ABOUT MIG RESEARCH SERIES

MIG Research Series consists of a series of short pieces that depict the highlights of MIG's research material. Each piece is associated with a research white paper, which we encourage our readers to review in order to get a deeper understanding of the topics that will be discussed below. For a copy of our full version, please email marketing@meketagroup.com with the Subject: Evaluating Commodity Exposure WP.

The content of this piece is associated with MIG's latest white paper: "Evaluating Commodity Exposure Opportunities". In it, we review the existing theories and fundamental drivers of returns from commodities investments and evaluate existing methods of getting exposure to the asset class, with a focus on strategies that can target risk premia that are likely to persist in the future.

EVALUATING COMMODITY EXPOSURE OPPORTUNITIES

Introduction

Commodities are raw materials and primary agricultural products that are normally grouped into four broad categories: energy, metals, agriculture, and livestock. Historically, investing in these assets has shown low correlation with more traditional assets like stocks and bonds, which provides diversification potential at the portfolio level. Another important historical benefit is that commodities have offered an effective hedge against inflation.

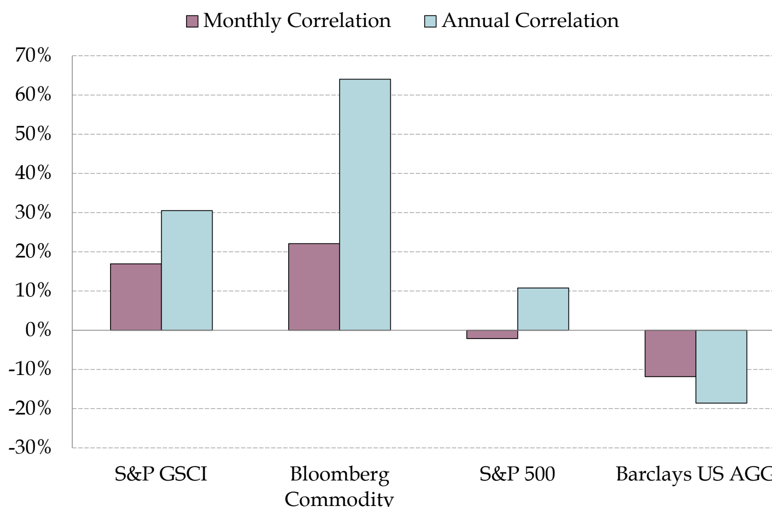
The bulk of the commodities markets operate with the use of futures contracts, which eliminates the complexity of handling the physical commodities' exchange, storage, transportation, insurance, etc.

Traditional Benefits of Commodities Investing

Inflation Hedging: Commodities have offered stronger positive correlations to inflation than stocks and bonds, especially over longer time periods.

Correlations to CPI Inflation

January 1976 – June 2014



Diversification: Commodities tend to have very low correlations with other asset classes like stocks and bonds, contributing to diversification at a portfolio level.

Correlations of Commodities Indices with Stocks and Bonds

Monthly Returns: July 1994 – June 2014

	S&P GSCI	Bloomberg Commodity	Thomson Reuters CRB	S&P 500	Barclays U.S. Agg
S&P GSCI	1.00				
Bloomberg Commodity	0.90	1.00			
Thomson Reuters CRB	0.94	0.96	1.00		
S&P 500	0.26	0.32	0.32	1.00	
Barclays U.S. Agg	0.01	0.05	0.01	0.01	1.00

Main Sources of Commodities Futures Returns

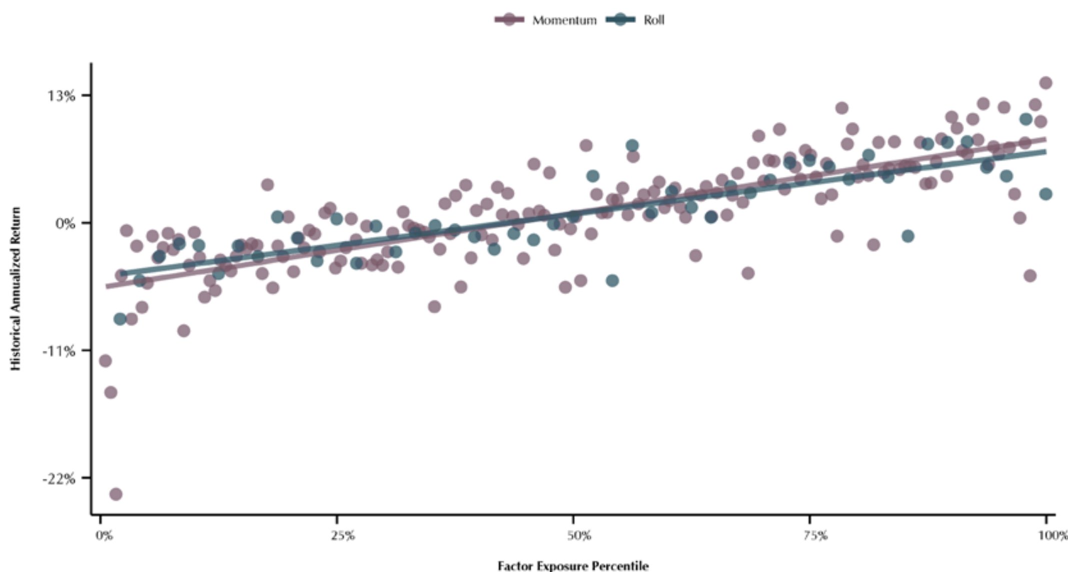
Commodity futures returns come from three main sources: roll, spot and collateral. We learned from various theories and empirical studies[1] that individual commodities have had historical long term excess returns of zero or near zero (when subtracting out the collateral return). However, discarding directional bets on spot prices for commodities will not impede a portfolio of commodities futures from achieving positive returns.

There are other sources of returns that investors can target and that we believe will persist in the future. The first is the **Roll Return**; according to the theory of storage framework, we can expect to capture a positive roll return by targeting commodities for which future inventory imbalances are expected, and where a long (short) position is justified in commodities with low (high) future inventories. A second consistent source of return is **Momentum**, which results from the fact that physical goods take time to be produced, so demand and supply imbalances may persist for long periods of time. This generates price trends, or momentum.

Below we can clearly observe that the greater the exposure a given strategy[2] had to either our Momentum or Roll factors (smoothed by percentiles), the greater that strategies' historical annualized return.

Annualized Return of Commodities Strategies to Factor Exposure

Monthly Returns: July 1994 – June 2014



[1] Gorton and Rouwenhorst, 2006; "Facts and Fantasies about Commodity Futures"; Financial Analysts Journal, Vol. 62, No. 2, pp. 47-68. Bodie and Rosansky, 1980; "Risk and Return in Commodity Futures"; Financial Analysts Journal, Vol. 36, No. 3, pp. 27-39.

[2] This universe represents 204 open-ended commodities strategies with at least 3 years of track record available in the Morningstar Direct database as of 09/12/2014. It was used in the white paper to analyze the exposure of strategies to Momentum and Roll as sources of return

Implementation

Types of Strategies

Method	Descriptions
Passive Index	Long-only strategy with fixed roll rules and stable commodity weighting schemes such as: production weighting (S&P GSCI), combination of production and liquidity weightings (Bloomberg Commodity Index) and equal weighting within sectors (Thomson Reuters CRB), among others.
Long-Neutral	A Long-Neutral method is a natural extension of the passive Long-Only strategy. Although it is long commodities most of the time based on some indicator, this strategy will temporarily exit some sections of the commodities market. This methodology can vary widely based on the philosophy of the provider, but some examples may be momentum or risk of stock out.
Long-Short	A Long-Short method takes Long-Neutral one step further and instead of simply exiting the section of the market their indicator suggests, this strategy will go short this section of the commodities futures market.
Risk Parity	Risk Parity is unique in this list because it is the only method not specifically designed to capture one of the risk premiums we discussed above. Taking a risk perspective, the goal of risk parity is to de-emphasize a naturally risky (in terms of standard deviation) commodity and emphasize a less risky commodity so that risk between the two is equalized. In other words, the portfolio will take larger positions in low risk commodities and smaller positions in high risk commodities. Some of these strategies will incorporate a degree of leverage.
Momentum	Momentum is effectively following a short-term trend. As mentioned in an earlier section, this can be justified in commodities since it may take time to replenish stocks, produce the commodity, etc.
Theoretically Substantiated Indicator	As we discussed in depth in the paper, there is no consensus about the theoretical drivers of commodities futures returns (i.e., hedging pressure vs. risk of stock out). Therefore, these indicators can vary widely based on the provider's philosophy. However, a manager may adhere to this philosophy and the related theoretically substantiated indicator to inform their weights.

Fees & Liquidity

The average management fee for passive commingled strategies ranges from 0.30% to 0.50% (composed of a 0.20% management fee and 0.10% to 0.30% in operating costs). The average management fee for actively managed funds is roughly 0.80%, though the range of fees is broad.

Liquidity for commodity managers ranges widely from daily-liquid Exchange Traded Funds to quarterly-open limited partnerships. As a general rule, the more active a manager is, the higher likelihood of reduced liquidity.

Recommendations

Based on our research analysis, we conclude that different strategies may be suitable for investors depending on what goals they are trying to accomplish when introducing commodities exposure to their portfolio. We summarize the results of our analysis[3] in the following table:

Investment Goal	Recommended Strategy	Analysis
Performance	1. Momentum-based 2. Roll-Based	Momentum strategies offered best risk-adjusted returns in the period analyzed, followed by Roll return strategies
Inflation Hedging	All Long-Only, preferably based on Roll or Momentum	Portfolios that are more tactical (i.e. Long-short) are not consistently exposed to commodity prices over time
Diversification	1. Long-Short Momentum 2.Long-Short Roll	Roll and Momentum based strategies offered the greatest diversification benefits of the studied group, and within them, long-short strategies were the best diversifiers

Commodity futures strategies have exhibited attractive stand-alone returns from identifiable sources which are likely to be persistent, such as Momentum and Roll. In addition, we found that commodities provided diversification benefits when added to portfolios of stocks and bonds, and also provided inflation hedging characteristics. For these reasons, we believe that commodities are an attractive asset class to consider incorporating into a total portfolio.

[3] Please refer to the full white paper for further recommendations on regards to risk related characteristics such as Volatility, Variance Concentration and Tracking Error