

Hedge Fund Portfolios – Embedded Timing Alpha

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EXECUTIVE SUMMARY

After the credit crisis of 2007–2008, investors are asking for more clarity on the hedge fund value proposition. While alpha and diversification benefits may be worth paying for, what else justifies the cost of investing in hedge funds? In the course of delivering alpha from security selection, hedge fund managers often have beta exposure in order to achieve higher returns, although some remain dedicated to market neutrality. This paper will discuss how much tactical decision making occurs in a portfolio of hedge funds relative to the well-understood alpha and beta components.

In examining the reasons an investor can expect to benefit from hedge fund returns, we usually think of such factors as traditional stock and bond betas, alternative risk premiums like merger arbitrage and distressed credit, and ultimately some form of alpha. Often overlooked is another source of return coming from the decisions of hedge fund managers to vary exposure to traditional betas and other risk premiums. Timing the size and direction of these exposures can add value and is separate from security-selection decisions. We begin by presenting ideas about how much static exposure hedge funds have to traditional asset classes. Second, we describe the degree of aggregate tactical decisions found in a well-known set of hedge fund benchmarks. Finally, in addition to advocating for more exposure to “alpha rich” approaches, we present ideas about why an investor may want to integrate more standalone Global Tactical Asset Allocation (GTAA) strategies into a portfolio of hedge funds aimed at improving the overall performance characteristics.

Institutional investors have long relied on hedge fund investments to diversify their holdings in traditional asset classes. We suggest that a surprising amount of this benefit is derived from various forms of skilled tactical decisions when compared with skilled security selection. Recent academic research shows that the degree of tactical decision making by hedge fund managers in the context of a typical diversified portfolio of hedge funds can be surprisingly large. We believe that Mellon Capital’s various active strategies can play an important part in contributing to an investor’s overall investment success by providing investment solutions that can help manage the proper proportions of alpha, tactical decisions, and traditional beta.

HEDGE FUND PERFORMANCE COMPONENTS – NEW FRAMEWORK

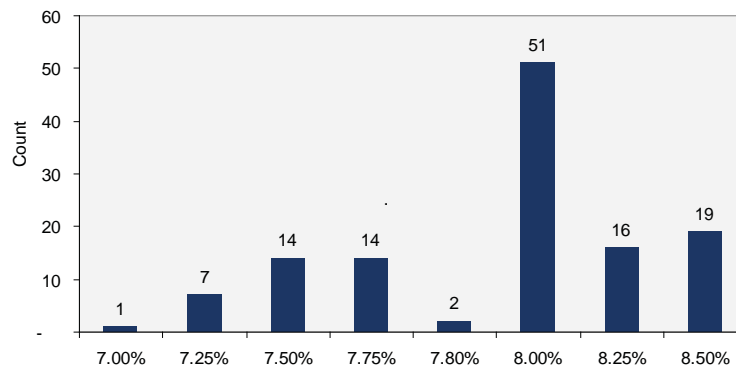
The sheer size of the hedge fund industry, at just over \$2 trillion, suggests there are significant benefits for investors¹. The relative proportion of the hedge fund industry to the world stock market capitalization – estimated to be around \$47 trillion – is not insignificant². In today's current low-yield environment, institutional investors aiming to achieve an actuarial target rate of return of 7% or 8% (See *Figure 1 as an example for public pension plans*) over a business cycle cannot rely solely on a blend of traditional stocks and bonds³. It's too simple and too risky. Even considering the relative trading size and liquidity attributes, the equity risk premium, sovereign term premium, and corporate credit spreads are a small subset of the available risk premiums for large investors.

Therefore, expanding the opportunity set of risk premiums is one important skill that hedge funds provide. Hedge funds can deliver additional risk premium stemming from corporate actions, derivative markets, illiquidity, and nonrandom price behavior. A hedge fund holding a merger arbitrage position or buying a distressed bond is not exhibiting extraordinary skill, yet the managers are getting compensated for the risk taking. When we get to the question, "Which merger arbitrage transaction has attributes that hold undiscovered value?" we are getting closer to the alpha value proposition. Picking the right trades to hold around the dimensions of various risk premiums can give rise to security selection alpha. Skill in security selection that produces an uncorrelated alpha source remains highly valued in the hedge fund industry. And yet, increasing evidence suggests that certain hedge fund managers not only hold traditional beta exposures and the larger list of risk premia, but also time these exposures well enough to create valuable active performance.

Figure 1: Public Pension Return Assumptions

Distribution of public pension fund nominal investment return assumptions

Data Source: National Association of State Retirement Administrators Public Fund Survey, March 2010



Most good hedge funds are adept at exploiting opportunities and holding the proper exposure to risk premiums for their strategy. Beyond holding static positions, the skill to change the degree of open exposures to traditional betas has been shown to be observable and valuable⁴. Chen and Liang [2006] report, "Using a sample of 221 market timing funds during 1994–2005, we find evidence of timing ability at both the aggregate and fund levels." This research supports the notion that beyond capturing risk premiums and skill-based alpha, the hedge fund industry can deliver material amounts of performance from tactical decisions. While Chen and Liang focused on market timing funds, similar market timing skills can be a part of hedge fund strategies not directly identified with market timing. For example (*Figure 2*), a long short equity manager that typically carries a 45% net long exposure to the market in normal market environments may find that expanding to 65% net long for a short time period captures extra performance if he or she believes that earnings might expand. The manager could hold a smaller than normal net equity exposure if he or she forecasts a contraction in earnings. The academic community and some hedge fund practitioners assigned the term "alternative beta" to this source of hedge fund performance. We will use the term "Timing Alpha" later in our discussion as a better description.

1 FINalternatives reported that the hedge fund industry, "...now manages \$2.037 trillion," (December 9, 2009), <http://www.finalternatives.com/node/9918>.

2 Data source: Bloomberg, 40 largest countries by market cap, \$46,827 billion (March 22, 2010).

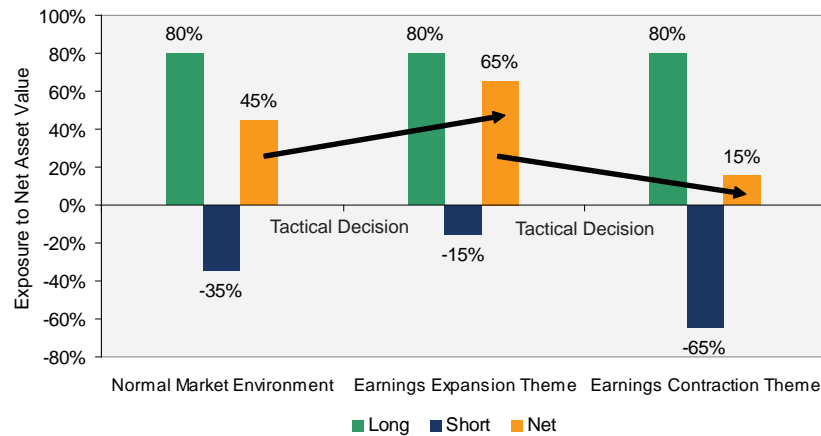
3 National Association of State Retirement Administrators Issue Brief: Public Pension Plan Investment Return Assumptions (March 2010), median investment return assumption of 8.0 percent.

4 Yong Chen and Bing Liang, "Do Market Timing Hedge Funds Time the Market?" (June 12, 2006). EFA 2005 Moscow Meetings; *Journal of Financial and Quantitative Analysis*, Vol. 42, No. 4, 2007.

Figure 2: Alternative Beta Example

Skill: Changing open exposure to the underlying betas in a long/short portfolio separate from stock selection

Data Source: Mellon Capital



According to Roncalli and Teiletche [2007], “One huge difference between alternative beta and traditional beta is that for hedge funds, exposure is not a passive one but should integrate non-linear effects. For instance, as they follow dynamic strategies, hedge funds regularly change their exposure, which gives rise to option-like payoffs.”⁵ In addition to skill in security selection, an investment manager’s ability to correctly time exposure to risk premiums or stock and bond market betas needs to be well understood in order to make well-placed investments with hedge funds. Does a hedge fund’s outperformance have more to do with alternative beta decisions or with alpha in security selection? It could be that a hedge fund manager exhibiting excess returns over a cash benchmark and a low correlation to traditional asset types is skilled at alternative beta management and less skilled at picking the right securities to hold.

IMPLICATIONS AND RISKS

The hedge fund industry is largely exposed to a net long equity position. It is well known that most of this exposure comes from long/short equity managers, a dominant subgroup. However, additional stock beta can surface when credit spreads widen and volatility spikes – not an unusual set of events when a market stress event unfolds. Using monthly data from January 1990 to December 2009, *Figure 3* displays the consistently high rolling 36-month correlation of the HFRI Fund Weighted Composite Index (HFRI) to the S&P 500® Index. In contrast, the HFRI exhibits noticeably lower correlation to bonds as represented by the Barclays Capital U.S. Aggregate Bond Index over the same time period. The high level and consistency of this correlation measure suggest a significant amount of static equity exposure in aggregate hedge fund returns. Institutional investors typically invest in hedge funds in order to smooth out the performance of a balanced traditional beta portfolio. With a preponderance of risk coming from exposure to equities, adding hedge funds to a traditional stock and bond portfolio necessitates a careful examination of the exposures to alpha, alternative betas, and traditional betas.

If this static exposure is evident in aggregate hedge fund returns, is it showing up at the index subcategory level? *Figure 4* displays the 36-month rolling correlations for HFRI strategy classifications to the S&P 500. The Equity Hedge classification has a high correlation over the entire time period, which is consistent with one’s expectations for net long exposures. The Event-Driven classification has correlated almost as well as Equity Hedge, partially explained by the exposure to credit and merger spreads often found in hedge funds listed in this group. The elevated correlation of Event Driven and Relative Value over the last five years is striking. The rolling correlation of three of the four of these strategy classifications culminate to levels above 0.8 in the fourth quarter of 2008 in the midst of the recent credit crisis.

5 Thierry Roncalli and Jerome Teiletche, “An Alternative Approach to Alternative Beta” (April 1, 2007). Available at SSRN: <http://ssrn.com/abstract=1035521>.

Figure 3: Hedge Funds – Traditional Betas, Rolling 36-Month Correlation

December 1992–March 2010

HFRI Fund Weighted Composite Index, S&P 500 Composite Index, Barclays Capital Aggregate Bond Index

Data Source: Datastream and Hedge Fund Research, Inc., © 2010, www.hedgefundresearch.com

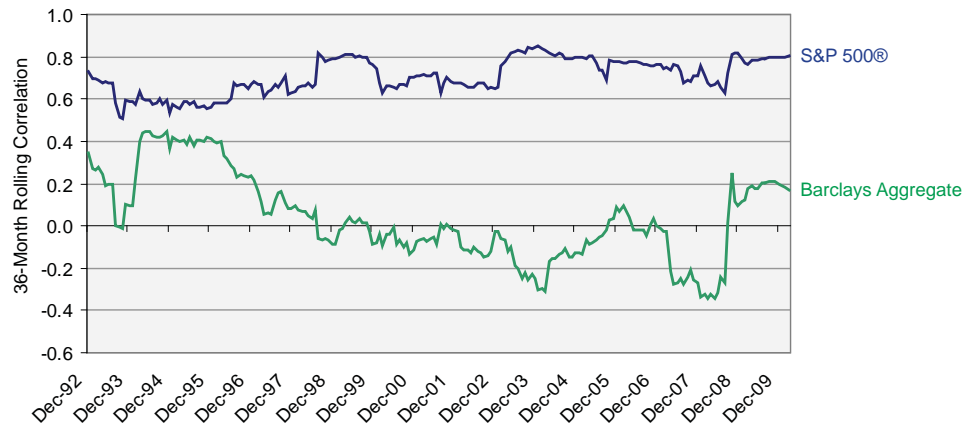
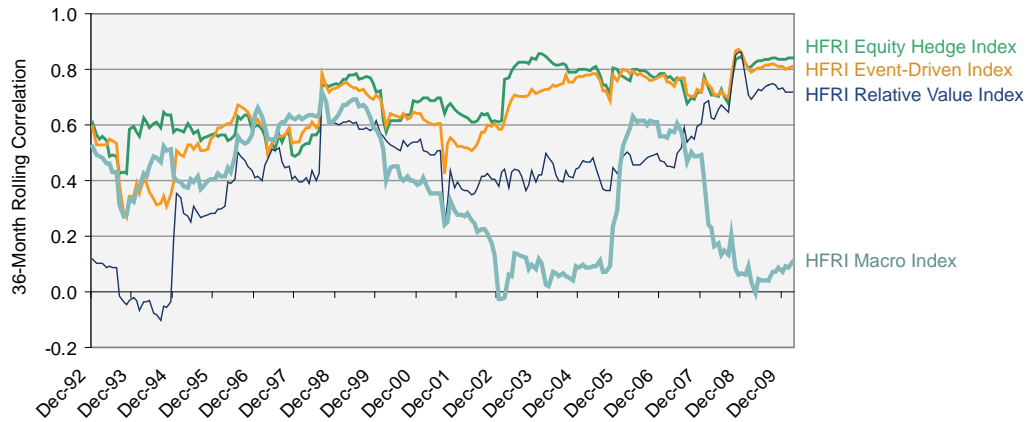


Figure 4: Hedge Funds – Subindex, Rolling 36-Month Correlation

December 1992–March 2010

HFR Equity Hedge Index, HFR Event-Driven Index, HFR Relative Value Index, HFR Macro Index

Data Source: Datastream and Hedge Fund Research, Inc., © 2010, www.hedgefundresearch.com



It might seem that aggregate hedge fund exposure to the stock market is permanent and to some degree “static.” *Figure 5* presents the last 20 years of monthly correlations for the HFRI and the strategy classifications to traditional betas. Equity Hedge has the most stable correlation to the S&P 500, while Macro is more variable. While we can easily point to what appears to be a static allocation to the stock market, the idea that hedge fund managers are skilled at resizing or changing the direction of traditional betas or other risk premiums is not obvious by simply studying correlation relationships. Another set of tools needs to be applied to the past performance of hedge funds to gain a deeper understanding of the attribution of their performance.

Figure 5: Longer-term Correlation
April 1990–March 2010
Monthly data

Data Source: Datastream and Hedge Fund Research, Inc., © 2010, www.hedgefundresearch.com

HFRI Correlation vs.	Last 5 Years (4/05–3/10)	Last 10 Years (4/00–3/11)	First 10 Years (4/90–3/00)	Total Period (4/90–3/10)
S&P 500® Index	0.79	0.79	0.64	0.73
Barclays Aggregate Index	0.09	0.03	0.14	0.09
Stock 60% /Bonds 40% Index	0.77	0.79	0.61	0.71

S&P 500® Correlation vs.	Last 5 Years (4/05–3/10)	Last 10 Years (4/00–3/11)	First 10 Years (4/90–3/00)	Total Period (4/90–3/10)
HFRI Equity Hedge Index	0.83	0.81	0.57	0.71
HFRI Event-Driven Index	0.80	0.76	0.57	0.69
HFRI Relative Value Index	0.71	0.56	0.33	0.48
HFRI Macro Index	0.15	0.19	0.42	0.33

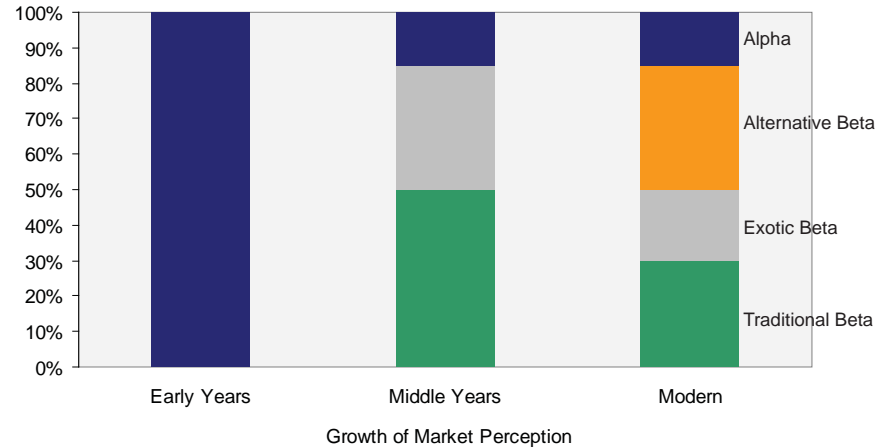
HISTORICAL PERSPECTIVE

Over time we have seen investors and academia gaining clarity on the alpha/beta categorization of performance in their portfolios. In addition to security-type attribution, we see a changing conceptualization of the components that make up total hedge fund performance (See Figure 6). Early in the formative stages of hedge funds, investors held the notion that investment managers delivered mostly alpha.⁶ Attributable in part to the earlier work by Fung and Hsieh [2002], there is a wider understanding around performance coming from replicable “asset-based benchmarks” and a smaller portion coming from skill or alpha. In the last few years, the term “alternative beta” has become common in describing the skill that investment managers have in timing the traditional betas and exposure to other risk premiums.

Figure 6: Sources of Performance
January 1990–March 2010

Market perception for source of hedge fund returns

Data Source: Partners Group and Mellon Capital



What are factors that the hedge fund managers have skill in timing? Figure 7 lists the factors that one group (Martellini et al.⁷) found mapped to hedge fund substrategies. For example, the HFRI Macro classification benefits from timing decisions around stocks, bonds, commodities, emerging markets, and currencies.

Figure 7: Strategy Classification Details

Data Source: Strategy classifications sourced from Hedge Fund Research, Inc., with factor selection information from both HFRI and Martellini et al.

HFRI Hedge Fund Strategy Classifications	Strategy Examples	Factor Selection
HFRI Event-Driven	Activist, Credit Arbitrage, Distressed/Restructuring, Merger Arbitrage Private Issue/Regulation D, Special Situations	S&P 500, Credit Spread, Small/Large Cap
HFRI Relative Value	Fixed Income, Volatility, Yield Alternatives (Energy Infrastructure and Real Estate)	S&P 500, Small/Large Cap, VIX, Currency
HFRI Macro	Active Trading, Commodities, Currency	S&P 500, Bond, Commodity, Emerging Markets, Currency
HFRI Equity Hedge	Equity Market Neutral, Fundamental Value, Quantitative Directional, Short Bias	S&P 500, Small/Large Cap

Skill in timing the amount of exposure to asset and alternative betas is valuable and can have a significant contribution to the overall performance of a portfolio of hedge funds. It is this timing skill that should be distinguished from security selection alpha so as to better manage overall performance of a portfolio of hedge funds.

6 William Fung and David Hsieh, “Asset-based Style Factors for Hedge Funds,” *Financial Analyst Journal*, September/October 2002, Vol. 58, No. 5: 16–27.
 7 Amenc Martellini and Ziemann, “Hedge Fund Replication – An Assessment of Existing Techniques and Directions for Further Research” (October 15, 2007), Hedge Fund Replication Seminar, Financial Engineering Seminar, taken from p.49 of conference publication.

Alpha related to security selection is typically in short supply. In 2006, David Hsieh of Duke University, published estimates that perhaps only \$30 billion of alpha is available in a trillion-dollar hedge fund industry⁸. If an investor wants only alpha, what is the ideal hedge fund strategy? It will be difficult to fulfill this desire for an investor's entire portfolio. Alpha-only funds, or pure absolute-return funds, are hard to find and are often closed once an investor's research identifies their existence. Limited alpha with vast sums of capital to invest has in fact led to either alpha being not easily accessible because good hedge funds are closed, or small slices of alpha being available packaged with traditional and alternative betas.

Realistically, almost every hedge fund comes with some set of factor exposures beyond the alpha component. This presents an interesting set of challenges for the portfolio manager managing a portfolio of hedge fund investments. The ratio of security selection alpha to timing alpha to traditional beta is an important concept. Each of these elements should be managed along with the normal opportunities categorized by hedge fund strategy buckets: equity hedge, macro, etc. Using factor analysis, Roncalli and Teiletche [2007] find that hedge fund returns can be deconstructed so that alpha is separated from traditional and alternative betas through the use of a Kalman filter⁹. A shortened version of their summary performance analysis (decomposition of the total return of hedge fund indexes, January 1997 to February 2007) is shown in *Figure 8*. They find that alternative beta is estimated to have contributed almost 25% of the total performance, and without the cash contribution it becomes nearly 40% of the noncash performance. According to this research, alternative beta is twice as important with regard to overall performance relative to the contribution from alpha.

Figure 8: Decomposition of a Hedge Fund Index
January 1997–February 2007

Data Source: Roncalli and Teiletche [2007]

% Per Year	HFRI with Cash		HFRI Without Cash	
	Performance	Proportion	Performance	Proportion
Total Performance	10.39%	100.00%	6.47%	100.00%
Cash	3.92	37.70	–	–
Traditional Beta	2.79	26.80	2.79	43.12
Alternative Beta (Timing Alpha)	2.49	24.00	2.49	38.49
Alpha	1.19	11.40	1.19	18.39

We have been researching the various aspects of the sources of performance in order to better understand the potential for our strategies to contribute to both the security selection alpha and timing alpha for investors. With the HFRI as a reference, our hedge fund replication methodologies use a proprietary Kalman filter to estimate the aggregate holdings of hedge fund managers. Clearly, the decomposition of returns into traditional beta, exotic beta, alternative beta, and alpha is model-specific. In particular, it depends on the exact statistical methodology used, the selection of replication factors, and other modeling assumptions. Despite differences in all three categories, we reach findings very similar to those of Roncalli and Teiletche.¹⁰ Our research (*See Figure 9*) indicates that the alpha component of the HFRI is estimated to have declined dramatically in the later period of January 2005 to January 2010. We define Traditional Beta as exposure to stocks and bonds, Exotic Beta as exposure to other risk premiums such as credit and volatility, Timing Alpha as skill

⁸ David A. Hsieh, "The Search for Alpha – Sources of Future Hedge Fund Returns," *CFA Institute Conference Proceedings Quarterly*, September 2006, Vol. 23, No. 3: 79–89.

⁹ The Kalman filter is a set of mathematical equations that provides an efficient computational (recursive) means to estimate the state of a process, in a way that minimizes the mean of the squared error. Definition source: Greg Welch and Gary Bishop, "An Introduction to the Kalman Filter," (July 24, 2006), Department of Computer Science, University of North Carolina at Chapel Hill.

¹⁰ The key differences are that we use a proprietary model different from the Roncalli and Teiletche Kalman filter, our factors are different (S&P 500, Russell 2000, NASDAQ 100, MSCI EAFE, MSCI Emerging Markets, U.S. Treasuries, G10 currencies, GSCI Total Return Index, CBOE BXM Index), and Roncalli and Teiletche do the decomposition in-sample, while Mellon Capital computes the index replication and the return decomposition in real time.

in timing the markets, and Alpha as skill in security selection in addition to exposure to illiquidity premiums. The lower performance in the January 2005 to January 2010 period still comprises a significant proportion of Timing Alpha. In fact, without the Timing Alpha you could argue that the hedge fund value proposition was close to zero after accounting for the static exposure to Traditional Beta. The lower Traditional Beta is – in part – explained by significantly lower cash rates.

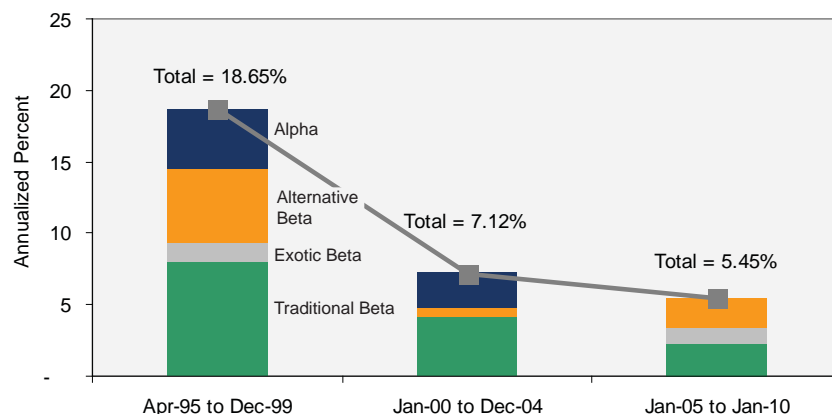
Has the hedge fund industry entered a period where alpha is even more difficult to produce? One could argue that several forms of alpha require leverage to accomplish the higher performance numbers often demanded by hedge fund investors. For the time being, the financial crisis has left many hedge funds facing stiffer borrowing requirements even with attractively low interest rates.

Figure 9: Decomposed Hedge Fund Index Return Components

April 1995–January 2010

Traditional Beta is comprised of S&P 500®, Russell 2000®, EAFE, and Treasuries. Exotic Beta: all non-traditional factors

Data Source: Datastream, Hedge Fund Research, Inc., © 2010, www.hedgefundresearch.com and Mellon Capital



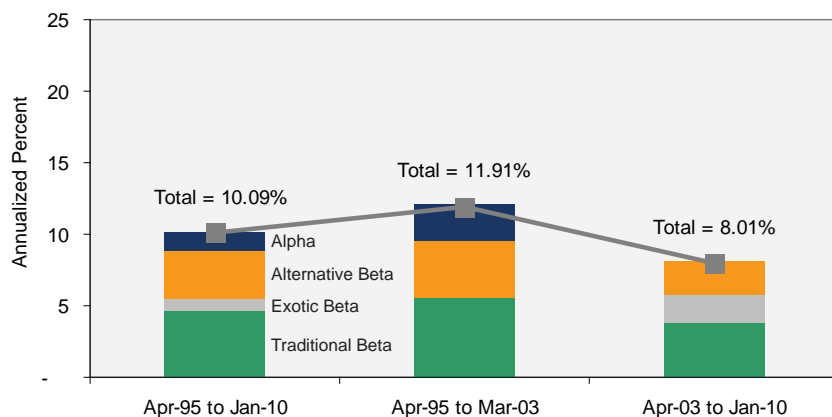
Another way to examine estimated diminishing alpha opportunities is to compare their behavior over time, as we see in *Figure 10*. Alpha is estimated to almost have disappeared after 2004. However, the Timing Alpha shows signs of perhaps being more durable. We believe this might be related to the market developments that make Timing Alpha liquid and cheap. If alpha availability is periodically subject to changing leverage and liquidity, then managing a portfolio of hedge funds to get the most out of the Timing Alpha would seem to be a worthwhile objective.

Figure 10: Decomposed Hedge Fund Index Return Components

April 1995–January 2010

Traditional Beta is comprised of S&P 500®, Russell 2000®, EAFE, and Treasuries. Exotic Beta: all non-traditional factors

Data Source: Datastream, Hedge Fund Research, Inc., © 2010, www.hedgefundresearch.com and Mellon Capital



POSSIBLE SOLUTIONS

By and large, hedge fund investors prefer liquidity, high alpha content, transparency, and repeatability. Unfortunately, the alpha sought by investors is often available only in semi-liquid opportunities that hedge fund managers do not want revealed to the general public.

Globally, if investors want high risk-adjusted returns with low correlation to the HFRI, why have they allocated capital collectively to hedge funds in a way that guarantees a high correlation to the S&P 500? Perhaps it is too tempting to reach for past performance that we know is laden with equity beta. In Figure 11, for each of the HFRI strategy classifications, we see a progression of lower maximum drawdowns paired with lower correlations with the S&P 500. In the context of risk budgeting, swapping out the beta exposure for more Timing Alpha could be a desirable way to run a portfolio of hedge funds with more attractive performance metrics.

Figure 11: HFRI Index Performance January 1990–March 2010 Monthly performance

Data Source: Hedge Fund Research, Inc., © 2010, www.hedgefundresearch.com

Index	Annualized ROR	Maximum Drawdown	Standard Deviation	Correlation to S&P 500
HFRI Fund Weighted Index	12.15%	-21.42%	7.06%	0.73
HFRI Equity Hedge Index	14.17	-30.57	9.20	0.71
HFRI Event-Driven Index	12.56	-24.78	6.93	0.69
HFRI Relative Value Index	10.77	-18.03	4.49	0.48
HFRI Macro Index	13.70	-10.70	7.77	0.34

SOLUTION EXAMPLE

We now can present an interesting solution – although there are certainly others – for utilizing this framework for hedge fund sources of performance. We begin with the assumption that at the portfolio level of hedge funds – using the HFRI as a proxy – the risk allocation to the static traditional beta causes undue correlation exposure to the balance of assets in a traditional portfolio. Therefore, it is desirable to reduce this static exposure, free up the risk budget, and introduce either more Alpha or more Timing Alpha. We will assume Alpha is in short enough supply that we can deal directly with allocating more to increasing the portfolio’s exposure to Timing Alpha. In *Figure 12*, we see the steps that could be taken to modify an investor’s exposure to the HFRI Index leading to a Customized Hedge Fund Index.

Figure 12

Data Source: Hedge Fund Research, Inc., © 2010, www.hedgefundresearch.com

Customized Hedge Fund Index Implementation Steps ¹¹	Motivation
Sell 20% of the HFRI holdings	Reduces pro rata exposure to Traditional Beta, Exotic Beta, Timing Alpha, and Security Selection Alpha
Short an appropriate amount of S&P 500 futures, in this case 20%	Reduces further the exposure to Traditional Beta ¹²
Fund the futures margin with 2% of the sale proceeds	Capital efficiency is gained
Invest 18% of the remaining proceeds into the HFRI Macro Systematic Diversified Index (our proxy for Timing Alpha)	Accomplishes a rotation away from Traditional Beta to Timing Alpha

The HFRI sub-strategy in the Macro category called Systematic Diversified is an appropriate Timing Alpha solution for this exercise because the strategy seeks to create value predominantly through capturing various asset-class price movements rather than through individual security selection.

11 This is being shown for illustrative purposes only and should not be construed as a strategy recommendation for any investor.
 12 Between January 1990 and March 2010, the HFRI’s beta with respect to the S&P 500 was +0.34, which would have justified an even larger short position in the S&P 500®. The 36-month rolling beta, however, was between +0.20 and +0.50 and we picked the lower bound of this range as the short weight on the S&P 500.

Most GTAA strategies are classified by HFRI as “Systematic Diversified.” The opportunities we see in the global markets are typically mean-reverting to a measured equilibrium, although some of our GTAA sub-strategies involve interest rate carry approaches with some directional position taking. We know the value of Timing Alpha, as this represents a significant proportion of our active investment management focus. We should also note that as the definition suggests in the adjoining text box for Systematic Diversified, Managed Futures is also placed within this sub-strategy index.

In *Figure 13*, we show the cumulative performance of the HFRI compared with the modified “better” version we will call the Customized Hedge Fund Index. It is clear by looking at the chart that the modifications present a more consistent performance series over time. However, even though the total performance for this modified series is lower than the published HFRI performance, there are meaningful enhancements to the risk and correlation profile.

HFRI MACRO: SYSTEMATIC DIVERSIFIED INDEX DEFINITION

Strategies have investment processes typically as a function of mathematical, algorithmic, and technical models, with little or no influence of individuals over the portfolio positioning. Strategies that employ an investment process designed to identify opportunities in markets exhibiting trending or momentum characteristics across individual instruments or asset classes. Strategies typically employ quantitative processes that focus on statistically robust or technical patterns in the return series of the asset and typically focus on highly liquid instruments and maintain shorter holding periods than either discretionary or mean reverting strategies. Although some strategies seek to employ countertrend models, strategies benefit most from an environment characterized by persistent, discernible trending behavior. Systematic Diversified strategies typically would expect to have no greater than 35% of the portfolio in either dedicated currency or commodity exposures over a given market cycle.

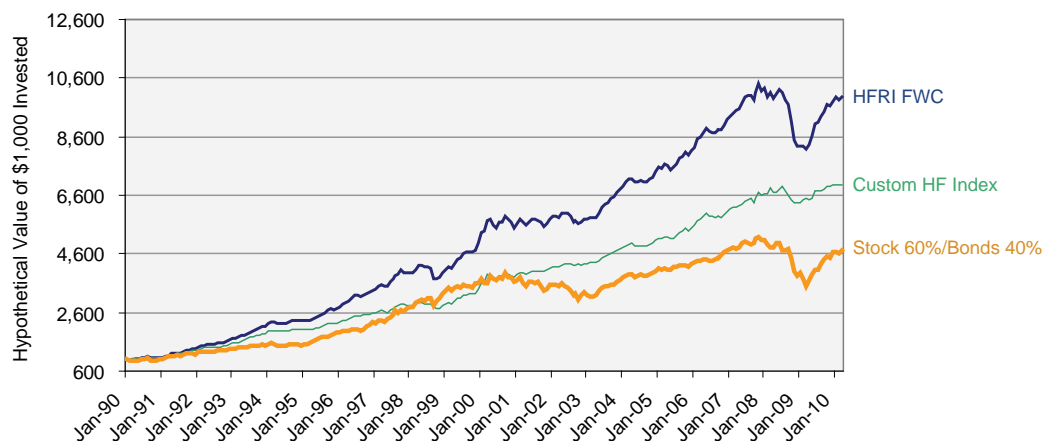
Source: Hedge Fund Research, Inc., © 2010, www.hedgefundresearch.com

Figure 13: Hypothetical Modified HFRI Exposure¹³
January 1990–March 2010

HFRI Fund Weighted Composite Index Balanced Index:
 60% S&P 500/40% Barclays Capital U.S. Aggregate Bond Index, Rebalanced monthly

See also *Figure 12* for Custom HF Index information

Data Source: Datastream, Hedge Fund Research, Inc., © 2010, www.hedgefundresearch.com and Mellon Capital



13 ANY RESULTS PRESENTED BASED ON SIMULATED OR HYPOTHETICAL PERFORMANCE RESULTS HAVE CERTAIN INHERENT LIMITATIONS. UNLIKE THE RESULTS SHOWN IN AN ACTUAL PERFORMANCE RECORD, SIMULATED OR HYPOTHETICAL RESULTS DO NOT REPRESENT ACTUAL TRADING. ALSO, BECAUSE TRADES HAVE NOT ACTUALLY BEEN EXECUTED, SIMULATED RESULTS MAY HAVE UNDER- OR OVER-COMPENSATED FOR THE IMPACT, IF ANY, OF CERTAIN MARKET FACTORS, SUCH AS LACK OF LIQUIDITY. SIMULATED OR HYPOTHETICAL TRADING PROGRAMS IN GENERAL ARE ALSO SUBJECT TO THE FACT THAT THEY ARE DESIGNED WITH THE BENEFIT OF HINDSIGHT. NO REPRESENTATION IS BEING MADE THAT ANY ACCOUNT WILL OR IS LIKELY TO ACHIEVE PROFITS OR LOSSES SIMILAR TO THESE BEING SHOWN.

Figure 14 shows the Custom Hedge Fund Index comparative performance from January 1990 to March 2010 with the improvement in all of the risk parameters. Of particular note is the significant reduction in the maximum drawdown from over -21% for the HFRI to just -8% for the modified version. Also, we see a halving of the correlation to the S&P 500 even though the short futures position is only 20%. Finally, we point out the reduction in the standard deviation from 7.06% for the HFRI to 4.80% for the Customized Hedge Fund Index.

Figure 14: Modified HFRI Performance
January 1990–March 2010
Monthly data

Data Source: Hedge Fund Research, Inc., © 2010, www.hedgefundresearch.com, Mellon Capital, and Citigroup 1-Month T-Bill (Sharpe Ratio)

Index	Annualized ROR	Maximum Drawdown	Standard Deviation	Correlation to S&P 500	Sharpe
S&P 500	8.38%	-50.95%	15.02%	1.00	0.32
Barclays Aggregate	7.01	-5.15	3.85	0.18	0.88
HFRI	12.15	-21.42	7.06	0.73	1.21
Custom HF Index ¹⁴	10.10	-8.09	4.80	0.36	1.35
Change from HFRI	-2.05	13.34	-2.27	-0.37	0.14

Why is this approach to modifying the HFRI – or any other hedge fund portfolio – better? We have reduced the static equity risk premium exposure and replaced it with a less correlated, more durable alternative – Timing Alpha. Trading a modest amount of hedge fund portfolio performance for a potential large maximum drawdown reduction could be a worthwhile investment strategy sub-component.

CONCLUSION

When we think of the benefits from investing in hedge funds, we often turn primarily to the correlation effects. In buying these correlation effects, investors should think twice about accepting all of the factor exposures that come with a portfolio of hedge funds and consider being active in reducing – or better managing – these exposures. The static exposure to the equity markets in the HFRI is substantial and persistent through time. Over the last few years, even the HFRI strategy classifications show consistent high correlation to the equity risk premium. Identifying how much equity exposure is in a hedge fund portfolio is typically a straightforward exercise, and the costs of managing an equity hedge are minimal. It would seem to make sense for hedge fund investors to reduce the equity exposure through an efficient hedge and replace the risk budget with a durable and valuable alternative: Timing Alpha.

¹⁴ ANY RESULTS PRESENTED BASED ON SIMULATED OR HYPOTHETICAL PERFORMANCE RESULTS HAVE CERTAIN INHERENT LIMITATIONS. UNLIKE THE RESULTS SHOWN IN AN ACTUAL PERFORMANCE RECORD, SIMULATED OR HYPOTHETICAL RESULTS DO NOT REPRESENT ACTUAL TRADING. ALSO, BECAUSE TRADES HAVE NOT ACTUALLY BEEN EXECUTED, SIMULATED RESULTS MAY HAVE UNDER- OR OVER-COMPENSATED FOR THE IMPACT, IF ANY, OF CERTAIN MARKET FACTORS, SUCH AS LACK OF LIQUIDITY. SIMULATED OR HYPOTHETICAL TRADING PROGRAMS IN GENERAL ARE ALSO SUBJECT TO THE FACT THAT THEY ARE DESIGNED WITH THE BENEFIT OF HINDSIGHT. NO REPRESENTATION IS BEING MADE THAT ANY ACCOUNT WILL OR IS LIKELY TO ACHIEVE PROFITS OR LOSSES SIMILAR TO THESE BEING SHOWN. See also Figure 12 for Custom HF Index information.

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