

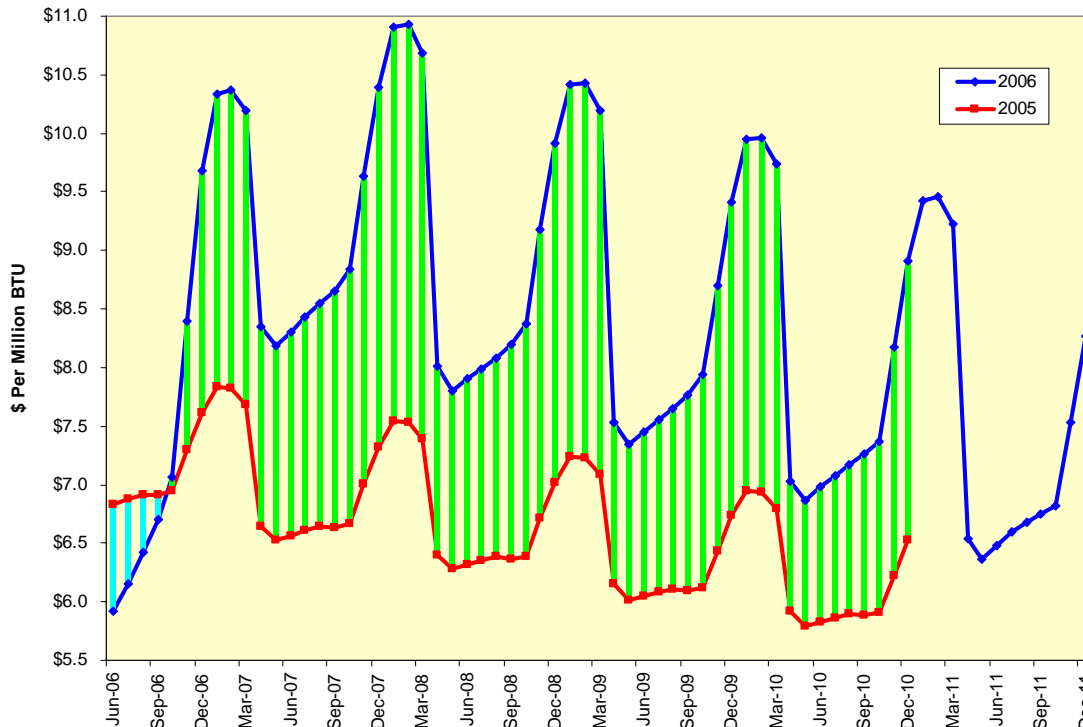
No Easy Answers In Natural Gas

The mantra “stocks and commodities are different,” used to work well in both theory and practice. Even the most commodity-dependent stock is affected by a host of variables the underlying commodity can ignore, such as general stock market trends, the effects of indexation, interest rates, the quality of corporate management and so on.

While the theory still holds, and will reassert itself once the current commodity craze will be visible only in the rearview mirror, practice has diverged, as noted here last [January](#). A wall of money is forcing the stocks of commodity producers into trading like their underlying commodities.

Is the opposite even remotely symmetric; are the stocks of commodity consumers trading inversely to commodities? I brought this issue up in a [Columnist Conversation](#) post last week in regards to the suggestion that Dow Chemical might want to lock in its natural gas costs at current levels. My answer was no, they should not; the spot prices for natural gas you see on your screen likely are for the active futures contract, now July 2006. These prices can cover only a very small percentage of the long-term commitments required by consuming companies. Those commitments extend years into the future and locking in those prices in a long-dated swap or other instrument will not reflect current spot trends but rather the present value of the forward curve. Let's take a snapshot of natural gas futures from last Friday and compare them to the prices for one year ago.

Year-Over-Year Change In The Natural Gas Forward Curve



A couple of important points should jump out quickly from this picture. First, prices extend out through the September 2006 contract are lower than they were on this date in 2005. Second, the forward curve is extraordinarily steep between June 2006, the delivery contract, and winter months. Prices rise from \$5.925 per million BTU to a seasonal high of \$10.364 for the February 2007 contract. This huge discount will allow buyers, local gas utilities as well as chemical companies, to buy spot natural gas for storage, hedge that stored gas by selling the winter contracts and cover their costs in the process. This so-called cash-and-carry arbitrage is a regular feature of both the natural gas and heating oil markets at this time of year.

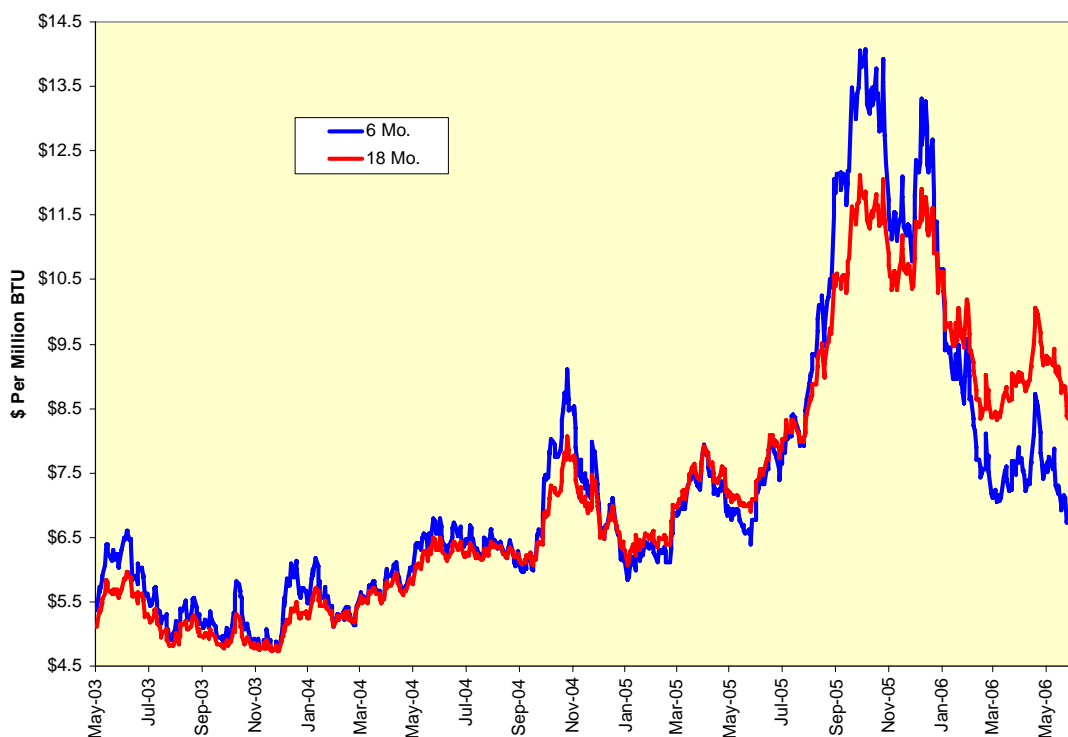
Third, take a look at how much higher forward prices are at this time of year compared to where they were a year ago. In May 2005, a chemical company could have bought natural gas for December 2007 delivery at \$7.32 per million BTU; that same gas now costs \$10.389. Fourth and finally, the risk of forward buying has gone up

tremendously; simply take a look at how much higher the winter months are than the summer months in 2007, 2008 and 2009. Guess wrong and you have made a substantial and expensive error.

Strips And Swaps

Of course, no one of any import is out there trading December 2007 all by itself. The back months generally are traded as part of a strip, an arithmetic average of a number of forward contracts. Not only are these strips less volatile than the individual months, they conform more to the continuous nature of natural gas production and consumption. These strip prices should affect the pricing of natural gas consumers far more than the current spot price as they reflect future conditions over a period of time.

Natural Gas Strip Prices



The strips also are used to price and hedge swaps for natural gas. If Dow Chemical or its brethren simply take the existing price each day, they are “floating” on the price of natural gas; if they buy a strip, they have “fixed” their price. Once again, the swap market for natural gas is far more reflective of the operating conditions businesses will face than is the current spot price.

Industry Group Exposure

We can illustrate just how little natural gas prices affect the chemical companies by measuring the relative performance of S&P 500 industry groups against the S&P 500 itself as a function of spot natural gas prices. Groups affected negatively by higher natural gas prices at a 90% confidence interval have negative betas in the table below. They are concentrated in the financial and consumer staples sectors, not in the industrial sectors as we might expect. This is stark evidence that higher home heating expenditures did in fact affect consumer spending and not for the better. We can start to suspect the commodity-linked equities of consumers are unaffected by higher commodity prices.

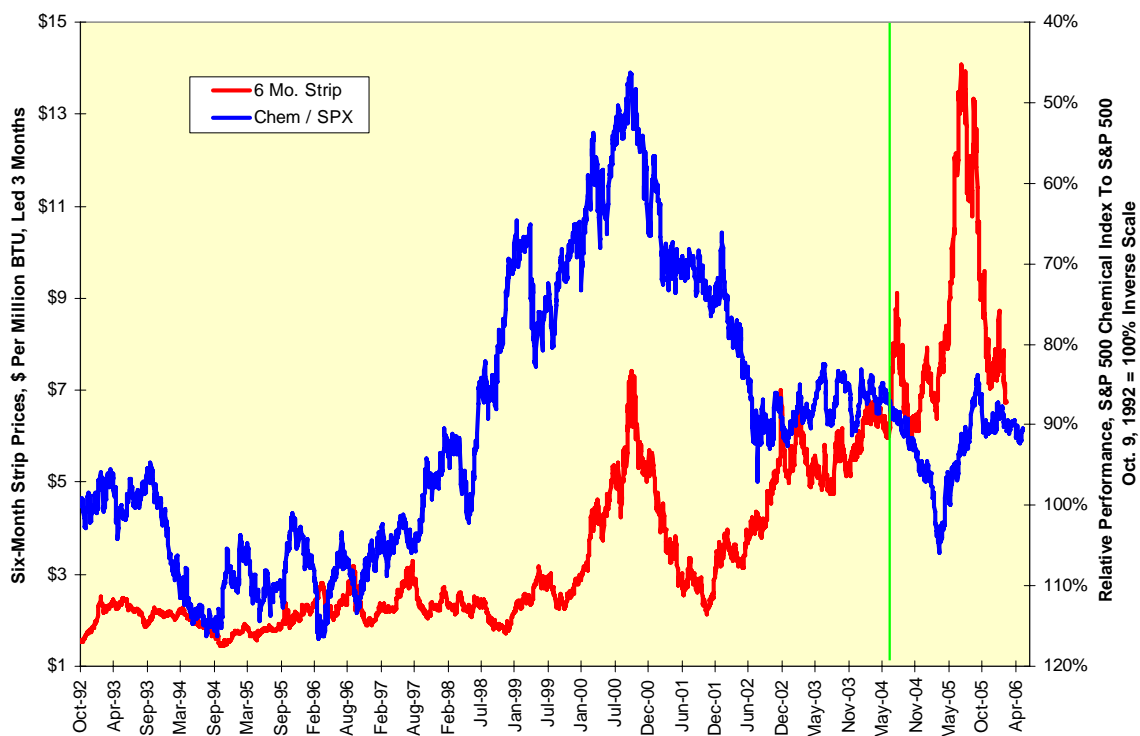
On the other hand, the groups affected positively by higher natural gas prices primarily are the usual suspects of the oil-related groups. This is evidence of just how stock traders have been substituting the commodity-linked equities of producers for the commodity itself.

S&P 500 Industry Group Sensitivity To Natural Gas

<u>Group</u>	<u>Relative Performance Beta</u>
Photo Products	(0.060)
Airlines	(0.051)
General Merchandise Stores	(0.043)
Automobile Manufacturers	(0.042)
Thrifts & Mortgages	(0.041)
Healthcare Suppliers	(0.034)
Distributors	(0.033)
Broadcast & Cable TV	(0.032)
Drug Retailers	(0.030)
Diversified Commercial Services	(0.029)
Data Processing & Outsourcing	(0.027)
Diversified Banks	(0.027)
Home Improvement Retailers	(0.027)
Industrial Conglomerates	(0.026)
Integrated Telecommunications	(0.026)
Tobacco	(0.026)
Department Stores	(0.025)
Environmental Services	(0.024)
Regional Banks	(0.023)
Air Freight & Logistics	(0.023)
Hypercenters & Superstores	(0.023)
Consumer Finance	(0.020)
Hotels	(0.020)
Brewers	(0.019)
Phamaceuticals	(0.018)
Household Products	(0.018)
Soft Drinks	(0.017)
Packaged Foods	(0.017)
Property & Casualty Insurers	(0.015)
Office Services & Suppliers	(0.014)
Other Diversified Financial Services	(0.013)
Multiline Utilities	0.015
Internet Software & Services	0.040
Steel	0.052
Gold	0.086
Integrated Oil & Gas	0.099
Diversified Metals & Mining	0.100
Oil & Gas Equipment	0.161
Oil & Gas Drilling	0.193
Oil & Gas Refining	0.193
Oil & Gas Explorations	0.201

It was not always quite this way. Prior to mid-2004, by which time the commodity boom was in full flower, the relative performance of the S&P 500 chemical index relative to the S&P 500 did move inversely to six-month natural gas strip prices with about a three-month lag. Restated, investors in chemical companies saw which way the term natural gas market was moving and reacted ahead of time. After mid-2004, the relationship diverged. Chemical companies rallied strongly relative to the broad market in the first quarter of 2005 even as natural gas prices were moving steadily higher. The recent plunge in natural gas prices has not redounded to the relative fortunes of the chemical industry.

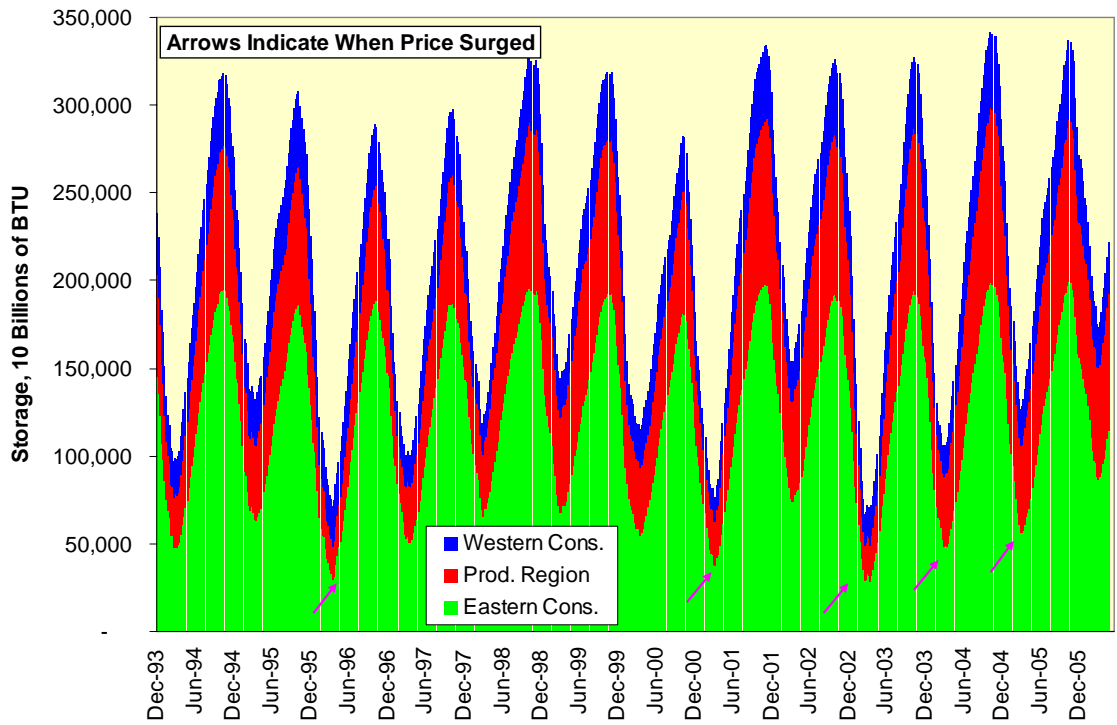
Chemical Stocks Not That Sensitive To Natural Gas Prices



Storage

Finally, let's take a look at the notion we are bursting at the seams on our natural gas storage capacity. The Department of Energy divides the country into Eastern and Western Consuming regions and a Producing region. The storage injection and withdrawal cycle for the three regions are stacked together below. We are presently 27.8% over year-ago levels on a national basis, down from 40.2% over year-ago levels as recently as the March 17th reporting week. This hardly seems to be an unmanageable capacity issue.

Gas Storage: Injection And Withdrawal Cycle



Trading commodity producers as if they were the underlying commodity is working for now. The opposite is not true and really should never be true: The stocks of commodity consumers should not be traded as the inverse of their key commodity purchases.