The Democratization Of Hedge Funds

Alternative beta: accessing hedge fund returns in a liquid, low-cost and transparent manner

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IN BRIEF

- The high-fee business model of hedge funds is under pressure, but the use of alternative investment processes remains a valuable opportunity for diversifying portfolios. It is increasingly possible to explain the returns to hedge fund styles using simple, well-known strategies and to explain why such strategies (or "premia") should have positive expected returns. These systematic return drivers explain a large portion of the common risk of hedge fund managers of a given type and have hence been termed "alternative beta" or "hedge fund beta."
- We define alternative beta premia as factors with positive expected return and uncorrelated to traditional beta market risks. Their compensation can be explained using arguments based on behavioral biases, market anomalies and systematic deviations from equilibrium, or rational risk preferences. Remarkably, the majority of these factors are liquid in nature and thus can be delivered with transparency and low cost without the need for the illiquidity of assets typical in the hedge fund industry.
- Ultimately, the growing knowledge around the concept of alternative beta must lead to the reclassification of a significant portion of what is today considered "alpha." Furthermore, investors' increased understanding of the factor risk exposures associated with different hedge fund styles will help in the pursuit of better diversified portfolios with greater transparency.

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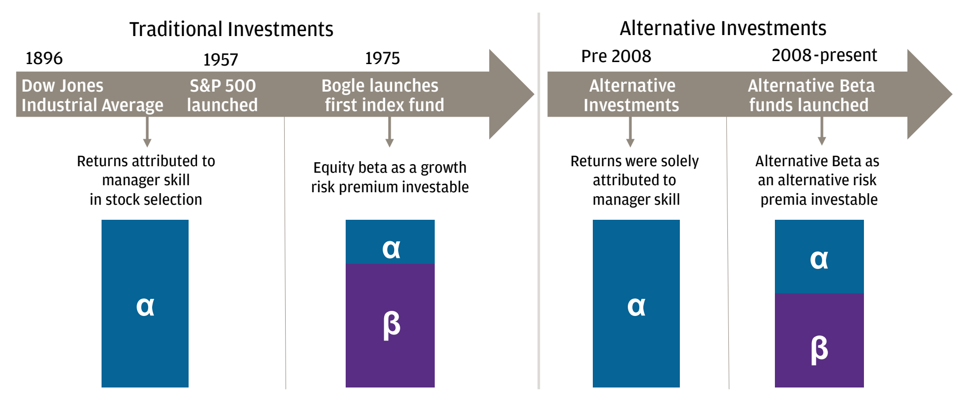
EXHIBIT 1: EVOLUTION OF ALPHA INTO BETA



Source: J.P. Morgan Asset Management
For illustrative purposes only.

Redefining Alpha & Beta

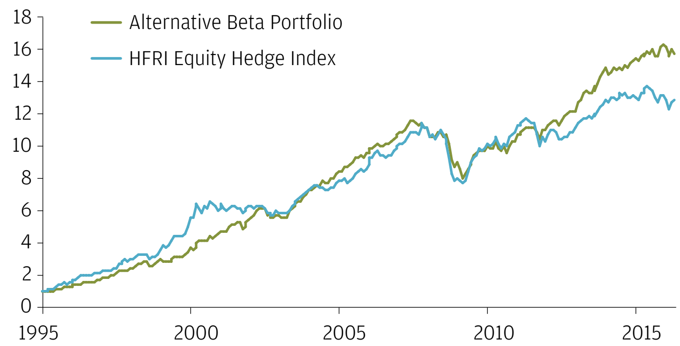
Conventionally, alpha is understood to be the excess return due to active management, while beta is thought to be the return due to the market. However, portfolio theory allows for any number of risk factors. Beta is in fact best defined as the portion of returns that can be attributed to one or more systematic exposures to an economic premium. Alpha is then the portion of returns that cannot be explained by these systematic exposures.

Since the 1970s, common risk factors have been acknowledged in traditional investments such as stocks and bonds. Prior to this, what seemed obvious to market participants was that one needed to know which stocks to buy. The idea that there was a risk premium attached to simply being exposed to the markets was alien to market participants. Yet today we take that concept entirely for granted. Increasingly, the same is happening to hedge funds (**EXHIBIT 1**, preceding page). This evolution in the understanding of alternative investment returns has the potential to change the industry on two fronts: firstly, by providing a benchmark for hedge fund managers; and secondly, by allowing direct investment in the alternative premia. This strategy of investment in premia provides a low-cost, transparent and liquid way to diversify portfolios.

EXHIBIT 2A

	Alternative Beta portfolio	HFRI Equity Hedge Index
Mean return (%)	10.35	9.51
Volatility (%)	7.48	9.11
Sharpe ratio	0.96	0.70
Equity beta	0.48	0.47
Monthly VaR 5% (%)	3.09	2.99
Maximum drawdown (%)	43.00	50.60

EXHIBIT 2B



Sources: Hedge Fund Research and J.P. Morgan; data as of May 1, 2016.
Past performance is not indicative of future results.

EXPLAINING & REPRODUCING HEDGE FUND RETURNS

Because the average hedge fund contains market risk, first-generation "hedge fund replication" strategies focused on replicating hedge fund index returns using a mix of traditional asset classes. Now that we know that hedge funds are exposed to long/short risk premia, it is clear why this early approach was doomed to fall short. It does, however, highlight how hedge fund return streams can be more accurately replicated by constructing hedge fund strategies from the bottom up. In other words, by investing in the same individual securities that the hedge fund manager would invest in, one is able to much better capture the true premium.

These systematic exposures have come to be known as "alternative beta." Alternative beta and average hedge fund returns are analogous to equity beta and average equity manager returns. Below we show, for three popular hedge fund styles, how the average performance of the styles can be attributed to systematic exposures to known premia and how a strategy combining those premia can make an attractive investment.

Equity Long/Short

Alternative risk premia relating to equity long/short and equity-market-neutral hedge funds are very closely tied to the history of the development of the concept of beta itself. When equity beta was first introduced, some managers continued to outperform the traditional indexes simply by giving a value or size bias. When Fama and French articulated the idea of risk premia compensating these types of exposures, the bar was raised on active managers. The perhaps-surprising result in the equity hedge fund world is that what we previously assumed was alpha is in fact a long/short variant of what we previously were already familiar with in the traditional world.

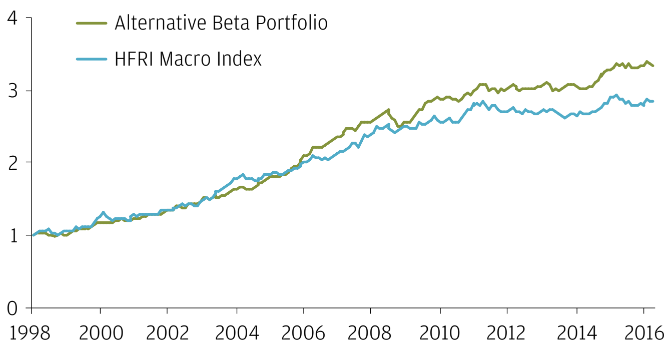
In **EXHIBIT 2A**, we demonstrate how an alternative beta strategy that includes long/short exposures to momentum, size quality and value—factors we are already familiar with in the long-only world but built here to be long/short in nature (130% long, 60% short)—can explain a sizable majority of the returns of the HFRI Equity Hedge index. **EXHIBIT 2B** shows such a replicating portfolio alongside the HFRI index itself.

Global Macro

Global macro hedge funds hold long and short positions in equity, fixed income, currency and commodity markets. While in theory, they encompass many diverse styles, and are typified by significant timing calls on market directionality, implying a dynamic set of risk exposures that is harder to model, we find that the returns of the average fund in this space can be equally replicated with simple exposure to a diverse set of carry and

EXHIBIT 3

	Alternative Beta portfolio	HFRI Macro Index
Mean return (%)	6.67	5.85
Volatility (%)	4.11	5.56
Sharpe ratio	0.65	0.35
Monthly VaR 5% (%)	1.5	1.8
Maximum drawdown (%)	9.1	8.7



Sources: Hedge Fund Research and J.P. Morgan; data as of May 1, 2016.
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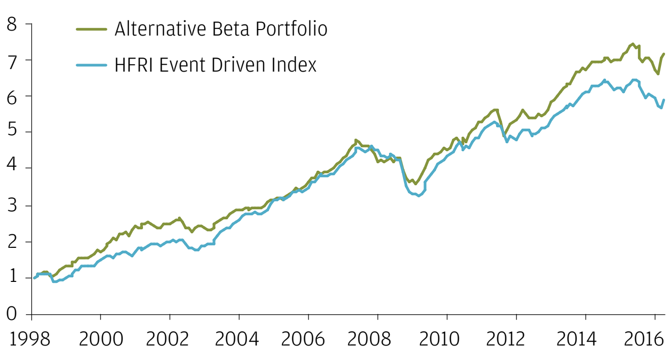
EXHIBIT 4:

	Alternative Beta portfolio	HFRI Event Driven Index
Mean return (%)	8.62	8.16
Volatility (%)	6.47	6.87
Sharpe ratio	0.88	0.75
Equity beta	0.35	0.37
Monthly VaR 5% (%)	2.36	2.54
Maximum drawdown (%)	33.7	43.1



Sources: Hedge Fund Research and J.P. Morgan; data as of May 1, 2016.
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momentum strategies. Just like the market directionality component that existed in the equity long/short funds, these funds have historically carried a long-duration exposure. Thus, a combination of these strategies, alongside duration, can explain much of the variance of the HFRI Macro Index (see **EXHIBIT 3**).

Event Driven

Event-driven hedge funds seek to profit from price action surrounding mergers, capital structure changes, divestitures and index composition changes, among other events. For each type of event, an alternative beta factor can be constructed by systematically entering positions corresponding to each event following its announcement. Remarkably, using only strategies corresponding to merger arbitrage, spinoffs, index reconstitution arbitrage, share buybacks and equity market exposure explains the majority of the returns to the HFRI Event Driven Index (see **EXHIBIT 4**).

INVESTING IN ALTERNATIVE BETA

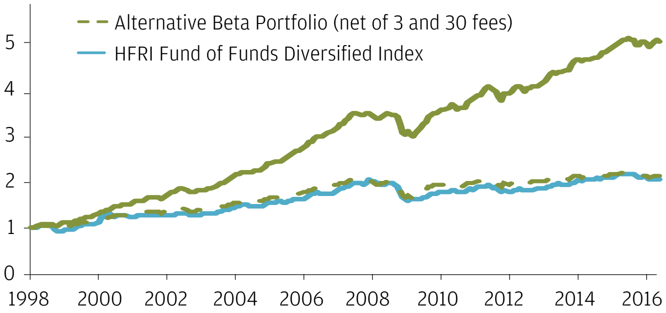
Efficient capture of these premia requires the use of leverage, shorting and derivatives, so there is clearly increased complexity compared with traditional risk premia. Nonetheless, the ability to capture these risk premia in a systematic, liquid fashion opens up possibilities for diversification (ultimately improving risk-adjusted return when added to more traditional portfolios) that were previously only open to investors in opaque, illiquid hedge funds.

A portfolio of these lowly correlated strategies offers an attractive investment when assessed both in terms of its stand-alone risk-adjusted return, but particularly in light of its diversification properties against a portfolio of traditional investments.

In **EXHIBIT 5** (next page), we plot the return profile of the HFRI Fund of Hedge Fund Index against the MSCI World. One of the key drawbacks to the original fund-of-hedge-fund model is the issue with layered fees, with a 1/10 headline fee structure and an embedded 2/20 fee for each underlying hedge fund. Interestingly, if we impose a 3/30 fee structure on the “Alternative Risk Premia” portfolio, we end up with a portfolio that maps against the average hedge fund of funds. It is no surprise that the fee structure for the average hedge fund (and particularly the fund of hedge funds) is a significant head wind, and the ability to capture the alternative risk premia in a low-cost fashion is therefore a significant innovation in finance that is already having an effect in terms of fee compression. Sophisticated investors are increasingly looking toward alternative beta as an alternative to the core component of their hedge fund allocation.

Since the emergence of strategic beta (also known as “smart beta”), the concept of beta investments with higher turnover is increasingly familiar. Alternative beta is simply the next step along the spectrum—a dynamic, active approach to beta capture. Alternative beta portfolios are more than mere hedge fund replication then: They are best-effort beta capture using the whole opportunity set available to hedge funds.

EXHIBIT 5



Sources: MSCI, Hedge Fund Research and J.P. Morgan; data as of May 1, 2016.
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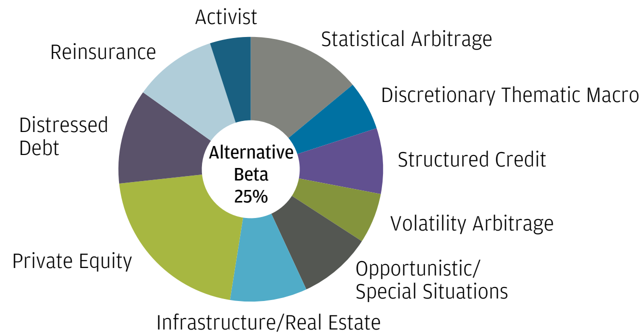
EXHIBIT 6



Sources: Source: J.P. Morgan
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However, there are notable differences: Decisions on what to include and exclude from an alternative beta fund are materially more difficult, and the question of sizing and risk management lack the natural solutions that simplify long-only investing. Nonetheless, the systematic nature of alternative beta and the fact that it can be implemented simply and robustly using widely known techniques labels it firmly as beta.

ALTERNATIVE BETA AS PART OF A BROAD HEDGE FUND PORTFOLIO

It is important to note that alternative beta is the component of hedge fund returns that is attributable to systematic risk premia. In other words, it is not necessarily a replacement for hedge funds but rather, complementary to them. There are a wide array of hedge fund styles, some of which we mention in **EXHIBIT 6**, that derive their return from illiquid sources and cannot therefore be captured in this manner. Furthermore, some managers are genuine sources of alpha beyond these risk premia.

The availability of investable risk premia solutions increases the number of options for the investor. Those who are sensitive to high fees or long lockups are able to access hedge fund-like returns without the need for lockups, and at an attractive fee level. Those who have a limited fee or liquidity budget can use their fee budget more effectively in a core satellite approach, with satellite exposures to truly illiquid hedge funds or those that have demonstrated an ability to deliver idiosyncratic returns and a core allocation to alternative beta. Finally, there may still be those who are confident in their ability to find those hedge funds that deliver alpha and can effectively time alternative beta. In those cases, investors may choose to invest in alternative beta while they wait to deploy their capital as they conduct their search for active managers and complete their due diligence. At the very least, alternative beta solutions become a new benchmark against which hedge funds will be measured, but it can also be a very valuable part of investors' allocations, bringing hedge fund-like returns in a liquid, transparent and low-cost manner.

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