

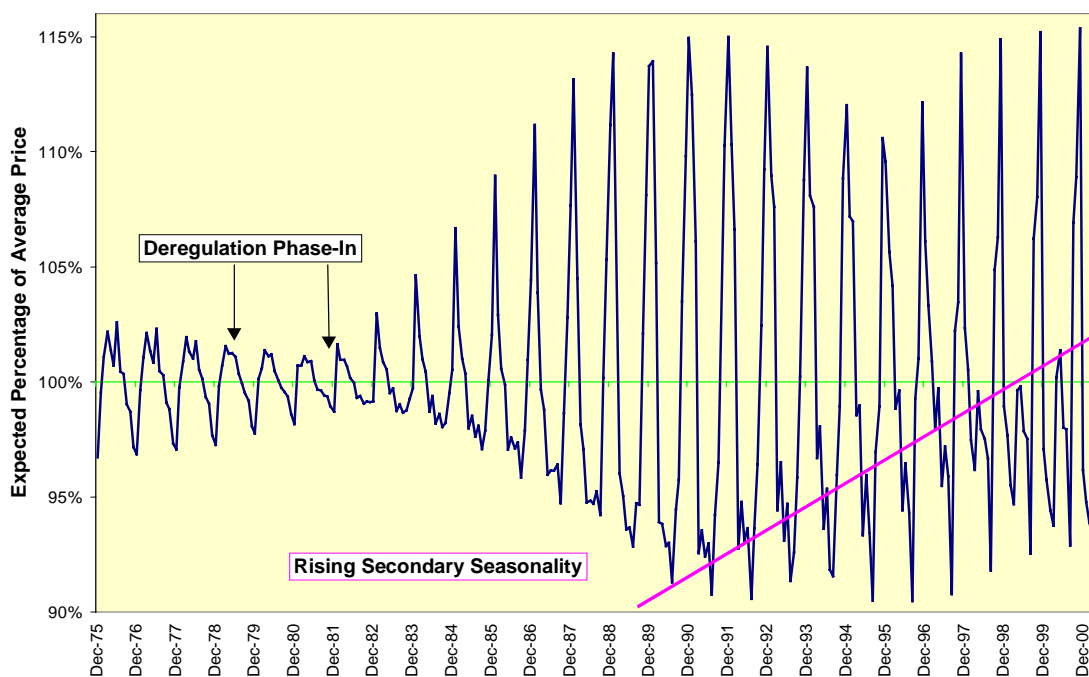
The Gas Bubble

For those of you who prefer exuberance of the rational variety, may we direct your attention to natural gas, the only commodity to double in price so far in 2000? While gasoline prices have been turning a few heads of late, at least we have some usual suspects, such as OPEC and the Environmental Protection Agency, to blame. Natural gas, on the other hand, is produced right here in the U.S. and Canada, and has been the great hope for environmentalists for years. It was supposed to be in such great supply that industrial users and electric utilities made it the preferred energy source for new plants.

Natural gas: We loved it to death.

As in the case of all romantic tragedies, it wasn't supposed to happen this way, and certainly not at the present time of year. Natural gas prices, unsurprisingly, have tended to peak during the middle of winter and to be soft in the late spring and early autumn, the so-called "shoulder" months of energy demand. But, we can see below the natural gas seasonal cycle has been anything but stable over the past quarter-century. After price deregulation was phased in, prices rose rapidly in the winter and fell in the summer. Once natural gas futures trading began in 1991, the seasonal peaks and troughs began to narrow as predicted by futures market theory. A second and smaller seasonal peak began to emerge, corresponding to demand from electric utilities. By 1999, this peak was above the annual average.

Natural Gas Seasonal Adjustment Factors



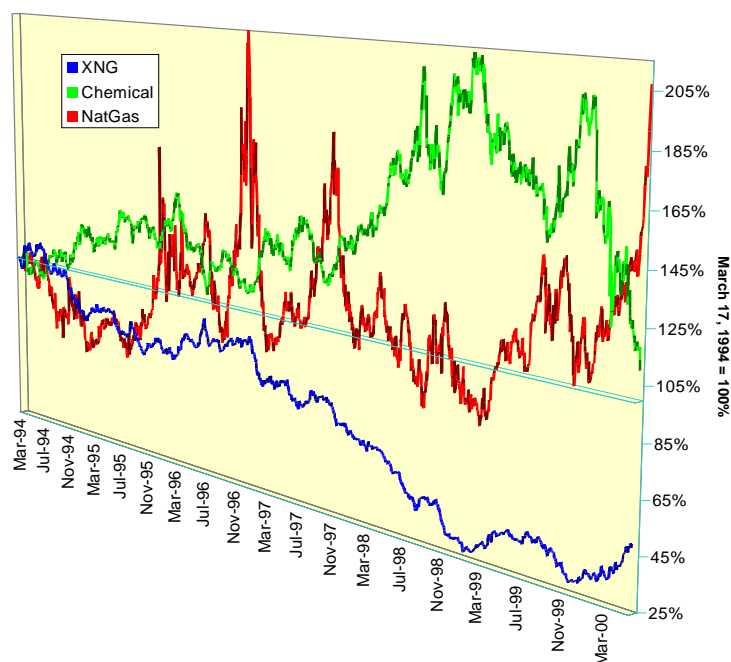
The present \$4.406 price is near the wintertime record of \$4.573 set on December 20, 1996. Moreover, the level of backwardation, or premium of the first month future to the second month (see "Backwardation In Oil Stocks Rewards Patience," March 8, 2000) is rather tame. The winter prices spikes, particularly those of 1995-1996 and 1996-1997, were accompanied by surges in backwardation as well. This move in the intermonth spread reflected, correctly, sentiment prices would soon retreat. No such warning sign is embedded in today's forward curve of natural gas futures. Option volatility has risen from 40% to 50% to reflect the greater absolute risk in the market, but nothing in the market's structure is indicating a peak.

Who Wins, Who Loses?

We demonstrated last week how utilities could defend themselves by vertical integration into natural gas production and active natural gas trading and risk management. How have other large natural gas dependent industries, such as petrochemical producers, fared in this higher fuel and feedstock environment, and what are the implications for the future?

Two indices were examined relative to the S&P 500, the AMEX Natural Gas Index (XNG) of natural gas producers, and the S&P Chemicals Composite Index. The paths of these two indices, and of natural gas prices themselves, are shown below.

Natural Gas Sensitive Indices Performance Relative To S&P 500



Two features stand out since March 1994, the first date when data were available for all the indices, the extreme underperformance of the XNG until last winter, and the sudden collapse of the S&P Chemicals Composite at the same time. Du Pont dominates the 16-member Chemicals Composite Index with a 37.449% weight; Dow Chemical is a distant second with a 16.643% weight. Du Pont had, by any measure, a horrible first quarter, plunging from a high of \$74 on January 7 to a low of \$45.0625 on March 13. Dow Chemical didn't do much better, falling from a high of \$141.5 on January 6 to a low of \$92 on March 8. These plunges coincided with the NASDAQ's surge; these were the good old days when the NASDAQ rose while the Dow-Jones fell on a regular basis.

The chemical industry, like most basic materials industries, is a sensitive economic barometer. The combination of higher feedstock costs and an economy slowing under the weight of interest rate increases is quite negative for these stocks. While we may be getting close to the end of the interest rate increase cycle, the threat to growth of the Old Economy variety is still quite real: No one yet knows whether the Fed has already gone too far.

The path of the XNG index is slightly more intriguing. This group has been sliding relative to the S&P for six years, and it ignored all previous winter price spikes -- the ones accompanied by high backwardation. As noted above, the present price increase is neither in the winter nor accompanied by strong

backwardation. As a result, it may be far more sustainable and far more conducive to long-term earnings increases in the sector. The catch, and it is a big catch, is how difficult it is for primary commodity producers and distributors to capture the economic rent of higher prices. Ultimately, price increases lead to slower demand growth and stimulate new sources of supply and/or substitution, and both of these effects get passed up the supply chain to the wellhead.

Who will win in the new natural gas environment? Those who are vertically integrated and can manage their risks. Who will lose? Those who use natural gas as a feedstock. Unfortunately, this list includes customers, employees, and shareholders.