The Case for Commodity Long-Short Investing
Introduction

Over the past several years, many institutional investors have added an allocation in their portfolio variously labeled commodities, real assets, hard assets, natural resources, or inflation protection investments. Regardless of the name, the goals of the allocation are generally to:

- Gain exposure to an uncorrelated asset class
- Provide a hedge in high inflation environments
- Diversify away from stocks and bonds

The allocation often takes the form of an investment linked to a long-only commodity futures index such as the S&P Goldman Sachs Commodity Index or GSCI or the Dow Jones UBS Commodity Index. Our research supports our belief that there is a significantly better way to gain this exposure to commodities. By allocating to a collection of specialist Commodity Trading Advisors (CTAs) who invest both long and short, returns may be increased and volatility decreased without giving up uncorrelation and inflation protection.

The Typical Approach

Many institutional investors seeking to add commodities to their portfolio follow the same steps: set a policy target, allocate to an index fund that tracks a long only commodity futures index, and then hope that commodity prices go up. There are a number of problems with this approach.

Commodity prices tend to be cyclical and can trade within a range for very long periods of time. As shown in Graph 1, Commodity prices were range-bound for the 16 year period from 1956 to 1972 and for the 31 year period from 1973 to 2004.

This is a sharp contrast to stocks or bonds that exhibit a distinct upward drift over time. The reason for the cyclical nature of commodity prices is simple economics. For example, when demand pushes corn prices higher, farmers plant more corn. Then, as the supply of corn increases, the price falls. If the price of corn falls far enough farmers will switch to another crop, thus reducing supply. This same cyclical nature is seen in oil drilling and exploration, in the mining of copper, and in virtually all other commodities.

Graph 1: Long Term Spot Commodity Prices

These economic factors that give commodities their cyclical nature are very different from the factors that drive the stock and bond markets. The different drivers result in a very low correlation between commodities and stocks and bonds. Some businesses, such as mining companies, do have significant exposure to commodity prices that is reflected in their equity price. But our research has shown that the level of the stock market itself is a much more important driver to the equities of mining companies than commodity prices. Including “commodity equities” in this sort of allocation hinders the goals of diversification and inflation protection.

Another difference from stocks and bonds is that commodities futures markets are not dominated by the longs. In futures markets for every long position there is an offsetting short. Futures have no cost of borrow, as in stocks, and there has never been a short sale ban. Unlike many bonds and even some stocks, futures markets have proven to be highly liquid even in times of crisis. Exchanged cleared futures contracts have essentially no counterparty risk. It is a market made for long-short investing.
Long-Short Investing

A historical comparison of the long only GSCI to the Morningstar Long/Short Commodity Index shows the dramatic performance improvement that was made possible by adding a short component over the observed time period.

Graph 2: Long Only vs. Long-Short Index Performance

The blue line in Graph 2 shows the performance of the Morningstar Long/Short Commodity Index. From its inception in 1980 through December 2011, it has risen over 48 times versus seven times for the long-only GSCI. Volatility is also dramatically lower for the Morningstar Long/Short Commodity Index over that same time period.

The Commodity Investment Universe

The Morningstar Long/Short Commodity Index uses a fairly simple, systematic trend following strategy to establish long and short positions in 20 different commodities contracts. But there are over 60 commodities markets worldwide with over 300 contracts traded. The opportunity set in commodities extends well beyond the components of the index. In active management, there is an investible universe of about 150 institutional quality, commodity focused futures funds that ply this universe. Some of these funds tend to specialize by commodity sector, developing an expertise in a specific market such as metals, grains, or energy. Others specialize by investment style, constructing systematic models that identify opportunities or building a fundamental supply and demand framework for their analysis. By investing in a larger universe and using a variety of approaches these managers have many more investment opportunities than the simple indices, either long only or long-short.

GSCI Exposures and Contracts

Sources: S&P; Morningstar; William Blair

Balancing Exposures

The S&P Goldman Sachs Commodity Index is composed of 24 commodities futures contracts across four sectors: energy, metals, agriculture and livestock. The GSCI is weighted by the total value of world wide production and it is dominated by energy. An investment in the GSCI basically amounts to a bet on oil. In our opinion, a much more desirable approach is to invest with a more balanced sector exposure and across a wider variety of the 300 available commodities contracts. This has the potential to provide better diversification and more opportunities for commodity specialists to find and profit from market opportunities.

A carefully constructed portfolio of commodity focused CTAs can accomplish both of these objectives. In addition to balancing sector exposures, there are three distinct styles of commodity investing.

Systematic strategies use quantitative systems to exploit the trending behavior of futures markets over various time frames. They may also include some counter trend and mean reversion aspects. The Morningstar Long/Short Commodity Index employs a simple systematic strategy.
**Fundamental strategies** tend to take a top down view on commodities markets. They conduct deep research into the supply and demand factors that drive futures markets and develop investment themes as those drivers change. For example when the US government began subsidizing ethanol many new ethanol refineries were built. As these refineries came on line they began to have a significant impact on various commodities. Their demand for corn changed the dynamics of the grain markets and their output of ethanol flowed through to the gasoline market.

**Sector Specialists** are focused experts who develop bottom up views. They employ specialized knowledge, in-depth analysis and fundamental information sources in an attempt to gain an informational advantage in niche markets. A manager who specializes only in the metals markets, for example, can focus his resources on tracking output from mines around the world, on quantities of metals in transit on rail and sea, and on the operations at refiners and manufacturers around the world. They can often tap proprietary data sources to assist in their analysis and generate an information edge.

All three types of managers add value to the portfolio in a variety of markets. The systematic managers have demonstrated their ability to provide good up-capture when commodity prices are rising sharply, such as in times of inflation. They also may provide positive returns when commodity prices are trending lower by going short.

Fundamental and Sector Specialist managers historically have added some significant benefits. First, their returns have tended to come in the form of alpha, driven by uncorrelated ideas often expressed through spread trades. Second, these managers may better anticipate and profit from trend reversals because of their in-depth fundamental analysis, an environment that is difficult for systematic trend followers. Third, the fundamental and sector specialists have been shown to reduce the volatility of the portfolio when combined with the systematic managers.

**Performance Results**

The HFRX Commodity Index includes systematic, fundamental and sector specialist managers. Over the past several years, it has demonstrated the ability to produce periods of returns that are vastly superior to the long only GSCI and also superior to the simple systematic strategy of the Morningstar Long/Short Commodity Index.

The red and the blue lines in Graph 3 show the performance of the long-only GSCI and the systematic-only Morningstar Long/Short Commodity Index that were discussed earlier and are also shown in Graph 2. The time frame here is shorter but comparison of these two indices still shows the benefits of lower volatility and higher returns obtained by going both long and short in commodities over the period.

The green line in Graph 3 highlights the benefits that were achieved by adding fundamental and sector specialist managers to the systematic strategy represented by the blue Morningstar index. The improvement is particularly noticeable at the sharp turn in the commodities markets in the middle of 2008. The long only and systematic only indices both take a sharp dive when commodity prices reverse suddenly in June. The Morningstar index does not fall as far as the S&P GSCI but it still suffers several months of steep declines. The more diversified collection of strategies in the HFRX Index weathers the storm with much less volatility.

**Tracking Error Only When You Want It**

When commodity prices are rising investors would like as low a tracking error as possible. Conversely, when commodity prices fall an investor would prefer a high tracking error.
The red bars in Graph 4 represent the monthly returns of the S&P GSCI. The green line represents the tracking error of the HFRX Commodity Index to the GSCI. When commodity prices were rising strongly from the middle of 2007 to the middle of 2008, the tracking error fell to just over 10%. But when commodity prices fell starting in the second half of 2008 the tracking error jumped to over 40%. This would suggest that the collection of active managers in the HFRX index successfully switched from a long biased exposure to a mutual or even short position as the market turned.

**A Better Way**

We believe a portfolio of commodity long-short specialists can provide pure commodity exposure with more attractive risk and return characteristics than a long-only index or a purely systematic index. Such a portfolio is designed to preserve the negative correlation to stocks and bonds and profit both when commodity prices rise and when they fall. It can be diversified across sectors and styles and still provide a hedge to inflation. We believe a portfolio of commodity long-short specialists is a superior way to implement an investment allocation to commodities, hard assets, natural resources or inflation hedging strategies.
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Investing in alternative investments is speculative, not suitable for all investors, and intended for experienced and sophisticated investors who are willing to bear the high economic risks of the investment. Performance of these products may be volatile, and while they may provide the potential for positive returns in both rising and declining markets, the potential for loss is equal. Common risks associated with alternative investments include:

- Speculative and involve a substantial degree of risk.
- Not required to provide periodic pricing or valuation information to investors.
- Invest in complex tax structures and may be subject to delays in distribution of tax information.
- Not subject to the same regulatory requirements as mutual funds.
- Subject to conflicts of interests.
- Highly illiquid. There is no secondary market for the investors' interest and none is expected to develop.
- Performance can be volatile.
- An alternative investment product's high fees and expenses may offset its profits.

**Comparative Indices**

The Comparative Indices shown, which have been selected by William Blair & Company, are provided solely as an indication of the performance of various capital markets and/or alternative investment strategies in general. These indices are not available for investment. Investors should not consider any Comparative Index to be a performance benchmark for any investment funds or strategies managed by William Blair & Company, nor should investors conclude that any investment fund or strategy will or will not be correlated with a Comparative Index. William Blair’s investment funds or strategies may invest in financial instruments and strategies not included or represented by the Comparative Indices, and the performance and tax consequences of an investment in the securities, bonds or hedge funds represented by an index and an investment in any William Blair investment fund or strategy may be, and in many cases are likely to be, materially different.

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No investor should rely upon the Comparative Indices in making an investment decision. Past performance does not guarantee future results.

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**CRB BLS Spot Index:** The Spot Market Price Index is a measure of price movements of 22 sensitive basic commodities whose markets are presumed to be among the first to be influenced by changes in economic conditions. As such, it serves as one early indication of impending changes in business activity.

**Morningstar Long/Short Commodity (Commodity L/S) Index:** The Long/Short Commodity Index is a fully collateralized commodity futures index that uses the momentum rule to determine whether each commodity is held long, short, or flat.

**S&P GSCI Index:** The S&P GSCI is a composite index of commodity sector returns representing an unleveraged, long-only investment in commodity futures that is broadly diversified across the spectrum of commodities.

**Definitions**

Correlation measures the extent that monthly returns of the Fund rise and fall with returns of the indices. Perfect lock-step co-movement would represent a correlation of 1.0, perfectly opposite co-movement would represent a correlation of –1.0, and no relationship at all between return series would represent a correlation of 0.0.

Tracking error is a measure of how closely a portfolio follows the index to which it is benchmarked.
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