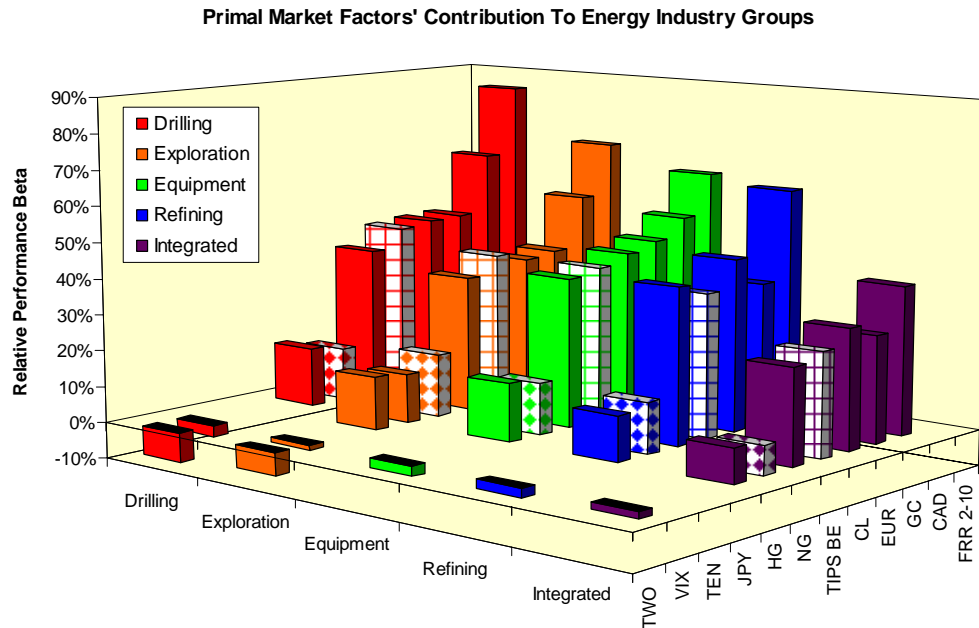


What Really Moves Energy Stocks?

The question, “What really moves energy stocks?” invites a response along the lines of, “Energy, ya big dummy!” But let’s eschew such inelegance and see whether the answer really is that simple. And, while we are at it, let’s take another look whether commodity-linked equities are an effective way of trading the underlying commodity.

Factor Contributions

First, let’s go back to a factor analysis first introduced in [February 2005](#). The relative performance of S&P 500 industry groups can be regressed against a set of primal market factors. The statistically significant (90% confidence level) betas of the five oil-related groups within the S&P 500 against a set of 12 different market variables are presented below.



Betas against two-year note yields and the VIX are negative; as yields rise, the energy stocks underperform. There are no statistically significant betas against ten-year note yields. The most positive betas are against the shape of the yield curve as measured by the forward rate ratio between two and ten years, the rate at which we can lock in borrowing for eight years starting two years from now divided by the ten-year rate itself, and against the Canadian dollar.

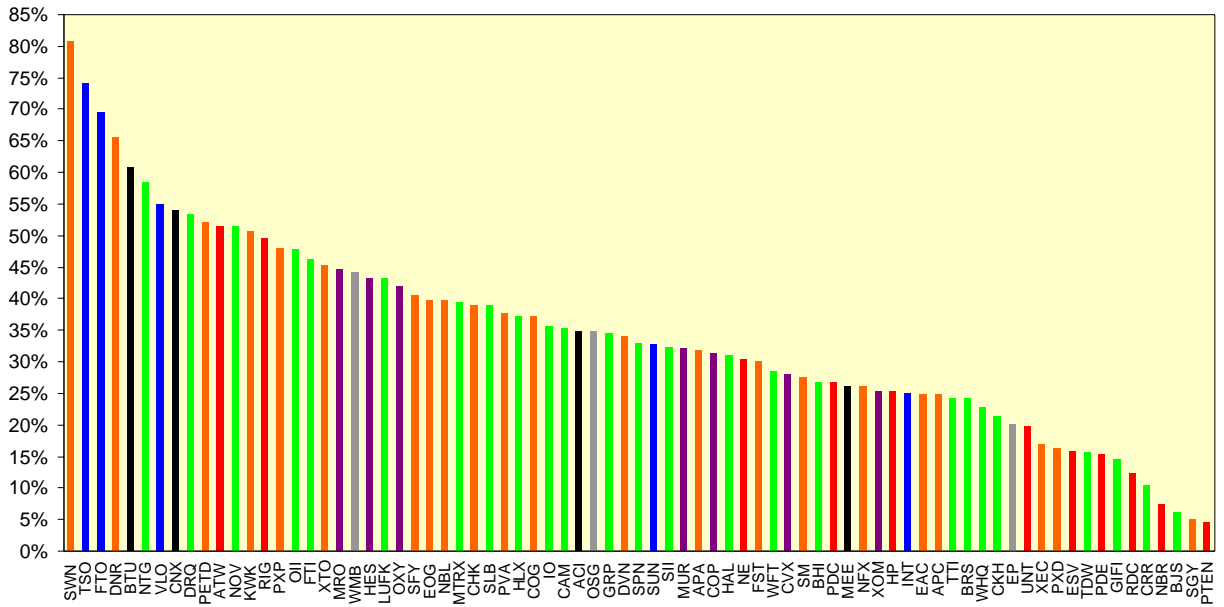
What about crude oil and natural gas? Surprisingly, their betas, highlighted in cross-hatch and diamond patterns, respectively, are rather middle of the road. This is our first clue to follow.

Respective Rankings

Now let’s expand the universe from S&P 500 industry groups to all of the stocks in the S&P 1500 Supercomposite energy services index. The same color-coding scheme as used above (red for drilling, orange for exploration, green for equipment, blue for refining and violet for integrated firms) will be maintained and supplemented by gray for storage and black for coal.

The average annual returns for this universe from the Federal Reserve’s declaration of war on deflation on May 6, 2003 onwards are presented below. As a side comment, I was really quite surprised at how high these average annual returns were.

Average Annual Returns May 2003 - December 2007



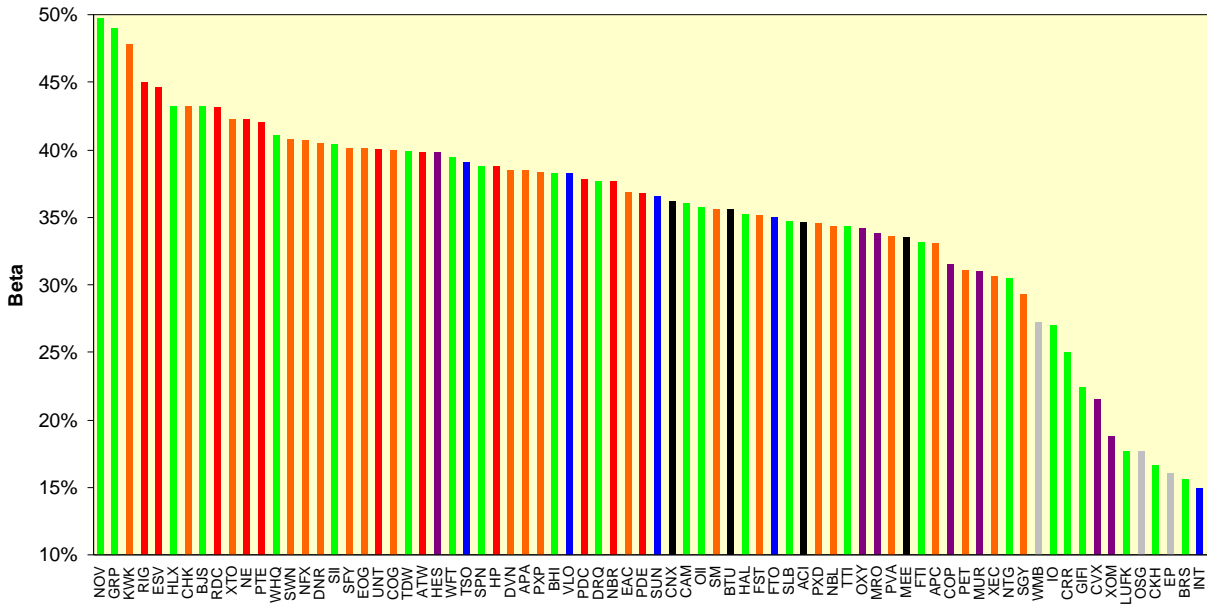
No major imbalances of color clustering are visible. The refiners such as Tesoro, Valero and Frontier occupy three of the top seven slots, and two coal companies, Peabody Energy and Consolidated Energy are in the top eight. The two super-majors, Chevron and ExxonMobil, are in the middle of the pack.

Factor Rankings

Now let's expand the analysis to regressions of each stock against three different energy market variables, West Texas Intermediate at Midland, Texas, natural gas at Henry Hub, Louisiana, and a 2-1-1 crack spread of Midland at the U.S. Gulf Coast. The Midland location was chosen because of this year's distortions at Cushing, Oklahoma, discussed here in [May](#). A 2-1-1 crack spread is the refining margin for turning two barrels of crude oil into one each of gasoline and heating oil; I last discussed the outlook for refining margins in [October](#).

The statistically significant betas against crude oil are presented below. Now the color clusters become a little clearer: The left-hand side of the chart is dominated by the green, orange and red, for the equipment and services, exploration and production and drillers, respectively. Both refiners and integrated oil firms, blue and violet, are shifted to the right, with both Chevron and ExxonMobil doing rather poorly. Think about this whenever you hear someone recommend those two and crude oil proxies.

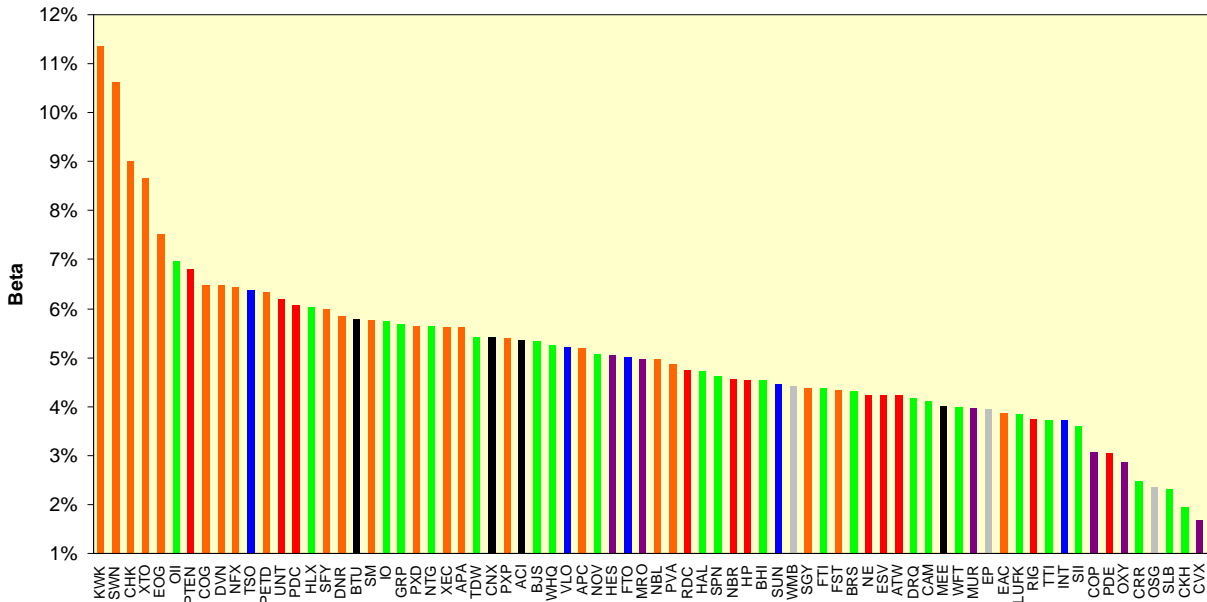
Betas of Energy Stocks Against Crude Oil



Now let's repeat the exercise for natural gas. The left side of the chart is dominated by the exploration group's orange columns. Once again, the integrated firms do poorly: Chevron is dead last in this ranking, and the beta for ExxonMobil failed the 90% statistical significance test.

You may ask yourself why the stocks of exploration firms, which presumably are involved in long-term payoff projects, would react well to short-term increases in natural gas prices. The answer is not at all clear on the face of things.

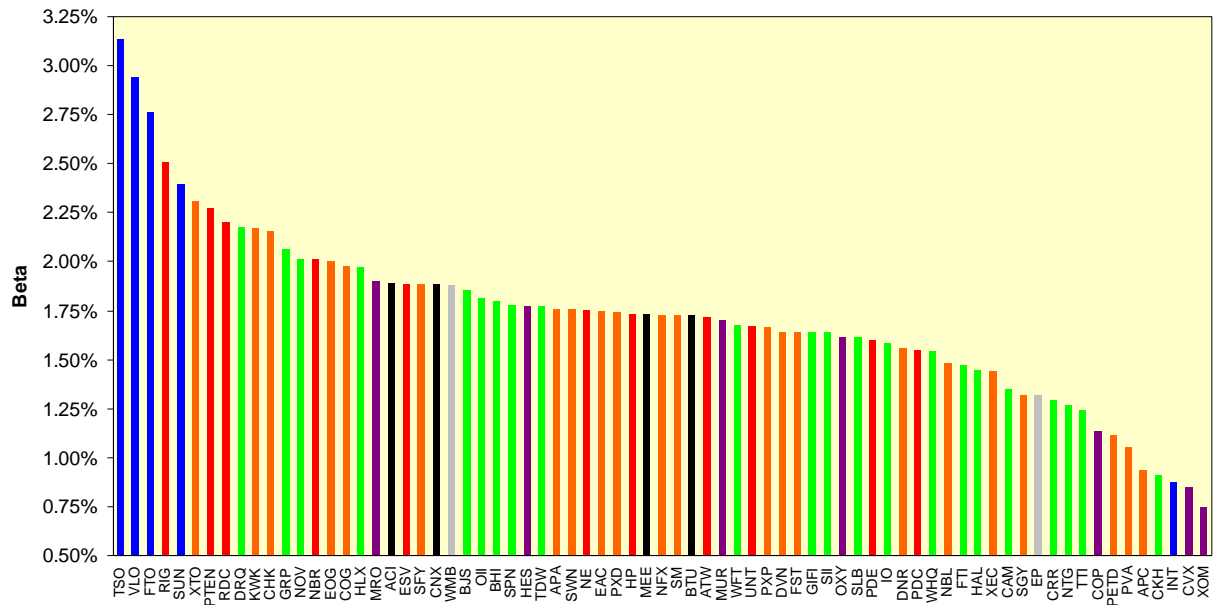
Betas of Energy Stocks Against Natural Gas



Now let's conclude the analysis with 2-1-1 crack spread. Here, unsurprisingly, the refiners' blue columns dominate the left-hand side of the chart. And, surprisingly, the drillers' red columns for Transocean, Patterson-UTI and Rowan are there as well. And who is bringing up the rear but Chevron and ExxonMobil?

Who's a big dummy now?

Betas of Energy Stocks Against 2-1-1 Crack Spread



One of the themes I emphasized frequently between 2004 and 2006 was if you have an opinion on a commodity, trade the commodity and not the commodity-linked equity. However, by [January 2006](#), it was apparent the weight of money flowing into commodity-linked equities was making them trade increasingly like the underlying commodity itself.

As there is no percentage being right when the market is wrong, I stepped off the railroad tracks to avoid the moving train and decided to forego the opportunity to step up to the plate and catch a falling knife. This is sound advice; take it.

But if you want to express your commodity opinions in the stock market, please study which stocks react the most – and the least – to underlying commodity movements. The word-association answer of “Chevron” or “ExxonMobil” will not give you the best trading results.