Energy Deck Shuffled

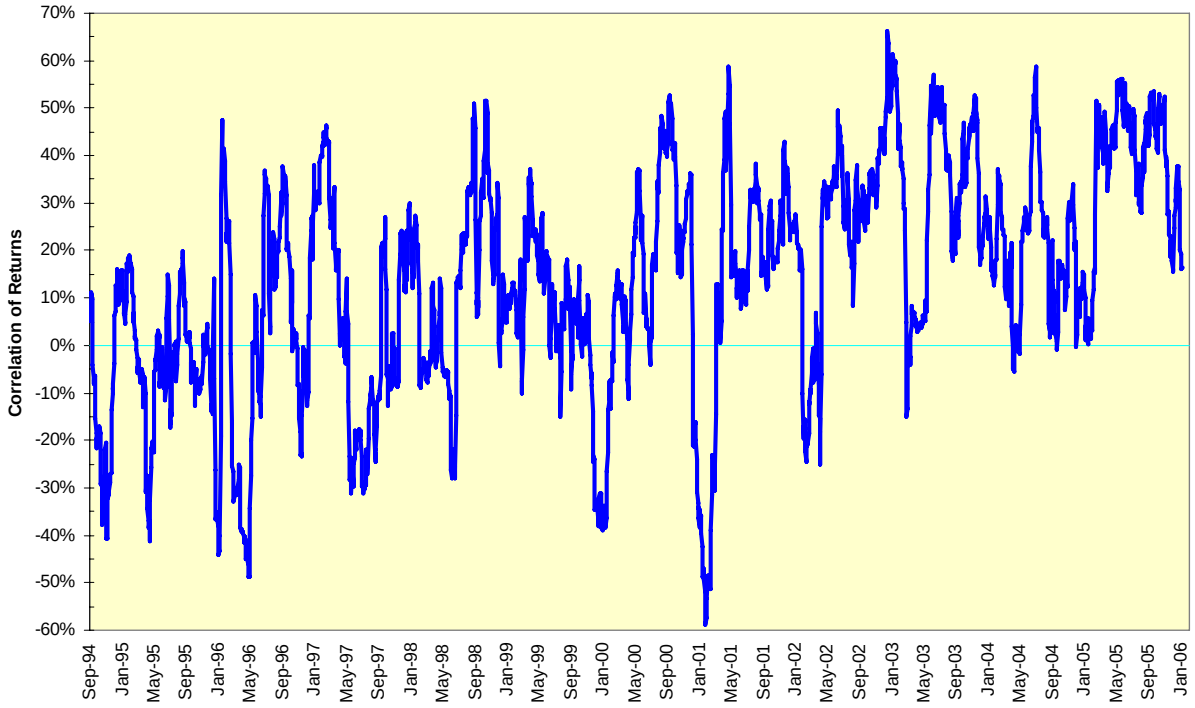
Market technicians always are divided about what to do with trading over the last week of December and the first week of January. Too many special occurrences and cross-currents are operating, such as thin trading, tax-induced selling and window-dressing to say these days are normal. Or, as a long-ago colleague put it, "Seasonally adjusted, there is no Santa Claus."

The problem, however, is if you persist in making special rules and affording special treatment to every time period, you wind up creating those hilariously overwrought data-mined studies, "…if you buy orange juice futures on the 3rd day of the month with a full moon and the letter 'R' after the S&P 500 is up 6 days in a row, you have a 73.9% chance of making $1.95," or something to that effect.

So what was I to do with the diametrically opposite action last week in crude oil and natural gas futures? February crude oil rose 5.19% on the week, while February natural gas fell 9.35% to greet 2006. I will ask rhetorically, aren't these two supposed to move together? Now I will answer myself rhetorically, "no, of course not." Despite the fact both commodities are pulled out of the ground and compete via refined products in some final markets, their supply and demand pictures are quite different. For example, on-site inventories play a critical role in the petroleum products market, but scarcely play a role at all in the natural gas market. And our imports of liquefied natural gas (LNG) still account for only a tiny percentage of our natural gas supply picture, something to be thankful for as we watch Vladimir Putin play politics with Russian pipeline exports of gas.

As discussed here in December, natural gas supply and demand curves sit on a knife's edge and are highly seasonal. But even if we smooth out the seasonal effects and the daily noise simultaneously by taking a one-year rolling correlation of weekly returns, we see just how unrelated crude oil and natural gas are. Over long stretches of time, the correlation between the two cash markets – futures were not used to avoid the problems associated with contract rolls – can be either near-zero or negative, meaning the two markets have been moving in opposite directions.

Rolling One-Year Correlation of Weekly Returns:
Cash Crude Oil Vs. Natural Gas



All The King's Index Funds

The sharply declining correlation is even more surprising when we account for the effects of long-only commodity indices, those vehicles that buy, hold and roll baskets of commodity futures. West Texas Intermediate crude oil, the

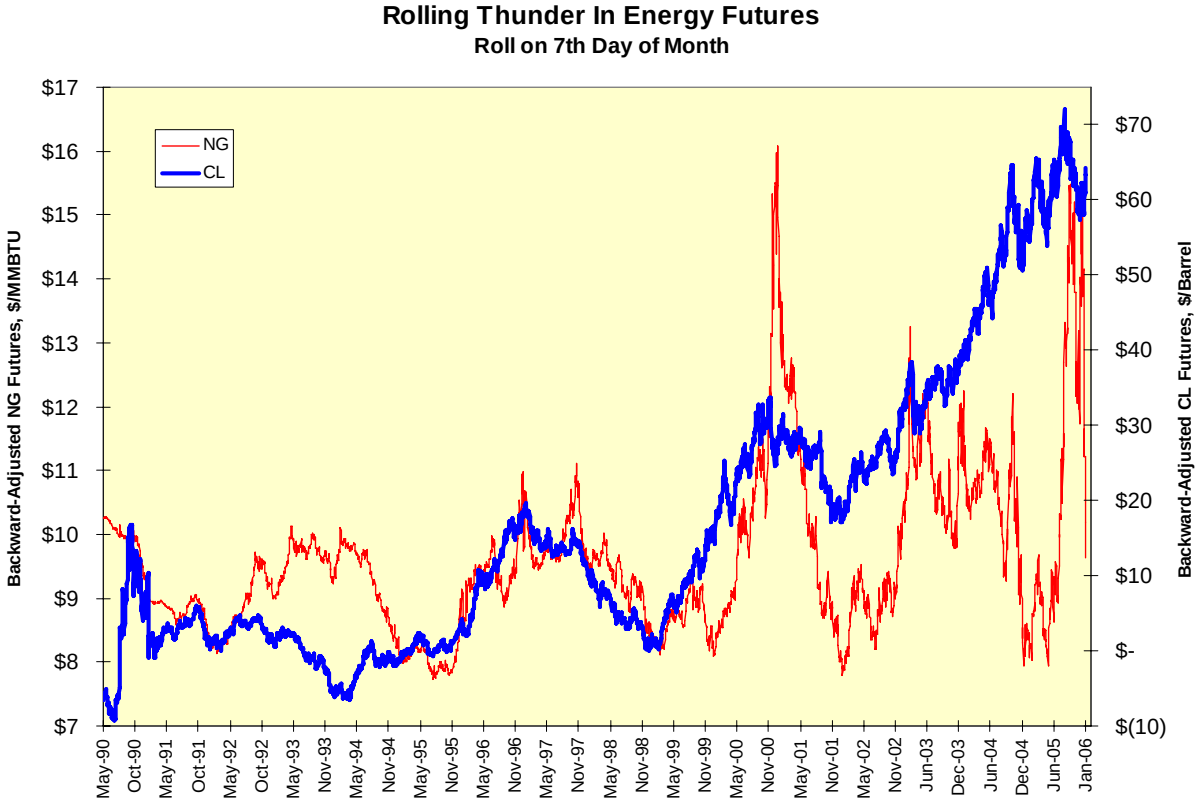
basis for the NYMEX contract and North Sea Brent Blend, the basis of the International Petroleum Exchange contract, account for 28.82% and 14.05% of the Goldman Sachs Commodity index, respectively. The Dow Jones-AIG index has a 12.78% weight in WTI and a 12.32% weight in natural gas. As money flows into these index funds, it provides a ready source of demand for the constituent commodity futures regardless of industry fundamentals.

Imagine the outrage if there were stock funds that simply bought a firm's shares for no other reason than its weight in an index and if the executives of that firm were rewarded outlandishly for gains in the stock's price.

Oh.

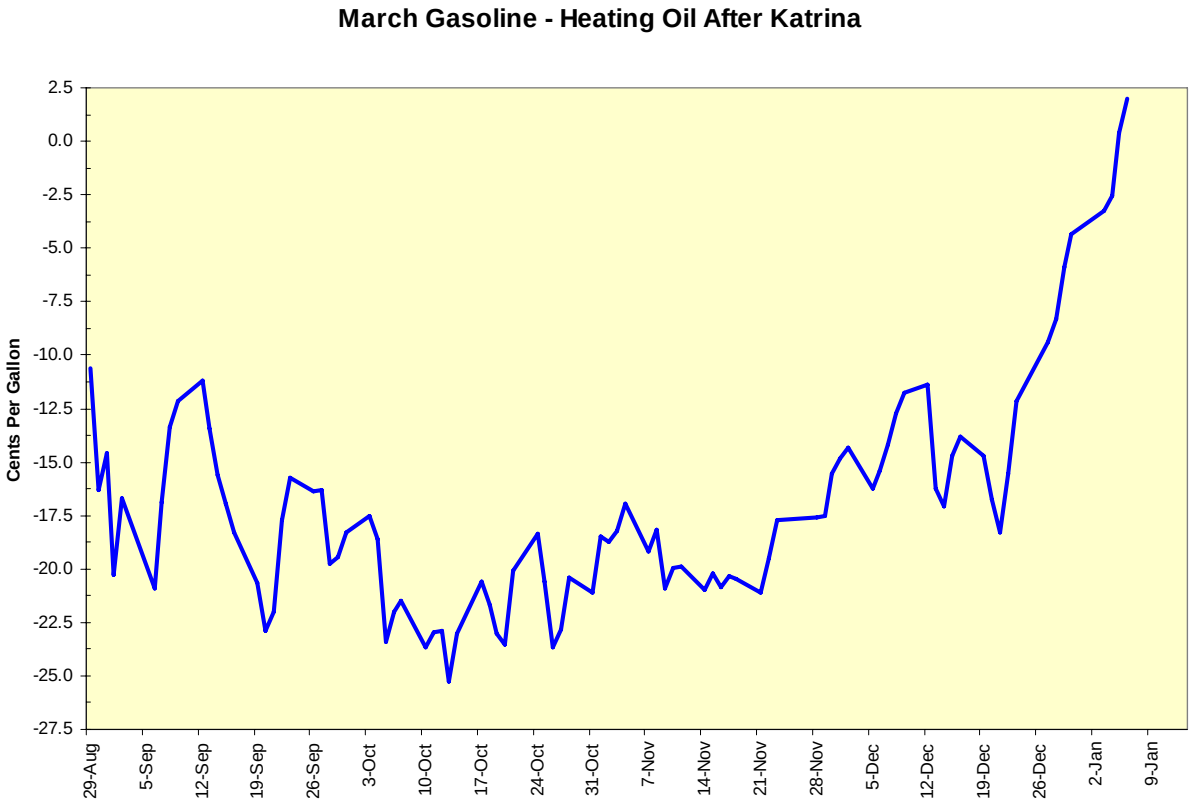
If the funds have not moved natural gas and crude oil correlation closer to 1.00, the two commodities have returned the favor to the funds' performance. The monthly roll of a futures contract will make money for the fund if the front month being sold is greater than the back month being bought; this harvest of "roll yield" in such a "backwardated" curve accounts for more of the gain from commodity investing than does price appreciation. But crude oil moved into the opposite structure, contango, early in 2005, much to the surprise of those who thought the world would sit still while they made money on the roll, and this put a halt to the gains in this strategy for crude oil.

Natural gas, with its highly seasonal forward curve, turned into an absolute killing field for the funds in 2005, and the massacre is continuing in 2006. If we stitch together the chain of futures over time into a "backward-adjusted" series with the roll date on the 7th of the month – most funds roll in a window between the 5th and the 9th of the month – we see that the roll strategy in natural gas has made no money since the advent of the contract, when prices often traded for less than $2 per million BTU.



Natural Gas And Crude Oil Looking Forward

If the winter stays mild, a big supposition, we can expect the disconnection between natural gas and crude oil to widen. We are heading into the time of the season when refineries close down for routine maintenance and to reconfigure for maximum gasoline production. In addition to producing more gasoline, they have to start producing the summer blends, those with lower butane content. As a result, the late winter is a time when the spread between gasoline and heating oil expands unless cold weather maintains high heating fuel demand. The widening of the spread between March gasoline and heating oil futures has accelerated over the past two weeks as warm weather has reduced demand for both heating oil and gasoline. All else held equal, higher gasoline prices and refining margins pull crude oil futures higher; only higher heating oil prices will pull natural gas futures higher.



Winners And Losers

Let's return to an analytic technique first introduced here in February and used several times since of measuring the relative impact of a market factor on industry groups. Negative numbers in the table below under the Crude Oil heading indicate groups hurt by higher crude oil prices. Negative numbers under the Natural Gas heading indicate those groups benefiting from lower natural gas prices. For example, within the S&P 500, the Airlines group is hurt most by rising crude oil prices, while the Photo Products group is helped most by falling natural gas prices. Only the groups with statistically significant relationships (90% confidence interval) against the S&P 500 are displayed.

Relative Industry Group Betas To Crude Oil & Natural Gas

S&P 500

Crude Oil		**Natural Gas**	
Group	Beta	Group	Beta
AIRLINES	(0.208)	PHOTO PRDCTS	(0.053)
GEN MERCH ST	(0.097)	AIRLINES	(0.051)
HLTH CR DIST	(0.095)	GEN MERCH ST	(0.050)
ENV SERV	(0.073)	THFTS & MRTGE	(0.042)
DRUG RETAIL	(0.066)	DISTRIBUTORS	(0.038)
TOBACCO	(0.062)	BDCST&CBL TV	(0.033)
AUTOMBL MANF	(0.059)	DRUG RETAIL	(0.031)
DATA PRCS & OTS	(0.059)	DIV COMM SER	(0.030)
APPLIC SFTW	(0.057)	HYPR & SUPRCNTRS	(0.026)

HOME IMP RTL	(0.057)	INTGR TELCM	(0.025)
HYPR & SUPRCNTRS	(0.053)	DATA PRCS & OTS	(0.025)
SYSTEMS SFTW	(0.052)	ENV SERV	(0.024)
AIR FT&LOG	(0.052)	INDUS CONGL	(0.024)
WIRELESS SER	(0.052)	AIR FT&LOG	(0.024)
OFFICE ELECS	(0.049)	DIV BANKS	(0.022)
ELEC MANU SRVC	(0.049)	HOME IMP RTL	(0.022)
DISTRIBUTORS	(0.046)	BREWERS	(0.020)
SPECIALT STR	(0.046)	REGIONAL BANKS	(0.019)
MLTILN INS	(0.044)	DIV CHEM	(0.018)
INTGR TELCM	(0.043)	PROP&CASULT	(0.017)
REAL EST INV	(0.042)	PACKG FOODS	(0.014)
FOOD RETAIL INDX	(0.040)		
RAILROADS	(0.038)		
PHARM	(0.038)		
HOUSEHLD PRD	(0.037)		
COMMUNCTN EQUIP	(0.037)		
DEPT STORES	(0.036)		
OTHR DV FN SC	(0.035)		
THFTS & MRTGE	(0.033)		
DIV BANKS	(0.032)		
CONSUMER FINANCE	(0.031)		
DIV CHEM	(0.030)		
SPECIALT CHM	(0.030)		
REGIONAL BANKS	(0.029)		
INVST BNK & BRKG	(0.028)		
INDUS CONGL	(0.028)		
PROP&CASULT	(0.027)		
COMPUTER HW	(0.025)		
AEROSP & DEF	(0.023)		
ELEC UTIL	0.037	GAS UTIL	0.015
MULTI-UTIL	0.050	ADVERTISING	0.024
ALUMINUM	0.054	GOLD	0.070
GAS UTIL	0.062	DIV MTLS&MIN	0.083
CONST&ENGIN	0.074	INTGR OIL&GS	0.091
STEEL	0.130	OIL & GAS EQU	0.136
GOLD	0.184	OIL&GAS REF	0.172
DIV MTLS&MIN	0.188	OIL&GAS DRIL	0.172
INTGR OIL&GS	0.256	OIL&GAS EXPX	0.186
OIL & GAS EQU	0.356		
OIL&GAS REF	0.365		
OIL&GAS EXPX	0.423		
OIL&GAS DRIL	0.443		

The list of groups hurt by higher crude oil prices is long and is distributed over a large number of economic sectors. The list of groups helped by lower natural gas prices is far more of a motley crew of low-weight industries. Groups helped by higher crude oil prices are concentrated in the Energy and Utility sectors and in such Basic Materials as Steel and Aluminum.

On balance, it does appear as if a divergence between crude oil and natural gas in favor of crude oil will be more of a drag on the equity markets. But we have been living with rising crude oil prices for the better part of three years now, and judging from the start to 2006, what has not killed us has only made us stronger.