

Testimony of

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before the

Commodities Futures Trading Commission

March 25, 2010

Thank you, Chairman Gensler and Commissioners Sommers, Dunn, Chilton and O'Malia. I welcome the opportunity to appear before you today to discuss the topic of speculative position limits for metals.

I testified before the Commission on the topic of speculative position limits at the August 5th hearing last year. For that reason, I re-submit my August 5th testimony for this hearing, since my views on the topic have not changed. I also am submitting excerpts from my testimony to the Senate Agriculture Committee on June 4, 2009, as well as excerpts from a report I co-authored entitled "The Accidental Hunt Brothers." I believe these three appendices together constitute a consistent framework detailing the appropriate use of speculative position limits for all consumable commodities derivatives.¹ The appendices represent the essence of my testimony. To minimize redundancy, my prepared remarks will simply highlight a few key points regarding position limits, with a special focus on metals markets.

Point 1: Position Limits Can Serve Two Potential Roles: Manipulation Mitigation and Excessive Speculation Prevention.

Regulators may impose position limits for two possible reasons:

First, they can be imposed to ***reduce the potential threat of market manipulation.*** Manipulation occurs when a small group of traders wield large positions in order to unduly influence the market price. By limiting the size of the positions that traders can hold, position limits make it harder for these traders to manipulate the markets.

The second reason regulators might impose position limits is to ***diminish, eliminate or prevent excessive speculation.*** Excessive speculation is a condition of the marketplace as a whole where the positions held by speculators (none of whom individually has manipulative intent) constitute such a high percentage of the total open interest that speculators comprise the driving force behind the price discovery function.

By imposing speculative position limits, regulators can reduce the size of speculators' positions, and therefore reduce their dominance over the price discovery function. The goal is not the restraint of any one trader, but rather an overall reduction in speculation to remove the potential for consumable commodities derivatives markets to experience speculative price bubbles.

¹ In the attached appendices, I detail why I use the term "consumable commodities."

Point 2: There Are Two Distinct Methodologies For Setting Position Limits.

Position limits may be set using one of two different methodologies, depending on the regulatory goal:

If the goal is *to mitigate the threat of manipulation*, regulators should set the level of individual position limits at a specified percentage of total open interest. This will ensure a minimum number of market participants, while limiting the ability of any single participant to manipulate prices. As an example, by setting speculative position limits at 2.5% of total open interest, regulators are ensured to have at least 40 market participants, and further assured that no individual speculator will account for more than 1/40th of the market.

In contrast, if the goal is *to prevent excessive speculation*, regulators should establish an acceptable level of speculation in the marketplace as a whole, expressed as a percentage of open interest. As a general rule of thumb, speculators should never represent more than 50% of open interest, because at that level, they will dominate the price discovery function, due to the aggressiveness and frequency of their trading. The level I recommend is 25%; this will provide sufficient liquidity, while ensuring that physical producers and consumers dominate the price discovery function.

Once the target level of speculation is determined, regulators should reduce individual position limits, in order to reduce the overall speculative percentage, until it falls within the acceptable range. As an example, assume that the acceptable range of speculative interest has been identified as 20-30%. If 65,000 contracts are held by speculators and the open interest is 100,000 contracts, then the speculative percentage is 65%, which is far in excess of the acceptable range. In this example, individual limits must be reduced in order to reduce the aggregate speculative percentage to the acceptable level.

Consumable commodities derivatives markets are unique because they are susceptible to both manipulation and excessive speculation. Regulators should calculate position limits utilizing both methodologies and set the limit at the tighter of the two.

Please note that if regulators set position limits solely using the manipulation mitigation formula – limiting the positions of individual traders, versus limiting aggregate speculation in the overall market – the unintended result will be an *increase* in excessive speculation. If individual limits were based solely on a simple percentage of open interest without regard for the overall speculative composition of that open interest, regulators would actually be inviting more speculation and increase the risk for excessive speculation.

This can be illustrated with an example. Assume a market with open interest of 100,000 contracts. Bona fide physical hedgers hold 70,000 contracts, and the

remaining 30,000 are held by 60 speculators, who each hold an average of 500 contracts. In this market, individual speculative position limits have been set at 1% of open interest, or 1,000 contracts per speculator. If each of those 60 speculators takes their position up to the limit of 1,000 contracts, then open interest becomes 130,000 contracts (representing a rise in speculative percentage from 30% to 46%). Now, the 1%-of-open-interest position limit automatically adjusts upward from 1,000 contracts to 1,300 contracts, enabling speculators to increase their positions again to as much as 78,000 contracts (representing a rise in speculative percentage to 53%). Left unchecked, this chain reaction could lead to higher and higher levels of speculation.

Point 3: Consumable Commodities Derivatives Markets Dominated by Physical Producers and Consumers Do Not Experience Speculative Price Bubbles, While Markets Dominated by Speculators Often Do.

In the capital markets (stocks, bonds, etc.) and in the corresponding financial futures markets, all of the market participants are speculators. These markets can never be “excessively speculative” since they are 100% speculative by definition. Speculators (or investors, if you prefer) assume risk by buying stocks and bonds, and they reduce risk by selling those same stocks and bonds. They can also use derivatives to add to or subtract from their market risk. All capital markets are subject to speculative euphoria, which can create speculative price bubbles. We have seen bubbles in all the major capital markets in the last 15 years.

Under normal conditions, physical commodity markets, like the markets for all goods and services (other than capital goods), do not experience price bubbles. In Economics 101 we learned that when demand exceeds supply, prices will rise until consumers consume less (reducing demand) and producers produce more (increasing supply), and prices return to their long-term equilibrium. This relationship between supply, demand, and price is the natural mechanism that prevents price bubbles in commodity goods markets.

The derivatives markets for consumable commodities are unique hybrid markets where physical commodity producers and consumers come to hedge, while speculators come to make trading profits. When physical producers and consumers dominate, their derivatives trading will reflect the real-world supply and demand conditions they are experiencing in the physical commodity markets. In contrast, when speculators dominate, the consumable commodities derivatives markets become “financialized” and susceptible to speculative price bubbles like those seen in the capital markets.

Point 4: The Derivatives Markets for Consumable Commodities (Including Copper) Are Currently Dominated by Speculators and Suffering from Excessive Speculation and Price Bubbles.

In 1998, the average commodity market was about 25% speculative as a percentage of open interest.² By 2008, speculators comprised about 65% of open interest. Bona fide physical hedgers once outnumbered speculators 3 to 1; now speculators outnumber hedgers 2 to 1. The positions of bona fide physical hedgers doubled during this ten-year period, while the positions of speculators rose by 1200%.

Today we need speculative position limits, imposed by the CFTC, in all consumable commodities derivatives markets that will force speculators to exit these markets, thereby reducing their dominance and eliminating the possibility of speculative price bubbles. *Copper is a consumable commodity and therefore needs speculative position limits to reduce excessive speculation.*

No one complained about a lack of liquidity in 1998 when the markets were 25% speculative. That is ample liquidity to serve the hedging needs of bona fide physical producers and consumers.

In capital markets, speculative price bubbles make investors feel good as they expand, and when they pop, the damage is limited to the capital lost by investors. In sharp contrast, speculative price bubbles in consumable commodities are catastrophic to our economy and must be prevented. Every man, woman and child in America suffered unnecessarily due to the 2008 bubble in oil prices.

Point 5: Precious Metals Can Be Consumed but They Are More Often Thought of As Investments.

It is my belief that gold, silver and other precious metals need speculative position limits for the purpose of safeguarding these markets against manipulation, but not for the purpose of preventing excessive speculation. Since gold and silver have been considered currency, stores of value and valid investments for many thousands of years, precious metals should be considered capital goods and not commodity goods. Gold and silver have some industrial applications, and small amounts are consumed each year, but overall, most precious metals are not consumed. For example, as much as 85% of all the gold ever mined is still held by investors.³ For this reason, precious metals are not consumable commodities. A bubble in gold or silver prices does not hurt the average American's ability to feed their family, fuel their car or heat their home.

² These figures come from our report "The Accidental Hunt Brothers," relevant excerpts of which are contained in Appendix 3.

³ Sarah Arnott, "The Big Question: What is so special about gold, and should we all be investing in it?" *The Independent*, September 10, 2009, <http://www.independent.co.uk/news/business/analysis-and-features/the-big-question-what-is-so-special-about-gold-and-should-we-all-be-investing-in-it-1784476.html>.

Point 6: The Core of Our Current Excessive Speculation Problem Is a Passive Speculation Problem.

Like one of those Russian dolls, we have a problem within a problem. The main reason that speculation in consumable commodities has grown so dramatically in the last 10 years is the rise in passive speculation by those seeking to “invest” in multiple-commodity and single-commodity derivatives structures. Today, passive speculators outnumber active speculators and account for the lion’s share of speculative open interest in many consumable commodities.⁴

Active and passive speculators are two very different animals, and to understand the distinctions between the two is to appreciate the extent of the threat posed by passive speculators. Active speculators add beneficial liquidity to the market by buying and selling futures contracts with the goal of turning a profit. In contrast, passive speculators drain liquidity by buying and holding large quantities of futures contracts – basically acting as consumers who never actually take delivery of goods. Passive speculators “invest” in a commodity or basket of commodities (such as an index), and continuously roll their position, as part of a long-term portfolio diversification strategy. This strategy is completely blind to the supply and demand realities in the market. As such, passive speculators not only undermine, but actually destroy the price discovery function of the market and make way for the formation of speculative bubbles.

Passive speculators are an invasive species that will continue to damage the markets until they are eradicated. The CFTC must address the issue of passive speculation; it will not go away on its own. When passive speculators are eliminated from the markets, then most consumable commodities derivatives markets will no longer be excessively speculative, and their intended functions will be restored.

Thank you, and I look forward to your questions.

⁴ Again, please see Appendix 3, which has excerpts from our report “The Accidental Hunt Brothers.”

APPENDIX 1

Prior CFTC Testimony On Position Limits
(without appendices)

Testimony of

**Michael W. Masters
Managing Member / Portfolio Manager
Masters Capital Management, LLC**

before the

Commodities Futures Trading Commission

August 5, 2009

Chairman Gensler, Commissioners Dunn, Chilton and Sommers, thank you for the opportunity to appear before you today to discuss the crucial topic of speculative position limits and their role in eliminating excessive speculation in the commodities derivatives markets.

In my testimony today, I will first briefly and directly address the topics that you raised. Following that, I would like to discuss the damaging effects of passive investment in the commodities derivatives markets, which will include some new data points we have recently studied. I will conclude with a look at the profound implications that America faces if the commodities markets are not protected against excessive speculation.

I am submitting two additional documents with my written testimony today - a copy of the very detailed testimony I presented last month to the Senate Agriculture Committee, and an in-depth response I submitted, also last month, to the CFTC's request for comment on swap dealers' exemption from position limits. I am including copies of these because they provide a thorough presentation of the regulatory measures that I recommend the CFTC implement.

Brief Responses to the Commission's Inquiries:

1. *Applying position limits consistently across all markets and participants, including index traders, managers of Exchange Traded Funds, and issuers of Exchange Traded Notes;*

Today's energy derivatives markets suffer greatly from excessive speculation. Speculators far outnumber bona fide physical hedgers and therefore play the dominant role in price discovery. The oil futures markets routinely trade over 1 billion barrels of oil per day. This volume does not include the OTC markets, which are larger still. We know that the entire world only produces 85 million barrels of oil per day, which means that over 90% of trading in oil futures involves speculators trading with each other.

When speculative euphoria (irrational exuberance) takes over, speculators can and will drive prices to levels that do not reflect actual supply and demand conditions. **The cure for excessive speculation is aggregate speculative position limits.**

Twenty years ago all energy derivatives traded on a single exchange and speculation was successfully limited with a single speculative position limit. Today, since there are multiple exchanges as well as the over-the-counter (OTC) markets, an aggregate speculative position limit must be

established and applied across all trading venues. The CFTC – not the individual exchanges - must set these limits.

Aggregate speculative position limits have the advantage of reaching all speculators, in all venues. If the CFTC were to set different limits for different venues, speculators would spread their trading between well-regulated and less-regulated venues. Similarly, if limits were placed only on the futures exchanges, speculators would head to the OTC markets.

As I detailed in my Senate Agriculture testimony (appendix 1) and in my response to the CFTC (appendix 2), I believe that swaps dealers must be required to report the positions of all their counterparties, enforce speculative position limits, and adhere to other requirements as a condition for receiving an exemption from speculative position limits for the purposes of facilitating bona fide hedging transactions. Once the CFTC begins to set speculative position limits in the energy markets, then these same reporting requirements can be imposed on swaps dealers in energy derivatives as well.

As I will discuss in more detail later in my testimony, I believe that all passive investment in the commodities derivatives markets (index swaps/funds, ETFs, ETNs, etc.) should be banned. Passive investment provides no benefits to the markets while it exacts a heavy toll. Investors' desire to turn the commodity derivatives markets into something they are not (namely a valid investment vehicle) must be subjugated to the needs of bona fide physical hedgers to hedge their risks and discover fair prices.

As a first step, passive investment in agriculture commodities should be banned. In light of the Senate Permanent Subcommittee on Investigation's report on Index Speculators role in driving up Wheat prices I believe the CFTC should immediately implement the report's first recommendation and revoke all "no action" letters for swaps dealers in agricultural commodities.¹ Wall Street should be prevented from gambling on hunger.

2. The effect of position limits on market function, integrity, and efficiency;

In the absence of aggregate speculative position limits, the commodities derivatives markets are at risk for excessive speculation. Last year showed clearly that speculation can distort commodities prices, and that the American people suffer greatly as a result.

¹ "Excessive Speculation in the Wheat Market," Permanent Subcommittee on Investigations – United States Senate, June 24, 2009.
http://hsgac.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=fb439667-dcd3-4025-b95b-1b91f8ea29d1

As mentioned, the Senate Permanent Subcommittee on Investigations recently released a report demonstrating that speculators drove up Wheat prices beyond what supply and demand conditions would dictate.² Earlier this year, the Federal Energy Regulatory Commission found that speculators drove up Natural Gas prices beyond what supply and demand conditions would dictate.³

Wall Street banks, including Citigroup, J.P. Morgan, Goldman Sachs, Deutsche Bank, Lehman Brothers, Barclays, Merrill Lynch, Oppenheimer and others⁴ have issued research reports from their analysts citing the influence of Index Speculators and/or traditional speculators on energy prices.⁵ It would be wrong to characterize excessive speculation in the energy markets as an “open secret” on Wall Street because it is not even a secret any more. I spoke at a hedge fund managers’ conference late last year and there was nearly unanimous consensus that the crude oil market had just experienced a speculative bubble.

If the CFTC does not act to place speculative position limits on the energy derivatives markets, then bona fide physical hedgers will abandon these markets in ever increasing numbers. They will choose not to hedge at all rather than participate in a market where prices reflect speculator sentiment, index money flows, and capital market notions (like currency levels), and are un-tethered from the true supply and demand of the underlying physical commodity.

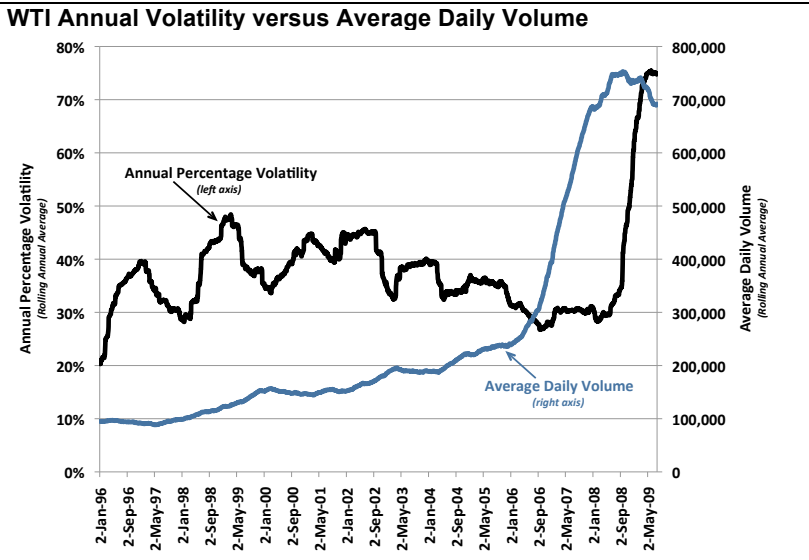
I also need to address the completely fallacious “liquidity argument” put forward by the exchanges and the swaps dealers. Excessive speculation leads to excessive volume and excessive volatility. Senator Harkin recently said, “you need an aspirin a day but you don’t need a whole bottle.” Clearly we need sufficient liquidity from speculators for the markets to function properly. However, too much speculative liquidity, just like too much aspirin, is very destructive.

² Ibid.

³ “State of the Markets – 2008 - Item No. A-3,” April 16, 2009, page 8. <http://www.ferc.gov/market-oversight/st-mkt-ovr/som-rpt-2008.pdf>

⁴ I would be happy to supply excerpts from these reports to the Commission if requested.

⁵ I fully understand that these banks have the official position that no regulation is necessary and that these markets do not have any problems. Their duty to their shareholders compels them to argue strenuously in public against anything that would reduce their substantial earnings in these markets



Source: Bloomberg

The above chart shows a rolling annual average of volume for the NYMEX WTI and ICE WTI futures contracts. It also shows the rolling annual volatility of WTI futures prices. Without question there has been a dramatic increase in volume over the last 3 years and the result has been a dramatic increase in volatility.

In fact, the volatility of the last two years has never been seen before in history. First, prices doubled from \$70 to \$140 in twelve months. Then they crashed from \$140 to \$35 in the next six months. Then they doubled again from \$35 to \$70 in the six months after that. All of this with not a single major disruption to oil supplies anywhere in the world.

3. The effect of position limits on facilitating the risk management of clearinghouses;

The extreme volatility we have seen in energy prices is caused primarily by excessive speculation. Speculative position limits will eliminate excessive speculation. When this occurs, volatility will be reduced. And everyone seeking to manage the risk of price movements (including clearinghouses) will find it much easier to do so.

4. Whether the CFTC needs additional authority to implement such limits;

The CFTC has a large number of remedies that they can employ in order to fulfill their mandate to protect the American economy and the American people from the undue burden of inflated commodity prices and extreme volatility. Once the CFTC has set speculative position limits for the energy futures markets, the Commission may establish reporting requirements

and additional conditions under which exemptions may be sought. Please see Appendices 1 and 2 regarding proposed requirements that swaps dealers must fulfill in order to receive these exemptions.

5. What methodology the Commission should use to determine position limit levels for each market.

This is discussed in detail in my two appendices.

a. What quantitative measure should be used in setting limits on the size of an individual trader's position?

Excessive speculation is a phenomenon that occurs when speculators dominate trading versus bona fide physical hedgers in a commodities derivatives market. In order to protect the integrity of the market, speculators should never, under any circumstances, represent more than 50% of the total open interest across all trading venues. Ten years ago speculators represented about 25% of the total open interest. Back then, there were no complaints from bona fide physical hedgers about liquidity. I believe that speculators should ideally be in the range of 25%-35% of open interest. Individual speculative position limits should therefore be raised and lowered on a regular basis to maintain overall speculation in this range.

If swaps dealers are granted exemptions from speculative position limits in order to facilitate bona fide physical hedging transactions, they should still face a super-limit expressed as a percentage of total market open interest. No single non-commercial entity should ever be allowed to represent more than 5% of a market's total open interest under any circumstances. A large swaps dealer might be hedging their swaps book, but if they shift their hedges from say jet fuel to crude oil or from crude oil futures to physical crude oil that will cause massive disruptions to the commodities derivatives markets.

Swaps dealers are the 800-pound gorillas of these markets. They have too much **concentrated economic power** already. The CFTC must not allow the swaps dealers to grow even more economically powerful.

It was encouraging to hear both Blythe Masters from J.P. Morgan and Donald Casturo from Goldman Sachs say during the July 29th hearing that they supported strict position limits for their proprietary trading desks and that they would welcome CFTC oversight of the "Chinese walls" they claim to have in place. I echo the concerns of Tyson Slocum from Public Citizen that unless these requirements are made formal and strictly monitored that they will not be effective.

b. Should limits be established by percentage or proportion of the open interest of the market or by fixed number of allowed contracts?

Individual speculative position limits should be fixed as a number of allowed contracts (and contract equivalents). These limits should be adjusted regularly to target a percentage range of open interest.

As an example, consider a market where bona-fide physical hedgers hold 42 contracts, passive investors hold 38 contracts and active speculators hold 20 contracts. This hypothetical market would be 58% speculative. That is about twice as high as it should be. Therefore, all individual speculative position limits should probably be cut in half (or more) in order to force speculation out of the market.

Also notice that if passive investment is banned as I have strenuously argued, then speculative position limits would not have to be lowered at all. In the above example, after Index Speculators and other passive investors are removed the remaining speculation in the marketplace would equal only 32%.⁶

Given the current state of the energy commodities derivatives markets I think that rather than a 20,000 contract limit for crude oil (corresponding with the current “accountability” limit), the CFTC will probably have to bring overall market limits down to 8,000 or 5,000 contracts in order to squeeze the excess speculation out of the markets. Alternatively, if passive investors are forced into “liquidation-only mode” then the limits might face much more modest cuts or perhaps no cuts at all.

I believe that a panel of bona fide physical producers and consumers should be convened twice a year to advise the CFTC on the proper speculative position limits in their respective markets. In 1936, Congress made it clear that commodities derivatives markets exist solely for the benefit of bona fide physical producers and consumers, and not for the benefit of speculators. Bona fide physical hedgers know better than any other participant whether a market needs tighter or looser speculative position limits for optimal liquidity.

Futures exchanges and swaps dealers have a vested interest in seeing the maximum amount of speculation possible in order to reap the maximum possible profits. As public companies with duties to shareholders, their interests are in direct conflict with the interests of the American people. Therefore, they cannot be relied upon to set

⁶ $20 / (42+20) = 32\%$

speculative position limits in order to guard against excessive speculation.

c. Should limits apply in all months combined, in individual months, and in the delivery month?

Yes, just like agricultural commodities and for the same reasons.

d. How should spread trades be incorporated in this calculation?

Futures to futures spread trades should continue to be looked at on a net basis. Futures to options spread trades, however, should incorporate the gamma of a two standard deviation move for purposes of applying speculative position limits. This problem needs to be addressed because the delta of an option is always changing as prices move, so that a trader might be actively trading futures against his or her options position and having a market impact while doing so. Assessing a “gamma charge” for that position will limit the market moving effects of these positions.

As a simple example, let’s assume a trader is short 1,000 options with a delta of .50 and long 500 contracts. Their net position would be zero under the current regime. The problem is that if underlying prices move significantly then that delta could be .65 tomorrow which means that trader would need to buy 150 contracts to remain delta neutral. If .15 is the change in delta for a two standard deviation move in the underlying price then that is the “gamma charge” that should be assessed on the position for speculative limit purposes.

6. Should the Commission limit the aggregate positions held by one person across different markets?

As mentioned earlier (and in detail in appendices 1 and 2) each speculator must face one overall limit that applies across every possible trading venue. This solution levels the playing field and treats every speculator equally. At the moment, swaps dealers enjoy a huge advantage over all other speculators because of the blanket exemption they have received from position limits.

It also is essential that position limits apply at the **control entity level**. A hedge fund should not be able to set up five different legal entities and therefore qualify for five times the normal speculative position limit.

7. Should exemptions from position limits be permitted for anyone other than bona fide hedgers for the conduct and management of a commercial enterprise?

The Commission may decide that swaps dealers should be granted exemptions from speculative position limits when they trade with bona fide physical hedgers as their counterparty. I detail the specific mechanics of how this process could work in appendices 1 and 2.

If the Commission can find a way to gradually phase out the swaps dealers' exemptions from position limits over time, so as not to bring major disruptions to the OTC markets, I would support that course of action because it would result in the dispersion of economic power amongst swap dealers.

8. Finally, if you believe the Commission should not set position limits on energy contracts, please address the different approach for other commodities with a finite, physically deliverable supply, such as agriculture commodities.

There is a dramatic difference between consumable commodities, which exist in finite deliverable quantities, and capital market financial instruments. As I discuss in great detail in appendices 1 and 2, excessive speculation is a phenomenon that only exists in finite consumable commodities.

It would be a gross dereliction of duty if the CFTC did not use every instrument at its disposal (including speculative position limits) to fulfill its mission to protect the commodities derivatives markets against excessive speculation. Congress has entrusted the CFTC with this critical mission in order to safeguard the American economy and ultimately the American consumer.

I would like to make two additional points:

First, the CFTC should move quickly to find that the vast majority of all OTC contracts and Foreign Board of Trade (FBOT) contracts with U.S. delivery points are in fact significant price discovery contracts. The distinction of "significant price discovery contracts" is an artificial one, introduced by Congress. In the words of Donald Casturo of Goldman Sachs:

"As markets have grown, the swap dealer has increasingly been at the center of price discovery and liquidity."⁷

⁷ Testimony of Donald Casturo - Managing Director - Goldman, Sachs & Co. before the Commodities Futures Trading Commission, July 29, 2009, page 2.

http://cftc.gov/stellent/groups/public/@newsroom/documents/file/hearing072909_casturo.pdf

What swaps dealers understand is that the market for oil exists anywhere that barrels are traded, whether that is the physical market or the derivatives markets, the futures markets or the OTC markets. At the end of the day it is one big market for oil. Swaps dealers know this because they have a choice to hedge OTC oil positions with other OTC derivatives, with futures (NYMEX or ICE) and with physical oil. Because this is one large overall market, with the OTC markets at the center, we need aggregate speculative position limits that cover the entire market. This truth makes the concept of “significant price discovery” obsolete.

Second, fewer than 1 in 4 Americans directly owns stock, yet every single American is affected by food and energy prices. The financial success of most American corporations is more directly tied to energy and other commodities markets than it is to the performance of the stock market. For these reasons the commodity derivatives markets need to be at least as well regulated as the equity markets.

The over-the-counter (OTC) commodity derivatives markets need to be covered by anti-fraud and anti-manipulation statutes that are as strong if not stronger than those covering stocks. In addition participants in the commodity derivatives markets need to be protected in the same manner as stock investors. As part of the harmonization that takes place between the CFTC and the SEC, the CFTC standards must be raised to match those of SEC Rule 10(b)5 and they must apply them to the OTC markets.

The Damaging Effects of Passive Investment

Passive investing in commodities occurs when investors buy, hold and roll a position in a single commodity such as WTI Crude Oil, or in a vehicle that is designed to duplicate an index of multiple commodities, such as the Standard & Poors - Goldman Sachs Commodity Index (GSCI). This strategy can be implemented via the over-the-counter (OTC) swaps market or through mutual funds, exchange traded funds (ETFs), exchange traded notes (ETNs) or other hybrid securities.

In six previous Congressional testimonies and three major reports, I have warned against the damaging effects of Index Speculation in the commodities derivatives markets.⁸ Everything that I have said concerning

⁸ 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

Index Speculators applies directly to single-commodity passive “investors” as well, because they operate under the same strategy of continuously rolling futures contracts to maintain their passive “investment.”

It is of critical importance to understand that all speculators, both passive and active, can and do affect commodities prices. In his written testimony last week Donald Casturo of Goldman Sachs gave the example of a speculator in natural gas causing a price move:

“The speculator would buy natural gas for delivery in winter. This will result in prices being bid up for the winter futures contracts”⁹

In testimony before the Senate Energy Committee last September, Gary Cohn, Chief Operating Officer of Goldman Sachs said:

“So in any given moment of time can a speculator have an influence on the market? Absolutely.

. . . Buyers need to enter the market, drive the market price to a place where it attracts sellers. That is the natural balancing act that goes on day in and day out.”¹⁰

Wall Street, when it tries to cover its tracks, will argue that speculators are too small to impact markets in a significant way over a substantial amount of time. But if small speculators can move prices a small amount over a small amount of time why cannot large speculators move prices a large amount over a large amount of time? And given the enormous flows of money that we have seen pouring into the commodities derivatives markets does it not make sense that Index Speculators (and other passive investors) could have very large impacts over extended periods of time?

Goldman Sachs created the concept of passive investment in commodities and sold it to the investment community. It is instructive to listen to them describe why they did it.

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

June 4, 2009 – Testimony before Senate Agriculture Committee

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

⁹ Testimony of Donald Casturo - Managing Director - Goldman, Sachs & Co. before the Commodities Futures Trading Commission, July 29, 2009, page 2.

http://cftc.gov/stellent/groups/public/@newsroom/documents/file/hearing072909_casturo.pdf

¹⁰ Gary Cohn – Chief Operating Officer – Goldman Sachs & Co., Senate Energy Committee Hearing (S. Hrg. 110-654) Transcript, September 12, 2008, pages 84-85. http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_senate_hearings&docid=f:45837.pdf

In fact, the development of the commodity indices was driven by the need to supply capital to meet the hedging demands of commodity producers, which are typically far larger than the hedging demands of commodity consumers, creating a market imbalance.¹¹

- Donald Casturo – Goldman Sachs – CFTC Testimony - 7/29/09

Why you need the speculator in the market and why the commodity index was created many years ago is our industry, 20 years ago was a very difficult industry. We had only clients that wanted to sell future production forward. So we had many clients that wanted to go drill oil wells, but they needed some predictability of the price of oil they were going to receive out of the well to go borrow money. They tried to enter the market and sell the oil. There was no natural long in the market. The consumers are so fragmented that they don't amalgamate to a big enough position.

So we actually, as a firm, came up with the idea in the early 1990s to create a long only, static investor in the commodity markets. We created the commodity index where we could allow people that were willing to commit large pools of capital into the market for a very long period of time to facilitate the actual producers and allow them to be able to hedge their production forward to increase their production.¹²

- Gary Cohn – Goldman Sachs – Senate Energy Testimony – 9/12/08

Commodity indices were designed to be long-only investment vehicles in order to create a stable supply of passive buyers to balance the commercial selling. Put simply, the index investors are the buyers of the commodity futures positions that the commercials want to sell in order to hedge their natural exposure to commodity price risk.¹³

- David Greely & Jeffrey Currie – Goldman Sachs research report – 6/29/08

These comments from Goldman Sachs seem to make sense on the surface until you dig down into what they actually are saying. The only

¹¹ Testimony of Donald Casturo - Managing Director - Goldman, Sachs & Co. before the Commodities Futures Trading Commission, July 29, 2009, page 2.

http://cftc.gov/stellent/groups/public/@newsroom/documents/file/hearing072909_casturo.pdf

¹² Gary Cohn – Chief Operating Officer – Goldman Sachs & Co., Senate Energy Committee Hearing (S. Hrg. 110-654) Transcript, September 12, 2008, pages 84-85. http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_senate_hearings&docid=f:45837.pdf

¹³ “Commodities Speculators, Index Investors, and Commodity Prices,” David Greely & Jeffrey Currie, Goldman, Sachs & Co., June 29, 2008, pages 4-5.

problem that commodity producers had in accessing the futures markets was that when they went to sell a large number of futures contracts they would **drive the price down**.

So Goldman Sachs' solution was to find enough **buying pressure** on the long side to offset the **selling pressure** from commodity producers. Rather than leave the existing market to function as it was, Goldman intervened in the markets by introducing the GSCI so that producers' hedging would not result in **lower commodity prices**.

In fact, as we will see, Goldman was so successful in marketing its commodity index product, they were able to generate a tremendous amount of **buying pressure**, which was more than enough to offset the **selling pressure** from producers. **Buying pressure** from Index Speculators overwhelmed **selling pressure** from producers and the result was skyrocketing commodity prices.

It is therefore clear that large consumers of commodities, such as airlines, truckers, heating oil dealers and gasoline marketers seeking to buy futures for hedging purposes must now compete directly with GSCI "investors" in the commodities derivatives markets. The **buying pressure** of Index Speculators has been added to the natural **buying pressure** of large consumers seeking to hedge. This dramatic increase in **buying pressure** has led to increased prices.

And since the GSCI is an index of 24 commodities, it includes many commodities, such as most agriculture commodities, where there is no large concentrated group of commodity-producers exerting **selling pressure**. Nonetheless, because Goldman created the GSCI, Index Speculators are exerting enormous **buying pressure** for these commodities in the absence of concentrated **selling pressure**. This has resulted in inflated food prices and food riots around the globe, and has threatened millions with starvation.

Did Goldman Sachs consult with the Department of Energy, the Department of Agriculture or the Commodities Futures Trading Commission before they decided to make structural changes to the commodities derivatives markets?

Did Goldman seek permission from any regulatory agency of the U.S. government before taking action that would dramatically impact commodity prices around the world?

Do Exxon-Mobil, British Petroleum, Saudi Arabia, Russia, Iran, Venezuela and other large oil producers really need oil prices propped up so that they can have easy access to raise additional funds?

How would the American people feel if they were aware that there was a deliberate effort by certain Wall Street banks to keep food and energy prices higher than they otherwise would be?

Clearly this is an example of “financial innovation” that has damaged the commodities derivatives markets and damaged people’s lives.

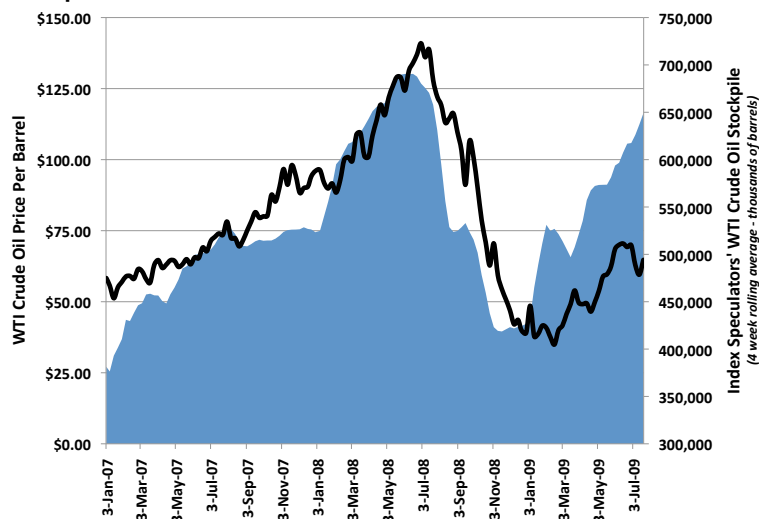
There are five main reasons why I believe passive investment is extremely damaging to the commodities derivatives markets and to the world’s economy.

Passive investors have driven commodity prices higher and will do so again if they are not stopped.

*We created the commodity index where we could allow people that were willing to commit **large pools of capital** into the market for a very long period of time . . .*¹⁴

- Gary Cohn – Goldman Sachs – Senate Energy Testimony – 9/12/08

WTI Crude Oil Price versus Index Speculators’ WTI Crude Oil Stockpile



Source: CFTC CIT Report, Standard & Poors, Dow Jones, Bloomberg and witness calculations

We have updated our analysis of the CFTC’s Commodity Index Trader report to estimate the size of Index Speculators’ positions in WTI Crude Oil derivatives. The graph above and timeline below show that as Index Speculators pushed money into the commodities derivatives markets and

¹⁴ Gary Cohn – Chief Operating Officer – Goldman Sachs & Co., Senate Energy Committee Hearing (S. Hrg. 110-654) Transcript, September 12, 2008, page 85. http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_senate_hearings&docid=f:45837.pdf

bought more WTI Crude Oil derivatives, WTI Crude Oil prices rose, and when they pulled money out, prices fell.

Because no effective remedy for passive investment has been enacted, investors have returned en masse to the commodities derivatives markets, in 2009, and once again prices are marching higher as a result of their very significant influence. Passive investors own more WTI Crude Oil derivatives than ever before.

WTI CRUDE OIL BUBBLE TIMELINE

January 1, 2007 to January 1, 2008

- Index Speculators push between \$25 and \$30 billion into commodities derivatives
- Index Speculators buy between 130 and 150 million barrels of WTI Crude Oil derivatives
- WTI Crude Oil prices rise 60% from \$60 to \$95 per barrel

January 1, 2008 to July 1, 2008

- Index Speculators push between \$50 and \$60 billion into commodities derivatives
- Index Speculators buy between 145 and 165 million barrels of WTI Crude Oil derivatives
- WTI Crude Oil prices rise 50% from \$95 to \$140+ per barrel

July 1, 2008 to January 1, 2009*

- Index Speculators pull between \$60 and \$80 billion out of commodities derivatives
- Index Speculators sell between 230 and 260 million barrels of WTI Crude Oil derivatives
- WTI Crude Oil prices fall over 70% from \$140 to \$40 per barrel

January 1, 2009 to July 1, 2009

- Index Speculators push between \$40 and \$50 billion into commodities derivatives
- Index Speculators buy between 170 and 190 million barrels of WTI Crude Oil derivatives
- WTI Crude Oil prices rise 75% from \$40 to \$70 per barrel

**It is my strong belief that Index Speculators had no intention of selling their positions but the public controversy over Index Speculation and the deep concern over counterparty risk with AIG, Lehman and others led some Index Speculators to exit the commodities derivatives markets.*

Source: CFTC CIT Report, Standard & Poors, Dow Jones, Bloomberg and witness calculations

Passive Investors “Invest” Ultra Long-Term

*We created the commodity index where we could allow people that were willing to commit large pools of capital into the market **for a very long period of time** . . .¹⁵*

- Gary Cohn – Goldman Sachs – Senate Energy Testimony – 9/12/08

*Index investors are typically **long-term** investors with diversified portfolios of equities and bonds . . .¹⁶*

- David Greely & Jeffrey Currie – Goldman Sachs research report – 6/29/08

Institutional Investors such as pension funds that make these passive investments have extremely long investment time horizons. For example, the average duration of a pension fund’s portfolio is designed to match the average employee’s years until retirement. This can easily be 20 years or more, depending on the organization.

That means that when Index Speculators enter into their commodities futures positions, they intend to maintain that position, via continuous rolling, for a very long time. Therefore, **they capture large amounts of available liquidity** that they have no intention of releasing in the foreseeable future.

Traditional speculators can play a vital role providing beneficial liquidity to the markets. An Index Speculator that **consumes liquidity** for decades at a time hurts rather than helps the commodities futures markets. Investors should not be allowed to hoard commodities futures contracts any more than they should be allowed to hoard actual physical commodities.

¹⁵ Gary Cohn – Chief Operating Officer – Goldman Sachs & Co., Senate Energy Committee Hearing (S. Hrg. 110-654) Transcript, September 12, 2008, page 85. http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_senate_hearings&docid=f:45837.pdf

¹⁶ “Commodities Speculators, Index Investors, and Commodity Prices,” David Greely & Jeffrey Currie, Goldman, Sachs & Co., June 29, 2008, page 10.

Passive Investors Are Long-Only

*“So we actually, as a firm, came up with the idea in the early 1990s to create a **long only, static** investor in the commodity markets.”¹⁷*

- Gary Cohn – Goldman Sachs – Senate Energy Testimony – 9/12/08

*“Commodity indices were designed to be **long-only** investment vehicles . . .”¹⁸*

- David Greely & Jeffrey Currie – Goldman Sachs research report – 6/29/08

Index Speculators are overwhelmingly “long-only;” they very rarely take short positions. While this type of investment behavior may be considered desirable in the capital markets, it is detrimental to the commodities futures markets.

If Index Speculators took both long and short positions, then they would push prices both up and down. Some might push them up while others might push them down, thereby canceling each other’s impact on market prices. This is what traditional speculators often do. Unfortunately, Index Speculators lean only in one direction - long - and they lean with all their weight. The result is that they push prices in only one direction - up.

Passive Investors Have a Price-Insensitive Dollar Demand

*“The buying and selling of index investors is driven by **asset allocation decisions, portfolio rebalancing, and the shape of the commodity forward curve during the “roll” period** . . .”¹⁹*

- David Greely & Jeffrey Currie – Goldman Sachs research report – 6/29/08

Physical commodity consumers generally have fixed unit quantities that they must purchase as inputs for their manufacturing process. They are highly motivated to get the lowest average price per unit in order to minimize their total costs.

Index Speculators, however, are insensitive to unit price. They do not need a set number of units, nor are they concerned with what price they pay. Instead, they have a fixed amount of **money to allocate**. They will

¹⁷ Gary Cohn – Chief Operating Officer – Goldman Sachs & Co., Senate Energy Committee Hearing (S. Hrg. 110-654) Transcript, September 12, 2008, page 85. http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_senate_hearings&docid=f:45837.pdf

¹⁸ “Commodities Speculators, Index Investors, and Commodity Prices,” David Greely & Jeffrey Currie, Goldman, Sachs & Co., June 29, 2008, page 10.

¹⁹ Ibid., page 13.

buy as many units as they can at whatever price they have to pay until all of their money has been “put to work.” The “passive” nature of Index Speculators has been lauded, but is the root cause for their price insensitivity.

Passive Investors Damage the Price Discovery Function

*The buying and selling of index investors is driven by asset allocation decisions, portfolio rebalancing, and the shape of the commodity forward curve during the “roll” period, **not views on the supply and demand fundamentals.***²⁰

- David Greely & Jeffrey Currie – Goldman Sachs research report – 6/29/08

Not only do Index Speculators buy without regard to price, they also buy without regard to supply and demand fundamentals. By definition, these Institutional Investors invest in a broad basket of commodities and therefore have little, if any, view on the individual commodities. **Every contract traded for reasons other than supply and demand is a contract that damages the price discovery function of the market.**

In summary, passive investors compete with physical commodity consumers and make it much more difficult for them to hedge. Their buying and selling greatly damages the price discovery function of the commodities derivatives markets. They provide no benefits whatsoever to the markets because they consume liquidity. And most importantly, they drive up commodity prices, which hurts everybody on the planet. For these reasons the CFTC should act quickly to ban passive investment in the commodities derivatives markets.

One final note on the Goldman Sachs Commodity Index: as we have seen in the quotes above, it appears that the GSCI was created, first and foremost, to help commodity producers. Selling this concept to institutional investors came later. Today, the GSCI has become such a large part of the commodities derivatives markets that the two primary reasons for investors to allocate to commodities have disappeared. The “roll yield” of the GSCI has swung from positive to dramatically negative as index investment has increased. And the correlation between commodities and other asset classes has risen substantially, the most striking example being last year when commodity prices and equity prices both fell dramatically. The CFTC should not attempt to protect institutional investors from unwise investment decisions, but if passive investment were banned, I believe the Commission would be doing institutional investors a favor.

²⁰ Ibid.

Ramifications of Excessively Speculative Commodities Derivatives Markets

A Threat to America's Economic Security

Everyone agrees that when oil prices skyrocket, there are dramatically negative effects on the United States economy. We published a research report in February that estimated that the 2008 Oil Bubble directly cost the United States a minimum of \$110 billion and possibly as much as \$170 billion before multiplier effects.²¹

Jim O'Neill, the Chief Economist for Goldman Sachs, estimates that for every 10% sustained increase in the price of oil, a correspondingly negative 0.4% impact on World GDP results.²² Based on that analysis, with World GDP at almost \$70 trillion, the 50% moves in oil prices that we've seen over the last couple of years have cost the world approximately \$1.4 trillion in destroyed economic output.

In addition, these extreme movements in oil prices have made it nearly impossible for economists and central bankers to form a set of reasonable expectations for inflation. Given that today's central banks rely significantly on inflation expectations to formulate monetary policy, it is crucial that commodity prices reflect economic reality and not investor capital flows. An oil price that is completely un-tethered from supply and demand conditions makes the difficult job of setting monetary policy dramatically more difficult. This has untold costs to the U.S. economy.

The government's attempts to stimulate the economy and pull us out of the current recession have been deeply undercut by oil's speculative driven rise from \$35 to \$70 per barrel. Nouriel Roubini and other prominent economists believe that if oil prices continue to rise, our economy could be plunged back into a double-dip recession.²³

A Threat to America's National Security

Today, the oil derivatives markets are inscrutable to regulators because the bulk of trading occurs in the over-the-counter markets. Therefore, it is quite conceivable that a rogue nation or other group hostile to the United States could use these markets to push up oil prices. This would cause tremendous damage to the U.S. economy and it would result in the

²¹ "The 2008 Commodities Bubble," Michael Masters and Adam White, February 4, 2009. www.accidentalthuntbrothers.com

²² "Oil Speculators Under Fire," Alistair Macdonald, Guy Chazan and Carolyn Cui, The Wall Street Journal, July 8, 2009

²³ "Roubini Sees Risk of 'Double Dip' Global Recession (Update2)," Alison Sider, Bloomberg, July 23, 2009. <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aeY.UV6r3uiE>

transfer of wealth from America to generally unfriendly nations. This represents a clear and present danger to America's national security, and is perhaps the most compelling reason why the U.S. government needs the complete transparency that mandatory exchange clearing would provide.

Aggregate speculative position limits must be implemented in order to effectively deter our enemies' potential attempts to acquire large derivatives positions and negatively influence our markets. With the tremendous leverage available with OTC derivatives, it has become much less expensive to attack America economically than militarily. Today there is nothing to prevent such an economic attack from occurring.

In 2008 there were no significant geopolitical events that affected the world's supply of oil, and yet we still experienced excessive volatility in oil prices, as a result of excessive speculation in our oil derivatives markets. Given the current excessively speculative state of the oil derivatives markets, if a major geopolitical supply-disruption event were to occur, oil prices could jump by \$20, \$30 or \$40 per barrel in a matter of days. Rogue nations are aware of this dynamic and their threats to cause such an event to occur are much more potent because our oil markets are poorly regulated.

A Threat to the World's Poor

Over 3 billion human beings subsist on less than \$2 per day, with \$1 per day going toward food.²⁴ Excessive speculation caused by index capital flows has driven up food prices in addition to energy prices. In fact, during the speculative frenzy of 2008, many food prices doubled or tripled. Rising food prices around the world led to food riots and starvation. Since energy is such a large component of food prices, it is essential to have aggregate speculative position limits in energy derivatives. **Asset allocation decisions by institutional investors should never trump human rights.**

²⁴ "WFP says high food prices a silent tsunami, affecting every continent," World Food Program – United Nations, April 22, 2008. <http://www.wfp.org/english/?ModuleID=137&Key=2820>

Summary

Having embarked on this set of hearings, the CFTC must take strong action to protect the commodities derivatives markets from excessive speculation. If it does not, then it will send a signal to Congress that strong additional authorities are not imperative. And it will send a signal to speculators that it is okay to push billions of dollars back into these markets.

America only has one chance to get this right. It would be better to do nothing so that at least consumers are aware of the risks they face, rather than to implement half-measures that have the appearance of doing something, while in fact leaving our commodities derivatives markets open to fraud, manipulation and excessive speculation.

It is absolutely essential that the CFTC take aggressive action to strictly limit the positions of speculators across all energy derivatives markets. These limits must treat all active speculators equally, extend across all trading venues, and be enforced at the control entity level. Passive investment should be banned. Oil is the most important commodity in the world today and the security of our economy and the nation demands that the energy derivatives markets function properly.

Thank you for the opportunity to appear before you today and I look forward to your questions.

APPENDIX 2

Excerpts From

**Michael W. Masters
Senate Agriculture Committee Testimony
June 4, 2009**

(pages 9-13 & 24)

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.

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.¹⁹ 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.

¹⁹ These calculations can be found on pages 33-34 of our report “The Accidental Hunt Brothers” www.accidentalthuntbrothers.com

APPENDIX 3

Excerpts From

**The Accidental Hunt Brothers
Michael W. Masters & Adam K. White, CFA
July 31, 2008**

(pages 1-6 & 29-38)

CHAPTER ONE: FOUNDATIONAL INFORMATION

Commodities Futures Defined

Commodities futures markets have existed in the United States since 1865.¹ A commodities futures contract is a standardized legal agreement to transact in a physical commodity at some designated future time.² It is standardized in the sense that it spells out the time and place of delivery as well as the quantity and quality of commodity to be delivered. The only unspecified portion of the contract is the price, which is determined in the commodities futures marketplace.

Since their inception, commodities futures markets have provided two valuable functions for physical commodity market participants (the actual consumers and producers of the physical commodities). In the Commodity Exchange Act of 1936, Congress recognized that the commodities futures markets provide physical market participants with: (1) the means to offset price risk, and (2) a means for price discovery.³ Since 1974, Congress has entrusted the Commodities Futures Trading Commission (CFTC) with preserving these two vital functions and with protecting them against the threat of fraud, manipulation and excessive speculation.

First Vital Function: Offsetting Price Risk

Commodities futures markets provide a way for physical commodity market participants to hedge against the risk of price fluctuations. As an example, a physical commodity producer, such as an Iowa corn farmer, who is able to sell futures contracts against the amount of the expected harvest can lock in a price for corn and thereby eliminate price risk. A physical commodity consumer, such as a cereal manufacturer, who is able to buy futures contracts for the amount of corn it needs to produce corn flakes can lock in its input costs and eliminate its price risk.

These physical commodity market participants benefit because they are not at risk from price fluctuations and can therefore plan effectively for the future of their businesses. Because food, energy and industrial metals form the basic building blocks of our economy, the financial health of physical commodity market participants is vital to the overall health of the American economy.

Second Vital Function: Price Discovery

Properly functioning commodities futures markets provide a way for physical commodity market participants to determine with the greatest possible accuracy the current price for physical commodities in the overall marketplace. As an example, the farmer in Iowa needs to know the prevailing price for corn before selling to a local consumer. Knowing the futures price allows the farmer to determine if it makes more sense to ship the corn somewhere else in order to get a better price. Likewise, the cereal manufacturer needs to know the prevailing price for corn so that it can negotiate a fair price with its suppliers.

¹ "Our History," Chicago Board of Trade,
<http://www.cbot.com/cbot/pub/page/0,3181,942,00.html>

² "Financial Futures and Options," Todd E. Petzel, Quorum Books, New York, 1989, page 5.

³ Commodity Exchange Act of 1936: Title 7 Chapter 1 Section 5a
http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=browse_usc&docid=Cite:+7USC5

Commodities, by their very nature, are consumed around the globe. Physical commodity markets exist worldwide, but because commodities are bulky and costly to transport, the prices in these markets can vary substantially. For that reason, commodities futures prices have become the benchmark by which prices are set in the physical markets.⁴

In Chapter Four we discuss the price discovery function in depth.

Since prices are the mechanism by which a capitalist economy functions and allocates resources, having this single benchmark for commodity prices is very valuable. Without the price discovery function of the commodities futures markets, the American economy as a whole would function inefficiently.

Two Traditional Types of Market Participants

Historically, the commodities futures markets have had two distinct categories of participants: bona fide Physical Hedgers and Speculators.

Bona fide Physical Hedgers have already been discussed. These are physical commodity market participants that are trying to reduce or eliminate the price risk they face from their commercial activities in the spot markets. These are the producers and consumers - the corn farmers and the cereal companies of the world.

The commodities futures markets were started by physical commodity producers and consumers to improve their businesses and ultimately to strengthen the economy. These markets exist for their benefit.

Speculators are participants in the commodities futures market who do not have an underlying physical commodity position to hedge. They are hoping to profit from changes in futures prices. When commodities futures markets function as they should, Speculators provide an essential function: they accept price risk in exchange for providing liquidity.

As an example, if our corn farmer wants to sell futures contracts but the cereal company is not in the market that day buying, who can the farmer sell them to? The answer is that Speculators are willing to buy from the corn farmer one day and sell to the cereal company another day. For this reason, the commodities futures markets need a certain number of Speculators in order to ensure sufficient liquidity.

When the commodities futures markets are functioning as they should, Speculators are actively buying and selling and adjusting their prices based on what they think the Physical Hedgers are going to do. Speculators have traditionally been students of the supply and demand dynamics in the underlying physical markets, because those dynamics are what determine the behavior of Hedgers.

As an example, if many corn crops were failing, then farmers would not have as many futures contracts to sell. Because of the reduced supply of corn and the consequent reduced supply of corn futures contracts, futures prices would normally

⁴ The terms “physical markets,” “spot markets” and “underlying markets” all refer to the markets in which tangible commodities are bought and sold by actual producers and consumers. In contrast, the futures markets are where derivative contracts based on commodities are traded.

rise. Historically, Speculators have had to understand and act on these dynamics in order to stay in business.

Four Distinct Types of Markets

Commodities futures markets are not capital markets. It is critical to understand the similarities and differences (presented in Exhibit 1) between the four different markets discussed in this report. A thorough understanding of the current problems and proposed solutions is not possible without recognizing these crucial distinctions.

Capital Markets

The two most common capital markets are the debt markets and equity markets. These markets exist to provide debt and equity financing to corporations and other entities. In the *primary markets* bonds and stocks are issued to investors. In the *secondary markets* investors trade these securities back and forth amongst themselves. In 2004-2005, worldwide bond and stock markets totaled approximately \$97.9 trillion in size, with debt markets accounting for \$54.3 trillion and equity markets \$43.6 trillion.⁵

Financial Futures Markets

Commodities futures exchanges began trading futures contracts based on financial securities beginning in the 1970s. These financial futures became very popular in the 1980s. Financial futures are based on things such as Eurodollar deposits, Treasury Bonds, foreign currencies and the S&P 500 stock index. These are derivative markets, so they allow Investors / Speculators to assume price risk or to hedge price risk depending on their position in the underlying securities relative to the futures.⁶

Just like the capital markets, the financial futures markets are the exclusive domain of one type of market participant – Investors / Speculators. Trading for them is also a two-way street, as they trade back and forth amongst themselves.

Exhibit 1. Four Distinct Markets

| COMMODITY MARKETS | CAPITAL MARKETS |
|--|--|
| Crude Oil, Corn, Copper, etc. | Stocks, Bonds, Real Estate, etc. |
| \$1.6 Trillion (2002) | \$97.9+ Trillion (2004-2005) |
| Physical Commodity Producers and Consumers | Investors / Speculators |
| COMMODITIES FUTURES | FINANCIAL FUTURES |
| Derive their value from physical commodities | Derive their value from capital markets securities |
| \$0.18 Trillion (2004) | \$21 Trillion (2008) |
| Physical Hedgers AND Speculators | Investors / Speculators |

⁵ CIA World Factbook: Debt figure is for 2004 and equity figure is for 2005. <https://www.cia.gov/library/publications/the-world-factbook/geos/xx.html#Econ>

⁶ Within the capital markets and the financial futures markets there is little difference between the trading behavior of Investors and Speculators. Wikipedia has a good description of the differences between investing and speculating and what is commonly defined as investment. <http://en.wikipedia.org/wiki/Investing>

Financial futures have far surpassed commodities futures in terms of volume and open interest and represent the lion's share of profits for many of the futures exchanges. Total open interest for financial futures was in the neighborhood of \$21 trillion in July of this year.⁷

Physical Commodity Markets

Physical commodity markets are tangible real world markets where producers and consumers meet to buy and sell commodities. Rather than being a two-way street where an existing pool of securities is traded back and forth between participants, it is a one-way street where producers produce and consumers consume. Once producers have sold their production, they do not come back to the commodity markets until they have produced more. Likewise, once consumers have purchased commodities, they do not return to the markets until they have consumed what they purchased.

In 2002, the worldwide annual production of the 25 largest and most important commodities in the world was \$1.6 trillion.⁸ While this is a large number, it is dwarfed by the size of capital markets and financial futures markets.

Commodities Futures Markets

The commodities futures markets are small markets, especially when compared with the capital markets. As we will see in Chapter Three, the commodities futures markets were only \$183 billion in size in 2004.

Commodities futures markets are unique because they involve not one but two distinct categories of market participants. Unlike the other markets we have discussed, physical commodity market participants co-exist alongside Speculators. Trading amongst Speculators is generally a two-way street like in the capital markets. In contrast, Physical Hedgers only have to trade once to establish their hedges and then they either take delivery of the physical commodity or unwind their hedges prior to delivery.

This hybrid combination of two distinctly different categories of market participants with differing goals, behaviors and trading patterns make the commodities futures markets unique.

Bringing Clarity to Blurred Distinctions

When financial futures started to gain popularity in the 1980s, many Wall Street investment banks that previously had no presence in commodities futures began to acquire trading firms with seats on the futures exchanges.⁹ During the first hundred years that commodities futures markets existed, Wall Street had little interest in

⁷ Rough calculations based on July 1 Commitments of Traders report published by the CFTC. Eurodollars and Treasury Bills are over \$14 trillion and \$4 trillion respectively.

⁸ This figure was calculated using average 2002 prices from Bloomberg and production figures from the Food and Agriculture Organization of the United Nations, the U.S. Geological Survey – U.S. Department of the Interior, and the Energy Information Association – U.S. Department of Energy. These are the same 25 commodities that compose the major commodity indices.

⁹ An example of this phenomenon would be the Goldman Sachs purchase of J. Aron in 1981.

commodities futures. It was only after acquiring these futures trading firms to get access to the financial futures markets that Wall Street got interested in the commodities futures business that they inherited as a result of their acquisitions.

Most Institutional Investors today fail to see the distinction between capital markets and commodities futures markets. They can call up Goldman Sachs and purchase instruments in both markets. They can use Bloomberg to get data on both markets, and when they open the Wall Street Journal they can read about both markets. And yet, as we have seen already (and will explore further), there are crucial distinctions between commodities futures markets and all other markets.

Speculative Price Bubbles

It is worth noting that speculative price bubbles occur in capital markets and not in physical commodity markets. In fact, in just the last 10 years the U.S. capital markets have seen three distinct major bubbles: the tech / internet bubble of 1998-2000 (equities), the housing bubble of 2004-2007 (real estate) and the current credit crisis (CDOs / SIVs / subprime) in the debt markets.

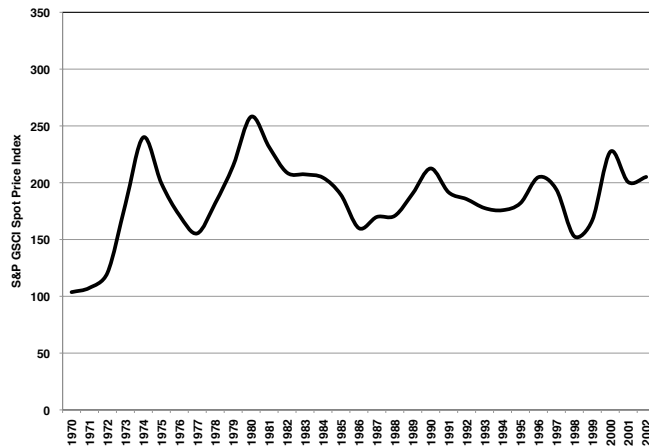
In order for a price bubble to occur, there must be a group of Investors / Speculators, trading back and forth amongst themselves, that are continuously re-valuing upward the profit potential of a class of financial instruments. When consumers purchase physical commodities, they are simply looking to consume those commodities. Consumers don't buy commodities for reasons other than consumption.

Because Speculators participate in commodities futures markets, these markets are capable of experiencing a speculative price bubble. Because Physical Hedgers only want to reduce their price risk, as long as they are the dominant group in the marketplace, speculative bubbles cannot form. But if Speculators somehow become the dominant force, then they can eventually drive the markets to speculative excess. We discuss this in detail in Chapter Five.

Commodities Futures Are Not Investments

Historically, physical commodities themselves have been looked upon as poor "investments" because they have a negative real rate of return. Economists agree that the long-term equilibrium price for a commodity generally equates to its marginal cost of production. Since marginal costs for commodity production have been steady to declining due to the application of modern technology, the prices of commodities have historically not kept up with overall inflation. Chart 4 shows that prior to recent increases, spot commodity prices have traded sideways for three decades.

Chart 4. S&P GSCI Spot Price Index (1970-2002)



Source: Bloomberg

Commodities futures contracts do not pay interest, rents, dividends, or entitle the holder to a share of a company's future cash flow. Therefore, the only return someone can hope to achieve is a favorable change in the price of the contract. This is why buying commodities futures is considered speculation and not investment. For decades, pension plan fiduciaries, as well as other trustees, were prevented from purchasing futures contracts because the Prudent Man rule forbade speculation and therefore prohibited the purchase of futures contracts.¹⁰

In the early 1990s, the Prudent Investor rule was adopted by most states that allowed trustees to purchase instruments with a view toward the impact it would have on their total portfolio. With the advent of financial futures, futures contracts were no longer expressly prohibited because financial futures could potentially be used to hedge the price risk of financial securities within an investor's portfolio. The Prudent Investor rule did not, however, declare that speculation was acceptable.¹¹

¹⁰ "Trust Examination Manual," Federal Deposit Insurance Corporation, Section 3 - Asset Management - Part I(C) Prudent Investments.

http://www.fdic.gov/regulations/examinations/trustmanual/section_3/fdic_section_3-asset_management.html#c

¹¹ *ibid.*

CHAPTER FIVE: EXCESSIVE SPECULATION

Introduction

The commodities futures markets are capable of reaching a state of excessive speculation. This occurs when Speculators replace Physical Hedgers as the dominant force in the marketplace. When commodities futures markets become excessively speculative, the price discovery function becomes damaged and eventually destroyed. The dramatic influx of Index Speculators has now brought us to a tipping point where our commodities futures markets are descending into a state of excessive speculation.

Because Speculators, both Index and Traditional, have distinctly different supply and demand curves when compared with Physical Hedgers, two states of the market are possible. We examine these differences in detail and then look at the state of the commodities futures markets today.

Physical Hedgers: Normal Supply and Demand Curves

Physical commodity producers and consumers have supply and demand curves that match what one would expect. As commodity prices rise, a producer wants to sell more and a consumer wants to buy less. As commodity prices fall, a producer wants to sell less and a consumer wants to buy more.

Notice that these production and consumption decisions have the effect of tempering price moves and reducing price volatility. If prices rise then demand decreases and supply increases, causing prices to revert toward equilibrium. If prices fall then demand increases and supply decreases also causing prices to revert toward equilibrium.

These supply and demand curves translate directly into the futures markets when physical commodity producers and consumers buy and sell futures to hedge their production and consumption. If a producer has more production, then it can sell more futures contracts and vice versa. If a consumer wishes to consume more, then more futures contracts can be bought and vice versa.

Note that Physical Hedgers are motivated to buy and sell in order to reduce their price risk. Therefore, they do not buy or sell in quantities greater than their underlying physical commodity exposure.

For these reasons, the buying and selling of physical commodity producers and consumers is always a direct reflection of the actual supply and demand that they are experiencing firsthand in the underlying commodity markets. Their trading decisions always strengthen the critical price discovery function of the futures markets.

Index Speculators: Insensitive Supply and Demand Curves

Index Speculators are insensitive to the supply and demand fundamentals in the individual commodity markets to which they are allocating money. By definition, these Institutional Investors invest in a broad basket of commodities and have little, if any, view on individual commodities. Chances are very good that the trustees making these investment decisions could not even name the 25 commodities that make up the major commodity indices.

If a pension fund decides to allocate \$500 million to a commodities futures strategy that replicates the S&P GSCI, the \$200 million that consequently flows into WTI Crude Oil futures has nothing to do with the actual supply or demand for crude oil in the real world. The \$15 million that flows into Wheat futures has nothing to do with the actual supply and demand for wheat.

The reasons an Institutional Investor might want to allocate money to commodities vary widely. Perhaps their investment committee recently voted to allocate millions of dollars to commodities for the purpose of diversification. They might manage a commodity index mutual fund or ETF, and have received cash inflows from investors. Perhaps they are seeking to hedge against inflation or to make a bet against the U.S. dollar. Or perhaps the performance in another part of their portfolio has been great and they want to rebalance by adding to their commodities futures position to maintain it at a fixed percentage of their portfolio's total value.

All of the aforementioned reasons have almost nothing to do with the actual supply and demand of the individual commodities that are part of the index basket. Therefore, every single contract traded for one of these reasons is a contract that weakens the price discovery function.

It is clear that hundreds of billions of dollars have poured into the 25 commodities that make up the major commodities futures indices, for reasons other than supply and demand. The consequent price increases we have seen are a result of excessive speculation and not real world supply and demand fundamentals. This greatly damages the price discovery function.

Traditional Speculators: Adaptive Supply and Demand Curves

Traditional Speculators are always motivated by profit.⁵⁹ Unlike the Physical Hedger who always buys and sells due to supply and demand and the Index Speculator who almost never buys and sells due to supply and demand, Traditional Speculators can and will adapt their buy and sell decisions to the reality they experience in the commodities futures marketplace.

Two States of the Commodities Futures Markets

There are two general states of the commodities futures markets. There is the normal state in which Physical Hedgers are the dominant force and prices are determined predominantly by supply and demand. And there is an abnormal state of excessive speculation in which Speculators are the dominant force and prices are determined by factors other than supply and demand.

This two-state phenomenon is only possible because there are two distinct classes of market participants. There are no other markets that we know of that have two classes of participants and therefore two distinct possible states.

⁵⁹ We do not in any way seek to imply that there is anything dishonorable about making a profit. We are Speculators and we try to make profits every day – there is nothing wrong with generating returns for investors or for one's self.

Normal State

In a market that is dominated by the buying and selling decisions of Physical Hedgers who trade strictly based on supply and demand fundamentals, Traditional Speculators will base their trading decisions on those same supply and demand fundamentals. Traditional Speculators do this because they know that Physical Hedgers will move the prices (due to their dominance) and since Traditional Speculators want to profit from price moves, they go along.

If, for instance, Traditional Speculators observe that a flood in the Midwest is threatening the supply of corn, then they know that physical corn consumers will be motivated to hedge their price risk fearing price increases. They also know that physical corn producers will not be as motivated to sell futures contracts since they either have a reduced corn crop or they also anticipate rising prices. Therefore Traditional Speculators will make trading decisions according to this fundamental information.

Just like fellow Speculators in the capital markets, Traditional Speculators experience the same two governing emotions of fear and greed.⁶⁰

Greed, in the prior example, will make them want to buy futures contracts in anticipation of what others in the market will do. At the same time fear will encourage them to not get carried away. They know that in a normal market if prices rise sufficiently, then physical consumers will reduce their purchases of futures contracts while physical producers will increase their sales of futures contracts to lock in the higher prices.

Notice that Traditional Speculators totally match their trading behavior to the buy and sell decisions of the Physical Hedgers. They buy and sell based on supply and demand fundamentals. They also do not get carried away because they know that price moves will be tempered by the supply and demand responses of physical commodity producers and consumers.

State of Excessive Speculation

In a market that is dominated by Speculators and not by Physical Hedgers, Traditional Speculators' trading is not necessarily disciplined by traditional supply and demand considerations because the "enforcers" of supply and demand, the Physical Hedgers, are no longer wielding the influence over prices that they once were.

In this scenario, Speculators that see prices rising for any reason at all (it does not have to be based on fundamental supply and demand, although it could be) will want to jump on the bandwagon and profit too. There are many trading strategies, such as trend-following and momentum investing, that encourage exactly this type of trading.⁶¹ Add to this the fact that managers of other people's money are paid on relative performance and if Manager A is achieving higher returns in a particular commodity index, then Managers B & C have a strong incentive to participate in

⁶⁰ See http://en.wikipedia.org/wiki/Behavioral_finance for a list of books on the topic

⁶¹ Remember there is no "value investing" in commodities futures since commodities have no investment value. Their only value is in consumption.

order to not fall behind. It is this phenomenon that leads to another hallmark trait of capital markets – herd investing.⁶²

All of these factors have the strong potential to lead to upward price pressure and the amplification of an existing upward price trend.

When this happens, Traditional Speculators' fear of price reversion is replaced by the fear of selling short in the face of this strong upward price trend. Traders will say things like "I'm not going to step in front of a freight train," meaning that when there is considerable momentum, Traditional Speculators are afraid of selling short and consequently being "run over."

In fact, some of the Traditional Speculators that fail to adapt their trading strategies to the new market reality will get run over and go out of business due to trading losses. This will leave the surviving Traditional Speculators to thrive in the new environment and it will strengthen their motivation to follow the new trading strategies.

The amplified positive price trend that is created in a state of excessive speculation draws the attention of other Speculators. These new Speculators decide to jump on the bandwagon and that begins a vicious cycle of accelerating price increases and greater price volatility.

Traditional Speculators are capable of surviving and thriving in both types of markets. If Physical Hedgers dominate the markets, then the trading decisions of Traditional Speculators will mimic them and will strengthen the price discovery function. But if Speculators rule the markets then Traditional Speculators will, by necessity, adapt to the new reality, which will weaken the price discovery function.

Implications of the Differing Supply and Demand Curves of Commodities Futures Markets Participants

When commodities futures markets enter a state of excessive speculation then they become susceptible to the formation of speculative price bubbles. The longer commodities futures markets remain in a state of excessive speculation, the more damage is done to the price discovery function.

As long as physical commodity producers and consumers are the dominant market participants they will "enforce" supply and demand fundamentals through their hedging decisions. If Speculators become dominant, then the commodities futures markets can become excessively speculative. Just like in the capital markets, speculative price bubbles can form.

There is a big difference, however, between price bubbles in the capital markets and price bubbles in the commodities futures markets. When internet stocks double or triple in value, then it does not affect the health or livelihood of your average citizen. But when food and energy prices skyrocket, then the economies of the developed world suffer greatly and the populations of developing countries are threatened with starvation.⁶³

⁶² See http://en.wikipedia.org/wiki/Behavioral_finance for a list of books on the topic

⁶³ "The silent tsunami," *The Economist*, April 17, 2008.

http://www.economist.com/opinion/displaystory.cfm?story_id=11050146

The Tipping Point Where Speculation Becomes Excessive

If we were academics we would say that speculation becomes excessive at the point that the marginal benefit of the liquidity that Speculators provide is exceeded by the marginal cost of the damage that they do to the price discovery function. Since we cannot quantify that point, as a practical matter, if the price discovery function is being damaged in a noticeable way, then a market has already passed the point of excessive speculation. Given that most physical commodity producers and consumers today believe that the futures markets have become un-tethered from supply and demand fundamentals, this is one of the strongest indications that the commodities futures markets are currently excessively speculative.

At the point that commodities futures markets “tip” into excessively speculative territory, Traditional Speculators wake up to the new market reality and abandon the “supply and demand” camp in favor of the “inflation hedge,” “weak dollar,” “uncorrelated alpha,” et cetera camp. They begin to base their trading decisions not on supply and demand but on the current market conditions they see around them.

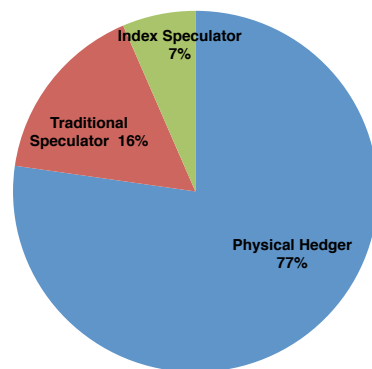
As we discuss in the next chapter, it is precisely this type of tipping point phenomenon that speculative position limits were originally designed to prevent. It would not be possible for a market to reach the tipping point if all Speculators were subject to reasonable and rigid position limits.

Today’s Commodities Futures Markets Are Excessively Speculative

In the last five years Index Speculators have become the single most dominant force in the commodities futures markets. Graph 1 from Table 10 shows that in 1998, Physical Hedgers were dominant on the long side of the market. Physical Commodity Consumers represented 77% of the reported long open interest. Physical Hedgers outnumbered Speculators by an average of more than 3 to 1.

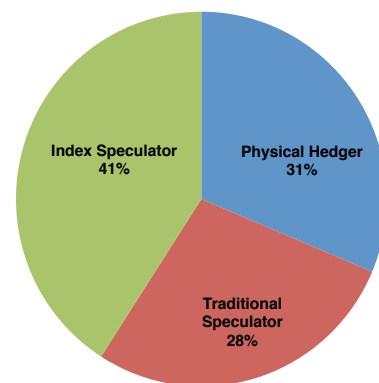
Graph 2 from Table 10 shows that in 2008 the market looks radically different. First, Index Speculators are the dominant force on the long side of the market, with an average of 41% of the reported long open interest. When combined with Traditional Speculators, fully 68% of the long positions are speculative in nature meaning that Speculators now outnumber Physical Hedgers by more than 2 to 1.

Graph 1. Long Open Interest - 1998



Source: see notes on Table 10

Graph 2. Long Open Interest - 2008



Source: see notes on Table 10

Table 10. Commodities Futures Markets - Long Open Interest Composition

| | 1998 | | | 2008 | | |
|---------------|-----------------|------------------------|------------------|-----------------|------------------------|------------------|
| | Physical Hedger | Traditional Speculator | Index Speculator | Physical Hedger | Traditional Speculator | Index Speculator |
| Cocoa | 89.3% | 9.2% | 1.5% | 34.4% | 44.7% | 20.9% |
| Coffee | 80.6% | 17.7% | 1.7% | 28.7% | 29.6% | 41.7% |
| Corn | 87.2% | 8.5% | 4.4% | 40.6% | 22.5% | 36.8% |
| Cotton | 84.4% | 13.5% | 2.2% | 36.3% | 22.6% | 41.1% |
| Soybean Oil | 72.7% | 27.3% | 0.0% | 45.5% | 19.8% | 34.8% |
| Soybeans | 86.6% | 11.0% | 2.4% | 28.5% | 28.2% | 43.3% |
| Sugar | 87.2% | 9.4% | 3.4% | 36.0% | 17.4% | 46.5% |
| Wheat | 67.5% | 21.3% | 11.3% | 15.9% | 18.2% | 65.9% |
| Wheat KC | 86.3% | 5.4% | 8.3% | 38.1% | 27.6% | 34.2% |
| Feed Cattle | 52.4% | 37.3% | 10.3% | 17.0% | 45.2% | 37.8% |
| Lean Hogs | 56.6% | 27.6% | 15.8% | 13.6% | 19.1% | 67.3% |
| Live Cattle | 67.6% | 23.8% | 8.6% | 11.7% | 27.3% | 61.0% |
| WTI Crude Oil | 84.1% | 3.5% | 12.4% | 42.5% | 28.6% | 28.8% |
| Heating Oil | 87.8% | 2.0% | 10.2% | 36.5% | 14.0% | 49.5% |
| Unleaded Gas | 80.0% | 4.3% | 15.7% | 36.5% | 23.4% | 40.0% |
| Natural Gas | 90.0% | 3.0% | 7.0% | 58.3% | 12.7% | 29.0% |
| Gold | 90.1% | 8.5% | 1.3% | 19.8% | 54.5% | 25.7% |
| Silver | 40.7% | 59.0% | 0.4% | 24.2% | 44.1% | 31.7% |
| AVERAGE | 77.3% | 16.2% | 6.5% | 31.3% | 27.8% | 40.9% |

Source: CFTC Commitments of Traders CIT Supplement, calculations based upon CFTC COT/CIT report (see Appendix: How to Calculate Index Speculators' Positions). Note that Physical Hedgers in this table are equivalent to the Commercial category. Any Traditional Speculators utilizing the swaps loophole (see Ch. 6) show up here as Physical Hedgers. This table does not include spread trades or non-reported trades. WTI crude oil figures include NYMEX, ICE and NYMEX financial contracts as well as recent CFTC reclassification. Figures represent annual averages and 2008 is average through 7/1/08.

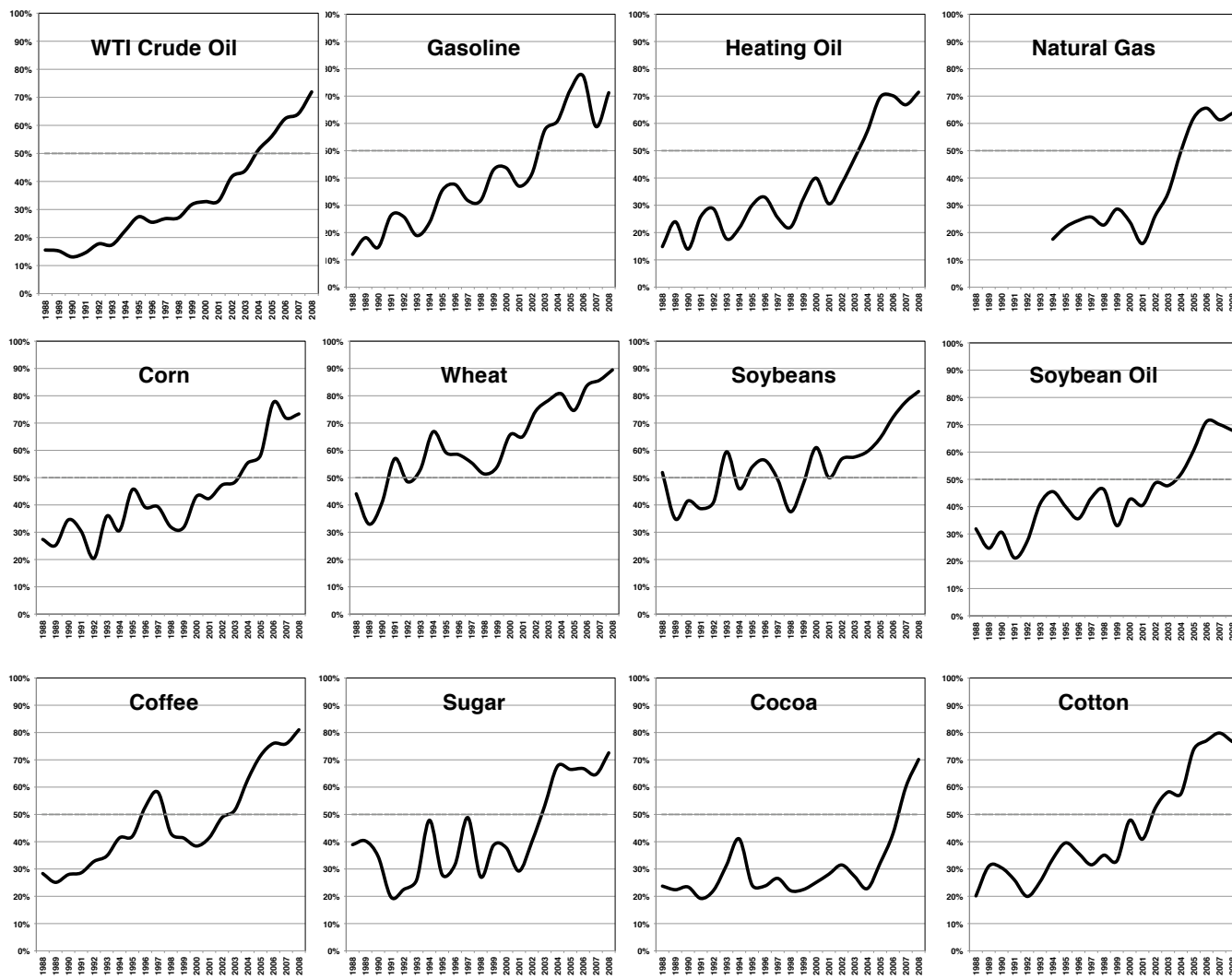
It is important to understand what a monumental shift this represents.⁶⁴ In the last 10 years Physical Hedgers' positions have risen by 90%. During the same time Speculators' positions have grown by more than 1300%. And this does not include the growth in speculative spread trading which has also been very large.

⁶⁴ As a hypothetical example: in order to go from a 3:1 ratio of Hedgers to Speculators to a 2:1 ratio of Speculators to Hedgers the size of speculative positions has to increase 500%. If Hedgers own 3 contracts and Speculators own 1 contract, then Speculators need to buy 5 contracts before their positions (now 6 to 3) will be double the size of Hedgers.

Speculation Has Grown To Excessive Levels in Almost All Commodities

This enormous growth in speculation has not been limited to just a few commodities. The charts below show that speculation has grown tremendously in almost all the commodities that are part of the major commodity indexes. Index Speculation is affecting all the index commodities in the same detrimental way. One can see that in each of these cases we went from a market dominated by Physical Hedgers ten years ago to a market that is dominated by Speculators today.

Chart Compilation: Speculation Percentage in Energy, Grains and Softs (1988-2008)



Source: CFTC Commitments of Traders CIT Supplement, calculations based upon CFTC COT/CIT report (see Appendix: How to Calculate Index Speculators' Positions). Since spread trades are speculative trades according to the CFTC they are included. WTI Crude Oil includes NYMEX, ICE and NYMEX financial contracts as well as recent CFTC reclassification. Figures represent annual averages and 2008 is average through 7/1/08.

Summary

When two-thirds of all positions and an even larger fraction of all trading is done by Speculators, it becomes apparent that the ability of physical commodity producers and consumers to influence price determination is seriously diminished. Many Physical Hedgers have started to question their participation in markets that no longer reflect supply and demand.

It is clear that the price discovery function has been grossly distorted and that because the commodities futures markets are now dominated by Speculators (of which the Index Speculator is the most damaging type), prices in these markets move for reasons that increasingly have little to do with specific commodity supply and demand fundamentals.

Because of this disassociation between futures prices and the supply and demand realities in the physical markets, the commodities futures markets are no longer able to serve the only constituency they were ever intended to serve: bona fide Physical Hedgers. Many bona fide Physical Hedgers, now greatly outnumbered and having to transact in a market that is mainly driven by the activities of large institutional Speculators, are questioning the value of the futures markets for hedging purposes.

If this trend continues, we can expect to see many physical commodity producers and consumers abandon the futures markets entirely as a vehicle for hedging purposes and price discovery. At that point, the futures markets' destruction from excessive speculation will be complete.

CHAPTER SIX: SPECULATIVE POSITION LIMITS

Introduction

The remedy for excessive speculation has been well-known since at least 1936. The speculative position limits put in place by the Commodity Exchange Act did a good job of protecting the commodities futures markets for over 50 years. Unfortunately, beginning in 1991, speculative position limits have been raised, circumvented and eliminated, with the result being the excessively speculative markets we are experiencing today.

Condensed History of Speculative Position Limits

The Commodity Exchange Act of 1936 prescribed speculative position limits for agricultural commodities in order to prevent commodities futures markets from becoming overly speculative.

“The fundamental purpose of the measure is to insure fair practice and honest dealing on the commodity exchanges and to provide a measure of control over those forms of speculative activity which too often demoralize the markets to the injury of producers and consumers and the exchanges themselves.”⁶⁵

“It should be our national policy to restrict, as far as possible, the use of these exchanges for purely speculative operations.”⁶⁶

“The bill authorizes the Commission . . . to fix limitations upon purely speculative trades and commitments. Hedging transactions are expressly exempted. That this power of the Commission will be exercised judiciously and for the purposes merely of preventing overspeculation and a type of ‘racketeering’ by a few large professional traders, may be assumed as a matter of course.”⁶⁷

These limits were very effective in preventing excessive speculation and commodity price bubbles. The CFTC in 1981 mandated that all commodities futures should be covered by speculative position limits.⁶⁸

Then, throughout the 1980s and the 1990s, financial futures gained in popularity until they came to dwarf commodities futures in terms of volume and dollar value of open interest. This meant that the CFTC was devoting most of its time and resources to regulating financial futures and not commodity futures.

⁶⁵ Report No. 421, U.S. House of Representatives 74th Congress, Accompanying the Commodity Exchange Act, March 18, 1935.

⁶⁶ President Franklin D. Roosevelt message to Congress February 9, 1934.

⁶⁷ Report No. 421, U.S. House of Representatives 74th Congress, Accompanying the Commodity Exchange Act, March 18, 1935.

⁶⁸ October 16, 1981—The CFTC adopts Regulation 1.61 (now part of CFTC Regulation 150, 17 CFR 150) requiring exchanges to establish speculative position limits in all futures contracts. http://www.cftc.gov/aboutthecftc/historyofthecftc/history_1980s.html

There is no threat of excessive speculation in financial futures because every participant in that market is an Investor / Speculator. Financial futures only need position limits in order to prevent a single Speculator from manipulating the market.⁶⁹

Commodities futures are the only markets where two distinct classes of market participants transact – Physical Hedgers and Speculators. Speculative position limits in the commodities futures markets are needed not only to prevent manipulation but to ensure that Physical Hedgers remain dominant.

Somehow it appears that during this time period the CFTC lost sight of the crucial differences between financial futures and commodities futures. The CFTC began to equate excessive speculation with manipulation and they came to believe that position limits were only necessary to prevent manipulation.⁷⁰

Excessive Speculation Is Not the Same as Manipulation

The Commodity Exchange Act clearly does not consider “excessive speculation” and “manipulation” to be the same thing. If it did, then it would not mention them separately and propose different remedies for each.⁷¹ Physical commodity producers and consumers are capable of manipulating the market and the CFTC has to provide strong oversight to make sure that this does not happen. But because Physical Hedgers are not Speculators, they can never make the market excessively speculative.

It seems clear that Congress saw the dangers of excessive speculation in the commodities futures markets, and that is why they prescribed a specific remedy of speculative position limits. And for decades regulators recognized the inherent value of speculative position limits and set them at levels that truly were a limit to speculation.

⁶⁹ “In general, position limits are not needed for markets where the threat of market manipulation is non-existent or very low. Thus, speculative position limits are not necessary for contracts on major foreign currencies and other financial commodities that have highly liquid and deep underlying cash markets. A contract market may impose, for position accountability [*sic*] provisions in lieu of position limits for contracts on financial instruments, intangible commodities, or certain tangible commodities, which have large open interest, high daily trading volumes, and liquid cash markets.” – “Speculative Position Limits,” CFTC Website http://www.cftc.gov/industryoversight/marketsurveillance/speculativelimits.html#P8_883

⁷⁰ *ibid.*

⁷¹ “However, Section 4a (7USC6a) is expressly concerned with “excessive speculation” and thus is not specifically an anti(-)manipulation provision. Rather, section 4a focuses upon market disorders attributable to unbridled speculative activity, without regard to whether that speculative frenzy has a manipulative purpose.” Section 5.02[1] “Derivatives Regulation,” Philip McBride Johnson and Thomas Lee Hazen, Aspen Press, 2004, page 1235.