

Gas Crisis Passing Silently... For Now

Markets provide us with a lot of proven methods to lose a lot of money in a hurry. One of the sadder realities of this business is the presence of people who seek external affirmation of their self-loathing by seeking poor risks recklessly.

Three trades that will accommodate this urge to purge include writing put options on a stock index at the start of a waterfall decline, shorting Treasury bonds at the start of a financial crisis, and going short natural gas futures at the first break of resistance. Yes, later entries in these trades can prove rewarding to the daring and/or foolhardy, but the key word is "later."

Natural gas, with its very price-inelastic short-term supply and demand curves, is capable of astonishing price volatility with only minor disruptions in either supply or demand. Its spot market price at Henry Hub, Louisiana, trebled in only three trading days in February, and then returned to its starting level only nine trading days later.

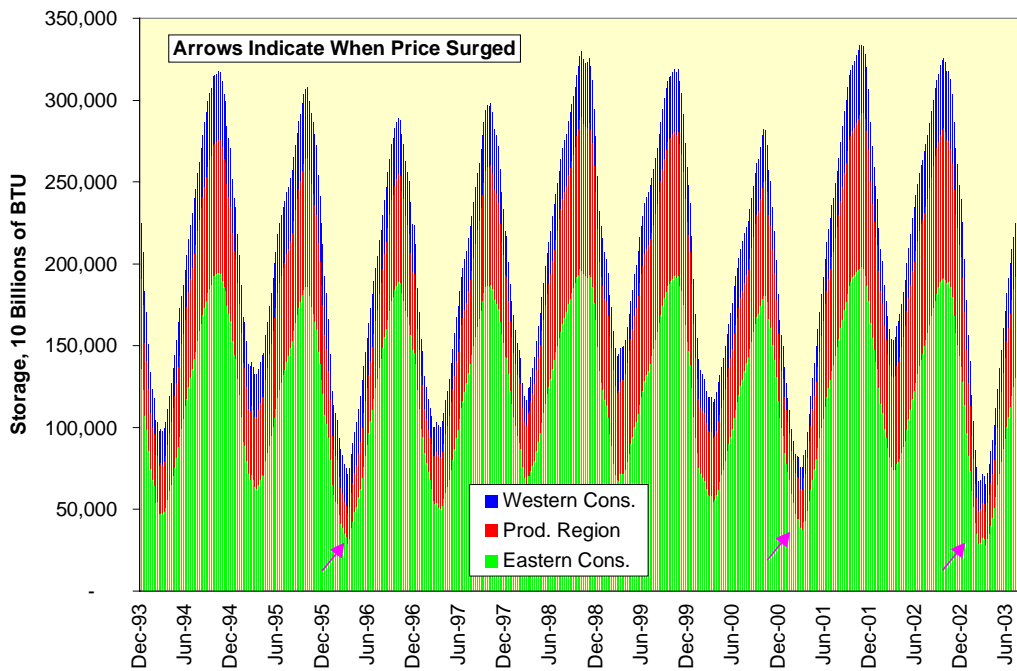
Some of this volatility is created by weather; all it takes is one late-season cold snap, or one shutdown of a nuclear power plant, or one prolonged heat wave too many for the price to surge. Some of it is due to supply disruptions from hurricanes in the Gulf of Mexico. Some of it is due to the numerous bottlenecks embedded in the pipeline and storage cavern network; in the future, we can add regasification terminals for liquefied natural gas imports to the list of potential disruptions.

The economic damage from natural gas price surges and from the need to insure against these wild fluctuations is considerable. It is easy to laugh at Alan Greenspan's bad timing and wandering expertise last June when he warned of the consequences of gas volatility, but that is all it was, bad timing and wandering expertise. The central thesis, our exposure to this volatility, was correct. Most residential and electric utility customers of natural gas have what is called non-interruptible service; the price can surge, but you will get first call at available supplies. Many industrial customers have interruptible service, which means their supplies can be called away, forcing closure of facilities. At a time when U.S. manufacturing is struggling to remain competitive, this short call option on both price and supply is a very expensive one for industries such as chemicals, glass, food processing and petroleum refining.

Underground Call Options

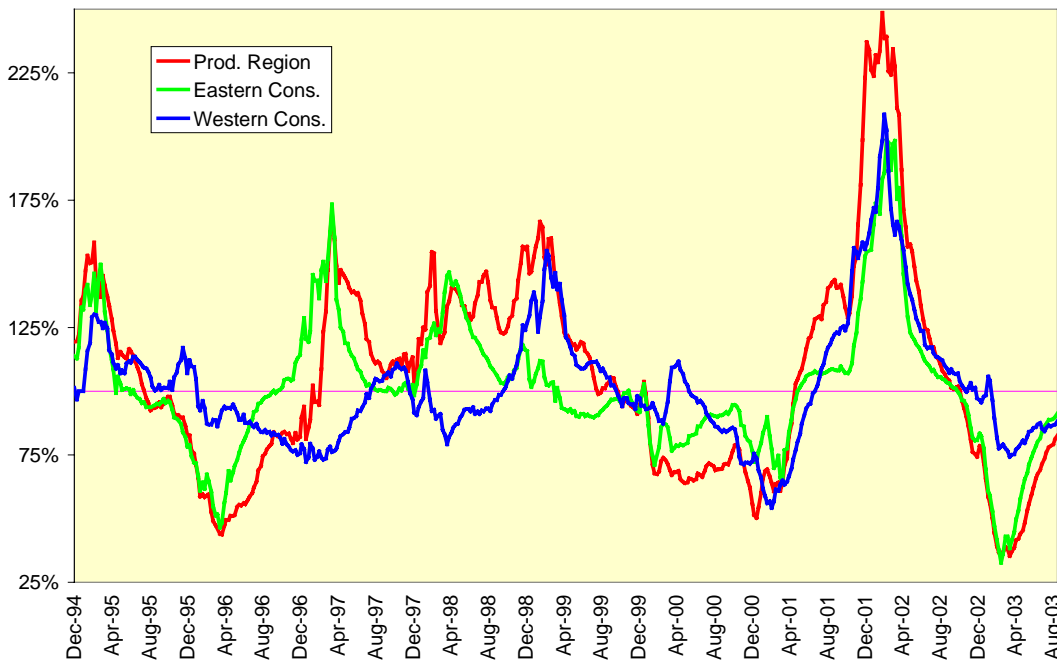
No, these are not like underwater employee stock options. Underground storage of natural gas represents the purchase of a call option on future supplies to offset the high probability of future price surges and/or supply shortages. Indeed, these facilities are valued on a "real option" basis wherein their value is the expected savings in price times the quantity of the gas withdrawn from storage less all costs involved in the enterprise. The presence of these long call options in the hands of consumers lowers the realization of the producers' call options. This effect was demonstrated three times during the past decade when wintertime storage in the Department of Energy's eastern consuming region fell below the equivalent of 40,000 NYMEX natural gas futures contracts.

Gas Storage: Injection And Withdrawal Cycle



Of course, natural gas has seasonal cycles, a primary one peaking in the winter, and a secondary one growing in importance peaking in the summer for electricity generation. For this reason, storage comparisons more frequently are made on a year-over-year basis.

Regional Storage, %Change Year-Ago

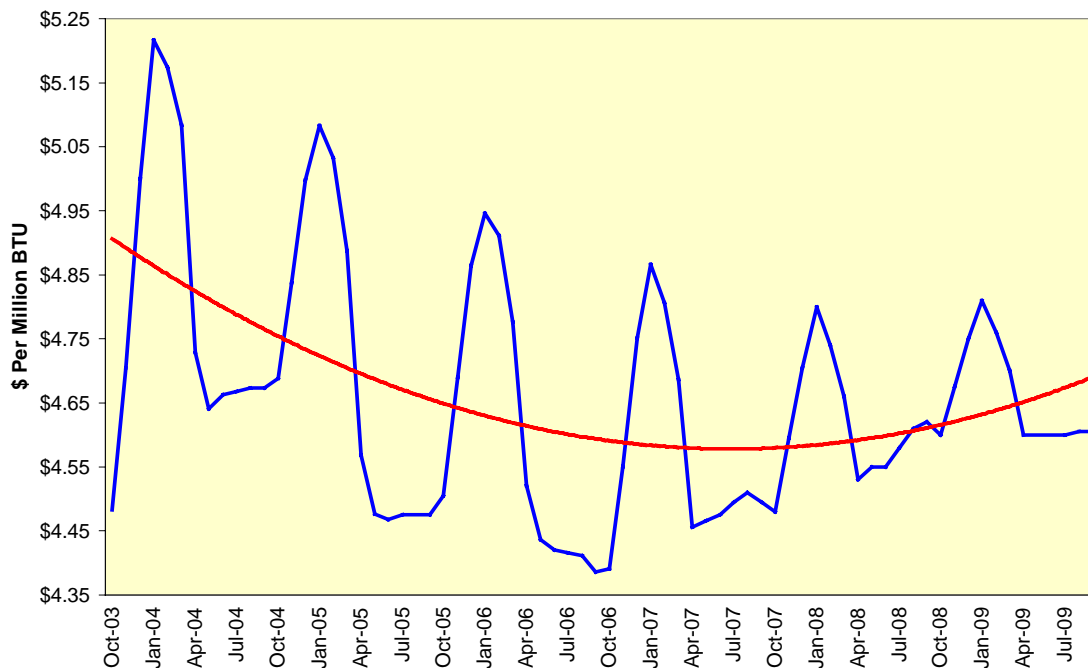


The year-over-year comparisons are distorted by the very low levels reached during the winter of 2000-2001, which made the subsequent rebuilding of storage look very large on a percentage basis. The present storage levels, while

climbing, are still below their year-ago levels even as wellhead prices are falling. This indicates a surplus of producing region gas availability that pipelines and utilities, both of which are capacity-constrained, cannot exploit for logistical reasons. In financial terms, this is a good time to be buying call option insurance, but consumers are either unwilling or unable to do so at present. This may prove to have very negative consequences should winter weather be colder than expected.

The futures market for natural gas confirms this assessment. January futures are more than \$0.70 higher than those for October, which should cover the cost of storage for those utilities with available space; the trade is buy October, take delivery, sell January to hedge. This structure, called contango, reflects an expectation of price increases over and above those normally expected for early winter.

Forward Curve Of Natural Gas Futures

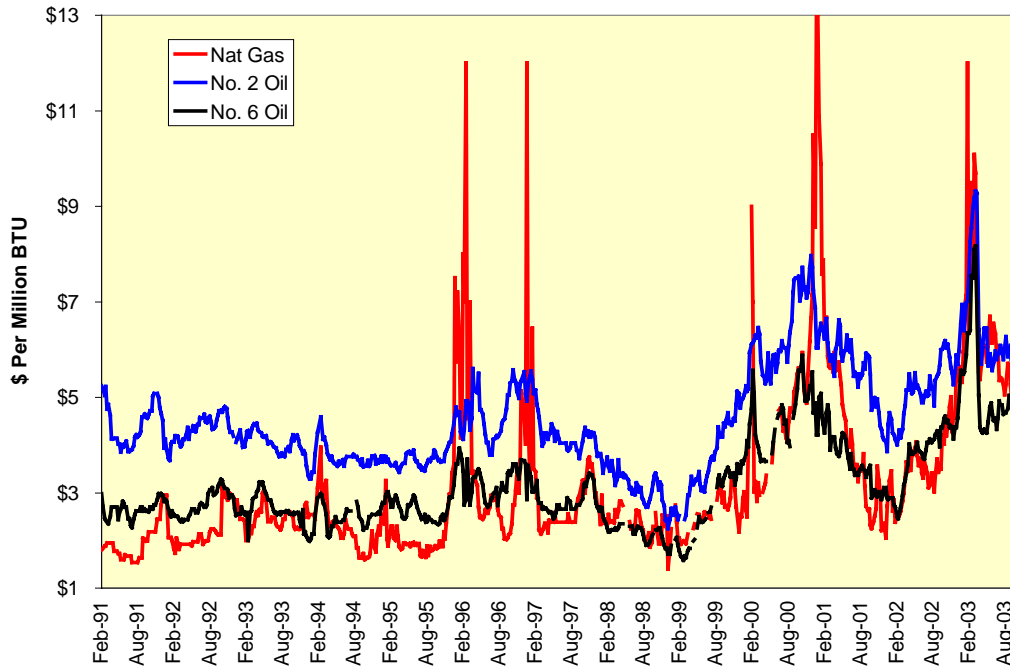


The forward curve of futures for later years indicates a certain level of complacency about long-term pricing, as if we are about to return to the 1990s trading range for natural gas. Should we believe, in the absence of recent geological experience, that we are about to enter a period of lower production costs for natural gas? Or does the lack of forward price hedging on the part of consumers indicate a shift away from demand growth in natural gas, once again counter to all recent trends? A long-term consensus such as this suggests a trading opportunity in the other direction, one long the exploration and production side of the natural gas industry.

Competing Markets

The concept of burner-tip parity, that competing fuels should be priced the same to the consumer, has been often prophesied but never observed except in passing to a new equilibrium. There simply are too many engineering costs involved for burner-tip parity to exist. Natural gas competes with No. 2 oil in the residential heating market and No. 6 fuel oil in the industrial and utility markets. If we compare these three fuels in New York, we see that it is quite common for natural gas to be priced well under No. 2 oil. The price surges are temporary, but lower the value of natural gas as consumers bid the price of the risky asset lower. Parity with No. 6 fuel oil is more common as many users of No. 6 fuel oil have dual fuel capacity and can switch to the cheaper source of BTUs.

Competing Fuel Prices In New York

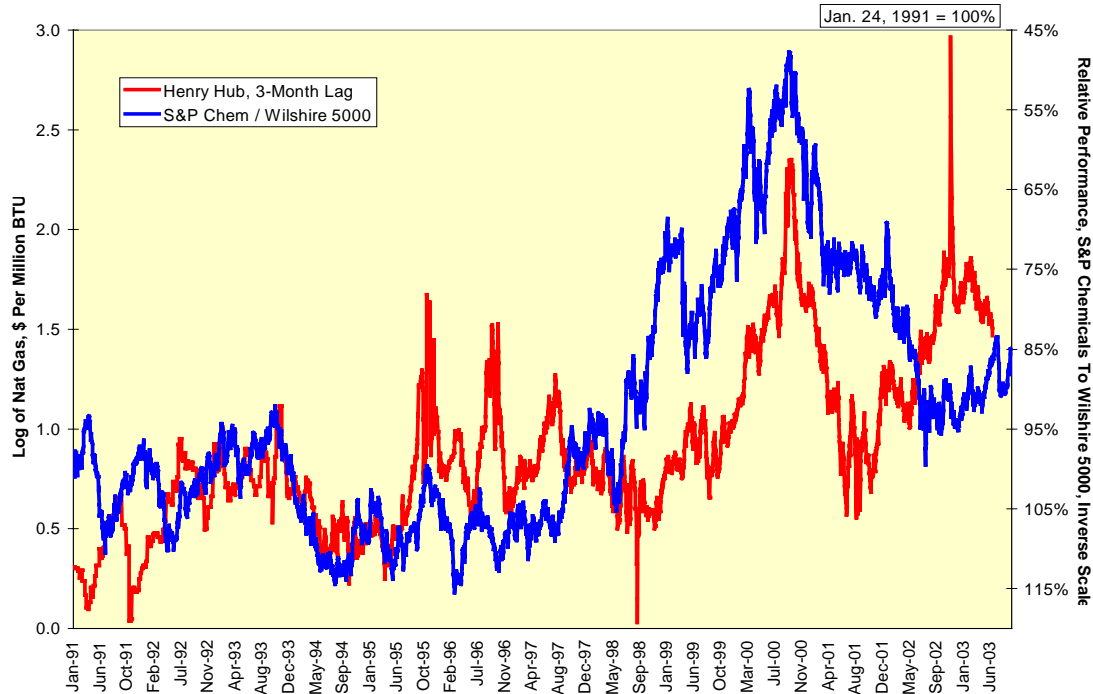


At present, natural gas has fallen to near parity with No. 6 fuel oil and is cheaper than No. 2 fuel oil. This is a stable situation for this time of year given past history, but the comparison becomes meaningless if a cold winter arrives.

Equity Expectations

A good equity market indicator for where natural gas is headed in the intermediate term is the relative performance of the S&P Chemicals index, nearly 52% of which is just DuPont and Dow Chemical, to the broad Wilshire 5000 index. This measure tends to lead the wellhead price of natural gas by three months; as natural gas prices are expected to rise, the relative performance of the chemical industry declines.

Higher Prices Through Chemistry?



At present, the relative performance of the economically sensitive S&P Chemicals index is declining even as the economy is starting to improve. While this sector has numerous factor inputs other than natural gas prices to consider, the decline in relative performance is consistent with higher natural gas prices this winter.

The Amex' Natural Gas index has held up very well relative to the S&P 500 since gas prices peaked at the end of February; it has a total return of 19.55% as compared to 24.39% for the S&P 500. This suggests that the market is looking over the present weakness in natural gas prices. Apache, Pogo Producing, Kinder Morgan and National Fuel Gas all are positioned well to take advantage of any renewed strength in prices.