

The Hedge Fund that Lost \$6 Billion

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Evolution in the business world has been rapid in the last 25 years with ongoing waves of transformation driven by newly dominant market players. In the 1980s the junk-bond financiers bought, stripped apart and resold a wide swath of the American corporate landscape. Next came the venture capitalists and investment bankers who drove the Internet boom of the late 1990s. And now private equity firms and their cousins the hedge funds are spending huge sums of private cash to acquire assets and speculate in commodities.

But until recently, pervasive regulation has largely kept the natural gas and electric industries looking at these transformations from the outside. Prior to the Energy Policy Act of 2005, the Public Utilities Holding Company Act of 1935 (PUHCA) severely restricted the ability of outside investors to participate in the industry, and even stifled the possibilities for mergers from within. So through the 1980s utilities, regulated pipeline companies and gas producers remained dominant.

Strong changes finally hit in the early 1990s when the beginnings of deregulation opened the door for marketers in the natural gas business and non-utility generators in the electric business. Later in the 1990s the start of electric deregulation led to multi-commodity energy marketers as well as a proliferation of merchant power plants. Suddenly, the energy marketer seemed to be the force driving the industry's future.

What brought that vision to a sudden halt was the crash that followed California's electric deregulation and Enron's demise. Energy trading shrank to the barest of volumes necessary for the sellers (producers, generators and physical traders) and buyers (utilities and end users) to transact business. And the industry appeared to be reverting to its utility roots.

But the last couple of years have seen a new force affecting the natural gas and electricity markets: huge amounts of cash invested by private equity firms, hedge funds and merchant banks. So large a force, in fact,

that hedge funds and merchant banks have replaced the large marketing firms as the primary source of counterparties for physical traders and private equity has begun to supplement utility shareholders as a capital source for new infrastructure investment. As a result we have seen increased trading volumes, the return of wholesale trading to an influential position, and growth in the construction of needed infrastructure. In this edition of the Insider we will focus on hedge funds. With the activity of over 500 hedge funds in the energy industry at the start of 2007¹ we can conclude that the business evolution of energy is finally catching up with the rest of the business world.

What Are Private Equity Firms, Hedge Funds and Merchant Banks?

What makes private equity firms, hedge funds and merchant banks different than public companies is that they obtain their capital from private investors rather than from selling shares in the public stock market. This exempts them from many regulations and gives them the flexibility to pursue a chosen business strategy without much in the way of disclosures or restrictions.

Private equity firms pool capital and then purchase other firms or take big stakes in them and often make public firms private by purchasing most or all of their publicly traded shares. Private equity firms include venture capital (which aims to profit by providing funding to young, growing companies) and buyout firms (which attempt to profit by improving established firms). The influence of private equity is growing in the natural gas and electric industries and will become increasingly important as the industry moves to beef up infrastructure.

Hedge funds also pool capital, but usually invest speculatively long or short in commodities they believe will result in above market profits. In order to obtain such high profits, hedge funds tend to take on high levels of risk.

Merchant banks specialize in activities that facilitate trade and commerce. They work only with commercial clients and do not offer usual banking services to the general public. Activities typically involve international finance, long-term loans, insurance underwriting, and currency and commodity trading.

¹ *Energy Hedge*, Volume 3 Number 38, January 15, 2007, p.4

Key Terms for Understanding Hedge Funds

- **Risk** – exposure to an uncertainty that will impact business results
- **Risk management** – use of physical or financial techniques to modify a company's level of risk
- **Hedging** – attempting to protect profits by using risk management to reduce a company's level of risk
- **Speculating** – attempting to increase profits by using risk management to take on additional risks
- **Long** – a commodity position where value will increase if the market price of the commodity increases; also used to describe owning an asset
- **Short** – a commodity position where value will increase if the market price of the commodity decreases; also used to describe being in a position where you need to buy an asset at some time in the future



Who is behind These Hedge Funds?

The hedge funds active in the energy business raise private capital from pension funds, institutional investors and wealthy private investors. They often raise \$100 million or more and promise to make above market returns through energy trading activities. Many of these firms were started by experienced energy traders who learned the trade while working for large marketing firms during the late 1990s and early 2000s. And some were started by traders of other commodities who now see an opportunity in energy. These funds have very little regulation by the U.S. government and their activities are generally limited only by what their investors will allow. They have grown rapidly in the energy business the last few years as investors have been attracted by rising energy prices and traders have been attracted by high price volatility.

Are Hedge Funds Bad for Energy Markets?

Each time hedge funds enter into a new market, consumers worry whether they are driving up prices and making the market unfriendly to consumers. Is this

true? There is no question that hedge funds do enter markets with the intention of making profits. But depending on how they have structured their portfolios, they might make money when prices fall, not when they rise. So hedge funds don't always push prices upwards. They do, however, increase trading volumes, which tends to lead to greater price volatility. It also creates valuable liquidity – which means that consumers and companies needing to buy or sell gas or electricity supply (such as power plant owners, gas producers utilities and large consumers) have counterparties willing to trade with them whenever they need to manage their portfolios. So while hedge funds may increase volatility and hence the potential level of price risk, they also increase the availability of markets to manage that risk. A market with high levels of speculative trading makes it imperative that each and every market participant actively and carefully manages its own risk position.

How Can a Hedge Fund Lose \$6 Billion Dollars?

Traders from outside the industry have learned that the delivery of energy commodities is not an easy proposition. Gas pipeline capacity, storage deliverability, transmission congestion, ISO market rules, and utility rules all come into play. Further, trading gas and electricity is one thing; getting your arms around the many factors that can affect future value of the commodities is a different matter.

One of the most popular hedge funds was Connecticut-based Amaranth Partners, which at one point was reported to be involved in about 1% of all wholesale gas trades in the U.S. Private investors cheered as the fund reported a near 15% rate of return from the period September 2000 to November 2005 and \$1 billion in profits in September 2005 alone from its long position in gas in a market characterized by rising prices.

The fund believed that fundamental weaknesses in the production side of the natural gas business would lead to a continuation in rising prices. Amaranth made large bets through the summer of 2006 that future gas prices would continue to rise. To enhance their opportunity for huge profits, Amaranth apparently leveraged their deals five times – meaning that for every dollar they invested in a transaction, 80 cents was borrowed money rather

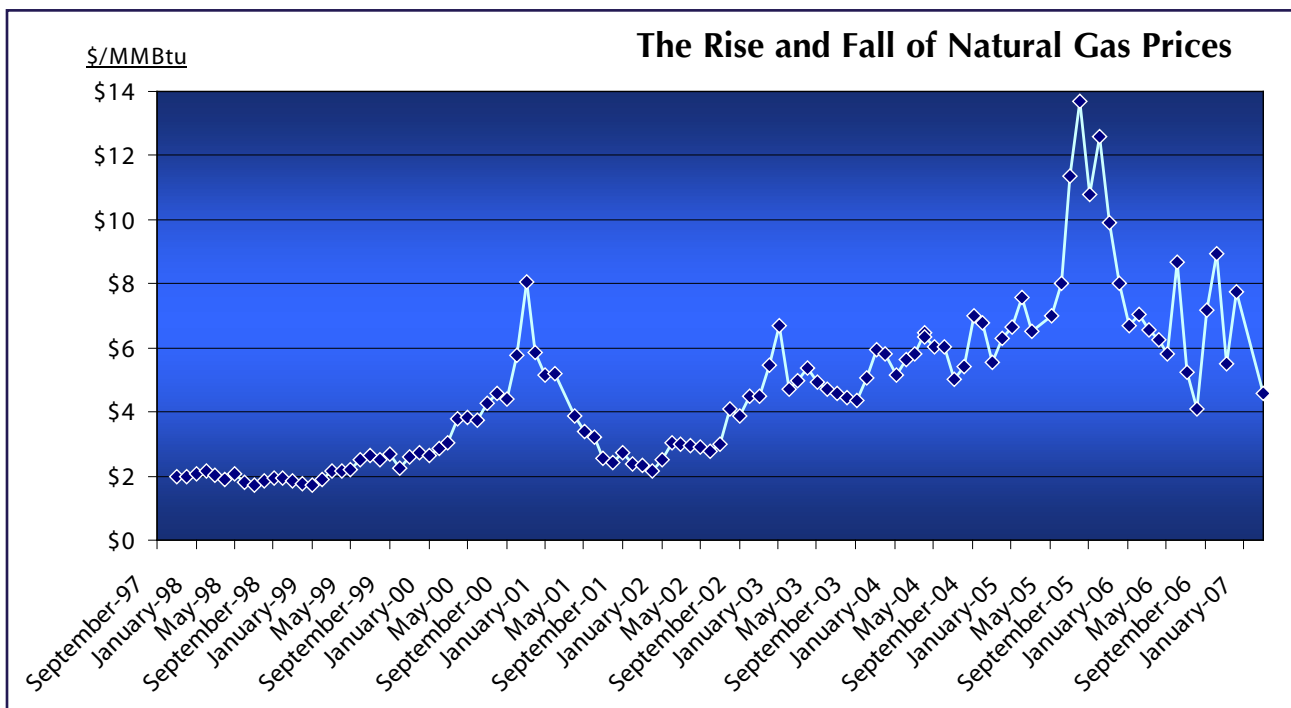
than hedge fund capital. This works great when profits are rising, since you get much more bang for your buck. (Think about how much profit you make on your original down payment of 20% when your house price rises.) But it also means that losses come much more quickly when transactions go south. Unfortunately for fund investors, the assumption of rising prices didn't play out. For example, the average of gas futures contracts for the 2006-2007 heating season fell from \$9.92/MMBtu in early September 2006 to \$7.56/MMBtu by early October. With this movement, the value of Amaranth's assets tumbled, apparently resulting in losses nearing 60% of total equity invested in the fund.

It appears that Amaranth was not using adequate hedging strategies to limit potential risk. The result was reportedly losses of \$6 billion. In late September the fund was shut down, and the remaining assets were sold

investors. And Amaranth was not alone: other smaller failures have been reported at additional hedge funds.

The Future of Energy Trading

Does this mean that another trading crash is coming, with hedge funds fleeing for safer ground? Is the energy market destined to revert to dominance by big gas producers and utilities? Not likely. Competitive wholesale markets in natural gas and electricity have become far too established to go back to the days of producers dealing with utilities. The opportunities appear too large for hedge funds to fail to participate, so market trading will continue to grow. One market observer, Peter Fusaro of the Energy Hedge Fund Center, estimates that by 2010 energy trading markets will top \$10 trillion. What we can say is that the need to understand energy markets and apply the basic principles of risk management, which seem to be periodically forgotten, has once again been proven true.



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