

Portable Alpha: Hedge fund index based Alpha Overlay as the most appropriate solution?

February 24, 2006; By Werner Goricki, Dirk Soehnholz, Marcus Storr and Vincent Weber, Feri Institutional Advisors, Bad Homburg/Germany

In Europe, Portable Alpha is a recently popular and widely discussed concept. However, successful implementation is rare. We will discuss three basic concepts that can be applied to institutional portfolios or investment funds. Hedge funds are identified as the most attractive source of Alpha. An Alpha overlay (swap) is described as the most efficient way to import Alpha into existing portfolios and investment funds. Such a swap can add significant additional return without adding a proportional amount of risk to the portfolio. Investable hedge fund indices offer transparency and other advantages and thus are further analysed, since they are not created equally. Finally, regulatory and technical implementation issues are discussed based on a successful Alpha overlay implementation by Feri Institutional Advisors for a mutual fund with a European distribution passport (UCITS).

Introduction

The term “Portable Alpha” is very popular these days. At the first European Portable Alpha conference by Terrapin in December 2005, all kind of concepts were presented and many buzzwords were used in connection with Portable Alpha. However, to understand the concept, firstly “Alpha” has to be defined. Alpha is a return that is unsystematic and uncorrelated to a general market direction and risk, whereas Beta is a systematic and market related return. The most important question is, what is “general market”? Do we only talk about overall stock and bond markets or are there “alternative Betas” like credit spreads etc. This issue will be addressed further below.

Investors usually want to have both Beta and Alpha in their portfolios. According to widespread opinion, Beta can best be implemented using index products, with active portfolio managers providing the Alpha. The “ideal” portfolio therefore would consist of Beta index products and Alpha managers.

Three different approaches to transport Alpha

The Portable Alpha concept tries to enable investors to access more and better Alpha sources. There are basically three ways to achieve additional Alpha.

Solution 1 to (portable) Alpha can be called “Alpha (directly) replaces Beta (Alpha for Beta)”: The approach is to replace a portion of the existing portfolio – usually by selling Beta exposure - with a pure Alpha investment. The major disadvantage of this approach is that the asset allocation of the portfolio has to be changed, since the Alpha investment replaces the Beta investment. As such, Alpha is not earned on top of but instead of a systematic risk premium. Additionally, many investors or portfolios are not allowed or willing to invest in pure Alpha strategies directly because of their high “tracking error” or because they are defined as hedge funds.

Solution 2 to (portable) Alpha may be called “Hedging out (unwanted) Beta (Beta Transfer)”: In this case managers/funds will be selected based on their ability to generate Alpha, without considering the nature of their systematic risk exposure. To avoid potentially unwanted Beta risk, it will be swapped out of the portfolio and replaced by the “desired Beta” (or alternatively risk free returns). In theory, a diversified hedge fund of funds could constitute the majority of the portfolio. In practice, the portfolio would consist of mostly high tracking error long-only managers.

A major obstacle to this approach is that most investors would have to replace a substantial portion of their existing allocations, causing regulatory problems and/or significant transition costs. To accommodate the desired investment amounts, it often also means using a large number of managers with the ability to produce Alpha.

Additionally, the implementation of this approach requires significant use of derivatives to hedge out the undesired Beta and buy the desired Beta.

Solution 3 to (portable) Alpha is the “Alpha Overlay”: In this case the existing portfolio with all Beta exposure remains unchanged, and the performance of pure Alpha managers is imported via a total return swap. As the short-term interest rate is swapped for the performance of an Alpha manager, the investor receives “pure” Alpha. By applying this technique, the existing portfolio does not change and only one derivative could be used to provide access to the Alpha. This seems to be the most efficient and promising approach. This approach is not limited to portfolios of institutional investors but investment funds can also be structured in this way.

Hedge funds as most efficient source of Alpha

Active portfolio management can be most successful in an environment without artificial restrictions. Typical Alpha-limiting burdens are restrictions regarding asset class, geographic allocation, short selling, use of derivatives and leverage. Hedge funds, different from traditional funds, typically operate in structures with no or very little external limitation to the implementation of a manager’s strategy, and as such they provide a well-suited structure for Alpha generation.

In recent years, a vast amount of studies regarding the merits of hedge funds have been produced. For our purposes, two widely accepted results should be highlighted. First, hedge funds do not generate all of their returns through pure Alpha strategies. However, systematic risk can be controlled and reduced (or even neutralized) by a portfolio diversification. Second, along with a lot of often-valid criticism, there is solid evidence that well managed hedge funds do generate Alpha over time.

Having accepted that portfolios of hedge funds can provide an efficient source of Alpha but are usually not consisting of pure Alpha, the question about residual Beta exposure of such portfolios remains. There are two approaches to such residual systematic exposure. First, residual systematic exposure can be identified and eliminated by the use of index derivatives. This is the approach taken in a recent study by William Fung and David Hsieh¹, resulting in highly attractive performance contribution despite the loss of the residual Beta return. Alternatively, the portfolio of hedge funds can be constructed in such a way that systematic exposure is neutralized in the long term by active diversification. This second approach has the advantage that any short term systematic exposure is considered as an active investment decision by the hedge fund managers, recognizing that such “temporary Beta” is an integral part of the Alpha generation process.

Advantages of investable hedge fund indices compared to funds of hedge funds

In order to attract potential Alpha from as many sources as possible, different hedge fund strategies should be incorporated. Also, usually different people should manage the different Alpha generation strategies. This leads to a hedge fund of funds as ideal source of Alpha. Direct hedge fund of funds investments may be considered as active Alpha sources on both levels of the fund of funds and the single fund. Hedge fund index investments are rather “semi-passive”. But direct hedge fund of funds investments are often not eligible for - or only difficult to integrate into - investor portfolios or existing investment products. One reason for this might be the provisions against cascading fees. Whereas investable hedge fund indices also come with an additional fee level compared to single hedge funds, the “derivatives” reflecting hedge fund index performance are often easier to buy in different legislations than funds of funds directly.

As of early 2006, broadly diversified investable hedge fund indices which may fulfil the CESR criteria are being calculated and published by CSFB, Hedge fund Research (HFR), Standard & Poors, FTSE, Feri (ARIX index line) and Van Hedge. Dow Jones so far only publishes strategy specific indices. ARIX, the first of these indices, started in early 2002. Today, evidence suggests that more than 10 bln. EUR have been collected by so called investable hedge fund index products. After an early success mainly in 2004, net inflows in 2005 slowed down substantially.

A performance comparison of these investable hedge fund indices is shown in *Table 1*.

¹ William Fung and David A. Hsieh. “Extracting Portable Alpha from Equity Long/Short Hedge Funds”. *Journal of Investment Management*, Vol. 2, No. 4, (2004).

Table 1: Hedge Fund Index comparison

Index Concept	Name of Index	Inception	2002	2003	2004	2005	Volatility (p.a.)	Max. Drawdown	% Pos. Months	Corr. MSCI World	Corr. Lehman Aggr. Bd.
Investable Indices (based on Managed Accounts)	HFRX Equal Weighted Strategies Index	04/2003		8.5%	2.8%	1.3%	3.0%	-2.4%	67%	0.83	0.24
	S&P Hedge Fund Index	10/2002	1.9%	11.1%	3.9%	2.8%	2.6%	-2.2%	72%	0.44	0.27
	MSCI Hedge Invest Index	07/2003		4.6%	3.1%	4.4%	2.7%	-2.3%	66%	0.84	0.06
	FTSE Hedge Global Index	07/2004			0.6%	1.5%	3.0%	-1.7%	67%	0.90	-0.28
	Average	10/2002	1.9%	8.1%	3.3%	2.5%	2.8%	-2.2%	68%	0.75	0.07
Investable Indices (based on Offshore funds)	ARIX Composite	01/2002	1.5%	11.5%	4.4%	9.4%	2.9%	-1.6%	76%	0.49	0.17
	CSFB-Tremont HFI Investable Hedge Fund	08/2003		4.3%	6.2%	4.4%	2.6%	-1.7%	69%	0.78	0.09
	Average	10/2002			5.3%	6.9%	2.8%	-1.7%	73%	0.63	0.13
Fund-of-Funds	HFRF Fund of Funds Composite Index	01/1990	1.0%	11.6%	6.9%	7.3%	3.3%	-2.5%	73%	0.64	0.03
Non-investable	HFRF Fund Weighted Composite Index	01/1990	-1.4%	19.5%	9.0%	9.3%	4.8%	-5.7%	75%	0.84	-0.13

- All data is USD (gross). In case any monthly index calculation fees are reported by the index providers they are added.
- ARIX Composite Index consists of equally weighted ARIX Relative Value, Event Driven, Equity Hedge and Tactical Trading
- Investable Indices Average consists of equally weighted monthly data (since inception, where available) of the CSFB/T, HFRX, S&P, MSCI and FTSE investable composite indices.
- Tactical Trading: 1-3/02 Pro Forma
- ARIX Composite: 10-12/2002: 1,4%; 4-12/2003: 8,9%; 7-12/2003: 4,2%; 8-12/2003: 4,3%

Source: Feri Institutional Advisors GmbH and other index providers
As of December 31, 2005

Since inception in January 2002, the ARIX index has generated annual returns between 1.5% and 11.5% with a standard deviation of monthly returns under 3%, limited drawdowns of less than 2%, and very low or no correlation with general market indices: Precisely what one should expect from an Absolute Return benchmark.

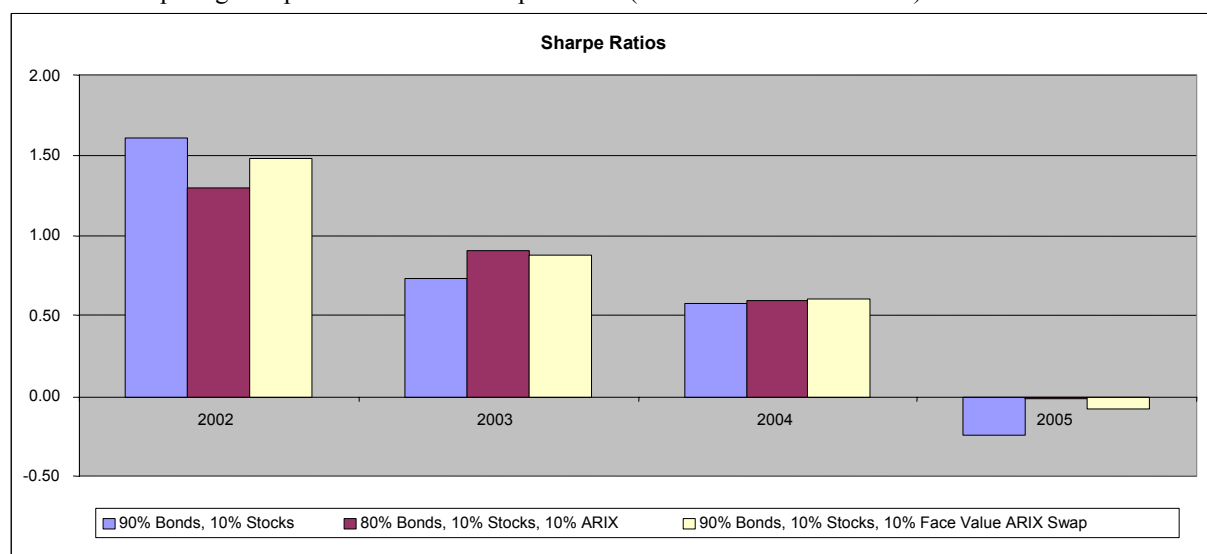
Illustrative example for a hedge fund based Alpha Overlay

An Alpha overlay can generate significant additional return with very little additional risk. To give an idea of the effects of a hedge fund based portable Alpha solution, we create a simple example, based on a standard German institutional portfolio allocation containing 90% bonds and 10% equities.

The Alpha Overlay solution is then achieved by adding a total return swap on the ARIX index with a notional amount of 10% of the total portfolio value, while leaving the original asset allocation in bonds and equities unchanged. A small allocation of only 10% to additional Alpha already significantly improved the return of the traditional portfolio by an average of 30 basis points per year over this rather difficult hedge fund period from 2002 to 2005.

The only year in which the Alpha overlay solution leads to a slight decrease in absolute and risk adjusted return is in 2002, a year in which the standard portfolio had its best result, due to very strong bond markets (**Chart 1**).

Chart 1: Comparing Sharpe ratios for different portfolios (3% risk free rate assumed)



Source: Feri Institutional Advisors

Implementation in UCITS and institutional investor portfolios, e.g. for liability driven investments

Meanwhile, the first UCITS have been approved that reflect the above-mentioned approach. UCITS are regulated mutual funds that are allowed to be publicly distributed throughout Europe. But UCITS are not only relevant for retail investors. Most institutions and funds of funds can readily access these funds and incorporate them in their portfolios and are usually not much restricted by regulations on the use of these funds.

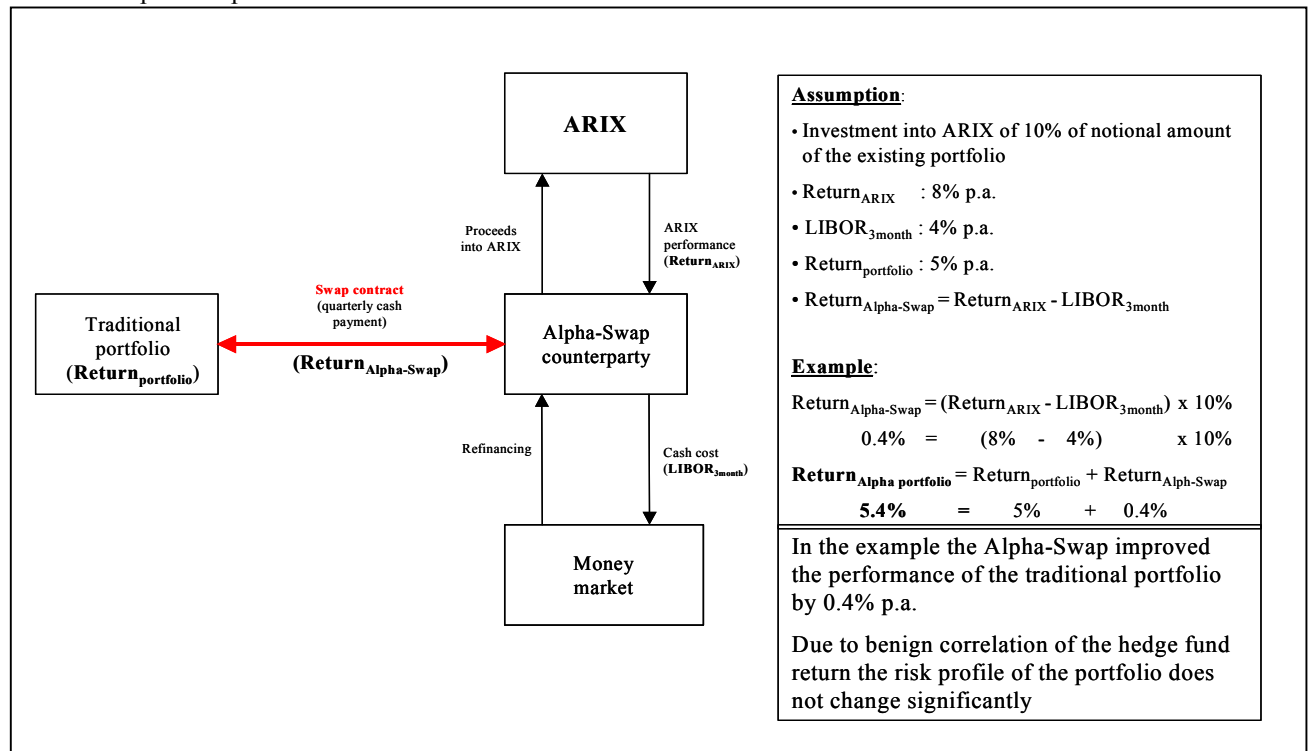
Buying derivatives on hedge fund indices has often advantages over direct investments in hedge funds or funds, which vary by legislation and customer group. In any case, investable indices usually provide high levels of diversification and transparency, especially regarding the strategy allocation and hedge fund selection process which is considered favourably by most internal decision makers, external boards and regulators.

Also, the Alpha Swap concept is very attractive in the context of so called liability driven investment strategies. These are designed on the basis of reflecting and assuring the short, medium and long-term liabilities of institutions. Therefore they often consist of significant allocations to bonds and especially long-dated bonds for the long term liabilities. The Alpha Overlay can easily be applied to such portfolios in order to increase the level of expected returns to the prospective investors. In such a respect an Alpha overlay is not a competition but rather an addition to tactical asset allocation or other overlays. But one could also argue that tactical asset allocation and currency overlays would better be managed by experienced, basically unconstrained and independent (hedge) fund managers instead of long-only managers, especially if they are part of an investment bank. Pension funds should significantly benefit in the future from implementing portable alpha overlays.

The mechanics of an Alpha Swap implementation

The following chart shows a detailed example and visualises the mechanics of an “Alpha Swap” using ARIX performance swapped against a risk free floating rate

Chart 6: Alpha Swap: ARIX versus Cash



Source: Feri Institutional Advisors

In the implementation process issues such as swap liquidity, currency hedging, reporting, collateral, index tracking error treatment, fees etc. have to be solved. Few banks have significant experience in this area.

Also, several administrators and custodians which were approached to quote fees on swap administration services were not able to make an offer at all. So business partner selection is very important.

Conclusion

Portable Alpha is a recently popular and widely discussed concept in Europe. Three basic portable Alpha concepts that can be applied to portfolios or funds have been discussed. Hedge funds are identified as the most attractive source of Alpha, and the concept of an “Alpha Overlay” using investable hedge fund indices was explained in detail. It was shown that such an Alpha overlay could add significant additional returns to almost any portfolio without adding a proportional amount of risk. Hence such Alpha overlay should be considered by investors as a very attractive tool to enhance overall portfolio returns. However, successful – especially hedge fund based – implementation has been realized in only very few instances.

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