cash prices have worked together. That's because, as the delivery date in a futures contract gets closer, the futures price logically should begin to converge with the cash price so that, on the date the futures contract expires and delivery is due, the two prices are very close.

That's what supposed to happen. But in some commodity markets like the wheat market, price convergence has broken down. When price convergence breaks down, hedges stop working and no longer protect farmers, grain elevators, grain merchants, food producers, and others against price changes. We will hear today how these businesses are losing the ability to hedge in the Chicago wheat market, and are incurring unanticipated costs from failed hedges and higher margin costs. We will also hear how, in many cases, those businesses have to eat those costs because the fierce competition over food prices won't allow them to increase their prices to cover the extra expense. In other cases, when they do pass on those higher costs, consumers lose.

Virtually everyone this Subcommittee has contacted agrees that price convergence is critical to hedging. When the futures and cash prices don't converge at the time a futures contract expires, hedges don't work. Let me explain in more detail why price convergence is critical to the ability of farmers, elevators, and others to use the futures markets to manage their price risks. Let's use the example of a county grain elevator that buys wheat from a local farmer, stores it, and sells the grain to a major bakery later in the year.

When the grain elevator buys the wheat and stores it, the value of that grain will fluctuate as grain prices change over time. If grain prices go up, the wheat is worth more. If prices go down, the wheat is worth less and could even drop below what the elevator paid for it. To protect itself, the elevator typically turns to the futures market to hedge its price risk.

This chart, Exhibit 4, shows how the elevator uses the futures market to protect itself from a drop in wheat prices. The example assumes the grain elevator bought wheat on July 15 for $4 per bushel and wants to sell it to a bakery in December. In July, when the elevator buys the wheat, it checks the futures prices and finds that the price for delivering wheat in December is $6 per bushel. Since that price is $2 more than what it paid for the wheat, the elevator wants to lock in that gain. So in July, the elevator obtains a futures contract to deliver a standard amount of wheat to a specified storage warehouse in December at $6 per bushel.

The grain elevator is now said to be "hedged," because it has grain in storage – which is called being "long" in the cash market – and a futures contract to deliver wheat at a specified price in the future – which is called being "short" in the futures market. In a properly functioning futures market, any loss in the cash value of the stored wheat from July to December should be offset by a gain in the value of its futures contract over the same period.

Here's how it works. When December arrives, the elevator acts to "unwind" its hedge so that it doesn't have to actually incur the expense of delivering its wheat as the futures contract specifies – to a faraway warehouse – and can instead deliver it to its customer, the bakery. To offset its obligation to deliver wheat in December, the elevator goes onto the futures market in December and buys a futures contract obligating it to take delivery of the same amount of wheat during that same month of December. The contract to buy wheat in December can then be used to offset the $6 per bushel contract to sell wheat in December, and the two futures cancel out. The elevator is then free to sell its stored wheat to the bakery at the prevailing cash price.

The key to a successful hedge here is whether the December cash and the December futures prices have converged. The example on the chart assumes that both the cash and futures prices have converged in December to $3 per bushel. That means the elevator, in December, can buy a December futures contract to take delivery of wheat at $3 per bushel, offset it against its contract promising to sell wheat in December for $6 per bushel, and realize a net gain of $3 in the futures market. In the cash market, the elevator can sell its grain to the bakery at the prevailing cash price of $3 per bushel, which is a $1 per bushel loss compared to the $4 it paid to buy the wheat. But that $1 loss in the cash market, when subtracted from the $3 gain in the futures market, results in an overall gain of $2 per bushel – exactly what the elevator sought when it initiated the hedge in July.

The December price convergence was critical to the success of the elevator's hedging strategy. It is only because the December wheat futures price and the December wheat cash price were the same that the grain elevator was able to offset its December futures and December cash transactions, and realize the $2 gain promised by its hedge in July.

The next chart, Exhibit 5, shows what happens when the cash and futures prices don't converge. This chart uses the same assumptions – that, in July, the grain elevator purchased wheat from a farmer for $4 per bushel and obtained a futures contract promising to sell the wheat for $6 per bushel in December. In this example, however, the futures price stays higher than the

cash price throughout the life of the hedge. When the futures contract expires in December, the December futures price is $5 per bushel, while the December cash price is $3. That means when the elevator buys a futures contract in December to offset its earlier hedge, it will have to buy a futures contract at $5 per bushel, which when offset against its futures contract to sell the wheat for $6 per bushel, results in a net gain in the futures market of only $1 per bushel. In the cash market, the elevator still sells the wheat that it bought at $4 per bushel to the bakery for $3, resulting in a loss of $1 per bushel. Subtracting the $1 loss in the cash market from the $1 gain in the futures market leaves the elevator without any net gain to pay its expenses.

If the elevator hadn't bought a futures contract in December to unwind its hedge that way, it could have lost out even more, by having to pay the costs of transporting its wheat to an approved warehouse in December. The point of the hedge made in July was not to deliver wheat to a warehouse in December, but to lock in a gain and protect it from price changes. The effectiveness of that hedge requires price convergence, however, and that's exactly what has been lacking on too many occasions in the Chicago wheat market in recent years.

The key issue is what is causing the prices not to converge. While there are many possible contributing factors, including artificially low storage costs or delivery problems, our investigation found substantial and persuasive evidence that the primary reason why prices have not been converging in the Chicago wheat market is the large number of wheat contracts being purchased by derivative dealers making commodity index trades. Those derivative dealers have been selling billions of dollars in commodity index swaps to customers speculating on commodity prices. By purchasing futures contracts to offset their financial risk, derivative dealers created an additional demand for wheat futures that is unconnected to the cash market, and that has contributed to the gap between the two prices. We know of no other significant change in the wheat market over the past five years which explains the failure to converge other than the huge surge of wheat futures bought by derivative dealers offsetting the sale of commodity index swaps to their clients.

The massive commodity index trading affecting the wheat futures market in recent years was made possible in part by regulators. Existing law requires the CFTC to set limits on the number of futures contracts that any one trader can hold at any one time to prevent excessive speculation and other trading abuses. Those position limits are supposed to apply to all traders, unless granted an exemption or waiver by the CFTC.

With respect to wheat, the CFTC has established a limit that prohibits any trader from holding more than 6,500 futures contracts at any one time. But over the years, the CFTC has also allowed some derivative dealers to exceed that limit. The CFTC granted exemptions to four derivative dealers that sell commodity index swaps, allowing them to hold up to 10,000, 17,500, 26,000, and even 53,000 wheat futures at a time. The CFTC also issued two "no-action" letters allowing the manager of one commodity index exchange traded fund to hold up to 11,000 wheat futures and another fund manager to hold up to 13,000 wheat futures. Together, these exemptions and waivers permit six derivative dealers to hold a total of up to 130,000 wheat futures contracts at any one time, instead of 39,000, or two-thirds less, if the standard limit had applied.

Part of the reason that the CFTC granted these exemptions and waivers was because it got mixed signals from Congress. In the Commodities Exchange Act, Congress told the CFTC to set position limits to prevent excessive speculation, and authorized the CFTC to grant exemptions only for commercial users needing to hedge transactions involving physical commodities in the cash market. But in 1987, two key Congressional Committees also told the CFTC to consider granting exemptions to financial firms seeking to offset purely financial risks. It was in response to this direction that the CFTC eventually allowed the derivative dealers selling commodity index instruments to exceed the standard limits.

These exemptions and waivers have enabled derivative dealers to place many more speculative bets for their customers than they could have otherwise, resulting in an increased demand for wheat futures contracts to offset the financial risk, higher wheat futures prices unconnected to cash prices, failed hedges, and higher margin costs.

That's why our report recommends that the CFTC reinstate the standard 6,500 limit on wheat contracts for derivative dealers. Imposing this limit would reduce commodity index trading in the wheat market and take some of the pressure off wheat futures prices. If wheat futures prices remain higher than cash prices after the existing exemptions and waivers are phased out, our report recommends tightening the limit further, perhaps to 5,000 wheat contracts per derivative dealer, which is the limit that existed up until 2006.

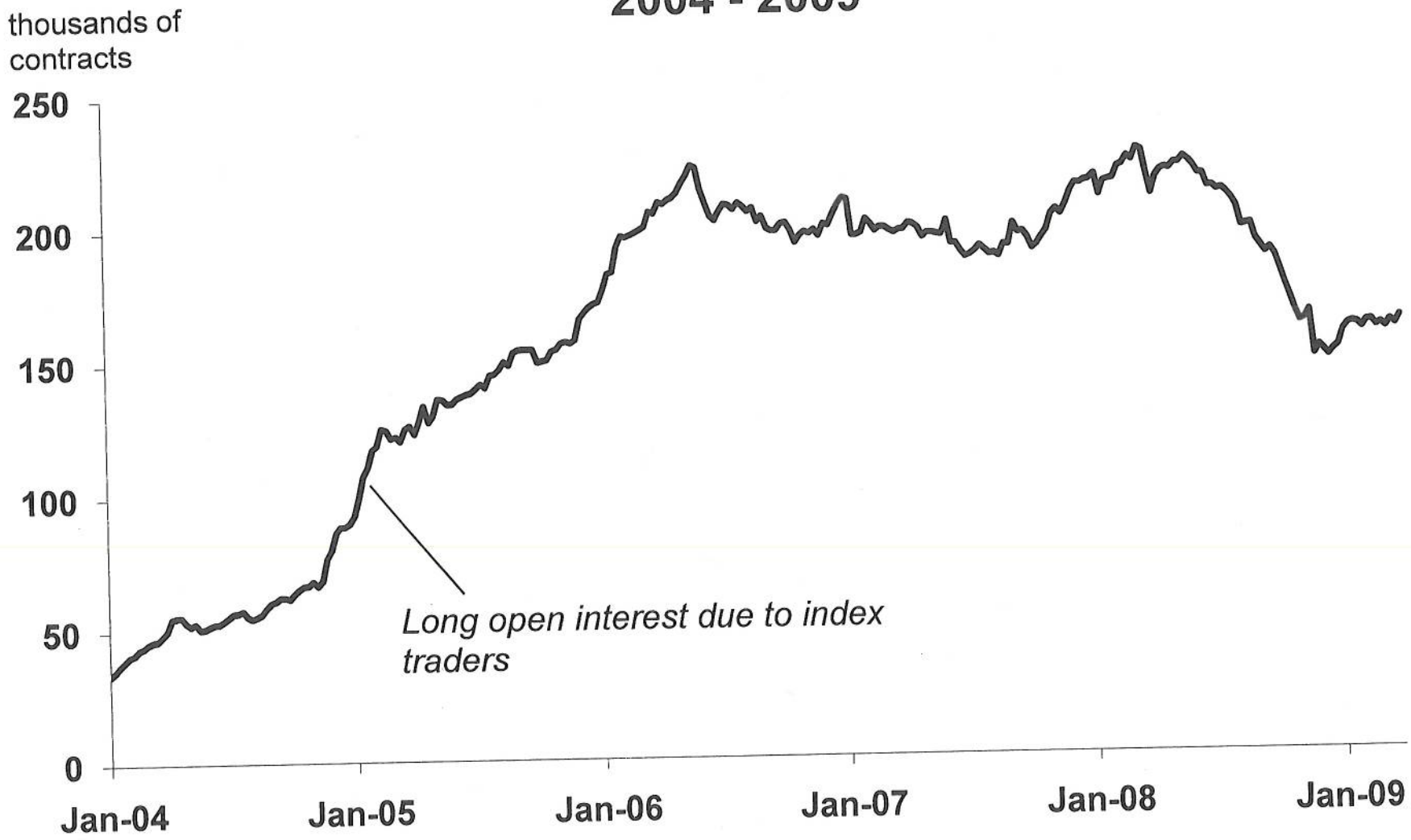
Our report also recommends that the CFTC examine other commodity markets to see if commodity index trading has resulted in excessive speculation and undue price changes. This Subcommittee has said before that excessive speculation is playing a damaging role in other commodity markets, especially the crude oil market where oil prices go up despite low demand and ample supplies.

The CFTC has promised a top-to-bottom review of the exemptions and waivers it has granted to derivative dealers, and signaled its willingness to use position limits to clamp down on excessive speculation in all commodity markets, to ensure commodity prices reflect supply and demand rather than speculators gambling on market prices to turn a quick profit. That review is sorely needed, and we appreciate the agency's responsiveness to the turmoil in the markets.

I am grateful to my Ranking Member, Senator Coburn, and his staff for their participation in and support of this bipartisan investigation, and I would like to turn to him now for his opening statement.

Outstanding Chicago Wheat Futures Contracts Purchased by Commodity Index Traders 2004 - 2009

Permanent Subcommittee on Investigation
EXHIBIT #1



Data Source: CFTC
Prepared by Permanent Subcommittee on Investigations, June 2009

Permanent Subcommittee on Investigation

EXHIBIT #2

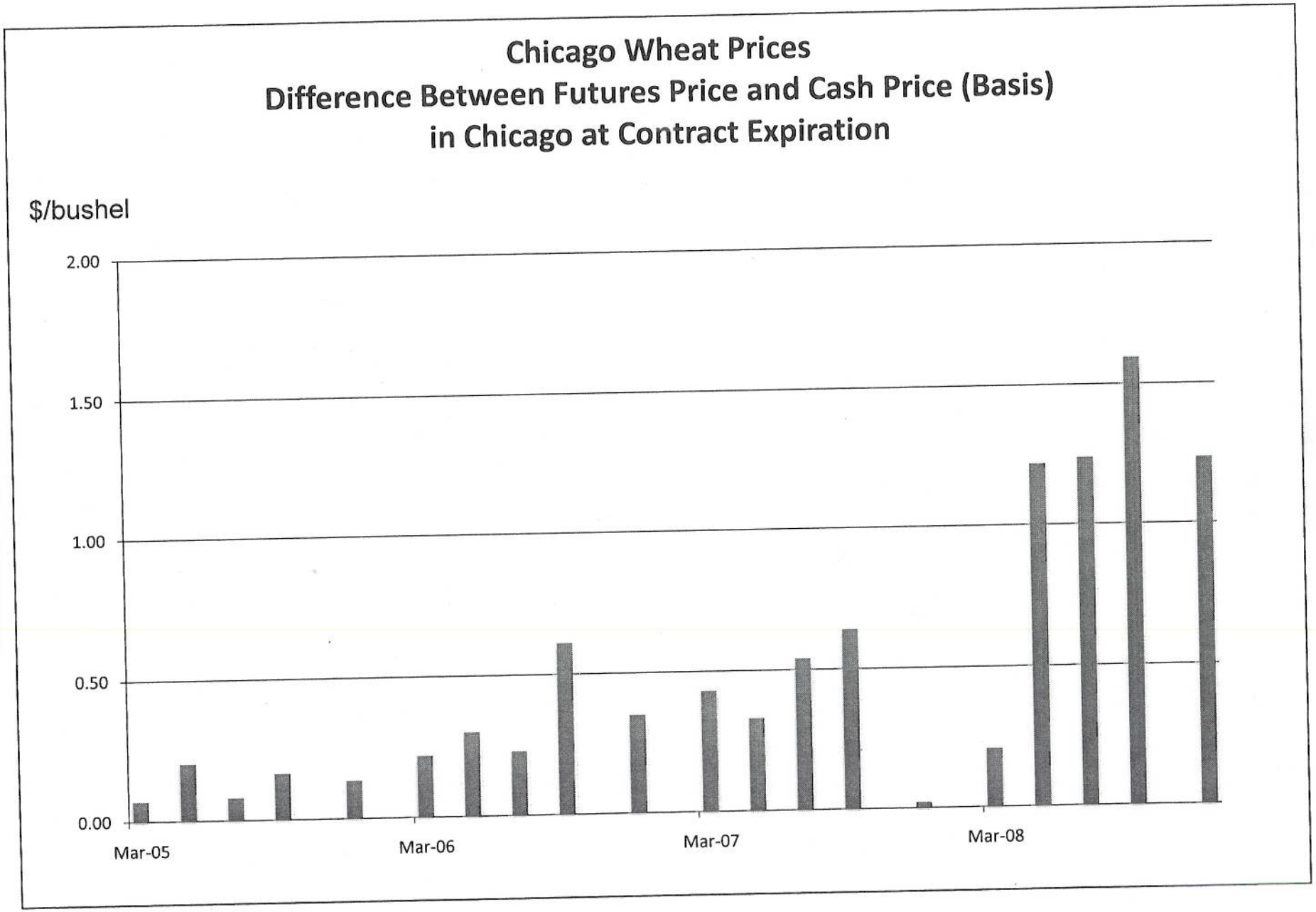
Chicago Wheat Prices
Daily Difference Between Futures and Cash Price
(Daily Basis)

Data Sources: CME (daily futures prices); MGEX (average daily cash prices)
Prepared by Permanent Subcommittee on Investigations, June 2009

Permanent Subcommittee on Investigation

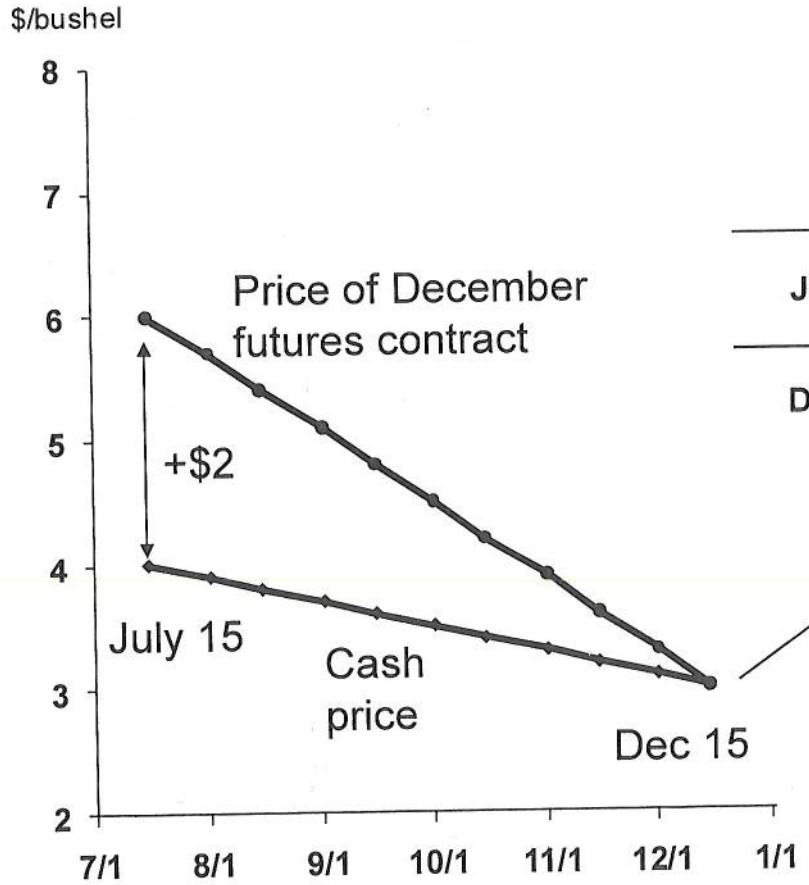
EXHIBIT #3

Chicago Wheat Prices
Difference Between Futures Price and Cash Price (Basis) in Chicago at Contract Expiration



Data Sources: CME (daily futures prices) and USDA (cash prices at Chicago)
Prepared by Permanent Subcommittee on Investigations, June 2009

Example of a Hedge With Convergence

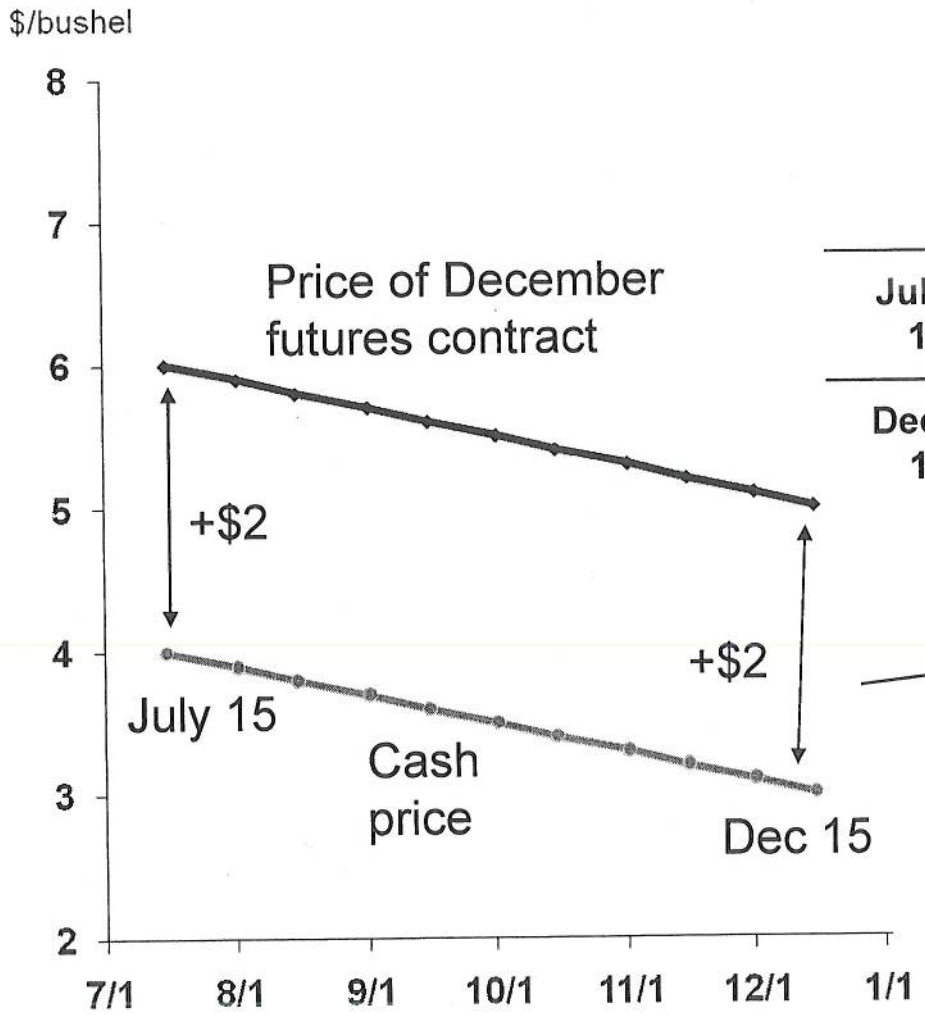


Net gain: +$2/bu.

	Cash Market	Futures Market	Net
July 15	BUY @ $4/bu.	SELL @ $6/bu.	+$2/bu.
Dec. 15	SELL @ $3/bu.	BUY @ $3/bu.	0

The futures price and cash price converge at expiration of the futures contract

Example of a Hedge Without Convergence



Net gain: $0 bu.

	Cash Market	Futures Market	Net
July 15	BUY @ $4/bu.	SELL @ $6/bu.	+$2/bu.
Dec. 15	SELL @ $3/bu.	BUY @ $5/bu.	-$2/bu.

Lack of convergence reduces effectiveness of the hedge

Permanent Subcommittee on Investigation
EXHIBIT #5