

Spice It Up

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When investors opened their first-quarter account statements this spring, they were starkly reminded of just how poorly the traditional equity sectors have been performing. Many have been searching for a non-correlated asset class that they can add to their portfolios to curb the downside damage and add some upside potential.

Commodities have been grabbing most of the headlines recently, and it's no wonder. Between 1998 and 2007, the two most prominent commodity indexes outperformed the S&P 500 by over 300 basis points (bps). But that performance typically comes at a perceived price—additional volatility.

So can adding commodities to a diversified investment portfolio boost performance without adding extra risk? The real question is whether adding a volatile asset, such as commodities, increases or diminishes the volatility of a portfolio. As we shall see in this analysis, the answer depends on the correlation of the volatile asset with the other assets in the portfolio.

Indexes and Correlation

The two most prominent commodity indexes are the S&P Goldman Sachs Commodity Index (GSCI) and the Dow Jones-AIG (DJ-AIG). These two indexes behave quite similarly; in fact, they have a 16-year correlation coefficient of 0.88 (based on monthly total returns).

However, the GSCI is more volatile than the DJ-AIG. The GSCI had more upside and more downside over the 16 years from 1992 to 2007 (see "Higher Highs and Lower Lows" on page 154).

Over that period, the GSCI had a 16-year annualized return of 7.7% with a standard deviation of 26.1%, a worst-year loss of 35.8% and a maximum one-year gain of 49.7%. The DJ-AIG was tame by comparison, returning 8.8% annually, but with a standard deviation of "only" 16.7%—36% lower than the GSCI. Its worst one-year loss was 27% and best one-year gain was 31.8%—both of which were lower than the GSCI.

Before beginning the portfolio analysis, let's look at the correlation between core portfolio assets (large U.S. stocks, small U.S. stocks, non-U.S. stocks, bonds and cash) and the two most prominent commodity indexes (see "How Low Can You Go?" on page 154). As shown, correlations tend to be low for both commodity indexes.

On average, the GSCI has had slightly lower correlations with core portfolio assets over the past 16 years. Low correlation between portfolio assets is a wonderful thing—and commodities win the prize for low correlation.

For instance, the correlation between large U.S. stocks (using the S&P 500 as a proxy) and small U.S. stocks (using the Russell 2000 as a proxy) over this same 16-year period was 0.7. The S&P 500 and non-U.S. stocks (using the MSCI EAFE as a proxy) had a 0.69 correlation. (A score of 1 indicates perfect positive correlation, while -1 equals perfect negative correlation). With such high correlations between core asset classes, the appeal of commodities is clear.

The Right Partner?

Very few people invest solely in a commodities-based fund. Instead, they typically add commodities to a portfolio of traditional assets. Thus, the only logical measure of a commodity fund is to assess how it behaves in a broadly diversified portfolio of investment assets. I assembled a portfolio of typical asset classes and then added each commodity index (separately) to assess the value of adding commodities to a portfolio.

The portfolio in this analysis consisted of large U.S. stocks, small U.S. stocks, non-U.S. stocks, U.S. bonds and cash. Each asset was equally weighted, and the portfolio was rebalanced (to equal weighting) at the start of each year.

Viewed in isolation, both the GSCI and DJ-AIG are volatile assets. As shown in "Portfolio Partners" on page 155, both commodity indexes in this analysis have high standard deviations and large one-year losses. However, a well-designed portfolio is more than the sum of its parts—particularly when the parts are not highly correlated.

Adding commodities (either the GSCI or the DJ-AIG) to the portfolio (now an equally weighted six-asset portfolio) enhanced performance and lowered volatility (as measured by standard deviation and worst case one-year loss). Adding the GSCI to the five-asset portfolio lifted the 16-year average annual return 42 bps from 8.35% to 8.77%—or over \$2,000 more in account value after 16 years. Adding the DJ-AIG raised the return from 8.35% to 8.68%. The standard deviation of return after adding either commodity index to the 5-asset portfolio was lowered in both cases, as was the worst-case one-year loss. The maximum one-year gain was virtually identical with commodities in the portfolio.

Worst-Case Scenarios

Near the bottom of the "Portfolio Partners" table is a row entitled "Worst Three-Year Cumulative Return." It could be titled, "This is why we need to diversify!"

Notice that a sole investment in U.S. large stocks suffered a cumulative three-year loss of roughly 38% (during 2000 to 2002). The worst three-year period for small stocks was a loss of 21%, while non-U.S. stocks took a 43% hit from 2000 to 2002. The worst three-year cumulative return for bonds was just over positive 11%, while cash had a positive 4.2% worst-case three-year cumulative return.

The GSCI by itself had a three-year period (1996-1998) with a cumulative loss of 26%. The DJ-AIG's worst three-year cumulative loss occurred during the same three years, but was considerably smaller at 13.2%.

In the five-asset portfolio (without a commodities component), the worst three-year cumulative loss was nearly 14%. Add the GSCI, and the worst three-year loss drops to 4.5%, while the return (as previously noted) jumps by 42 bps. If using the DJ-AIG, the worst three-year loss was 6.1% with an increase in return of 33 bps.

Adding Heat

It's not enough to diversify a portfolio using traditional assets. Low correlation assets, such as commodities, are needed to reap the full benefits of diversification.

Building client portfolios is like making salsa. The best salsa uses ingredients that you might not consider eating individually—too spicy. But, when those spicy ingredients are blended together in the ideal proportions, the result can be surprisingly mild and delicious. Commodities are a spicy ingredient individually, but when they are added to a portfolio the result is a portfolio with considerably improved downside protection. And frankly, downside loss is a portfolio ingredient that no one wants.

So, how do financial advisors actually add commodities to their clients' portfolios? Short of packing your freezer with pork bellies, there are three basic approaches. You can use a commodities-based mutual fund, an exchange-traded fund or an exchange-traded note.

Among mutual funds that track the GSCI, Oppenheimer Commodity Strategy (QRAAX) has the longest history (the fund was begun in 1997). More recent GSCI-based funds include Rydex Commodity Strategy (RYMEX), Blackrock Commodity (MDCDX) and Goldman Sachs Commodity (GSCAX). There is also an exchange-traded fund, iShares GSCI Commodity (GSC), and an exchange-traded note, iPath GSCI Total Return (GSP).

If you prefer a milder salsa and want to add the DJ-AIG to your portfolio, PIMCO Commodity Real Return (PCRAX) has been around since 2002. There is also Credit Suisse Commodity Real Return (CRSAX) or iPath DJ-AIG Commodity (DJP), which is an exchange-traded note.

Don't forget the chips.

Portfolio Partners Table

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