

Misuse And Use Of Hedge Fund Indices

Discrepancies in construction lead to variation

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1. In contrast to the regulated world of traditional investments, the hedge fund universe cannot be fully encompassed. Hedge funds are private structures, devoid of any regulatory obligations to disclose the returns they generate. The only access to relevant information is provided by the various commercial databases available.

However, these databases' representation of the hedge fund universe is significantly distorted: hedge fund managers only contribute to these databases voluntarily. Moreover, each database has a significant way to go in order to cover a sufficiently large part of the universe.

Small samples obtained by means of a non-random drawing process and extracted from a heterogeneous population lead to a significantly biased representation. Hedge fund indices are built using these databases and therefore inherit their shortcomings. If one is to believe that hedge fund indices estimate the average return of the total, the hedge fund universe is thus illusory. In fact, in indices it is impossible to separate out returns from fluctuations on the hedge fund market and the variation due to discrepancies in index construction. The latter is particularly important, as the heterogeneity of hedge funds indices reveals.

Indeed, two indices which aim to represent the same strategy can betray monthly-return differentials of more than 1,400 basis points. One may be justifiably puzzled by the gap measured for May 2000 between the Altvest Index (-2.6%) and the Tuna Hedge Fund Macro Index (+12%) or by the 2,204 bp spread between the EACM Long/Short Index and the Zurich Long/Short Index (later renamed Dow Jones Long/Short Index). In addition to this, average correlations between the different indices are low, and some long/short indices are not even correlated at all.

At hedge fund index level, 34% of maximum monthly return differences over a period ranging from January 1994 to October 2003 are greater than 3%, and 81% of the monthly readings reveal maximum differences exceeding 1%. These differences are significant in comparison to index stability (1x to 2x monthly volatility). Whilst compounding the returns, these monthly differences may cumulate in colossal spreads. For instance, the performance differential between the Tuna Hedge Fund Aggregate Average and the CS/Tremont Hedge Fund Index from 1997 to mid-2000 topped 40%.

Moreover, events subsequent to the discontinuation of a fund are not reflected in hedge fund indices. This is known as survivorship bias and in specific years can total more than 1,000 bp. One simple way to compensate for this weakness is to use investable indices instead of non-investable ones. The former returns keep track of all investments, good and bad alike. Thus the past returns of dissolved funds are not excluded from an index's performance history.

However, the heterogeneity of investable indices (CS/Tremont All Sector, CS/Tremont Blue Chip, HFRX, FTSE Hedge, MSCI Invest Hedge, Dow Jones Hedge Funds) is much higher in comparison to their non-investable counterparts. From 2008 to mid-2010, convertible-arbitrage investable indices exhibited for 6 months differences in monthly returns that exceeded 10,000 basis points, such as in October 2008 when HFRX Convertible Arbitrage Index recorded a 34.68% loss whilst FTSE Hedge Convertible Arbitrage returned -0.68%.

Similarly, the maximum spread between equity market neutral indices', fixed income indices', global macro indices', event driven indices' and multi-strategy indices' monthly performances were +3,369 bp, +2,309 bp, +1,914 bp, +1,389 bp and +1,214 bp respectively. Clearly, they do not track a common phenomenon. If investable indices are not representative, they can be viewed as funds of funds. The selection of one such index as a benchmark equates to selecting a specific fund of funds as a reference. Obviously, using a fund of funds index is a more adequate and general solution.

Fund of funds databases are subject to various statistical biases as regards the fund-of-funds universe for the simple reason that, once again, database contributions are voluntary. Nevertheless, academic researchers have reported a significantly lower level of heterogeneity between fund of funds indices than the one between hedge fund indices: distortions tend to be flattened out by funds of funds' economic nature, their diversification, as well as the convergence of database and fund-of-funds promoters' respective interests.

The advantage of low residual bias lies in the fact that they offer the best possible basis to diversify the residual biases through an index-of-indices approach, which induces smaller differences and an overall smoothing of data. A good recipe using good ingredients always produces better results than a good recipe using ingredients which are past their sell-by date. The EDHEC fund of funds index consolidates Altvest, HFR, CISDM-MAR and Van Hedge fund of funds indices, with weightings determined by a main-component analysis. This index thus provides the best available estimates of the fund of funds and hedge fund universes.

However, the index-of-indices approach suffers from a lack of transparency (the composition in terms of underlying hedge funds or funds of funds is not known, nor are the weightings) and delays in releasing monthly figures. Thus, it may not be adequate for reporting on funds of funds.

Moreover, even a specific fund of funds index (such as HFRI Funds of Funds Index) is not wholly satisfactory for monitoring multi-strategy funds of funds. Indeed, the arbitrage/relative value single strategy funds of funds or distressed funds of funds may distort the performance of the benchmark for a multi-strategy fund of funds. In 1995, the HFRI Fund of Funds Composite Index reported a rise of +11.17%, whereas the Diversified Funds of Funds Index recorded +7.76%, the spread being explained by the performance of two other components of the Composite Index (the HFRI FoF Conservative, +13.06%, and the HFRI FoF Strategic Index, +16.86%).

User guide

Since the essence of absolute return is antithetical to the concept of indexing and in light of the fact that hedge-fund indices reveal substantial weaknesses, there is no unique index solution that would adequately be able to meet all needs. Depending on the objective, one index type reveals itself to be better suited than others. The various possibilities are summarised in Table 1.

OBJECTIVE	RECOMMENDED INDEX
Hedge fund industry performance-monitoring and risk-assessment	EDHEC Risk Funds of Funds Index
Multi-strategy funds of funds benchmarking	HFRI Funds of Funds Diversified
Single strategy funds of funds benchmarking	Appropriate single strategy funds of funds sub-indices (InvestHedge, Morningstar or HFM)
Technical analysis and fundamental strategy research	EDHEC risk strategy indices/appropriate single-strategy funds of funds sub-indices. For specific strategies, appropriate single strategy hedge funds sub-indices
Style analysis	On any given family of strategy sub-indices (including indices of indices)
Brinson return attribution	Simple proxy: CS/Tremont Broad Indices adjusted to the EDHEC Risk Funds of Funds Index's performance. More accurate proxy requires in-house hedge fund peer group indices and mandate-specific indices

If one aims to carry out a general analysis of hedge funds as a whole, an index of fund of funds indices may provide the optimal tool. Although it is an indirect approach, the use of funds of funds indices offers a more global and efficient means of assessing the hedge fund universe. Thus, to date, the EDHEC Funds of Funds Index offers the best possible approximation of the hedge fund universe.

If this approach suffices to reflect the overall performance trend in hedge funds, such an index tool reveals itself to be inadequate for investors who wish to monitor the overall performance of a portfolio of hedge funds. For benchmark-bespoke portfolios or funds of funds, the choice is made according to

those index components that are best suited to match the competitive universe faced by the investor. That excludes funds of funds composite indices.

Multi-strategy, funds of funds indices are obviously the most common indices, after global-composite fund of funds indices. Indeed, they are natural candidates for benchmarking multi-strategy funds of funds. The choice of one index over another for benchmarking a multi-strategy portfolio depends on its perception as an industry standard. Over time, HFRI funds of funds indices gained favour with key market players, especially in the US. Although its representativeness will never be perfect, the HFRI Funds of Funds Diversified Index should serve as an accepted benchmark for multi-strategy funds of funds.

For single-strategy funds of funds, there is no one standard family of fund of funds sub-indices. Indeed, funds of funds database promoters were a bit late in following the trend in launching funds of funds that specialise in a single, alternative strategy. Consequently, no database offers a funds of funds classification which covers all hedge fund strategies. For instance, InvestHedge provides indices for funds of funds focusing on arbitrage funds, commodities funds, Asia/Pacific hedge funds, European long/short US long/short, global long/short, global macro and fixed income. However, Morningstar provides a funds of funds index which focuses on managers using derivative-based strategies, whilst HedgeFund.net reports on a market-neutral funds of funds index.

For fundamental strategy research, one should combine different approaches. As it is generally neglected, results from academic research may significantly differ depending on the benchmark upon which they are based.

As a consequence, it is highly recommended that any analysis be conducted on the largest available sample of hedge fund indices. A preliminary step consists of mixing both the information provided by the appropriate single strategy funds of funds sub-indices with the EDEHEC Risk single strategy indices. Discrepancies in the results should be carefully understood in the light of particularities of the two types of benchmark.

For technical analysis requiring a benchmark, an accurate solution simply does not exist. One cannot consciously avoid using a proxy. For example, if we wish to measure the contributions to returns by manager selection and tactical allocation within a portfolio of hedge funds, a first approximation consists in applying a Brinson attribution model using the CS/Tremont Broad Indices (as strategy-component weights are published).

However, performance should be adjusted to the EDHEC Risk funds of funds Index. Nevertheless, besides all the problems connected with the estimation errors of such an approximation, this approach neglects many aspects of the investment process that requires many additional computations, such as the performance of in-house peer group indices and indices reflecting the particular constraints of each analysed mandate.

However, it should be noted that certain other statistical analyses do not need to have accurate indices. For example, alternative style analysis only requires the choice of one specific family of hedge fund indices (including EDHEC-Risk) in order to maintain the higher level of orthogonality. Then, with the style analysis acting as a very first version of an implicit model, representativeness is obtained through the mixture of style factors.

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