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To: McCullough Research Clients

From: Robert McCullough

Subject: Did Amaranth Attempt to Corner the March 2007 NYMEX at Henry Hub?

Introduction

In 1993 and again in 2000, Enron engineered two major loopholes in commodities regulation. The first loophole, adopted by the CFTC under Wendy Gramm's chairmanship, exempted energy futures from CFTC oversight, and the second, proposed by her husband, U.S. Senator Phil Gramm, exempted electronic exchanges. Taken together, these loopholes largely remove regulation from energy futures.

On September 13, 2006, Amaranth Advisors LLC began to reveal to astonished investors that its failed effort to corner the natural gas forward market for March 2007 had lost \$6 billion in a matter of days.

So far, little is known about Amaranth's activities. Absent successful prosecution -- unlikely because of the "Gramm" loopholes -- it is quite possible that only insiders will be acquainted with the full details. However, some facts are obvious from the extensive media coverage. For an Amaranth trader, Brian Hunter, to lose \$6 billion from a small change in the spread between March and April 2007 natural gas futures, he must have accumulated a position of 9,128,000,000 billion MMBTU. This is an overwhelming position. The NYMEX open interests for March 2007 are a mere 900,060,000 MMBTU. Of greater concern for policymakers is the fact that U.S. consumption of natural gas in March 2006 was only 2,120,047,000 MMBTU. Simply put, Mr. Hunter had accumulated an overwhelming corner of natural gas for March 2007.

We may speculate on his objectives: if he sought physical delivery in March 2007 for only a portion of his portfolio, Hunter would have been able to dictate spot prices; if his

position was only financial, Hunter raised the prices to end-users when utilities and manufacturers attempt to compete in this market for hedges.

Given the highly inadequate public reporting in energy forward markets, the fact that a minor player like Amaranth came close to cornering the market is a serious matter.

Policy Implications

Until 2001, U.S. public policy dealt separately with market manipulation and financial manipulation. Enron is an example of an entity that combined these policy concerns by simultaneously defrauding both its customers and its investors.

Some reporters have asked whether Amaranth provided suitable information to investors and whether sufficient risk controls were in place to avoid “rogue” trading.¹ We have been able to identify only one journalist who noticed that the scale of the sudden collapse also has implications for market manipulation. The lack of financial and trading reporting requirements lies at the heart of the problem, for no “Amaranth alert” was sounded at SEC, FERC, and the CFTC. *The Desk* reported:

The one thing that does seem certain about this Amaranth thing is that FERC and the CFTC are officially watching this story unfold, but not necessarily with a great deal of interest (we’re told). FERC mused to us earlier this week that since this doesn’t deal with the physical market, rather OTC/futures market and since it’s had little or no effect on spot prices for gas, it ain’t interested. Across town at the CFTC, we pointed to and conjured up all sorts of reports, rumors and other solid hearsay about Brian Hunters [sic] “bully on the block” stature and his way of moving certain prices, more or less at will, due to the heft of his various positions and the scale of his book. Blowup or not, was Hunter manipulating the gas market or attempting to? Or was he simply an aggressive trader? In response to this somewhat rhetorical question, one fellow close to the commission sent us a reference to the August civil enforcement action against BP Products North America, which alleges that BP manipulated the price of February 2004 TET physical propane by, among other things, cornering the market for February 2004.²

Since FERC has held extensive discussions over the last five years about the relationship between spot and forward prices, the comment attributed to FERC staff is worrisome. Surely the commission’s market monitoring group recognizes that NYMEX is the only organized exchange with widely quoted prices, making it the exchange of choice for customers – utilities and industrials – attempting to hedge away from chaotic spot markets. If Hunter did take control of March 2007, the costs were borne directly by customers. Forward markets are not simply a game played by financial traders.

¹ An excellent, though a bit animated, discussion appears in the September 22, 2006 edition of *The Desk*: “We were sent some NYMEX data earlier today that shows from 8/29 to date, gross longs and gross shorts in natural gas held by large speculative investors have both increased. Increased? It has grown from 80,000 to more than 90,000. This is a huge number. By comparison (as of yesterday) the open interest in December ’06 contracts was only 54,767 contracts and only 52,471 in January, even though December is only two months.”

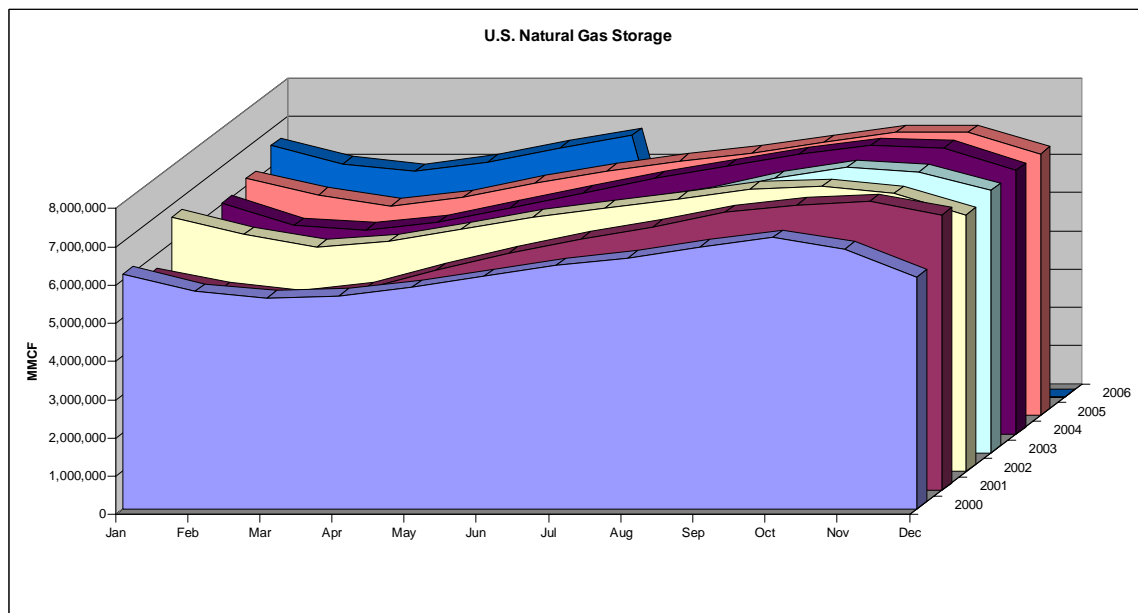
² *The Desk*, September 22, 2006, page 6.

Are federal regulators aggressive enough in rooting out market manipulation? Given the Gramm loopholes, the CFTC's hands are effectively tied. FERC, on the other hand, seldom exercises its extensive power to maintain just and reasonable prices in the marketplace.

Congressional efforts to remove the Gramm loopholes are underway, but the progress is slow.³ Amaranth now stands as a reminder that if lawmakers and regulators were unable to identify and intercept a corner in the Henry Hub NYMEX by a relatively small player, we must do more to stop the price manipulation by major players that undermines our nation's economy.

What Was Brian Hunter Planning?

Mr. Hunter created a simple plan to corner the market. Natural gas usage peaks in the winter. The supplies required to meet the winter peak come from current production and storage. Stored natural gas is drawn down over the winter and reaches its minimum level in March:

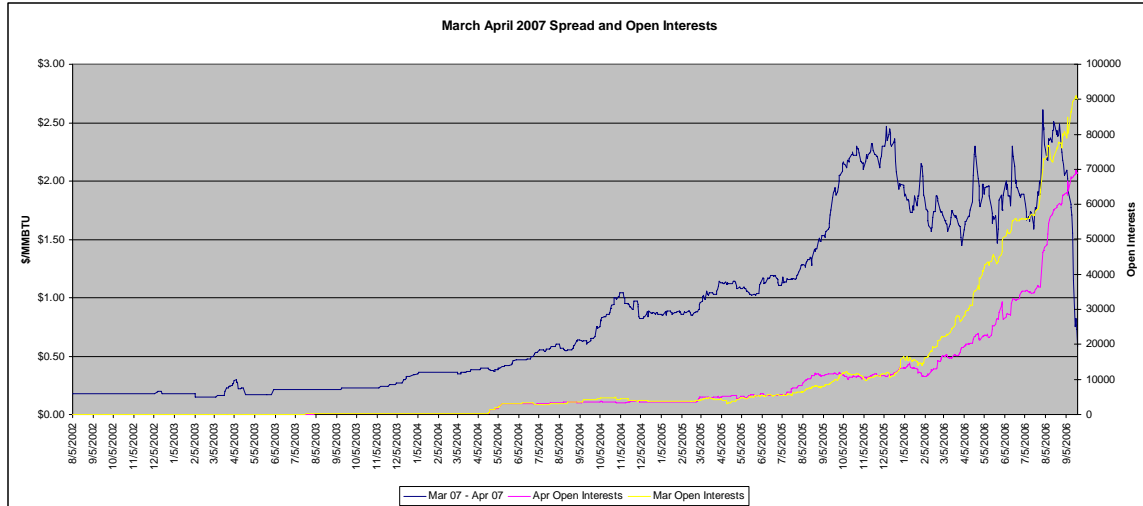


March, therefore, is the logical choice for a trader seeking a month with a minimum of storage to offset a shortage. Hunter could have purchased forward contracts for March, but he knew it would leave him exposed to a general shift in the price of natural gas. Since oil and natural gas are close substitutes, a reduction in the price of oil could easily have eliminated any possible profit arising from a shortage of natural gas. His solution was to purchase contracts (more likely, options) on March natural gas while selling

³ See page 16 of this report for a brief description of S.2642: Oil and Gas Traders Oversight Act of 2006.

contracts or options on April natural gas. If the price of oil fell, Hunter would have hedged his exposure since prices in both March and April would have fallen.⁴

Traditionally, the spread between March and April NYMEX contracts has been minimal:



Hunter understood that storage capacity has grown little since the 1980s while natural gas consumption has increased significantly.⁵ As storage declines in importance, the risk of a shortage in March, the last winter month, increases. As we know, Hurricane Katrina last year accentuated the storage problem by disrupting existing supplies with spreads reaching \$2.50/MMBTU in December 2005. It appears that Hunter believed that a similar situation was possible in the winter of 2006-2007.

Using the available media reporting we can deduce the scale of Amaranth’s position:

⁴ The meaning of the word “hedge” is at risk of becoming lost in current financial use. A hedge is an offsetting investment that reduces total risk. Hunter hedged his oil exposure by a sale of natural gas futures. By placing most of its assets in a single transaction, Amaranth violated the real definition of the term “hedge” and violated every precept of risk management.

⁵ Storage increased only 1.4% from December 1989 to December 2005; consumption increased 14.4% over the same period. (Source: EIA Natural Gas Navigator).

Date	Press Reports	Fund Value (Billions)	Spread (/MMBTU)
1/1/2006	Greenwich-based Amaranth Advisors told investors this week that the fund had lost 35 percent of its assets and that it was liquidating energy holdings because of disastrous natural gas trades. The company, which opened the year with assets of \$7.4 billion, saw assets shrink to about \$4.5 billion from an August high of \$9.2 billion.	\$7.40	\$1.97
4/30/2006	Last April, the fund's assets rose by about 12 per cent only to fall by 10 per cent in May.	\$9.40	\$1.78
5/31/2006	After Amaranth lost about 10% in May, or roughly \$1 billion, mainly on energy trades, Amaranth told some investors that it was cutting back the leverage it was employing in the energy market, the investors say. He was up for the year roughly \$2 billion by April, scoring a return of 11% to 13% that month alone, say investors in the Amaranth fund. Then he had a loss of nearly \$1 billion in May when prices of gas for delivery far in the future suddenly collapsed, investors add. He won back the \$1 billion over the summer, only to relinquish that and much more last week.	\$8.40	\$1.75
6/30/2006	Amaranth's overall fund gained around 6% in June, was roughly flat in July and rose 6% in August, according to investors.	\$8.90	\$1.89
7/30/2006		\$8.90	\$1.89
8/31/2006	According to Mr. Maounis, trading-related profits from energy and commodities produced \$1.26 billion in profit in 2005 and from January to August, it produced \$2.17 billion — almost half of that generated from June to August.	\$9.20	\$2.14
9/13/2006		\$4.06	\$1.71
9/14/2006	Maounis blamed the losses, including a \$560 million plunge on Sept. 14, on market moves the firm's traders had considered a "highly remote" possibility.	\$3.50	\$1.55
9/23/2006	McCullough Research estimate	\$0.00	\$1.15

To accumulate such huge losses through September, Amaranth must have had a nominal position of 9,129,000,000 MMBTU.⁶

It is clear that this position was not primarily on NYMEX. Indeed, the total NYMEX open positions on September 22, 2006 were only equivalent to 900,060,000 MMBTU. In other words, Amaranth's position may well have been ten times the entire size of NYMEX for March 2007 forwards.

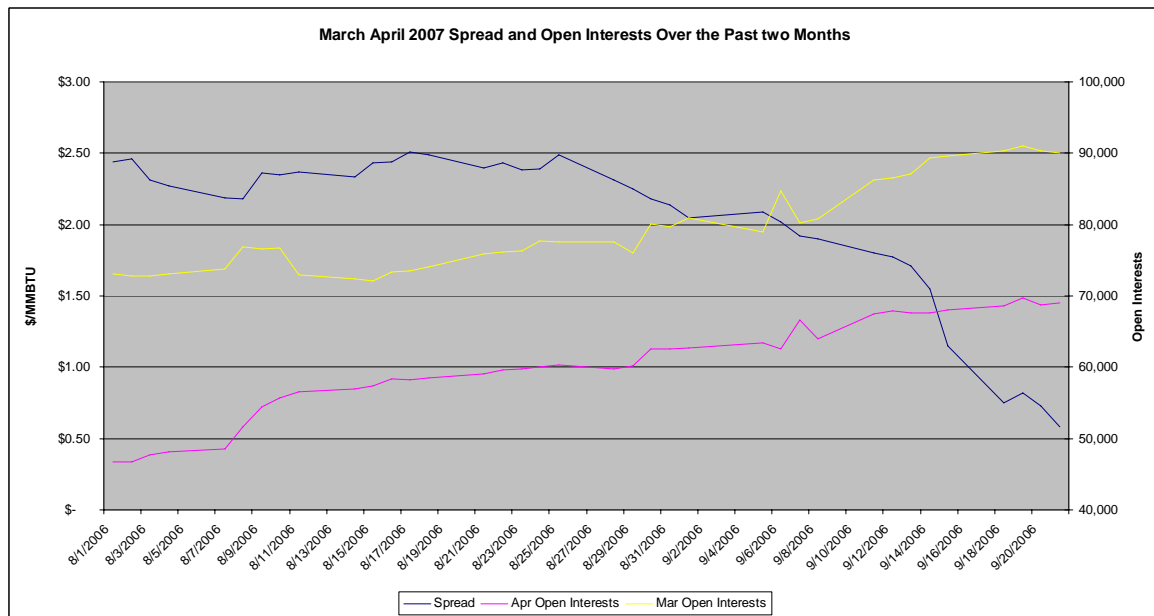
Given Amaranth's limited financial resources, it is likely that the majority of its position was options. This is consistent with numerous press reports. It is also likely that most of the positions were over-the-counter (OTC), since the position dwarfed NYMEX. Data from ICE is more difficult to acquire, but all indications are that Hunter's position would have dwarfed ICE as well.

The rapidly rising amount of open positions in March and April would seem to indicate that Amaranth was expanding its positions over time – perhaps trying to “buy ahead” of

⁶ Since the values in this table reflect media coverage, they must be viewed with some distrust. A simple regression line through these values indicates a yearly average position of 8.5 billion MMBTU. It is more likely, however, that Amaranth's position increased over time. If so, the actual position could differ significantly..

falling expectations for next spring. At the end of December 2006, open interests for March and April were 5% of the total Henry Hub open interests. As of September 22, 2006, March and April contributed 16.5% of total Henry Hub open interests. This is consistent with a desperate trader supporting the market by additional purchases, but hardly definitive, given the fragmentary state of the data.

NYMEX data indicates that open interests significantly increased as the spread began its rapid decline:



CFTC reporting on NYMEX makes it difficult to detect if a specific market participant was the cause of the increased activity observed in September. It does appear that a variety of market participants were involved.⁷ Of course, the increase in NYMEX’s open positions might well have been Amaranth counterparties hedging their over-the-market transactions with Amaranth at NYMEX.

Market Impacts

As mentioned above, there are indications that FERC dismissed the size of the position as not having an impact on spot prices. If true, it is a naïve perception of market mechanics.

By the nature of commodity markets, participants can choose the markets they wish to enter. A participant with nerves of steel may relish the challenges of the volatile spot market, but the majority of market participants do not. Sales to end users, for example, require the ability to quote a price for the product. The standard approach is to hedge the

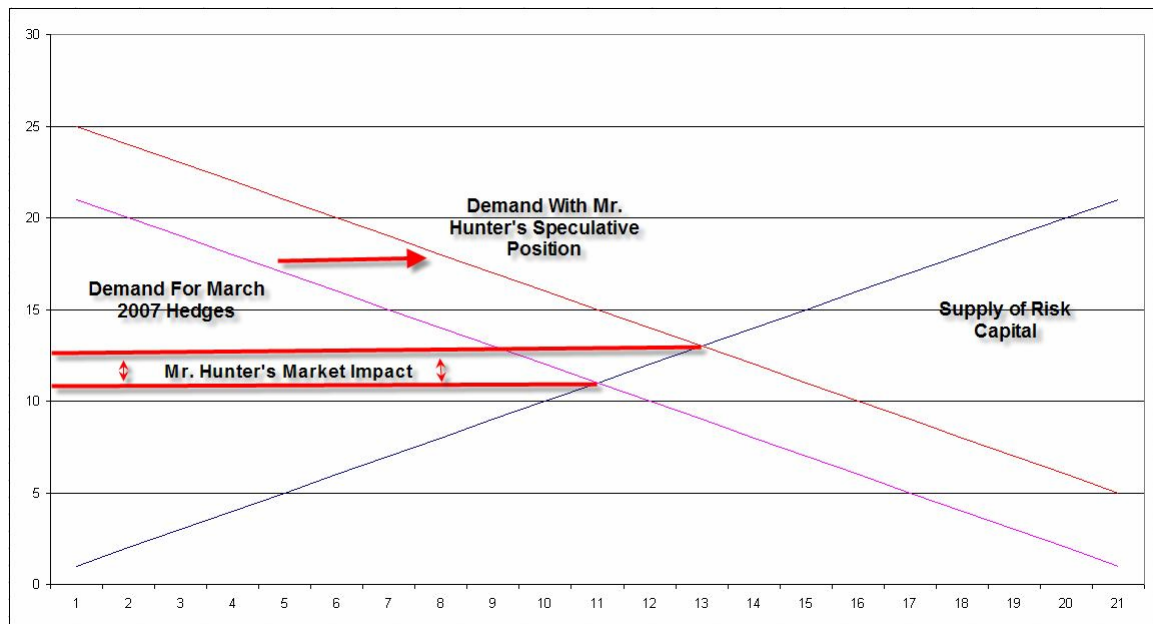
⁷ Commitments of Traders - Futures Only, September 12, 2006 appears to indicate that concentration of positions during this week did not change markedly. Unfortunately, this report has a well-earned reputation for its cryptic format and is of limited use.

sale in the forward market. Thus, high forward markets act as an incentive for producers to pledge their output for longer periods. Equilibration between these markets should, at least in theory, bring supplies to the market with the most opportunity.

While the demand for hedges is a function of risk and demand, the supply for hedges is more difficult to estimate. Devotees of the Black-Scholes theory⁸ seek diversification in their portfolios. Logically, after diversification has been exhausted in the equity and debt markets, they would pursue diversification in commodities and real estate.

The supply curve for risk capital is determined by the price investors will require to enter the market for commodity hedges. If the quantity is small, the impact on the supplier's portfolio is small and so is the premium. If the quantity is large, investors must consider whether the commodity risk may well increase their overall risk.

Apparently, Hunter was a major consumer of risk capital. If the calculations above are correct, Amaranth was consuming a tremendous amount of risk capital. When a new player purchases billions of dollars of forward hedges – in either options or taking an ownership position – he/she moves the demand curve for risk capital outward from the origin.



With scant data available concerning the entire forward markets, an estimate of the cost Hunter placed on consumers cannot be determined at this time. However, the size of his gamble clearly would have moved the demand curve to the right, raising the price of hedges.

⁸ Black-Scholes theory, also known as option pricing theory, is a method used for pricing options. Interestingly, it relies on the principles of Brownian motion from molecular physics.

What would have happened if Amaranth had been successful? If even 25% of Hunter's position involved physical delivery, he would have taken control of the natural gas market in the United States and Canada for March 2007. The risk of such large positions is that they make market power – in this case monopoly – a very real risk.

Was Hunter Trying To Corner March 2007 Natural Gas?

In Dr. Jeffrey Williams' excellent monograph on the Hunt brothers' attempted corner of the world silver market in 1980, he defines a corner as:

A "corner" or "squeeze" in which someone, taking advantage of the anonymity of futures trading, establishes a large futures position calling for delivery in a particular delivery month. Waiting until those who have the contractual obligation for delivery have little time remaining, the cornerer surprises them by appearing eager to stand for delivery. Meanwhile, having obtained much of the deliverable grade locally available, the manipulator leaves those committed to make delivery the unenviable choice of paying express charges for transportation or buying back the futures contracts at a premium.⁹

From this, it is clear that Hunter's actions meet the classic definitions of a corner. Amaranth had a massive forward position for a specific month in which the primary alternative to current production, storage, was at a minimum. The size of his position was such that physical delivery would have been impossible.

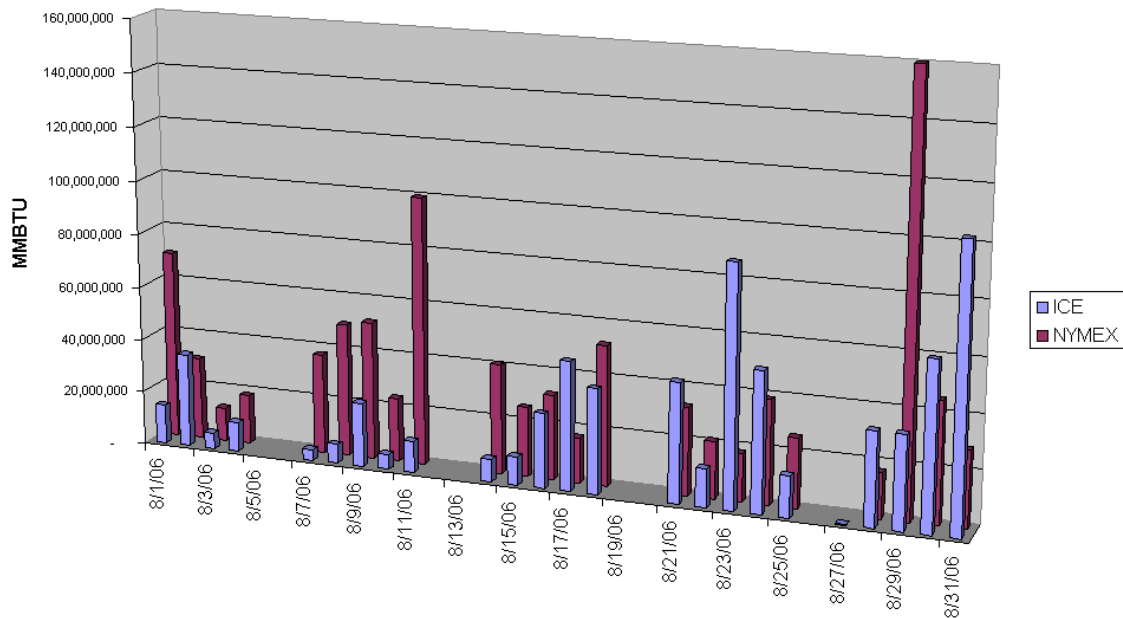
We have very little information on the contracts Amaranth was purchasing, however. If all of Amaranth's positions were financial – settlement was simply a matter of dollars rather than MMBTU – Amaranth would not have been in a position to corner the market. Media coverage indicates that Amaranth was facing margin calls. Since the March-April spread is not a common product in the industry, this offers some sense that Amaranth was speculating in actual March contracts. If even a fraction of Amaranth's total position specified physical delivery, Hunter would have held a corner on March 2007 natural gas.

It is important to note that neither the CFTC nor FERC currently has the ability to determine the nature of Amaranth's position. While the CFTC would be able to detect Amaranth's position if taken within NYMEX, the commission has no powers over either ICE or the OTC market. FERC has traditionally restricted market surveillance to the centrally administered markets within regional transmission organizations and price reporting by industry journals. ICE and the OTC market do not fall within FERC's existing market surveillance.

Our estimate of the relative trading in August 2006 for March 2007 forwards between ICE and NYMEX indicates that NYMEX positions were somewhat larger:

⁹ Manipulation On Trial, Jeffrey Williams, page 6.

NYMEX and ICE March 2007 Natural Gas Contracts in August 2006



Amaranth's Damage Control

Amaranth's investors include endowments, and large financial companies. Investors include Morgan Stanley Institutional Fund of Hedge Funds, Goldman Sachs Dynamic Opportunities Ltd., Man Group PLC, Credit Suisse, Deutsche Bank, Mercantile Capital, and Collins Stewart Tullett. It also includes pension funds: San Diego County Employees Retirement Association invested \$175 million last year. Several of these investors are hedge funds of funds:¹⁰

¹⁰ Landon Thomas Jr., "Billions in Losses Dim a Star Manager's Glow" *The New York Times*, September 20, 2006.

Funds with assets in Amaranth Advisors	MILLIONS	PERCENTAGE OF HOLDINGS IN AMARANTH
Bank of New York/Ivy Multi Strategy Hedge Fund	\$ 165	6 %
Credit Suisse Alternative Capital Multi-Strategy Fund	137	5
DB Hedge Strategies Fund	4	84
Man-Glenwood Lexington Associates Portfolio	201	6
Mercantile Absolute Return Fund	55	7
Morgan Stanley Institutional Fund of Hedge Funds	2,300	6
Topiary Master Fund for Benefit Plan Investors	80	4

Amaranth founder and CEO Nicholas Maounis notified his investors that the value of the funds decreased by \$6 billion so far this month:

The Greenwich, Connecticut-based firm handed over its energy portfolio to outside investors and sold unidentified holdings to stem further losses and “avoid termination of our credit facilities and the risk of a consequent forced liquidation by our creditors,” he said. “They had to take a huge haircut,” Mark Williams, a finance professor at Boston University and former risk manager at electricity trader Citizens Power. “They need to get as far away from those positions as possible.”¹¹

Maounis attempted to maintain credibility in the face of growing skepticism:

Meanwhile, Citadel, the world's 11th-biggest hedge fund, and JPMorgan Chase & Co. have reached a deal to take over some of Amaranth's investments and will share the profits and losses, a person familiar with the situation said. Instead of having to pay Amaranth for the portfolio the companies could end up receiving about \$2 billion that Amaranth had put up as collateral for its trading.

“Amaranth’s other alternatives weren't that great,” Craig Pirrong, energy markets director of the University of Houston’s Global Energy Management Institute, told Bloomberg News. “The number of folks that can take those relatively illiquid trading positions off their hands are pretty limited, and they were only willing to do it for a sizable price concession.”

In a letter to investors late Wednesday, Amaranth said it continues to meet all margin calls, or forced repayments for loans.

But at least one hedge fund watcher said Thursday that he believes “it’s over” for Amaranth. “They lost \$6 billion,” said Peter Fusaro, principal and co-founder of the New York-based Energy Hedge Fund Center, an information source on energy and environmental hedge funds. “Who is going to keep their money there?”

“It was a group of guys who had a lot of hubris on a particular position, and it was devastating on the downside,” said Michael Gray, a hedge fund lawyer for Neal Gerber & Eisenberg LLP in Chicago.¹²

But Amaranth’s collapse was caused by its own betting strategy:

Billion-dollar bets on the spread between natural gas futures prices for March and April 2007 contracts blew up in the face of Greenwich, Connecticut-based Amaranth Advisors, leading to \$5 billion worth of losing positions the fund is trying to close, sources familiar with the situation told Platts Tuesday.

“They were long March and short April,” former commodities regulator Michael Greenberger told Platts Tuesday, quoting his own sources on futures trading desks within the industry.

Greenberger, who headed the US Commodities Futures Trading Commission's Director of the Division of Trading and Markets in the late 1990's through the Enron crisis, said it

¹¹ Katherine Burton and Justin Baer. “Amaranth Losses Swell to \$6 Billion After Transfer” September 21, 2006. www.bloomberg.com

¹² Becky Yerak. “Hedge fund’s losses widen: Amaranth down 65% from bad energy bets” September 22, 2006. www.chicagotribune.com

appeared that Amaranth was hoping to capitalize on the spread between the end of the heating season and the start of the spring injection season, a \$2.15/MMBTU price difference that narrowed by 64% this month to 75 cents/MMBTU on Monday's market close.¹³

The end neared.

JP Morgan was Amaranth's clearing firm and was therefore exposed in the event of a default on energy trades. Not surprisingly, JP Morgan Chase & Co., along with Citadel Investment Group LLC, bought Amaranth's energy trading portfolio on September 20. Moody's reported that the counterparty risk and collateral management policies of the securities firms worked well in this case.¹⁴

Brief History of Amaranth

In 2000, Nicholas Maounis took 27 employees and \$450 million¹⁵ and started Amaranth, a spin-off of Paloma Partners, his former employer. Its operations initially focused on convertible bonds, Maounis's specialty, but later expanded into more diverse areas, including energy trading. By June 30, 2006, half of Amaranth's capital was in energy, and energy was generating 75% of its profit.¹⁶

The shift to energy trading, away from its founder's area of expertise, was largely led by two men, Harry Arora and the man he later hired, Brian Hunter. Arora, formerly of Enron, led Amaranth to become among the first to start an energy trading desk after Enron's bankruptcy in 2001. Prior to Hunter's arrival at Amaranth in 2004, its stake in natural gas was never greater than 7% of its capital, and its total holdings in commodities never passed 20%.¹⁷

After leaving Deutsche Bank, Hunter came to Amaranth on Arora's recommendation. When Arora left after a dispute with Maounis over Amaranth's exposure in the energy market, Hunter took over the energy trading desk. In May 2006, he took losses of up to \$1 billion, but made the money back over the summer. In a recent interview with *The Wall Street Journal*, he related how volatile natural gas markets can be: "The cycles that play out in the oil market can take several years, whereas in natural gas, cycles take several months... Every time you think you know what these markets can do, something else happens."¹⁸

¹³ "Amaranth bet billions on the spring gas spread and lost" September 19, 2006. <http://www.platts.com/>

¹⁴ Matt Chambers, "Amaranth, No Long-Term Capital, Barely Ripples Markets" Dow Jones International News, September 20, 2006.

¹⁵ Katherine Burton and Matthew Leising. "Amaranth Transfers All Energy Trades to Third Party" September 19, 2006. www.bloomberg.com

¹⁶ Ibid.

¹⁷ Steven Mufson. "Hedge Fund's Collapse Met with a Shrug." September 20, 2006. *Washington Post*. www.washingtonpost.com

¹⁸ Ann Davis. "How Giant Bets on Natural Gas Sank Brash Hedge-Fund Trader," *The Wall Street Journal*, September 19, 2006

An Aside: The Hunt Brothers Attempt to Corner Silver

In the late 1970s, Nelson Bunker Hunt and his brother, Herbert, decided to hedge against rising inflation by investing in silver. Not men to do things by half, as the sons of the richest man in America, they attempted to corner the market. By 1980, they had acquired half the world's deliverable supply of silver, causing the price to rise from \$1.95/oz to \$49.50/oz.

At the time, investors worldwide were rushing into the silver market. Supply also increased as old mines returned to operation and silverware and coin collections were melted down for sale. In response, the Commercial Exchange (COMEX) tightened its trading rules. After COMEX (whose board members had significant short positions on silver) raised its margin requirements, the Hunt brothers were unable to meet margin calls and began to sell. A collapse in silver prices ensued, leading to the infamous Silver Thursday, when prices fell 50%. At the end of the slide, the Hunts owed \$1.5 billion. Nelson Bunker Hunt filed for bankruptcy and was convicted for conspiracy to manipulate the market, losing most of his family's \$6 billion fortune. When asked by his sister what he had done, he responded, "I was just trying to make some money."^{19, 20}

Oversight and Regulation

Hedge Funds

A hedge fund is essentially a pool of investment capital that is organized in the form of limited partnerships or limited liability companies (as in the case of Amaranth). Hedge fund managers are paid on a "fee-for-performance" basis and are basically at liberty to use a range of investment techniques to both raise returns and mitigate risk.

As a rule, in the U.S., hedge funds are subject to minimal regulation and oversight, partly due to the reality that many hedge funds are located overseas. Because they are private, limited partnerships and do not advertise or offer shares publicly, they are not required to register with the SEC.

The SEC's most recent effort at regulation was to require hedge fund managers to register as investment advisors under the Advisors Act of 1940. A challenge to this rule was successful in the Federal Court of Appeals for the D.C. Circuit.²¹ Although opinion on the need for increased regulation of hedge funds has been mixed over the years, Amaranth's staggering losses again bring up the need to revisit the issue..

¹⁹ Brian Trumbore. "The Hunt Brothers and the Silver Bubble." www.buyandhold.com

²⁰ Larry LaBorde. "H.L. Hunt's Boys and the Circle K Cowboys." www.gold-eagle.com

²¹ *Goldstein v. Securities and Exchange Comm'n*, No. 04-1434 (D.C. Cir. June 23, 2006).
<http://pacer.cadc.uscourts.gov/docs/common/opinions/200606/04-1434a.pdf>

OTC Exchanges

Speculative trading occurs on regulated exchanges, such as NYMEX, and on unregulated OTC exchanges, such as the Intercontinental Exchange OTC. Due to the Commodity Futures Modernization Act of 2000 (CFMA), which exempted trading on electronic trading platforms from CFTC oversight,²² the OTC energy market is now effectively unregulated. For this and other reasons, it is difficult to estimate the dollar effect of speculation on market prices. The Commodity Exchange Act (CEA) explicitly directs the CFTC to establish market rules that eliminate the burden that speculation may have on prices,²³ and to prevent price manipulation and promote competition.²⁴ Lack of oversight in the increasingly popular OTC markets hinders the CFTC's ability to satisfy these obligations.

According to Michael Greenberger, a former CFTC regulator, Amaranth's contracts were traded on an OTC exchange.²⁵ Unregulated OTC markets, unlike NYMEX, do not limit the number of positions a market participant can take on a particular commodity. In fact, Amaranth's loss would have been impossible on NYMEX: "There is no doubt that because of speculative limits on the Nymex, these transactions wouldn't have been carried out," Greenberger said.²⁶ The CFTC "has avoided analyzing trade and data on these markets and has allowed companies like MotherRock and Amaranth to accumulate huge holdings that wouldn't be permitted on a U.S.-regulated exchange."²⁷

While critics charge that the lack of oversight at ICE allowed Amaranth to make its risky natural gas trades, ICE spokesperson Kelly Loeffler has said: "We think until there is more information, it's not fair for anyone to guess what Amaranth may have been doing."²⁸

Intercontinental Exchange (ICE)

"Enron did two things for us. It validated our model, and in 2000, 13 big market makers agreed to support the ICE's efforts." (Jeffrey Sprecher, Chair and CEO, Intercontinental Exchange)²⁹

²² P.L. 106-554.

²³ 7 U.S.C. Sec. 6a (a).

²⁴ 7 U.S.C. 2(h)(3).

²⁵ "Amaranth bet billions on the spring gas spread and lost," *Platts Commodity News*, September, 19, 2006.

²⁶ "Stricken hedge fund Amaranth plans to stay in business, won't trade energy," *Canadian Free Press*, September 22, 2006.

²⁷ *Ibid.* MotherRock LP, a \$400 million fund led by former NYMEX president Robert Collins, closed in August 2006 because of a bad call on natural gas; in September, Amaranth purchased a portfolio of gas trades from ABN Amro Holding NV (ABN Amro had taken them over from MotherRock).

²⁸ "Heat Is On at ICE", *Wall Street Editor*, September 22, 2006.

²⁹ *The Role of Market Speculation in Rising Oil and Gas Prices: A Need to Put the Cop Back on the Beat*, U.S. Senate Permanent Subcommittee on Investigations Staff Report, June 27, 2006, page 34.

ICE operates two leading electronic energy exchanges: ICE Futures and ICE OTC. ICE OTC is registered in the U.S. ICE Futures is a futures exchange registered in London and regulated by the Financial Services Authority (FSA). Until recently, only European-based energy commodities were traded on ICE Futures; however earlier this year, the CFTC permitted the trading of U.S. energy commodities, specifically the WTI Crude Oil Futures contract, on the ICE Futures exchange, from terminals within the U.S.

In 2005, the ICE OTC market traded nearly 43 million cleared OTC Henry Hub natural gas contracts, compared to 10.4 million cleared OTC Henry Hub natural gas contracts traded by its closest competitor for the same period.³⁰ Since it began trading its WTI Crude Oil Futures contract, ICE's market share of the WTI Crude Oil Futures market has increased steadily. According to the CFTC, by the end of April 2006, nearly 30 percent of WTI Crude Oil Futures were traded on the ICE Futures exchange.³¹ ICE Futures also trades futures in U.S. gasoline and home heating oil.

Federal Legislation and the CFTC

In late 1992 and early 1993, Enron and several other energy companies successfully petitioned the CFTC for exemption of regulatory oversight for OTC energy futures contracts.³² The CFMA extended this exemption of CFTC oversight to OTC energy trading on electronic trading platforms.

According to Section 2(h)(3) of the CEA, enacted as part of the CFMA, all agreements, contracts and transactions in energy and metals that are traded on electronic trading exchanges between "eligible commercial entities" are exempt from CFTC oversight. Markets operating under Section 2(h)(3) are called "exempt commercial markets" (ECMs). Only in the event that the CFTC determines that the market performs a significant price discovery function are ECMs subject to the CFTC's statutory prohibitions on fraud and price manipulation, in which case the ECM must provide pricing information to the public. Otherwise it is fully exempt from the CFTC's regulatory oversight. The CFTC does not register, recognize, or approve ECMs.³³

Under CFMA, if the CFTC determines that an OTC market "performs a significant price discovery function" for the underlying cash market, the market must publish daily information about settlement prices, volume, open interest, and opening and closing price ranges for all actively traded contracts.³⁴ In 2004, the CFTC issued a rule regarding the process and criteria for determining whether an electronic exchange performed a price discovery function.³⁵ According to the rule, an ECM performs a price discovery function when it meets at least one of the following criteria:

³⁰ ICE 10-K, March 10, 2006.

³¹ *The Role of Market Speculation in Rising Oil and Gas Prices: A Need to Put the Cop Back on the Beat*, U.S. Senate Permanent Subcommittee on Investigations Staff Report, June 27, 2006, page 48.

³² Exemption for Certain Contracts Involving Energy Products, 58 FR 21286, April 20, 1993.

³³ 7 U.S.C. Sec. 1a (11) and 7 U.S.C. Sec. 2 (h)(3).

³⁴ 7 U.S.C. Sec. 2(h)(4)(D).

³⁵ 69 Fed. Reg. 43285, July 20, 2004.

- (A) Cash market bids, offers or transactions are directly based on or quoted at a differential to the prices generated on the market on a more than occasional basis;
or
(B) The market's prices are routinely disseminated in a widely distributed industry publication and are routinely consulted by industry participants in pricing cash market transactions.³⁶

Despite substantial evidence that the ICE OTC electronic exchange performs such a price discovery function, as quoted in the Form 10-K that ICE files with the SEC,³⁷ the CFTC has not undertaken any action to determine whether ICE or any other OTC electronic market meets its criteria.

Recommendations

On June 27, 2006, the U.S. Senate Permanent Subcommittee on Investigations, led by Senators Norman Coleman and Carl Levin, released a report.³⁸ The report focused on the effects of speculation on rising oil and gas prices and contained several key recommendations for policymakers including an extension of CFTC oversight to the OTC market "in order to detect and prevent price manipulation and excessive speculation."³⁹ The report explicitly addressed ICE and recommended that the CFTC "conduct the hearing required by its regulations to examine the price discovery function of the ICE OTC electronic exchange and the need for ICE to publish daily trading data as required by the Commodity Exchange Act."⁴⁰

On May 8, Robert McCullough testified before the Democratic Policy Committee and submitted a report outlining the role of forward energy market regulation in the Western Market Crisis of 2000-2001. The report, which detailed regulatory lessons learned from the crisis and examined EnronOnline as an example of what may transpire in unregulated electronic exchanges, asserted that poor communications between state and federal regulators, whose responsibilities overlapped, prolonged the crisis. The report emphasized market transparency and the importance of open information in competitive markets.

The timeliness of these two reports indicates that Congress recognizes the importance of regulating electronic energy exchanges and closing the loopholes in current regulation. The recent growth of the OTC energy markets and the absence of CFTC oversight of such markets have created a blind spot which significantly hinders the CFTC's ability to

³⁶ 17 C.F.R. Sec. 36.3 (c)(2).

³⁷ ICE 10-K, March 10, 2006.

³⁸ *The Role of Market Speculation in Rising Oil and Gas Prices: A Need to Put the Cop Back on the Beat*, U.S. Senate Permanent Subcommittee on Investigations Staff Report, June 27, 2006.

³⁹ *Ibid.*, page 9.

⁴⁰ *Ibid.*, page 11.

eliminate the burden that speculation may have on prices, and to prevent market manipulation. Critical recommendations from both reports include:

1. eliminate the CFTC exemption for energy futures
2. eliminate the CFMA exemption for electronic exchanges
3. extend the CFTC's Large Trader Report system to include all U.S. traders of U.S. energy futures or futures-like contracts
4. require the ICE OTC exchange to submit daily trading data to the CFTC under the price discovery function of the CEA.

In April 2006, U.S. Senators Diane Feinstein, Olympia Snowe, Carl Levin, and Maria Cantwell introduced the Oil and Gas Traders Oversight Act. The bill would establish CFTC oversight over electronic trading platforms for oil and gas, and would require traders to keep extensive records and to report large market positions. It would also require traders in the US to report on their activities in foreign-owned exchanges.^{41 42} Some observers are hopeful that Amaranth's market behaviors will bring these issues back into focus and perhaps speed the passage of the bill.⁴³

⁴¹ "With Gas Prices Soaring, Senators Feinstein, Snowe, Levin and Cantwell Seek to Shine Light on Energy Markets," April 25, 2006. www.feinstein.senate.gov

⁴² S.2642: Oil and Gas Traders Oversight Act of 2006

⁴³ Gretchen Mogenson. "Fair Game: Dangers of a World Without Rules." *The New York Times*, September 24, 2006.