

Testimony of

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before the

**Committee on Agriculture, Nutrition and Forestry
United States Senate**

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Good morning, Chairman Harkin, Ranking Member Chambliss and Members of this Committee. I welcome the opportunity to appear before you today and testify on the very important topic of derivatives regulation.

EXECUTIVE SUMMARY

The derivatives markets present Congress, financial regulators and the Obama Administration with two very critical and very distinct problems. The first problem involves **systemic risk**, the risk of the world's financial system crashing, as we nearly experienced in the last four months of 2008. The second problem involves **excessive speculation**, whereby price bubbles occur in consumable commodity derivatives markets, pumping up the prices that Americans pay to feed their families, fuel their cars and heat their homes. While excessive speculation is not new, it has given rise to the very serious issue of **passive "investment"** in derivatives on consumable commodities.

The **systemic risk** problem can be virtually eliminated by mandatory exchange clearing with novation and daily margin posting. Nearly all over-the-counter (OTC) derivatives can clear through a Designated Clearing Organization (DCO). My testimony will detail exactly what elements of clearing are required to eliminate the risk to the financial system as a whole.

The **excessive speculation** problem can be eliminated by imposing aggregate speculative position limits. These limits must cover all trading venues and apply at the control entity level. Fifteen years ago almost all derivatives trading for consumable commodities such as crude oil, copper and corn took place on fully regulated futures exchanges where each commodity had a single liquid contract with strict speculative position limits in place. Today, derivatives trading on consumable commodities takes place across multiple venues. In order to effectively impose aggregate speculative position limits, all of those venues must be regulated equally, which will require closing all of the loopholes that have been opened up over the last 15 years.

To address the problem of **passive "investment"** in derivatives on consumable commodities, policymakers must first understand the critical distinction between financial derivatives and derivatives on consumable commodities. Once that is understood, it will become clear that the solution to the passive investment problem is the severe restriction of such damaging buy-and-hold "investment" strategies.

CURRENT BACKDROP

Near Collapse of the World Financial System

The world financial system, with Wall Street at its core, teetered on the brink of collapse during the last four months of 2008. This near meltdown had a catastrophic effect on our nation's economy, causing the loss of trillions of dollars in retirement savings and millions of American jobs, and requiring trillions of dollars in taxpayer money to flow to Wall Street to avoid a complete collapse.

The sums of money that have flowed to Wall Street during this crisis are almost beyond comprehension. The United States has doled out more money to fix Wall Street than we spent to fight all the wars in our nation's history, including World War I, World War II and the War in Iraq.

Many, including President Obama, have referred to this as the greatest economic crisis since the Great Depression. Congress owes it to the American people to understand and eliminate the existing weaknesses in our financial system in order to ensure that Wall Street never inflicts this kind of pain upon Main Street again.

The 2008 Bubble in Food and Energy Prices

The rapid deterioration of credit markets, which pushed our financial system to the brink, was greatly exacerbated by the meteoric and unjustified rise in food and energy prices during 2008. I testified extensively last year on the role of speculation in driving up the prices of life's basic necessities and the damaging effects that this had on our nation's economy. Time does not permit me to share all those facts and figures this morning, but I would refer you to my previous testimonies and the three reports that I have co-authored on the subject.¹

At this time, however, I would like to share a few key observations related specifically to the price of oil. According to the National Bureau of Economic

¹ May 20, 2008 – Testimony before Senate Homeland Security Committee

June 23, 2008 – Testimony before House Energy Subcommittee

June 24, 2008 – Testimony before Senate Homeland Security Committee

July 31, 2008 – Report entitled "The Accidental Hunt Brothers: How Institutional Investors Are Driving Up Food and Energy Prices"

September 10, 2008 – Report entitled "The Accidental Hunt Brothers – Act 2: Index Speculators Have Been a Major Cause of the Recent Drop in Oil Prices"

September 16, 2008 - Testimony before Senate Energy Subcommittee

February 4, 2009 – Report entitled "The 2008 Commodities Bubble: Assessing the Damage to the United States and Its Citizens"

February 4, 2009 – Testimony before House Agriculture Committee

All three reports can be downloaded from www.accidentalthuntbrothers.com.

Research (NBER), the United States entered an economic recession in December of 2007.² So U.S. economic output was dropping during the first six months of 2008. During that time, the worldwide supply of oil was increasing and the worldwide demand for oil was decreasing.³ With the world's largest oil consumer in an economic recession and with supply rising and demand falling, the price of oil should have been falling. Instead, oil defied the economic recession and defied the laws of supply and demand and rose an astronomical \$50 per barrel from the mid-\$90s to a peak of \$147 per barrel in just six months.

Beginning in mid-July, the oil bubble popped and the price of oil tumbled over \$110 per barrel from the mid-\$140s to a low of \$33 per barrel in less than six months. Never before in history has the price of oil fallen so far or so fast. Tim Evans, who is an energy analyst with Citigroup, summed it up the best, saying, "This is a market that is basically returning to the price level of a year ago, which it arguably should never have left, . . . We pumped up a big bubble, expanded it to an impressive dimension, and now it is popped and we have bubble gum in our hair."⁴

As I have documented extensively in my reports and previous testimonies, I believe the major factor behind this bubble in oil prices was the flow of speculative money into and out of the oil futures market.

The Potential 2009 Bubble in Oil Prices

While the threat of Congressional action in the summer of 2008 might have been a major catalyst for popping last year's speculative bubble in oil, nothing was actually done by Congress to put an end to the problem of excessive speculation. As a result, there is nothing to prevent another bubble in oil prices in 2009. In fact, signs of another possible bubble are already beginning to appear.

According to the Energy Information Administration (EIA), the available supply of crude oil in the United States is at a 20-year high, while the demand for crude oil is at a 10-year low.⁵ The International Energy Agency (IEA) sees a similarly bleak supply and demand outlook for the world as a whole.⁶ And yet, despite this glut of unwanted oil, the price has risen an amazing 85% per barrel from the mid-\$30s to mid-\$60s. In fact, oil prices increased more in the month of May than in

² "Determination of the December 2007 Peak in Economic Activity," Business Cycle Dating Committee, National Bureau of Economic Research, November 11, 2008. <http://www.nber.org/cycles/dec2008.html>

³ "World Oil Balance 2004-2008," Energy Information Association - United States Department of Energy, April 13, 2009. <http://www.eia.doe.gov/emeu/ipsr/t21.xls>

⁴ "The Official Demise Of The Oil Bubble," David Gaffen, Wall Street Journal, October 10, 2008.

⁵ "Are Wall Street speculators driving up gasoline prices?" Kevin G. Hall, McClatchy Newspapers, May 20, 2009.

⁶ "Investor Hopes for Rising Oil Demand Aren't Borne Out by Reality," Ben Casselman, Wall Street Journal, June 1, 2009.

any other month for the last 10 years. How is this possible, given our current economic woes and the tremendously negative supply and demand picture?

There has been a chorus of voices from market participants, economists and even OPEC, squarely pinning the blame on speculators for unjustifiably driving oil prices higher.⁷ Today, the price of oil is determined not primarily by the familiar laws of supply and demand, but largely by the trading desks of large Wall Street institutions.

If Congress allows this to continue, then once again oil prices threaten to throw our economy back into a double-dip recession, squashing all of the Obama Administration's attempts to revive our economy. Your constituents are flat on their backs financially and will not tolerate gasoline prices rising to \$3 or \$4 per gallon. High energy prices pose a threat to the things this Congress is trying to achieve - climate change, health care, et cetera - because all of those initiatives will be deemed too expensive.

Something must be done. Congress must act now before the U.S. economy is once again brought to its knees.

PROBLEM ONE: SYSTEMIC RISK

There were many factors that led to the rapid deterioration in credit markets and large losses on Wall Street during 2008. There was, however, one single factor that threatened to bring down the financial system as a whole. That was the interlocking web of over-the-counter (OTC) derivatives exposures amongst the biggest Wall Street swaps dealers. Many financial institutions might have gone bankrupt or suffered severe losses, but the system as a whole would not have been imperiled were it not for these completely unregulated dark markets.

OTC derivatives are bilateral contracts entered into between swaps dealers and their customers and between swaps dealers and each other. These contracts are agreements to pay one another certain amounts of money based on the direction of some price series that the contract references. OTC derivatives can encompass interest rates, credit spreads, equities, foreign exchange, commodities and even things as intangible as the weather.

Embedded in every OTC derivative is a credit exposure between the two counterparties based on the likelihood that each counterparty will be able to pay if their bets turn sour. This credit component is a major concern, because often little or no margin collateral is required to be posted to enter into these transactions. For this reason, the major money center banks with the best credit

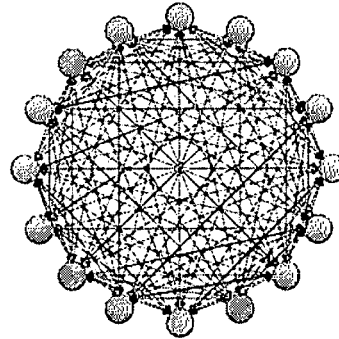
⁷ "OPEC Calls for Curbing Oil Speculation, Blames Funds (Update2)," Maher Chmaytelli, Bloomberg, January 28, 2009.

ratings are also the largest swaps dealers, because they are the most sought-after counterparties.

The larger a swap dealer is, the more exposures they have to various counterparties and the larger the size of those individual exposures. Since there is a great deal of trading amongst swaps dealers, there is an interlocking web of very large exposures amongst the 20–30 largest swaps dealers.

At the peak in 2008 the notional amount of OTC derivatives contracts outstanding totaled over \$684 trillion.⁸ These positions represented an extreme amount of leverage, as very little margin collateral backed up these huge bets.

**Graphical Illustration of
Interlocking Web of Exposures**



When Lehman Brothers went bankrupt, many of the major swaps dealers, as well as Lehman Brothers' swaps customers, immediately lost large sums of money that they were owed. At that point, every swaps dealer radically reevaluated the creditworthiness of their counterparties and questioned who might be the next to fail.

While swaps dealers knew the extent of their own exposures, they did not know the extent of anyone else's exposure. They did not know if one of their counterparties lost so much money to Lehman Brothers that they, too, might be forced to file bankruptcy. Not knowing this information, their self-preservation instinct forced them to reduce all their counterparty exposures as much as possible, since they did not know who was viable and who was bankrupt. This phenomenon was multiplied as all of the swaps dealers' customers took the same actions to limit their exposures. The net effect was to force the OTC derivatives market to come to a grinding halt.

This unregulated shadow banking system, as it has been called, was effectively destroyed, which threatened to destroy the regulated financial system with it. At this point, regulators were forced to pump trillions of dollars into the shadow banking system to allow OTC derivatives dealers to make each other whole on their bets. This was necessary to prevent a domino effect of dealer collapses that would have destroyed the world's financial system.

⁸ Bank for International Settlements, "Semiannual OTC Derivatives Statistics," June 2008.
<http://www.bis.org/statistics/derstats.htm>.

The most notorious of these dealers has been AIG. AIG is not even a bank, but the Federal Reserve was forced to bail them out because if the Fed had allowed AIG to go under, they would have dragged the whole financial system with them.

SOLUTION: MANDATORY EXCHANGE CLEARING

The risk of a financial system collapse must be eliminated, not regulated.

The U.S. does not need a Systemic Risk Regulator. We need regulation that eliminates the risk to the system. A fundamental premise of finance is that return follows risk. Wall Street swaps dealers should not be allowed to earn an outsized return by putting our financial system at risk.

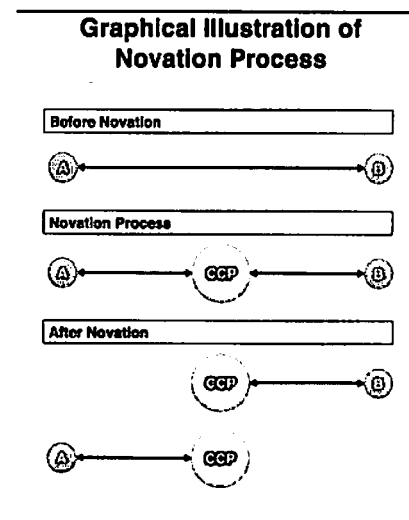
The problems inherent in the shadow financial system were two-fold:

- (1) The interlocking web of very large exposures between the major swaps dealers created the potential for a domino effect, wherein the failure of one dealer could lead to the failure of all dealers.
- (2) Losses did not have to be very high in order to force the first domino to fall, due to the extreme leverage that characterized those positions. This leverage was the result of requiring little or no margin collateral to be posted to insure those bets.

Everyone agrees that clearing needs to take place in order to increase the transparency of OTC derivatives markets. But not all clearing is created equal, and Congress must mandate that all OTC derivatives clear through a Designated Clearing Organization (DCO).

This clearing process must include two important provisions in order to counteract the two inherent problems in the shadow financial system. First, clearing must involve novation, wherein the DCO becomes the Central Counterparty (CCP) to both sides of the trade. And second, clearing must involve daily margin posting wherein the DCO/CCP collects daily margin variation payments from those dealers whose bets are going against them.

As an example, if Bank A enters into an interest rate swap with Bank B, then once that swap agreement clears, with novation, through the CCP, then the CCP becomes the counterparty to both



Bank A and Bank B. The result is that Bank A and Bank B are no longer counterparties to each other.

By insisting upon novation, the interlocking web of exposures amongst swaps dealers is eliminated, because every dealer's exposure is to the DCO/CCP. Another swaps dealer can go bankrupt and it will not affect any of the other dealers because they only have one counterparty – the Central Counterparty.

To protect itself, the CCP will require that margin collateral be posted with the initial trade. The CCP will further require that additional margin collateral be posted on a daily basis as market prices fluctuate and those bets result in profits or losses.

As an example, on a \$100 million interest rate swap, each counterparty might have to post \$8 million (the actual amount will be determined by the riskiness of the swaps contract). Then, if at the end of any day, one counterparty is approaching an \$8 million loss on their position, the Central Counterparty will require them to post another \$8 million in order to continually ensure that they have the money to cover their bets.

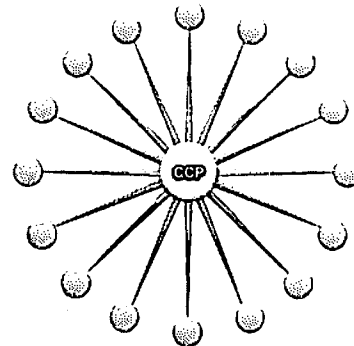
If this system had been in place last year, then AIG would never have been forced to the brink of bankruptcy. AIG had been putting aside very little margin with which to pay its bets. When AIG's credit rating was downgraded and it was forced to post margin, it did not have the cash to do it. This liquidity squeeze could have been completely avoided if AIG's OTC derivatives trades had cleared with novation through a DCO that required them to post daily margin.

Wall Street Will Oppose These Steps

Recently, the New York Times and the Wall Street Journal have featured articles about what Wall Street is trying to do right now to block efforts at derivatives legislation which, if passed, will cut into their profitable swaps dealing business.⁹ There are three reasons why Wall Street does not like the idea of mandatory exchange clearing of all OTC derivatives.

First, though they express a desire for transparency and got burned last year by the lack of transparency, they know that with greater the transparency comes

**Graphical Illustration of
Swaps Market with
Central Counterparty (CCP)**



⁹ "In Crisis, Banks Dig In for Fight Against Rules," Gretchen Morgenson and Don Van Natta, New York Times, May 31, 2009.

"Banks Seek Role in Bid to Overhaul Derivatives," Serena Ng, Wall Street Journal, May 29, 2009

narrower bid-ask spreads. As long as they can keep their clients in the dark as to what the true prices are for swaps, the longer they can charge their clients a substantial premium for entering and exiting trades.

Second, once all OTC derivatives are mandated to clear with novation (so that the DCO also becomes the CCP), their credit ratings will no longer be a competitive advantage. They will lose oligopoly pricing power because any two counterparties can trade, regardless of their respective credit ratings, since the CCP becomes the ultimate counterparty to all trades.

Third, they will lose access to unlimited leverage, and leverage ratios will have to come down from 30x or more to something closer to 12x. This means additional financing costs for each trade, which will cut into profitability.

Appropriate Standards for What Must Clear

Wall Street will seek to block mandatory exchange clearing by arguing that swaps are highly customized and that the vast majority of swaps cannot clear. While swaps might have certain elements of customization, they are, by their very nature, more standardized than Wall Street wants to admit.

Almost every OTC derivatives agreement references some published third party pricing service. As an example, for interest rate swaps it is often the London Interbank Offered Rate published by the British Bankers Association. This makes a swap based on LIBOR largely fungible with another swap that references LIBOR. After all, if these swaps were all unique then they could never be traded back and forth between swaps dealers.

For that reason, the standard that regulators should adopt for determining whether or not OTC derivatives should clear is not one of standardization versus customization but rather one of clearable versus non-clearable.

This standard was presented very clearly and forcefully by Chairman Gensler of the Commodities Futures Trading Commission (CFTC) during his confirmation hearing in front of this committee.¹⁰ He said repeatedly that if an OTC derivative can clear, then it should clear. This standard was reiterated by Treasury Secretary Geithner in his letter to Congress outlining the Administration's plans for derivatives regulation, where he said "if an OTC derivative is accepted for clearing by one or more fully regulated CCPs, it should create a presumption that it is a standardized contract and thus required to be cleared."¹¹

¹⁰ Senate Agriculture Hearing, February 25, 2009

¹¹ Letter to Senate Majority Leader Harry Reid from Treasury Secretary Timothy Geithner, May 13, 2009. www.financialstability.gov/docs/OTCletter.pdf

Derivatives Clearing Organizations regulated by the CFTC have a more than 140-year history of serving as a Central Counterparty. They know which OTC derivatives are standardized and clearable compared with those that are customized and unclearable. As the CCP, they will not clear anything that they cannot value or assess the risk upon. DCOs can be trusted to not clear anything that is customized to the point that it should not clear. Congress will find that the vast majority of OTC derivatives can clear with novation through DCOs.

For the highly customized OTC derivatives that cannot clear, there is a very strong question as to their utility and their social value. Why would someone need to enter into a swap agreement that is so esoteric and inscrutable that a DCO is not willing to touch it? Given the extreme risk associated with such exotic (I would even say toxic) derivatives, banking regulators should require that those derivatives carry capital charges of 50% or more. Then, if a bank enters into a \$100 million exotic unclearable swap, they would be required to set aside \$50 million in capital to cover any potential losses arising from that bet.

Wall Street will try to shift the debate to standardized vs. customized in order to avoid clearing. Congress has the responsibility to make clearable vs. non-clearable the right standard.

CRITICAL DISTINCTION: FINANCIAL DERIVATIVES VERSUS DERIVATIVES ON CONSUMABLE COMMODITIES

Financial instruments are things like stocks and bonds that investors hold in order to receive dividends, interest, cash flows, etc. Because of these associated cash flows these instruments have intrinsic value as investments. Financial instruments are designed to be held (often for the long term) by investors in a portfolio. Stocks, bonds and other financial instruments are issued in the capital markets by corporations for the purposes of funding daily operations and making large project investments for future growth.

Commodities are things like crude oil, copper and corn that are produced from the earth or produced from things that are produced from the earth. The value that human beings derive from commodities comes from their ability to be consumed. Commodities are essential to our economy (like energy) or essential to life itself (like food). Modern society cannot survive without the ability to consume commodities.

Derivatives are financial contracts that derive their value from an underlying asset. Derivatives exist on financial instruments as well as on consumable commodities. The U.S. derivatives markets on consumable commodities date back to 1865; derivatives markets on financial instruments were established over

100 years later when the first foreign currency contracts began trading in the early 1970s.

Financial derivatives quickly came to dwarf derivatives on consumable commodities. In fact, in June of 2008 when there were \$684 trillion in outstanding OTC derivatives contracts, only \$12.6 trillion was on consumable commodities (less than 2%).¹² With this proliferation, market participants and regulators have lost sight of the critical differences between financial derivatives and derivatives on consumable commodities.

In the financial derivatives markets, every participant is a speculator. Therefore, there is no such thing as "excessive speculation" in financial derivatives. Investors can use financial derivatives to hedge price risk related to underlying financial instruments in their portfolios. An example would be an equity mutual fund manager who might sell S&P 500 futures to reduce his exposure to market risk. Investors can also use financial derivatives to take on price risk. That same equity mutual fund manager might buy S&P 500 futures when he receives an influx of investor cash to maintain market exposure while he is working into the individual stock positions.

In the derivatives market for consumable commodities, in contrast, there are two completely distinct classes of market participants: bona fide hedgers and speculators. Bona fide hedgers are the actual producers and consumers of the physical commodities. They come to the commodities derivatives markets with inherent price risk from their underlying businesses, which they seek to reduce or eliminate. This is achieved when a producer who needs to sell enters into a contract with a consumer who needs to buy. This way both the producer and consumer agree to a future price and thereby eliminate their price risk.

Unlike bona fide physical hedgers, speculators in the derivatives market for consumable commodities have no business in the underlying commodity and therefore no price risk to hedge. If they do not want to assume price risk then their choice is simple, they simply do not transact in these markets. Speculators can always avoid price risk by simply not transacting.

Bona fide physical hedgers do not have that luxury. They provide a vital service to the worldwide economy by producing the essential commodities that the world needs to consume to survive.

In 1936, recognizing that the derivatives market for consumable commodities was created solely for the benefit of bona fide physical hedgers, Congress enacted the Commodity Exchange Act. This legislation allowed for regulators to

¹² Bank for International Settlements, "Semiannual OTC Derivatives Statistics," June 2008. <http://www.bis.org/statistics/derstats.htm>. Please note these figures do not include gold or other precious metals.

police the commodities futures markets for fraud, manipulation and excessive speculation.

Congress might have banned speculators from the commodities futures markets completely, but it was believed that a limited amount of speculation in the markets was necessary. Speculators were needed on the floor of the commodities futures exchanges so that when sell orders were transmitted via telegraph to the exchange floor, if they did not match up immediately with a comparable buy order (or vice versa) then the crowd of locals could fill those orders, buying and selling and balancing out the needs of producers and consumers. The locals in the pits acted essentially like middlemen or market-makers, similar to the way specialists operated on the New York Stock Exchange.

Perhaps I impute too much wisdom and forethought to Congress at the time but it seems like they were fully aware that buy orders and sell orders are what determine prices and that buying and selling - no matter who is doing it - will determine prices. For that reason, Congress put limits on speculators to ensure that bona fide physical hedgers were dominant in the price discovery process.

It was (and still is) essential that bona fide physical hedgers remain the dominant force in the commodities futures markets for four reasons:

1. **The commodities futures markets exist for the benefit of bona fide physical hedgers**, to provide a way to reduce risk and ensure the continued production of the essential commodities that our economy and citizens rely on every day for our existence.
2. **Bona fide physical hedgers trade to reduce risk, not to take on more risk.** Their primary business is producing and consuming, so their derivatives trading decisions are based on input and output, not emotion.
3. **Physical commodity producers and consumers trade based upon the actual physical supply and demand conditions that they are experiencing in their underlying businesses.** A farmer does not sell more wheat contracts than he actually intends to produce. A miller does not buy more wheat contracts than he actually intends to turn into flour.
4. **Speculative markets are susceptible to price bubbles.** Speculators throughout history have been famous for manias, panics and crashes. As an example, every significant capital market has had a major price bubble in the last ten years (emerging markets bubble, internet/tech bubble, housing bubble, etc). It is common for speculators, when they see prices rising, to pour money into a market, which causes the price to rise even more and attract even more speculators. This self-reinforcing cycle is what leads to price bubbles in excessively speculative markets.

PROBLEM TWO: EXCESSIVE SPECULATION

Excessive speculation is a condition of the derivatives markets for consumable commodities where speculators become more dominant in the marketplace than physical commodity producers and consumers. When excessive speculation is accompanied by speculative euphoria, completely unnatural bubbles occur in the prices for consumable commodities.

I label price bubbles in consumable commodities as unnatural because commodity prices naturally seek an equilibrium point equal to the marginal cost of production. As an example, if wheat prices fall below a level where the wheat farmer can cover his costs, then he will not plant any more wheat, which will result in reduced production and reduced supply, which will lead to higher prices in the future. If wheat prices rise to a level where the wheat farmer is making a dramatic profit above his costs, then he will plant as much wheat as he possibly can, which will increase production and increase supply and lead to lower prices in the future.

The decisions of physical commodity consumers also contribute to the stabilization of prices toward long-term equilibrium. When prices rise they demand less, which leads to excess supply and a falling price. When prices fall then they consume more, which leads to reduced supply and a rising price. So under normal conditions, commodities naturally stabilize around a long-term equilibrium level.

When speculators become dominant in the market for derivatives on consumable commodities, the supply- and demand-based trading of physical commodity producers and consumers takes a back seat to the high stakes trading of speculators as they attempt to out-trade each other to maximize their profits.

If speculators are dominant in a marketplace and a general sense of speculative euphoria takes hold, then a self-reinforcing cycle can set in where speculative inflows of money drive prices up and rising prices attract the inflow of more speculative money. This force can become powerful enough, given the tremendous amount of money that institutional investors have at their disposal, that commodity prices can become elevated well above long-term equilibrium prices over long periods of time.

When bubbles occur in the capital markets, those people left holding the securities at inflated prices suffer when the bubble pops. When bubbles occur in the derivatives market for consumable commodities, it is potentially devastating for every person on the planet.

Americans do not eat a bowl of stocks for breakfast. They don't fill their gas tanks with bonds. Bubbles in the capital markets typically do not hurt the

average American as they are expanding. But when speculators drive up food and energy prices, it inflicts tremendous pain on innocent bystanders.

SOLUTION: AGGREGATE SPECULATIVE POSITION LIMITS

Price bubbles have become possible in the commodities derivatives markets because of the proliferation of loopholes and the general dismantling of speculative position limits. In recent years, the United States government (at the behest of Wall Street) has effectively dismantled the system of speculative position limits that protected our commodities derivatives markets for more than 50 years. The result has been an unleashing of excessive speculation upon the American consumer.

In order to effectively put the genie back in the bottle, we must close all of the existing loopholes that were signed into law by the Commodities Futures Modernization Act of 2000 (CFMA) and apply aggregate speculative position limits across all trading venues. The rest of this section is dedicated to discussing exactly how to do that.

A speculative position limit is a limit on the size of positions that speculators can hold. Take, for example, Wheat on the Chicago Mercantile Exchange (CME). A speculator cannot control more than 6,500 contracts (either long or short). The purpose of these limits is to prevent speculators, individually and collectively, from exercising too much influence over prices.

Problem 2(A): The Swaps Loophole

Prior to the CFMA, the Commodities Exchange Act (CEA) forbade the idea of over-the-counter (OTC) derivatives on consumable commodities, and required that all derivatives trading occur on a regulated futures exchange. After the CFMA was signed into law in 2000, OTC derivatives on consumable commodities were allowed to proliferate, and they did, rising from a notional value of \$389 billion in December 2000 to a notional value of \$12,389 billion in June 2008 (a greater than 3000% increase).¹³

Because some bona fide physical hedgers have chosen to use the OTC swaps market to hedge their physical commodity exposures, the CFTC has granted a blanket exemption to swaps dealers, giving them virtually free reign to buy and

¹³ Bank for International Settlements, "Semiannual OTC Derivatives Statistics," June 2008. <http://www.bis.org/statistics/derstats.htm>. Please note these figures do not include gold and other precious metals.

sell enormous quantities of futures contracts without being subject to position limits.¹⁴

This is the swaps loophole: since swaps dealers have free reign to buy and sell in unlimited quantities, a hedge fund looking to speculate in a commodity like wheat (which still has position limits) can enter into a swap of unlimited size with a swaps dealer who can then access the wheat futures market, buying or selling wheat futures far in excess of position limits.

The CFTC justified this practice by saying that the swaps dealer is hedging risk like a bona fide hedger. But they failed to make the critical distinction that wheat farmers incur price risk while producing a valuable commodity used to feed the world, while swaps dealers incur price risk as they try to enrich themselves by serving as a conduit for speculators to avoid position limits.

To their credit, the CFTC has announced their intention to re-examine the swaps loophole and to look for ways to put more restrictions on swaps dealers' access to the futures markets.

Solution 2(A): Mandatory Exchange Clearing for Derivatives on Consumable Commodities Makes Aggregate Speculative Position Limits Simple to Implement

The best way to close the swaps loophole is to mandate that all OTC derivatives on consumable commodities clear through an exchange with novation and daily margin. As outlined earlier, mandatory exchange clearing needs to happen for all OTC derivatives in order to eliminate systemic risk. It is especially important for OTC commodity derivatives, because that will enable regulators to effectively close the swaps loophole by looking through the swaps transaction to the ultimate counterparty.

When an OTC derivative such as a swap clears through an exchange, the exchange breaks that transaction into its component parts and becomes the central counterparty to both sides of the trade. When this happens, both the swaps dealer and their counterparty become counterparties to the exchange. This enables regulators to see both sides of the OTC derivatives transaction. Currently, regulators only see the futures trades that the swaps dealer makes in order to hedge their OTC derivatives transaction.

¹⁴ Please note that while some regulated commodities futures markets still have stated position limits, many do not. On NYMEX for instance, position limits have been replaced by position "accountability" limits, which are really not limits at all.

Example of How a Swap Would Clear

Swaps are generally composed of a futures-equivalent position and one or more basis positions. Commodity futures are designed to have broad-based appeal in order to attract the most liquidity. For that reason they typically choose the most popular grade(s) of the commodity, the most popular delivery point(s) and the most popular delivery time(s). Futures contracts also have a standard number of units (bushel, barrels, etc).

Swaps and other OTC derivatives allow for changes to one or more of these factors. Those differences between the futures contract and the swap contract are called basis. Heating oil and jet fuel, for instance, are both closely related middle distillates produced from crude oil. They trade closely to one another but not identically. You have to adjust for those basis differences when you go to hedge or clear a swap.

Let's use a simple example of a commercial airline that wants to hedge its consumption of jet fuel through a monthly swap that extends for 24 months (2 years). Keeping it simple, let's assume this swap is for 420,000 gallons of New York Jet fuel each month. A futures contract is for 42,000 gallons so this is the equivalent of 10 futures contracts.

Therefore once the swaps dealer enters into this swap with the commercial airline, he will buy 10 NY Heating Oil contracts in each of the next 24 months to hedge himself. This will cover most of his risk but not 100% of his risk. If the swaps dealer wants to be fully hedged then he can also enter into a NY Heating Oil for NY Jet Fuel basis swap. This basis swap is a product that trades through NYMEX.

Example of Swap Components

$$\begin{array}{ccccc} \text{New York Jet Fuel} & & \text{New York Heating Oil} & & \text{NY Heating Oil for NY Jet} \\ \text{Swap} & = & \text{Futures} & + & \text{Fuel Basis Swap} \end{array}$$

If the airline and the swaps dealer take their swap to NYMEX for clearing then NYMEX will break the trade down into its two parts. The airline will be long 10 NY Heating Oil contracts in each of the next 24 months plus long a NY Jet Fuel for NY Heating Oil swap in those same months. The swaps dealer will be short 10 NY Heating Oil contracts in each of the next 24 months plus short a NY Jet Fuel for NY Heating Oil swap in those same months.

When the swaps dealer's cleared swap position (short 10 contracts x 24 months) is matched with the NY Heating Oil futures that he purchased in order to hedge

(long 10 contracts x 24 months) then the two will cancel each other out and he will have eliminated all his futures-equivalent risk.

The swaps dealer will only be left with the basis risk from the NY Jet Fuel for NY Heating Oil position. If he wants to totally eliminate his risk he can enter into a basis swap in the OTC markets or through NYMEX. Once he does this then those trades will also clear and at that point the swaps dealer will have no position.

In the meantime, the commercial airline has the exact position that it wanted to have, which is long 420,000 gallons of New York Jet Fuel each month for the next 24 months. Its position just happens to be NY Heating Oil futures plus a NY Jet Fuel for NY Heating Oil basis swap. And now the airline's counterparty is no longer the swaps dealer but NYMEX.

The Costs of Clearing for Bona Fide Physical Hedgers Is Outweighed By The Benefits

Experts agree that once virtually all over-the-counter derivatives begin clearing through an exchange, then bid-ask spreads will narrow substantially due to heightened transparency. This will substantially reduce the costs of entering and exiting positions, and the relatively modest cost of clearing will easily be offset by the change in spreads. When swaps dealers lose their oligopoly pricing power, their customers will win in terms of better pricing.

Bona fide physical hedgers will be required to post margin collateral with the Central Counterparty (CCP), but that collateral will earn interest. So physical hedgers will only be financing the spread between their borrowing rate and the interest they earn on collateral. Every swaps dealer includes a cost of capital and a credit charge in their swaps pricing. This is partially due to the fact that swaps dealers have to post margin when they access the futures markets to hedge. Physical hedgers have been paying this cost in the OTC markets all along; they just have not been explicitly aware of it.

Once spreads narrow, then liquidity in the OTC markets will most likely increase. This is what we observed in the stock market's switch to decimal prices. Bid-ask spreads quickly collapsed from a quarter (25 cents) or an eighth (12.5 cents) down to one or two pennies routinely. This led to more trading and therefore more liquidity.

In addition because of the existence of a CCP, anyone can trade with anyone else. The fact that everybody's counterparty is the CCP means that credit risk is no longer a consideration and counterparties are not limited to trading with large money center banks. Electronic trading will make it possible for producers to trade directly with consumers with no swaps dealer as a middleman.

Finally, the biggest benefit of mandatory exchange clearing for consumable commodities is that clearing enables the markets to be protected against excessive speculation. The best method for applying aggregate speculative position limits is to require OTC derivatives to clear first. Without substantially all OTC derivatives clearing it becomes very difficult for the CFTC to make those position limits apply. The costs of another speculative bubble are orders of magnitude greater than any costs brought on by exchange clearing.

This Solution Allows CFTC to Leverage the Computational Processing Power of the DCO

Mandating that all OTC derivatives transactions in consumable commodities clear through an exchange solves the problem of how to apply aggregate speculative position limits in the OTC markets. Once the transactions clear, they are broken into their nearest futures contracts equivalents plus a minor basis position. When all OTC derivatives transactions in consumable commodities can be seen by regulators, then it becomes simple to apply aggregate position limits to speculators' positions.

It also means that swaps dealers' swap positions net out with the futures hedges that they have executed against those swaps positions. This means that swaps dealers will only face position limits when they are unhedged, since an unhedged position is the same thing as a proprietary trading position. This is the exact effect that regulators should be looking for.

Under this system, the DCO does all the computational "heavy-lifting" for the CFTC in terms of breaking down OTC derivatives transactions into their component futures equivalents and then netting exposures to arrive at a net position. If OTC derivatives transactions are not forced to clear, then the CFTC must perform all these computational tasks themselves (instead of the DCO) to be in a position to effectively look through swaps transactions and place position limits on speculators in the OTC derivatives markets. The CFTC will, in essence, be forced to assume many of the roles of a DCO.

Problem 2(B): The London Loophole

Some Foreign Boards of Trade (FBOT) trade contracts that are virtually identical to the futures contracts being traded on U.S.-regulated futures exchanges. As an example the Intercontinental Exchange (ICE), which is an Atlanta, GA-based company, has a London-based subsidiary (the former International Petroleum Exchange), which is currently regulated by the U.K.'s Financial Services Authority (FSA). ICE trades a WTI contract that actually cash-settles based on the NYMEX WTI crude oil settlement price.

This is called the "London Loophole" because the ICE WTI contract is essentially fungible with the NYMEX WTI contract. The ICE WTI contracts have no

speculative position limits and they are currently not subject to CFTC regulation. But because the two contracts are virtually identical, they are tightly bound by arbitrage trading.

The CFTC allows this regulatory arbitrage to continue, even though it is certainly within their power to regulate a commodity contract with a U.S. commodity (West Texas crude) and a U.S. parent company. In fact, any FBOT that wants to have trading terminals in the United States must get the permission of the CFTC to do so and that permission can be conditional on meeting any requirements that the CFTC deems necessary. Likewise, the CFTC has to sign off on any contracts that are to be traded by U.S.-based traders.

Solution 2(B): Require Foreign Boards of Trade to Submit Comparable Data and to Take Comparable Remedial Action for Violations

The solution to the London Loophole is simple. Foreign Boards of Trade must be required to supply all the same data that Designated Contract Markets (DCMs) provide to the CFTC, and they must be prepared to enforce speculative position limits by forcing speculators to reduce over-limit positions.

Anyone trading in U.S.-regulated derivatives markets, whether that is on a DCM or OTC should be required to obtain a Large Trader Identification Number (LTIN).¹⁵ In addition, that trader should be required by law to provide their LTIN to any FBOTs that they trade upon. If speculators want to trade in our markets then they should agree to provide their LTIN to any FBOTs that they trade upon. Any traders that fail to provide their LTINs when trading abroad should be banned from trading in the United States.

As a condition for allowing FBOTs to place their terminals in the United States and to trade with American citizens and corporations, they must agree to share large trader reporting data (including LTIN numbers) with the CFTC on a daily basis. If the CFTC determines that a trader is over their speculative position limits, then the FBOT must agree to take appropriate actions to remedy the situation.

Right now the possibility for cross-border regulatory coordination is at an all-time high. G8 energy ministers just issued a statement this week along with OPEC calling for greater regulation to crack down on excessive speculation in the energy markets.¹⁶ The United Nations and Asian energy ministers have made similar calls as well.¹⁷ It could be possible to establish a global large trader

¹⁵ I discuss LTINs in depth later in this testimony.

¹⁶ "G8 ministers lay course on energy security, efficiency," Silvia Marchetti, Xinhua, May 25, 2009

¹⁷ "OPEC, Asia May Call for Curbs on Speculation in Oil (Update2)," Shigeru Sato and Yuji Okada, Bloomberg, April 26, 2009.

reporting system given the current desire for greater global coordination and regulation. The CFTC should be authorized to share similar information on large traders with other foreign regulatory authorities that want to establish similar systems to monitor aggregate speculative position limits.

Problem 2(C): The Enron Loophole

The Commodities Futures Modernization Act of 2000 (CFMA) arbitrarily created a new category of commodities called "exempt commodities." CFMA allowed exempt commodities to be traded on Exempt Commercial Markets (ECM), free from speculative position limits and most all of the CFTC requirements of Designated Commercial Markets (DCM).

The flawed belief was that there were some consumable commodities (such as crude oil) that had such large deliverable supplies that they were not susceptible to manipulation. This is a grave error for two reasons.

First, a commodity that has a large supply but a similarly large demand is balanced so tightly that it does not take a great amount of effort to manipulate the market for that commodity. Second, as I have already detailed, derivatives markets for consumable commodities are not just subject to manipulation, but to excessive speculation as well. This flawed concept completely ignores the critical element of excessive speculation, whereby prices can be dramatically affected even if there is no specific intent to manipulate.

Solution 2(C): Require Exempt Commercial Markets to Become Designated Commercial Markets

Enron pushed hard for the inclusion of exempt commodities and ECMs in the CFMA, which is why this is called the Enron Loophole. They used this loophole to create Enron Online and then they reportedly used Enron Online to manipulate electricity markets on the West Coast of the United States.

With Enron bankrupt and discredited and the flawed concept of ECMs exposed, it makes sense to simply do away with the ECM designation. All ECMs should be required to convert to Designated Commercial Markets or shut down operations.

Gold and Silver Can Remain Exempt Commodities

Exempt commodities should be defined within the Commodity Exchange Act as gold and possibly silver. While gold and silver are commodities consumed in industrial applications, they historically have been recognized as stores of value, and have been used as currency for thousands of years. Therefore, they are considered by most to be more like investments than other consumable commodities.

Gold and silver have historically represented valid investment vehicles, and therefore do not need to be protected from excessive speculation by position limits.¹⁸ If a bubble were to occur in the price of gold, it would not have the devastating impact to someone's health or the health of the economy the way bubbles in food and energy prices do.

CFTC Must Set Aggregate Speculative Position Limits for All Derivatives on Consumable Commodities

Fifteen years ago, when there was only one trading venue for consumable commodities and, in most cases, only one futures contract for each basic commodity, it was very simple to apply speculative position limits. Today, because there are multiple trading venues and multiple variations on each basic commodity, it has become necessary to develop a system of aggregating those positions together in order to apply an overall speculative position limit.

The goal with aggregate speculative position limits is simply to treat speculators equally regardless of which trading venue they select to trade in. The playing field needs to be leveled so that speculators are not given the incentive to engage in regulatory arbitrage and move their trading from one (more transparent or more regulated) venue to another.

The CFTC must set the aggregate speculative position limits for all consumable commodities in order to protect those derivatives markets against excessive speculation. Exchanges can continue to set position limits for financial futures to protect against manipulation (where their interest is aligned with the public interest) but they should not be allowed to set aggregate speculative position limits for consumable commodities. There are two primary reasons for this:

1. The futures exchanges (like CME group), which have become for-profit public companies, have a duty to shareholders to maximize profits. There is an inherent conflict of interest between their shareholders' interest and the public interest as a whole. The public interest would dictate that speculative trading be limited as much as possible while still maintaining sufficient liquidity. Since the futures exchanges profit based on the level of volume, their shareholders would like to see no speculative position limits at all.
2. Because futures exchanges are no longer the sole venue for trading derivatives on consumable commodities, they are not able to form a comprehensive speculative position limit that covers their competitors in addition to themselves.

The CFTC needs to identify speculative position limits for the nearest to expiration contract period, all other contract periods, and an overall limit for all

¹⁸ Like financial futures, gold and silver still need to be protected from fraud and manipulation.

positions combined. As an example, in crude oil, perhaps speculators should be limited to holding no more than 1,000,000 barrels in the prompt month, 3,000,000 barrels in any other single month, and no more than 5,000,000 barrels in total. Speculative position limits should be expressed in the underlying units (barrels and bushels), rather than the number of contracts, since OTC derivatives positions will be included for determining the aggregate limits.

A distinction is drawn for the nearest to expiration contract period because it needs additional protection to prevent manipulation as the derivatives enter the delivery period. A limit is imposed upon each individual contract period in order to prevent a speculator from concentrating all its trading in one period. And the overall limit is imposed to prevent a situation of excessive speculation in the commodity as a whole.

A speculator that violates position limits by holding larger positions than the limits would allow must be prevented from adding to these positions. This means that those positions become "liquidation only" and they can be reduced but not added to. A speculator that repeatedly violates position limits can face stiff monetary penalties and the CFTC can force them to liquidate their positions (on a pro rata share across trading venues) until they fall back below the limits.

Issue All Large Traders an Identification Number at the Control Entity Level

When large traders fill out CFTC Form 40, they should be issued a Large Trader Identification Number (LTIN). This LTIN must then be associated with every trade that clears, whether that trade originated on a DCM, DTEF, FBOT or OTC. At the end of every trading day, every clearing organization (including foreign clearing organizations) must report the positions of all large traders according to their LTIN. This accomplishes two things. First and foremost, the positions can be compiled by LTIN to see if any speculators are exceeding position limits. It also allows for the Commitments of Traders data to be collected daily instead of weekly.

Large Trader Identification Numbers (LTIN) must be issued at the control entity level. For instance one hedge fund gets one LTIN. Speculators cannot be allowed to create multiple shell subsidiaries in order to obtain multiple LTINs.

Bona fide physical hedgers who fill out Form 40 should also be issued LTINs. As part of Form 40, they should be required to indicate (under penalty of perjury) the size of their physical commodity business and whether they are selling commodities, buying commodities or both (middlemen). The LTIN can then be used to make sure that these physical hedgers are in fact hedging and not just speculating in the markets. For instance, an oil producer (who is long the price of oil to begin with) should not be allowed to establish a net long position in futures

contracts. Nor should they be allowed to establish a net short position that exceeds the size of their underlying business.

Positions Should Be Aggregated for the Basic Commodity

Any time there is a strong relationship between substantially similar commodities then those commodities should receive one aggregate position limit for the purpose of limiting excessive speculation. As an example, wheat is wheat, whether it's soft or hard, spring or winter, it's still wheat. Crude oil is crude oil, whether it's heavy or light, sweet or sour, it's still crude oil. If the price of light sweet crude skyrockets then that is going to have a substantial impact on the price of heavy sour crude. If the price of soft red winter wheat crashes, then that is going to have a substantial impact on the price of hard red spring wheat.

This is not to say that there are no differences between these commodities, but rather that the differences are extremely well-known and that is why there is a great deal of basis trading and arbitrage trading that takes place between substantially similar commodities. Any time there is arbitrage or basis trading there is a strong price discovery relationship. These basis and arbitrage trades are what "enforce" the relationship between these commodities and it is for this reason that they should be aggregated together under one speculative position limit.

As an extreme example, if a speculator wanted to buy 1 billion barrels worth of NYMEX WTI crude oil futures contracts, but was prevented from doing so by speculative position limits, and they purchased 1 billion barrels worth of ICE Brent crude oil futures contracts instead, then that would push up the price of ICE Brent. But it would also push up the price of all other crude oil contracts around the world, because a large fraction of the people selling those 1 billion barrels worth of ICE Brent would be arbitrageurs and basis traders who would be selling ICE Brent and simultaneously buying WTI, Dubai Sour, et cetera. Having speculative position limits on the NYMEX would go a long way to blunt the impact of this arbitrageur/basis trader buying (as long as those traders were not given exemptions from speculative position limits). But even with speculative limits, there are enough of these types of traders that it would be impossible for large magnitude price moves in ICE Brent not to have a significant effect on NYMEX WTI prices.

For this reason, the speculative position limits should be set for the commodity as a whole (crude oil) rather than for one particular grade or delivery location. One practical benefit of this approach is that exemptions for basis trading and arbitrage are not necessary because both legs of their trades fall under the same umbrella speculative position limit and therefore net each other out.

The 2008 Farm Bill introduced the concept of "significant price discovery" contracts. This gives the impression that it is somehow possible for two contracts on the same commodity to not have a significant impact on each other. However, this is not possible whenever arbitrage trading is occurring. The arbitrage and basis relationships between substantially similar commodities ensure that they always significantly affect one another from a price discovery standpoint.

Positions Should Be Aggregated Across Trading Venues

In our above example dealing with NYMEX WTI and ICE Brent, we talked about how two venues trading different grades of crude oil would still have a strong price discovery relationship binding them together. This relationship would be even stronger (virtually one for one) if we are talking about NYMEX WTI and ICE WTI where the deliverable grades are identical and one contract cash-settles against the other. Right now there are no hard and fast speculative position limits in either contract (except for the last 3 days on the NYMEX) so those two contracts are bound at the hip by arbitrage.

We gave another example earlier of an airline that approaches a swaps dealer about hedging their jet fuel exposure by entering a swap for 420,000 gallons of jet fuel per month for the next 24 months. To hedge this swap, the swaps dealer has two options: (1) they can go to the NYMEX and buy 10 heating oil contracts in the each of the next 24 months or (2) they can find a refiner that wants to hedge their jet fuel (or heating oil) production by entering into a swap to sell 420,000 gallons of jet fuel per month for the next 24 months.

In either case this swap has a direct price discovery impact on the futures market resulting in either 10 more heating oil contracts on the long side (if the swaps dealer hedges directly on the futures exchange) or 10 fewer heating oil contracts on the sell side (if the refiner hedges in the OTC markets rather than on the futures exchange).¹⁹ So it is clear from these two examples that the derivatives market for consumable commodities has multiple venues that are really just extensions of one another.

Because the trading venue does not matter in terms of the overall price effect on the market as a whole, speculative position limits need to be aggregated across trading venues. The objective is to simply level the playing field and treat all speculators equally regardless of whether they trade on a DCM, DTEF, FBOT or OTC.

¹⁹ Please note that if one swaps dealer trades with another swaps dealer, then the first dealer has simply passed along the problem of how to hedge to the second dealer.

Congress Should Define Excessive Speculation and Charge the CFTC with Enforcing an Overall Limit on the Amount of Speculation Present in the Derivatives Markets for Each Basic Commodity

The Commodity Exchange Act (CEA) does not clearly define the concept of excessive speculation. Perhaps Congress believed that the term was self-explanatory, simply meaning "too much speculation." But since the concept was not clearly defined, swaps dealers and the futures exchanges have been able to redefine it to mean something more akin to manipulation.

For that reason, I would propose that Congress amend the CEA to clearly state that excessive speculation is a condition of the derivatives markets for consumable commodities wherein speculators are a more dominant force in price discovery than bona fide physical hedgers. And when a state of excessive speculation exists, it is possible for speculative price bubbles to form.

Since a speculative price bubble in consumable commodities is potentially devastating to humanity, I believe Congress should mandate a percentage of open interest calculation to ensure that the positions held by speculators never exceed the positions held by bona fide physical hedgers (50% of the market). Then Congress should instruct the CFTC to adjust the individual speculative position limits so that the overall speculation percentage of the markets lies in the range of 15% - 35%.

Please note that the average consumable commodity futures market was about 25% speculative ten years ago.²⁰ It is only in the last ten years that we have seen a surge in speculation to the point where speculators now dramatically outnumber bona fide physical hedgers in many markets. With that surge in speculation has come a surge in the volatility of commodity prices – last year's bubble in crude oil prices being the primary example. We need sufficient liquidity in these markets, but we don't need excessive liquidity because that leads to excessive speculation and excessive price volatility.

With the proliferation of the Internet and electronic trading facilities, it is much easier for physical producers and consumers to transact amongst themselves without the need for speculators' liquidity. That is why 25% might be more than enough speculation to provide the markets with sufficient liquidity.

If there is too much speculation in the overall derivatives market for a consumable commodity (say 40%), then the individual speculative position limits must be adjusted downward to reduce the overall level of speculation. This can be accomplished through a series of "circuit breakers" which would be designed to keep overall speculation within a targeted range.

²⁰ These calculations can be found on pages 33-34 of our report "The Accidental Hunt Brothers" www.accidentalthuntbrothers.com

CFTC Should Semi-Annually Convene a Hearing of Physical Commodity Producers and Consumers to Recommend Aggregate Speculative Position Limits and an Overall Market Percentage for Speculation

To recognize the foundational fact that derivatives markets for consumable commodities exist solely to enable bona fide physical producers and consumers to hedge their price risk, Congress should mandate that the CFTC semi-annually convene a hearing of physical producers and consumers. These producers and consumers (for whom these markets exist) know whether or not the markets are working for them and whether or not they need more liquidity or less speculation. They are therefore in the best position to recommend aggregate speculative position limits for each commodity and also a target for an overall speculation percentage in that commodity derivatives market. The CFTC should adopt those recommendations or provide a detailed formal response to Congress as to why they are rejecting the proposals.

Congress Should Give the CFTC Explicit Power to Police OTC Commodities Derivatives Markets for Fraud and Manipulation

If OTC derivatives are allowed to trade off-exchange then the CFTC must be given explicit powers to police the consumable commodities OTC derivatives markets for fraud and manipulation. Commodities futures are fully regulated by the CFTC against fraud and manipulation. The physical energy markets are regulated by the Federal Energy Regulatory Commission (FERC) and Federal Trade Commission (FTC) for fraud and manipulation in natural gas/electricity and oil respectively. Therefore it makes sense that the OTC markets be regulated for fraud and manipulation as well. In the end, all regulatory arbitrage of this sort should be eliminated.

Passive "Investment" In Derivatives on Consumable Commodities is a New and Very Damaging Threat to the Markets

As mentioned earlier, the distinctions between financial derivatives and derivatives on consumable commodities have been blurred. Wall Street has pulled the wool over institutional investors' eyes and convinced them that derivatives on consumable commodities are a legitimate "asset class" and that it is possible to "invest" in commodities futures.

Derivatives have no value in and of themselves. All their value is derived from the underlying asset. In the case of consumable commodities, what is underlying these contracts are not securities or capital markets instruments, but the food and energy that Americans need to consume in order to survive and thrive.

I hope that the U.S. government would not allow investors to buy up actual food or actual crude oil and hoard them because they are deluded into thinking they are making a good investment. We need those commodities to feed ourselves and fuel our economy. If investors, therefore, cannot "buy and hoard" the underlying commodities, then they should not be allowed to "buy and hold" the derivatives on those commodities.

Derivatives on consumable commodities do not pay interest, dividends or rents, and they have no associated cash flows because the underlying commodities have none of these things. In fact, in many cases consumable commodities have transportation and storage costs and decay over time, which means the "yield" from holding these commodities is negative.

Speculators are permitted in the derivatives markets for consumable commodities only because they provide liquidity. If someone attempts to "buy and hold" a position in commodity futures by continuously rolling it then that speculator is consuming liquidity. They have bought that contract perhaps from a bona fide physical producer and then rather than selling it to a bona fide physical consumer they hold onto it for "the long term."

Because these passive investors are almost always buying, their buying pressure pushes prices up. And since they are holding for the long term, it could be years and years before they sell. In the meantime, if enough people buy and hold, prices will increase and remain elevated for a long period of time.

Commodity index investment is an especially damaging form of passive investment that entails the buying and holding of a large basket (index) of consumable commodities derivatives. These investors do not trade on the basis of supply and demand. Instead, they blindly allocate money to crude oil, copper, corn, et cetera, which all have vastly different supply and demand dynamics.

Every barrel or bushel traded for reasons other than supply and demand is a barrel or bushel that distorts the price discovery function of the consumable commodities derivatives markets. Someone who buys one or more consumable commodities derivatives with the express intention of "hedging against inflation" damages the price discovery function of those markets by investing without regard for the underlying supply and demand conditions. In buying commodities futures, that misguided investor is actually causing inflation by pumping up commodity prices.

Passive "Investment" in Consumable Commodities Should Be Severely Restricted

For the reasons I just detailed, passive investment in these markets should be severely restricted. It is simple to define what constitutes passive investment. It

is a trading strategy that calls for maintaining a continuously long (or short) position in a consumable commodity.

Passive investors should face aggregate speculative position limits that are 10% or less than the limits faced by actively trading speculators. So, as an example, if the aggregate speculative position limit is 5,000,000 barrels for crude oil, then passive investors should only be allowed to buy and hold a maximum of 500,000 barrels of crude oil derivatives.

This also means that the levels for what constitutes a reportable position, for large trader reporting and identification purposes, should be reduced by a commensurate amount. So, as another example, if any speculator over 250,000 barrels typically needs to report their position then any passive investor over 25,000 barrels should be forced to report.

This regime of much tighter aggregate speculative position limits needs to apply to exchange traded funds (ETFs), exchange traded notes (ETNs), any other hybrid securities, as well as to commodity-based mutual funds. Any individual who wants to buy ETFs, ETNs or mutual funds that represent a passive investment in consumable commodities should be required to fill out Form 40 and obtain a Large Trader Identification Number (LTIN) before they can place their order.

The Commodities Futures Trading Commission (CFTC) Has the Experience and Skills to Implement these Recommendations and the Securities and Exchange Commission (SEC) and Federal Reserve (Fed) Do Not

In order to eliminate systemic risk and effectively implement a system of mandatory exchange clearing with novation and margin, we need regulators who are intimately familiar with the novation and margin processes. Futures exchanges have been novating contracts and assessing margin for over 140 years. The CFTC and its predecessors have been regulating these processes for over 70 years.

In contrast, the clearing processes for securities simply involve the transfer of money in exchange for the securities themselves. They do not involve novation or daily margin posting. Therefore, the SEC lacks the experience necessary to effectively regulate these areas. So does the Federal Reserve, who allowed the shadow financial system to proliferate under their watch and only intervened after the system began to crumble.

In addition, the CFTC and its predecessors have been imposing speculative position limits for over 70 years. They are the only regulator who has ever been charged with guarding the markets against excessive speculation.

The SEC presides over the capital markets where everyone is a speculator. They are unfamiliar with the concept of excessive speculation and have little experience with setting and enforcing position limits.

In fact in a gross example of regulatory arbitrage, the SEC has allowed passive commodity investments in ETFs, ETNs and commodity mutual funds. They have signed off on double-leveraged crude oil ETFs (like DXO) that allow any investor to make leveraged speculative investments in crude oil within their retirement accounts. This does not show good judgment from a consumer protection or a market protection standpoint.

The Federal Reserve has little experience in regulating commodities markets and setting speculative position limits. Most banks are forbidden to participate in the physical commodities markets, although the Federal Reserve has granted exemptions for the big commodities swaps dealers like Goldman Sachs, Morgan Stanley and J.P. Morgan. Since all banks would naturally be characterized as speculators in the commodities derivatives markets, the Federal Reserve seems like an illogical choice for guarding these markets against excessive speculation.

For these reasons, the CFTC is the best regulator to police the consumable commodities derivatives markets. They also are the best choice for overseeing the mandatory exchange clearing of the OTC derivatives markets as a whole because of their experience with novation and daily margin posting.

SUMMARY

In summary, let me say that the solutions I have outlined in my testimony are not brand new solutions. (1) Exchange clearing with novation and margin, and (2) speculative position limits have been proven effective over many decades of experience. In many ways, what we need to do is turn back the clock on several of the deregulatory measures that were undertaken in the last 15 years. The unintended consequences of those deregulatory decisions have been devastating for America.

I applaud you, Senator Harkin, for what you are trying to do with your recently introduced legislation. It appears that your legislation effectively slams the door shut on the loopholes that the Commodities Futures Modernization Act of 2000 opened up. There is no doubt that your legislation, because it requires mandatory exchange trading and therefore mandatory exchange clearing, would protect the financial system and eliminate the chance of another systemic meltdown. Likewise with all speculators trading on an exchange it would be simple for the CFTC to impose speculative position limits that treated them all the same.

I believe the solutions that I have proposed in my testimony today would accomplish the same primary objectives as your legislation, while allowing the over-the-counter (OTC) derivatives markets to survive. I applaud you for your leadership on this issue and I look forward to working with you and your staff to ensure that America does not have to suffer through another financial meltdown or another speculative bubble in food and energy prices.