



GRESHAM INVESTMENT MANAGEMENT LLC

## **The Relationship Between Commodity Futures Trading and Physical Commodity Prices**

**Lecture given by Dr. Henry G. Jarecki  
April 5<sup>th</sup>, 2011**

### **Introduction**

Good morning, my name is Dr. Henry Jarecki. I have been a participant in the commodity futures markets for more than forty years. From 1969 to 1986, I was the Chairman of the world's largest precious metals dealer, Mocatta Metals, a company that was founded in London in 1671. I sold my interest in Mocatta to Standard Chartered Bank in 1986. During my tenure, Mocatta was the first firm to offer options on commodity futures and to offer computerized pricing. I also founded, managed, and ultimately sold Brody White & Co., a full service futures commission merchant, to Société Générale in 1995. I have been a Director of the National Futures Association, and I was a member of the Federal Government's Commodity Futures Trading Commission Advisory Committee in 1975. I was Director of the Futures Industry Association from 1979 to 1985; and from the early 70's until 1995, I was a member and on the governing boards of most of America's commodity exchanges, including the Chicago Board of Trade, Commodity Exchange, and Chicago Mercantile Exchange.

Before I begin my comments, I must thank your Professor for this invitation, in part because it gave me a deadline to consolidate my thoughts on a matter I have been considering for more than 25 years. The subject I will discuss today is the relationship between commodity futures trading and physical commodity prices. This may initially seem too elementary for a course with the rather forbidding title of "Complex Derivative Transactions", but you will see by the end of my comments that it is a topic of great relevance to anyone who plans to participate in the commodity futures markets and for regulators and legislators perplexed by a rising cost of living who, unless they think it through, will try to regulate prices by telling futures traders how to behave.

### **Blame the Speculators**

My primary role in the commodity markets today is serving as the Chairman of Gresham Investment Management, a firm I founded 19 years ago that currently manages more than \$14 billion in long-only tangible commodity futures portfolios for a wide variety of

institutional and high net worth investors. More than half of our clients invest in a strategy we call the Tangible Asset Program, or TAP, which I developed more than 25 years ago as a way to include commodities in my own investment portfolio. One of the reasons we have been so successful at raising money for our various investment programs is the increasing recognition of the benefits of including strategies such as TAP in a portfolio of financial assets. These benefits include: reduced volatility, smaller drawdowns in times of market stress, and a hedge against increases in inflation. All three of these features help to allay the investor's greatest fear—the risk of ruin. The importance of portfolio diversification is, of course, well known, but inflation hedging is of particular concern to investors today because of the vast amount of money that has been printed across the globe to fund first the trillions the world's wars have cost and now to fund massive stimulus packages.

Gresham's success is not unique. Long-only commodity futures investment has risen from less than \$5 billion in 2000 to more than \$375 billion today<sup>1</sup>. Some of this increase took place during a historic bull market in physical commodity prices, which was capped by \$147 a barrel crude oil and \$4 per gallon gas in the U.S. during 2008. These unprecedented prices were a watershed event, and many of the Americans who suffered from them complained vociferously to their elected representatives. Unsurprisingly, the response from Washington was shaped by political expedience rather than truth or logic. The fact is that the run up in energy prices was caused by fundamental factors such as the increasing global demand for energy, the uncertainty of its future supply, and—perhaps—agreements made with each other by producers. But in the face of high demand and limited supply, the only way to bring prices down is to find new reserves, develop alternative sources of energy, or decrease demand. And, as every politician knows, telling your constituency that they should drive less or buy electric cars is a quick ticket out of DC. So, instead of relying on the inconvenient truth, politicians trotted out an age-old scapegoat to blame for high commodity prices: the speculator. But this time they introduced a new variant called the “index speculator”, and they claimed that it was vast sums of commodity index investment money flowing into the futures markets that caused physical prices to rise.

This accusation captured the attention of the media and the imagination of the American public, and it led to public hearings and threats to outlaw institutional investment in commodities. Newly minted “experts” claimed to have found a smoking gun that proved that futures buying by commodity investors caused physical commodity price increases. Such claims were readily accepted by the general public because they conformed to their notion of how all markets operate: buying must increase prices - even though, in this case, the buying took place in a derivatives market, one in which each person who bets that the price of a given commodity will go up is matched by someone who bets that its price will go down.

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<sup>1</sup> Barclays Capital. [The Commodity Investor: Shock of the East. London, England: Barclays Capital, February 2011](#)

But there was another important group decrying the actions of commodity index investors - the commercial hedgers who blamed investors for making the commodity markets less useful for certain hedging activities. For most commodity producers, high prices are not a bad thing – farmers, of course, are always happy to get more for their crops. But for intermediaries such as grain elevator operators, who buy crops from farmers before they are harvested and sell futures to protect themselves in case prices fall, high prices and volatility can make hedging much more difficult and lead to crippling margin calls. This is, of course, a valid concern, because farmers—who recognize that they can't tolerate the margin calls if prices rise—rely on elevators to whom they can sell their crops forward without a margin obligation. If the elevators cannot use the futures markets to hedge their exposure, they will have to offer farmers lower prices for their anticipated production. This will make farming, an already often unprofitable business, even more unprofitable and this would lead to reduced production and higher prices for consumers.

Unfortunately, as you will see, the very real problem that high prices and volatility present to commercial hedgers is not due to the actions of commodity investors, and is best tackled by government intervention in the form of programs such as federally-managed production insurance for farmers and/or margin financing programs for grain elevator operators.

### **Financial “Reform”**

At the same time that commodity index investors were being blamed for causing high prices for consumers and effectively ruining the commercial risk transfer mechanism of the futures markets, there were numerous studies released by reputable economists that were unable to find any evidence of a link between the actions of commodity index investors on the one hand, and price movements of either physical commodities or commodity futures on the other. Unfortunately, this did little to impede the politicians' calling for a ban, or at least a curb, on commodity investment.

But before this movement was able get too far, the financial crisis came along and took care of high commodity prices in short order. This shifted Washington's focus away from price control and put it instead on increasing the oversight and regulation of the derivatives markets. In 2009, Gary Gensler was appointed by President Obama as Chairman of the Commodity Futures Trading Commission (CFTC), and Chairman Gensler made it clear from day one that he believed he had a mandate to end what he called “excessive” speculation in the futures markets, which was now blamed for not only causing high prices, but for the market's low prices collapse as well. He worked with Congress to help formulate many of the provisions in the Dodd-Frank financial reform bill, often with the goal of reducing what he called “excessive” speculation and preventing market “overconcentration,” two terms neither he nor the Congress had defined. As part of this effort, he strengthened the reporting requirements of futures

market participants. And one of his reasons for doing so was his hope that this would uncover a connection between commodity investment flows and physical commodity prices, as such evidence would make it easier for the CFTC to support its proposed reforms.

But no matter how rigorous the data collections became, or how finely the data were parsed, no connection between futures purchases by commodity investors and increases in physical prices was uncovered, not even under a newly-appointed Chief Economist when the skeptical Dr. Jeffrey Harris resigned. Unfortunately, this, too, did little to reduce the regulatory fervor, and today we await the imposition of new regulations mandated by the Dodd-Frank financial reform bill. These rules include federally mandated limits on the number of futures contracts any individual or -- irrationally -- their adviser can own or control, and, in some markets, these limits threaten the speculative liquidity that will be available to commercial hedgers. This will ultimately impair these markets' primary function, the transfer of risk from commercial hedgers to speculators. The new rules may also force commodity investors out of the futures markets and lead them instead to buy and hold physical commodities to gain their desired investment exposure. Since many institutional commodity investors do not employ leverage even when using futures, they have all the money they need to purchase and stockpile such readily storable commodities as: Crude Oil, Copper, Gold, etc. This would inevitably lead to supply constraints and could lead to higher prices and the paradox of rules creating the very situation they were drafted to prevent.

An entire course could be devoted to the new regulations and their possible impact on the markets, but the vast majority of these changes are currently still in proposal form, so any discussion of the ramifications of their imposition would at this point be no more than pure conjecture. So, today I will focus on one of the primary drivers behind the call for reform: the idea that buying futures increases physical commodity prices; and its corollary: that limiting speculation or imposing position limits can control prices. In my comments, I will present the evidence, such as it is, that has been adduced to support this notion. I will go on to show the fallacies in these data and present several studies which show that futures trading has little or no immediate impact on physical prices (and in any case no impact beyond a few hours or days). But these studies are, at best, an exercise in proving a negative, so I will end by elaborating on the relationship between futures trading and the prices of underlying physical commodities to prove that this relationship makes it impossible for futures trading alone, in the absence of physical commodity purchases, to exert any more than a transient influence on physical prices. You will also see that sharp changes in food and energy prices—though painful—are quite natural and, more important, come to understand the error in thinking that regulation of the futures market can be effectively used to control physical commodity prices.

## Speculation vs. Investment

First off, let me say that I don't believe that the long only diversified commodity futures that my firm, Gresham, does for its clients is speculation. Our process satisfies none of the criteria of speculation.

- For instance, **we do not select which commodities to buy** for our clients based on our belief that they will go up.
- Our **clients don't try to pick an optimal time** to come into the market when they invest.
- **We don't advise or encourage our clients to go long or short in relationship to price changes.**
- Our records show **no correlation at all between entry or exit at the beginning or end of a broad market increase or decline** (I might mention in this context that even from July 2008 to March 2009, when the broad commodity market's price level declined the most it had in 80 years, only one of our over 1,000 customers closed out his account, and that was with a portfolio value far under 1% of all our clients' positions, taken together).
- Instead of all this, **we give our clients exposure to a broadly diversified 30-commodity basket of commodity futures contracts** that we select systematically and transparently, according to their global production and trade values and the liquidity of their associated futures contracts.
- **We recalibrate this portfolio only once a year**—every January and thus obviously not in relation to any short-term wisdom.
- There is **nothing secret or undisclosed** about our allocations; each January, when we have made the allocation decisions that will govern the year ahead, we publish our allocations for all the world to see.
- **We do not employ leverage** in any of our programs, nor do we enable our clients to do so. That is to say, we require our clients to deposit with us 100% of the notional value of the futures positions we buy for them.

Even though I believe it is infinitely more accurate to call what Gresham does for its clients "investment," we are, despite my protest, classified by the CFTC as speculators. This is because, according to the categories available to us in the reports we fill out for the Commission each week, any market participant that does not use futures to hedge commercial exposure to price movements in a physical commodity is a speculator. My

objection to the label does not derive from objecting to the practice. The speculator is a necessary component of the futures market. He is the natural long who provides liquidity to the commercial hedger who uses the futures market to protect his business by selling some of his anticipated future production short. It's not, then, that I have anything against speculation. Without speculators, hedgers could sell only to other hedgers, and, as Keynes showed, they would need to encourage the prospective longs to buy by continually lowering the prices at which they are willing to sell. This would make hedging far less economical and would inevitably cause markets to be far more volatile and lead to higher prices for consumers (the increased risk both longs and shorts will take in the speculator-less more volatile market will cause risks, the rest of which will ultimately be passed on to consumers).

I do not of course condone the actions of those who break the law by moving from speculation to manipulation, by, for instance, secretly amassing physical reserves or positions in the delivery month with the intent to squeeze the market. There are rules in place to prevent such things, and I know from my days as an Exchange governor while the Hunt brothers were trying to squeeze the silver market that strict anti-manipulation authorities and rules are necessary. But I do defend those who provide the speculative money necessary for the smooth operation of a commercial risk transfer market.

### **The “Evidence”**

*(See Exhibit A)*

Let's start our disproof of the index speculator's purported guilt by looking at this graph, which has been presented, in one form or another, at both CFTC and Congressional hearings, by those who support the populist fable. It has been reproduced in their literature as the primary, and frequently only, piece of evidence supporting the claim that commodity index investors were the cause of higher commodity prices. But the graph does not simply make the mistake of confusing correlation with causality, it actually inverts causality by presenting a situation where rising commodity prices led to an increase in the value of all commodity index investments taken together as one in which such an increase in investment value is said to have caused the increase in prices.

In reality, of course, as *Exhibit B* demonstrates, all this shows is the trivial tautology when the things you invest in get more expensive, your investments are worth more. This graph shows that the value of a single \$100 investment in GE has a perfect correlation to the changes in GE's price, but nobody in their right mind would claim that the increase in the investment value is *responsible* for GE's price changes.

The only factors it is reasonable to claim might impact prices, is **investment flows**; that is to say, new money being put to work in the futures market. (*See Exhibit C*) But these

graphs and charts show that there is effectively no correlation at all between commodity investor flows and physical price changes.

The foregoing lack of correlation between price level and investment flows prevails not only at the index level, but also at the individual commodity level, as you can see from *Exhibits D and E*, which show these price versus investment flow graphs for Crude Oil and Wheat.

One might object that the mechanism of a buy and hold investment in the futures market is different from one in the stock market. In the case of GE, for example, an investor can buy a share of stock and put his certificate in a safety deposit box and forget about it. There are, moreover, only a limited number of GE shares that have been issued; each share tucked into a safe-deposit box lowers the remaining “float” that is for sale. Futures, however, do not exist in limited supply but have short lives. In order to maintain consistent long exposure, it is necessary to “roll” expiring futures into later-dated contracts, and there are those who claim that the concentrated futures rolling of index investors is responsible for higher prices. But, rolling entails a simultaneous purchase *and* sale, and the contract being sold to roll a long position forward and thus maintain it. The futures contract will have a delivery date at least one month earlier than the contract being bought, so it is hard to comprehend how institutional selling of near month (i.e. closer to expiration and thus transformation into a physical delivery) contracts and purchase of later-dated ones can drive *up* physical prices. Were such “longs can come to delivery without shorts doing so” logic logical, such rolling could only drive nearby and spot prices down and cause the spot-to-forward price difference to expand. And this increased contango would certainly be viewed favorably by producers who would be able to get better prices for the forward production they sell.

Despite this logical flaw, some have argued that commodity investment has simply overwhelmed the commodity markets and distorted prices. This excerpt from Michael Master’s testimony to the CFTC is illustrative,

“...commodities futures markets are much smaller than the capital markets, so multi-billion-dollar allocations to commodities markets will have a far greater impact on prices. In 2004, the total value of futures contracts outstanding for all 25 index commodities amounted to only about \$180 billion. ... That year, Index Speculators poured \$25 billion into these markets, an amount equivalent to 14% of the total market.”

In fact, however, futures trading related to long-only commodity investment represents only a tiny fraction of total commodity futures trading. (*See Exhibit F*) In 2010, for instance, the total trading in liquid commodity futures had a notional value greater than \$63 trillion, but trading related to the \$260 billion in commodity futures based index investments was less than \$2.0 trillion, or only 3% of the total. Index investors, after all, typically trade less than once a month on average, and they do so only to roll expiring

positions into new contracts. The commodity futures markets are dominated by commercial traders whose activity dwarfs the methodical trading of index investors.

As we all know, every long position taken in the futures market generates unavoidably a simultaneous short. Who is that? A 350 billion dollar speculator? It's surely not the public. Have you ever heard of a public speculator who can stand going short? Nor is it one of our highly-regulated banks. Who, then? Surprise, surprise! It is the commercial hedger! The CFTC's records clearly show that the commercial hedger's use of the market (as Exhibit F shows) has gone up considerably while over the same period index investment flows have gone up far less. Indeed, our scatter diagrams in commodity after commodity show that every lot of index investing has enabled 1½ to 2½ lots of hedging to occur. Further, the idea that the futures markets could push around the much larger physical markets must inevitably strike anyone familiar with these markets as ridiculous. Futures markets are substantially smaller than physical markets, and the dollar values of the world's physical commodity markets are, in every commodity, many times larger than the value of the associated open interest of futures markets. (*See Exhibit G*) To use Crude Oil as an example: Every automobile driver, homeowner, and consumer of plastics buys part of the world's \$2.5 trillion annual production of such products. This number is 26 times greater than the paltry 94 billion dollar value of the average open interest (all longs and all shorts on all futures markets taken together).

Don't, just to rebut me, tell me to count also the ins and outs, the purchases and sales, of each contract that trades on the exchange: that's just a sophisticated speed-dating game. Hopefully, each 5-minute "get-to-know-you" meeting doesn't count towards each participant's lifetime romance totals. What all this tells us is that, despite all its pride in its accomplishments and importance, the small futures market tail cannot and does not wag the much larger dog of production and consumption.

Commodity prices are made on the factory floors, by the farmers who grow wheat, the consumers who eat bread, the oil companies that take oil out of the ground, and the car owners who take it out of their gas stations' pumps. The amount of buying and selling that is done in the real physical markets is typically 10 or 20 times as much annually as the futures open interest is.

### **The Weakness of Other Populist Claims**

There is yet another, more nuanced, argument that claims:

“...as non-commercial participants enter a market, the opposite side is usually taken by a short-term liquidity provider, but the ultimate counterparty is likely to be a commercial. In the case of commodity index buyers, evidence suggests that the sellers are not typically other investors or leveraged speculators. Instead, they are owners of the physical commodity who are willing to sell into the futures



market and either deliver at expiration or roll their hedge forward if the spread allows them to profit from continued storage. This activity is effectively creating “synthetic” long positions in the commodity for the index investor, matched against real inventories held by the shorts.<sup>2</sup>”

If this were so, it would mean that index investment was actually increasing the demand for physical commodities by creating a new class of “cash and carry” players who are enticed into the futures market through the buying pressure of index longs. That would, however, have to be reflected in the CFTC’s Commitment of Trader reports. It would have to show up in the relationship between index longs and commercial shorts, because, in order for this argument to hold, index longs would need to have increased at a rate at least as great as the commercial shorts they had purportedly “created.” (*See Exhibits H through M*) In fact, however, in the markets for which we have sufficient data, the exact opposite is true: commercial shorts have entered the market at anywhere from 1.4 to 2.5 times the rate of index longs. This not only indicates that commercials have more than compensated for new speculative longs, but it also highlights the disquieting fact that without commodity index investors, there would be an insufficient number of speculative longs to satisfy commercial hedging demand. And this would significantly impair the utility of the futures markets for commercial hedgers.

Finally, there are those who claim that the increasing presence of index investors in the commodity futures markets has led to the “financialization” of commodities, which they try to prove by referencing an increased correlation between commodities and other financial assets, as well as a higher inter-commodity correlation.

The key problem with the financialization argument is that all of the data cited in its support includes the economic crisis that started in 2008 which was of such magnitude and rarity that it inevitably skews the results.

The correlation between commodities and other financial assets did increase significantly during the economic crisis, but the correlations between all risky assets, including equities and real estate, also reached historical highs during this period. (*See Exhibit N*) This is because the unprecedented global financial crisis caused investors to jettison all risky assets in a nearly simultaneous flight to the safety of government bonds. This is not evidence of the “financialization” of commodities, but merely confirmation of their integral role in the global economy.

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<sup>2</sup> Petzel, Ph.D. Todd E. “Energy Position Limits and Hedge Exemptions,” testimony, July 28, 2009, before the Commodity Futures Trading Commission.

## The Evidence Against

The calls to limit institutional investment in commodities because of its supposed impact on physical commodity prices have been countered by arguments from both economists and experienced futures market participants. One of the most compelling of these arguments is that during the run up that the anti-speculation forces blame on commodity index investors, commodities that do not have associated futures contracts had equally large price movements (and by the way, greater volatility as well). (*See Exhibit O*) So it is illogical to blame futures market purchases for physical market price rises when commodities which do not trade on liquid futures markets, like coal, rice, steel, cobalt, and rhodium, had run-ups comparable to those that do. Indeed, the volatility of onion prices increased roughly forty percent in the five years after onion futures trading was banned in 1958<sup>3</sup> and between October 2006 and April 2007, when oil rose 100% and corn 300%, onion prices soared 400%, only to fall 96% by March 2008 and rebound 300% by April<sup>4</sup>.

Also, remember that if futures prices caused physical market prices, it would — as it does not — make easy work of controlling inflation. If it were indeed feasible to affect physical market prices by purchases or sales in the futures markets, oil companies (and OPEC as well, and other producers in other commodities, too) would long ago have acted in the futures markets to achieve their pricing goals. Equally reasonable (i.e., not at all), the government could level physical oil prices simply by taking a short position in the oil futures market.

## Mechanics of a Tangible Commodity Futures Transaction

I have just produced several charts and graphs debunking the notion that commodity investors have caused increased physical commodity prices. But any such work is inevitably an exercise in proving a negative. That is to say, it is the result of the thought experiment: “if commodity index investors did impact physical prices, then the impact would certainly show up in this or that area.” Such demonstrations are inherently limited because they can always be countered with the argument that the cited study did not look in the right place, or over the time right period, or did not take this or that factor into account. If, instead, one relies on a few simple facts about how futures work, the intuitively appealing argument that buying futures causes price increases in the physical markets loses its force, and the statistics become superfluous.

As I mentioned earlier, one of the reasons it was so easy for the public to believe that commodity investors were responsible for increasing physical prices is that the argument

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<sup>3</sup> Jacks, David S. "Populists versus theorists: Futures markets and the volatility of prices." *Explorations in Economic History* 44.2 (2007): 342-362.

<sup>4</sup> Birger, Jon. "What Onions Teach Us About Oil Prices." *Fortune Magazine*, 27 Jun 2008.

relies on the public's perception that in the physical world buying pressure inevitably causes price increases. To bolster this, the "impose limits and thus lower prices" forces utilized terminology that confused buying futures with buying physical commodities, and confused a demand for futures contracts with a demand for actual goods. That is in any case what excerpts from Michael Masters' May, 2008 CFTC testimony show:

"What we are experiencing is a demand shock coming from a new category of participant in the commodities futures markets: Institutional Investors."

"In the popular press the explanation given most often for rising oil prices is the increased demand for oil from China. According to the DOE, annual Chinese demand for petroleum has increased over the last five years from 1.88 billion barrels to 2.8 billion barrels, an increase of 920 million barrels. Over the same five-year period, Index Speculators' demand for petroleum futures has increased by 848 million barrels. The increase in demand from Index Speculators is almost equal to the increase in demand from China!"

"In fact, Index Speculators have now stockpiled, via the futures market, the equivalent of 1.1 billion barrels of petroleum, effectively adding eight times as much oil to their own stockpile as the United States has added to the Strategic Petroleum Reserve over the last five years."

"Let's turn our attention to food prices, which have skyrocketed in the last six months. When asked to explain this dramatic increase, economists' replies typically focus on the diversion of a significant portion of the U.S. corn crop to ethanol production. What they overlook is the fact that Institutional Investors have purchased over 2 billion bushels of corn futures in the last five years. Right now, Index Speculators have stockpiled enough corn futures to potentially fuel the entire United States ethanol industry at full capacity for a year."

It is easy to see that Masters' rhetoric relies on his audience's misunderstanding of the mechanics of the futures markets and of the relationship between futures and physical commodities. But, once this relationship is teased apart, the edifice crumbles.

In its simplest terms, a tangible commodity futures contract is an agreement between a futures contract seller and a futures contract buyer in which the seller appears to promise to deliver a commodity to the buyer in the future for a certain price. In reality, he has made a bet, as both have agreed that they or their successors will ultimately undo these positions and thus undo their bet. Indeed, far less than 5% of all traded contracts came to delivery and the other 95% were undone with a subsequent closeout of the bet. An exchange-traded futures contract is thus different from an agreement drawn up in a lawyer's office not only because of this closeout and settlement expectation but also

because in a futures contract all of the terms are standardized, including the quantity and quality of the commodity to be delivered and the delivery date and location. The standardization of futures contracts is important because it makes it possible for these contracts to trade on an exchange that matches buyers and sellers who never meet and for the exchange to publish the prices of actual transactions. This means huge numbers of buyers and sellers can quickly and easily find counterparties for their desired transaction and be sure the price they pay or receive is fair.

The use of an exchange also reduces counterparty risk by guaranteeing the futures contract's performance. It does this by collecting margin money from both buyers and sellers and maintaining this margin at an appropriate level, getting more from the seller when the market goes up so that the seller cannot default or at least can be readily replaced by another seller if he were to default, closing out the contract if either party does not keep funding it. Further, standardization allows futures contracts to be traded (bought and sold) many times before they expire and obviates the need for the contract to be satisfied by actual delivery of the underlying commodity. Most important, standardization makes it possible for an unlimited number of futures contracts to be written on a finite amount of goods.

This description shows the fallacy in the notion that futures purchases cause a "stockpiling" of physical commodities that removes them from commerce. Unlike physical commodities or shares issued in the securities markets, the supply of futures contracts is infinite. The purchaser of a futures contract does not diminish the stock of available futures and much less the supply of the underlying physical commodity. The owner of a futures contract has, of course, the right to take delivery of a physical commodity at some point in the future, but there are very low spot month limits in place in every commodity market to prevent a single trader from owning or controlling too large an amount of futures into the delivery period, when it would be possible for him to leverage his right to take delivery to accomplish a squeeze. The fact is, in most markets, at least 95% of futures transactions are closed out prior to expiration, indeed more than a month before, and do not result in the delivery of physical commodities. This is even more true of commodity index investors who are, according to published index methodologies, invariably out of front month contracts at least three weeks before the first notice day. To claim, therefore, as the speculation-as-scapegoat forces do, that investors "control" or have "stockpiled" a resource of which they are unable, by statute, and indeed, in almost all cases not permitted by their agreements with investors to ever take delivery, veers from the merely misleading to the mendacious.

Commodity futures are *derivatives*, so called because their prices are *derived* from the price of some underlying physical commodity, not the other way around. They are essentially bets on the future price of a physical commodity such as Wheat, Gold, or Crude Oil. To claim that such bets can influence physical prices is akin to saying that the betting action in Las Vegas influences the outcome of the Super Bowl or the next spin of

the roulette wheel, or that the bettors “own” or “control” a certain percentage of either team or color.

### **Speculation vs. Manipulation**

Another way the anti-speculation forces have garnered support is to confuse index investment with actual manipulation. I find this particularly ironic, because during my time as Chairman of Mocatta, my firm was the primary broker to the Hunt brothers, when, as some of you have probably read, they took part in one of the most dramatic squeezes in the history of the commodity markets by attempting to corner the silver market.

The Hunts were ultimately unsuccessful because they did not have enough money to buy all the physical silver their effort to squeeze brought on to the market. No large-scale buying (or selling) action undertaken solely in futures markets can be (or has ever been shown to be) profitable or to cause physical market price rises. Every successful manipulation in history has occurred either wholly in the physical markets or in conjunction with them and in any case with the use of leverage. The reason is simple: No-one can profit from futures/futures (what is chased up on buying comes down in selling). The only possible profitable manipulation — and, the only one which a regulator can (or should) address — is what the Hunts tried to do: buy physicals quietly, buy futures noisily so that the futures price goes up, take the physicals out of storage or even indeed out of the country (in order to create a price-distorting illusion of shortage), and sell (or in their case, futilely try to sell) the physicals. The Hunt Brothers’ failure to capitalize on the high prices they had created illustrates the long-standing commodity market dictum that “not everyone can leave by the same door.”

Interestingly, diversified portfolios of commodity futures, such as those we manage for our clients at Gresham, are even less likely to cause price distortions than purchases of individual commodity in futures. It is illogical to think that portfolios of futures contracts (which is what commodity investors hold) even could do so; any possible market effect would, when exercised within a commodity index, be distributed over many markets (30, with no single commodity having more than 25%, in the case of Gresham’s TAP Fund). Also, the investment styles of the large institutions that make up the bulk of the assets in commodity investments—pension funds, endowments, and high net worth individuals, typically—are unlikely to lead to increased prices or volatility. Such investors do not chase prices, but tend to commit their money only after deliberations typically lasting six to twelve months. They are much more likely to sell in rising markets and buy when they fall in order to rebalance their portfolios back to their committee-determined asset allocations. Such actions inevitably reduce volatility and stabilize prices—just what the commodity markets need most.

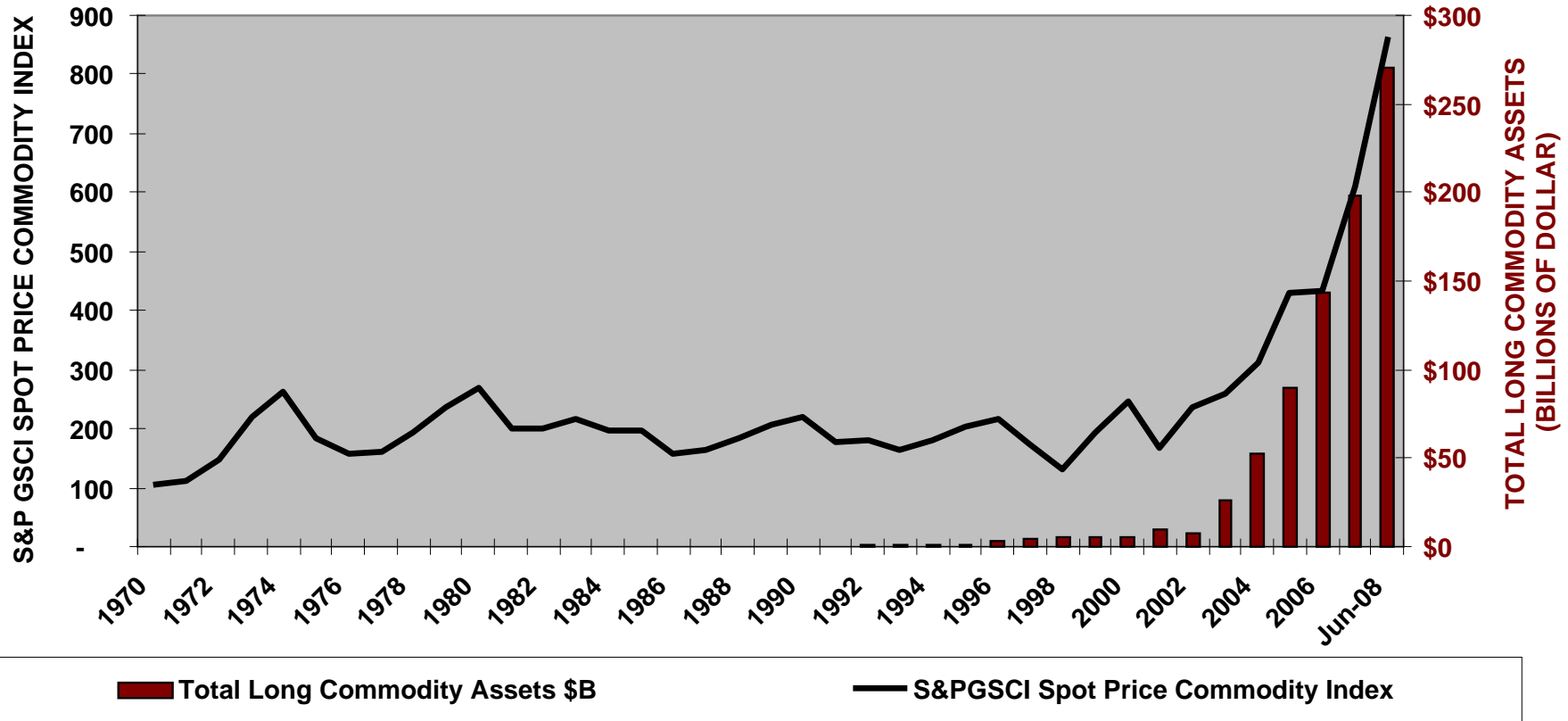
## **Conclusion**

I hope these comments have refuted the intuitively appealing arguments of those who blame commodity index investors for increased commodity prices and volatility. The ramifications of the actions currently being undertaken to limit the trading activities of commodity investors will play out over the coming months and years, but I remain confident that, when all is said and done, these markets will withstand this latest assault, just as they have on multiple occasions during my long association with them, and remain an effective mechanism for their primary purpose: commercial risk transfer. I thank you for your time today, and look forward to addressing any questions my remarks may have occasioned.

# Exhibit A

## Commodity Index Investment Assets Compared to S&P GSCI

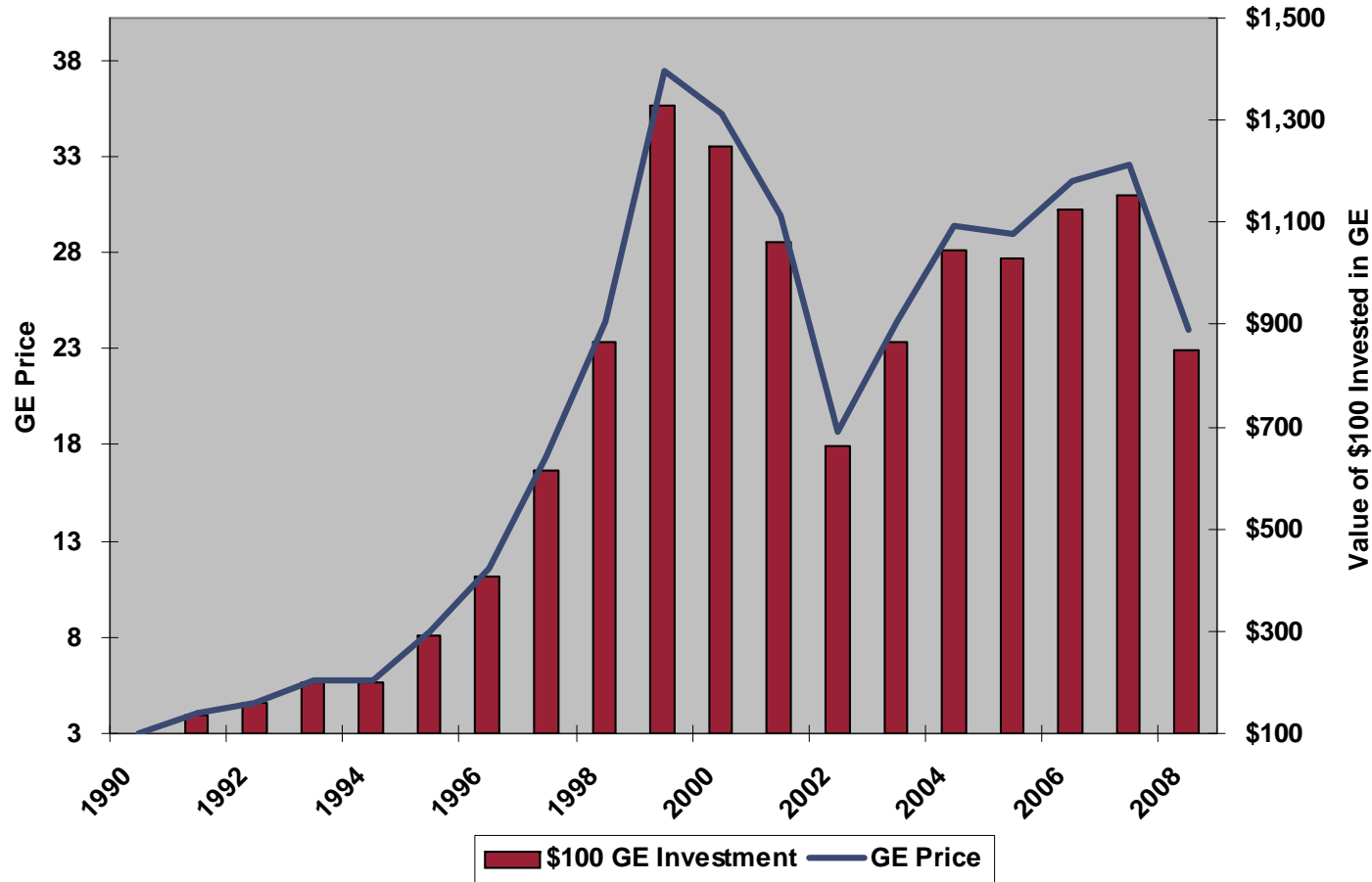
TOTAL LONG COMMODITY ASSETS COMPARED TO S&P GSCI SPOT PRICE COMMODITY INDEX



Source: Bloomberg

# Exhibit B

## General Electric Stock Price vs. Value of \$100 Investment in GE (1990 – 2009)

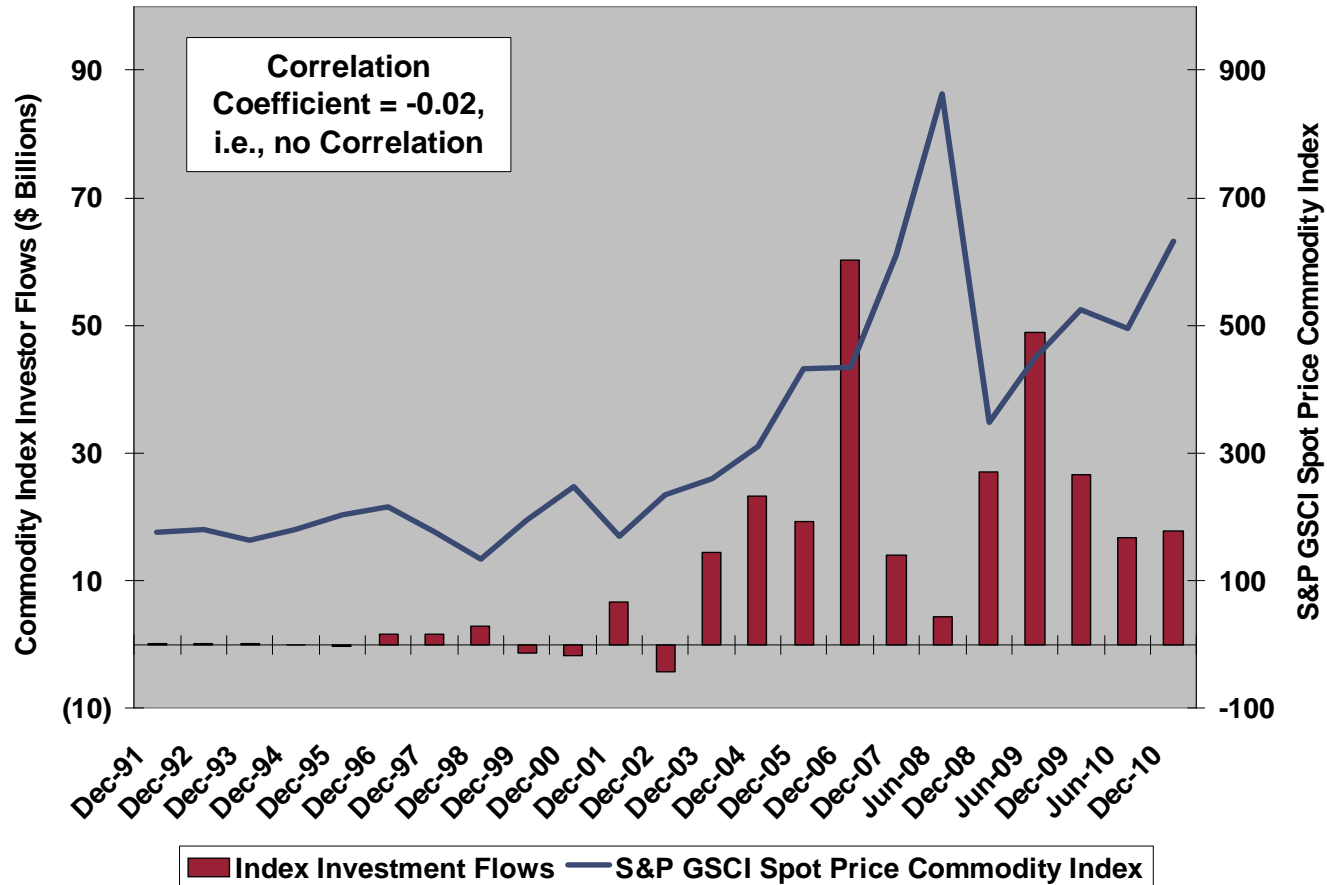


Source: Bloomberg



# Exhibit C

## Commodity Index Investment Flows Compared to S&P GSCI Index Levels



Source: Bloomberg

# Exhibit D

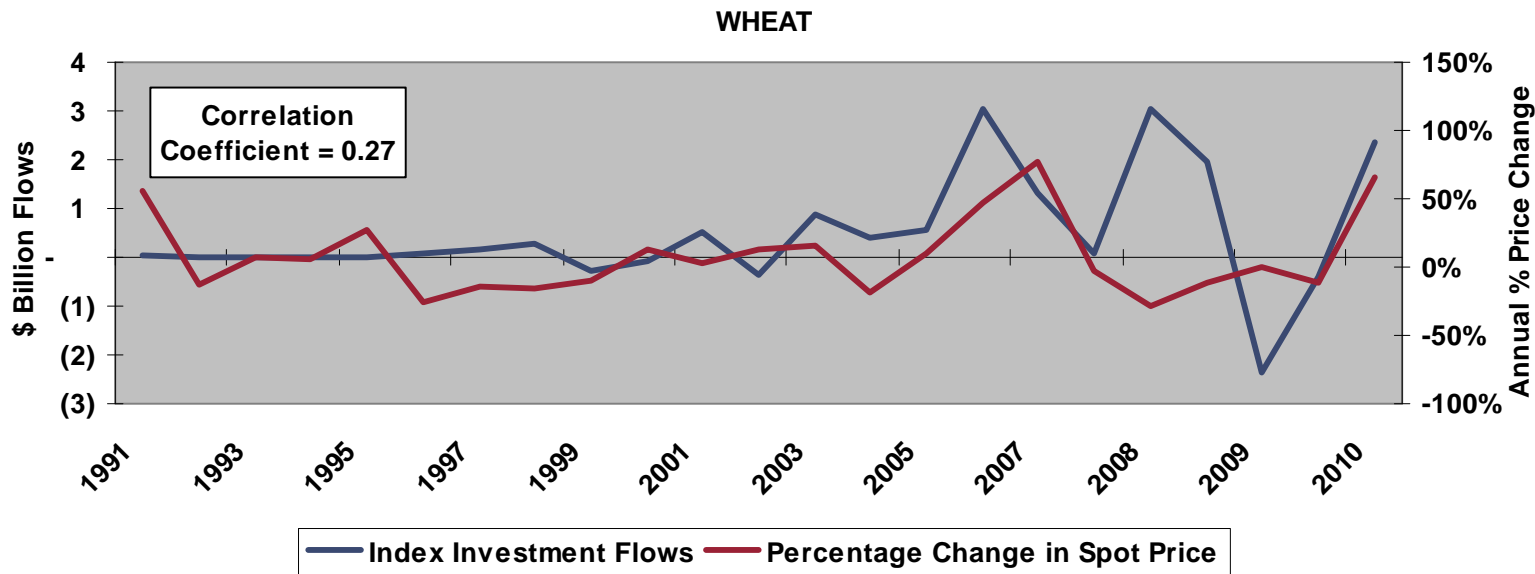
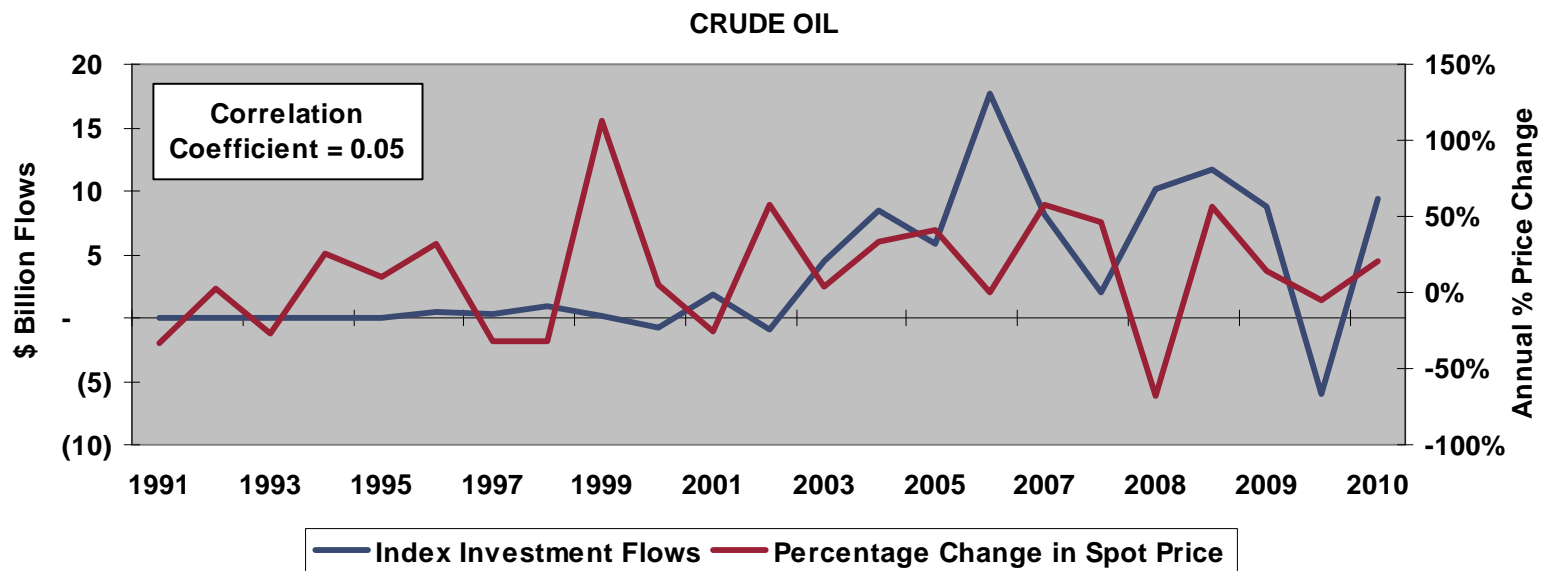
## Commodity Index Investment Flows in Crude Oil, Wheat, and Commodity Indices Compared to Price Changes 1991-2010

	CRUDE OIL		WHEAT		ALL COMMODITIES	
	Index Investment Flows	Percentage Change in Spot Price	Index Investment Flows	Percentage Change in Spot Price	Index Investment Flows	Asset Weighted DJ-UBSCI and SPGSCI Commodity Returns
12/31/1991	0.01	-32.8%	0.02	55.37%	0.08	-6%
12/31/1992	0.05	2.0%	0.01	-12.60%	0.22	4%
12/31/1993	(0.03)	-27.3%	(0.00)	6.93%	0.10	-12%
12/31/1994	0.02	25.3%	0.01	6.14%	(0.04)	5%
12/31/1995	(0.04)	10.1%	0.00	27.59%	(0.14)	20%
12/31/1996	0.41	32.6%	0.08	-25.57%	1.60	34%
12/31/1997	0.24	-31.9%	0.17	-14.56%	1.65	-14%
12/31/1998	0.99	-31.7%	0.26	-15.19%	2.96	-36%
12/31/1999	0.23	112.4%	(0.26)	-10.05%	(1.26)	40%
12/31/2000	(0.79)	4.7%	(0.10)	12.47%	(1.73)	48%
12/31/2001	1.87	-26.0%	0.51	3.40%	6.82	-30%
12/31/2002	(0.97)	57.3%	(0.36)	12.46%	(4.27)	31%
12/31/2003	4.42	4.2%	0.89	16.00%	14.43	21%
12/31/2004	8.51	33.6%	0.39	-18.44%	23.33	15%
12/31/2005	5.89	40.5%	0.57	10.33%	19.30	24%
12/31/2006	17.72	0.0%	3.02	47.68%	60.35	-6%
12/31/2007	8.17	57.2%	1.32	76.65%	14.00	27%
6/30/2008	2.07	45.9%	0.09	-2.97%	4.40	34%
12/31/2008	10.09	-68.1%	3.02	-28.88%	27.01	-47%
6/30/2009	11.76	56.7%	1.94	-11.46%	48.90	6%
12/31/2009	8.71	13.5%	(2.35)	0.14%	26.56	12%
6/30/2010	(5.93)	-4.7%	(0.41)	-11.31%	16.77	-1%
12/31/2010	9.42	20.8%	2.35	65.38%	17.79	22%



# Exhibit E

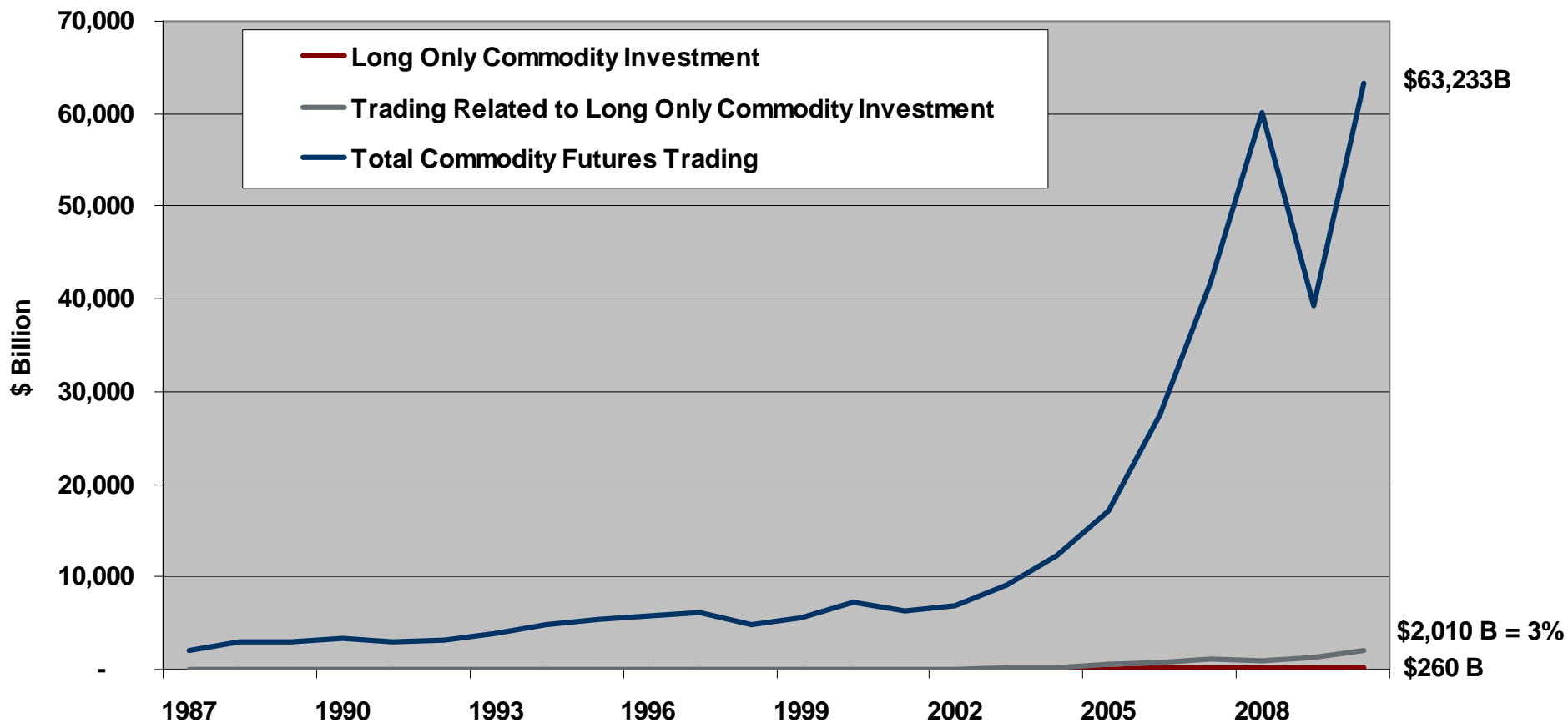
## Index Flows and Price Change



# Exhibit F

While the turnover of commodities means that \$260 billion of assets necessitates \$2,010 billion of trading, that represents a small proportion of the total trading volume of commodity futures.

### Growth of Trading in Commodity Futures – 1987 to 2010



Source: Gresham Investment Management, Barclays.



# Exhibit G

## Select Commodities Open Interest and World Production Value

	2010 Average Futures Price	Pricing Units	2010 Average Open Interest in Futures Contracts	Value of Average 2010 Open Interest in \$ Billion	Value of 2010 World Production in \$ Billion	Value of Open Interest as % of World Production Value
<b>NYMEX WTI Crude Oil</b>	79	\$ / barrel	1,190,132	94.3	2,479.5	4%
<b>NYMEX Heating Oil</b>	213	cent / gal	234,924	21.0	792.4	3%
<b>NYMEX Natural Gas</b>	4	\$ / MM BTU	718,774	31.5	516.8	6%
<b>CBOT Wheat</b>	575	cent / bushel	346,359	10.0	144.1	7%
<b>CME Live Cattle</b>	95	cent / lb	250,804	9.5	258.8	4%
<b>Total for Top 20 Commodities</b>				<b>330.3</b>	<b>5,232.4</b>	<b>6%</b>

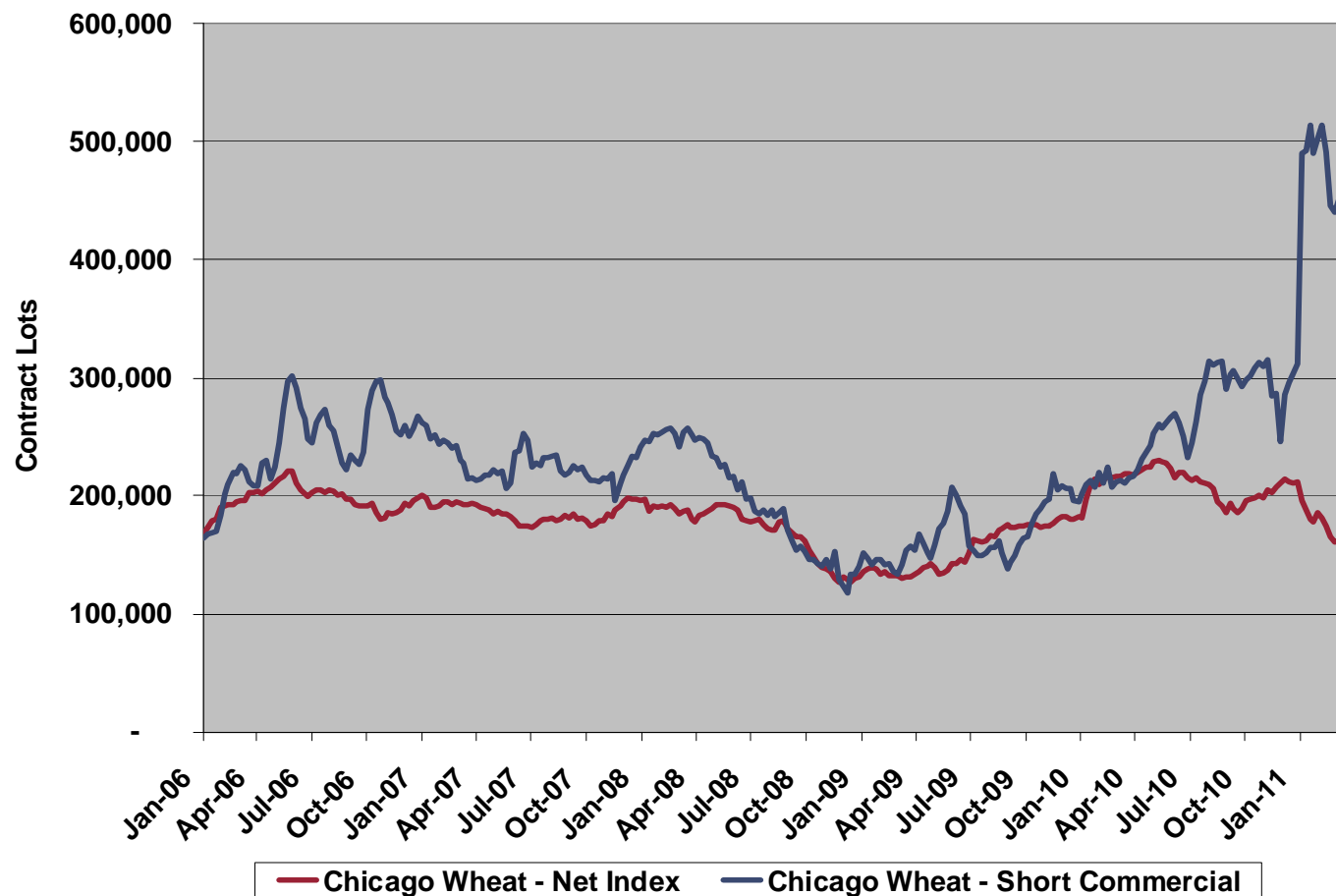


Source: Gresham Investment Management.

# Exhibit H

- ◆ This chart shows that short Commercial Open Interest in Chicago Wheat has increased more than Net Long Index Open Interest in Wheat.
- ◆ In fact, for every Wheat lot that is held by an Index, 1.2 Wheat lots are sold by Commercials.
- ◆ This contradicts the assertion that Open Interest figures are distorted by Index Speculators' domination of the Wheat and other Agricultural Markets

## Net Long Index Positions vs. Short Commercial Positions: WHEAT

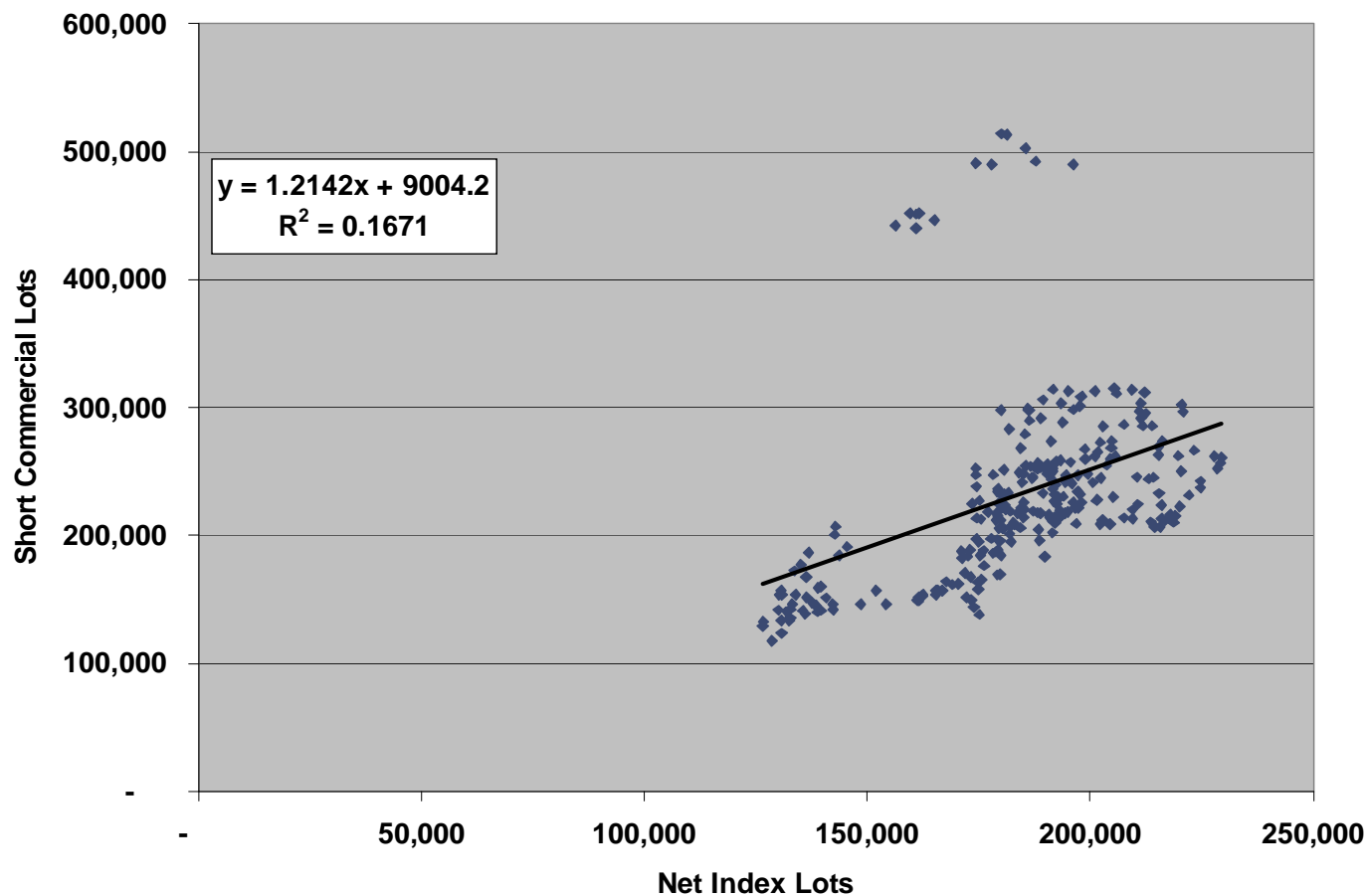


Source: CFTC

# Exhibit I

- ◆ This slope of this scatter chart plotting Short Commercial Open Interest in Chicago Wheat versus Net Long Index Open Interest in Wheat shows that for every Wheat lot that is held by an Index, 1.2 Wheat lots are sold by Commercials.
- ◆ The negative Y-Intercept indicates that there would not be any Speculative Longs available to Commercial Hedgers if Index Longs were to exit the market.
- ◆ Although this is an extremely unlikely turn of events, it is obvious that the liquidity available to Commercial Hedgers would be significantly impaired.

## Scatter Plot of Net Long Index Position vs. Short Commercial Positions for Chicago Wheat

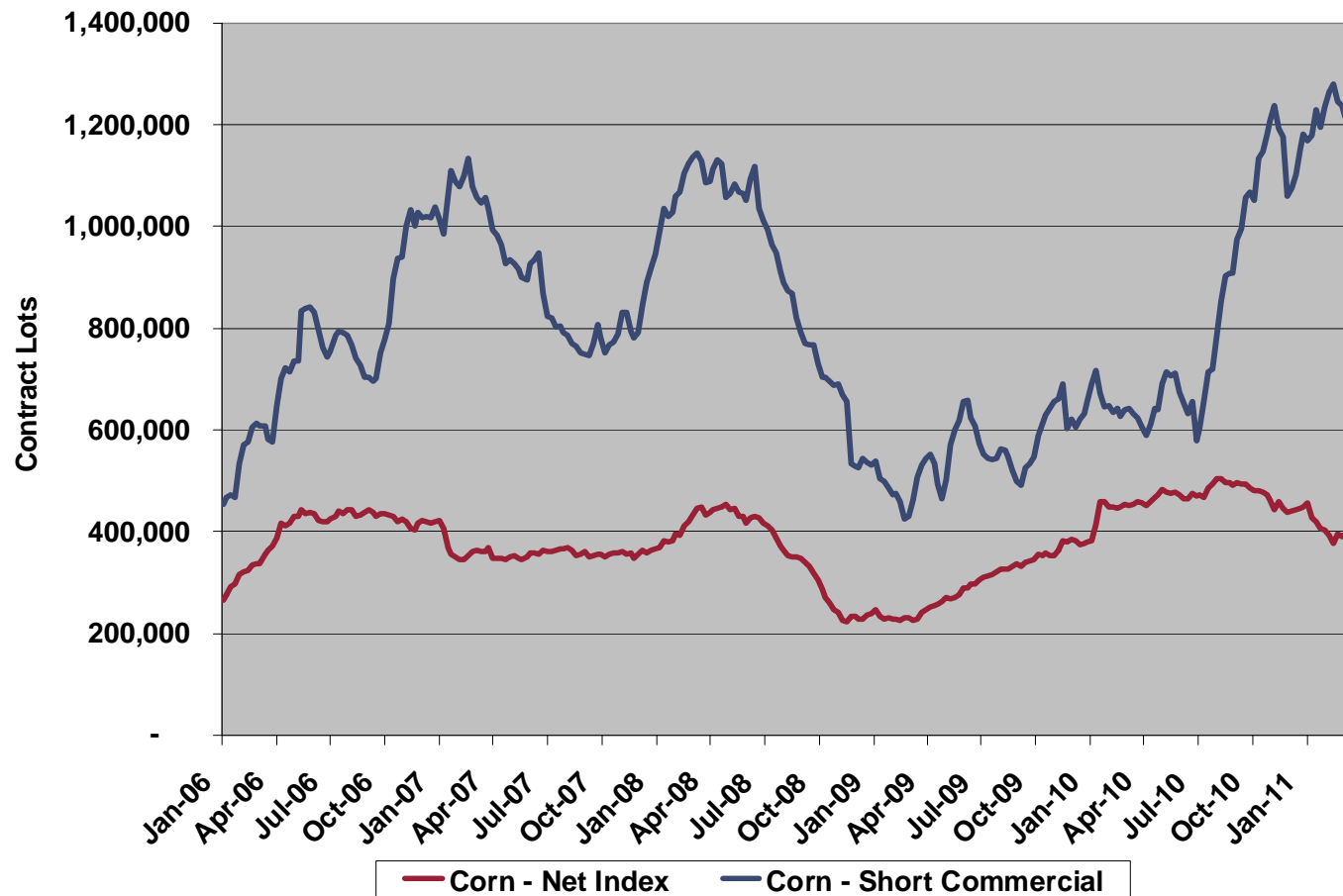


Source: CFTC

# Exhibit J

- ◆ This chart shows that short commercial open interest in Corn has increased more than Net Long Index Open Interest in Corn.
- ◆ In fact, for every Corn lot that is held by an Index, 1.6 Corn lots are sold by Commercials.
- ◆ This contradicts the assertion that Open Interest figures are distorted by Index Speculators' domination of the Corn and other Agricultural markets.

## Net Long Index Positions vs. Short Commercial Positions: CORN



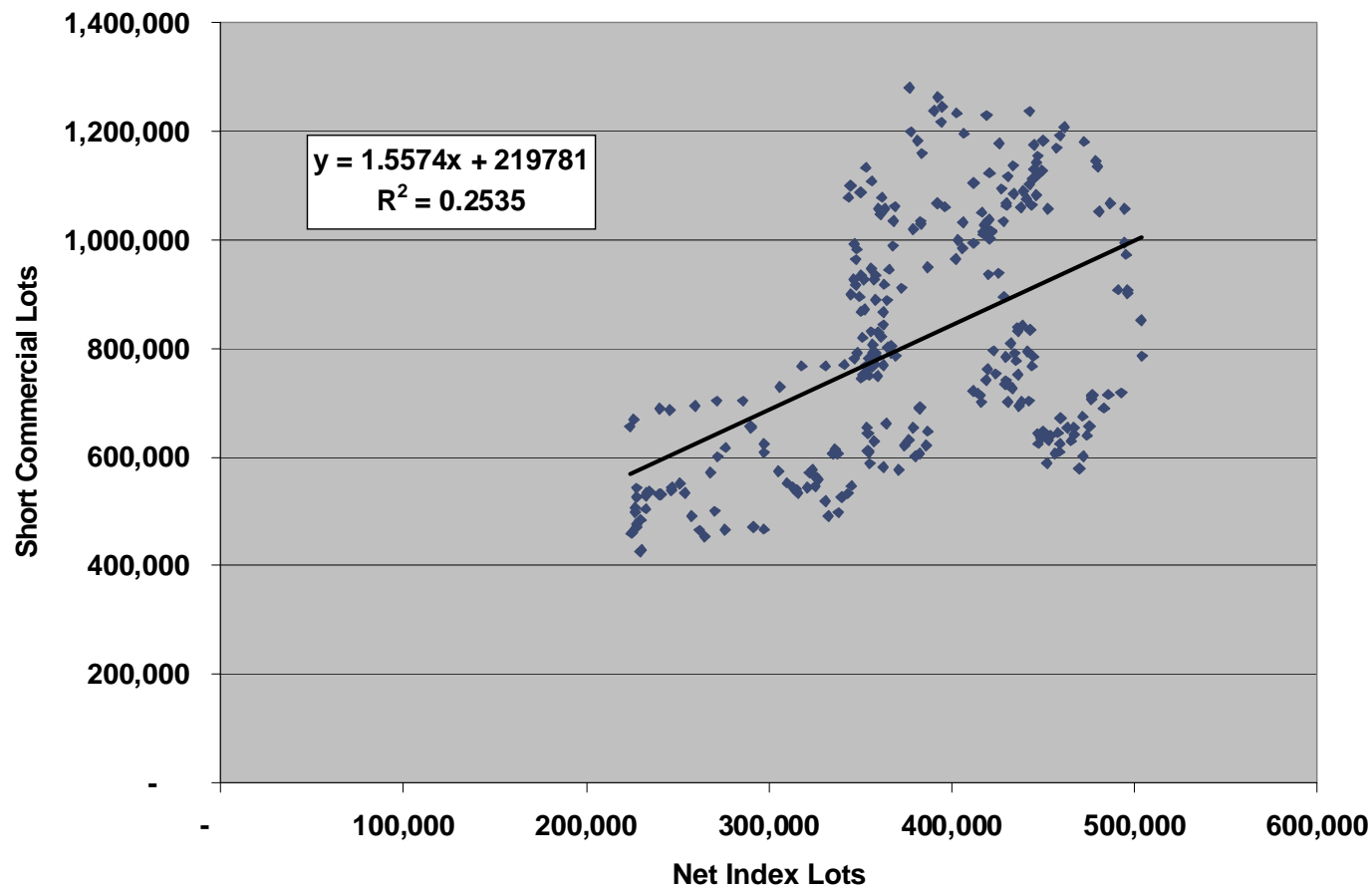
Source: CFTC



# Exhibit K

- ◆ This slope of this scatter chart plotting Short Commercial Open Interest in Corn versus Net Long Index Open Interest in Corn shows that for every Corn lot that is held by an Index, 1.6 Corn lots are sold by Commercials.
- ◆ The Y-Intercept indicates that there would still be Speculative Longs available to Commercial Hedgers if Index Longs were to exit the market.

Scatter Plot of Net Long Index Positions vs. Short Commercial Positions for Corn

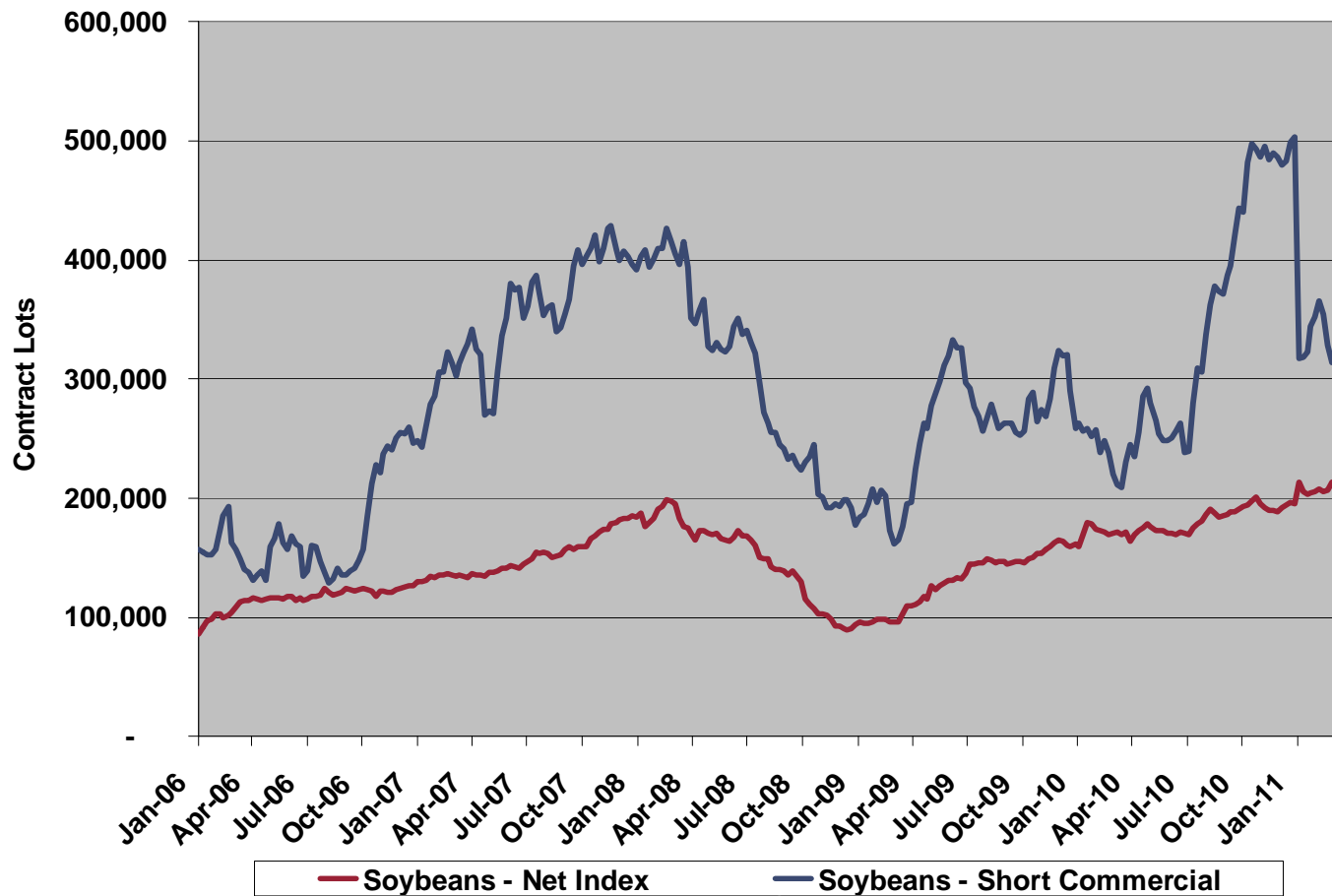


Source: CFTC

# Exhibit L

- ◆ This chart shows that Short Commercial Open Interest in Soybeans has increased more than Net Long Index Open Interest in Soybeans.
- ◆ In fact, for every Soybean lot that is held by an Index, 2.2 lots are sold by Commercials.
- ◆ This contradicts the assertion that Open Interest figures are distorted by Index Speculators' domination of the Soybean and other Agricultural markets.

## Net Long Index Positions vs. Short Commercial Positions: SOYBEANS



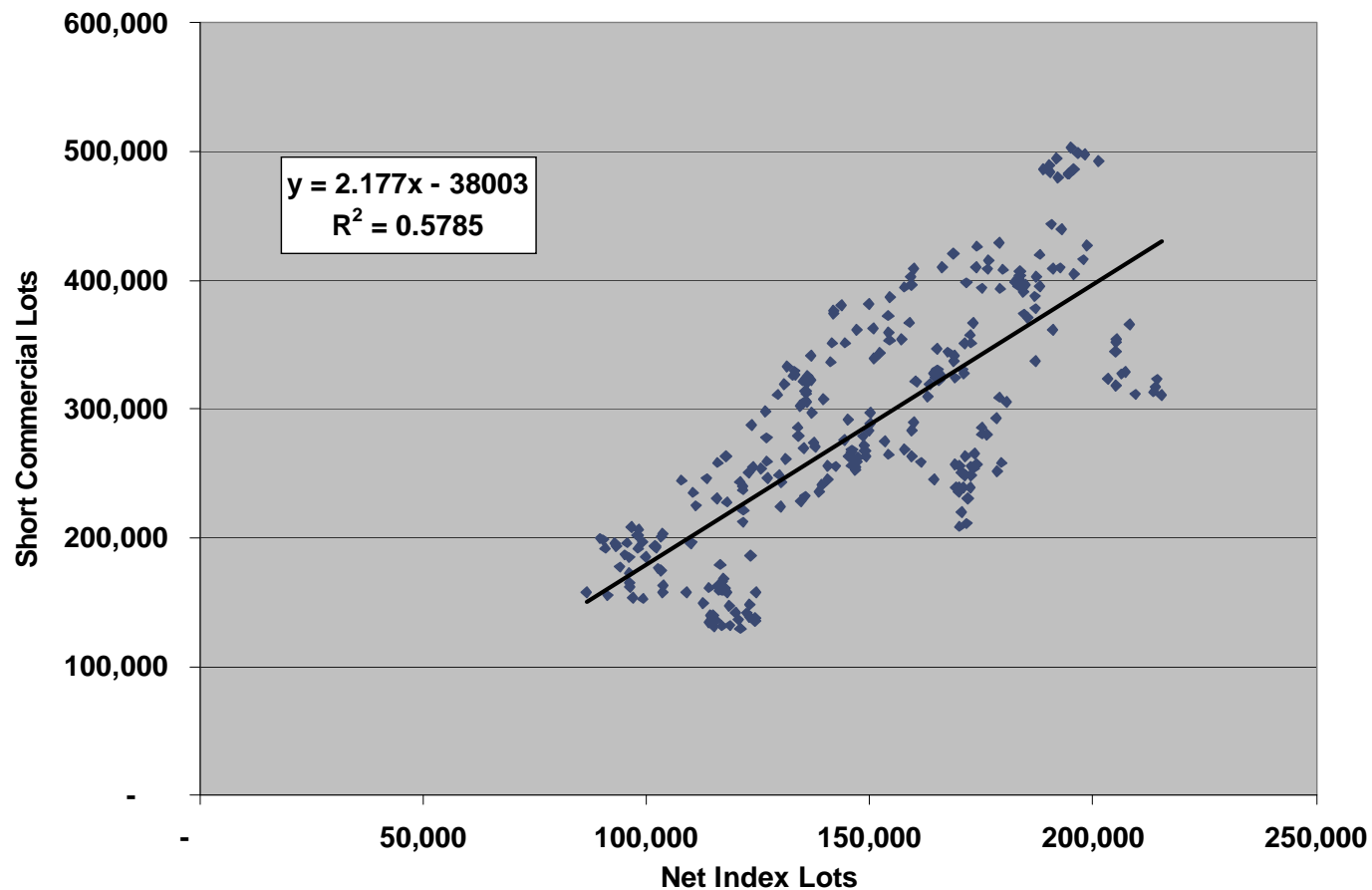
Source: CFTC



## Exhibit M

- ◆ This slope of this scatter chart plotting Short Commercial Open Interest in Soybeans versus Net Long Index Open Interest in Soybeans shows that for every Soybeans lot that is held by an Index, 2.2 Soybeans lots are sold by Commercials.
- ◆ The negative Y-Intercept indicates that there would not be any Speculative Longs available to Commercial Hedgers if Index Longs were to exit the market.
- ◆ Although this is an extremely unlikely turn of events, it is obvious that the liquidity available to Commercial Hedgers would be significantly impaired.

### Scatter Plot of Net Long Index Positions vs. Short Commercial Positions for Soybeans

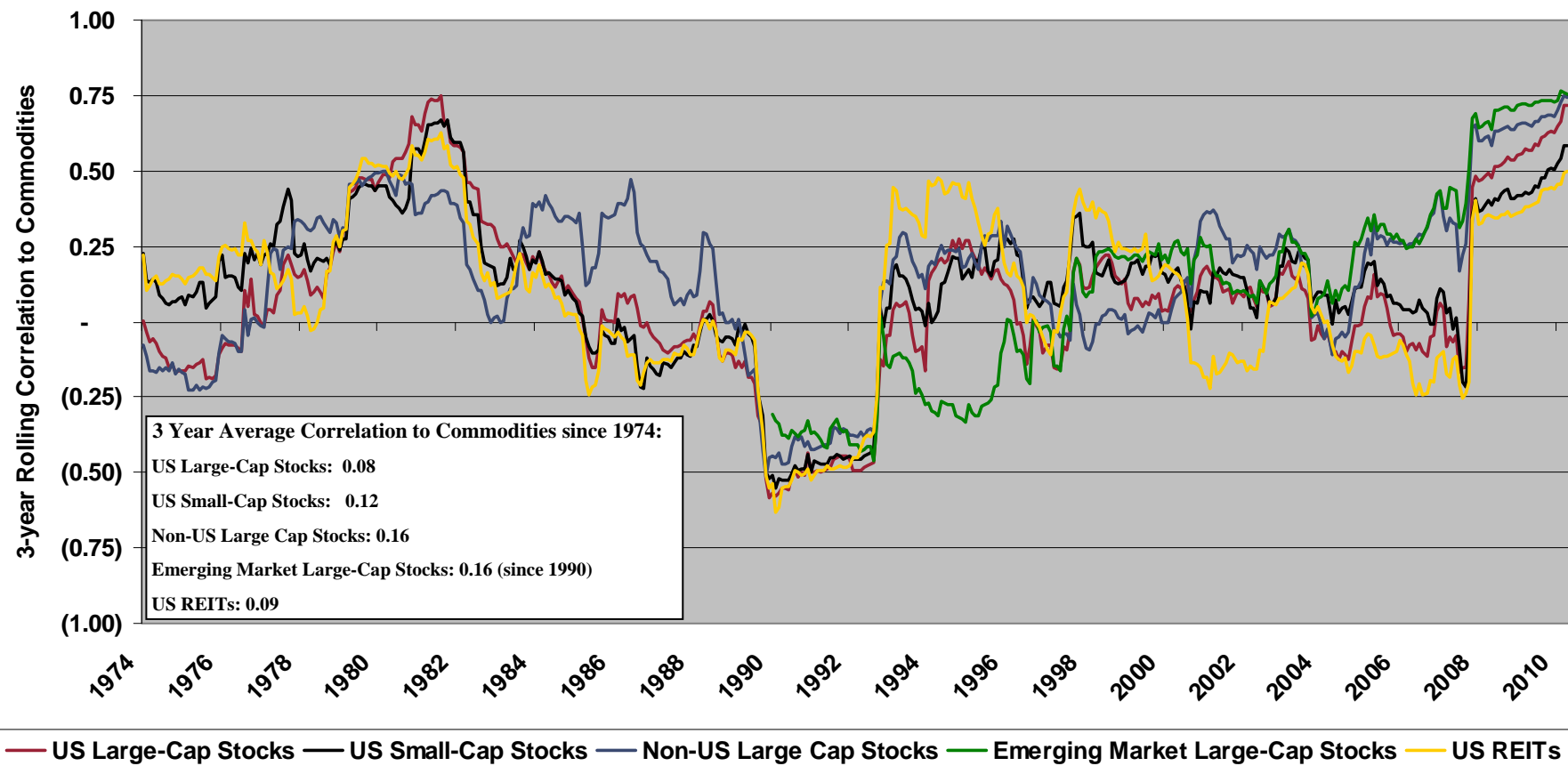


Source: CFTC

# Exhibit N

- ◆ Risky Assets (Stocks and Real Estate) tend to have little to no correlation to commodities over longer time horizons.
- ◆ There are periods, historically, when correlations between risky assets rise, like in the early '80s and late '00s; however these periods have historically not lasted for an extended period of time.

## 3 Year Rolling Risky Asset Correlations to Commodities

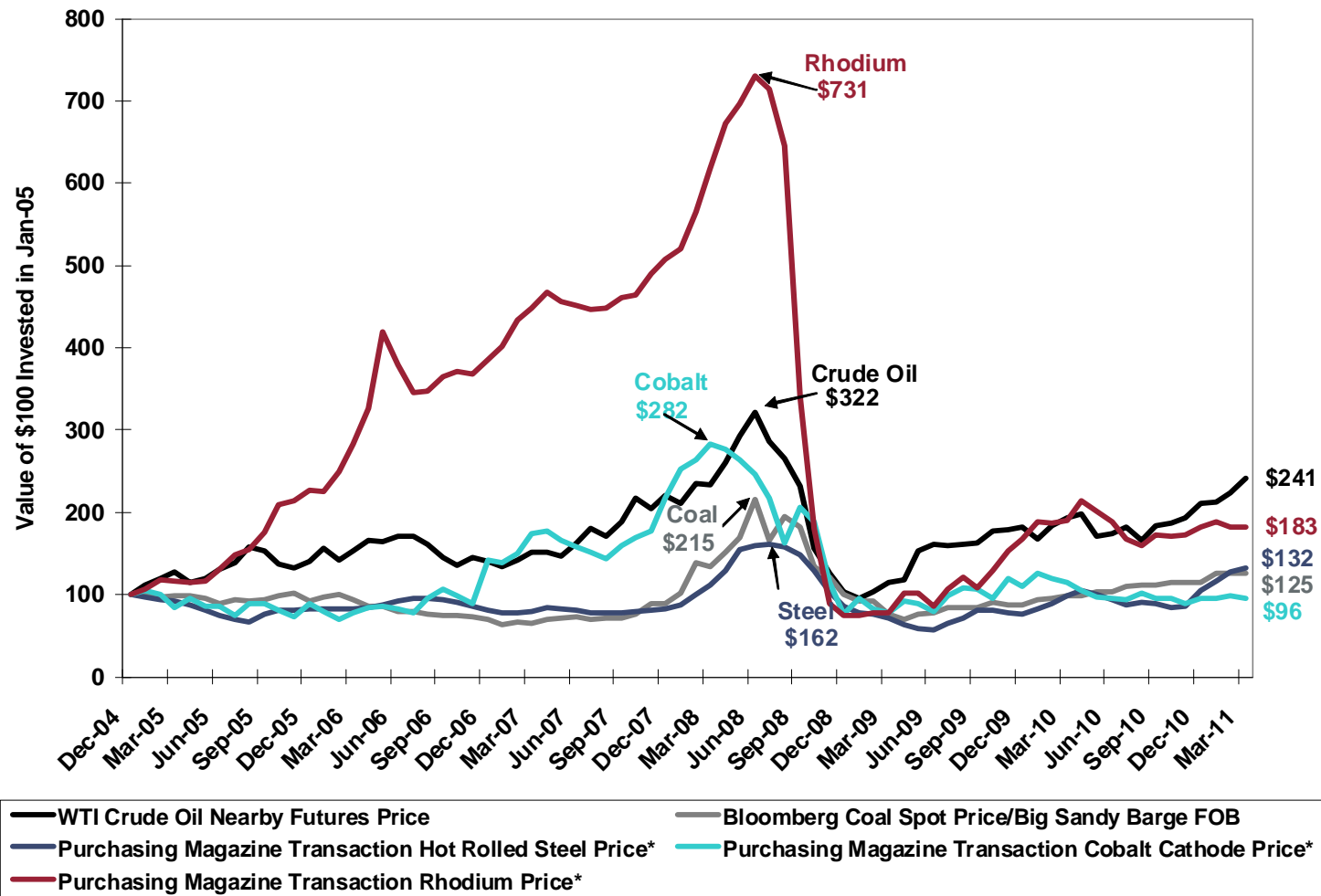


Source: Morningstar and Gresham Investment Management LLC



# Exhibit O

## Crude Oil Compared to Commodities Not in Commodity Indices



Source: Bloomberg

\* Data discontinued in 3/2010; Steel from 4/2010 is the Midwest Hot Rolled Steel futures, Cobalt from 4/2010 is LME Cobalt. Rhodium data from 4/2010 is Johnson Matthey Rhodium Spot Price

