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Index Structure

The ABSR Rotation Rebalanced Commodity Index (RRCI) represents the next generation in liquid “investible” broad based commodity exposure. The RRCI goes beyond second generation advancements and is the first passive index to apply tactical seasonal bias asset allocation rules to individual commodity contracts. From a structural perspective, the RRCI is a passive management, broad based, balanced index. In addition, the RRCI employs rules based Alternative Beta “altBeta” allocation and selection methods to specific commodity return drivers. Through a combination of research and commodities management experience the Rotation Rebalanced Commodity Index and its component Sub Indices are designed to produce superior risk adjusted performance in the passive long only commodity asset class.

Commodity Returns & Risk

The argument for the addition of commodity exposure in a diversified portfolio is beyond the scope of this report, other than to say that the two most significant benefits of inclusion are low correlation to traditional assets and as a hedge against inflation. These and other benefits are largely attributable to the unique characteristics of commodities and commodity futures. However, not all broad-based commodity exposures are created equal. In fact, the risk and return profiles of a basket of commodity futures can vary significantly depending on how the portfolio addresses individual return drivers. These drivers include: beta, roll yield, allocation, diversification, rebalancing, and collateral return. This report highlights the RRCI methodology with a focus on the main commodity return drivers.

altBeta™

The ABSR RRCI index employs rules based tactical asset allocation parameters to certain return drivers unique to commodities and commodity futures contracts. This advanced approach is designed to provide returns beyond straight beta, but without the introduction of discretionary active management risk. The rules employed are significant to enhancing the risk return profile but are grounded in a passive management framework.

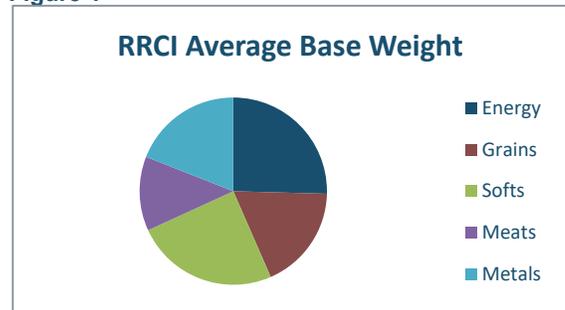
Broad Exposure

The RRCI index is composed of sixteen component commodity contracts within five commodity sectors; Energy, Grains, Softs, Meats, and Metals. The selection of sixteen component commodities from the available universe was primarily based on representation within each sector and diversification across commodities. All contracts are traded on U.S. futures exchanges and priced in USD. These contracts are among the most liquid global futures contracts and represent a substantial proportion of economic significance regarding global production, and consumption.

Balanced

First generation commodity indices are primarily weighted by production, consumption, liquidity, or some combination thereof. This approach has its own merits and was likely rooted in capital asset pricing model (CAPM) theory, which defined a diversified portfolio as one that would contain all assets weighted by their proportion of total market value. With regard to commodities, however, this weighting method requires a substantial allocation percentage to the energy sector. To avoid this energy overweight, much of the research available on commodity returns are based on equally weighted indices. Furthermore, this research suggests that it is equally weighted, collateralized (total return), indices of commodity futures that have shown positive return, low to negative correlation to stocks and bonds, and positive correlation to inflation over extended time frames. The energy overweight and the research however are not the main reason for a more balanced approach. The primary reason for a near equally weighted index, is the same reason commodity trading advisors seek equal risk weight in positions. Commodities, unlike equities, are remarkably uncorrelated to one other. Returns of a basket of commodities, either positive or negative, during any given period are equally likely to be attributed to any commodity. An unbalanced weighting method introduces a strategic allocation component that can unintentionally distort broad commodity performance.

Figure 1

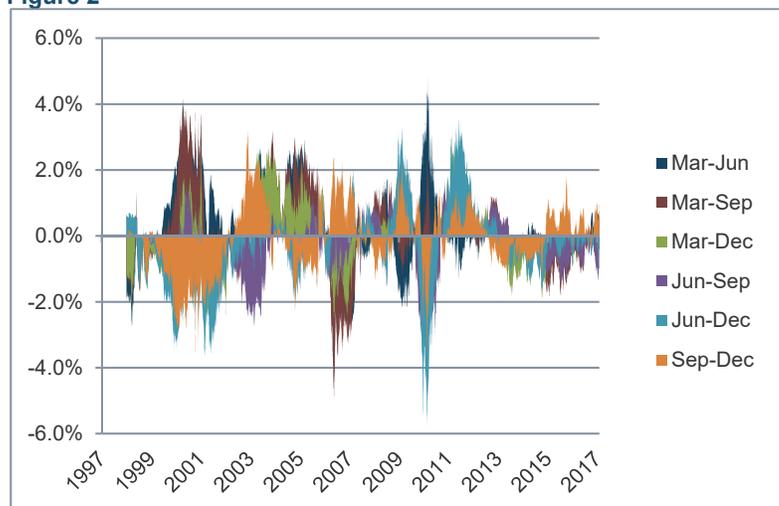


Quarterly Rebalance

Diversification return is a factor in all asset classes but is particularly well suited for commodities. Individual commodities have historically not shown statistically significant positive returns. However, because commodities have low to no correlation to each other, show persistent volatility, and are mean reverting in nature, a portfolio of commodities can and does in fact exhibit statistically significant positive returns. This diversification return is primarily a product of the rebalancing process. The RRCI is rebalanced on the 6th business day of each quarter (March, June, September and December) to predefined base component weights. The frequency and timing of rebalancing a basket of commodities, can materially impact performance. Commodity prices like other assets will exhibit periods of trending behavior both up and down but over longer periods of time are known to be mean reverting. The mean reversion seen in individual commodity prices are particularly prevalent in spot “cash” prices as opposed to futures “forward” prices. Research has shown that more frequent rebalancing improves spot returns but can reduce futures returns. Rebalance yield is the yield either positive or negative resulting from increasing allocation to assets that have declined in value and decreasing allocation to assets that have gained in value. Despite the research suggesting annual rebalancing outperforms monthly rebalancing for futures, there are benefits to rebalancing futures more frequently than annually.

Although more research needs to be done, early data suggests the choice of calendar period for annual rebalancing can have a material impact on short term returns. Figure 2 shows the 1 year rolling return differentials of six combinations of annual rebalance date selections for the RRCI. Example: Mar-Jun in figure 3 is the observed return spread between a March annual rebalance date and a June annual rebalance date. As evidenced by the data, the return spread between the best and worst date choice regularly moves +/- 2% and can exceed +/- 4% annually. While quarterly rebalancing versus annual rebalancing of the RRCI has shown to reduce compound annual returns by roughly 0.33%, we believe the benefit of reducing return volatility of annual date selection outweighs the small reduction in average annual return.

Figure 2



Dynamic Roll Methodology

Studies have suggested that spot returns, unadjusted for inflation, of an equally weighted basket of commodities have historically produced flat returns. Futures returns (total returns) however, have shown to produce near equity like returns. This would imply that roll yield and the manner with which a long only investor of commodity futures manages the roll process has a material impact on performance. Perhaps the largest drawback to holding a long only basket of commodity futures contracts is the negative roll yield incurred when markets are in contango. This negative roll yield also appears to be more pronounced near the front of the forward curve as convergence to cash or spot accelerates. The opposite can be said for markets that are in normal backwardation. In this case roll yield can be positive and again tends to be greatest for contracts nearer the spot market.

Historically, commodity forward prices ebb and flow from backwardation to contango, however, our research indicates that there has been a trend toward markets spending more time in contango. The ABSR dynamic roll methodology attempts to mitigate the cost of contango and maximize the roll yield from backwardation by positioning contracts up and down the forward curve where the spread between the calculated implied forward value and the futures price is the greatest. In other words, hold long positions where the least carry cost or maximum positive roll yield lies on the forward curve as of the roll date. Furthermore, the dynamic roll methodology will analyze the state of the forward curve at every expiration cycle and adjust the long position either down the curve (closer to spot) or up the curve (further from spot) as the forward curve will adjust to new economic or fundamental data. This dynamic roll method is the most significant driver of return over the more traditional method of holding the front or nearest to delivery contract. Since inception, the dynamic roll methodology has contributed over 3.00% to the compound annual return of the RRCI as compared to a static front roll process. This return contribution has also proven to be persistent over time.

Seasonal Rotation Rebalancing

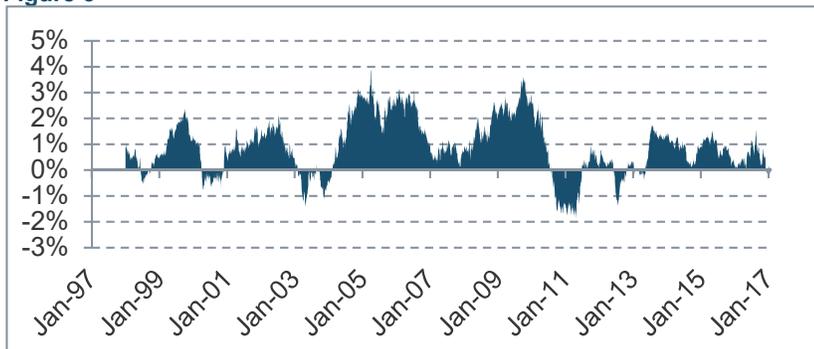
Earlier, when discussing the balanced weighting structure of the RRCI, we suggested that it was “predominately” balanced. Another advanced beta approach to the RRCI index is the index adjusts for seasonal biases that have been observed historically within the individual commodity contracts. These seasonal biases are generally rooted in fundamental factors such as heating and cooling seasons, supply and demand behavior, storability, and or agricultural crop cycles. Some of these seasonal tendencies are stronger and more frequent than others. In the energy sector, crude oil and RBOB gasoline have shown strong tendencies to rise in price ahead of the summer driving season and decline in price near the end of the year. Contracts such as

Figure 4

Commodity	Mar-May	Jun-Aug	Sep-Nov	Dec-Feb	Average
WTI Crude Oil	7.1250	7.1875	5.1875	6.1875	6.42
RBOB Gasoline	7.1250	7.1875	5.1875	6.1875	6.42
H.H. Natural Gas	7.1250	5.1875	7.1875	5.1875	6.17
NY Harbor Heating Oil	7.1250	7.1875	5.1875	6.1875	6.42
Corn	6.1250	5.1875	6.1875	6.1875	5.92
Soybean	7.1250	6.1875	6.1875	6.1875	6.42
KC HRW Wheat	5.1250	5.1875	7.1875	5.1875	5.67
Cocoa	5.1250	7.1875	6.1875	6.1875	6.17
Coffee “C”	7.1250	5.1875	6.1875	6.1875	6.17
Cotton #2	6.1250	6.1875	5.1875	7.1875	6.17
Sugar #11	5.1250	6.1875	7.1875	6.1875	6.17
Live Cattle	6.1250	6.1875	6.1875	6.1875	6.17
Lean Hogs	6.1250	7.1875	7.1875	6.1875	6.67
Gold	5.1250	6.1875	7.1875	6.1875	6.17
Silver	5.1250	6.1875	6.1875	7.1875	6.17
High Grade Copper	7.1250	6.1875	6.1875	7.1875	6.67

Wheat, Cotton and Live Cattle show much smaller degrees of seasonal bias. Based on our research of these seasonal biases we draw two conclusions. First, in total, the mean returns and frequency of returns are not likely sufficient alone to trade these biases on a long/short basis. Secondly, however, as a long only holder of a basket of commodities, additional returns can be achieved by making tactical allocation adjustments to the weightings around these biases. To

Figure 5



remain inside our passive and balanced framework, seasonal rotation allocations (figure 4) are held to roughly +/- 1% around a base weight of 6.25%. This seasonal rotation rebalancing has added additional compound average return of nearly 1.00%. Additionally, looking at a 1 year rolling return time window (figure 5), of the additional annual return yield as compared to a non-rotational adjusted weighting, the additional return yield would appear to be persistent over time.

Summary

The ABSR Rotation Rebalanced Commodity Index represents the next generation of liquid, passive, broad based and balanced commodity indices. The RRCI is designed with a focus toward the unique characteristics and return drivers that are inherent in commodities and commodity futures. The various methods employed within the identified return drivers were designed to provide long-term, persistent, risk adjusted value. The ABSR is especially unique as it identifies and employs a rule based dynamic asset allocation derived by seasonal biases historically observed in commodities markets. As a benchmark, the RRCI is a transparent, independent, unbiased, representative of passive alternative beta commodity returns. As a liquid investable index, the RRCI represents best in class methodologies designed to produce superior long-term risk adjusted returns while delivering the known benefits commodities add to a diversified portfolio.

PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS

Historical Return Statistics*: Rotation Rebalanced Commodity Index Total Return

MONTHLY DATA AS OF: 11/30/18	1YEAR	3 YEAR	5 YEAR	10 YEAR	INCEPTION
TOTAL RETURN	-3.22%	2.34%	-22.29%	3.57%	223.73%
COMPOUND ANNUALIZED RETURN	-3.22%	0.77%	-4.92%	0.35%	5.51%
ANNUALIZED ARITHMETIC MEAN	-3.04%	1.05%	-4.55%	1.12%	6.22%
ANNUALIZED STANDARD DEVIATION	6.59%	7.48%	9.80%	12.44%	12.98%
ANN SEMISTANDARD DEVIATION	5.18%	4.17%	6.71%	7.95%	9.11%
SKEWNESS	-0.50	0.71	0.10	0.10	-0.46
KURTOSIS	-1.29	0.98	1.12	1.44	2.92
MAX MONTHLY ROR	2.21%	6.60%	7.82%	11.88%	11.88%
MIN MONTHLY ROR	-3.57%	-3.57%	-8.49%	-12.40%	-18.89%
MAX MONTHLY DRAWDOWN	-9.06%	-9.06%	-35.46%	-44.63%	-44.63%
SHARPE RATIO	-0.75	0.00	-0.53	0.06	0.32
SORTINO RATIO	-0.95	0.01	-0.77	0.10	0.46

¹Data prior to Jan 3, 2017 the “live date” is calculated via Pre Inception Performance (PIP) data. The “historical inception date” is Jan 2, 1997. There are inherent limitations to PIP data which are described in more detail below in the important disclaimer information. No guarantees can be made that the results shown above would have been achievable.

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