HEDGE
FUND
INDEXING

Gaining Efficient Hedge Fund Exposure Through Passive Investing

January 2010
Emerging from one of the most significant market dislocations to date, hedge funds as a whole successfully capitalized on opportunities in 2009, recouping much of their 2008 losses and producing their highest returns in a decade. Today, the ability of hedge funds to provide access to a range of investment strategies which can provide diversification even in the face of significant market volatility has once again catapulted these strategies into the spotlight, and managers continue to attract significant – and growing – assets from institutions and high net worth investors. Yet, the potential costs, risks and performance inconsistencies of direct hedge fund and fund of hedge fund investing have prompted some to examine alternative methods of accessing these alternate return streams.

Passive investment strategies have become well established in the traditional asset management arena and we believe the same will hold true in the hedge fund market. In fact, the core benefits offered by indexing — ease of management, capturing broad market performance, diversification, transparency and cost efficiency — directly address many of the challenges facing hedge fund investors today.

The concept of hedge fund indexing, however, also raises interesting questions: How does one define a hedge fund index? How does one define hedge fund alpha? How relevant is the concept of beta? Indexing also poses the significant challenges of capturing the performance of a marketplace where transparency and consistent information flow can be difficult to access and where return streams have been driven, in part, by funds that are now closed to new investments.

With the introduction of indices such as the Credit Suisse / Tremont Hedge Fund Indices, we believe investors have gained important tools and benchmarks to analyze hedge fund performance. These benchmarks also marked the beginning of an important evolution in hedge fund investing: the opportunity to track broad market returns through indexing strategies. Looking ahead, we believe these types of investments will play an increasingly important role for investors implementing core hedge fund allocations.
Indexing of the traditional stock markets was considered a radical idea when first introduced by Vanguard’s Jack Bogle in 1976. Today, the Vanguard 500 Index Fund is one of the largest funds in the industry. Once viewed with skepticism by the investment community, Bogle is now considered a pioneer of modern investing. His vision helped create a viable and sustainable alternative to active management, while offering investors an effective way to implement their asset allocation models. In fact, traditional indexing has become synonymous with such core investor benefits as cost-efficiency, transparency, and diversification, as well as providing the convenience of a single entry point to gain broad market exposure.

As a result of Bogle’s innovation, traditional equity investors now have a wide variety of options to choose from, including both active and passive strategies. We believe the same trend may be occurring in hedge fund allocations, as investors seek different ways to access hedge fund market exposure. The introduction of broad market indices such as the Credit Suisse/Tremont Hedge Fund Index has made it possible to invest in a portfolio designed to track the returns of the overall hedge fund market, including the performance of some closed funds.

This type of passive hedge fund investing offers a pool of direct hedge fund investments that is managed to track the returns of an overall hedge fund index, such as the Credit Suisse/Tremont Hedge Fund Index. This paper examines some of the key considerations for investors contemplating this type of approach as a means of gaining core hedge fund exposure.

**What Is a Hedge Fund Index?**

Investors generally use an index as a barometer for a given market, industry or asset class, providing a benchmark to track performance. However, unlike traditional securities, such as large cap stocks, hedge funds represent a wide range of strategies that have been categorized into 10 unique sectors. A hedge fund index attempts to capture the returns of the broad universe of hedge funds and establish an overall peer-group performance benchmark.

Institutional investors often use a variety of benchmarks for measuring hedge fund performance. A common method is to measure a fund’s performance against a risk-free rate of return, such as cash plus a certain number of basis points. A second method is to measure a hedge fund’s performance against the public equity markets. The introduction of hedge fund indices offers a third way to analyze returns – measuring performance against a peer universe of other hedge funds. This provides a useful starting point for tracking alpha and beta against the general hedge fund market.

**Why Consider Hedge Fund Indexing?**

Investors typically seek out hedge funds for their attractive risk-adjusted return potential and a number of hedge fund managers have delivered attractive return streams as well as genuine alpha. However, identifying these top managers can require a serious commitment of time and resources, largely because of lack of transparency in the industry and the diversity of trading strategies.

This resource and time commitment has helped fuel the popularity of multi-manager fund of hedge funds strategies. These strategies offer the benefits of professional management and diversification, although they also introduce an additional layer of fees. A fund of funds strategy, however, does not completely alleviate an investor’s research requirements. Instead, it simply transfers the time and effort spent analyzing individual hedge fund managers to analyzing fund of fund managers.

In addition, the added diversification – which is a key benefit from a risk perspective – dilutes the ability to add meaningful alpha. The trend, in fact, has been a general
reversion to the mean in terms of fund of funds performance with only a handful of the largest fund of hedge funds outperforming the Credit Suisse/Tremont Hedge Fund Index for the five-year period ended December 2009 (see Figure 1).

Indexing provides institutional investors with the additional benefit of helping to manage the risks associated with individual hedge funds. By tracking an index’s returns, an index-based portfolio should not significantly underperform the broad market. In addition, while indexing cannot eliminate exposure risk, it does help manage it by maintaining a high level of diversification. With an indexed portfolio, an investor “buys” the entire market, creating safety in numbers. Should an individual hedge fund experience management or trading problems, the impact to the overall portfolio is diluted.

**A Cost-efficient Alternative Beta Source**

Another interesting trend that adds credibility to index-based hedge fund strategies is the emergence of alpha and beta as core building blocks to maximize portfolio efficiency. The introduction of hedge fund indices has established a beta for the general hedge fund market, which has tended to be only moderately correlated to the betas of traditional equity and fixed income markets (see Table 1). Prior to the liquidity crisis (defined as the beginning of the drawdown for the hedge fund industry which occurred in June 2008), average capture for hedge funds tended to rise during bull markets while downside correlation decreased during bear markets, resulting in asymmetric payouts. Since January 2009, the hedge fund space has evolved from being more directional in nature to employing a range of investment strategies designed to diversify away from traditional market movements. By effectively capturing it in an investment vehicle, investors can access one of the primary benefits of hedge funds: their attractive risk-adjusted return potential (see Figure 2). Indexing can be a cost-efficient way to access this alternative beta stream, satisfying the inherent diversification needs associated with most hedge fund mandates. In addition, indexed portfolios offer this beta opportunity without the risk of significantly underperforming the hedge fund market as a whole.

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**Figure 1: Performance of the Largest Multi-Strategy Funds of Funds**


The Credit Suisse/Tremont Hedge Fund Index has historically offered returns similar to large multi-strategy funds of funds, with attractive volatility and risk characteristics.

**Rank by Annualized Return**

![Strong performance compared to largest multi-strategy funds of funds](image)

**Rank by Sharpe Ratio**

![Attractive Sharpe Ratio compared to largest multi-strategy funds of funds](image)

Sources: Credit Suisse Tremont Index LLC; Bloomberg. Funds shown based on publicly available information. All data was obtained from sources believed to be reliable. Credit Suisse does not guarantee the accuracy of such data. This chart is for illustrative purposes only. Indices are unmanaged and do not reflect the deduction of account fees and expenses. Investors cannot invest directly in an index. Past performance does not guarantee future results.
The Role of Indexed Strategies in a Portfolio

As a convenient, cost-effective entry point to hedge fund investing, an indexed portfolio has many advantages. Direct investment in hedge funds or funds of hedge funds can require significant research and monitoring capabilities. Indexing eliminates the need for these internal capabilities, since the portfolio tracks the broad hedge fund market. As a result, indexing is often a more accessible approach for a wider range of institutional investors—including small and midsize pensions, endowments and foundations.

For investors who already own several hedge funds or funds of hedge funds, an indexed portfolio can provide a simplified core holding. An indexed portfolio offers hedge fund market beta, while individual hedge funds selected around this core offering (which are sometimes referred to as the satellite investments of a core/satellite portfolio) may be used to gain manager-specific or strategy-specific alpha. In contrast, the overlap of individual funds in a portfolio of multiple funds of hedge funds can minimize diversification, resulting in what may be simply a high-cost quasi-index in terms of aggregate returns.

Figure 2: Indexing to Capture Attractive Returns Over the Long Term (Jan. 1, 1994 – Dec. 31, 2009)

Hedge fund indices can produce attractive returns during bull markets, while preserving capital in bear markets.

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Effectively Capturing Index Returns

As with any index-based strategy, minimizing tracking error (the volatility of the return differences between a portfolio’s actual performance and the index it tracks) is an important consideration. When tracking the MSCI World Index, for example, a traditional equity index manager would likely invest in an optimized sampling of companies in the index, rather than trying to purchase every single company represented. Portfolio optimization allows the manager to match an index’s returns without investing in companies whose stocks may be difficult to access or trade due to government regulations, market cap constraints or other limitations.

Similarly, a hedge fund index’s returns can be matched through optimization techniques. However, creating an indexed portfolio of hedge funds requires paying careful attention to the specific challenges of investing in the hedge fund market, such as hedge fund liquidity, lack of transparency and fund capacity constraints. The output from the optimization process must be carefully evaluated by an experienced portfolio management team to balance the various challenges while building the optimal portfolio.

### Table 1: Low Correlations When Most Needed

#### Bear market (January 1, 2000 to March 31, 2003)
Hedge funds experienced low correlation to global equity markets, preserving assets in the down market period.

<table>
<thead>
<tr>
<th></th>
<th>Credit Suisse/Tremont Hedge Fund Index</th>
<th>S&amp;P 500 Total Return Index</th>
<th>MSCI World Index (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Suisse/Tremont Hedge Fund Index</td>
<td>1.00</td>
<td></td>
<td></td>
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<tr>
<td>S&amp;P 500 Total Return Index</td>
<td>0.23</td>
<td>1.00</td>
<td></td>
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<tr>
<td>MSCI World Index (USD)</td>
<td>0.32</td>
<td>0.97</td>
<td>1.00</td>
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</tbody>
</table>

#### Bull Market Rally (April 1, 2003 to October 31, 2007)
Correlation to the global equity markets rose in correspondence to the bull market trend experienced in the equity markets helping to increase upside capture.

<table>
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<td></td>
<td></td>
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<tr>
<td>S&amp;P 500 Total Return Index</td>
<td>0.63</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>MSCI World Index (USD)</td>
<td>0.79</td>
<td>0.94</td>
<td>1.00</td>
</tr>
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</table>

#### Liquidity Crisis (June 1, 2008 to February 28, 2009)
Hedge funds began to decouple from the broad markets, resulting in decreased downside correlation. Despite significant losses, hedge funds fared better than broad equity indices overall by limiting drawdowns and maintaining considerably less volatility.

<table>
<thead>
<tr>
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<th>S&amp;P 500 Total Return Index</th>
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<tr>
<td>Credit Suisse/Tremont Hedge Fund Index</td>
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<td></td>
<td></td>
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<tr>
<td>S&amp;P 500 Total Return Index</td>
<td>0.43</td>
<td>1.00</td>
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<tr>
<td>MSCI World Index (USD)</td>
<td>0.56</td>
<td>0.96</td>
<td>1.00</td>
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</tbody>
</table>

#### Post Liquidity Crisis (March 1, 2009 to December 31, 2009)
Correlations in the post liquidity crisis environment have remained relatively low, providing for diversification from traditional market movements.

<table>
<thead>
<tr>
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<th>Credit Suisse/Tremont Hedge Fund Index</th>
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<tr>
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<td>1.00</td>
<td></td>
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<tr>
<td>MSCI World Index (USD)</td>
<td>0.59</td>
<td>0.94</td>
<td>1.00</td>
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### Hedge Fund Investment Options

Today, as the hedge fund market continues to evolve, investors have a broader selection when examining appropriate investment vehicles. While the actual structures may vary among individual managers, here are some typical characteristics that investors are likely to find in the marketplace today.

<table>
<thead>
<tr>
<th></th>
<th>Single Manager</th>
<th>Fund of Funds</th>
<th>Index Tracking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Portfolio</strong></td>
<td>A single fund manager’s trading strategy</td>
<td>An actively managed portfolio of multiple hedge fund managers</td>
<td>A diversified portfolio of hedge funds managed utilizing a quantitative investment model with a qualitative refinement process to track a non-investable index’s returns</td>
</tr>
<tr>
<td><strong>Fees</strong></td>
<td>Management fee and performance fee</td>
<td>Additional management fee and performance fee</td>
<td>Additional management fee — no performance fee</td>
</tr>
<tr>
<td><strong>Trading</strong></td>
<td>Active</td>
<td>Active</td>
<td>Passive</td>
</tr>
</tbody>
</table>
Because some funds in the Credit Suisse/Tremont Hedge Fund Index are closed to new investments, quantitative procedures form a foundation for Credit Suisse’s portfolio selection process, which is designed to minimize tracking error to the actual index’s returns. The selection process begins by identifying a portfolio universe. The Credit Suisse/Tremont Hedge Fund Index consists of 10 sectors, and a unique covariance matrix is used to build the preliminary portfolio for each of these sectors.

A post-optimization analysis follows that includes quantitative measures such as back-testing, sensitivity analysis, risk/return and correlation analysis on the optimized results. The selection process combines the optimized strategy solutions into a multi-sector portfolio, based on the weights of the Credit Suisse/Tremont Hedge Fund Index. The portfolio is continuously reviewed and monitored, with trading of the underlying hedge funds as frequently as each fund’s liquidity allows. New additions to the index, changes in manager assets under management and strategy reclassifications can trigger a rebalancing of positions.

Historically, hedge funds have gained favor with investors for their ability to deliver positive returns uncorrelated to those of other asset classes. As a result, adding hedge fund exposure to an overall portfolio allocation may increase the efficient frontier of many traditional portfolios. Growing trends in the hedge fund marketplace have continued to build a compelling case for index-based portfolios as a viable option for gaining core exposure to the asset class. Indeed, these investment vehicles can provide effective exposure to the low correlations of the broad hedge fund market and they also directly address many of the issues facing hedge fund investors — diminished alpha opportunities, complexity, cost efficiency, diversification, transparency and simplified reporting. Because of this, we believe index-based portfolios will become increasingly important to investors considering hedge fund strategies.

As with any index-based portfolio, selection of the appropriate benchmark requires careful consideration. Performance will be significantly impacted if the index is not truly representative of the hedge fund universe, and some hedge fund indices have specific challenges and notable drawbacks in effectively representing the overall hedge fund market.

In addition, effectively delivering the return streams of a hedge fund index through an investable portfolio (with an acceptable level of tracking error) requires a complex investment platform driven by robust analytical tools and sophisticated proprietary systems. For investors considering a passive approach to hedge fund investing, it is crucial to identify an index manager with a proven process for minimizing tracking error and delivering reliable market returns.

Both of these challenges, however, are straightforward and can be overcome. As the hedge fund market continues to mature and evolve, we believe index-based strategies will continue to gain momentum in the marketplace, offering investors another viable tool to consider when building their hedge fund portfolio allocations.
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