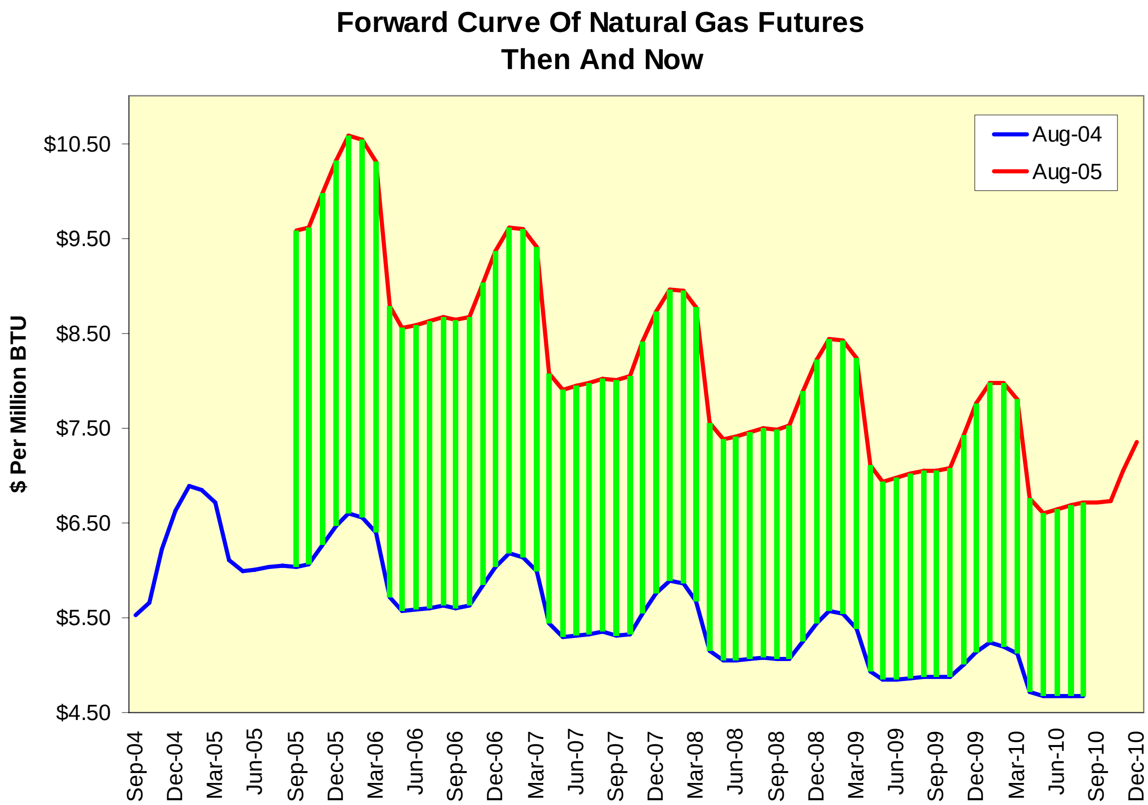
Feeling Heat From Natural Gas

Just as slapping a bee string can mask one pain with another momentarily, the stunning rise in petroleum prices has been masking an even more stunning rise in natural gas prices. We do not feel the pain on an individual level yet – that will arrive with winter's chill, but we will. And unlike petroleum, which trades in a highly developed global market, natural gas is still largely a North American affair; imports of liquefied natural gas (LNG) simply are not large enough to make a significant dent.

Look At Those Curves

Let's update a look at the natural gas market from exactly a year ago. The first thing we should note is how the forward curve of natural gas futures in 2005 is well over 2004 levels; September 2005 futures are trading 73.3% over those seen for September 2004. By way of comparison, September 2005 crude oil futures are 30.3% over September 2004 levels at the same point in time.



The second aspect of the curve that jumps out is the more pronounced seasonality. At this time last year, May 2005 futures were 13.0% below January 2005 levels; today, May 2006 futures are trading 19.1% below January 2006 levels.

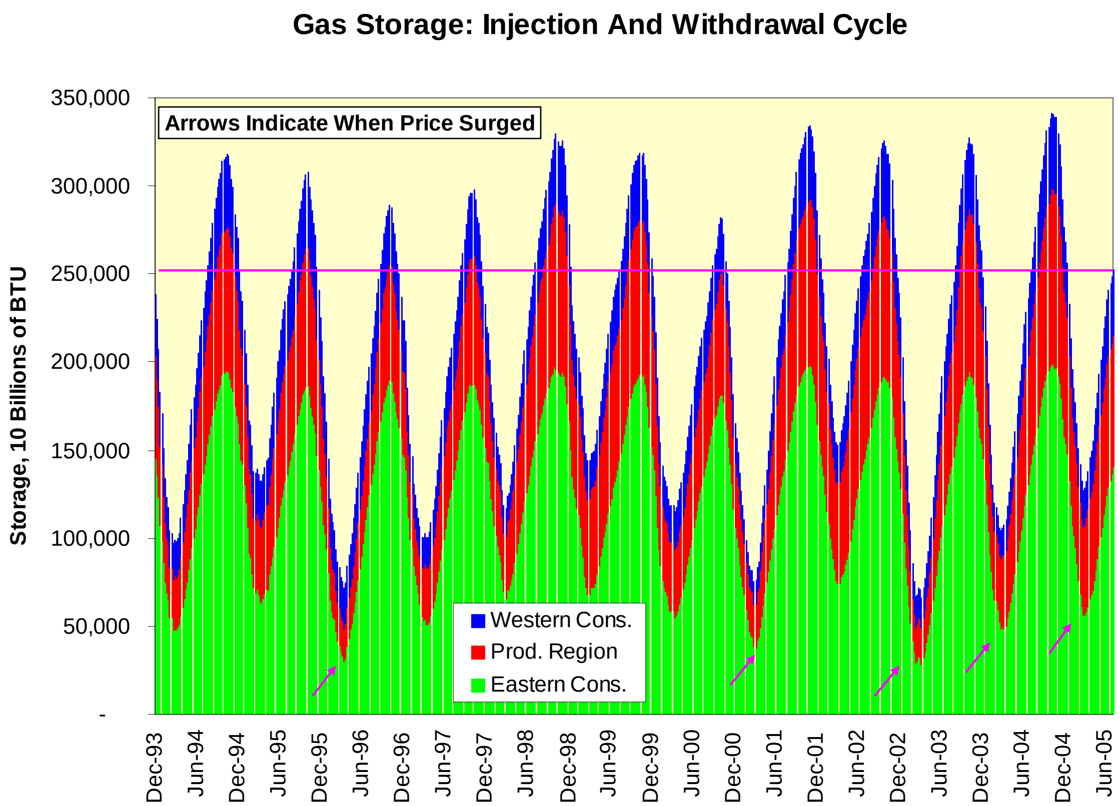
As futures markets exist, in part, to smooth out seasonal cycles by allowing buyers to build and hedge inventories and producers to hedge price risk, this exaggerated seasonality is bad news. It is evidence of greater perceived price risk. The natural gas industry is moving toward the same ragged edge of capacity we now see in the petroleum refining industry.

Storage

Just as I am fond of stating that neither stocks nor bonds are GDP futures, I like to state that futures markets are not inventory scorecards. If they were, we would not be at the extremes we see in either heating oil or gasoline; prices reflect the cost of insurance on the part of anxious buyers far more than they reflect what is sitting in a tank or storage cavern somewhere.

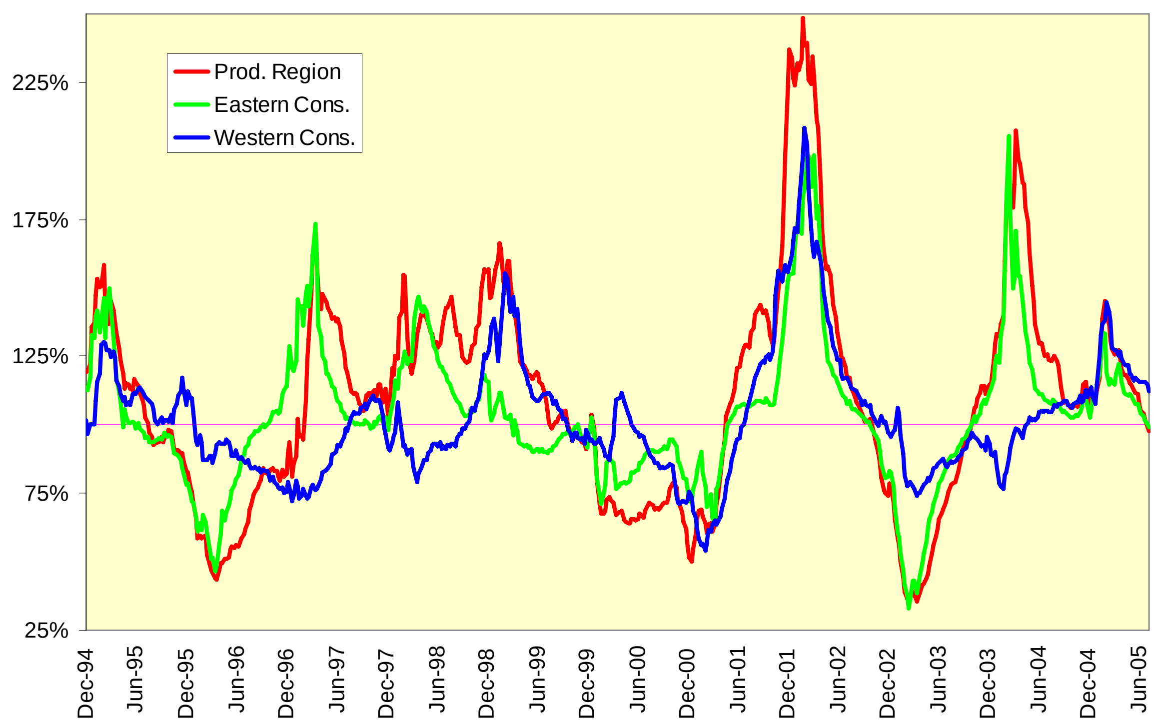
But with this in mind, the just-in-time nature of natural gas deliveries – in financial terms, each time your furnace kicks on, you are exercising a call option on natural gas for immediate delivery – virtually assures us that low inventories invite price surges.

The chart of the Department of Energy's natural gas storage data highlights this well. The data are organized by three regions, Eastern and Western Consuming and the Gulf Coast/Mid-Continent Producing. The data are converted into 10-billion BTU chunks to match the size of the NYMEX futures contracts. Arrows highlight storage levels preceding price spikes. The horizontal line marks the August 5, 2005 storage level of 252,925 NYMEX contract equivalents. Current open interest in the NYMEX futures stands at 541,000 contracts.



An alternative view of storage is comparing current inventories to year-ago levels. At present, inventories in both the Producing and Eastern regions are slightly below year-ago levels as a hot summer has increased demand for natural gas by electric utilities. Inventories in the West are more than 12% over year-ago levels.

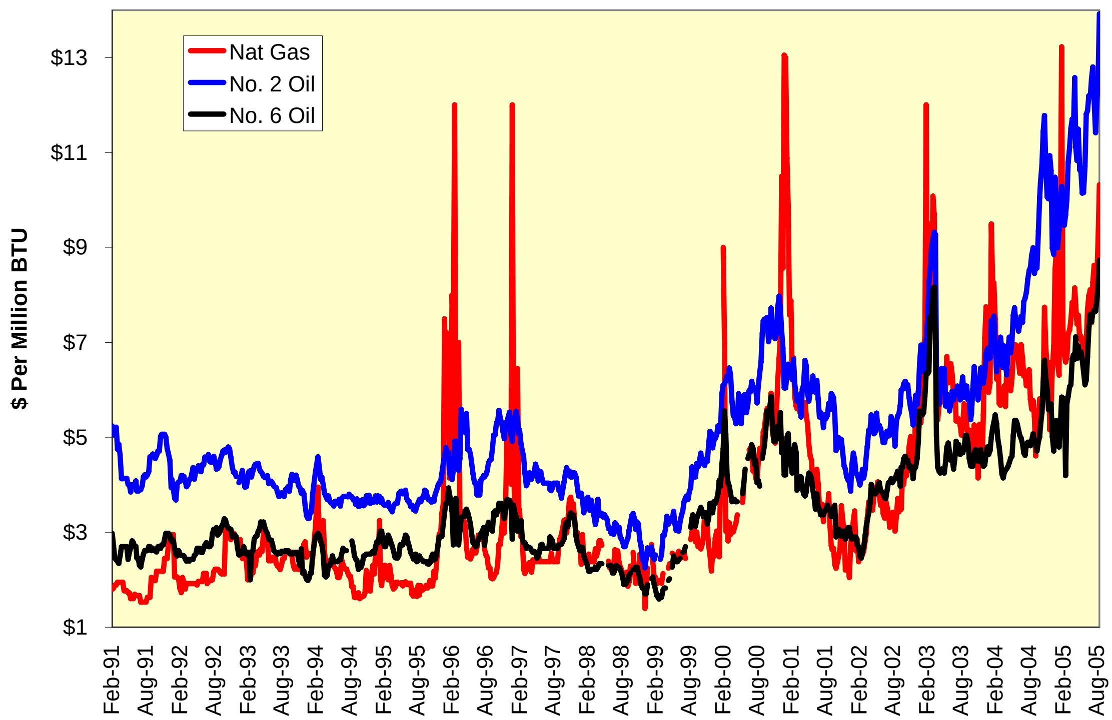
Regional Storage, %Change Year-Ago



Burner Tip Comparisons

The column written last year on natural gas prices noted all of the reasons why the concept of burner-tip parity, the notion fuels in end-use markets should be priced equivalently, seldom applies. But while burner-tip parity should not be expected, the present huge gap between heating oil and natural gas in New York - $13.93 per million BTU for heating oil, $8.73 for natural gas – creates a huge incentive for anyone with dual fuel capabilities to switch from petroleum products to natural gas.

Competing Fuel Prices In New York



Searching For Winners And Losers

Whenever a large arbitrage opportunity such as the above presents itself, instinct says someone will profit by closing the gap. We noted last year, though, just how poorly the natural gas industry as represented by the AMEX Natural Gas Index (XNG) had done in capturing the rent of higher natural gas prices.

In truth, finding direct winners and losers from natural gas is surprisingly difficult. If we take the beta, or relative volatility, of the relative performance between industry groups in the S&P 500, S&P 400 and S&P 600 indices to natural gas prices, we get an odd mix of the perplexing and the obvious.

Group Sensitivity To Natural Gas Prices

S&P 500		S&P 400		S&P 600	
Group	Beta	Group	Beta	Group	Beta
FERT&AGR CHM	(0.032)	DEPT STORE	(0.035)	ENVR SRVCS	(0.029)
DEPT STORES	(0.024)	TIRE&RUBBR	(0.025)	LEISURE PROD	(0.022)
THFTS & MRTGE	(0.020)	PHARMCTCLS	(0.021)	DVSFD COMM SRC	(0.014)
FOOD DISTR	(0.019)	HHOLD PROD	(0.021)	REGNL BANKS	(0.009)
INVST BNK & BRKG	(0.016)	PUBL&PRINT	(0.020)		
INDUS CONGL	(0.012)	ENVR SERV	(0.019)		
DATA PRCS & OTS	0.013	TRAD CO&DST	0.025	OIL&GAS	0.036
INTGR OIL&GS	0.019	SYS SFTWR	0.026	INTRNT SFW & SRVCS	0.039
ELEC EQP MFG	0.023	OIL&G EQUI	0.029	OIL&GAS PROD	0.039
OIL&GAS REF	0.024	OIL&G DRIL	0.033	OIL&GAS EXPL	0.039
OIL & GAS EQU	0.028	INTGR O&G	0.039		
GOLD	0.039	OIL&G EXPL	0.046		
OIL&GAS DRIL	0.041	OIL&G RFNG	0.051		
OIL&GAS EXPX	0.049				

The outperformance of the various oil & gas groups in each index is expected. But the Data Processing & Outsourcing group in the S&P 500, the S&P 400's Systems Software group and the S&P 600's Internet Software & Services groups all outperform when natural gas prices rise.

The groups that underperform in a rising natural gas price environment include the obvious such as Fertilizers & Agricultural Chemicals – natural gas is a feedstock for ammonia manufacture – Tires & Rubber and Environmental Services. But the list also includes Department Stores in both the S&P 400 and S&P 400, and S&P Investment Banking and S&P 600 Regional Banks. It is easy to understand why energy-intensive business such as Tires & Rubber or space-heating intensive business such as Department Stores would suffer from rising natural gas prices; no explanation for the financials comes to mind.

If the pattern seen from rising crude oil prices holds, we should expect to see various consumer discretionary issues such as Wal-Mart and restaurant chains start to underperform. Those higher natural gas prices are going to come right out of the consumer's pocketbook, and the money used there will not be available elsewhere.