



Investment Commentary

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Building the Optimum Commodities Strategy (and How Jim Rogers Got It Right)

In a previous Investment Commentary, we mentioned the difficulty in distinguishing differences between commodity investment indices (or strategies based on them), and noted that many investors have not observed certain important distinctions. Much of the confusion, we believe, stems from the term “index” itself, which throughout the investment management universe seems pretty generic and not worthy of much additional investigation. Generally, an index refers to a market-mirroring subset of securities that are employed as either performance benchmarks or replicated in investment strategies meant to deliver market *beta*. The most common examples are equity and fixed income indices, which by their nature really only vary around inclusion parameters (market cap, geography, industry, maturity, credit rating, etc.). Plots of risk-adjusted returns among the major fixed income and equity indices show very tight groupings, which is to be expected when the indices are composed of constituents with very high populations and fairly high correlations, and no meaningful variation in implementation rules. The assumption had been that commodity indices would be similar in nature, with few differences between them, but investors are discovering that this is decidedly not the case. There are a number of index construction characteristics that are unique to commodities that make index selection and/or portfolio construction techniques of critical importance. Consequently, we spend an inordinate amount of time studying commodity portfolio construction. This is some of what we’ve learned.

The opportunity universe in commodities is very small, with roughly 40 exchange-traded commodities futures liquid enough to support institutional levels of investment. Since the most commonly employed benchmark, the Bloomberg Commodities Index (“BCOM”, formerly Dow Jones UBS Commodities Index), contains 22 of them, we would argue that commodity managers are effectively indexed, whether we like it or not. There are just too few out-of-index opportunities, with adequate liquidity, for there to be a great recipe for *alpha* creation. While this implies that commodities can be most efficiently managed on an indexed basis, the evidence in the marketplace demonstrates it’s not that simple. When we look at that same scatter diagram of risk adjusted returns among commodity indices, it’s all over the map. In fact, in 3 recent calendar years alone, the 2 largest commodity benchmarks (BCOM and S&P GSCI) had performance separation of *1,000 basis points* or more, this from passive, and seemingly fairly equivalent, strategies! So what’s going on here?

The explanation for this is that commodity index *methodologies* vary significantly, and they can lead to very different results. The good news is that there are 6 definable construction variables, and they can be isolated in a factor-based approach to index or portfolio methodology choices:



Commodity Selection (which commodities are included in the portfolio)

Commodity Weighting (their relative importance to each other)

Roll Calendar (when the futures contracts are traded, and how often)

Contract Tenor (the choice of expiration of contracts on the forward curve)

Rebalancing Frequency (how often commodities are re-weighted back to the original weighting scheme)

Collateral Choice (since futures only require margin, the investment of the significant remaining cash)

Since each of the above variables can be isolated, their attribution to total return can also be analyzed, with the goal of determining an *optimum solution for most market conditions*. If a known best implementation can be codified into a rules-based investment process, the result is a significantly enhanced version of the basic indices that is, nevertheless, “passive” and can be delivered at low cost, and with the *absence of active risk*. This would clearly be a bonus for investors...if it could be done.

Jim Rogers, the iconoclastic global investor and co-founder of the Quantum Fund, was perhaps the first commodity investor to figure this out, and certainly the first to incorporate multiple enhancements in a published index. In 1998 he was about to embark on a trip around the world that would last 3 years. At the time, he had been analyzing commodities and reached the conclusion that they were historically undervalued. Since reliable global communications systems were far less ubiquitous than they are today, he began a search for a maintenance-free (i.e., indexed) approach that coincided with his thinking, with the idea of investing in it while he was away. The problem was, after thoroughly investigating all of the indices then in existence (which includes today’s benchmarks), he couldn’t find one that met his criteria. He believed the existing index solutions were sub-optimal because they weren’t diversified enough, weren’t a reflection of global consumption, didn’t rebalance often enough, and most of all, that the weighting schemes were irrational. He also thought they shouldn’t be trading the crowded, nearby (i.e., deliverable month) contracts, were hostage to a common roll schedule, and made unrealistic assumptions regarding investment of collateral. So he and his team began the difficult development work on what would become his core portfolio, and later, the Rogers International Commodity Index® (RICI®), which he launched in August 1998.

His solutions to the portfolio methodology variables were both intuitive and elegant in their simplicity:

Commodity Selection

Why not include as many as you can, as long as they’re liquid enough to trade? The low number of commodity constituents in the benchmarks is likely both a reflection on the prevailing liquidity at the time they were introduced and also driven by their large following (given their first mover status), and the resulting imperative of sizable open interest in the contracts they can trade. In other words, their selection parameters may be limited by their early adoption and success as benchmarks, but as a result, they may now suffer from under-diversification. The RICI® can trade commodities like rubber, milk, rice, palladium, etc. because *it’s not a benchmark, it’s a strategy*. The liquidity of its contracts (defined by open interest, volume, and bid/offer



spread), incidentally, is continuously tested by an independent committee. Jim's rationale for selecting as many commodities as possible, including those traded on foreign exchanges, was a belief in the global nature of commodity demand and a desire to reflect that demand as accurately as possible. But, he also knew that the inclusion of many more commodities in the index would be compelling for rebalancing reasons (see Rebalancing Frequency below).

Commodity Weighting

Commodities don't come with a published market cap. So how do we gauge their relative importance to each other? One simplistic answer is to determine how much of a given commodity is either produced or traded every year; production, volume, or even equal-weighting are prevailing commodity weighting schemes for many indices. Unfortunately, weighting according to production can put the commodity investor on the wrong side of a subsequent price response to oversupply. Jim's reasoning was that you don't want to be overweight the commodities which are most *produced* when you can be weighted according to what is most *consumed*. Consumption is also the more inelastic side of supply and demand, since consumption patterns tend to change very slowly over time. This has led to a commodity index with the highest continuity and fewest changes over time. Commodity weighting is the most significant contributor to total return in a commodity index. Within the 3 basic commodity sectors of energy, metals and agriculture, energy is the most significant and frequently the most volatile. Striking the sweet spot is difficult, but the demand weighting rationale keeps the RIC[®] on a more consistent track, year-in and year-out, enabling it to beat *both* the relatively low energy weighted Bloomberg Commodity Index and the high energy weighted S&P GSCI, since inception.

Roll Calendar

Since these are futures portfolios, to maintain exposure the commodity contracts must be rolled into new contracts before they expire. While trade timing is not normally an isolated factor in non-commodity indices, execution efficiency in commodities can vary widely at different times in a given month. The benchmarks tend to roll their contracts on an announced schedule, typically from around the 5th business day through the 9th. This can result in a large volume of contracts being traded in many of the same commodities at the same time, in the same direction, and all seeking market-on-close (MOC) pricing. This implies that the bid/offer spread on those commodities may widen during this period, and that trading at a different time of the month might deliver an execution advantage. Jim's answer to this was, simply, not to trade when the benchmarks are rolling. Instead, the RIC[®] has an established trading calendar of the last 2 business days of the month and the first business day of the following month, which seeks better execution for RIC[®] commodity trades during a period of good liquidity (current contract delivery and roll), and no competing major commodity index rolls. The RIC[®] can trade during the end of the month delivery period and not risk delivery because...



Contract Tenor

...the RICⁱ® is never positioned in the current delivery month. In fact, it is always in the next contract month following the delivery month, not the nearby contract. There are two reasons for this: the previously mentioned execution advantage of trading at the end of the month (but not in the current month's contract), and the advantage of trading farther out on the futures curve, which provides contango mitigation. Much has been written about the forward curve in commodities trading, and we will address it in length in our next Investment Commentary. But, suffice it to say that it's usually beneficial to be *slightly* longer on the futures curve, but not so far out on it that opportunity and liquidity costs are created, and more forward price uncertainty is introduced. This is built-in to the RICⁱ® methodology, but not the benchmarks.

Rebalancing Frequency

The benchmarks rebalance, or more accurately re-weight, their commodity selections on an annual basis. This can lead to some pretty dramatic differences between the original weightings at the beginning of a calendar year, and the subsequent weightings a few months later, particularly in volatile market conditions. An investor may find that they are over-weight in a high performing sector, but more importantly, haven't realized any of those profits and are also correspondingly under-weight other sectors. Jim Rogers believed that once you adopt a weighting scheme you don't want it to get too far out of bounds during the year or you begin to penalize diversification. Accordingly, the RICⁱ® rebalances on a monthly basis, which has the effect of replenishing diversification. But there are some additional attributes peculiar to commodities portfolios that make more frequent rebalancing an interesting return factor. Commodities are really, when you think about it, a bunch of unrelated raw materials that would never occupy the same index normally, with different return drivers and fairly high idiosyncratic volatility. But they are not well correlated, and they also tend to mean revert, over time, as supply and demand equilibrates. The combination of low constituent correlations, fairly high volatility, and mean reversion means that rebalancing can grab additional returns attributable simply to diversification. This is why, as was mentioned earlier, having as many commodities as possible in a portfolio is advisable. It increases the number of available rebalancing opportunities. The individual attributions of the smaller allocations may not be that meaningful, but as a source of diversification returns, they can add value. Monthly rebalancing takes advantage of this.

Collateral choice

Most commodity indices assume that the 100% of the notional amount of index investment is earning at least the risk free rate, and then add to that the commodity portion of returns. The RICⁱ® makes a more conservative, real world assumption with regard to how the collateral balances are invested, and assumes that the index notional will earn 90% of the T-Bill rate, not 100%. This is because when actually trading commodity futures, the FCM (clearing firm) will likely not pay a T-Bill rate on the full amount of margin money it has on deposit.



What about active management?

Jim would argue, and we would agree, that active managers have a tough time beating indices in any asset class (this is not news), and that top down asset class selection is a far more important determinant of total portfolio return. Are commodities different? We can't identify any *persistent* return advantage associated with *active* commodity choice, curve positioning, or rebalancing frequency adjustments. Reliable and explainable excess return can almost always be sourced to portfolio construction decisions, so much so that we don't like to refer to our excess return as *alpha*, since it's not skill-dependent, it's rules-based. This doesn't mean that advertizing mechanical optimization as active management doesn't take place, but it's a bit intellectually dishonest. It's pretty clear, though, that when true active risk is introduced, the uncertainty of outcome increases as well. We'll discuss this more in our next communication.

In particular, it's important to acknowledge that there is virtually no information edge as we know it available to commodity traders. Analyzing commodities fundamentals with the goal of driving consistent positioning advantages is, in other words, unrewarded as far as we can tell, and a scan of the headlines (especially lately) will demonstrate how wrong the pundits can be. Active commodity managers occasionally demonstrate superior performance, but typically not for very long (that may explain why there are so few of them). They may avoid down market cycles, but typically fail to get long enough to participate in the subsequent recoveries, or vice versa. Even large, global commodity enterprises like Cargill, Glencore, and Exxon, firms that would be best positioned to be in-the-know, are not, strictly speaking, in the business of being directionally correct, they're engaged in production, transportation, financing, storage, and other intermediation businesses.

So, did Jim Rogers' index deliver? He was certainly right about the direction of the commodities market in late 1998. He left on his trip around the end of that year and returned 3 years later to a portfolio that was up over 80%. In fact, in the 4 years from 1999 through 2002 the benchmark (BCOM) was up +66.14%, the S&P 500 was *down* -24.48%, and CPI even declined from 2.2% to 1.6% (inflation was not a factor). The RICI®? It was up +94.81%. Today, the RICI® has one of the longest and best performance histories in all of commodities investment management, beating both the benchmark S&P GSCI and BCOM by an average of 4.22% and 2.84% *per annum*, respectively, since its inception (8/1/1998 to 10/31/2017), over 19 years of data.

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