

Where have they hidden my alpha ?

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Where have they hidden my alpha ?*

This paper follows up on last year's that suggested an alternative to the traditional approach to setting investment policy for institutions. But in order for the proposed separation of the strategic asset allocation decision from the selection of active managers to make sense, we must have access to reliable providers of alpha. This paper examines how and where we might find them. I begin with a review of skill-based active management that reminds us of its difficulty and how rare the skill actually is. I then look at "informationless" investing. These widely used but little known techniques require no skill but often mimic alpha generation. We need to be able to recognise them since they also often introduce some major risks.

Hedge funds are an obvious place to look for alpha providers. But when we analyse their risk structure carefully, we find that most hedge fund strategies are far from market neutral and that their returns are largely driven by various risk factors. Once the contribution of these risk factors is stripped out, there appears to be very little alpha left, on average. Thus, investment in hedge funds does not represent the easy solution to the problem of finding reliable alpha providers. In the last section, I nevertheless offer some concrete suggestions to help finding them and, perhaps more importantly, also suggest characteristics of products and managers that should be avoided. I argue that the "ideal product" for the pursuit of alpha would be a hedge fund like structure.

* Prepared for the CIE Major Market Players (MMP) conference, September 2004. The opinions expressed in this paper are those of the author and do not necessarily reflect the opinions of Pictet & Cie.

Introduction

At last year's MMP conference, many participants agreed with the premise of my paper¹ that the separation of the pursuit of market risk (beta) and active return (alpha) would provide investors with more choice and allow for more focus in both areas. But there was one frequent question and one frequent criticism. The question was how investors could find those reliable providers of positive alpha that are necessary to make the proposed alternative work. And the criticism was that my paper sounded too much like an advertisement for hedge funds. The present paper addresses both of these issues in some detail.

I had argued in last year's paper that investors should look for great active managers, whether pursuing traditional or alternative strategies, all over the world and in all imaginable asset classes and then simply eliminate those parts of their return and risk that was of no interest to them through suitable hedges. This is an extreme version of a portable alpha strategy. Its success depends crucially on the existence of well performing active managers and on our ability to identify them. Ideally, we would like to find managers that provide us with a pure alpha who have already eliminated all market related risks from their portfolio. Given that many types of hedge funds are supposed to be very close to this ideal, they deserve our particular interest in this context.

Most investors know from experience that manager selection is very difficult. We are also aware of the negative results of academic research on the success of active strategies. Perhaps even more depressing is the emerging literature on performance persistence that seems to suggest that consistent repeated success is very rare indeed. Therefore our task of finding great active managers will prove to be a major challenge.

Myron Scholes of Nobel Prize and LTCM fame has proposed a classification scheme for hedge funds that can be applied just as well to traditional active managers. Scholes (2002) proposed four different business models:

1. *Stock/security selection*: The ability to forecast cash flows better than others to identify "mispricings". This is a skill-based activity that is a zero sum game (before costs).
2. *Market timing*: Temporary "well timed" exposure to those asset classes that will perform best. Can be implemented within a balanced mandate relative to a benchmark or as a pure overlay mandate. This is also a skill-based activity that is mostly a zero sum game.
3. *Risk transfer*: Provision of hedging services by speculators. Not a zero sum game as long as there is natural demand for those services by hedgers. Skill is an issue in the selection of the risks that are taken on.
4. *Liquidity services*: Provision of liquidity to short-term orientated market participants. Scholes claims that this was the model upon which LTCM built its original business. Also not a zero sum game as long as there is natural demand for liquidity. Skill helps since the price of liquidity does not remain constant through time.

¹ "Developing a risk budgeting mindset", September 2003.

The first two models are purely skill-based. They represent the standard range of activities of traditional active managers. The latter two are “intermediation” services that have traditionally been provided by banks. Given my interest in finding alpha, I will focus primarily the first two models even though risk transfer and liquidity services can also be quite profitable for an organisation with the appropriate skills.

The paper is organised as follows. It starts with a discussion of skill-based active management. It includes my definition of “alpha” and reviews some important theoretical concepts. We find again the rather depressing result that true active management skill is very rare and also very difficult to find. The next section introduces “informationless” investing that seeks to make the collection of risk premiums look like the pursuit of alpha. We shall find that the range of such techniques is vast and their use widespread. They can be dangerous to an investor’s financial health since they often introduce highly asymmetrical risks that might not be immediately apparent.

Hedge funds are obvious candidates in any search for alpha providers. They are the next topic. I start with an analysis of their risk structure and find that their returns are much more driven by risk factors than is generally assumed. For many styles, well over half of the variation in their returns is due to various risk factors. But the analysis also shows that the nature of the exposure to these factors is quite different from that of traditional products. Thus they expand the range of available return patterns and allow for a more precise shaping of the risk budget of an investor’s portfolio. Once we strip out the effects of these various risk factors, there is unfortunately very little alpha left. It appears that the euphoria surrounding hedge fund returns is at least partially due to poor risk measurement. While a substantial part of hedge fund returns are risk premiums, they have been considered skill-based alpha. Perhaps, we should not be surprised but clearly, hedge fund management and the selection of hedge funds is subject to the same problems and just as difficult as traditional active management.

The final section of the paper attempts to identify desirable characteristics of potentially successful providers of skill-based alpha. Drawing on the results of the earlier sections, we find a number of factors ranging from transparency and culture to details of product design that play an important role. I also identify characteristics of managers and products that are not likely to contribute to the generation of alpha or are not indications of true skill and that should therefore be avoided. I also speculate on how the ideal pure skilled alpha product would look like. It would be like a hedge fund but with a few crucial differences.

Skill-based active management

ACTIVE RETURN VERSUS ALPHA

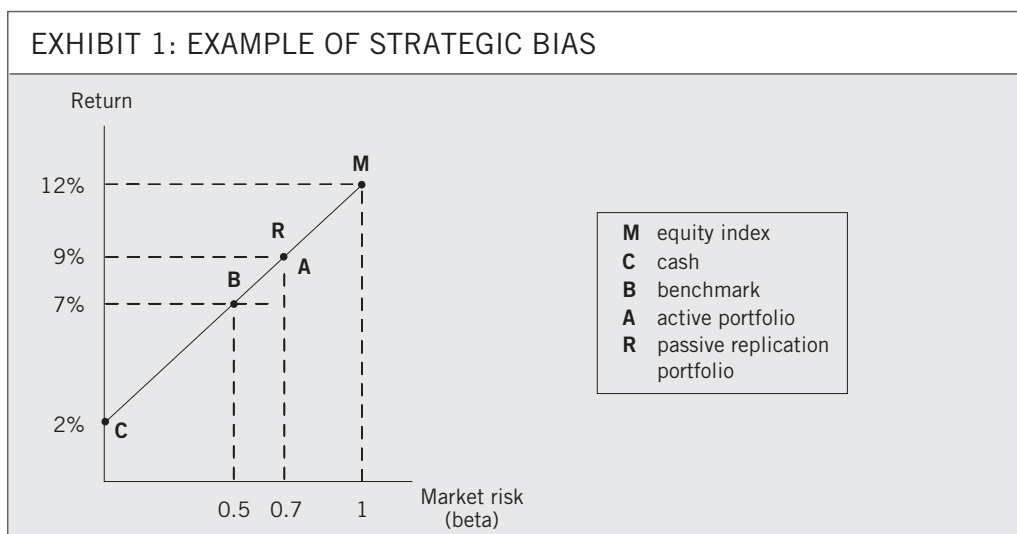
We engage in active management if we believe to have superior insights into the prospects of at least one security. We seek to transform our information advantage into incremental return by pursuing one or both of the first two Scholes models introduced above. *Stock or security* selection involves overweighting (underweighting or selling short) those securities or groups of securities that we believe to have better (worse) prospects than suggested by the market consensus. For *market timing*, we adjust portfolio risk and allocations based on our views on the relative prospects for different segments of the capital market. There has been a certain disillusionment with market timing activities. This is also seen in the hedge fund area where macro funds (the ultimate market timers) that dominated the hedge fund world ten years ago have become a niche strategy.

The objective of active management is to outperform a given benchmark. The difference between the return of the investor's portfolio and the return of the benchmark is called *active return* and should of course be positive. In the case of *absolute return* strategies that focus on non-market risks it is the return on cash that plays the role of the benchmark. Some investors simply equate "alpha" to the active return. To me, alpha must be the result of skill.² As we shall see, a positive active return can also be the result of an exposure to various risk factors that provide us with risk premiums. These risk premiums can also be collected by unskilled (passive) investors. Therefore, I propose to decompose the active return of an active portfolio into two parts: risk premiums and alpha. Thus, the total return of a portfolio can be decomposed into:

$$\begin{aligned} \text{Portfolio return} &= \text{benchmark return} + \text{active return} \\ &= \text{benchmark return} + \text{premiums from risk factors} + \text{alpha} \end{aligned}$$

As an example, take an active bond investor who *always* includes corporate bonds in a mandate with a government bond benchmark hoping to benefit from a positive credit spread. This strategic bias can easily be replicated by a passive uninformed investor. Consequently, this manager's skill should be measured against a "benchmark" portfolio that incorporates the strategic overweight of corporate bonds. Similarly, if the manager of a balanced portfolio systematically overweights equities, an uninformed passive investor can again easily replicate his strategic allocation. Exhibit 1 shows a very simple numerical example. Relative to a benchmark of 50% cash and 50% equity index, the active manager has a strategic overweight of equities (he holds 70% in equities) that leads to a higher beta of 0.7. This increased risk is remunerated (for the returns in this particular example) and generates a positive active return of 2%. But a simple mixture of 70% index and 30% cash would have led to the same return. If a passive replication gives the same result, there can have been no skill. Thus, if the policy of an active investor includes a strategic bias relative to a relevant risk factor, the effects of that bias should not be considered as part of alpha. I shall return to this important issue later.

² To the extent that an active manager has better, cheaper or faster access to certain securities than other investors, these advantages will manifest themselves through the alpha. This is sometimes called "structural alpha". The observed alpha will therefore be the result of skill and these advantages. They are likely to be particularly important for hedge funds that pursue Scholes' models three and four (provision of risk transfer and liquidity services).



For the time being, let us simply assume that we observe certain alphas that have been generated by active investors. To what extent are they actually evidence of skill? In order to answer these kinds of questions, we must first look at some basic issues concerning active management.

ACTIVE MANAGEMENT: THEORY

Grinold and Kahn (2000) introduced a theoretical framework to describe the transformation of information into active decisions. They found that the alpha per unit of active risk (tracking error) – the so-called *information ratio* (IR) depended on two factors: the *accuracy of the forecasts* and the *breadth of the strategy*, meaning the number of independent active ideas incorporated into the investment strategy. The higher the correlation between forecasts and outcomes and the greater the number of independent “bets” that are generated, the greater the resulting IR.

This result has some obvious consequences. *Market timing* in its extreme form, the binary choice of one of two asset classes, appears unattractive. There are no opportunities to diversify as there is a single decision that is either correct or not. On the other hand, *stock or security selection* appears as a potentially most attractive activity. There are a very large number of candidates for investment and a great number of different tools and information sources can be brought to bear on them. Thus, for a given level of skill, stock selection is potentially much more rewarding than market timing since it allows for a much larger number of diversified bets.³

We cannot observe skill directly. Instead we must try to rely on actual results to determine whether a certain active investor is skilful. However, skill is not the only factor that determines short-term performance. Chance (randomness) is also an important contributor to performance. So how can we differentiate the truly skilful from the lucky fool in the short run? Unfortunately, it turns out that it is almost impossible on the basis of historical results alone. In the Grinold-Kahn model, skill is measured by the correlation coefficient between investor forecasts and outcomes, the so-called information coefficient (IC). An IC of 0.1 is consid-

³ The IR is a function of the square root of the number of independent bets. Thus, if a stock portfolio is based on just 25 independent decisions, its IR will be five times greater than if we apply the same skill to the binary form of market timing.

ered quite high and evidence of meaningful skill.⁴ But with that level of IC, only one percent of the variance of the active single-period return is explained by skill while the remaining 99% of the variation are due to chance. Over longer periods, more of the true alpha will emerge through the noise but so slowly that performance data is of very limited utility and the relation between past and future performance remains tenuous.

THE AVERAGE ACTIVE INVESTOR TRAILS THE PASSIVE INVESTOR

Earlier, security selection and market timing were characterised as zero sum games. This is a consequence of the fact that all investors together are the market. As a result, the *average* performance of all investors before costs must equal that of the market. For every winner, there must be a loser. *After* costs, the average investor must underperform. This is simple arithmetic, not philosophy: whether we believe in efficient markets or not is completely irrelevant. The result would remain unchanged even if passive management became prevalent. There will always be more active investors than successful active investors. Unless we are willing to believe that private investors subsidise institutions by systematically assuming the role of the underperformer, the average *institutional* investor must also underperform.

The *passive* investor cannot hope to add value so will focus his attention on minimising costs. He will therefore *replicate* the chosen benchmark in every asset class as efficiently as possible. This can be done at very low cost through the purchase of index funds, ETFs, futures and the like. The passive investor could also replicate an active investor's portfolio, including the risk premiums. The performance of such a passive replication of an active strategy equals the return on the benchmark plus the risk premiums.

The fact that the average active investor fails to outperform his benchmark does not mean that there are no successful active investors at all. They are, however, relatively rare and, as we shall see, not easy to find. We have already seen that past performance is heavily influenced by chance. In addition, the literature on *performance persistence* suggests that past and future performance in many asset classes is not highly correlated. Even three and five year performance records are not very reliable bases for selecting future top performers. Studies have shown that the future performance of past top performers is depressingly similar to that of the entire universe.⁵

CONCLUSIONS ON SKILL-BASED ACTIVE MANAGEMENT

Active management is difficult. Since skill is not directly observable and short-term performance is dominated by chance, identifying skilled active managers is probably just as difficult. Given that a majority of those that try will fail, the disillusionment of some institutions with traditional active management is understandable. Two solutions seem to offer themselves, either to abandon active management and to become a passive investor or to embrace hedge fund investment that seems to offer better prospects. Before looking at hedge funds, we should first examine some very popular, widely applied techniques that, in many cases, look like skill-based investment but are not.

⁴ With a tracking error of 4% and based on 25 independent "bets", this skill level would lead to a respectable expected alpha of 2%.

⁵ Carhart (1997).

Informationless investment: risk premiums

Risk premiums are part of the active return. As the examples that follow here and in the section on hedge funds show, they come in numerous shapes and forms. Some are very obvious; some can easily masquerade as skill.⁶

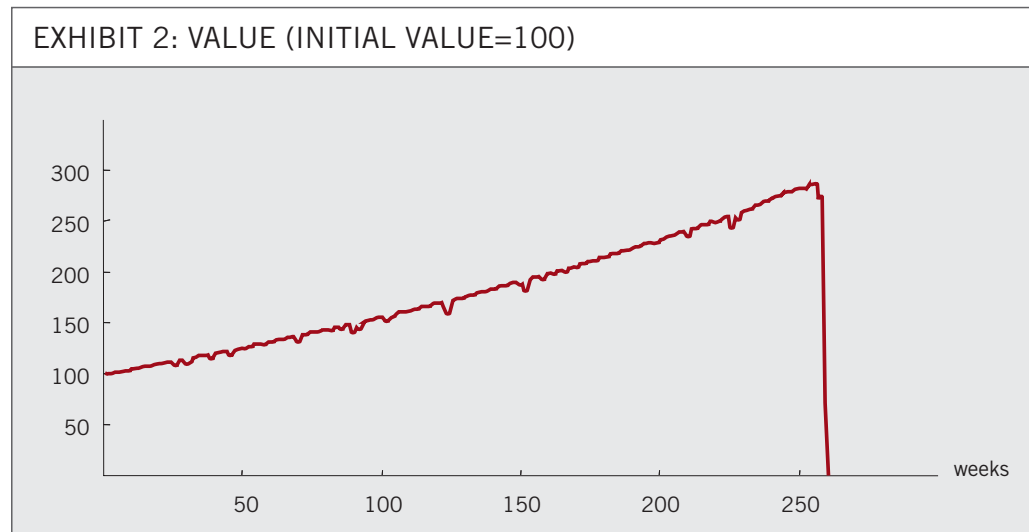
Perhaps the oldest and most pervasive technique is what has become known as “*beta for alpha*” where exposure to market risk is presented as skill-based alpha. This is the technique used in the example in Exhibit 1. Against a benchmark of 50% each in cash and equities, the manager decided on a strategic (average) exposure to equities of 70%. Given that the equity risk premium (the difference between equity and cash returns) is positive, on average, this strategy should be rewarded in the long run. But the choice of that strategy requires no skill at all. The active return that the manager of Exhibit 1 generated is a pure risk premium. Note that I am talking about strategic biases not market timing. If the manager has market timing skills, he will show them through dynamic changes in the allocation to the various asset classes, not through a systematic bias. A variation of this technique is the use of a *style bias*. We may have a large-cap benchmark but always include small caps in the portfolio or we favour value stocks against a core benchmark. To the extent that there is a systematic bias, neither of these activities shows skill. Style bias is also an issue with apparently market neutral equity portfolios. Such a portfolio has a zero portfolio beta and appears not to be subject to market risk. But this would only be true if there were no other *risk factors* that are relevant for equities. In this example, it is very well possible that the long and short portions of the portfolio have the same beta but very different exposures to other factors. We would always want to check for systematic (as opposed to tactical) differences in style (value, growth), market cap, sector, region, currency and any other potential risk factor before concluding that the active return of a market neutral portfolio is entirely due to skill.

Closely related to the above are “*carry trades*” where the exposure to certain risks of the asset held is hedged through another similar, but not identical, asset. Fixed income hedge funds provide a simple example. They often hold corporate bonds (investment grade and/or high yield) and hedge the duration risk through government bonds. In essence, they are long “credit”, short government bonds. In quiet periods, they earn the credit spread, a pure risk premium. These types of cross hedges are widely employed as we shall see in the section on hedge funds.

Another informationless technique has become known under the euphemism “*return enhancement*”. In its most basic form, it involves selling a series of deep out-of-the money calls and/or puts. The seller hopes that the price of the underlying asset remains relatively stable which allows him to collect a regular stream of option premiums. Far from being simple return enhancements, these strategies are “short volatility” bets, i. E., they work as long as the volatility remains low. These bets are extremely asymmetrical with the unfavourable outcome being very rare. Exhibit 2 shows the result of a short out-of-the-money put strategy with leverage that appeared to deliver spectacular risk adjusted returns until the rare event – a large drop in stock price – occurred. This is what we called the “Russian roulette” strategy in an earlier paper: the strategy looks almost riskfree for a very long time until the catastrophic rare event occurs.⁷ Again, some investors may be skilful in the assessment of the future volatility but the systematic use of this technique represents informationless investing.

⁶ The term “informationless” investing was introduced by Weisman (2002)

⁷ Banz and de Planta (2002)



Volatility short bets exist in many other forms and in some unexpected places. Weisman (2002) presents a particularly scary example. St. Petersburg investing involves a simple gaming strategy where you continue with the same bet after a win but double the bet after each loss. If you apply this strategy to a fair coin, you have an infinite expected value and, at the same time, face bankruptcy with probability one (unless you have infinite resources).⁸ Yet while it lasts, according to one of Weisman's examples, this type of strategy applied to an equity fund might return about 15% per year with a volatility of 12% and have positive returns in over 75% of all months. Its life expectancy would be about seven years thus creating a sufficiently long track record to interest even serious investors. While this is an extreme example, the widespread practice of increasing holdings of stocks whose price has dropped ("doubling up") is obviously closely related to St. Petersburg investing. It may not lead to bankruptcy but it does introduce an asymmetric element to the return pattern that looks like a short put.⁹ Even value investing contains a grain of this problem.

The common message of these examples is that there are many different seemingly "active" strategies that do not require skill. They provide a broad range of risk premiums. Once the return of these strategies is properly adjusted for all relevant risks, their alpha is zero and they can be also replicated by passive investors.

The strategies are called "informationless" yet they may serve a very useful purpose. They allow investors to reshape risk profiles in ways that traditional assets with their symmetrical payoffs cannot. Some investors may like the asymmetry in certain of these techniques. Their use is perfectly legitimate as long as investors are made aware of their use and understand their properties. The potential problem with informationless techniques lies in the fact that some of them invite confusion about whether they provide true alpha or just a risk premium. Many of these techniques have been pioneered by hedge funds. It is to them that I now turn my attention.

⁸ This is a famous result from statistics known as the St. Petersburg paradox, hence the name.

⁹ Brown, Gallagher, Steenbeek and Swan (2004) examined a sample of Australian asset managers and found some very limited evidence of doubling-up behaviour.

Hedge funds : are they all about alpha ?

Hedge funds have attracted much attention over the past few years. They also polarise investors like few other investment issues. Some are convinced that hedge funds are inherently superior to traditional investment approaches and will always provide superior returns. For them, hedge funds have a “built-in” positive alpha. In contrast to that view, some observers have become rather critical of the claims of the hedge fund industry and find little skill in the average hedge fund. Of course, true believers in market efficiency consider hedge funds as a very elaborate and extremely expensive hoax.

THE ROLE OF HEDGE FUNDS

The classification proposed by Myron Scholes shows the dual role that hedge funds play. His first two business models are purely skill-based. They are an extension of traditional active management in the sense that they use a broader range of instruments and may use leverage. But all the problems that I outlined in the section on skill-based active management apply to hedge funds, as well. To the extent that they pursue skill-based alpha, they are in a zero sum game. It is perhaps naïve to assume that all hedge funds will always be among the winners in that game. On the other hand, they have probably a better chance to be among the winners than traditional asset managers given their greater freedom of action.

The other two models – the provision of risk transfer and liquidity services – are mainly used by hedge funds and are fundamentally different. First of all, they are not zero sum games. The provision of these services can be highly profitable to an institution with the appropriate skills and a longer investment horizon. They are, however, not market neutral strategies but incorporate by their very nature various types of risk. They are among the legitimate users of some of the techniques outlined in the previous section. They can transform risk premiums into alpha if their counterparties have a natural demand for the services so that they are not zero sum games and as long as they manage to avoid the consequences of event risk.

Perhaps the most important role of hedge funds has been to offer investors greater choice in how they spend their risk budgets. Investor portfolios used to be completely dominated by market risk. Active risk was typically small, simple “directional” bets dominated. The portfolios of most investors had completely symmetrical risk profiles where they participated equally in up and down markets. This is probably still true for many investors but hedge funds have given them an alternative to this. Absolute return strategies provide access to “pure” bets that do not contain any directional bets at all. Asymmetric bets allow a more sophisticated shaping of the risk budget according to the particular tastes and risk tolerance of an investor. Behavioural finance has shown that we display very asymmetric attitudes towards gains and losses; therefore it is not surprising that investors have welcomed strategies that provide for non-linear return structures.

Perhaps the greatest challenge for hedge funds is the management of the expectations of their clients. The hedge fund industry has encouraged its clients to be overoptimistic about the return potential and to seriously underestimate the true risks involved. Consequently, those clients that do not truly understand the nature of their investments may become very disillusioned in the years to come.

HEDGE FUND STYLES: RISK PREMIUMS

Hedge funds have been the subject of a large number of academic studies. One of the most interesting directions that this research has taken is in the application of an extended version of Sharpe's (1992) style analysis to the different types of hedge funds. Sharpe first showed how the return of a portfolio can be decomposed into a series of factors, mostly indices and risk premiums plus an alpha. When this technique is applied to hedge funds, we need to add some dynamic factors to attempt to capture their more active trading activity. Fung and Hsieh (2004) have identified seven empirical risk factors for hedge funds: two for equity funds, two interest rate-related factors for fixed income funds and three option-based factors for trend followers.

This style analysis allows the creation of *replicating portfolios* for the various hedge fund types. These portfolios are the equivalent of indexed or tracker funds in traditional asset management. They provide the same exposure to the various risk factors as the hedge funds but with an alpha of zero. Hedge funds thus add value only if they manage to outperform the appropriate replication portfolio. Exhibit 3 shows some selected results from these empirical analyses. For each strategy index, it shows the components of the replicating portfolio, the nature of risk premiums collected or paid, the R^2 of the relation between index and risk factors and the source of the information.¹⁰ We find that the replication portfolios largely contain the elements that we would have expected. As an example, fixed income arbitrage funds can be replicated with a series of static bets on credit and convertible spreads plus a convergence trading strategy as evidenced by the presence of the short look back straddle in the replication portfolio. The replication portfolio can of course not capture specific bets of individual managers. It reflects only those bets that are related to risk factors. Merger arbitrage and long-short equities both involve combinations of short and long equity positions but merger arbitrage contains an additional, very asymmetrical bet with the inclusion of the short out-of-the-money put. Thus merger arbitrage strategies collect a put premium in most periods but suffer in line with the market in periods of weakness. Whether the typical merger arbitrage fund brings skill is to bear on these decisions or simply collects option premiums is a question that we will look at shortly. Trend followers (mainly commodity funds) are an interesting exception to the pattern of risk exposures found in Exhibit 3. They are the only ones that represent a long bet on volatility. With such a fund, you "bleed" a bit as long as the volatility is low (you pay the premium on the straddle) but make large gains when volatility explodes (the exact opposite of convergence trading and other short volatility bets where you collect a small premium most of the time until you "blow up" when volatility explodes). This makes trend followers an interesting tool for investors who wish to counteract the composite effect of "arbitrage" strategies that all introduce these short option bets.

¹⁰ Refer to the original papers for details on methodology, weights of the components of the replication portfolios, sample period and further references.

EXHIBIT 3: HEDGE FUND RISK STRUCTURES					
Hedge strategy	Components of replicating portfolio	Risk premium	Return distribution	R ²	Source
Long-short equities	Long small cap Short large cap	Small cap premium	Asymmetrical	0.77	FH 2003
Event-driven	Short out-of-the-money put on market index	Put premium	Very asymmetrical	0.44*	AH
Merger arbitrage	Short out-of-the-money put on market index	Put premium	Very asymmetrical	0.27*	AH
Fixed income arbitrage	Long high yield Long convertibles Short treasuries Short look back straddle on treasuries	Credit spread Convertible spread Straddle premium	Asymmetrical	0.66	FH 2002
Convertible arbitrage	Long convertibles Short treasuries	Convertible spread	Asymmetrical	0.70	FH 2002
High yield	Long high yield Short treasuries	Credit spread	Asymmetrical	0.78	FH 2002
Statistical arbitrage (convergence trading)	Short look back straddle on underlying (commodity, currency, bonds, equities,...)	Straddle premium	Asymmetrical	—	
Trend followers	Long look back straddle on underlying (commodity, currency, bonds, equities,...)	Negative: option premium paid	Asymmetrical	0.47	FH 2001

R²: proportion of the variance of the index return explained by the relationship with the risk factors
 "Lookback straddle": combination of long lookback call and lookback put. "Lookback call": the right to buy an asset at its lowest price over a given period. "Lookback put": the right to sell an asset at its highest price over a given period.

Sources: AH: Anson and Ho (2003)

FH 2002: Fung and Hsieh (2002)

FH 2002: Fung and Hsieh (2003)

FH 2004: Fung and Hsieh (2004)

Some of the results of Exhibit 3 are surprising. Long-short equity hedge funds seem to have incorporated a large bet on small caps over the sample period (1994-2001), on average. The difficulty of short-selling illiquid small caps may be partially responsible for this result but long-short equities were far from a pure absolute return product as their return included a small cap premium. Perhaps the biggest surprise is the very large part of hedge fund risk that is explained by the risk factors as indicated by the R². It appears that pure absolute return strategies are rare among hedge funds: even some strategies that are reputed to be largely market neutral have substantial exposure to directional or market risks. We also find a predominance of short volatility bets; all spread bets are of that nature. "Arbitrage" is clearly a misnomer for these funds.

At the same time, the asymmetric return distributions and the exotic look back option positions that are part of some replicating portfolios illustrate the extent to which hedge funds enlarge our opportunity set. But a disappointment remains. There are few strategies that actually provide truly market neutral returns. Risk premiums are an important part of the overall return of all strategies.

When this analysis is applied to funds of hedge funds (FOHFs), the importance of the directional bets increases even more. Fung and Hsieh (2004) find that for diversified portfolios of hedge funds, their seven factors “explain up to 90% of monthly return variations”. Thus, it is an illusion to believe that investment in FOHFs will shelter the investor from exposure to market risk factors and provide a pure market neutral return stream.

HEDGE FUND ALPHAS

A pure market neutral fund should be compared to an investment in cash. But we have just seen that in practice most strategies involve exposure to various risk factors, therefore the return on cash is not a reasonable benchmark for most hedge funds. Instead, we must compare the success of a certain hedge fund strategy to the appropriate passive replication portfolio. Since this portfolio has the same average exposure to the various risk factors as the hedge fund, the difference between hedge fund return and the return on the replicating portfolio is a measure of true skill and thus of the fund’s alpha.

Academic studies show mixed results. Early results suggested strong evidence for positive alpha but that may have been due to the well-documented problems with the data and inadequate treatment of risk. As we have just seen, it is not enough to adjust hedge fund returns for equity market beta; there are many other, more complicated risk factors present. More recent studies that have benefited from a better understanding of the nature of risk in hedge funds show less convincing results. Fung and Hsieh (2004) refer to “the vanishing alpha”.

EXHIBIT 4: HEDGE FUND INDICES 2003 RETURNS NET OF FEES VS. NAÏVE REPLICATIONS (BETA)

	Return	Replication	Hedge Fund Alpha
Dedicated Short Bias	-32.6%	-25.6%	-7.0%
Emerging Markets	28.7%	51.6%	-22.9%
Distressed Securities	25.1%	26.9%	-1.8%
M&A Arbitrage	9.0%	10.0%	-1.1%
Fixed Income Arbitrage	8.0%	13.7%	-5.7%
Long/Short Equity	17.3%	19.4%	-2.2%
Managed Futures	14.1%	4.7%	9.5%

Sometimes academic research appears suspect because of its reliance on obscure statistical techniques. Bridgewater Research, an American hedge fund manager and a long-time critic of the “beta for alpha” technique has calculated very simple replication portfolio returns for 2003 for a number of strategies.¹¹ The results, taken from the Bridgewater paper, for seven hedge fund styles are shown in Exhibit 4. Their results demonstrate that six of seven strategies underperformed their naïve replication portfolio, in some cases dramatically. Of course, the results cover only a single year and there may be some biases in the construction of the replication portfolios but the results are still a severe blow to anybody who believes in the natural superiority of hedge fund managers.

¹¹ Bridgewater Research (2004).

The results suggest that hedge funds find it just as difficult to win zero sum games as their traditional counterparts. Given that most replication portfolios can be constructed quite cheaply, they also invite reflection on whether hedge fund charging structures are reasonable given that, on average, they primarily provide risk shaping services.

HEDGE FUNDS: SUMMARY

Hedge funds are obviously not primarily about alpha, they are mostly about exotic risk factors and the risk premiums that are associated with them. They are most certainly not market neutral. The industry appears to go out of its way to encourage clients to believe that they are. Yet in reality, well over half of the variation of the return of most hedge fund strategies is due to various risk factors. This dissonance between claimed and real characteristics does not invite confidence in the industry. In particular, it must lead to the question of whether their refusal to disclose meaningful information about the details of their portfolios is really due to a justified need to protect performance relevant proprietary information. The lack of transparency also provides easy opportunities for playing with informationless techniques. And that leads directly to questions about charging structures as mentioned above. Another problem is their secrecy. Given their complex risk structures, the reluctance of hedge funds to release meaningful risk information on a timely basis makes it almost impossible for outsiders to extract pure alpha through appropriate hedges.

These statements apply to the average fund as represented by the various hedge fund indices. There are excellent individual hedge funds but they are probably even more difficult to identify than excellent traditional managers because we have access to so much less relevant information about them.

Hedge funds are a brilliant concept with great potential. Their simple structure has the potential to give talented individuals sufficient freedom to express their skills in an optimal environment. In my opinion, hedge fund structures, if exploited properly, should offer us the best hope for generating consistently positive alpha.

Finding real skill-based alpha

Given what we know about active management and hedge funds, where should we look for skill-based alphas?

If we apply the Grinold-Kahn results as the guiding principle to our search, it is obvious that what we should be looking for is a *multi-manager multi-strategy (MMMS) hedge fund*. The fund would maximise its alpha per unit of risk – its information ratio – through the use of multiple sources of information about a very broad selection of different segments of the capital market. That information would be processed by a number of highly skilled individuals with different approaches, skills and even temperaments into a series of separately managed portfolio segments. At the centre of the fund, there would be an allocation team that would allocate capital to the strategies/teams according to their insider's view of their short- to medium-term prospects.

Naturally, this MMMS would take the appropriate measures to ensure that its management is highly transparent and it would consistently resist the temptation to engage in informationless investing. It would be remunerated exclusively on pure alpha generated.

This type of MMMS would obviously be a superior alternative to FOHFs. It should easily beat traditional FOHFs in terms of return potential. While the latter may have access to a much broader base of investment talent, it is not obvious that the typical fund selection team will manage to make meaningful choices based on the limited information about individual hedge funds available to them. The information that the FOHF receives is old and often woefully inadequate and incomplete. In contrast, the MMMS allocation team would have real time position information and could act instantly if necessary. The MMMS could also much more easily transform its return stream into a pure alpha stream through appropriate hedges. By having the MMMS provide a pure alpha stream, we could also avoid the problem of being asked to pay a performance fee on risk premiums as is the case with most existing hedge funds. Finally, with an MMMS, clients would pay a performance fee only if the overall performance warrants it. With a FOHF, investors may pay performance fees to individual managers even though the FOHF does not beat the hurdle rate.¹² Over time, this translates into a serious performance disadvantage for FOHFs.

¹² If a FOHF has just two funds with one returning +40% and the other -40% (after base fees), the 20% performance participation means that winning fund gets 8% and the investor gets -4%. In a MMMS with same performance, he gets 0%. Admittedly an extreme example but the cost disadvantage of FOHF is only too real.

Unfortunately, there are not too many MMMs that meet my criteria at the moment. So what type of manager and products should we look for and what should we avoid? I would include the following criteria for inclusion:

- *Long-short for equities:* As I showed in last year's paper, judgmental long only portfolios are unnecessarily difficult to manage and always dilute the information advantage that may in principle exist.¹³ This is particularly true for low TE products. If we must have a low TE long only product, it must be a quant product. The one exception is for high TE product relative to a broad index where the constraint is not very binding.¹⁴
- *Process and team:* Most elaborate process descriptions are for show only. In order for processes to be actually used, they should be simple and must fit the team. We must look beyond the marketing materials to find out whether there is a real process that defines the activities of the team or whether these activities are completely unstructured.
- *Transparency:* Avoid black boxes, insist on transparency. Or do you really believe that inside that black box the manager will create skill-based alpha when there are all those lovely informationless techniques that are available?
- *Positive cultural qualities associated with hedge funds:* Look for the existence of a real performance culture to attract and retain highly qualified staff. Make sure that the scope and ambitions of the manager's activities matches the available resources. Make sure that the manager focuses on a limited, cohesive product range and that there is clear leadership and attribution of responsibility.
- *Quantitative tools:* Risk management must be integrated into the process. The risk manager must have an important position in the hierarchy.
- *The smell test:* We have a tendency to give managers the benefit of the doubt. Given that there are many more ways to underperform than to outperform, this is clearly the wrong approach. If we have a doubt that we cannot overcome, we should not hire or retain the manager in question.

¹³ Clarke, de Silva and Thorley (2002)

¹⁴ This means that for asset classes like emerging market equities where short-selling is difficult and expensive, active judgmental long only mandates should have very generous tracking error limits.

Conclusions

Skill is rare. So is the reliable recognition of that skill. The emergence of hedge funds has not changed those facts. Hedge funds have some advantages over traditional active management but they have obviously not yet taken full advantage of them. There are few funds that provide true market neutral returns and even fewer that add a positive skill-based alpha.

But for those of us who believe in active management, it is clear that the serious pursuit of alpha should take place in a hedge fund-like structure. We must hope that the increased institutional participation in hedge funds will encourage the industry to move in the right direction. We need more transparency and less voodoo, even more skill and less posturing. I for one am impatiently waiting for positive developments in this direction.

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