



GENERATION TWO LIQUID ALTERNATIVES:

Built to Meet the Needs of Asset Allocators

Liquid alternatives are broadly defined as strategies that are available in registered funds (mutual funds, ETFs and UCITs) that seek to provide investors with diversification benefits and downside protection. Unlike hedge funds – private vehicles generally available only to high net worth and institutional investors – liquid alternatives are designed to appeal to a much broader audience of investors, including retail clients, retirement plans and other investors who are more sensitive to liquidity, costs and regulatory oversight.

Following the crisis, liquid alternative funds grew rapidly as more and more allocators sought to introduce sophisticated portfolio construction methodologies across retail and other portfolios. In recent years, however, growth has slowed as many early adopters expressed frustration that performance had failed to match expectations. In retrospect, these “**Generation One**” liquid alternatives often failed to deliver the promised diversification benefits, paving the way for a new generation of products – “**Generation Two**” – designed to meet the needs of allocators.

This paper first explores how hedge funds get into asset allocation models in the first place, and why institutions spread their bets across a dozen or more funds. It then focuses on how this process broke down with Generation One liquid alternative funds. Following this, it explains how Generation Two products need to address the specific objectives of asset allocators, but within the constraints of retail portfolios. Finally, it explains why hedge fund replication – a controversial topic among institutional investors – offers a proven solution given these objectives.

STARTING POINT: HOW INSTITUTIONAL INVESTORS ADD HEDGE FUNDS TO THEIR PORTFOLIOS

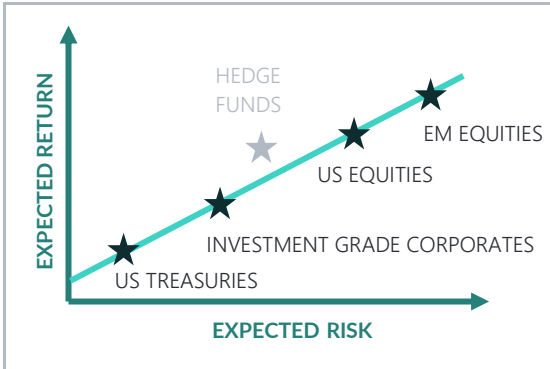
How do “alternatives” like hedge funds get into a diversified institutional portfolio in the first place? In general, allocators rely heavily on quantitative

EXECUTIVE SUMMARY

- **Generation One** liquid alternatives suffered from three issues: poor performance, high fees and/or unpredictable results.
- Dissatisfaction today reflects in part a disconnect between the asset allocation/diversification objective and how funds were added to retail investor portfolios.
- While institutional investors typically allocate to dozens of alternative managers, retail portfolios often have only one or two – a significant problem given that the dispersion of manager returns is 10x that of traditional funds.
- While some institutional-quality single manager products have sought to address performance and fee issues, the larger issue of unpredictable results requires a new approach.
- **Generation Two** products need to meet three objectives:
 1. Performance that is equal to or better than that of hedge fund indices (e.g. no performance drag).
 2. Low all-in fees – inclusive of sub-advisory fees and other expenses.
 3. Consistent performance relative to the relevant hedge fund index to mitigate dispersion risk.
- We conclude with a discussion of why hedge fund replication will see a resurgence given its proven ability to meet these goals.

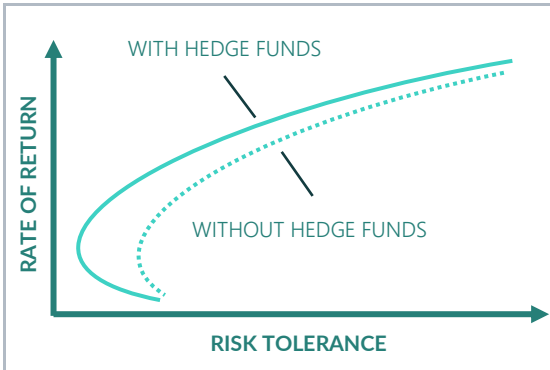
models to determine the “optimal” portfolio allocation to stocks, bonds, and other asset classes given a particular investor’s risk and return objectives. The following is a simplified three step process:

STEP 1: BUILD CAPITAL MARKET ASSUMPTIONS



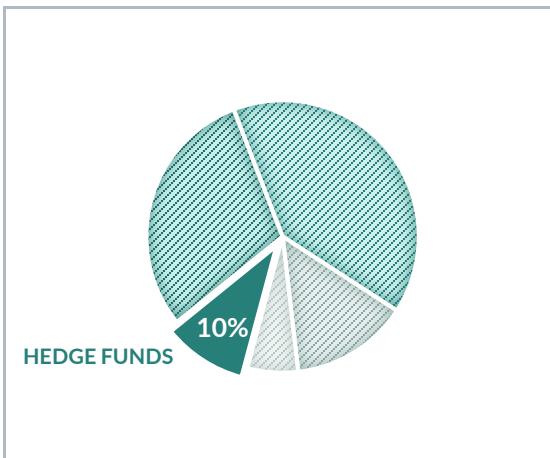
The portfolio construction process starts with a long list of capital market assumptions – that is, expectations of how each major asset class will perform over the coming decade or two. In order to determine how hedge funds¹ fit into the mix, allocators need to add assumptions about expected return, risk and correlations of hedge funds relative to other asset classes. The best way to estimate this is to infer it from the historical performance of *hedge fund indices*.² With performance extending back to the 1990s and hundreds of underlying private, illiquid funds, the indices are the best representation of how the “asset class” performs over time.

STEP 2: CREATE EFFICIENT FRONTIER



These “capital markets assumptions” are fed into an asset allocation model, which determines optimal portfolio weights across different risk/return parameters. Note that the inclusion of hedge funds typically will increase risk-adjusted returns relative to traditional-only portfolios.

STEP 3: DETERMINE ALLOCATION TO: BUCKET



Based on a client’s specific risk-return objectives, the asset allocation model determines the optimal allocation to hedge funds -- in this case, 10% of the overall portfolio. We’ll call this the hedge fund “bucket.”

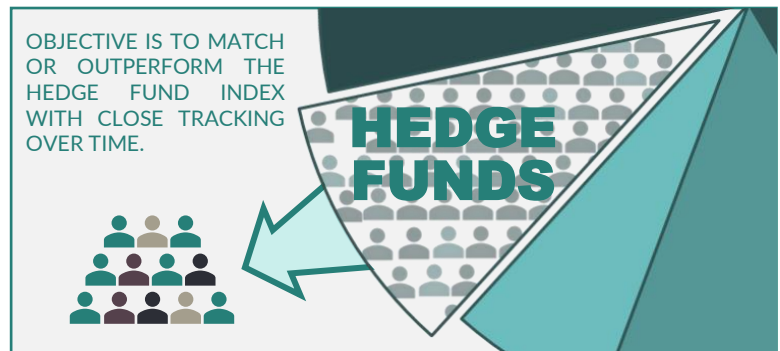
¹ For simplicity, we use “hedge funds” in the most general sense; however, the same process applies to specific alternative categories, like equity long/short, managed futures, relative value, etc.

² There are myriad well documented issues with the construction of hedge fund indices, including selection and other biases. That said, the indices are still the best way to estimate long-term hedge fund performance, and allocators can make their own adjustments to correct for these issues.

HOW INSTITUTIONS FILL THE “HEDGE FUND BUCKET”

Filling a traditional “bucket” is easy: a cost-sensitive investor can simply buy an ETF with, say, all 500 stocks in the S&P 500 index. There is no simple way, on the other hand, to invest in the hedge fund “bucket” given that the indices consist of hundreds (sometimes thousands) of individual, illiquid hedge funds. Institutional investors, or their advisors, instead will select a portfolio of hedge funds with the objective to match or outperform the hedge fund bucket over a market cycle.

A secondary (but less well understood) objective is to achieve close **tracking** over time. This is accomplished by spreading bets across strategies and managers – often dozens of individual funds. Why is diversification across dozens of funds so important? Because idiosyncratic manager risk is much, much higher in hedge fund strategies than in traditional assets. The more idiosyncratic risk, the more diversification is necessary.



One way to measure idiosyncratic risk is to look at the annual **dispersion** of the top decile and bottom decile hedge funds. In other words, by what margin did a top decile fund outperform one in the bottom decile? In many traditional asset classes, where closet indexing is the norm, the spread might be only a few hundred basis points. In other words, pick the right manager you might outperform the bucket by 100-200 bps; pick wrong and you underperform by a similar amount. Not catastrophic.

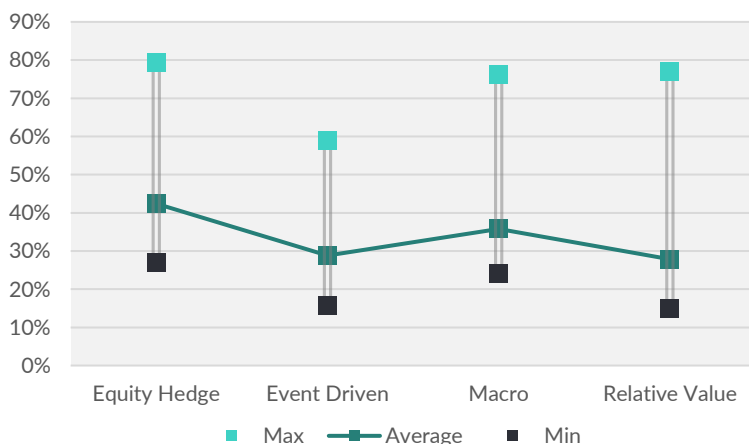


Figure 1 - Annual Spread Between Top and Bottom Decile Hedge Funds in the HFR Database (2000-2016)

By contrast, hedge fund dispersion is an order of magnitude greater. The chart on the left shows the average annual dispersion between the top and bottom deciles since 2000 across the four main strategies. Take equity hedge: the average spread is over 40% per annum, and has been as high as 80% in a single year.

The point is that picking a single hedge fund is **fraught with risk**. For the asset allocator, underperformance by 30% relative to the “bucket” – even if the fund subsequently recovers – is a non-starter. As shown below, constraints on retail

portfolios (and industry practice) caused many investors to assume too much idiosyncratic manager risk, with the

predictable result that most advisors have experienced a “hangover” effect when former star performers go through periods of serious underperformance.

HOW THIS PROCESS BROKE DOWN WITH GENERATION ONE LIQUID ALTERNATIVES

Generation One products came in two general flavors: multi-manager products designed to be “one stop” solutions for the bucket, and single manager products akin to individual hedge funds. There have been three primary issues. First, some products persistently underperformed actual hedge funds, which makes them much less attractive (or not attractive at all) to asset

allocation models. Second, regulatory focus and downward pressure on fees has priced many products out of fee sensitive portfolios like retirement plans. Finally, deterred by the high cost of multi-manager funds, many retail portfolios invested in only one single-manager fund to “fill the bucket” – a serious problem with high manager dispersion. Those three issues are discussed in greater detail below.

1. STRUCTURAL OR SYSTEMIC UNDERPERFORMANCE OF SOME LIQUID ALTS RELATIVE TO HEDGE FUNDS

Multi-manager vehicles were built to appeal to asset allocators – in essence, taking a page from the fund of hedge funds playbook of the early 2000s. Back then, when institutions lacked the ability or scale to build their own hedge fund portfolios, a fund of hedge funds might serve as a “one stop solution” designed to match or outperform the “bucket.”

If liquid alts underperform hedge funds by 2% per annum, they don't belong in a diversified portfolio.

Starting in 2012, there was a spike in launches of liquid alt funds built on the fund of funds model, but instead of investing in hedge funds, the investment advisor would hire hedge fund managers to run managed

accounts – essentially, more liquid or less leveraged versions of flagship hedge fund strategies. In theory, these multi-manager funds would be able to match or outperform the “hedge fund bucket” and offer a “one stop solution” for retail investors and retirement funds.

While those products offered potential diversification akin to a portfolio of hedge funds, they suffered from two issues: poor net-of-fee performance and particularly high fees (the latter is discussed in the next section). As shown to the right, over the past five years multi-manager mutual funds returned 1.9% per annum, or slightly more than half the 3.4% delivered by funds of hedge funds.³ In retrospect, sponsors underestimated the degree to which mutual fund constraints would hinder performance in many hedge fund strategies. Consequently, the funds underperformed despite a modest advantage on fees.

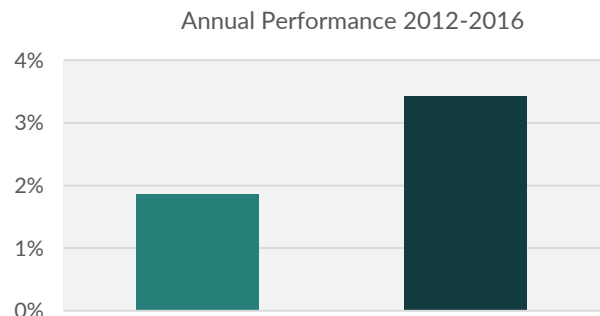


Figure 2 - Generation One Multi-Manager Funds Delivered Half the Performance of Funds of Hedge Funds

Structural underperformance is a serious problem for allocators. Asset allocation models are highly sensitive to small changes in

capital markets assumptions. A low risk hedge fund portfolio might still be attractive with 3-4% per annum returns, but a liquid mutual fund portfolio that earns half that with a similar risk profile is likely to be rejected entirely from the asset allocation model. The trick for allocators, then, is whether to “handicap” liquid alternatives in capital markets assumptions – e.g. assume that liquid hedge fund strategies will systemically underperform hedge fund indices by 1-2%.

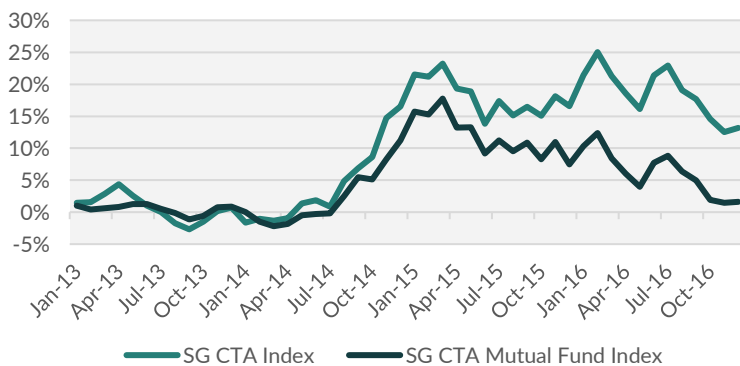


Figure 3 - CTA Mutual Funds Have Underperformed CTA Hedge Funds by 2.7% per Annum

Another example is the managed futures space, where you can compare the performance of CTA mutual funds with CTA hedge funds. Figure 3 shows how the SocGen CTA mutual fund index has underperformed the hedge fund counterpart by approximately 270 bps per annum since inception of the former in January 2013. Here, most attribute the

³ The performance of the multi-manager mutual funds is an equal-weighted composite and assumes monthly rebalancing.

underperformance to limitations on leverage. Whatever the reason, over the past three years, a persistent drag of 2-3% eliminated almost all cumulative performance – difficult to justify, to say the least.

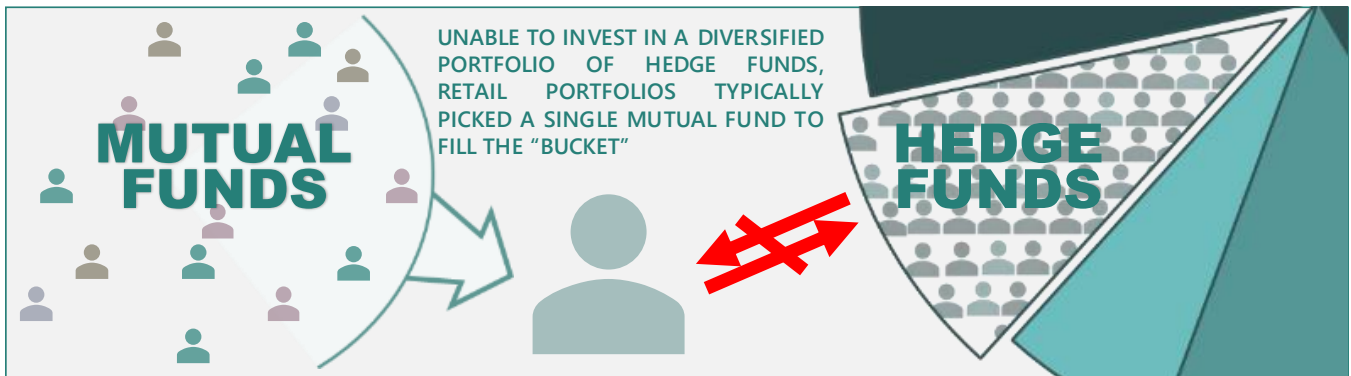
2. FEES THAT ARE “LOW RELATIVE TO HEDGE FUNDS” CAN STILL BE PROHIBITIVELY EXPENSIVE

While the active vs. passive debate rages across the traditional space, hedge funds fees have taken center stage recently.⁴ Many Generation One products were designed with the pitch that, “if it’s cheaper than hedge funds at 2/20, it’s a great deal.” Multi-manager mutual fund marketing material often highlighted the fact that fees and expenses were “half” those of funds of hedge funds.

In the retail world, fee reduction is considered the purest form of alpha – the most reliable way to enhance long-term returns.

But half of 5% is untenably high for fee-sensitive investors, like retirement plans. The average expense ratio of the multi-manager mutual funds described above is around 2.6% today. For a target date fund with an expense ratio of 40 bps, a 10% allocation would increase the expense ratio by roughly half. Given regulatory oversight and competitive pressures, suffice it to say that this is almost certainly a deal breaker.

In the hedge fund world, a well-established rule is that no one cares about fees when funds are knocking the lights out. But when the average multi-manager mutual fund has returned 1.9%, a 2.6% expense ratio means that nearly six of every ten dollars made by the fund were paid away in fees – a worse ratio than for most hedge funds.



3. DISPERSION OF SINGLE MANAGER FUNDS

The final issue is the dispersion of performance among hedge fund strategies. As noted above, bottom decile hedge funds underperform the top decile by 30% or more, which introduces fund selection risk that is an order of magnitude higher than in most traditional strategies. The same holds true for liquid alt funds.

The problem is that retail investment portfolios are subject to several constraints: investors cannot invest directly in hedge funds due to accreditation issues, liquidity is more important, and smaller portfolios typically mean a single registered fund fills a given bucket.

⁴ [Financial Times: The Hedge Fund Fee Structure Consumes 80% of Alpha](#)

The first generation of liquid alternatives products solved the “access and liquidity” issues. However, there were far fewer options than among hedge funds themselves, and the fund selection team would typically select a single liquid alternative fund to fill the bucket, as shown above.

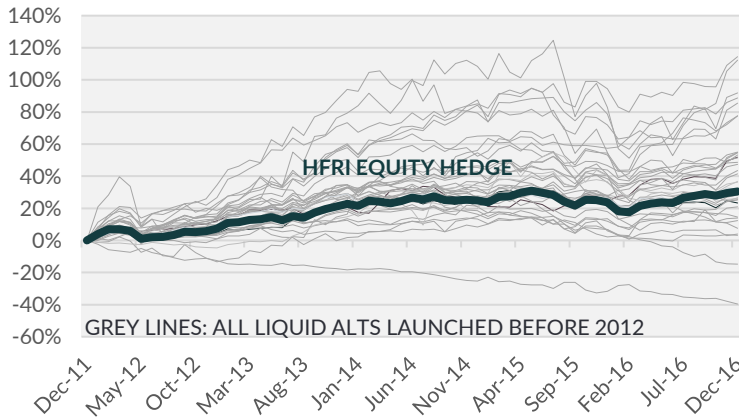


Figure 4 - Liquid Alt Mutual Fund Dispersion is 10x that of Many Traditional Strategies

Selection of a single fund failed to address the dispersion issue in hedge fund strategies. Take the equity long/short space. Figure 4 shows the performance of 36 equity long/short mutual funds over the past five years relative to the HFRI Equity Hedge index. Over this period, the spread between the top and bottom performer was 154%.

For a case study of how manager risk undermines asset allocation, consider the Mainstay Marketfield Fund (MFLDX). In the five years through 2013, the fund outperformed the hedge fund index by 6.5% per annum with a correlation to the index of 70%. With stellar performance, assets flooded in and peaked at over \$20 billion in early 2014. However, over the next

three years, the fund underperformed the index (“bucket”) by a cumulative 28.7% and asset flows reversed. The vast majority of investors never saw the benefit of the good years, and suffered only through the bad. The chart below shows the performance of the fund versus the hedge fund index (left axis) and assets under management (right axis).

Many investors consider Marketfield to be an isolated incident. It’s not. Dispersion in liquid alts is comparable to that of hedge funds, and a single fund has roughly a one-third chance of underperforming its benchmark by 10% more, over any three-year period. Selecting a single manager liquid fund is highly likely to result in periods of pronounced underperformance and hence undermine the intent of diversification in the first place.

GENERATION TWO: PERFORMANCE, COST AND CONSISTENCY

Given the issues with Generation One products, Generation Two should satisfy three criteria for allocators:

1. PERFORMANCE	2. COST	3. CONSISTENCY
Match or outperform a hedge fund index – especially no structural underperformance	Have a low all-in fee structure that is comparable to traditional funds and attractive to fiduciaries	Deliver consistent results akin to those of a highly diversified portfolio of alternative managers

HOW HEDGE FUND “REPLICATION” OFFERS A PROVEN “GENERATION TWO” SOLUTION

Hedge fund replication seeks to identify the core (market) drivers of performance of hedge fund strategies, and invest directly in liquid and transparent instruments (futures, ETFs, etc.) to deliver comparable results. Replication strategies have several features that align with the Generation Two objectives above; namely they:

1. Seek to match or outperform a diversified pool of hedge funds (outperformance usually comes from targeting pre-fee returns with a much lower fee structure).
2. Work seamlessly within the constraints of mutual funds, UCITS funds, ETFs or similar vehicles.
3. Closely match the performance of the target pool of hedge funds (e.g. eliminate underlying manager risk).
4. Have an efficient fee structure.

How would this work in the Generation Two framework? The graphic below shows how a single replication-based fund can meet the allocation objectives:

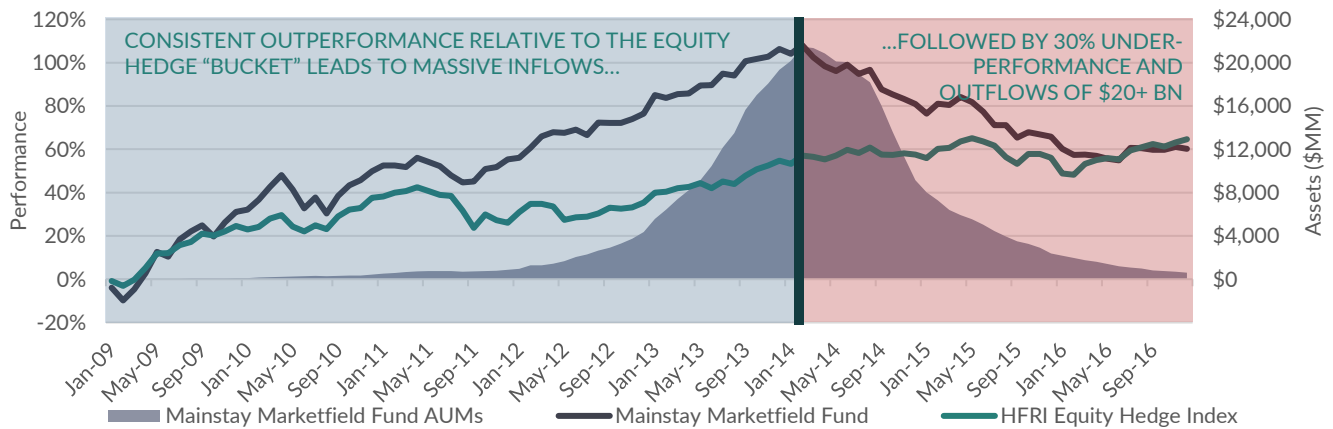


Figure 5 - Rise and Fall of the Marketfield fund

PERFORMANCE OF A DIVERSIFIED POOL OF HEDGE FUNDS IS REPLICATED WITH LOW COST, LIQUID FUTURES AND/OR ETFs IN A MUTUAL FUND OR ETF WRAPPER FOR A “ONE STOP,” LOW COST SOLUTION

- ✓ Match or outperform “bucket”
- ✓ Low cost
- ✓ High consistency

Replication-based strategies have been around for ten years, and the obvious question is how they have performed relative to actual hedge funds. Before we compare results, there are two important points. First, replication-based strategies have evolved considerably over the past decade. Second, while there are a few existing replication-based mutual funds or ETFs, those funds often had design issues of their own – unnecessary complexity and overengineering are the two most common. In order to show comparable results, we use two bank-sponsored replication products that have been continuously offered over the past decade to avoid any question of back-testing. Since replication products have daily liquidity, we compare the results to both the illiquid HFRI Fund of Funds index (an accurate representation of asset-weighted portfolios) and liquid HFRX Global Investable Hedge Fund Index. To make the numbers comparable from a net-of-fee basis, we deducted 0.75% per annum from the replication products, although we did not make a comparable adjustment to the HFRXGL.

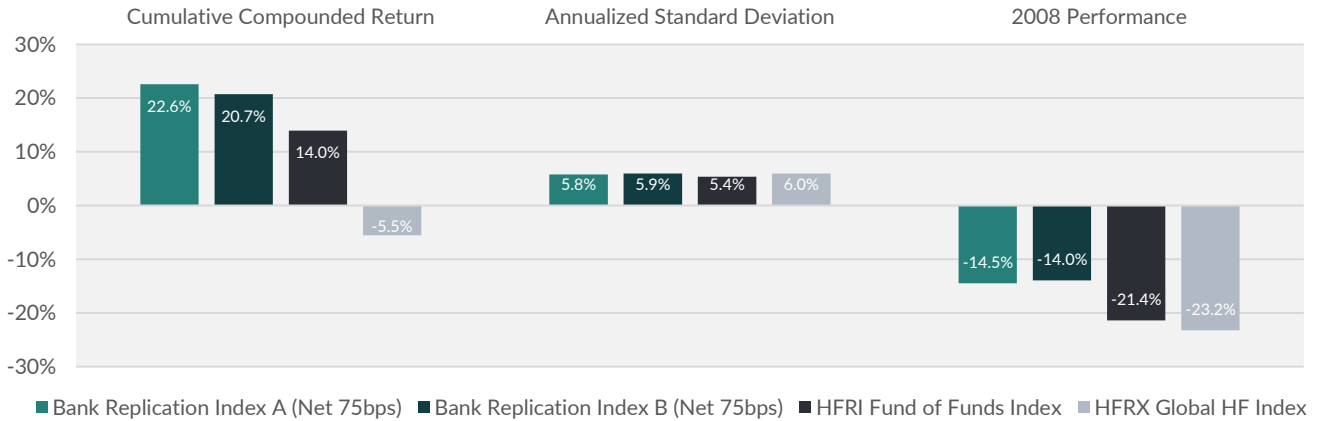


Figure 6 - Hedge Fund Replication Beat Hedge Funds Over the Past 10 years

The results are compelling and straight-forward. The simple replication-based products materially outperformed both the illiquid and liquid hedge fund indices with comparable standard deviation and lower drawdowns through the crisis.

From the perspective of an allocator, stable outperformance with lower drawdowns is highly valuable. Over time, outperformance of 1% per annum add ups: the most reliable way to be a top quartile performer in five years is to never leave the second quartile.

Replication also works for individual strategies. In Figure 4, we showed the dispersion of equity long-short mutual funds relative to the HFRI Equity Hedge index. In the chart to the right, we have added the results of a simple five factor replication that seeks to replicate the pre-fee returns of the index. Net of fees, the replication would have outperformed by 60 bps per annum with a correlation of close to 90% – exactly what a Generation Two product is supposed to achieve.

Replication outperformed hedge funds over the past 10 years without typical hedge fund risks like liquidity issues or position crowding

A point to reiterate is that since replication products invest only in liquid futures and/or ETFs, the strategies work seamlessly within the constraints of registered funds – in contrast to many hedge fund-like strategies. Fund expenses can be kept very low by investing in futures, which are highly efficient to trade and do not add either acquired fund expenses or short interest costs. By focusing on the most liquid markets, replication-based funds can also avoid the liquidity mismatch inherent in some credit-focused ETFs or mutual funds.

A BRIEF DISCUSSION OF THE CONTROVERSY ABOUT HEDGE FUND REPLICATION

Hedge fund replication remains controversial among institutional investors. The most strident critiques – going back to 2007 – have come from allocators whose jobs depend on building actual portfolios of hedge funds. As in the traditional space, lower cost options that tend to outperform active managers are disruptive, to say the least. The focus on the inequity of hedge fund fees in part is due to the outperformance of (much) lower cost options.

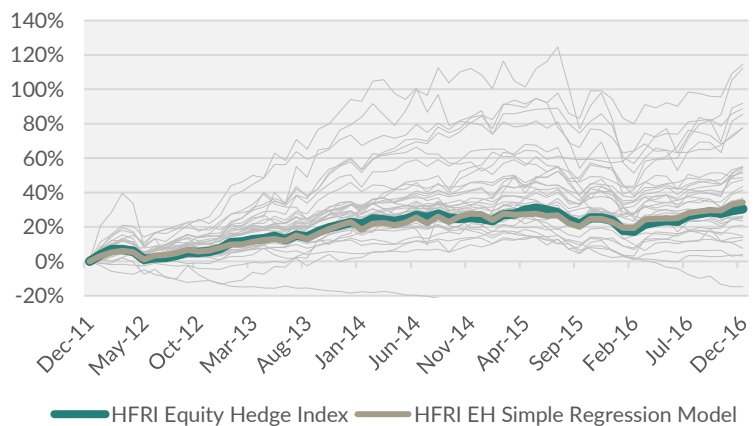


Figure 7 - A Simple Replication Portfolio Can Outperform with High Correlation to the Bucket

After ten years of results, critics of replication have been forced to acknowledge several key conclusions. First, replication does not systemically underperform hedge funds – in fact, with a 300 bps head start on fees, the products typically outperform. Second, replication is lower risk than hedge funds: no gating risk, no unexpected drawdowns during a liquidity crisis like 2008 (when the illiquidity premium went negative), and no single stock crowding risk (a big reason replication outperformed leading hedge funds in 2015-16). Third, the sources of “alpha” that are not “replicable” – primarily stock selection and illiquidity – are insufficient to warrant the 2/20 fee structure.

A more recent area of controversy is whether it is better to replicate hedge funds themselves (as described above) or the trading strategies they employ (e.g. merger arbitrage, carry trades, etc.). These “alternative risk premia” products can offer compelling, hedge fund returns at low fees. However, the evidence to date suggests that the success of one portfolio versus another is due entirely to acumen (or luck) of the manager, who decides which risk premia to buy and when. As with any single manager fund, this introduces idiosyncratic risk. Since most funds have very short track records, it is too early to conclude that the dispersion among such funds is materially lower than those of single manager hedge funds or liquid alternatives; that said, there is a growing consensus that the strategies are more accurately characterized as “single-manager macro funds” rather than “replication” per se.

CONCLUSION

Several themes dominate the retail space today. The debate between passive and active strategies has focused attention on whether and when higher fees are justifiable. Regulatory changes and scrutiny – such as the Department of Labor fiduciary rule or RDR in the UK – have heightened awareness of the importance of driving down investment costs since this is the most predictable drag on performance over time. Wirehouses and other advisors increasingly are pushing clients into centrally-determined, institutional-quality asset allocation models to enable advisors to focus on client management and minimize regulatory risk.

When liquid alts products were in their infancy, hype overwhelmed reason. To many experienced practitioners, the underperformance of multi-manager mutual funds was entirely predictable – all you had to do was talk to the hedge funds who had declined to try to force strategies into the constraints of a ‘40 Act fund. As one manager told us after reviewing how much of their performance they would sacrifice by doing this: “There are easier ways to get LIBOR.” Even though mutual or UCITS fund track records were unreliably short, the dispersion of single-manager hedge funds was evident in hedge fund databases. Ultimately, when hype dominates, investor expectations become unrealistic and there is a perennial temptation to “chase the hot dot.” As more and more single high-flier funds crashed, many advisors and investors blamed the diversification process, or the bucket, rather than focusing on the more pertinent issues of product design and its relation to portfolio constraints.

Today, as reality has set in on some of the limitations of Generation One products, allocators are looking for more reliable, cost effective, longer-term solutions. Eight years into a bull market, too many investors have thrown caution to the wind; fighting this trend, professional allocators are struggling to ensure that investors have more protection going into the next bear market. To achieve this, allocators need a new suite of liquid alternative products. Whether through replication or other means, Generation Two must focus on outcomes and realistic results, preferably those backed by a decade or more of concrete evidence.